EAST AFRICA REGIONAL SAFE NETWORKING WORKSHOP

Desalegn Hotel
Addis Ababa, Ethiopia
October 12-14, 2009

Sasakawa Africa Fund for Extension Education

Compiled by: Isaac Mambo
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LIST OF ACRONYMS

AAS : Agricultural Advisory Services
ADLI : Agricultural Development-Led Industrialization
ADD : Agricultural Development Division
ADP-SP : Agricultural Development Programme - Support Project
AEP : Agricultural Extension Project
AEX : Agriculture Extension
AIDS : Acquired Immunodeficiency Syndrome
ARARI : Amhara Region Agriculture Research Institution
ASWAP : Agricultural Sector Wide Approach Programme
ATVET : Agricultural Technical Vocational Education Training
BAEE : Bachelor of Agricultural Extension Education
BCA : Bunda College of Agriculture
BoARD : Bureau of Agriculture and Rural Development
BDU : Bahir Dar University
B.S. : Bachelors of Science
B.Sc. AEE : Bachelor of Science in Agricultural Education and Extension
BARI : Bachelor of Agriculture and Rural Innovations
CAO : Chief Administrative Officer
CAADP : Comprehensive African Agricultural Development Programme
CBF : Community-based Facilitators
DA : Development Agent
DAEE : Department of Agricultural Education and Extension
DAES : Department of Agricultural Extension Services
DAHLD : Department of Animal Health and Livestock Development
DALDO : District Agricultural and Livestock Development Officers
DARS : Department of Agricultural Research Services
DED : District Executive Directors
EPA : Extension Planning Area
EU : European Union
FFS : Farmer Field School
FF : Farmer Forum
FICA : Flanders International Cooperation Agency
FID : Farmer Institutional Development
FTCs : Farmers Training Centres
GDP : Gross Domestic Product
HESLB : Higher Education Students Loan Board
HIV : Human Immunodeficiency Virus
IACE : Institute of Adult and Continuing Education
ICT : Information and Communication Technologies
IDR : Institute of Rural Development
LG : Local Government
ISSEDS : Institutional Strengthening Support towards the Extension Delivery Service
MAAIF : Ministry of Agriculture, Animal Industry, and Fisheries
MAC : Ministry of Agriculture and Cooperatives
MAFC : Ministry of Agriculture Food Security and Cooperatives
MDGs : Millennium Development Goals
MGDS : Malawi Growth and Development Strategy
MoU : Memorandum of Understanding
MU : Makerere University
NAADS : National Agricultural Advisory Services
NARO : National Agricultural Research Organisation
NEPAD : New Partnership for Africa’s Development
NGO : Non-governmental Organisation
NRC : Natural Resources College
PADETES : Participatory Demonstration and Training Extension System
PEAP : Poverty Eradication Action Plan
PC : Procurement Committees
PCC : Parish Coordinating Committees
PMA : Plan for Modernization of Agriculture
SAETS : Support to Agricultural Extension Training and Services Project
SAFE : Sasakawa Africa Fund for Extension Education
SEPs : Supervised Enterprise Projects
SELPs : Supervised Experiential Learning Projects
SMS : Subject Matter Specialists
SG 2000 : Sasakawa Grobal 2000
SUA : Sokoine University of Agriculture
T&V : Training and Visit
TV : Television
UMADEP : Uluguru Mountain Agricultural Development Project
UNDP : United Nations Development Programme
UNIMA : University of Malawi
USD : United States Dollar
TNI : Training Needs Identification
OPENING SESSION

Dr. Norman Borlaug Dedication

Facilitator: Dr Mercy Akeredolu

The workshop remembered and recognized the tremendous achievements and contributions made by Dr. Norman Borlaug in fighting hunger. He passed away on 12th September 2009. Prayers were offered for his soul to rest in peace. In recognition of his work and contributions, participants also offered a hand of applause and observed a one minute silence.

Self-introductions of workshop participants

Facilitator: Dr. Jeff Mutimba

Participants were asked to introduce themselves following the outline below:
- Participant’s names and their preferred name in the workshop,
- Professional background,
- Institution the participant was coming from and their position,
- Participant’s strength and weakness, and
- Participant’s favorite sport.

Welcome remarks: Dr. Deola Naibakelao¹

Ladies and Gentlemen, I feel honored and privileged to welcome you all to this year’s Regional SAFE Networking Workshop for East and Southern Africa. I wish to express my gratitude to you for making time out of your busy schedule to come to Addis Ababa for this purpose.
We value these workshops as they give us an opportunity to learn from each other; to examine issues of common concern; and to look at opportunities for enhancing the SAFE initiative in Africa and the Sub-region in particular.

Dear colleagues, you have done a wonderful work in training very sound and competent agricultural extension professionals to assist small-scale farmers in Africa. The findings of two case studies conducted in Ethiopia and Ghana clearly showed that your graduates are performing very well in the field. The majority of them hold positions of high responsibilities in the agricultural sector in their respective countries.

However, we must admit that there are many new emerging challenges in running this demand-driven programme. One such emerging challenge is the need to broaden our curricula to include the value chain concept and marketing. The major criticism is that farmers are not benefiting fully from their production because extension focuses mainly on production. The key questions that come to mind are:
- What training is required to enable extension to provide advice beyond production?

¹ Managing Director, SAFE
• How can this new training be provided given that the current curricula are already overloaded?
• I know many of you have already started applying your minds on these issues and hope that we will be able to share our respective experiences during this workshop.

Talking about the success of the programme, I wonder sometimes whether we know enough about its impact. From what we know, the programme has been successful. The demand remains high – especially in countries where the governments provide scholarships and study leave; the programme has opened career advancement opportunities which were previously not available to Diploma holders. Despite these positives, we still lack hard data on the impact at farmer level. I hope that this workshop will have some ideas on how this hard data could be obtained.

The low level of women participation in the programme remains a constant challenge. How can we increase this participation? In this regard, there is a need to widen the admission base. We should be flexible enough in setting the criteria of admission. Refresher courses should be organized for female candidates with specific difficulties.

The issue of sustainability of the programme is a great challenge ahead. Do we have appropriate mechanisms to mobilize the required resources from local sources? In most cases, I doubt that such mechanisms are in place. My dear participants, I would like to urge you to critically reflect on the sustainability issue and propose ways to mobilize the necessary resources required to nurture our programmes.

With these few remarks, Ladies and Gentlemen, I wish you a productive workshop. Once again, I welcome you in Addis.

Thank you.
Opening address presented by Mr Gezahegne Tadesse on behalf of Mr Wondirad Mondefro, Extension Head, Agricultural Extension Directorate, Ministry of Agriculture and Rural Development, Ethiopia

Distinguished workshop participants, Invited Guests, Ladies and Gentlemen,
It is a pleasure and honour for me to welcome you all to this important SAFE Networking Workshop on a theme: Coping with emerging training needs and demands. I am happy to see many participants gathered here to discuss the challenges and opportunities in the implementation of the Mid-career training programme. I see participants that have come from different institutions within the country and Malawi, Tanzania, Uganda, Ghana, and Burkina Faso which, I believe are key actors in the growth of the agricultural sector. Also I see senior professionals whom I believe will highly contribute to the realization of the workshop’s objectives and success. Once again, I welcome participants from abroad and would like to say feel at home.

Like elsewhere in Africa, agriculture is the main economic activity that determines the livelihoods of the majority of the population in Ethiopia. It has greatly contributed to the development of other sectors of the national economy. It also plays a vital role in producing raw materials for local industries and international market. It has been known that about 85% of the population is dependent on agricultural related activities. Extension as a tool for agricultural development is playing a fundamental role in providing important, timely and relevant information to farming communities to increase their production and productivity, which will improve their livelihoods.

Cognizant to this the Government of Ethiopia has designed and adopted Agricultural Development-led Industrialization Strategy to transform subsistence agriculture to a market-oriented system, where farmers are encouraged to produce for the market.

Workshop participants, Ladies and Gentlemen,
Efforts made by Government to produce extension staff have begun to show fundamental change with the beginning of Participatory Demonstration and Training Extension System (PADETES). Pre-PADETES extension systems were characterized by having too limited number of Development Agents in rural areas and high Development Agents to farmers’ ratio.

Recognizing the success of SG2000 pilot project and that of early PADETES, the Government has given due attention to establishing Agricultural Technical Vocational Education Training (ATVET) colleges across the country to train adequate front line extension staff. A total of 72,000 Development Agents composed of experts in crop production, livestock production, natural resources management, animal health and cooperatives have been trained and assigned to 18,000 Farmers Training Centers (FTCs) to render effective and efficient extension services to farmers. As a result, the number of Development Agents has increased by thirty (30) times and Development Agents to farmers ratio has decreased by 100 times when compared to the early years.

Workshop participants, Ladies and Gentlemen,
It is understandable that, any development comes through the effort of trained and/or educated people. The ability of an extension service provider institution to
meet the development requirement of its clients depends directly on its efforts to improve knowledge and skill of its workers. Improving knowledge and skills of extension staff is critically important to bring about desirable changes in the complex and diverse behaviour of human being.

Currently, our Government in collaboration with certain NGOs and international development partners has designed and implemented the Mid-career training programme which has brought about a radical shift in upgrading knowledge and skills of Development Agents while they are on their job. This is done mainly to strengthen their competencies in delivering appropriate extension services. Our Government remains highly committed to strengthening and implementing a massive training for Mid-career of extension staff.

Thus, the Mid-career training will contribute to improving the quality of human resources within extension service providers. Beside this, it will increase the quantity and quality of agricultural products, which will enable to improve the livelihood of farmers, pastoralists and agro-pastoralists, and the national economy of the country at large.

The Government has no doubts about the contributions and importance of the Mid-career training programme in improving the performance and efficiency of extension services in the country. However, some doubts come over its contribution in practice, that is, when the training received remains ineffective to meet its expected target.

Workshop participants, Ladies and Gentlemen,
As it has already been addressed by the workshop organizers the purpose of this workshop is to explore alternative ways to improve the delivery of Mid-career training for extension staff. I can say that this workshop is timely organized and I believe that much can be gained from the workshop participants particularly from those who have come from Malawi, Tanzania, Uganda, Ghana and Burkina Faso.

It is my sincere wish that the 3 workshop days will be a thought provoking process to identify challenges of implementing Mid-career training programme. I have a great expectation that participants will use this opportunity to share knowledge, learn from each other and come up with recommendations.

Ladies and Gentlemen,
As I come towards the end of my speech, at this juncture, I would like to thank the organizers and universities that were and are implementing the Mid-career training programme. My thanks go to participants from Malawi, Tanzania, Uganda, Ghana, and Burkina Faso who have come all the way to share their experience in Mid-career programme to their Ethiopian counterparts. Once again, I urge all participants to actively participate, share knowledge and skills to realize the objectives of the workshop.

I now, with pleasure and honour announce that the workshop is officially open. I wish you every success; I thank you all for your attention.
Participants’ expectations

Facilitator: Dr. Jeff Mutimba

Participants were asked to bring out their expectations from the workshop by responding to the following 3 questions:

<table>
<thead>
<tr>
<th>Question</th>
<th>Participants’ Expectations in response to Question</th>
</tr>
</thead>
</table>
| 1. What should happen in this workshop? | ▪ Must share experience  
▪ Must identify challenges  
▪ Identification of training needs  
▪ Active participation |
| 2. What should not happen in this workshop? | ▪ Dominance  
▪ Time wastage  
▪ Lack of consensus  
▪ Non participation |
| 3. What do you want to achieve in this workshop? | ▪ Gain experience  
▪ Improving training  
▪ Sustainability  
▪ Networking |

Workshop theme, objectives and expected outcomes

The facilitator presented the theme, specific objective and expected outcomes of the workshop.

Workshop theme: “Coping with emerging training needs and demands”.

Specific objectives:
- To share ideas and experiences regarding the opportunities and challenges of implementing Mid-career training programmes in each training institution.
- To provide better understanding of the off-campus practical experiential component; a fundamental element of the Mid-career programme.
- To develop strategies for coping with emerging training needs.
- To share ideas on means of sustaining the Mid-career training programmes beyond The Nippon Foundation Funds.

Expected outcomes:
- The challenges and opportunities in the implementation of the Mid-career training programmes would be identified.
- Strategies for coping with emerging training needs will be identified.
- Mechanisms for long-term sustainability of the Mid-career training programmes beyond The Nippon Foundation Funds would be identified.
PRESENTATIONS
1.0 The importance of agriculture

Agriculture plays a crucial role in determining the livelihoods of rural communities including large parts of urban populations. In Ethiopia, agriculture employs more than 85% of the total population, and accounts for 50% of the GDP and 90% of foreign exchange. It also plays a key role in the development of other public sub-sectors, such as education, health, and further investment. Globally, a large number of nations indirectly depend on other agricultural related activities such as grain trading and agro-processing. The agricultural sector has the responsibility to produce adequate grain to feed millions of citizens to attain food security.

Therefore, it is critically important to seek alternative ways to increase agriculture production and productivity to bring the intended economic and social development, and to improve the livelihoods of nations. In line with this, agricultural extension is playing a vital role in providing important, timely and relevant information to farming communities to assist them make sound decisions regarding their development concerns.

The ability of an organization to meet such type of development requirement is dependent on the availability of quality and adequate numbers of technical staff. This can be achieved through the effort and willingness of an organization to upgrade staff's knowledge and skills through training. Thus, it is necessary to consider frontline staff development as a key issue to improving the effectiveness and efficiency of extension services.

The information within this paper limits itself only to those issues related to extension staff development with particular emphasis on Mid-career training programme and its related issues. It does not go beyond that to cover the whole issues within agricultural extension services.

2.0 Extension staff development effort and its achievements

Ethiopia has diverse agro-ecologies, which broaden opportunities to carry out various agricultural activities. Thus, the importance of frontline staff development is unquestionable as it equips them with varied knowledge and skills to provide appropriate location specific interventions. The history of staff development to improve extension service is not a new phenomenon. To address this issue, in the past several training institutions have been established and made their maximum efforts to train technical staff for agricultural development. However, the efforts failed to cope with the need for trained staff to serve a large number of farming communities.

In 1993-95, a pilot project of SG 2000 was implemented in few areas of the country. In collaboration with few Development Agents, the Pilot Project conducted results

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2 Extension Expert, Extension Directorate of Ministry of Agriculture and Rural Development, Ethiopia
demonstrations on various agricultural technologies using volunteer farmers. Surprisingly, tremendous yields were obtained from SG 2000 Pilot Project demonstration plots. The project captured the attention of higher level Government officials and made them see the need to review the existing extension system. The review aimed at seeking ways on how to spread the best practices and experiences gained from the pilot project to all farmers within the country.

In line with this, in 1995, the Government designed and implemented Participatory Demonstration and Training Extension System (PADETES), as a new extension system to promote the outcomes of SG 2000 to all farmers in order to increase farm production and productivity. This initiative led to a huge demand of DAs training. As a result, large numbers of ATVETs have been established across the country, to carry out massive training of DAs in crop and livestock husbandry, and natural resources management. In addition, the initiative led to the establishment of one FTC per Kebele, which is used as an entry point to deliver effective extension service. Three DAs per FTCs are assigned to train farmers within their local areas. Other staff that have been trained at FTC level are Animal Health Technicians and Service Cooperatives workers. To date, almost 72,000 DAs have been assigned to 18,000 FTCs to provide necessary extension services to rural communities to improve farm production and productivity. In spite of all these efforts and Government’s willingness to invest huge amount of resources on DAs training, agricultural production in rural areas is still facing serious challenges. Currently, not less than 10% of the total population is facing chronic food insecurity problems and poverty as a chronic social problem is widespread across the country. Lastly, irrespective of Government achievement in training a huge number of DAs, the extension service still shows some gaps.

3.0 Knowledge and skills related gaps of our extension service

Due to time and human resources limitation, and logistic problems, the gaps presented here have not been obtained through a comprehensive training need identification process. In addition, there is lack of adequate information at the Federal level. The information presented was obtained from previous field observation, report documents and data collected from four major regions. Most of the existing skills and knowledge gaps in agricultural extension are prevailing at FTCs and Woreda level. The existing gaps are presented in the following sections.

3.1 Limited capacity in priority setting, planning and evaluation of extension programme

Naturally, human beings have a tendency to implement their own plans, rather than plans prepared by someone. Participatory Demonstration and Training Extension System (PADETES) has incorporated participation as one of its key elements. The issue of participation is well stated and addressed in the strategy and development policy document of the country. But, the extension system has limited itself to top-down methods. Priority setting and planning of extension programme, which is supposed to start at Woreda level is absent. In addition, the aspect of evaluation of extension has stopped for unknown reason. Therefore, it is important to equip technical staff at frontline with knowledge on the concepts of priority setting, planning and evaluation of extension programmes.
3.2 Lack of detail knowledge in carrying out market related issues

Market driven extension services have a great contribution to the income obtained from agricultural products. Markets are not only important in facilitating selling of agricultural products. They also play a crucial role in the provision of agricultural inputs. In general, the capacity of extension staff to provide market related services to local communities is very limited. Extension staff lack the capacity to carry out market value chain analysis, develop business plans, and conduct technical analysis of a viable enterprise. This necessitates the need to give due attention to and incorporate market value chain analysis in the Mid-career training programme.

3.3 Lack of skill and knowledge to implement demand-driven and bottom-up extension approach

A bottom-up and demand-driven extension system must be able to respond to the needs and solve the problems of local community. Demand-driven extension service has a long history in Ethiopian agricultural extension system. But, it is still far from being effectively implemented. This is attributed to lack of skills, confidence and capacity among DAs to solve farmers’ problems and promote their participation. As a result, most of DAs and staff at various levels limit themselves to the conventional ways of extension delivery.

3.4 Technology versus economic aspects

The prevailing trend within extension services gives much more attention to the aspect of technology transfer without considering its economic aspects. Although economic viability of agricultural technologies is well understood it is not taken into account in reality. As a result, technologies face the problem of non-adoption.

3.5 Technology versus social

Changing the farm and farmers with their families are different activities that call for different implementation approaches. Changing the farm requires technical know-how of the activities to be carried out by the farmer. On the other hand, changing the farmer requires the knowledge of extension concepts and methodologies. Placing a lot of focus on technology aspects by leaders while undermining social aspects is detrimental to the effective delivery of extension services. Therefore, it is necessary to design in-service training programme for leadership to acquaint them with the concepts and methodologies of agricultural extension.

3.6 Lack of adequate knowledge and understanding on some global issues

Currently there are a lot of emerging global issues which have a direct relation with extension services. These issues include environment protection, sustainability, gender development, food security, and HIV and AIDS. Lack of adequate knowledge and understanding on these issues negatively affects the success of extension services.
3.7 Lack of adequate knowledge and skills to deal with off-farm activities

Obviously, the livelihoods of our farmers are mainly dependent on crop, livestock and/or natural resource related agricultural activities. But, also there are some non-agricultural or off-farm activities that can contribute to increased income among the rural communities to improve their livelihoods. Our extension service has identified a gap in knowledge and skills to deal with off-farm activities that needs to be addressed if we are to increase income sources for rural communities.

3.8 Lack of consideration for leadership development

Currently, many intellectual opinions give much prominence to staff development while undermining leadership development. Leadership can affect the implementation of extension services both positively or negatively. It is obvious that poor leadership is closely associated with poor performance of extension services. Therefore, to overcome such obstacles, it is necessary to have training programmes that include an emphasis on developing leadership. This will enable leaders to assist their technical staff in implementing demand-driven and bottom-up approaches.

3.9 Lack of adequate skill to deal with problem-solving capacity

Nowadays agricultural activities are operating under many constraints and complex problems to meet the demands of farmers. The appearance of uncontrollable factors, both natural and manmade, is negatively affecting agricultural productivity and production. The prevailing situation requires more sophisticated skills if it is to be adequately addressed. This means that the extension staff at various levels need to have all rounded knowledge and skills to respond to farmers’ problems.

4.0 Government needs in extension staff development

The Mid-career training programme will directly contribute to improving the quality of human resources within the extension service delivery system. By passing through this programme, the technical staff at various levels will become qualified and efficient in doing their job. Government has planned to carry out the Mid-career training programme for a large number of frontline technical staff. Reasons for staff development include:

- The quality of DAs training was under question calling for further consideration to train them,
- Our farming system is operating under dynamic changes,
- To be competitive enough on the world market,
- Emerging issues are also appearing, and
- To improve the livelihoods farm communities.

So, Mid-career programme is designed and delivered to technical staff to upgrade their knowledge, skills and ability to help them overcome the above mentioned crucial needs.

Currently the Government has a huge demand to train technical staff at various levels to improve their skills and knowledge, in the coming year. According to the data collected from four major regions, the need for Mid-career training programme
for 2009/10 is reported to be 3,895, which is three times more than the achievement to date. Therefore, Universities should take great responsibilities to develop their own mechanism for the practical implementation of this training need.

5.0 Budget sources

The budgets source for Mid-career training programme varies from region to region. Some regions are fully dependent on regional government budget line and RCBP, while others are mobilizing some NGOs (SG 2000 and Menshen, for instance) to fulfil their huge training demands.

6.0 Problems faced by the Mid-career programme

Problems encountered in the implementation of Mid-career training programme are:

- Lack of adequate budget,
- Limited staff and material capacity at most of the ATVETs Colleges,
- Lack of legal recognition for ATVET graduates,
- Delays in financial and academic reports,
- Lack of timely provision of complete data after graduation (Amhara),
- Participants/students are exposed to newly appearing courses, which extends their study time,
- Double registration of students at various times, and
- Lack of effective communication between sponsors and universities.

7.0 Government strategies

Government has the strategy to continue with ATVET as a center of excellence to carry out replacement training, to deliver training for rural youth and to conduct specialized training for some DAs. To ensure the effectiveness of ATVET in the future, Government has also changed from input-based to outcome-based training approach. Intensive consultations have been made with the Universities to create awareness on the current needs of Mid-career training programme. Due consideration is also being given to allocate a budget for the smooth implementation of the programme. Furthermore, Government is in the process of involving various donors through different capacity building projects.

8.0 Expectations from Universities

8.1 Appropriate training needs identification (TNI)

Needs identification must be dynamic enough to fit itself with the on-going technological, social and economical changes, as well as, to varying needs of different social classes.

8.2 The training must be problem-solving type

Nowadays, agriculture is operating within a multi-diverse and complex environment, and it requires sophisticated and all-rounded skills to address such complex problems.
8.3 Demand-driven extension services

In spite of its long time existence, demand-driven extension service has remained far away from being effectively implemented. Because of limited knowledge, most of the DAs prefer to continue their work in conventional ways.

8.4 Practical focused training

Critics of our extension service have commented on lack of practical aspects at various levels, at SMS, ATVET and FTCs levels. Because of this, the intended extension message is not delivered to end users in an appropriate way.

8.5 Transferable skills

Transferable skills such as computer skills, marketing and management, communication skills with particular emphasis on communication strategy for illiterate people are also important to enhance the competencies of the trainees.

8.6 Generalist versus specialist

Currently, Government is in need of generalist experts, because majority of our farmers are living with limited resources and interested in carrying out holistic and integrated agricultural activities, which may not require an input from specialist experts. This does not mean that specialization is no more important, because it can be useful addressing the needs of commercial producers, research and academic institutions.

8.7 Creating strong linkages

Feed back from already graduated and on job staff is important for training institutions to evaluate the performance of their students and their successes.

8.8 Leadership versus staff development

Universities should not only pay due attention to staff development, equal attention must also be given to leadership development because poor leadership is always associated with poor performance of extension services.
Innovative Approach to Agricultural Higher Education: The Case of the B.Sc. Programme for Mid-career Agricultural Extension Professionals at Haramaya University, Ethiopia

Kassa Belay

1.0 The Beginning

When the Federal Ministry of Agriculture asked us, in the early 1995, to design a programme for upgrading the skills of their field extension professionals, our immediate reaction was that they should join the regular four-year programme that was already in place since October 1994. We even had provisions to admit candidates from the field with advanced standing status. The Federal Ministry of Agriculture and the Regional Bureaus of Agriculture responded that they could not afford to release their staff for four years. They wanted a tailor-made programme that would take less time. All sorts of doubts and questions went through our minds. We even wondered what we would call such a programme. In our minds, it was not possible to obtain a degree in less than four years. It had never been done before. It was just not possible.

Eventually, we learned of the existence of a similar programme at the University of Cape Coast in Ghana and we were interested to know more about it. After extensive consultations with Sasakawa Africa Association and Winrock International and visits to the University of Cape Coast, to learn firsthand how such a non-conventional programme could be run successfully, we decided to give it a try. More precisely, people in the top management positions, who believed that institutions of higher education should be quicker to respond to challenges brought about by the ever changing labour market requirements, embraced the proposal wholeheartedly and started to work closely with key stakeholders in view of facilitating the administrative procedures required to launch the programme.

1.1 Doubts

- Doubts about the ability of these candidates to follow an academic programme, given the many years that they have been away from an academic environment;
- The feeling among the university community that shortening the length of study would not allow the graduates to gain enough theoretical training, which was believed to be instrumental in developing the problem solving capacity of university graduates in the country;
- Sacrificing academic rigor/academic excellence;
- Ensuing extra pressure on staff and basic facilities; and
- The long administrative red tape required to launch new programmes of study was considered to be non-conducive to embark on a new non-conventional training programme. (Department Council → Academic Commission → Senate → Administrative Board → Ministry of Education)

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3 Haramaya University is one of the nine universities in Ethiopia. At present, higher education in agriculture and related fields is offered in five of the nine universities.

4 Professor of Agricultural Economics, President of Haramaya University
1.2 The preparatory phase

Prior to the launching of the programme, two needs assessment studies were conducted and two workshops were organized. The sequence of events in the run-up to the launching of the programme was as follows:

- The first needs assessment study was made by the Department of Agricultural Extension of the Haramaya University in May 1995. The Department collected the required data by mailing a structured questionnaire to Officials of the Federal Ministry of Agriculture and Regional Bureaus of Agriculture. At regional level, the sampled respondents included extension agents and their supervisors. This study made it clear that there was a need to upgrade the capabilities of the front-line extension staff working in rural areas of the country and led to the organization of the first workshop.

- In August 1995, the first national workshop on the new B.Sc. curriculum for Mid-career, front-line extension professionals was held in Debre Zeit. This workshop brought together representatives of different ministries, Regional Governments, Sasakawa African Association, Winrock International, University of Cape Coast (Ghana), non-governmental organizations and institutions of higher learning. The workshop participants agreed unanimously on the importance of the new B.Sc. degree programme for Mid-career front-line extension workers and recommended that a further needs assessment study be made by visiting the different regions of the country.

- In November 1995, a team composed of Haramaya University staff members and an international consultant made visits to four regions of the country (Amhara, Oromia, Southern and Tigray regions), had discussions with Heads of the Economic Sector of the respective regional councils, interviewed officials of the Federal Ministry of Agriculture and the regional bureaus of agriculture as well as subject matter specialists and extension agents. This needs assessment study was followed by the second national workshop, which was held in Debre Zeit in February 1996.

- In February 1996, the second national workshop on the new B.Sc. curriculum for Mid-career, front-line extension professional was held in Debre Zeit. This national workshop brought together all key stakeholders, including the university community, representatives of the Federal Ministry of Agriculture, Regional Bureaus of Agriculture, Non-governmental organizations, private sector, extension professionals, and regional governments. The workshop developed the curriculum, recommended the admission criteria, drafted a memorandum of understanding to be signed by the key stakeholders (Haramaya University and Regional Governments), and mandated the Haramaya University to launch the programme in the following academic year.

The two workshops, the two needs assessment studies, the experience sharing visits and interactions with key partners sharpened the awareness of the senior managers of the University and resulted in their unwavering support to the launching of the Mid-career B.Sc. agricultural extension programme. The next step in the preparatory process was obtaining university-wide commitment to start and run the programme on sustainable basis. Towards this end, the draft curriculum, the proposed admission criteria and the draft memorandum of understanding were presented to the University Senate for approval on 6th June, 1996. The Senate members examined
these documents meticulously and approved the draft curriculum and the memorandum of understanding with minor modifications. With regard to the admission criteria, the Senate members made significant changes on those criteria set by the participants of the second national workshop and decided that to qualify for selection to the Mid-career programme candidates must:

- Hold a diploma in agriculture or related fields;
- Be recommended by their employers, essentially on the basis of their performance in the field;
- Be sponsored by their employers;
- Have served for a minimum of five years; and
- Pass an entrance examination set by the University.

The Senate members decided to launch the new programme in the following academic year provided that the proposed modifications were included in the curriculum and the memorandum of understanding and the necessary preparations were made ahead of time. At this juncture, it is important to note that during the Senate meeting some members questioned the idea of launching a new B.Sc. programme for Mid-career agricultural extension professionals. Some of the negative comments made about the new programme in the course of the meeting included the following:

- Starting such a bizarre programme entails the danger of losing the ethos which has given universities their character and value (academic excellence);
- The two and half year duration of study is too short a period for a B.Sc. degree programme;
- The credit hours allotted to SEPs are inflated and little attention is given to theoretical training;
- Some members qualified the new programme as “a safe passage” to earn B.Sc. degree in a relatively short time;
- Haramaya University should not be the first institution of higher learning in the country to experiment with a non-conventional programme of study;
- Though not spelt out explicitly, the top management of the University was accused of not caring about standards, of caving in to pressure from the Ministry for political reasons; and
- There are no legal provisions to launch a new programme without the knowledge of the Ministry of Education. Therefore, we must first get the go ahead from the Ministry.

It must be noted that given the slow and bureaucratic decision-making process that the approval of new programmes of study has to pass through, the Senate took a courageous decision to launch the programme without notifying the Ministry of Education.

1.3 The implementation phase

After months of painstaking preparatory work the Mid-career B.Sc. agricultural extension programme at Haramaya University was launched in February 1997 with the following objectives:

- To strengthen the theoretical and practical capability of the extension staff in the country;
- To enable them deal successfully with the multidimensional problems facing the farming community;
- To arm the potential participants of the programme with the required up to date technological and communication skills that help them transfer meaningful knowledge to the farmer; and
- To assist in the implementation and success of rural-based economic policies.

In this programme, Mid-career extension workers with diploma level training in agriculture and related fields are admitted and trained for two and half years during which they take professional courses and receive hands-on practical training designed to upgrade their skills, knowledge and qualifications. The programme is believed to prepare adequately the participants to deal with complex agricultural problems. The distinguishing features of this programme include: demand-driven curriculum development process (consensus among key stakeholders about the structure and the content's balance between theory and practice); dynamic interplay between theoretical and practical components; partnerships among institutions and agencies involved in the Mid-career agricultural extension programme (these partnerships are important for resource mobilization, monitoring and supervision of students’ projects and ensuring the sustainability of the programme); and emphasis on helping learners to be reflective practitioners and to view learning as a process not limited only to outside experts.

One unique and very important element of this programme is the field-based Supervised Enterprise Projects (SEPs). The principal objective of the SEPs is to narrow the gap between theory and practice. According to Zinnah (1997), SEPs are also meant to: immerse students in valuable farmer-focused, experience-based learning activities; reduce the discrepancy between training and the tasks the extension staff perform in their real work environment; and avoid the traditional tendency of making the training too theoretical. The essence of SEPs is to develop the students’ ability to identify problems and explore practical ways to correct them. At Haramaya University, SEPs are organized in two phases. During the first phase, each student works very closely with one of the farmers in the vicinity of the University for one crop season. The second phase takes place after the completion of three semesters of study on campus. During the second phase, students design individual projects and return to their respective work areas to implement their projects independently over a period of eight months.

The first batch of 30 students (27 males and 3 females) started classes in February 1997 and it soon became apparent that they were competent enough to cope with the demands of the courses and met rigorous academic standards. However, the fact that the Mid-career agricultural students attended their courses separately was considered, by some academic staff members, as a deliberate move to make it easy for the students to succeed academically. There was an underlying feeling among the academic staff members that the regular agricultural extension students would fare better than the Mid-career agricultural extension students in the event that they were made to take common courses together.

It must be noted that the contents and descriptions of the majority of the courses in the B.Sc. curriculum for Mid-career extension professionals were similar to that of the courses offered to regular students of agriculture, their only differences being the course numbers, codes and/or titles. These minor differences required offering
basically the same courses by the same instructors to different groups of students. This was believed to be an unnecessary burden in course instruction, preparation of examination, and scheduling of classes and examinations. After a year of implementation, the issue was brought to the attention of the Senate with a view towards harmonizing similar courses. The Senate, in its meeting of 8 July 1998, decided to harmonise the course titles, numbers, codes, and credit hours and teach Mid-career students with regular students who take similar courses as of the beginning of the 1998/99 academic year. As time passes and both groups of students were made to take common courses together, the view that regular students would perform better than Mid-career students proved to be unfounded.

2.0 Achievements

The Mid-career B.Sc. degree programme at Haramaya University has made contribution to the agricultural sector principally through upgrading the technical and human relations skills of experienced Mid-career extension staff working with the Ministry of Agriculture, Regional Bureaus of Agriculture and Non-governmental organizations engaged in agricultural and rural development. So far, 192 students (40 females and 152 males) graduated from the programme (see Table 1 below).

Table 1: Mid-career B.Sc. Degree Graduates from Haramaya University, 1999-2005

<table>
<thead>
<tr>
<th>Year of graduation</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>26</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td>2000</td>
<td>17</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>2001</td>
<td>21</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>2002</td>
<td>24</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>2003</td>
<td>17</td>
<td>16</td>
<td>33</td>
</tr>
<tr>
<td>2004</td>
<td>23</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>2005</td>
<td>24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>40</td>
<td>192</td>
</tr>
</tbody>
</table>

The Mid-career training programme is believed to have contributed to the enhancement of indigenous research (applied and adaptive) capability. As already noted, the programme focuses on equipping the candidate with knowledge and experience in participatory diagnostic tools and methodologies. These include: formulation of project ideas; design of sound and well-thought projects; selection of appropriate techniques and methods in the execution of projects; and presentation of results in the form of scholarly reports. Through their off-campus SEPs, graduates from the programme have addressed different problems related to Ethiopian agriculture. The off-campus SEP reports are believed to be valuable sources of information for national and international organizations involved in agricultural development work in the country.

As time passes many people came to realize that the decision to launch the programme was a right one. In this respect, it is gratifying to note that a recent external evaluation of the programme revealed that employers rated the professional knowledge and skills of the graduates highly and expressed full satisfaction with their job performance (Mwangi et al., 2005). The report noted further that the feed back
from employers pointed to the fact that the training had greatly improved the graduates’ professional competence, self-confidence and communication skills. Other desirable qualities of the programme are summarized as follows:

- The curriculum emphasizes deep understanding of important concepts, development of essential skills, and the ability to apply what one has learned to real-world problems. By making connections across the disciplines (through SEPs) the curriculum helps reinforce important concepts;
- The special nature of the programme enables students to engage in extended projects, hands-on experiences, and inquiry-based learning. Moreover, students have regular opportunities to work with their colleagues to deepen their knowledge and improve their team work skills;
- Students are required to use various forms of media to present their project proposals and reports. This is believed to help improve students’ presentation skills and communication styles, two crucial skills important in the workplace;
- Regular contacts with key stakeholders (in the form of annual SEP review workshops and the periodic alumni conferences) serve as a conduit for exchange of ideas, personal experiences, and emerging trends in rural development and agricultural extension. It is also believed that these regular contacts helped identify the weaknesses of the programme and improve its quality and relevance;
- The programme has given the University experience and confidence in running tailor-made, flexible, and practically oriented programmes; and
- The programme has given the University staff the opportunity to interact with adult students and handle courses in a participatory and experiential manner;

3.0 Challenges facing the Mid-career programme at Haramaya University

Since its inception, the Mid-career training programme has faced many problems of varying degrees. It is important to note that the regular and Mid-career agricultural extension training programmes are intimately related and share the same facilities, staff and other resources. Both programmes have various common problems. This section examines only the most important problems, which affect the smooth running of the Mid-career programme.

3.1 Question about the legitimacy of the programme

Six months after the programme was launched, the legitimacy of the programme was seriously challenged by the Ministry of Education which raised questions about how the programme was launched and why the established process of starting new programmes was not followed. The Ministry’s reaction came shortly after the Chief Administrator of one of the Regional States complained officially that his region was under pressure from front-line extension professionals who requested for sponsorship to join the Mid-career B.Sc. degree training programme at Haramaya. It must be noted that the region in question refused to sign a memorandum of understanding with the University, for about two years, under the pretence of complying with the Federal Civil Servants Proclamation, which had no provisions for sponsoring diploma holders while they study for an advanced degree.
It took a lot of convincing of the top management that the new programme was demand-driven and would produce graduates equipped with the knowledge, skills, values and attitudes required for promoting sustainable agricultural and rural development before the Ministry of Education gave its retroactive approval of the programme. The excellent public relations work and lobbying by the Federal Ministry of Agriculture and the Regional Bureaus of Agriculture were quite instrumental in getting the Ministry of Education’s approval.

3.2 Shortage of highly qualified and experienced national staff

The current staffing situation of the Department of Agricultural Extension reveals the fact that it suffers from the chronic shortage of highly qualified and experienced national staff. The problem is compounded by the expansion of the programmes and rapid increase in enrolments. In fact, since the initiation of the Mid-career B.Sc. degree programme, the department has launched three additional programmes of study, namely the M.Sc. degree programme in the 2003/2004 academic year, the summer B.Sc. degree programme in the 2002/2003 academic year and the summer M.Sc. degree programme in the 2004/2005 academic year. At present, the department relies on five national and two expatriate staff members to run all these programmes. This situation is believed to impact on the quality of teaching, the time available for consultations with students, supervision of student projects and outreach activities.

3.3 Financial problems

The Mid-career programme does not have a budget of its own. As a result, it has to rely on the meagre budget allocated for the regular agricultural extension programme for all its budgetary requirements. Fortunately enough, since its early days the programme has been receiving financial support from the Sasakawa Africa Fund for Extension Education (SAFE). The SAFE’s financial support has been used to: purchase books, equipment and vehicles; cover expenses related to supervision of SEPs, recruitment of candidates and experience sharing visits by the department staff; organize annual SEP review workshops and periodic alumni conferences; and employ expatriate staff.

The three vehicles procured through financial provision from the SAFE are worn-out and need to be replaced. At present, the department relies on the availability of vehicles from other departments to conduct off-campus SEP supervisions. There is also a serious shortage of basic materials and teaching aids, like photocopy machines, computers, audio-visual aids, text books, up-to-date and specialised literature and references, etc.

3.4 Resistance by some Regional Bureaus of Agriculture

Though some regions have been exemplary in terms of their commitment and support for the success of the programme, others have been reluctant to embrace the programme. The different forms of resistance that some regions have displayed include:
Refusal to send their Mid-career extension professionals for training with their full salaries;

Failure to pay salaries for students throughout the study period and to finance inputs for SEPs, after having authorized them to join the programme;

Failure to participate in the annual stakeholder workshops and off-campus SEP supervision;

Regional Bureaus of Agriculture follow long and bureaucratic decision making process to discharge their responsibilities, which are stipulated in the Memorandum of Understanding; and

Some Regional Bureaus of Agriculture are not proactive in terms of following-up the progress of their Mid-career extension professionals that they sponsored and sent to the University as well as maintaining strong linkages with the University.

3.5 Misunderstanding of the programme by the non-departmental staff

The majority of the non-departmental academic staff believe that the interdisciplinary nature of the programme, the limited number of courses that students have to take, the two and half years duration of study and the importance given to SEPs, make it less demanding than the regular programmes. As a result, the College of Agriculture has been consistently refusing to award the Faculty’s Gold Medal for best graduate to outstanding Mid-career graduates.

3.6 Limited emphasis on interdisciplinary courses

It is increasingly recognized that in addition to courses pertaining to their areas of specialization, students of the Mid-career programme must take some important interdisciplinary courses which would help them become competent and confident graduates with entrepreneurial skills and abilities to deal with the wider problems of rural development. Some of the frequently suggested cross-cutting themes that Mid-career students must be exposed to include basic leadership development skills, agribusiness and marketing, demographic challenges, environmental protection, sustainable development, food security, computer literacy, and the effects of HIV and AIDS on the agricultural sector (Belay, 2005; Mwangi et al., 2005). Available evidence shows that at present only very few of the aforementioned issues are addressed through interdisciplinary courses due mainly to the problem of fitting additional courses into an already crowded curriculum.

4.0 Recommendations

Even though the Mid-career B.Sc. agricultural extension programme at Haramaya University has been very successful in terms of producing graduates equipped with the knowledge, skills, values and attitudes for the national agricultural extension system, its sustainability and contribution to the economic development of the country would depend on its ability to adapt in response to changing needs and realities in the external environment as well as the level of interaction with all relevant stakeholders. Some important aspects that need to be considered to ensure the sustainability of the programme include:
• Keeping the curriculum up to date and improving the quality and relevance of the programme through, among others, maintaining strong linkages with key stakeholders and undertaking periodic tracer studies.

• Securing reliable financial resources needed to cover the high expenses of the candidate-recruiting process and supervision of off-campus SEPs (possibly through cost-sharing by sponsoring organizations);

• Luring young and outstanding professionals into the higher education system and retaining experienced teaching staff by providing, among others, better pay, working facilities, adequate incentives and competitive terms of employment.

• Maintaining strong and firm linkages with key stakeholders should be pursued as a strategy to deal with core problems (shortage of staff, budget, vehicles, and facilities).

Available evidence shows that the demand for graduates from the Mid-career programme has been high. However, supply has continuously fallen short of demand. It is therefore imperative to open similar programmes in other institutions of higher education. In this respect, it is encouraging to note that preparations are underway to launch a similar programme at Awass College of Agriculture of the Debub University.

5.0 References


Experiences with the Mid-career Programme: Progress and Challenges
Hawassa University, Ethiopia

Mr. Deribe Kaske, Mr. Zenebe worku and Dr. Andargachew Gedebo

1.0 Introduction

In line with the four UN Millennium Development Goals (MDG), out of the eight, such as reducing poverty and hunger, promoting gender equality and empowering women, addressing environmental sustainability, and creating global partnership for development; the University’s vision, mission, and core values; and the Government’s policy of Agricultural Development-Led Industrialization (ADLI), a department of Agricultural Extension was established and started to function in the academic year (2006/2007) under the College of Agriculture. Among others, the University’s mission includes the importance of student-centred practical-oriented teaching and public service; and its core value includes also innovativeness. The mission and core values of the University have been given a due emphasise in establishing the Department of Agricultural Extension.

The Department was established in collaboration with Sasakawa Africa Fund for Extension Education (SAFE) in consistent with the aforementioned issues of concern at various levels.

To establish the Department, a comprehensive need assessment including various stakeholders was undertaken and a curriculum enrichment workshop was also organized. Accordingly, a well-refined curriculum was developed for Mid-career agricultural professionals to be upgraded to a first-degree level in Agricultural Extension. This Mid-career programme is unique and innovative in its nature owing to its great concern on experiential learning and greater emphasise to independent supervised extension projects that are conducted by students.

2.0 Objectives of the programme

The objective of the Mid-career programme is to assist the agricultural development effort of the country through training and producing qualified manpower in the field of Agricultural Extension. More specifically, extension workers who hold Diplomas in the fields of agriculture and related areas will be trained to a B.Sc. level in Agricultural Extension in two and half years.

3.0 Achievements

Since 2006/07 totally 113 students enrolled in to the programme, out of them the first batch (20 students) successfully completed and graduated (July 2009). Currently, 93 students are in the programme, that is 27, 30 and 35 students are in third, second and first year respectively.

Lecturer, Hawassa University
Establishing an audio visual centre and computer laboratory, promoting the programme on National TV and Regional FM radio are some of the successes achieved in the programme. Number of staff also rose to ten.

### 3.1 Student enrolment

A total of 164 candidates sat for entrance examination and 123 candidates successfully passed the entrance exam administered by the University and joined the programme. Unfortunately, 10 of them dropped out due to different reasons, such as health problem and other personal problems. Table 1 presents the details.

<table>
<thead>
<tr>
<th>Academic year</th>
<th>Application for entrance exam.</th>
<th>Selected</th>
<th>Drop out</th>
<th>Students currently in the programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>Total</td>
<td>M</td>
</tr>
<tr>
<td>2006/07</td>
<td>51</td>
<td>3</td>
<td>54</td>
<td>22</td>
</tr>
<tr>
<td>2007/08</td>
<td>52</td>
<td>8</td>
<td>60</td>
<td>26</td>
</tr>
<tr>
<td>2008/09</td>
<td>26</td>
<td>6</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>2009/10</td>
<td>36</td>
<td>2</td>
<td>38</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>145</td>
<td>19</td>
<td>164</td>
<td>108</td>
</tr>
</tbody>
</table>

Most of the regions of the country are represented in the programme whereas representation is not even, as some regions have more students in the programme than others (See Table 2 for details). The number of candidates taken from each region determined based on the population size of regional states, and proximity for less costly supervision and follow-ups.
Table 2: Distribution of student by region

<table>
<thead>
<tr>
<th>Regional state</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>SNNPR</td>
<td>22</td>
</tr>
<tr>
<td>Amhara</td>
<td>13</td>
</tr>
<tr>
<td>Tigray</td>
<td>8</td>
</tr>
<tr>
<td>Oromia</td>
<td>44</td>
</tr>
<tr>
<td>Gambela</td>
<td>8</td>
</tr>
<tr>
<td>Benshangule Gumuz</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>100 (88.5%)</td>
</tr>
</tbody>
</table>

As we can see from the presentation in Table 3, despite being out of school for more than 20 years some of the extension workers proved to us that they can compete even with regular students and complete their studies successfully.

Table 3: Student's academic status

<table>
<thead>
<tr>
<th>Status</th>
<th>1st intake</th>
<th>2nd intake</th>
<th>3rd intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinction</td>
<td>7</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Promoted</td>
<td>13</td>
<td>17</td>
<td>23</td>
</tr>
<tr>
<td>Incomplete</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dismissal</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>28</td>
<td>30</td>
</tr>
</tbody>
</table>

3.2 Staff profile

There are a total of 10 staff members in the programme, out of which 4 and 6 are holders of B.Sc. and MSc, respectively. The number of staff on duty is only 5, and the rest are on study leave. Table 4 present the details.
Table 4: Teaching staff profile

<table>
<thead>
<tr>
<th>Field of specialization</th>
<th>Academic Degree</th>
<th>Total</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B.Sc.</td>
<td>MSc</td>
<td>PhD</td>
</tr>
<tr>
<td>Rural Development and Agricultural Extension</td>
<td>4</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Agricultural Extension</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Management of Agricultural Knowledge systems (MAKS)</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Management of Agro-Ecological Knowledge and Social change</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Agricultural Extension Systems and Management</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4</td>
<td>6</td>
<td>-</td>
</tr>
</tbody>
</table>

3.3 SAFE Support

SAFE project supported us by providing basic instructional materials and equipment to facilitate the teaching and learning process; and provided financial support to facilitate supervision of students’ field projects, promote the programme on National TV, organizing SEPs Workshops; and staff training (1 PhD).

4.0 Challenges

4.1 Demand of the programme is too high

Due to the very nature of the programme there is a need of closer follow up and supervision by the university staff while students are working on their Supervised Extension Projects (SEPs). This will make considerable costs of time on staff members and logistical arrangements. The possible way out to minimize the problem is by selection of regions that are adjacent to each other. Thus, candidates for particular year/ batch will come from cluster selected for the academic year under consideration.

4.2 Lack of clarity on admission of ATVET (10+3) graduates

4.3 Minimum requirement credit for B.Sc. Degree

The University’s minimum requirement credit for B.Sc. Degree is 102, but the Mid-career students graduate with the total of 88 credit hours with no provision for exemption for the courses taken in Diploma programme.
4.4 Low percentage of female candidates into the programme

The programme encourages qualified female applicants and 25% of the admission is reserved for female candidates, unfortunately regions sent few on no female candidates.

4.5 Lack of vehicle (bus) for students field trip

The programme lacks a bus for transporting students during field trips.

5.0 Future plan

The programme plan to do following in future:

- Curriculum review with the consideration of post production value chain development.
- Increasing student intake.
- Create a conducive learning environment for the university community through SEPs.
- Strengthening audiovisual room of the programme.
- Establishment of Alumni Association.
- Conducting trace back studies of graduates.
1.0 Introduction

The need for agricultural training and research programme was a long-standing issue of the region. Cognizant of the multifarious agricultural and environmental problems of the country in general and the Amhara Region in particular and the potentials and opportunities for development, several efforts were made in the past by different agencies to start agricultural training programmes in the Region. Bahir Dar University launched Faculty of Agriculture and Environmental Science in September 2005 through enrolling 240 students at under graduate programme.

Now Agriculture and Environmental Science is upgraded to a college level. There are seven Departments which provide B.Sc. in different programmes. Rural development is one of the pioneer departments in the College of Agriculture and Environmental Sciences (CAES).

2.0 Staff profile and academic programmes in CAES

Despite its recent establishment, the college has a very good staff capacity even better than other old faculties and colleges at Bahir Dar University(Table 1).

Table 1: Staff profile and education programme in CAES

<table>
<thead>
<tr>
<th>Academic Rank</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td>12</td>
</tr>
<tr>
<td>MA/ MSc</td>
<td>36</td>
</tr>
<tr>
<td>Graduate Assistant</td>
<td>6</td>
</tr>
<tr>
<td>Technical Assistant</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
</tr>
</tbody>
</table>

At undergraduate level, the college is offering training in regular, evening and summer programmes (Table 2).

---

6 Head, Department of Rural Development, Bahir Dar University, Ethiopia
7 Lecturer, Bahir Dar University
8 Lecturer, Bahir Dar University
Table 2: Teaching in CAES

<table>
<thead>
<tr>
<th>Programme</th>
<th>Number of Students</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Regular</td>
<td>762</td>
<td>318</td>
</tr>
<tr>
<td>Summer</td>
<td>835</td>
<td>118</td>
</tr>
<tr>
<td>Evening</td>
<td>250</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>1847</td>
<td>468</td>
</tr>
</tbody>
</table>

As a Department in CAES, rural development has three programmes at B.Sc. level. To see the detail please refer the following Table 3.

Table 3: Teaching in Rural Development Department

<table>
<thead>
<tr>
<th>Programme</th>
<th>Number of students</th>
<th>Total</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td>101</td>
<td>24</td>
<td>125</td>
</tr>
<tr>
<td>Extension</td>
<td>36</td>
<td>2</td>
<td>38</td>
</tr>
<tr>
<td>Summer</td>
<td>121</td>
<td>5</td>
<td>126</td>
</tr>
<tr>
<td>Total</td>
<td>258</td>
<td>31</td>
<td>289</td>
</tr>
</tbody>
</table>

3.0 Constraints of the Extension System in Amhara Region

- Low level of data and information flow.
- Low capacity of the Woreda to lead development activities.
- Poor communication among actors.
- Duplication of activities among actors.
- Inefficient managerial capacity of cooperatives to facilitate input and credits supply.

4.0 Opportunities and strengths of Bahir Dar University to implement Mid-career Agricultural Extension Programme

(i) There is a good policy to strengthen the agricultural education programme throughout the nation. Since the FDRE follows Agricultural Development Led Industrialization (ADLI)

(ii) There is a large number of development agent (DA’s) within Amhara region (totally 10736 DA’s) of which around 13% are females. There is also possibility of upgrade the DAs of neighbouring regions.

(iii) There is a strong collaboration with BoARD (Bureau of Agriculture and Rural Development), ARARI (Amhara Region Agriculture Research Institution), and BDU (Bahir Dar University) in teaching, research and extension.

(iv) Experience of upgrading DAs especially in summer programme. BoARD has a plan to upgrade annually 5% of the DAs of the region and they have started implementation this plan in 2007 summer programme with the collaboration of BDU. But currently they understand that summer programme is not
appropriate for upgrading the development agents because summer is a peak period in agriculture. Therefore, they shift their attitude from peak summer to slack periods and now they have made agreement with the BDU to launch upgrading programme in one of the regional ATVET College, Woreta.

(v) The construction of CAES own campus.
(vi) Committed management of BDU and also strong staff member of CAES.

5.0 Expectations from the SAFE Regional Workshop

There have been dramatic changes taking place in the way academic and research communities access and exchange information worldwide. As a young college of BDU we expect many things from such kind of workshop especially we may benefit the following from networking:

• Provide opportunity for promoting, exchanging and distributing scholarly and research information.

• May ease access to national and international information resources like journals and other information gateways in order to improve efficiency and enhance work.

• The result of workshop may help to mitigate most of the problems of the extension system
1.0 Introduction

1.1 Background Information

The United Republic of Tanzania is a unitary Republic formed by the union of Tanganyika and Zanzibar in 1964. Tanzania is located in East Africa between latitude 1°-12° South of Equator and longitude 29° - 41° East of Greenwich. It shares borders with eight countries: Kenya and Uganda to the North, Rwanda, Burundi and Democratic Republic of Congo to the West, Zambia, Malawi and Mozambique to the South. A coastal line of 800 km borders the Indian Ocean on the East.

The total land area of Tanzania is 945,000 km² which includes a land area of 881,000 km² of mainland, 2,000 km² for Zanzibar, 62,000 km² inland water and 3,350 km² forest and woodlands. The population of Tanzania is estimated to be 35 million people (2002 census). The population growth rate is 2.8% per annum. About 90% of the population lives in rural areas where subsistence farming is the main source of livelihood. The strength of the Tanzania economy lies on the rich endowed natural resources including minerals, arable land and large population that constitute the large internal markets, favorable climate and political peace and stability.

1.2 Importance of Agriculture in Tanzania

Agriculture is the main stay of the Tanzanian economy. It contributes more than 25% of GDP and 30% of export earnings. Agriculture has experienced a dismal growth rate over time. However, there has been an overall increase over five years moving average agricultural GDP growth rate of about 3.3% (1991-2000) to 5% in 2001 to 2006. The agriculture sector provides employment to about 75% of the total labour force out of which 56% are women.

The crop sub-sector contributes about 35% of GDP and growth at 3.8% annually. Food crop production has grown at a rate of about 2.8% accounting for about 65% of agricultural GDP while cash crops accounts for only 10%. Maize is the most important food crop accounting for over 20% of total agricultural GDP. Agriculture exports have been growing at 4%. Food and cash crops account for about 70% of rural income.

1.3 Agriculture policy framework

Since the mid-eighties, the Tanzania economy has undergone gradual fundamental transformation that has redefined the role of government and the private sector. Under the new environment most of the production, processing and marketing function have been assigned to the private sector while the government retained the
regulatory and public support functions. These macro changes have and continue to have profound impact on the agricultural sector. To cite a few, already agricultural inputs and output price have been decontrolled, subsidies have been removed, and monopolies of cooperative and marketing boards have been eliminated.

At institutional level, the agriculture led ministries (Ministry of Agriculture Food Security and Cooperatives - MAFC, Ministry of Livestock Development and Fisheries, Ministry of Trade and Marketing, and Ministry of Prime Minister’s Office Regional Administration and Local Government have assumed new missions. They see themselves as essentially performing public sector support functions, which among others include research, extension and training, policy formulation, information service, regulatory functions, protection of environment and provision of enabling environment for private sector participation in the agricultural production, processing and marketing.

1.4 Agricultural sector vision

Stakeholders in Agriculture envisage an agricultural sector that is modernized, commercial, highly productive and profitable, utilizes natural resources in an overall sustainable manner and acts as an effective basis for inter-sectoral linkages by the year 2025.

1.5 Extension services

The major objective of extension services is to facilitate farmers to increase agricultural production and productivity and finally improving their social economic status. Extension aims at empowering farmers to identify and analyse their agricultural problems, and make the right decision on matters pertaining to profitable and sustainable agriculture. As a form of adult education discipline extension should facilitate farmers to learn improved agricultural practices including farm management and efficient utilization of available resources.

For many years agriculture extension has been entirely financed by the public sector. However, the government is now encouraging the private sector to provide and finance extension services. As a result, non governmental organizations- NGOs, religious organizations and private agribusinesses have started to supplement public extension services often by using government extension services.

According to the Local Government Act of 1997 the delivery of public extension is now vested with the local governments. The idea is to have extension service administered at the lowest level of the government for better accountability where active participation of beneficiaries and other actors can be more effective. The role of central government as far as agricultural extension is concerned is to facilitate and to support local authorities to carry out extension services. This is done by training of extension staff, providing transport facilities, guidelines, regulations and coordination in general.
2.0 Experiences with extension staff development

Agricultural extension services have been decentralized in order to have them well nested at the lowest level of government machinery. This is expected to make the services cost-effective and responsive to farmers’ needs, while demanding accountability from extension staff and other collaborators. Nevertheless the major problem impeding the effectiveness of agricultural extension services in Tanzania is the low level of training of a large number of extension staff. Even if the government is involving private sectors in extension service provision the role of extension staff development remains a responsibility of central government.

By the year 2007/2008 there was an alarming shortage of agriculture extension staff in the country (see in Table I). The ministry planned to fill the gap of 11,703 extension staff by increasing enrolment of pre-service extension staff in agriculture institutes and to employ about 2,000 extension staff each year. The aim was to have one agriculture extension staff at village and one agriculture extension staff at ward level by the year 2010/2011.

Table 1: Requirements of Extension staff in 2007/2008

<table>
<thead>
<tr>
<th>Extension staff</th>
<th>Ward Level</th>
<th>Village Level</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>2,855</td>
<td>12,227</td>
<td>15,082</td>
</tr>
<tr>
<td>Available</td>
<td>1,352</td>
<td>2,027</td>
<td>3,379</td>
</tr>
<tr>
<td>Deficit</td>
<td>1,503</td>
<td>10,200</td>
<td>11,703</td>
</tr>
</tbody>
</table>

By June, 2009 the government succeeded to employ 1,058 extension staff, this effort reduces the number deficit to 10,645.

3.0 Current and emerging staff development needs

More than conventional agricultural production, sustainable production requires that extension go beyond the dissemination of technical knowledge and skills, and take on critical challenges that affect natural resource management and soil health, environmental protection, and market competition in an increasingly global economy, while remaining keenly sensitive to issues of social equity. To attain these extension staff need to be developed/trained in the following:-

i. Involvement of different stakeholders in extension programme management;

ii. Providing extension services in participatory approach;

iii. Increase the use of Information and Communication Technologies (ICT) in agriculture technology transfer;

iv. To respond to the changes in the socio-economic (globalization, market demand, prevalence of HIV and AIDS) and political environments which exist; and

v. To respond to the marked changes in the concept of ‘agriculture’ itself, which is increasingly seen in terms of broader notions of renewable natural resource management, with increasing emphasis on integrated systems and sustainable production.
4.0 How the Ministry has been responding to staff development needs

Government strategies to respond to the staff development needs are:

i. Giving more effort on rehabilitation of the agriculture training institute to increase enrolment rate of extension staff and increase the employment of teachers at that institute;

ii. Providing opportunity for staff to attend short and long term courses in extension and rural development programme management in and outside the country;

iii. Revising the curriculum of agriculture training institutes, vocational centres and universities, so that agri-chain management, ICT, participatory approach are taught;

iv. Continuing with on job training where extension staff are trained on new ideas and skills. Currently, the ministry is training extension staff on Farmer Field School (FFS) Approach as extension methodology adopted for technology transfer; and

v. The government is emphasizing on the use of ICT for information transfer. Access to ICTs provides information on prices, markets, technologies, and weather forecasts. Community-based tele-centres have the potential to empower rural communities and facilitate socio-economic developments in agriculture. It uses selected ICTs (e-mail, internet, phone, radio, TV and prints).

5.0 Challenges

Challenges of coping with extension staff development needs include:

- **High demand for extension staff training**: Extension staff need to respond to the many changes in the socio-economic environment, so the requirement for training on different careers is high which can not be supported by government budget;

- **Curriculum development**: There is a need for a regular curriculum reviews so as to meet the growing extension needs; and

- **ICT development**: The use of ICT is limited especially in rural areas where many extension staff are, their skill of using ICT does not last longer when they start working in such areas.

6.0 Expectations from Universities

The Ministry expects the University to deliver extension officers with theoretical and practical skills in:

(i) Involvement of different stakeholders in extension programme management;

(ii) Providing extension services using participatory approaches;

(iii) Use of Information and Communication Technologies (ICT) in agriculture technology transfer;

(iv) Responding to the changes in the socio-economic environment (globalization, market demand, prevalence of HIV and ADS);

(v) Changes in the concept of ‘agriculture’ itself (renewable natural resource management, emphasis on integrated systems and sustainable production);

(vi) Lobbying and advocacy; and

(vii) A positive mindset of the extension workers to live and work in the rural communities where they are mostly needed.
Experiences with the Mid-career B.Sc. Agricultural Education and Extension Degree Programme at Sokoine University of Agriculture: Progress and Challenges

C. P. Msuya11, K.K. Mwajombe12, D.L. Mwaseba

1.0 Introduction

The Bachelor of Science in Agricultural Education and Extension (B.Sc. AEE) degree programme was launched in October 1998 following a request from the then Ministry of Agriculture and Cooperatives (MAC). The Ministry requested Sokoine University of Agriculture (SUA) to develop a responsive B.Sc. degree programme tailored to meet the needs of Mid-career front line agricultural extension and education professionals. This move created a need for professional and efficient cadre of field extension officers who can effectively respond to the current needs of farmers and work in the current socio-economic environment in Tanzania. It was envisaged that Mid-career training should assist frontline agricultural extension staff to improve in the following areas: analytical diagnosis of problems, self confidence, subject matter competence, motivation for continuous professional growth, and innovation for progressive change. A demand-driven, problem-based and experiential programme development and implementation philosophy underlies this innovative programme.

2.0 Unique characteristics of the Mid-career extension programme

In essence, the B.Sc. Agricultural Education and Extension degree programme, needed to focus on the Mid-career extension staff who have distinguished themselves in their career as being effective in working with farmers and in establishing fruitful linkages with researchers. The prime motive behind the introduction of the B.Sc. programme in extension was to upgrade technical and human relation skills of the Mid-career front-line agricultural extension staff through experiential learning, that is, the combination of theory, experience, critical reflection, and practice. Experiential learning is emphasized because it provides learners with the opportunity to develop lifelong learning skills and builds their confidence and commitment, so that they can work with farmers in participatory ways. As such, the programme was designed to provide an effective learning experience through intensive practical skills (Msolla et al., 2003).

Salient feature of the Mid – career extension programme is its practical oriented nature commonly referred to as Supervised Enterprises/Experience Projects (SEPs). SEPs are intended to engage students in valuable farmer–focused, experience-based learning activities that capture the total milieu surrounding small farm development, and to reduce the discrepancy between training and the various tasks the extension staff are to perform in their real work environment after graduation. In this programme, special emphasis is placed on the development of critical thinking skills, problem-solving strategies, systems thinking capabilities, and development of lifelong learning attitudes.

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12 Lecturer, Sokoine University of Agriculture, Tanzania
Since its introduction in 1998 to date, a lot of experiences have been gained in the course of implementing this programme. The main objective of this paper is therefore to highlight progress and challenges faced in implementing the programme.

3.0 Implementation of the programme

With the assistance of the Government of Tanzania, Sasakawa Africa Fund for Extension Education (SAFE) in collaboration with Winrock International Institute for Agricultural Development, the Department of Agricultural Education and Extension (DAEE) launched a three-year B.Sc. programme in 1998 that was designed to be problem-based and employing experiential learning principles. It was recognized that in order to produce effective agricultural extension staff, it was necessary to marry theory with practical. Hence, emphasis was placed on among others, field-based enterprises commonly referred to as the Supervised Enterprise/Experience Projects or SEPs.

Since the inception of the programme in 1998, the number of students has continued to rise and the demand is very high. In actual fact, the programme is one of the popular programmes in the University. Currently, a total of 228 students have been enrolled in the programme. These are in their first, second and third years as shown in Table 1.

Table 1: Number of current students enrolled in the programme

<table>
<thead>
<tr>
<th>Year of study/Intake</th>
<th>Diploma holders</th>
<th>Direct students (Form 6)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st 2008/09</td>
<td>80</td>
<td>-</td>
<td>80</td>
</tr>
<tr>
<td>2nd 2007/08</td>
<td>78</td>
<td>3</td>
<td>81</td>
</tr>
<tr>
<td>3rd 2006/07</td>
<td>60</td>
<td>7</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>218</td>
<td>10</td>
<td>228</td>
</tr>
</tbody>
</table>

The students in third year are due for graduation in November 2009 subject to passing their Supervised Extension Projects and probation examination (for those who failed). In this respect, the number of graduating students might change accordingly. Furthermore, during academic year 2009/2010 the Department is expecting to enrol about 120 students.

3.1 Supervised Enterprise Projects (SEPs)

While much of the classroom learning takes place on campus with no special treatment being given to direct or mature age (Diploma holders) students, there has been differential treatment when it comes to field practical training (regarded as SEPs in the Department). Diploma holders are required to do their practical training at their places of work and being partially supervised by their employers as local supervisors. On the other hand, direct students are required to do the fieldwork in centrally planned locations. Most of the latter group does its fieldwork in the UMADEP (Uluguru Mountain Agricultural Development Project) centers in Mgeta, Matombo, Mkuyuni, and Mlali. However, with time, some of these direct students (who are yet to be employed) have been making their own arrangements for the practical training areas where they feel they may enhance their chances of being employed. Since SEPs are intended to engage students in using what they have
learned on campus to solve practical problems of farmers or any other end user of classroom learning, during the first year of SEPs second year students engage in activities of analyzing situation and come up with problems that face farm families. In the second year of field practical training, which is done when students are in their third year, students continue with action research using problems identified in the first year of SEPs. Tracing back from 1998 to date, records show that most SEPs have focused on various themes related to adoption, assessment and evaluation of programs.

Unlike other degree programmes in the University, the B.Sc. Agricultural Education and Extension has been given eight weeks of field practical training basically because of the SEP component. With the exception of the B.Sc. Agricultural Engineering, the rest of the degree programmes have five weeks for field practical training. An additional week is sometimes set aside for excursion when funds are available.

3.2 Level of support and involvement of stakeholders

The Government of Tanzania through Sokoine University of Agriculture has been supporting the programme financially. The government pays students bursaries (loans) that cater for university fee, accommodation, living allowance and field practical training/SEP allowance. In addition, the government pays supervision costs for internal supervisors (Lecturers in the Department) and honorarium for local supervisors in the field practical/SEP stations.

Other stakeholders have been highly involved in accommodating students especially direct students who are required to do the fieldwork in centrally planned locations. These are governmental and non-governmental organizations like UMADEP, INADES, WOPATA, PRIDE etc. These organizations also provide local supervisors for students in the field.

3.3 Graduates and their post graduate roles and responsibilities

Data in Table 2 show that since 1998, a total of 361 students have graduated from the programme. In the tracer study that was done (still on going) to identify the roles and responsibilities of graduates of Mid-career B.Sc. Agricultural Education and Extension programme, the available data show that some of the students went back to their former jobs while others found new employment. For those who went back to their former jobs some were promoted to higher-level jobs like District Agricultural and Livestock Development Officers (DALDO) and District Executive Directors (DED).
Table 2 Number of students graduated since 1998 to date

<table>
<thead>
<tr>
<th>Intake</th>
<th>Year of graduation</th>
<th>Diploma holders</th>
<th>Direct students (Form 6)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>7th (2004-2005)</td>
<td>2007</td>
<td>43</td>
<td>14</td>
<td>57</td>
</tr>
<tr>
<td>8th (2005-2006)</td>
<td>2008</td>
<td>48</td>
<td>13</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>231</td>
<td>130</td>
<td>361</td>
<td></td>
</tr>
</tbody>
</table>

For those who secured new employment, some were working as village extension officers, primary/secondary school teachers and tutors, before joining the programme but after graduation they were employed in Universities, colleges and private organizations as lecturers, tutors and managers, respectively. A good example is Sokoine University that employed about ten candidates who graduated in this programme.

3.4 Staffing position

The Department has a total of twenty-two academic members of staff. Although the number seems to be quite big, at the moment not all are involved in teaching and supervising students as their status reveal in Table 3. This has a tremendous implication on running the programme as will be explained later.

Table 3: Staffing positions and their status

<table>
<thead>
<tr>
<th>Category</th>
<th>M</th>
<th>F</th>
<th>Total</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>All present</td>
</tr>
<tr>
<td>Associate professors</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>All present</td>
</tr>
<tr>
<td>Senior lecturers</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>One present, one on two years contract, one on two years leave without pay</td>
</tr>
<tr>
<td>Lectures</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>One present, one on leave without pay, one is pursuing PhD studies.</td>
</tr>
<tr>
<td>Assistant lectures</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>Two present, Two pursuing PhD studies</td>
</tr>
<tr>
<td>Tutorial assistants</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>Seven present, one pursuing masters studies</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>3</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

4.0 Opportunities of the programme

One of the major criticisms in university training programmes has been that the graduates are too theoretical and therefore they do not have the skills to solve the problems in the field. This shortfall is an outcome of the weak link between training institutions and “consumers” of the products of training institutions, namely, the
farming communities and the employers of the graduates. However, the programme provides an opportunity of training that enable students acquire hands-on practical skills that are an essential ingredient for building dialogical participatory techniques to deal with the needs of individual farmers and community groups.

Since the programme is intended for Mid-career (in-service) students, most of them do their practical training at their places of work and being partially supervised by their employers as local supervisors which reduces survey costs for field practical/SEP stations. In addition, the Department has benefited tremendously in terms of building social capital with a variety of stakeholders through the regular contacts established during supervision of field practical/SEP. Employers have shown great enthusiasms in the conduct of practical training while at the same time farmers also show appreciation of the time spent with students.

Experience gained from the eleven years of running the programme clearly shows that some of the graduates from this degree programme secure new jobs or get promoted to higher position like DED, DALDO and other jobs of higher calibre as pointed earlier. There is therefore a need of assessing specific training needs of graduates and come up with specific short courses that will equip the graduates with knowledge, skills and attitudes to address specific needs of their current positions or new responsibilities.

5.0 Challenges of the programme

Despite sound opportunities of the programme mentioned above, a number of challenges still remain that must be addressed if this programme is to succeed. Problems exist in the areas of the type of students enrolled, teaching staff, funding, a loaded curriculum, and integration of the programme in the university system.

5.1 Type of students

Ideally, the selection of students, from amongst the Mid-career extension staff, was to be initiated by the stakeholders of the programme such as district councils. The Department was then to select the best students from this pool. This has not been the practice. The Department has been receiving three types of students, namely, diploma holders in agricultural extension and agricultural education, and form six leavers. Apart from the diversity of professional backgrounds their numbers have been increasing over the years. This has implications in the running of the innovative Mid-career agricultural extension programme. A compromise approach had to be conceived that would accommodate all three types, albeit with some difficulty. It was difficult, for example, to fit in the form six leavers who had dismal experience in extension. But also agricultural teachers had similar problems. For the programme to run smoothly, it is necessary that the number of students be kept small and to have students with similar professional background. Under the present arrangement, this is difficult to achieve because the Department has no mandate to deny anyone entry into the degree programme. The only option is for the Department to launch another degree programme that will enrol only the Mid-career agricultural extension staff.

A new B.Sc. Agricultural Extension is expected to be launched during 2010/2011 academic year.
5.2 Teaching staff

Currently, the Department has twenty-two members of academic staff. Three of them are pursuing their PhD studies, two are on leave without pay, and one on two years contract (Table 3). In addition, eight are tutorial assistants who are not fully engaged in teaching and supervision activities. This leaves eight members of staff who assume full teaching responsibilities. Of the remaining eight academic members of staff, three of them have a relatively heavy administrative load within and outside the Departments and all members of the Department are heavily involved in multidisciplinary research activities.

Academic members of staff in the Department also teach a number of courses that run across departments within the Faculty of Agriculture and across faculties and institutes in the University. This implies that most of them have a relatively heavy teaching load compared to some staff in this university who are reported to have no more than 25 contact hours of teaching in an academic year. Due to the insurmountable load on the part of the members of academic staff in the Department, some courses totalling to 350 contact hours had to be taught by members from within the University namely, the Faculty of Science and the Institute of Continuing Education.

The heavy involvement of academic members of staff in teaching, research, administration, and extension, among other activities has adverse impacts on the running of the programme. As pointed out earlier, the programme demands close supervision of students both on campus and in the field. Students require close supervision while developing proposals for their Supervised Enterprise Projects but also when they collect data and in report writing. Students also require supervision when they go for their field practical/SEP training. This component has become even more difficult for a number of reasons. The fact that students are required to report to their places of work for SEPs the geographical spread of the students and the large number of students has become one of the huddles in running the programme. Travelling to these destinations has become not only too expensive but sometimes logistically challenging to the extent that close supervision has become impossible.

5.3 Funding

Funds made available to support students’ SEPs are largely inadequate. Currently, students are given a lump sum of one hundred thousand Tshs\(^\text{14}\) (100,000/=) equivalent to US$ 80 each without regard to the complexity of the SEP or where it is done. Much of the money is thus used in transport and not in addressing a particular problem.

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\(^{14}\) Tanzanian Shillings
5.4 Loaded curriculum

The programme so far is seen to be loaded with courses leaving little room for practical learning. Some courses have been allocated too many contact hours while some courses are seen to be of little relevance to the programme. In addition, improper sequencing of some of the related course has been noted. For the programmes to have any meaning, significant changes have to be made in relation to the content and number of courses that are offered in the Department.

5.5 Integration into the university system

For a programme to run smoothly, it must fit well in the university system with minimal conflicts in timetabling and utilization of the teaching staff. One of the major snags in the running of eight-week field practical training is getting a time slot that will not adversely affect teaching. Of late, to avoid this problem, students go for their field practical training at the end of the semester examinations. However, this arrangement has resulted in late completion and hence submission of SEP reports by our finalists. This is because they take longer to complete SEP cum field practical training than their colleagues who pursue the conventional degree programmes.

6.0 Funding mechanisms for implementing the Mid-career programme

6.1 Funding from domestic sources

Proportionally, based on Loans’ Board evaluations, students obtain loans through Higher Education Students Loan Board (HESLB) to cater for their fees, meals and accommodation. Equally, they are facilitated to cover expenses incurred during the eight weeks field practical training cum SEPs activities. The Government pays 100% to facilitate the internal supervisors (Lecturers) and local supervisors in the field stations to supervise students during field practical training cum SEPs.

6.2 Funding from external sources

Except for support from SAFE and Winrock in terms of equipment such as computers, projectors and publication materials there is no external funding for facilitating implementation of the Mid-career B.Sc. Agricultural Education and Extension degree programme.

6.3 Plans in place for total funding of the programme from domestic sources

Due to funding problems that affect the programme to run as it was expected, the Department has plans to advertise the programme to attract more applications especially from private sponsored applicants within and outside Tanzania to join the programme. These plans are specifically targeted to a new Mid-career B.Sc. Agricultural Extension degree programme that is in its final stage of approval. In order to reach many people, advertisements will be through use of mass media like radio, television, news papers; posting advertisements on the established Departmental website and distribution of brochures.
7.0 Experiences and lessons learned

Experiences gained from running the programme show that the programme has potential to equip students with necessary practical problem solving skills that can be applied in real life situation (field) after their graduation. Therefore the Government desire that Universities produce graduates with adequate technical, social, administrative and management skills to solve today’s increasing complex problems (Rutatora, 1997) is in line with the concepts of the Mid-career programme.

The achievements of the programme have encouraged the Department to develop new degree programme namely, BA. in Community Development that will also adapt the SEP approach in its implementation. As far as other disciplines outside the Department in the University are concerned, there have been changes in mindset to adapt SEP approach. However, whether this will be translated into action remains to be seen. This is due to the fact that it allows students to spend more time (eight weeks instead of five) in field and also it minimizes costs for regular survey of field practical stations.

Generally, as a philosophy there is a room to expand the programme approach to other disciplines but it needs some time to evolve as it has been experienced in B.Sc. Agricultural Education and Extension. However, challenges that face the programme should be taken on board while implementing the SEP concept in other programmes.

8.0 The Way forward

The philosophy behind the Mid-career extension staff training programme aims to address the prevailing non-responsiveness of agricultural training programmes. Although the programme offers some promising results, there are a number of fundamental problems that must be addressed first. One of the problems that needs to be immediately addressed and which is long overdue is the review of the curriculum. To this end, the Department has initiated the curriculum review process. This review process has drawn heavily on inputs based on the experiences in running the current programme and the opinions of stakeholders including graduates of the programme, the Ministry of Agriculture, and the Ministry of Education and Vocational Training. The new degree programme (B.Sc. Agricultural Extension) will be launched in 2010/2011 academic year. Other issues that require attention include increasing funding levels, increasing staff size, and appropriate institutionalization of the programme into the university training programmes.

9.0 References


Experiences from implementation of the Mid-career Bachelor of Agricultural Extension Education degree programme at Makerere University

Dr. Frank Matsiko and Mr. John J Okiror

1.0 Introduction

The Bachelor of Agricultural Extension Education (BAEE) Degree Programme at Makerere University (MU) started in 1997 as a tailor-made programme for frontline Mid-career extension professionals with diplomas in agriculture and related disciplines. The programme was designed to cater for the large pool of diploma holders in the field with at least two years of work experience. Originally, the programme was run as partnership programme between Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF) and MU with support from the Sasakawa Africa Fund for Extension Education (SAFE). The programme’s duration is three years and builds upon the work and educational experience of the trainees.

As part of their training students develop Supervised Enterprise Project (SEPs) proposals with their employers, which are relevant to their job as extensionists and are implemented in their work places. The students implement the projects under direct supervision of the University and their employers who own the programmes. The Mid-career programme sought to buttress the practical experience of agricultural extension agents to enable them to deal with the challenges of agricultural development in the country.

2.0 Progress and achievements so far

Since 1997 eleven cohorts of students have been admitted. The numbers have, however, fluctuated with the highest increase occurring in 2001 and 2002. The enrolment to date is shown in the Table 1 below.

Table 1: Student enrolment for Mid-career BAEE/BARI students at Makerere University

<table>
<thead>
<tr>
<th>Intake</th>
<th>Year of admission</th>
<th>Enrolment</th>
<th>Total</th>
<th>Year of graduation</th>
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<td>Males</td>
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<tr>
<td>11</td>
<td>2007</td>
<td>5</td>
<td>2</td>
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<tr>
<td>12</td>
<td>2008</td>
<td>41 (3)</td>
<td>19 (1)</td>
<td>60</td>
</tr>
</tbody>
</table>

15 Assistant Lecturer, Makerere University, Uganda
• As shown in the table above the BAEE programme is being phased out since 2008 and replaced with the Bachelor of Agriculture and Rural Innovations (BARI) which targets both Diploma holders and A’ level graduates.

• DAEE secured scholarship offers from partners: the Government of Uganda sponsored 20 students in 2001 and 2002; Winrock paid for 5 females in 2001, and Carnegie 11 women in 2001. Other achievements include a training needs assessment study was carried out in 2003 for NAADS service providers with funding from the Rockefeller Foundation.

• In the same year, an internal evaluation of the programme was carried out to identify and respond to emerging issues after five years of implementation. The study which involved 32 graduates of the programme, 13 finalists and the DAEE teaching staff identified the most relevant and least relevant courses, a number of needed modifications, as well as new courses.

• A number of other studies have been conducted by post-graduate students and NAADS to identify competencies needed by service providers in the light of emerging challenges to agricultural extension service delivery.

• DAEE has also held two consultative workshops. One with stakeholders in Uganda, and another with a consortium of four universities in Eastern Africa that are implementing the extension Mid-career degree programme (Makerere University (Uganda), Sokoine University (Tanzania), Haramaya University (Ethiopia), and Bunda College of Agriculture (Malawi) in order to identify core competencies that are desirable of BAEE graduates.

• The support from SAFE has sustained the programme through the provision of physical facilities like computers, vehicles, office equipment and furniture.

• The graduates of the programme have found jobs as NAADS service providers and Sub-County NAADS Coordinators all over the country. Many have undertaken further studies for the MSc in Agricultural Extension degree.

3.0 Challenges faced by the University

At about the same time the BAEE was introduced, Uganda started pursuing policies and strategies that were aimed at finding ways to enhance and raise the incomes of smallholder farming communities. In 1997, the government formulated the Poverty Eradication Action Plan (PEAP) which was revised in 2000. This was followed by the formulation of a comprehensive Plan for Modernization of Agriculture (PMA) to address some of the factors that undermined agricultural productivity, namely: poor husbandry practices; low use of improved inputs; limited access to technical advice; poor access to credit; poor transport, communication and marketing infrastructures; and, insecure land tenure and user rights. The PMA gave rise to the creation of the National Agricultural Advisory Services (NAADS) that is designed to actualize the government plans as envisioned in the PMA. NAADS was designed to supersede the traditional public extension services that had been found to be ineffective. NAADS was further guided by, and indeed fulfilled the government’s policies of decentralization, liberalization, privatization and increased participation of the people
in decision-making. Extension service was developed into a demand-driven, client oriented and farmer-led agricultural service delivery system particularly targeting the poor and the women.

The change from the public service delivery to the privately contracted advisory system had implications on the DAEE curriculum. Although the policy environment was very supportive, it called for creativity to cope with the dynamic changes that were taking place in the country. The PMA in particular called on universities to offer practical training that would enable the graduates to engage in agriculture as a profitable business and to engage farmers of all levels. To this extent, the Faculty of Agriculture at Makerere University has been experimenting with, and is continuously seeking ways of making its agricultural curricula relevant to the changing demands of the agricultural sector. This has resulted in the introduction of a number of new programmes. In this regard, the Bachelor of Agricultural Extension Education (BAEE) programme is being phased out to be replaced with the Bachelor of Agriculture and Rural Innovations that now caters for both the Mid-career extension professionals and A’ level entrants. Overall, the main challenges in the implementation of the Bachelor of Agricultural Extension Education degree programme are as follows:

• SEPs were the most challenging aspect of the training programme for Mid-career extension professionals. The SEPs constituted a major departure from the traditional ways of undergraduate training due to their demanding and complex in nature. The SEPs were: staff intensive; required adequate support from employers; and extra time for planning and implementation.

• The conventional format used for writing research reports was not appropriate for SEPs because the SEPs consisted of two projects in one. The SEP report covered the extension work done by the student towards the farmers’ production objectives and the research work for the learning objective.

• There was a problem in time-tabling some B.Sc. Agriculture and BAEE courses together yet the students had different academic backgrounds.

• In 2005 the government withheld sponsorship for BAEE students under a new policy which restricted such support to science courses. The BAEE students were left out because the nomenclature of the programme did not reflect its science bias.

• Dwindling numbers of students admitted due to lack of funding for students due to the above policy. Numbers also reduced because extension services were completely privatized with some districts withdrawing support to their students on the course.

• There was also a staffing problem as majority of the academic staff left for PhD studies abroad. The phased release of staff for further study was no longer tenable in a situation where the university policy required all staff to have a minimum of a PhD.
The changing paradigms in agricultural extension and training which showed that agriculture alone was not enough for all challenges of rural development highlighted the need for a broader curriculum.

4.0 The University's response to the challenges

The Faculty of Agriculture at Makerere University has the necessary and demonstrable pre-disposition to innovativeness in response to well articulated needs. More importantly, it has the capacity to provide quality agricultural education. The number of PhDs in the DAEE has grown from two in 2005 to seven in 2009.

- The issue of limited time for conducting the SEPs was addressed by placing students for field attachments in the recess term and continuing report writing during the semester.

- The key competency areas required of agricultural extension service providers identified during the internal evaluation have been taken care of by reviewing the BAEE curriculum to include courses that were deemed to provide students with the respective competencies and any existing gaps.

- The challenge of dwindling student numbers has been overcome by modifying the BAEE degree programme into a new Bachelor of Agriculture and Rural Innovations (BARI) which targets both Diploma holders and A' level students for sustainability reasons.

- The issue of the paradigm change in rural development from the primary emphasis on agriculture has been addressed by broadening the scope of the new degree curriculum to include aspects of rural development, hence the name BARI.

- The lack of government sponsorship for the Mid-career students and their being denied to get study leaves leading to loss of jobs in a privatized service delivery system is being addressed by developing a modular curriculum which shall be delivered by distance education. The modular degree programme will be housed at the Institute of Adult and Continuing Education (IACE) working in partnership with the DAEE. Already SAFE has facilitated the curriculum development process and the writing of some modules for the distance education mode that are to be published soon.

- The SEPs have been revisited to reflect a greater emphasis on experiential learning through learning contracts between students and host institutions at the time of their placement plus reflection journals. The students are also required to submit two field attachment reports instead of a single SEPs report. The revised project approach is referred to as Supervised Experiential Learning Projects (SELPs).

5.0 Emerging needs and University's response

One of the emerging challenges is the need for broadening the curricula to include the value chain concept and marketing. There is a realization that farmers are not benefiting fully from their production because extension primarily focuses only on production. The key questions asked are: What training is required to enable
extension to provide advice beyond production? How can this new training be provided given that the current curricula are already overloaded?
Depending on the findings, the DAEE is considering:

- Revising the current curriculum to include new issues
- Revising the curriculum and offer some of the courses as electives
- Introducing a new programme altogether

The DAEE has held one needs assessment workshop with a number of stakeholders so far. The workshop identified four thematic areas that the curriculum needs to address. These are:

**Theme 1:** Partnerships and networks for coordinated service delivery

**Theme 2:** Platforms for continuous learning and innovation

**Theme 3:** Farmer institutional development (FID)

**Theme 4:** Entrepreneurship, investment and market development

The DAEE now plans to conduct a survey to broaden the consultations with stakeholders. A number of planning meetings have been held to: identify information and data needed; institutions to be surveyed; and develop survey instruments.

### 6.0 Challenges of coping with new needs

Unlike the public service which could invest in long-term training, the private advisory services providers are unlikely going to invest in long-term training because: they will lack resources for such programmes; and, the short term contracts they operate under.

The private service providers are, therefore, not be able to benefit from the existing agricultural education programmes that require long residential periods. Therefore, if the university is to play a meaningful role in the human resource development of the private advisory sector, it has to come up with a custom-made programme for this new and emerging cadre of professionals.

One option that has been suggested with leadership from Dr. Jeff Mutimba is a modular degree programme that can allow students to stay at their places of work. The programme will be practical and job-oriented with identified sets of job accomplishments constituting modules that count towards the award of a professional degree. Students will be brought together for short periods of one to two weeks of intensive theoretical orientation and examinations. Students are to complete some of the theoretical modules through distance learning. In this regard, the DAEE in partnership with SAFE have:

- Reviewed the BAEE curriculum to include essential courses that were considered to equip students with the competencies for effective service delivery.
- Agreed to phase out the BAEE degree programme to be replaced with another broader one which best suits the more diffuse nature of advisory services and with a possibility of ensuring sustainability by attracting A’ level students besides Mid-career professionals.
• Developed a new fulltime degree programme known as the Bachelor of Agriculture and Rural Innovations (BARI).

• Facilitated the writing of modules for the modular BARI degree programme that will be offered by distance education in partnership with the department of distance education at the IACE.

• Initiated the process of seeking the approval of the modular degree programme for Mid-career professionals.

However, the above developments have a number of challenges for the University:

• The change of the degree programme to include A’ level students has been at variance with the SAFE mandate of supporting mostly Mid-career professionals with diplomas to upgrade their skills. This may affect future support from SAFE to the DAEE except through the modular degree programme.

• The admission of A’ level students alongside Mid-career professionals make the teaching and learning process difficult because of their differing experiences.

• There are complications in the management of the modular distance education degree option which according to the University’s policy, is to be housed at the department of distance education but with the human resource provided by the DAEE.

• The preparation of training modules has been an expensive undertaking involving a number of write shops; authors’ allowances and editorial work, thanks to support from SAFE and the British Council.

• There is also need to orient all stakeholders (lecturers, students, employers, university administration) to the new degree programmes. Past experience with the BAEE programme showed that employers tended to lay undue emphasis on the B.Sc. Agriculture nomenclature during employee recruitment.

7.0 Conclusion

Makerere University’s experience with the Mid-career degree programme has generally been that of success and challenges owing to changes in the national policy environment. The programme has enabled many Mid-career professional with diplomas to access further education and upgrade their skills, particularly in the use of participatory approaches. The graduates of the programme have found jobs and performed very well both in the public and private sector. Some have gone on to the MSC degrees in various fields. The key role played by SAFE in providing the necessary infrastructure and technical backstopping by Dr. Jeff Mutimba can not be overemphasized. The new BARI degree programme which is a result of several research studies and consultations is a welcome development aimed at producing graduates who are better suited for the changed work environment. The main challenges have been lack of sponsorship and study leave opportunities for Mid-career students plus the resulting reduction in enrolments. However, the University continues to seek better ways of meeting the special learning needs of Mid-career professionals.
8.0 Recommendations

In light of the above experiences with the Mid-career programme and the number of policy changes in the country, the DAEE wishes to make the following recommendations:

a) Makerere University should continue to be proactive in its search for appropriate curricular, especially in light of emerging needs like value chain concepts and others.

b) There is need for continued interface with our partners, especially SAFE e.g. student sponsorships for fulltime programme and actualization of the modular degree programme.

c) The modular distance education approach should be pursued is most appropriate Mid-career students under the current policy environment in Uganda as it allows them study from work places.

There is need to sensitize all stakeholders about the unique needs of Mid-career professionals.
Experiences on the Agricultural Extension Service Delivery from Uganda, National Agricultural Advisory Services (NAADS)

Alice Nyanzi\(^{16}\) and Charles Moro\(^{17}\)

1.0 Background to Extension Service in Uganda

Agriculture extension for most of its history has focused on agricultural production and commercialization through providing information and training to farmers. The World Bank’s training and visit (T&V) was the extension module used almost everywhere for about two decades from about 1975 to 1995. As with other transfer of technology approach, T&V proved ineffective in meeting the needs of the farmers because it was widely unable to address the conditions of the resource—poor small scale farmers. This paved the way worldwide to adopt a neo-liberal polices in the 1980’s where governments discussed future directions of agricultural extension, mainly seeking alternative to T&V. Uganda later adopted Agricultural extension project following the ineffectiveness and inefficiency of the T&V approach. Like its predecessor, Agricultural Extension Project (AEP) was also supply driven and top-down in its methodology and highly bureaucratic. The control of extension services was directly under the Ministry of Agriculture and the supervision of services was by the District. Specialized technical advisory services were offered by District extension staff (Subject Matter Subject) depending within the confluence of their disciplines. However the field staffs were expected to be all rounder offering services in all disciplines.

By 1995, institutional reforms and structural adjustment measures undertaken by government had reduced funding for extension and caused the retrenchment of many extension workers which further undermined the effectiveness of the then T&V system. This was also the period that Uganda began to operationalize decentralization alongside privatization and economic liberalization policies as provided in donor requirements (IMF and World Bank). These reforms were geared at promoting a more cost effective and efficient system, while increasing on Extension: farmer coverage ratio. This brought about the enactment of NAADS by an act of parliament (2001) introducing a shift in roles and responsibilities of stakeholders (government, district local government, lower local government, NGOs, private sector and farmers). Uganda’s agriculture was shifted from supply driven to demand led agricultural advisory services.

The design and approach as provided in its key principles enabled NAADS to draw from the experiences and lessons of the previous agricultural extension approaches such as the T&V and the Agricultural Extension Project(AEP) funded by world bank in Uganda. The emergence of NAADS was in part due to the growing importance of a widely publicized policy initiative on poverty eradication under the umbrella of the national Poverty Eradication Action Plan (PEAP). Government of Uganda launched the PEAP as the overarching policy framework for all national poverty eradication planning and monitoring in the country. In the same vein, development of a national agricultural policy supported by donors led to the Plan for Modernization of Agriculture (PMA) and the birth of the National Agricultural Advisory Services (NAADS); a major component of extension service (Nahdy, 2002a). The overall aim

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\(^{17}\) District Production Officer, NAADS-Local Government, Uganda
of PMA was to switch farmers from predominantly subsistence to commercially oriented production systems (Government of Uganda, 2001). PMA, whose vision is “poverty eradication through a profitable, competitive, sustainable and dynamic agricultural and agro-industrial sector”, has NAADS as one of its seven pillars.

The fundamental aim of NAADS programme is to develop a demand driven client oriented and farmer-led Agriculture service delivery system particularly targeting the poor and the women (Master Document, 2000).

The overall vision of NAADS is ‘a decentralized, farmer owned and private sector serviced extension system contributing to the realization of the Agriculture sector objectives.’ The mission is “to increase farmer access to information, knowledge and technology for profitable agricultural production”. By this, NAADS was designed to contribute to enhancing farm productivity, profitability and improved incomes by increasing farmer access to information, knowledge and Technology for production, post-harvest handling and storage, primary processing, and marketing of agricultural products. The design put emphasis on both supply and demand sides. The supply side involves enabling recognition of multi-dimensional approach to service delivery; responding to broader farmer demands; looking at capacity for quality service provision; organisation of service provider agencies; focused capacity development including Natural Resource Management; establishment of information and knowledge channels; and, Market demands and peculiarities. While the demand side focused on building multifunctional farmer institutions; farmer organisations for service delivery and inputs/output marketing; bargaining power and, spin-offs (internal resource mobilisation, credit management and so on); farmer capacities to articulate demand and procure goods and services competitively; co-funding for sustainability; and, Market orientation to agricultural production.

The NAADS master document (2000) states that; the NAADS will be guided in its operation by the following principles: Farmer empowerment; poverty targeting; gender mainstreaming; deepening decentralization; commercialization of agriculture; fostering participation; managing natural resource productivity; increasing institutional efficiency; privatization and market access.

Today NAADS has six programme components to enable it articulate the delivery of demand driven advisory services to farmers. These are: farmer institution development (FID); advisory services and information to farmers; agri-business development and market linkages; capacity development of services providers; Planning, monitoring and quality assurance; and, Programme management and coordination.

The NAADS put in place institutional structures; modified again in 2006, to enable different key stakeholders take responsibilities with clear roles in the management and delivery of agricultural advisory services. At the national level, there is the Ministry of Agriculture Animal Industry and Fisheries, the NAADS Board and the Secretariat. The board oversees policy implementation while the secretariat is charged with programme management. At district level, the local government (LG) structure composed of the District NAADS Coordinator (contracted) reports to the Chief Administrative Officer (CAO). The districts provide the public extension staff to handle technical auditing and quality assurance functions. Alongside this is the district farmer forum (farmers’ voice). Down to the lower local government level are
the sub-county farmer forum (FF), the sub-county chief and the sub-county NAADS coordinator (often front line extension staff of the district). At the Parishes level are the farmer institutions (Community-based Facilitators (CBFs), Parish Coordinating Committees (PCC), Procurement Committees (PC) at sub-county and community level. This is the critical mass for empowerment and creation of demands for delivery of services. The 2008 restructuring added other levels to include farmer category selection committee and provided more functional roles to elected leaders. It is this structure that facilitates delivery of the most needed AAS through the six programme components.

The NAADS was designed to deepen decentralisation by building on processes such as; articulation of needs, participatory planning, contracting of services to private providers, monitoring and evaluation of contract execution. This shift in roles was to be complemented by the gradual phasing out of the public extension establishment and the subsequent institutionalization of delivery arrangements which were to accord farmers the opportunity to take a lead in determining the type of required services and who provides them.

The establishment of a private sector service extension system is integral to NAADS vision this involves the use of private service providers with gradual reduction of the share of public financing of farm advisory cost; shift from public to private advisory service delivery; and, capacity development of the private service providers. The assumption was that many of the service providers would be qualified and experienced technical or extension staff delayed. However, these staff remained in service to date creating shortages for the required mass of competent service providers.

2.0 Emerging staff development needs in NAADS

The policy shift in Extension service delivery from a Public Extension Service delivery system to a private sector extension system came with its challenges/issues. This change therefore called for reorientation of the attitude, improving the technical competence and social skills of these public extension workers to deliver effective and efficient advisory services based on the demands of the empowered farmers. A case for capacity building and specifically the need for staff development to enable them cope with this shift was evidenced. Taking into account the definition of capacity development by UNDP, staff development is a continuous process to increase the ability of an individual or an organization to perform core functions, solve problems, and define and achieve objectives. This includes improving the ability to assess and react to future needs; thus maintain relevance and effectiveness over time. In this context, staff development is viewed to include staff training needs. The capacity of NAADS to provide agricultural advisory services therefore refers to the resources, knowledge, and processes employed to include: staffing; technology and financial resources; programme and process monitoring; and, networks and linkages with other organizations and groups. The NAADS implementation processes have created demand for new skills and competence for service providers including emerging areas such as value chain development, partnerships and enterprise development. This view is supported by the Neuchatel group (2007) explaining that
service providers may need support through training and capacity building in order to provide quality service if they are to effectively cover these new emergent markets.

Challenges to demand-driven agricultural advisory service delivery have some bearings on the capacity development needs for extension staff working with NAADS programme. One of the main factors limiting the development of effective training programmes for extension workers in the decentralized districts (in Uganda) is the total lack of information on their training needs. These areas include technical knowledge in agriculture, agricultural extension philosophy, organization and administration, communications in extension, programme planning, the use of research methods, evaluation in extension, programme planning, evaluation in extension programmes, and human development.

Olupot (2009) identified a number of staff development challenges in the NAADS programme that arise due to lack of sustainable capacity development for the service providers and they provide a clue to staff development needs for support to improve delivery of NAADS services. He lists them as: lack of training programme from the national level targeted specifically to the front line extension workers by MAAIF; poor facilitation skills by the service providers due to lack of soft skills training and sharing of field experiences, the methods used impede the learning process and often discourage farmers, causing high rates of drop out in farmer groups; lack of planning, monitoring and analytical skills. Most of the service providers do not plan their training activities, even when the training is conducted, monitoring to ensure and follow implementation is seldom done. The service providers also lack knowledge on basic farm economics, group marketing and crosscutting issues; lack of training needs assessment for the service providers. Trainings are done theoretically and there is a high chance of service providers replicating such training approaches during engagement with farmer groups; there is hardly any networking among service providers and other knowledge innovation platforms to help in knowledge exchange and experience on Agricultural Advisory Services (AAS); shortage of qualified extension workers; and, limited training/facilitation materials for the service providers. NAADS undertook some initiative to develop capacity needs and implemented some training activities for a number of AAS providers to satisfy the objective of this sub-component. Training needs assessment conducted by the secretariat in conjunction with knowledge partners (Makerere University, NARO) supported by DANIDA yielded positive results towards understanding staff development areas and ways of overcoming the challenges. All legible service providers were registered at local government level by District Production Coordinators and the list compiled by the NAADS Secretariat was used to identify service providers for capacity development.

Besides what NAADS has achieved, the market demand is still overwhelming and calls for putting a system in place to systematically identify collect and publish staff development needs into a national level forum that can be used as an advocacy tool. In reality, it requires the involvement of curricula development planners from the various recognized institutions offering trainings in the agricultural sector disciplines. In Uganda, some of these institutions include agricultural colleges offering diploma in agricultural fields (Bukalasa, Arapai and Busitema); one fisheries training institute (Entebbe) and one for livestock development and production; and three universities offering degree courses in Agriculture (Makerere, Gulu and Uganda Martyrs
universities). By building bridges between agricultural advisory service, higher educational institutions, and rural and agricultural organizations, NAADS can achieve a sustainable momentum to enhance the implementation of a market responsive, client oriented and demand driven national agricultural advisory services. This calls for a continuous in-service training programme for agricultural extension agents to improve on their on-the-job effectiveness, guided by staff development plan developed through a participatory process. In the longer term, this can prove useful in rationalization of resource use for improved efficiency and effectiveness in the delivery of agricultural advisory services to farmers.

3.0 Responding to emerging staff development needs

The agricultural sector is increasingly recognizing that private service providers and indeed many other stakeholders involved have a role to play in the publicly supported agricultural advisory services system. Willem et al argues that the demand for advisory services by farmers that goes beyond teaching them how to implement a specific technology has meant that extension workers now need different skills, as they need to become facilitators and brokers of knowledge rather than just acting as teachers. The important lesson to learn in this argument is that for a demand led system like NAADS to effectively work, the supply side will have to be able to facilitate action learning and experimentation; broker information and knowledge exchange; develop and support empowerment of local organization; and manage partnership. There is therefore need to create an effective multi-stakeholder partnership to facilitate the development of the private/ public service provider necessary to satisfy the demands in the provision of agricultural advisory services.

In Uganda levels of agricultural education has been structured to include: the teaching of agriculture in schools (primary and secondary schools), vocational training, diploma training and university degree. Training in agricultural practices has been mainstreamed in secondary school curriculum to instil the knowledge that the practice of agriculture is not a punishment but a way of earning income, attaining food security and improving overall livelihoods of the poor subsistence farmers who depend on agriculture for a source of living. For a greater part, NAADS has been hiring on contractual basis the services of specialist service providers, particularly for agricultural advisory services on new enterprises such as apiary, budded oranges, grafted mangoes, apple, floriculture, and Irish potato production.

There is therefore urgent need to involve stakeholders within the Agricultural sector and its partners to put up a case for the need for staff development as a key area of concern to narrow the gaps that exist in improving Agricultural productivity and production. Partnership with donors (ASPS-Danida), with support for staff development and training programmes in agriculture, is now resulting into securing scholarships to support further training for staff. NAADS has explored this option and has utilized the opportunity to sent staff on training in agriculture and programme management fields abroad.
4.0 Challenges of coping with extension staff development needs

A bottom-up demand driven extension system must be able to respond to whatever problems farmers identify. One of the difficulties faced is to ensure the all round skills and capacity to solve farmer’s problems. The District NAADS agricultural advisory services can only provide immediate assistance that is within its capacity; the other needs beyond its means require other players that may be useful in the knowledge system.

There are many more capacity development gaps to be addressed with respect to the demands of extension clients. This means that extension staff needs to have the appropriate skills and knowledge to be able to provide the correct response to farmers. This might mean technical knowledge about a particular crop and or skills in extension such as how to handle a group of farmers so as to be sure the message is understood. District extension managers need to be sure of the competence of their staff before selecting and assigning activities as part of the extension plan. This requires an intensive and precise needs assessment process often using the relevant tools to bring about the identification of solutions to the knowledge gaps.

The revised extension approach is centred on diverse farmers needs. Responding to diverse farmer information needs require equally diverse extension programming and also require specific staff knowledge and skills. Since each plan is different, the responsibility of identifying staff development needs rest with the respective local governments. Many local governments have developed human resource capacity development plans which incorporate the needs for staff development of all sectors. However, in the face of scarce financial resource, implementation of district capacity building plan is slow does not directly contribute to solving staff development issues of the agricultural sector. It can be of interest if the responsibility of developing the staff development needs is up-scaled to involve also the training institution (colleges, vocational and universities). This therefore can form a process of integrating learning in the identified areas of needs into existing university curricula including the design and delivery of the learning programme that inspire students and equip them with the knowledge, skills and the courage to effectively engage with the rural actors and other stakeholders in the process of change. There are many stakeholders who could push for the needs for staff development in the agricultural sector but, real forum for engagements are lacking on the ground to help facilitate the process of fulfilling these gaps. This fact is further compounded by the lack of clarity on the part of public service regulations which do not allow staff serving on contractual terms to go on study leave for more than nine months. Special provisions are therefore needed to enable a shift from this situation so that capacity for service delivery can be built across both public and private service providers.

The changes in extension policy direction put Districts at cross roads. There was a ban on recruitment of agricultural extension staff in the late 1990’s as preparations were underway for the NAADS programme to take over from the public system. Districts were instructed to phase out/lay off certificate holders but this was stayed on condition that they go for a 1 year in service training at existing Agricultural Colleges. A cost sharing scheme was put in place by some districts to support staff
for up grading/ in-service training but before long it faced problems of sustainability because of limited funding capacity of districts.

5.0 Roles of the Universities in the development of extension staff

The university should facilitate the design, implementation and evaluation of the learning programme for AAS providers. Where possible, provision should be made to offer training programmes through distant learning. In-service training which was done at Agricultural colleges and District Technology and Information Centres require energy to propel it to the fore front.

Universities and related training institutions have to look for ways to enhance the skills of their staff to train and coach students. More hands on through intensive outreach and attachment is a necessary priority to expose the students to a rural development approach requiring enhancing stakeholder participation. An inter-university partnership for developing and strengthening capacity of programmes such as NAADS, could prove useful in supporting and facilitating standard delivery and content of professional training. The annual report of ICRA (2008) supports the role of agricultural education to scale-up and scale-out agricultural innovations, as well as build the institutional configurations that sustain it at the local level.

6.0 Conclusion

Staff development is a continuous process key to the delivery of extension services by NAADS. Changing roles for extension service providers requires a multidisciplinary measure supported by effective partnerships and institutional linkages in order to create a critical mass that can sustain delivery of AAS. Continuous empowerment of farmers creates new demand for knowledge that has to be met by the market. If the knowledge gaps identified in the market can be met by providing an effective staff development and training programmes support, it will go a long way to satisfy farmers demand and improve agricultural productivity and production.

7.0 References


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Experiences with the Mid-career programme: progress and challenges,
University of Malawi, Bunda College of Agriculture

Dr. Charles Masangano\textsuperscript{18} and Mr. Isaac Mambo\textsuperscript{19}

1.0 Introduction

Agriculture is the mainstay of the economy in Malawi. The sector contributes about 40\% of the Gross Domestic Product (GDP) and provides 90\% of the foreign exchange earnings as well as 90\% of the total employment while supplying more than 65\% of the manufacturing sector's raw materials and 64\% of the total income of the rural people. Agriculture is the main source of livelihood of the majority of rural people, who account for more than 85\% of the population.

Agriculture has therefore been placed as key priority number one among the six priority areas specified in the Malawi Growth and Development Strategy (MGDS, 2006), and according to President Bingu wa Mutharika's state of the nation address this year (2009) there are nine national development priorities and agriculture has still been placed as priority number one. Despite the high priority that agriculture is enjoying in Malawi, production levels are still very low especially among the very small producers who are characterized by low resource endowments. The Malawi Government has therefore put in place the Agricultural Sector Wide Approach Programme (ASWAP) with the main aim of increasing agricultural productivity so as to be contributing at least 6\% growth in the agricultural sector thereby, improving food security, diversifying food production to improve nutrition at household level and increasing agricultural incomes of the rural people. According to the Malawi Government, the ASWAP is a priority setting programme for investments in the agricultural sector based on the priority agricultural elements of the Malawi Growth and Development Strategy (MGDS). It is consistent with the Comprehensive African Agricultural Development Programme (CAADP) under the umbrella of the New Partnership for Africa's Development (NEPAD). Staff training is a major priority if Malawi is to reach and maintain these high levels of achievements. According to the MGDS (2006), one of the focus actions is to provide an effective agricultural extension programme to improve farmers agribusiness knowledge and skills and to do this another focus action is to improve efficiency and effectiveness of agricultural service delivery systems, demand driven, market oriented research and development. The SWAP document on the other hand shows that the vacancy rate in the Ministry of Agriculture and Food Security is about 40\% and one of the reasons for this is shortage of trained staff. The B.Sc. in Agricultural Extension for Mid-career Professionals is therefore, one opportunity for providing training to staff in the agricultural sector.

2.0 Programme design

The programme was introduced at Bunda College of Agriculture in the University of Malawi following a request from the Ministry of Agriculture and Food Security. The request was made by the then Principal Secretary in the Ministry of Agriculture and Food Security, Dr. Charles Matabwa having had a visit together with the then

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\textsuperscript{19} Lecturer, Bunda College, Malawi
Principal of Bunda College of Agriculture (BCA) Professor George Kanyama-Phiri to the University of Cape Coast in Ghana, where they were impressed with the way a similar programme was running. They felt that the programme provided a very good opportunity for upgrading extension staff in the Ministry of Agriculture especially diploma holders to B.Sc. degree holders thereby improving their ability to provide quality service as well as opening their opportunities for career progression.

The request was followed by a needs assessment study which was conducted in 2003 (Masangano et al. 2003) as well as a stakeholders workshop in the same year. Both the needs assessment and the stakeholders workshop showed that there was a very high demand for the programme and that most employers were looking for graduates with a lot of practical skills. A proposal for the programme was therefore submitted to the University of Malawi Senate and it was approved in December 2004. As reported before the curriculum was crafted in such a way that 57% of the time is on practical work and that 56 credit hours are on extension courses while 54 credit hours are on technical courses in areas such as crop husbandry, animal husbandry, soil and water conservation, aquaculture and fisheries science, irrigation and many others. The programme is for three years and its entry requirements are an accredited diploma in agriculture or related fields. Those with two year certificates in agriculture or related fields can be allowed to join the programme so long as they have credit passes in at least six subjects including Biology, English, Mathematics and Physical Science at Malawi School Leaving Certificate or “O” level and that they must also have some working experience. Those who enter with two year certificates start from year 1 and have to complete a total of four years. Year one takes care of basic courses.

The programme is designed in such a way that it has five supervised enterprise courses which are basically practical courses. The first course is an introductory course aimed at giving a basic background to the whole concept of supervised enterprise projects (SEP). The second course (SEP 1) is a course where students are expected to go back to their duty stations to conduct a needs assessment to identify an appropriate development and research problem which they will work on. SEP 1 takes a period of two and a half to three months during the long vacation between year 2 and year 3. The students are supposed to prepare a project proposal which is presented and approved by faculty when they come back from SEP 1. SEP 2 also takes a period of two and a half to three months when the students go back to their duty stations during the long vacation between year three and year four. The purpose for this SEP is to allow the students to plan and pilot test their SEP proposals before they implement their SEP 3. SEP 3 is conducted during the second semester in year 4 which covers a period three and a half to four months. The students go back to their duty stations and implement both their development as well as their research objectives. The students are only expected back on campus during the last three weeks of the semester to present their SEP reports and to be evaluated.
3.0 Progress and achievements

This section provides a chronology of events from the time the programme started in August 2005 as well as the major achievements made.

3.1 2005/06 Cohort

The programme started in August 2005 with a total of 18 candidates, 11 candidates started from year 1 while 7 candidates started in year 2. Ten of the 11 candidates who started in year one came from the Research Department of the Ministry of Agriculture and Food Security while one was self sponsored. Three of the seven candidates who started in year two came from the Department of Animal Health and Livestock Development (DAHLD) of the Ministry of Agriculture and Food Security. Three other candidates came from the non-governmental organisations (NGO) sector and one came from the Department of Agricultural Extension Services of the Ministry of Agriculture and Food Security. Out of the seven candidates who started in year 2, four graduated in 2008, one of which passed with a credit. The fifth candidate graduated in 2009 because he had to withdraw from the programme for one academic year due to health problems. We had one misfortune in that one candidate died in the middle of the programme. The seventh candidate was withdrawn on academic grounds. The 11 candidates who started from first year have all graduated in 2008 and ten of them passed with credit. Tables 1 and 2 below provide more details of enrolment and the number of graduates from the programme.

The Department of Agricultural Extension Services (DAES) was not able to send more candidates at this time as they were not sure how to source scholarships for their staff. The Department of Agricultural Research Services (DARS) as well as the Department of Animal Health and Livestock Development were more courageous as they just sent their candidates with the hope that they would pressurise the Ministry to pay fees for their staff. Somehow this strategy worked and their staff have managed to complete their studies successfully.

3.2 2006/07 Cohort

There were problems getting candidates this academic year. The problem was lack of scholarships. Names of nine candidates were however, sent from DAES but they were sent late for registration and they processed together with those that were sent for the 2007/08 cohort. However, the six candidates whose applications were sent on time were recruited and joined the 11 candidates who started from year one in 2005. Out of these six candidates, two were from DAES, 2 from the private sector and which one was self-sponsored, one was from DAHLD and one was from an NGO. This means that the programme has graduated a total of 18 candidates in 2009 (Eleven who started in year 1 in 2005, one who started in year 2 in 2005 but had to withdraw for one year on health grounds and six who started in year two in 2006).
3.3 2007/08 Cohort

A total of 14 names of candidates combining those sent late for the 2006/07 academic year and those submitted for the 2007/08 academic year were submitted by the DAES and all of them qualified to start their programme in year 2. In addition to these, three other candidates, one from a semi-governmental fertilizer company, another from the Ministry of Gender, Child Welfare and Community Services and another one who is self sponsored joined the same year two making a total of 17 candidates. These candidates are currently in year four and will be graduating in July 2010.

Three candidates joined year one in the same year and one of them had to repeat the year meaning that only two were allowed to go to year 2 where they were joined by another candidate who started in year 2 in 2007. These three candidates are currently in year 3.

3.4 2008/09 Cohort

One candidate joined year two as mentioned above and another one joined year one. Currently, the candidate who joined year 2 is in year three together with the two who started from year one. Another candidate started year one and is now in year two. All these candidates are either from NGOs or other government departments not from DAES. DAES has for two academic years failed to send any candidates due to financial problems.

3.5 2009/10 Cohort

A total of six candidates, two of whom are from the Ministry of Gender, Child Welfare and Community Services and the rest from NGOs joined year two making a total class of seven candidates in the current year two class. Table 1 provide more details about the student numbers.

Table 1: Number of students enrolled in each academic year

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Entry Point</th>
<th>N° of Candidates who Entered year 1</th>
<th>N° of Candidates who Entered year 2</th>
<th>Sex of Candidates</th>
<th>Total N° of Candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005/06</td>
<td>11</td>
<td>12</td>
<td>6</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>2006/07</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2007/08</td>
<td>3</td>
<td>17</td>
<td>3</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>2008/09</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2009/10</td>
<td>Not yet selected</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>14</td>
<td>37</td>
<td>42</td>
<td>9</td>
<td>51</td>
</tr>
</tbody>
</table>

The next table 2 on the other hand shows those candidates who have already graduated from the programme.
Table 2: Number of graduates from the programme

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>2008</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2009</td>
<td>13</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>6</td>
<td>22</td>
</tr>
</tbody>
</table>

4.0 Impact

The programme has demonstrated at Bunda College that it is very effective with most faculties including those from other disciplines such as Crop Sciences, Agricultural Economics and others commending the SEP approach as being very effective in enhancing practical skills in students. Similarly, discussions with senior people in the Ministry of Agriculture and Food Security show that there is a lot of appreciation on the quality of programme being offered. The candidates that have already gone through the programme have also demonstrated their hardworking spirit and a higher % of students in this programme have graduated with credit passes as compared to candidates from other programmes. Most of the graduates are now holding very influential positions than before they went through the programme as the attached table number 8 in appendix 2 shows. Some have been promoted from technical officers to positions such as District Livestock Development Officers, some from Assistant Research Officers to Communication Officers and a few are waiting for Government approval to be promoted from Assistant Research Officers to Research Liaison Officers. Even those from the private and NGO community are holding very influential positions as the table shows.

5.0 Challenges

There are a number of challenges that have been experienced during the implementation of the programme. The challenges have ranged from the problem of lack of scholarships, cost of supervising SEPs, cost of supporting students on SEPs for self sponsored students, entry requirements and a general perception that the programme is too long and tends to take students away from their work stations for very extended periods of time.

5.1 Lack of scholarships

As observed earlier, lack of scholarships has been a major challenge which has resulted in very low enrolment numbers. Bunda College has engaged in discussions with senior officials of the Ministry of Agriculture and Food Security on several occasions on this issue but we don’t seem to have come up with a more sustainable solution to it. Some of the suggestions that have been made include:

(i) Providing education advances to staff: This option has been proposed at times but has not yet been implemented because government feels that the programme is very expensive under its current residential design and most of the staff entitlements would not meet the costs. One proposal that has been made is to make the programme non-residential so that students only pay for tuition costs and not including board and lodging costs. One way of doing this would be to introduce evening and weekend classes in Lilongwe where
most of the students would be based rather than having classes at Bunda College which is more than thirty kilometres from town.

(ii) **Using donor funded Human Capacity Building Projects:** Use of donor funded projects for obtaining scholarships for staff is another option that government has tried but has not worked sustainably. The few years where DAES sent a sizeable number of staff for the programme was using this window of opportunity. One project which seemed to be willing to do so is European Union (EU) funded IDAF project which has not been able to release funds for a number of years now due to various administrative problems. The Ministry actually requested whether it would be possible to use SAFE given its influence, trust and linkages with various donors to sell project proposals from the ministry.

(iii) **Negotiating with central government:** The ministry has also been negotiating with government for financial support for capacity building efforts for staff. The challenge that they have been meeting is that there is a general perception in government to move away from supporting staff for undergraduate level training to only supporting them for postgraduate level. The argument promoted being that government is already supporting school leavers to go into the university for undergraduate level training and they do not see any reason why they should be supporting staff to do undergraduate training.

5.2 Cost of supervising SEPs

Another challenge which seems to be obvious is how to sustain the cost of supervising SEPs. Currently Bunda Faculty goes out to supervise students when they do SEP 1 and SEP 3 and SAFE has been supporting this activity. It is however doubtful that college will be able to take over responsibility of doing this when SAFE withdraws its support. Students from all other programmes offered at BCA are required to do two attachments with industry during the long vacations between year 2 and year 3 and between year 3 and year 4. Due to financial problems, students are only allowed to do these industrial attachments once and not twice and these students are never supervised because college cannot afford it. It is therefore very unlikely that this will be done for the Mid-career students when SAFE withdraws its support.

5.3 Cost of supporting self-sponsored students SEP projects

BCA has enrolled a number of self sponsored students into the programme. Actually a lot of self sponsored students would prefer to enrol for this programme than the other programmes offered at BCA. The challenge has however been that those students that have been enrolled as self sponsored, have had problems obtaining financial support to do their SEPs. A few of them have had to negotiate with NGOs and other private organisations to allow them to do their SEPs in their organisation and to provide some minimal support for their subsistence. Some have even had to be attached to projects at BCA to allow them to do their SEPs.
5.4 Entry requirements

The University has had problems recognising some certificates for entry into University of Malawi (UNIMA) programmes. A case in point was when candidates with two year diploma certificates from Natural Resources College (NRC) and some two year field experience tried to join the programme in 2005/06 academic year. A large majority of them were rejected on grounds that their diploma certificates could not be recognized. The University used their ‘O’ level certificates instead of the diploma certificates. This has been the case for all applicants from NRC for the past five years. This motivated both NRC and BCA to engage in a process of accrediting NRC programmes to UNIMA. The process involved reviewing NRC curricula, examination process and facilities. The process has resulted in the introduction of basic courses in the NRC programmes which has consequently resulted in increasing the training period from four to five semesters. The University has so far accredited five programmes from January 2009. This means that NRC graduates who go through the new curriculum will be allowed to enter the Mid-career programme in year two. This is likely to result in an increase in the number of candidates enrolled for the programme.

5.5 Perceived length of the programme

Some employers feel that the programme takes their staff away from their job for too long. They find three years to be too long despite the fact that the students are required to go back to their duty stations to conduct their SEPs. Most of the employers would prefer a programme that would allow their employees to be taking evening or weekend classes or alternatively a part-time programme where the candidates would be coming for short courses taking two to three weeks and allow them to cumulate credits for their final award.

6.0 Initiatives in response to challenges

There are several initiatives that we have implemented and are in some cases still implementing as a way of addressing some of these challenges. Some of the initiatives include: the accreditation process of NRC programmes, initiation of a curriculum review process of our programmes, continued discussion with the Ministry of Agriculture and Food Security and more aggressive marketing as well as opening up of the programme for more private students as well as conducting orientations to local supervisors.

6.1 Accreditation of NRC programmes

As discussed above, it is hoped that the accreditation process that has just been completed will help increase the number of candidates who apply and qualify for the programme. The number of applicants who have always been applying for the programme have always been in excess of 70 per annum and the majority of them have been NRC graduates. But those who have qualified have been very few, less than five in most cases. This situation is very likely going to change with the accredited diploma programmes. Most of the NRC graduates are people who come from well to do families who will be able to pay the fees at BCA.
6.2 Curriculum review process

The department has embarked on a curriculum review process partly because all its programmes are overdue for review and partly because of some of the problems discussed above. This curriculum review started with a needs assessment and some of the questions specifically asked were on employers and prospective students’ preference in terms of part-time programme delivery, evening and weekend programme delivery possibilities as well as the current full-time programme delivery model. We think that the results of this needs assessment will guide us on the best way forward for the programme.

6.3 Continued discussions with the MoAFS on funding

Our department will continue holding discussions with the Ministry especially the Extension Department on other avenues of securing sustainable funding mechanisms for the programme. Human capacity building must be a continuous concern for the Ministry and we can therefore not get tired looking for opportunities for achieving this goal.

6.4 More aggressive marketing and Opening up of the programme for more private students

The programme is normally advertised once together with other programmes in the print media per year. Our department feels this is not adequate and we want to increase the visibility of the programme by advertising it in various media including print and electronic media. In addition, we think that we should send letters to various organisations reminding them of the programme. By advertising it widely we think that we will also be encouraging more of the privately sponsored students to join the programme.

6.5 Orientation of local supervisors

One of the activities that BCA staff do, during supervision of SEPs is to orient local supervisors on what they are expected to do as they supervise the students. This orientation includes how to complete a marking guide for the students. This is very important because the marking guide that the local supervisors complete contributes to the grade that the students get for SEP. The other part of the grade comes from a marking guide which BCA staff complete during their supervision trips.

7.0 Conclusions

In conclusion, despite the various challenges that that the programme is experiencing, there are several opportunities for improving the situation. The accreditation process that has just been conducted seems to an opportunity that will lead to an increase in student enrolments. The curriculum review process may lead to changes in programme delivery and possibly lead into an increase in student enrolment as well. The programme definitely needs a more aggressive promotion and marketing.
Extension staff development needs, challenges, and expectations. Ministry of Agriculture and Food Security, Malawi

Martha Bvumbwe and Paul Fatchi

Abstract

Malawi’s Department of Agricultural Extension Services in the Ministry of Agriculture and Food Security is undergoing a process of professionalization. This process was triggered by four major factors: decentralization which required more capacity at district level; increased farmer demand for extension services due to market liberalization; introduction of innovative extension delivery strategies which required more programming and targeting skills; and coordinating and working with an increasing number of extension providers requiring policy understanding. The Department therefore increased staff qualification requirements in 2002. Before 2002, 4 positions required a Masters Degree, 94 required a Bachelors Degree, 366 required a Diploma while 3718 positions required a Certificate. After 2002, 4 positions now require a PhD, 104 positions require a Masters Degree, 373 require a Bachelors Degree, 3708 require a Diploma and only 18 positions require a Certificate. The Ministry responded to the staff development needs by upgrading staff through internally and externally funded projects. Some students upgraded using own funds. The Mid-career Programme offered at Bunda College of Agriculture was utilized by 35 members of staff for upgrading of which 29 were sponsored by the Ministry while 6 sponsored themselves. Challenges faced with the Mid-career Programme include inadequacy of funds for students to conduct Supervised Enterprise Projects, inadequacy of funds to meet upgrading requirements and problems with activity implementation due to length of training period. These challenges can be addressed by exploring other sources of funding and modification of the Mid-career Programme to accommodate work demands at the offices through, among other possible ways, using the modular approach. Introduction of Degrees in other relevant fields such as gender and agricultural communication/journalism would also be useful.

1.0 Introduction

Agriculture is the most important sector of Malawi’s economy considering that it employs about 80 per cent of the workforce, contributes over 80 per cent of foreign exchange earnings, accounts for 39 per cent of gross domestic product (GDP) and contributes significantly to national and household food security (Government of Malawi, 2008). This has been the case because development resources, strategies and policies in Malawi have been heavily biased towards agricultural development since independence (Government of Malawi, 2009).

The Ministry of Agriculture and Food Security is mandated to promote agricultural development in Malawi. In this regard, the ministry implements the governments’ agricultural development agenda by providing policy direction as well as research and extension services. The organogram below depicts the structure of the Ministry from the headquarters to the village where farmers access extension services.

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20 Chief Agricultural Extension Officer, Department of Agricultural Extension
21 Training Officer, Department of Agricultural Extension
The Ministry has seven technical Departments: Department of Agricultural Planning Services, Department of Agricultural Research Services, Department of Crop Production, Department of Animal Health and Livestock Development, Department of Fisheries, Department of Land Resources Conservation, and Department of Agricultural Extension Services. The country is divided into 8 Agricultural Development Divisions (ADDs) under which are 28 District Agricultural Offices. Each district is subdivided into Extension Planning Areas (EPAs). Frontline extension workers serve 10 to 20 villages, called Sections.

The Department of Agricultural Extension Services (DAES) is the oldest of all the Departments in the Ministry of Agriculture and Food Security as it was established in 1907 as the Department of Agriculture, providing services to farmers through ‘instructors’ whose responsibility was to teach farmers crop production practices. The Department developed into a fully fledged extension provider in the 1970s through the introduction of the Block Extension System, a modification of the Training and Visit System, which required recruitment of a large number of extension workers to cover all farmers in Malawi (Government of Malawi, 2000). At that point, most extension staff in the districts were holders of certificates in agriculture, a smaller number of extension workers were diploma holders while only one extension officer was required to be a holder of a B.Sc. in a district. But since the 1990s, increases in farmer demands due to market liberalization and government’s decentralization policy required the Department to have more professional staff at district level.

The introduction of the Mid-career B.Sc. Programme at Bunda College of Agriculture coincided with the process of professionalization that the DAES was undergoing. Since the Mid-career programme has been implemented for 5 years in Malawi, various lessons have been learnt, requiring some reflection in order to come up with strategies for improving implementation of the programme. The workshop on the Mid-career Programme organized by the Sasakawa Africa Fund for Extension Education (SAFE) provides an opportune platform for such reflection. This report presents Malawi’s staff development needs, experiences with the Mid-career...
programme in meeting the staff development needs and suggestions for improvement. Specifically, the report covers the following:

- Current and emerging staff development needs in the Ministry of Agriculture and Food Security;
- How the Ministry has responded to the staff development needs;
- Progress in meeting the staff development needs through the Mid-career programme;
- Challenges faced in the Mid-career programme;
- Strategies for dealing with the challenges including expectation from the University.

2.0 Current and emerging staff development needs

The fact that the Department of Agricultural Extension Services is undergoing a process of professionalization can not be over emphasized. Trigger factors to the process are:

- Decentralization policy, requiring capacity at district level. The extension policy that became operational in 2000, titled ‘Agricultural Extension in the New Millennium: Towards Pluralistic and Demand Driven Services in Malawi’, states that “districts are the key planning and operational level for agricultural extension in Malawi” and therefore need “adequate capacity building through upgrading courses and other aspects of staff development” (Government of Malawi, 2000). The decentralization process also required higher level of planning, budgeting and financial management skills since funding to districts was substantially increased.

- Increase in farmer demand for extension services. Due to market liberalization that took place in the 1990s, farmers faced many challenges and opportunities. Farmers required increased business and production skills so as to adjust to market demands. This required high quality extension services.

- Introduction of innovative extension strategies. The Ministry introduced a wide range of innovative strategies for extension service delivery. These include “Model Village for Total Transformation”, “Clusters, Lead Farmer Approach, Farmer Business Schools, and others. These strategies required programmation and targeting skills.

- Increased number of extension providers. The increasing number of Non Governmental Organizations (NGOs) required staff that having the ability to provide guidance through interpretation of government policies and more coordination skills.

The Department consequently increased staff qualification requirement in 2002.
### Table 1: Malawi extension staff qualification requirement before and after 2002.

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<tbody>
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<td>PhD</td>
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<td>4</td>
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<td>-</td>
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<td>168</td>
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<td>-</td>
<td>8</td>
<td>-</td>
<td>168</td>
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<td>-</td>
<td>-</td>
<td>3,700</td>
<td>3718</td>
<td>373</td>
</tr>
</tbody>
</table>

As can be noted in Table 1 above, most of the posts in the Department of Agricultural Extension Services required a higher qualification after 2002. Since most of the posts that were requiring a diploma now require a degree, officers who were serving in those positions now require a degree. As such, upgrading through training is a must. New recruits are also required to have the degrees.

One notable challenge that the Department faced was to have degrees that are tailor made for upgrading staff offered at Malawian universities within the context of innovative strategies required under demand driven extension services. The Mid-career Programme offered a relief to only one Branch of the Department: the Extension Methodologies and Systems Branch. However, other Branches of the Department namely the Agribusiness, Agricultural Gender Roles Support Services, and Food and Nutrition branches do not have tailor made degree programmes for the upgrading staff. The Agricultural Gender Roles Support Services Branch is the most affected as it does not have even a normal B.Sc. programme offered by recognized universities in Malawi. The Agriculture Communication Branch also needs an Agricultural Communication / Journalism Degree.

The other Departments of the Ministry of Agriculture and Food Security also have similar requirements for staff development as the Department of Agricultural Extension Services although the numbers of staff required are mostly minimal. As such, the Departments also need tailor made upgrading Degrees for staff development.

### 3.0 Response to the staff development needs

The Ministry of Agriculture and Food Security, through the Department of Agricultural Extension Services has been responding to the staff development needs by developing projects for upgrading the members of staff. One notable project is the ‘Institutional Strengthening Support Towards the Extension Delivery Service (ISSEDS)’. The project uses government funds to train staff in various agricultural training institutions.

The Ministry of Agriculture of Food Security also ensures that capacity building is included as an integral component of most agricultural development projects and such funds are utilized by training staff. For instance, the Agricultural Development Programme - Support Project (ADP-SP) which is funded by the World Bank and
other Development partners, and the Support to Agricultural Extension Training and Services project (SAETS) funded by the Flanders International Cooperation Agency (FICA) all have funds for staff development. The Ministry also offers study leaves for officers who want to fund their own upgrading. The Ministry then recognizes the new qualifications obtained by the officers. This gives the staff an incentive to develop their careers using self initiatives.

4.0 Progress in meeting staff development needs through Mid-career programme

One of the training programmes that has been utilized for upgrading by the staff of the Ministry of Agriculture, particularly the Department of Agricultural Extension Services, is the Mid-career degree programme offered by Bunda College of Agriculture. Table 2 shows numbers of staff that have been trained from the Department of Agricultural Extension Services through the Mid-career programme.

Table 2: Ministry of Agriculture student enrolment for Mid-career Extension Degree at Bunda College of Agriculture

<table>
<thead>
<tr>
<th>Category of students</th>
<th>Year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td></td>
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<tr>
<td></td>
<td>2009</td>
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<td></td>
<td>M</td>
<td>F</td>
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<td></td>
<td>M</td>
<td>F</td>
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<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Ministry of Agriculture staff funded by government</td>
<td>2 1</td>
<td>14 6</td>
</tr>
<tr>
<td>Self-sponsored Ministry of Agriculture Staff</td>
<td>0 -</td>
<td>0 -</td>
</tr>
<tr>
<td>Other Mid-career students</td>
<td>2 -</td>
<td>4 -</td>
</tr>
<tr>
<td>Total</td>
<td>4 1</td>
<td>18 6</td>
</tr>
</tbody>
</table>

Table 2 shows that the Ministry of Agriculture and Food Security provided the largest proportion of students in the five years that students have enrolled for the Mid-career Extension Degree at Bunda College of Agriculture. However, it is worthy noting that the number of students from the Ministry enrolled after 2007 are low. This is because of lack of funds. However, the numbers are expected to increase in 2010 since some projects will become operational by August 2010 when students will be enrolled.

The Ministry has been supportive to the Mid-career programme as evidenced by the fact that the Principal Secretary for the Ministry participated in the presentations of Supervised Enterprise Projects by students in 2008. This is in recognition to the fact that the Mid-career Programme is assisting to fulfil government’s objective of professionalizing the Department of Agricultural Extension Services. Some of the students who have graduated after undergoing the Mid-career Extension Degree programmes have been offered higher positions by the Ministry.
5.0 Challenges with the Mid-career programme

Several challenges have been encountered during the implementation of the Mid-career Extension Degree programme:

- Funds for students to conduct the Supervised Enterprise Projects (SEP) have been limited since the funds allocated for research projects under the regulations of the government are very little.
- Number of staff trained is too small hence it will take very long to meet the requirements for upgrading.
- Some activities at the offices are not implemented as required because the officers take too long at the training institution.

6.0 Strategies to dealt with challenges faced with the Mid-career programme

To address some of the above listed challenges, the Ministry will:

- Continue to budget for funds to upgrade staff using government funds;
- Increase efforts to source funds from external sources to train staff;

The University (particularly Bunda College of Agriculture) should consider the following suggestions:

- Modifying the Mid-career Programme such that some of the courses should be done using the modular approach or a sandwiched programme in order to ensure that activities at the offices should not suffer.
- Progressively develop other Degree programmes for upgrading staff at Bachelors level and beyond. Degrees in gender and agricultural communication / journalism should be prioritized.

7.0 Conclusion

The Mid-career extension degree programme has proven to be useful for upgrading staff in the Ministry of Agriculture and Food Security and the Department of Agricultural Extension Services in particular. Despite the few challenges faced, the programme is a success as the intended goals have been achieved. There is however a significant need to develop and design more training opportunities to accommodate the emerging Departmental needs in all Branches in the context of the Agriculture Development Programme (ADP) within the Agriculture Sector Wide Approaches.

8.0 References


Experiences with the Mid-career programme: progress and challenges.
University of Bobo-Dioulasso, Burkina Faso
Prof. Antoine N. Some and Prof. Hamidou Boly

1.0 Experiences

- Institute of Rural Development (IDR) trains annually 40 to 50 engineers (Bachelors) (5 years after the secondary school). It offers 5 training options: Agronomy, Animal Science, Forestry, Sociology and Rural Economy, and Extension. In addition, the institute has a PhD training programme in integrated management of the natural resources.
- Extension training at University of Bobo-Dioulasso started in 2003 through SAFE initiative. The Ministry of Agriculture and University of Bobo aim to reinforce the human potential. Annually, an average of 20 students are admitted into the programme.
- Extension programme takes 3 years and it covers both course work and applied research.

2.0 Achievements

- Since inception, the 22 students have graduated from the programme (7 in 2007 and 15 in 2009). Currently, those enrolled are 37, 17 in third year and 20 in second year.
- More than 3000 engineers have received their diploma been successful
- Most of the technician personnel which are involved in extension activities of the Ministry in charge of agriculture, forestry, farmers are trained in IDR.
- Publications, thesis, scientific reports are available

3.0 Constraints

- In the domain of extension, the potential is relatively weak in relation to the importance of the problematic and the diversity of the situations.
- Very few specialists exist in agricultural extension in the University.
- There is insufficient: didactic equipment (books, computers…), equipment for practicals, scholarships for students and budget for applied research.
- Relatively weak cooperation with other universities or research institutions.

4.0 Potential solutions

- 2,322 potential candidates were identified for extension training in 2007
- Possibility to conduct short courses (professional training).
- The reform of our system to adopt the LMD gives us opportunities to insert the new concepts (value chain concept, marketing and management)

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22 Vice-President, University of Bobo Dioulasso
23 President, University of Bobo Dioulasso
1.0. Evolution of rural agricultural development policy

Recent agricultural development policy has been promoting the commercialization of agriculture in order to improve the productivity and market access of rural farmers. Agricultural extension strategy is also now oriented toward more market-oriented, demand-driven, and more private-oriented strategy. In addition to it, more additional components such as pro-poor development, public-private partnership and sustainable poverty reduction are to be considered and mainstreamed. On the other hand, transformation of rural community has been continued due to the penetration of market economy, disseminating of ICT, improving infrastructure, increasing urban population and emerging non-farm sector.
2.0 Marketing means business

Promotion of agro-products market is essential to generate more income of rural farmers. However, it is important to recognize that agro-products marketing require business management skill in order to be competitive in the market. New challenge for rural farmers and agricultural extension agents is how best they can enhance their market knowledge such as market participants, market structure, market risk and opportunity to find market strategy.

3.0 Value chain

Value Chain Development Approach has been popular among development organizations these days. Michael Porter (1981) defined value chain as;
- **Basic tool to examine all the activities a firm performs and how they interact with in the industry structure.**
- **Disaggregate a firm into its strategically relevant activities in order to understand the behaviour of costs and the existing and potential sources of differentiation.**

So far, two major methods of value chain analysis such as cost-based value chain analysis and industrial organization-based value chain analysis.

4.0 Cost-based value chain analysis

This method focuses on cost analysis of each segment along the value chain to identify the areas to reduce transaction costs.
From the above diagram, we can know the segment of input application and transport consist major cost (70%) of maize value chain. Possible recommendation is to form a group to make a collective purchasing of input in order to reduce those costs.

5.0 Industrial organization-based value chain analysis (Sub-sector analysis)

Industrial organization-based analysis can help us understand the sub-sector structure, and help us determine who keeps what proportion of the value a product creates for buyer. Both methods of analysis are very useful for investors or development organizations to fine the area of investment and intervention. However, these two methods, especially sub-sector analysis, requires consultant to conduct analysis, and it would be difficult for rural farmers and agricultural extension agents to take a part of it. As more participatory way of analysis, another method of “Technology and Service provider-based value chain analysis” can be recommended.
6.0 Technology and service provider-based value chain analysis

This method focuses more on technology development at rural farmers’ level, and the promotion of rural agro-processing service business development. Agricultural extension agents can use this as a tool to enhance market knowledge of farmers and themselves.

### Technology & Service Provider-based Value Chain

<table>
<thead>
<tr>
<th>Value Chain of Teff</th>
<th>Market Potential</th>
<th>Service Provider</th>
<th>Constraints</th>
<th>Possible Intervention</th>
<th>Institutional Development Project</th>
<th>Intervention Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvest</td>
<td>Mechanical harvesting service</td>
<td>Harvesting machine owners</td>
<td>Means of Transport</td>
<td>Improve the design of cart</td>
<td>Basic design engineering/manufacturing training for local manufacturers</td>
<td>AERI SG2000 University</td>
</tr>
<tr>
<td>On-farm Drying</td>
<td>Use tarpaulin</td>
<td>Tarpaulin supplier</td>
<td>Access to potential customers</td>
<td>Field demonstration/promotion</td>
<td>Training for suppliers on field demo</td>
<td>ARI SG2000</td>
</tr>
<tr>
<td>Threshing</td>
<td>Mechanical threshing service</td>
<td>Threshing machine owners</td>
<td>Maintenance Spare part supply</td>
<td>Training on maintenance Link with S/P supplier</td>
<td>Basic design engineering/manufacturing training for local manufacturers</td>
<td>AERI SG2000 Private Sector University</td>
</tr>
<tr>
<td>Transport</td>
<td>Improved cart sales</td>
<td>Fabricator</td>
<td>Manufacture skill</td>
<td>Technical training</td>
<td>Manufacturing training</td>
<td>Private w/shop</td>
</tr>
<tr>
<td>Storage</td>
<td>Grain Silo</td>
<td>Grain silo fabricators</td>
<td>Access to design &amp; potential customers</td>
<td>Improve the design of silo Field demonstration</td>
<td>Basic design engineering/manufacturing training for local manufacturers</td>
<td>AERI SG2000</td>
</tr>
<tr>
<td>Milling</td>
<td>Mechanical milling</td>
<td>Owners of milling machine</td>
<td>Maintenance of machine</td>
<td>Improve maintenance skill of local w/shop</td>
<td>Technical training of local w/shop</td>
<td>Private metal w/shop AERI SG2000</td>
</tr>
</tbody>
</table>

Firstly, commodity is selected to identify its process from production to market. For example, the above matrix shows the vertical integration/process from harvest to milling of rice value chain. Then, identify potential agro-processing business and service provider as going horizontally. This process helps us identify the area of possible rural agro-based business development, and area of intervention.
7.0 Rural non-farm sector

Rural non-farm sector has been emerging as rural transformation continues. This new sector is a pool of potential agro-processing service providers.

<table>
<thead>
<tr>
<th>Region</th>
<th>Nonfarm share of rural workforce</th>
<th>Women's share of rural nonfarm employment</th>
<th>Rural Nonfarm Employment Shares</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manufacturing includes food processing</td>
<td>Trade &amp; transport (1)</td>
<td>Financial and personal services (2)</td>
</tr>
<tr>
<td>Africa</td>
<td>9</td>
<td>39</td>
<td>19</td>
</tr>
<tr>
<td>Asia</td>
<td>24</td>
<td>24</td>
<td>27</td>
</tr>
<tr>
<td>Latin America</td>
<td>31</td>
<td>36</td>
<td>22</td>
</tr>
<tr>
<td>West Asia and North Africa</td>
<td>21</td>
<td>11</td>
<td>23</td>
</tr>
</tbody>
</table>

Note:
1. Trade and Transport includes wholesale and retail trade, transport and storage.
2. Other services includes finance, insurance and community and social services.
3. Other includes mining and quarrying, construction and other non-classified activity.
4. Country data weighted by size of total primary workforce.

Source: Steven Hagblade, Peter B.R. Hazell and Thomas Reardon (2007)

The above table shows that women's share of rural non-farm employment is large (39%), and they are engaged in food processing and trading. They are linking farm products to the market, and are potential investors into agricultural sector. This is a quire good reason why rural market development programme needs to put more focus on non-farm sector, especially female population in this sector.

8.0 Summary

Value chain analysis can be a useful tool for farmers and agricultural extension agents to enhance the following market knowledge;

1. Understand the links between producers, processors, traders and consumers,
2. Identify opportunities and constraints along the chain to be competitive,
3. Identify the area for investment, and
4. Promote agro-industry for sustainable development.
Action Research: A practical step-by-step guide for agricultural extension professionals

Jeff Mutimba\textsuperscript{24} and Stanley Khaila\textsuperscript{25}

Abstract

Agricultural extension professionals lag behind their counterparts in research and training institutions with regard to conducting research and generating new knowledge. This is mainly because conventional research methods are not appropriate for field practitioners whose main preoccupation is improving livelihoods of farming communities. However the success of field extensionists depends on their ability to identify and exploit opportunities for improvement. They therefore need research methods and approaches that enable them to generate reliable data and information which they can use to solve farmers’ problems. Given that the role of extension is basically to ensure that farmers have appropriate knowledge and skills, there is need to continuously find out whether farmers indeed have appropriate knowledge and skills, whether they apply appropriate knowledge and skills and reasons why they may not be applying appropriate knowledge and skills. Based on the findings, the extensionists will be able to identify the action required to improve upon the existing situation. This calls for knowledge and skills in action oriented research. This paper provides simple, easy to follow, step-by-step guidelines which should be suitable for many situations in extension research – whether one is researching adoption of an enterprise, an extension approach or the functioning of a farmer organization. The guidelines are based on the experiences we have had from running in-service, custom-made, degree programmes for mid-career extension professionals at Bunda College of Agriculture, University of Malawi, as well as at other universities in East Africa.

1.0 Introduction

The guidelines in this paper are based on the experiences we have had from running custom-made B.Sc. programmes that we are running for mid-career extension professionals at Bunda College of Agriculture, University of Malawi, as well as at several other universities in East Africa. These are basically in-service degree programmes for field extension staff who hold diplomas in agriculture or related fields. The programmes are unique in several aspects. They are demand-driven and based on identified needs. The curricula are streamlined to focus on the needs identified and therefore take shorter to complete. The programmes are designed to improve competence at work.

Perhaps the most important characteristic of the programmes is their practical-oriented nature. The programmes provide practical, hands-on laboratories, problem-focused courses and field-based enterprises. Experiential learning (learning by doing) is at the foundation of the programmes. As part of their training, the students together with their employers, farmers and researchers, develop ‘supervised enterprise projects’, or ‘supervised extension projects’ (SEPs) proposals relevant to their jobs as extensionists that they go back and implement in their work places for periods ranging from 6-8 months. The SEPs aim to solve real-life problems in the

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field of extension. The students implement the projects under direct supervision of their employers while academic supervisors visit the students at least two times during the period to provide on-the-spot instruction. The SEPs provide an opportunity for co-learning between the farmers the students, their employers and university lecturers in a real-life situation. They provide unique and rare opportunities for academic staff to assess the relevance and effectiveness of their teaching and to identify other opportunities for learning and teaching. The projects, also known as ‘supervised experiential learning projects (SELPs)’, provide a mechanism for actualizing and strengthening partnerships between the university and employers through their joint effort to assist in solving problems in community.

Secondly, teaching and learning is a sharing of a mixture of theoretical and practical experience between teaching staff and the students. Instruction is structured to take full advantage of the two-way exchange of experiences. Students learn with their jobs in mind and always try to see where the new knowledge fits in their professional career.

The programmes buttress the practical experience of agricultural extension professionals to enable them deal with the challenges of agricultural development in their respective countries.

2.0 Need for an alternative approach to research

A standard research methods course at university emphasizes scientific ways of conducting research. Students are taught scientific methods of collecting data, analyzing it and reporting. They collect data and analyse it in ways that enable them to describe situations as they exist, and they come up with long ‘wish lists’ in the form of recommendations for others to implement. They become experts in analyzing and developing models to describe situations – but they cannot change the situations. In other words, they are taught to describe problems, but not to solve them. They produce reports that are of no use to anybody, not even to themselves, apart from other students doing similar academic studies. Authors like Day (1995) long observed that the dustiest corner in any university library is the corner where PhD theses are stored. The fact that students are taught by ‘theory experts’ (experts who themselves have no practical experience with what happens at the farmer level) adds to the problem. These methods are not suitable for field extension workers who are grappling with real life issues and are looking for ways of helping farmers solve their farming problems. They need research approaches and methods that enable them to generate data that they can use to solve farmers’ problems. Scientific research methods cannot be integrated easily enough with their practice (Dick 2002). No wonder, therefore, why extension practitioners are notoriously poor in collecting quantitative data. There is need for action-oriented methodologies that extension practitioners can use as part of their daily work.

3.0 A step-by-step action research approach for extension workers

As an extension worker, your main role is basically to ensure that farmers have knowledge and skills to farm successfully. This could be knowledge and skills to manage a maize crop, an irrigation scheme, a piggery unit or a farmers’ organization. For every main enterprise, programme or project, there are key recommendations for successful implementation. Whether the recommendations come from outside
the social system or are generated through bottom-up participatory approaches, they all form part of your repertoire of extension messages. In conducting research therefore, you are mainly interested in finding out whether farmers have appropriate knowledge and skills on key recommendations, whether they follow recommendations and reasons why they may not be following recommendations. Based on the findings, you will then be able to identify the action required to improve upon the current situation. Where farmers are following recommendations, you should also be interested in finding out why they are following them. What have they seen in the recommendations that make them attractive? You can use these reasons as lessons to other farmers. They become part of your extension messages. This is action research. Below are 18 practical and simple, easy-to-follow, steps that you will find useful for many situations.

**Step 1: Decide what enterprise, programme or project you want to investigate.**

As an example, let us assume that you want to assess extension needs in maize production in your specific extension area.

**Step 2: Give a brief background of the crop**

This could be its importance as a staple food and cash crop. You could include government effort (or lack of it) to promote the crop. You may want to include some historical background – when the crop was introduced and the original objectives – but select only what you think is important for your case.

**Step 3: State the problem**

Why have you found it important to conduct this study? The problem statement could be something like:

Despite the importance of maize as staple food crop and the amount of work that has gone into research and promotion of improved maize technology, the average yields in the area are much lower than the potential (give figures). Reasons for this poor performance are not clear. This study is designed to establish factors affecting production and to identify opportunities for improvement.

**Step 4: State your specific objectives**

Specific objectives for our maize example are:

- a) To assess farmers' knowledge of key recommendations in maize production.
- b) To assess farmers' application of key recommendations.
- c) To identify factors affecting application of recommendations.

**Step 5: Identify the key recommendations for a successful enterprise, programme or project.**

Here you need to ask yourself: what do farmers need to know and do for them to be successful in this enterprise, programme or project? What are the key recommendations? The challenge here is that many of the recommendations are very general and therefore difficult to measure with precision. For example, recommendations like ‘plough early’, ‘plant early’, ‘apply adequate mulching’ ‘keep the
crop weed-free’ are ambiguous and not easy to assess whether the farmer is following them correctly or not.

For our maize example, you might have recommendations like:
  a) Varieties: SC403, SC517
  b) Spacing: 750mm x 225mm x 1 plant per station

Step 6: Construct an oral test (questionnaire) to assess farmers’ knowledge

The oral test is a special type of questionnaire. We deliberately call it oral test, so that you know that it is not any type of questionnaire, and that you are conscious of the fact that you are going to test farmers’ knowledge. For the two recommendations above, you could construct your questions as follows:
  a) What are the recommended maize varieties for this area? (Or) Which maize varieties are suitable for this area?
  b) What is the correct spacing for maize? (Or) What is the recommended spacing for maize?

Step 7: Construct a checklist for assessing farmer application (or farmer practice)

For the two recommendations above, your checklist would be a combination of questions and observation as follows:
  a) What maize varieties do you grow? Can I see the maize? (Check to see if the varieties are what the farmer says they are)
  b) Why do you grow these varieties?
  c) What is your plant spacing? Can I measure? (Measure with a tape or ruler to check the actual spacing)
  d) Why do you use this spacing?

Note the difference between the two sets of questions under steps 6 and 7 above – one assesses ‘knowledge’ while the other assesses ‘farmer practice’. You have to construct these carefully so that you get the specific data you want.

The WHY questions like in (b) and (d) above will enable you to identify factors, both negative and positive, that affect adoption.

A common approach by students, and indeed many researchers, is to attempt to ‘identify socio-economic factors affecting adoption’ by collecting large amounts of farmers’ personal data like ages, educational levels, family sizes, sources of income etc. They then come up with results showing that old age, low educational levels, poverty etc, negatively affect adoption. Apart from interesting statistical analysis, the results are of no practical value. You cannot present the results back to farmers and use them to develop extension programmes as they are based on interpolations rather than on what people said. You cannot say to farmers “…those of you who are old, uneducated and poor seem to have problems using this technology…” because they did not say that. This is your own interpolation. If you want to know what people think, or why they do what they do, ask them. Then you will be able to go back to them with the results and say “…this is what you said, what do we do about it?”
The approach described above allows you to capture socio-economic factors in the context of a specific technology, programme or project. If the farmer is not using improved seed because s/he has no money to buy the seed and/or because s/he does not like the taste of the varieties, s/he will tell you that; if the farmer is planting on the flat because s/he has no labour to make ridges, s/he will tell you so. You will then be able to go back to farmers with your findings and, together, look for ways of raising money for seeds (and/or of changing the farmers’ attitude on the varieties) and look for less labour-intensive, but effective, ways of ridging. You will also be able to identify technology-specific factors affecting adoption. If farmers are complaining about price of seed, you have to examine why the price is so prohibitive. If the price is so high that it affects viability of the enterprise, then you cannot expect farmers to buy it. If farmers are complaining about the taste of the seed varieties, you have to explore with breeders whether the taste can be improved, or whether there are varieties with better taste. If farmers say that they cannot follow the recommended spacing because they are not literate – they do not know what millimeters are, you have to come up with equivalent lengths in common use, or you can cut and give them sticks of desired lengths.

Note that a farmer may have more than one reason why s/he may, or may not, be following recommendations. S/he may say “...I do not have money to buy the seed – it is too expensive. In addition these improved varieties do not taste nice when roasted or cooked. My traditional variety is low-yielding but it has sweet taste which I like a lot”. In this case you may want to ask the farmer to rank these factors to establish the relative importance of each of them.

Step 8: Construct a ‘marking scheme’ for marking the oral test and farmer practice

Here you need to decide: how many marks you are going to give for each correct answer and each correct practice; how many marks you are going to give for a partially correct answer and a partially correct practice; and, when you begin to say an answer and a practice is completely wrong and give a zero. For our example above, you may have a marking scheme that looks as follows:

a) Farmers knowledge on varieties: SC403, SC517 (2 marks)
   Only one of these (1 mark)
   None of these (0 mark)

b) Farmer’s practice on varieties: Either SC403 or SC517 or both (1 mark)
   None of these (0 mark)

(For farmer practice you may decide to give one mark whether the farmer grows one or both varieties and zero if the farmer does not grow any of them)

c) Farmer’s knowledge on spacing: 750-800 x 225-230mm x 1 plant (3 marks)
   900mm x 450 x 2 plants (2 marks)*
   Outside these (0 mark)

d) Farmer’s practice on spacing: 750-800 x 225-230mm x 1 plant (3 marks)
For less precise recommendations on variables like mulching, canal maintenance, farmer participation, etc, you will need to develop a rating scale (for example, adequate....not adequate) to enable you to do a more objective assessment of farmer practice.

*The reason for accepting this might be that this used to be recommended some years ago, but it has since been proved to be less optimal than the one that is being recommended now.

Step 9: Decide which farmers, and how many, you will test (interview)

For our example, you may be interested in maize growers in general. You may be interested in both growers and non-growers. You may be interested in both men and women farmers. You may be interested in small-scale growers only, or a mixture of small and large scale growers. How many of each do you want to interview? For statistical purposes, your sample size should not be less than 30 – and the larger the sample size the more reliable your findings will be. If your sample is split into two sub-groups, you should have at least 30 in each sub-group.

For our example, let us say you want 120 maize growers – 60 women and 60 men.

Step 10: Decide on the sampling strategy and technique

Are you going to have separate lists for different categories of farmers from which you will select your sub-samples, or are you going to have one list for all the farmers from which you will select your sample? Exactly how are you going to select the sample – randomly or purposively? Which particular technique of random sampling are you going to use (for example, lottery method, random number tables)?

Step 11: Select your sample

Select your sample using the technique you decided above and avoid bias.

Step 12: Construct your research design table

To ensure that you collect data in a systematic way, construct a table summarising your research design and showing: your specific objectives; specific data you will need for each objective; source of the data; methods of data collection; and, methods of data analysis. For our example, the research design table would look like table 1 below.
Table 1: Research design

<table>
<thead>
<tr>
<th>Objective</th>
<th>Type of data</th>
<th>Source of data</th>
<th>Method of data collection</th>
<th>Method of data analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess farmers’ knowledge of key recommendations</td>
<td>Knowledge on:</td>
<td>120 growers: 60 women 60 men</td>
<td>Oral test</td>
<td>Descriptive statistics using SPSS</td>
</tr>
<tr>
<td></td>
<td>► Maize varieties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>► Plant spacing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assess farmers’ application of key recommendations.</td>
<td>Farmer practice on:</td>
<td>120 growers: 60 women 60 men</td>
<td>Observation &amp; measurement</td>
<td>Descriptive statistics using SPSS</td>
</tr>
<tr>
<td></td>
<td>► Varieties grown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>► Plant spacing used</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify factors affecting application of recommendations.</td>
<td>Reasons for following &amp; not</td>
<td>120 growers: 60 women 60 men</td>
<td>Discussion with</td>
<td>Content analysis &amp;</td>
</tr>
<tr>
<td></td>
<td>following recommendations on</td>
<td></td>
<td>individual farmers</td>
<td>descriptive statistics</td>
</tr>
<tr>
<td></td>
<td>► Varieties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>► Plant spacing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specifying the specific data you need for each objective is particularly important so that you collect relevant data for your study – and avoid collecting large amounts of data that you will not be able to use. It is not enough to say you will collect ‘primary data’ from farmers and ‘secondary data’ from the library. You have to specify the data you want from farmers as above. If you are going to collect secondary data, you have to say exactly what data you will be looking for from secondary sources. For our maize example, you may be looking for information on the characteristics of the varieties and when they were released. You may be looking for information on the performance of the varieties in other areas.

**Step 13: Administer the test**

Ensure that each of the respondents in your sample answers all the questions in your test. If you are not consistent you will have data that will be difficult to analyse and interpret.

**Step 14: Mark the test**

Mark the test using the objective marking scheme you developed in step 8 above.

**Step 15: Analyse the results**

Here you may be interested in finding out: the overall performance by farmers; the number of farmers who got all the answers correct; questions that caused most problems; whether one group did better than the other; reasons for no or poor application of recommendations; farmer perceptions; and, suggestions by farmers.
Step 16: Identify opportunities for improvement

From the results, it should be possible for you to identify opportunities for improvement. If the results show that farmers’ knowledge is weak, you could conclude that training is needed and then plan to provide the training. If you find that farmers’ knowledge is adequate but they have constraints limiting application, you could explore ways of dealing with the constraints. Data on farmers’ opinions and suggestions will be crucial here.

Step 17: Present results to a focus group

Initially withholding your ideas from step 16 above, present the results to a farmers focus group and check if they agree with your findings. There may be something that you have misunderstood or misinterpreted. This is called ‘triangulation’. Once there is agreement on the findings, identify opportunities for improvement together and develop a plan for way forward. It is important that you initially withhold your ideas from step 16 until the group has discussed the findings and come up with their own suggestions for improvement. This way the group will be able to identify itself with the outcomes of the discussion.

Avoid using focus groups as a main source of information as they tend to be dominated by a few. The information and ideas you get will therefore be from a few farmers.

Step 18: Implement the plan

Together with the farmers implement the plan according to what you have agreed.

4.0 Conclusion

The above steps will be appropriate for many situations. Whether you are assessing the effectiveness of an extension method like a field day, or extension approach like contact farmer-follower approach, or the performance of a farmers’ organization. In both cases it will be important to assess effectiveness in terms of knowledge and skills gained as well farmer practice and constraints. The approach enables you to generate data that you need to identify opportunities for improvement. This is action research. It allows you to use your job as a learning opportunity, to learn consciously and to grow professionally.

5.0 References


GROUP DISCUSSIONS AND PRESENTATIONS

Chairperson: Dr Andargachew Gedebo

<table>
<thead>
<tr>
<th>Questions for group discussions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 1: How much can go into an extension curriculum (given the need for generalists)?</td>
</tr>
<tr>
<td>Question 2: How can other training needs for Mid-career extension professionals be catered for?</td>
</tr>
<tr>
<td>Question 3: How can the Mid-career training be made more accessible to a broader range of professionals (those in public and private sectors, and where the demand is high)?</td>
</tr>
<tr>
<td>Question 4: How could universities position themselves to cope with new demands (providing training in new areas) given the training background of their own faculty?</td>
</tr>
<tr>
<td>Question 5: How can the quality of SEPs be maintained where numbers are large? What should SEPs be named?</td>
</tr>
<tr>
<td>Question 6: How to assess impact of Mid-career programme at farmer level?</td>
</tr>
<tr>
<td>Question 7: What are the strategies for sustaining Mid-career training programme?</td>
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</tbody>
</table>

Group 1 presentation

Presenter: Dr. Mercy Akeredolu

Group one discussed questions 1, 2, 4, 5 and 7. The following section presents the outcomes from the discussions.

Question 1: How much can go into an extension curriculum (given the need for generalists)?

The group decided to know the existing course content and allocated percentages to each sub-theme within the curriculum at each of the participating colleges/universities.

(a) Existing course content composition

- Production = 26.3%
- Value addition/marketing = 8.1%
- Extension and communication = 60%
- Leadership = 8.6%

Remark: The present curriculum in all the institutions that were looked at focuses more on production and extension communication.

(b) Proposed curriculum composition

- Production = 25%
- Value addition/marketing/entrepreneurship = 20%
- Extension and communication = 45%
- Leadership = 10%

Question 2: How can other needs for Mid-career extension professionals be catered for?

Other emerging areas that can be included in the Mid-career programme are:

- Gender, HIV, Environment, World politics, and Sustainability.

These areas can be included through continuing education modules, short courses, in-service training, conferences, talks, seminars, audio-visuals, yahoo groups, newsletters, alumni meetings, etc.
Question 4: How could universities position themselves to cope with new demands (providing training in new areas) given the training background of their own faculty? This can be addressed by:

- Inviting guest lecturers,
- Reviewing the existing curriculum,
- Collaborating within the Faculty/Universities and Departments to teach other courses such as value addition,
- Recruiting new staff, training existing staff and outsourcing, and
- Small Faculty projects/research on value addition.

Question 5: (a) How can the quality of SEPs be maintained where numbers are large? It can be addressed by:

- Recruiting more staff,
- Developing common evaluation criteria with all the stakeholders. Ensure that they are adequately oriented and have an understanding,
- Decentralizing the supervision of students,
- Cost sharing with other stakeholders,
- Collaboration among universities at the national level so that supervision of SEPs can be shared according to nearest regions, and
- Establishing public-private partnerships to sustain the SEPs.

Question 5: (b) What should SEPs be named? The group had diverse views. For the time being, maintain the original name (Supervised Enterprise Project). Let us take this assignment back home. During the curriculum review process, we can tackle the question with stakeholders.

Question 7: What are the strategies for sustaining Mid-career training programme? The strategies include:

- The programme should deal with employers’ oriented problem,
- Respective colleges/universities should hold discussions and bring on board the issue to the concerned ministries to support the programme,
- Farmers themselves should support the programme in terms of financing like the case in Uganda and Burkina Faso,
- Attracting privately sponsored applicants,
- Lobbying and advocating for the programme (like results of SEP’s result), and
- Strengthening the alumni association.

**Group 2 presentation**

*Presenter: Dr. Charles Masangano*

The group discussed questions 1, 2, 3, 5 and 6.

Question 1: How much can go into an extension curriculum (given the needs for generalists)?

- Specialization should be at B.Sc. level and generalization at diploma level. There are times that we need both generalist and specialists. Farmers need specialist for their production process. This doesn’t mean that we need specialists for each and every crop. For example, an agronomist can handle several crop production methods.
Despite having two, generalists at diploma and degree level, we need more specialists at degree level and generalist for the grass root level experts.

- Gender analysis as an additional tool for the curriculum development.
- The importance of managerial skills: experiences show that professionals have good technical knowledge but lack managerial skills.
- Duration of the programme should be revisited while incorporating additional courses in value addition, marketing and leadership, and set proportion of credit hours for each course. Incorporation of courses such as value addition and leadership is very important rather than emphasizing on the production related courses as students have learned and been working on production at diploma level. Let’s focus on what is missing!!
- Before incorporating the courses of value-chain/addition, make sure that the lecturers in the universities are aware of this concept.
- Besides including courses such as leadership it is also possible to prepare short courses/training separately.
- Experience from Malawi: Due to decentralization a lot of funds are available at the grass root level. However, the professionals there lack the appropriate management skills (e.g., financial management) to manage the funds-calling for the importance of these courses.
- Courses such as research methods should be given by teachers with the right skills both quantitative and qualitative skills, with the knowledge of the field to make sure that extension professionals grasp what they are required to know.

**Question 2: How can other needs for Mid-career extension professionals be catered for?**

- By having professional associations, short courses, newsletter publications, advisory services, formation of different platforms to mobilize resources, to get recognition of the activities and share experiences

  Other than forming these professional associations, the issue of making them sustainable is an important concern:

- Defining the role and involvement of the university/other concerned stakeholders like SAFE by providing offices and equipment.
- Having country chapters- when one is getting weaker the other can replace and do better.
- Importance of having effective leadership to organize activities and commit free time to these activities.
- Sending professionals to workshops and meetings, and participating in these professional/alumni associations.

**Question 3: How can the Mid-career training be made more accessible to a broader range of professionals (those in public, private sector, and where demand is high)?**

- Funding is the main problem for Mid-career programmes- Finding solutions for the existing scarcity of funds would help a lot.
- Mode of delivery- Distance/ semi-distance modes would help in this regard in addressing a large number of extension workers. For example, at weekends, evening programmes.
- Content and workload considerations.
- Creation of sub-centers at different locations to make the training accessible for most students.
- Part time training—face to face contact for a brief/intensive course teaching and sending back the students with assignments rather than as full distance mode. In
this regard, the importance of material development—should be given due attention.

- Part time method used in the name of distance mode: Courses are given intensively in few weeks and students go back to their work place with modules—experiences from Makerere University.

Question 5 (b) What should SEPs be named?

- Supervised Enterprise Project can also mean other projects other than extension. While Supervised Extension Project makes the project more specific to extension. Supervised Extension Project—Extension methodologies are applied on these projects and specific to extension
- Supervised Experiential Learning Project (SELP) –Selected as an appropriate nomenclature by the group. Reason: it is wider in its context and incorporates wide concept. It focuses on learning, experiences and supervision.

Group 3 presentation
Presenter: Zemen Ayalew

The group discussed questions 1, 2, and 6. Presented below are the outcomes of the discussions.

Question 1: How much can go into an extension curriculum (given the need for generalists)?

Group members agreed on the concept of generalist first and the following suggestion were made:

Generalist is a person:
- With general knowledge to facilitate development work.
- Who should take basic courses: English, computer science, natural science, animal science, crop production, economics, communication and extension.

But
- The group felt that one person cannot be equipped in all areas.
- Then the group agreed on areas of competency required to be called a generalist as outlined below.

(a) Production and all its forms: Basic course in agriculture covering aspects of animal husbandry, crop agronomy, post harvest, natural resource management and environment, etc.

(b) Value addition: The existing curricula are lacking the concept of value addition like processing and post harvest processes. So there is need to include:
- Post harvest handling.
- Agro-processing, value adding, value chain development, and value chain analysis.
- Marketing and business development.
(c) The areas of extension and communication

Thematic areas:
- Extension facilitation role rather than extension methods.
- Diffusion and dissemination of technologies to users using different multi media.

(d) Leadership development areas:
- Enhancing decision making skills.
- The types of different challenging problems and how to address them while ensuring smooth relationships with people.
- Issue of advocacy and lobbying.
- Issue of governance and legal frameworks.

In overall, the courses should be designed in such a way that can fit into small-scale farming and benefit farmers.

Question 2: How can other needs for Mid-career extension professionals be catered for?
The needs should be based on:
- Conducting periodic needs assessment and discussing with stakeholders before including them in the curricula according to the country’s context.
- Answering the emerging needs as per trends emanating from globalization.

Question 6: How to assess impact of Mid-career programme at farmer level?
- To see the impact of the programme at farmers’ level we need to address or include all stakeholders involved in the project. It has been difficult to see the impact at farmers level due to lack of data about the before situation. In addition farmers have contacts with different programmes by other organizations apart from the SEPs projects. As a result, it would be difficult to see the impact clearly.
- Although it is difficult to measure the impact of Mid-career graduates at farmer level, it is possible to measure their effect on the farmers’ life indirectly by designing proper questionnaire and focus group discussion.
TAKE HOME MESSAGES

Chairperson: Dr Mercy Akeredolu

Ethiopia
- The Mid-career programme has been useful and has strong support from different stakeholders.
- There is increasing demand to take in more students into the programme. We have to pay attention to the demand without compromising the quality and sustain the SEPs.
- We have to keep the networks that we have in the region to enhance learning from each other.
- We have to consider the issue of value adding and marketing as well as leadership into the Mid-career programme.

Uganda
- Professional association of agricultural extensionists is a vital platform for addressing Mid-career and Frontline extension challenges.
- Value chain concept is an emerging issue that needs further consultation at country level among different stakeholders.
- Privatization policies have affected manpower development support to Mid-career programme -in Uganda- compared to experiences from other countries.
- Besides the modular degree, there is need to explore how the capacity building funds at National level can be distributed to district NAADS Coordinators to help supervise SEPs.
- NAADS internship support should give priority to Mid-career structures.

Tanzania
- Reviewing curriculum to incorporate the emerging training needs.
- Increasing the period for implementing SEPs.
- Introducing short courses to former graduates to address the emerging training needs.
- Re-tooling our academic members to cope with the emerging needs.
- The need to strengthen farmers’ groups.
- Increasing the number of teaching staff to enable smooth supervision.
- Involving employers by increasing their commitment in sharing costs for the SEPs and supervision.
- Students should continue focusing their SEPs projects on employers’ problems/needs.
- Improving Alumni networking for continued experience sharing among graduates.
- There is need for sharing experience among stakeholders.

Malawi
- Bunda should look at the evening and weekend mode of delivery carefully to address issues of not compromising quality, duration and costs.
• Bunda should develop strategies for increasing enrolment into the Mid-career programme.
• Supervision of Mid-career students by local supervisors needs to be improved.
• There is need to increase government (MoAFS) commitment to support upgrading its staff to degree level through the Mid-career programme.
• Bunda should aggressively market the Mid-career programme.
CLOSING REMARKS

Closing remarks: Dr. Jeff Mutimba

We met, we shared, we worked and we also managed to squeeze time to relax.

The presentations were very powerful and very revealing.

We started with a lively opening session which not only set the scene for the workshop, but also began to raise some emerging issues of concern like, the huge demand for training in Ethiopia, the value chain concept, and how to evaluate impact at farmer level.

We heard about the huge demand in Ethiopia and how universities are trying to rise to the occasion. We heard about the innovative programmes at Haramaya and how Hawassa is following the Haramaya footsteps. We heard about how Bahir Dar is dealing with the demands from the Amhara Region.

We heard about the commitment of Tanzanian government to support practical training to all students across the board and the potential this represents for SEPs. We heard about how Sokioine has finally come around with Mid-career orientated programme and the work they still have to do to come up with a more appropriate curriculum including SEPs.

We heard about the challenges in Uganda arising from the decentralization and privatization of extension making it difficult to maintain a partnership with the Mid-career programme at Makerere. We had about how Makerere is trying to come up with other creative strategies to reach the Mid-career professionals who are largely on their own as regards their professional development.

We heard about the high demand in Malawi and the issue of scholarships that threatens to derail the smooth running of the Mid-career programme at Bunda College. We heard about how Bunda is trying to come up with more flexible modes of delivery to mitigate this problem.

We heard about how the University of Bobo-Dioulasso in Burkina Faso managed to come up with a creative programme and how the farmers are at the center of all this through their powerful institution. We heard about the importance of the cotton crop in Burkina Faso and plans for a Cotton University.

We got some perspectives on the value chain concept which, for many, set our minds thinking.

We got some SEPs related tips in form of a presentation an Action research approach for extension workers.

As we went through the lively debates, we identified some topical issues that we then tried to discuss in some detail in order to reach some operational consensus. These were: question on how much could go into an extension curriculum given the growing needs for new knowledge and skills; the question of broadening access to
university education for the Mid-career extension professionals; the issue of raising the capacity of university faculty to cope with new knowledge and skills needs; the issue of maintaining quality of SEPs given the growing numbers of students; the issue of how to assess impact of mid-career training at farmer level; and we shared some ideas on how to sustain the programme.

The issue of professional association raised huge interest that I hope we will pursue the issue with the same vigour until final victory.

In your country teams, you identified some take home messages that will be like reference points as you move forward.

Ladies and gentlemen
It is not possible to reflect on all the good work that we did over the last two and half days in the few minutes that I have.

I would like now to recognize some of the people that made this workshop possible:
• Dr Deola Naibakelo, for making funds available and for your full time participation. We value it and we cannot take it for granted.
• Tesfaye Worku, for all the sterling work in getting everybody together. His team behind the scene – Martha and Genet – for the taking care of logistics.
• Most importantly, to all the participants for the positive response to the invitation, and for the sterling work that you did in putting your papers together. I happened to be in Uganda when the two colleagues from NAADS were nominated hardly two weeks before the workshop – and how they came from their distant places and literally camped in Kampala to get their paper together. I also know of the hardships that our colleagues from Malawi and Tanzania went through in order to come here. They had to go through Nairobi just for a visa and spent three extra days in the process for a trip which is hardly three hours flight. This is a problem which the African Union should have sorted out many years ago – otherwise, as countries, it is expensive do to business with each other.
• To all the chairpersons of the different sessions for the way you handled the sessions ensuring smooth and successful deliberations.
• To Mr. Chris Dowswell, Executive Director, SAA/SAFE, for gracing our opening session.
• To Mr. Gezahagn Tadesse, from the Federal Ministry of Agriculture, for performing the official opening of our workshop.
• To Professor Hamidou Boly, firstly, for being with us throughout the workshop and sharing your wisdom, and for agreeing to perform the official closing of the workshop.
• To Desalegn Hotel management and staff, for providing wonderful facilities for our workshop.
• To my colleagues, Mercy and Moctar, for the support throughout the workshop.

• Lastly, to my young colleague, Isaac Mambo, for accepting the hugely demanding task of putting the proceedings together. I am sorry that you missed the pleasure of participating in the workshop because of this. But I hope that you will derive satisfaction in having your name as editor of the proceedings. Sometimes it counts in academic circles.

Thank you Madam Chairperson.
Ladies and Gentlemen,
I would like to sincerely congratulate everybody for your active participation during the three days. Specially, I thank those of you who have chaired the sessions for the work done very well. You have diligently and smoothly guided us throughout the three days of intensive deliberations.

I am personally impressed by the high quality of the contributions from all the countries. This showed that all the programmes have reached a degree of sound maturity and you have a very great sense of responsibility to run the programmes.

We have touched on the very key issues related to the overall implementation of our various programmes. The sharing of our professional experiences is very valuable. We have now a better understanding and knowledge of country specific challenges and opportunities. We have learnt from each other’s strategies and ways of improving our respective programmes.

On the issue of curriculum review, we have identified key areas where this review should focus in order to remain relevant in the field and efficiently assist farmers. It is always difficult to introduce change and sustain it, but let us convince our leaders to give us a green light to translate into reality the sound recommendations regarding the review of the curriculum.

Implementation issues were debated at length during these three days. The recommendations for having short courses, evening courses, weekend programmes will help us to reach a greater number of candidates. We have had in depth discussions regarding the effective implementation of SEPs followed by relevant recommendations as well.

The issue of sustainability is an important one. However, we did not thoroughly discuss it during this workshop. I strongly recommend that we take back home and continue to reflect on it and come out with relevant recommendations.

Networking is key to our programme. We have established useful interpersonal relationships which will help enhancing our institutional linkages. Institutions are about people and our relationship and interactions during this workshop are very important in this regard.

Lastly, efforts must be made to develop alumni associations to make them more efficient for the graduates as these are the ambassadors of SAFE in our respective countries. SAFE remains committed to assist you whenever it is possible.

I wish you all a safe trip back home.

God bless you.
Closing remarks: Prof. Hamadou Boly

Dear participants,

Now we have come to the end of our Regional SAFE Networking Workshop. During these 3 days, we had a very useful and intensive work on improving the training of Mid-career extension professionals based on our own experiences in our countries.

We shared ideas and experiences, and developed strategies for meeting emerging training needs according to our objectives. At the end, we found mechanisms for long term sustainability of the Mid-career training programme.

Moreover, these 3 wonderful days, gave us opportunities to know more about each other and had interactions with SAFE’s staff, its vision and advice for our joint programmes.

I hope that the recommendations raised here will be followed by concrete application to increase our success in the field.

This workshop came up just after the death of our leader Dr. Norman Borlaug, and from the short remembrance session we had for him, we heard of his wonderful life and works done to alleviate poverty in the world through agriculture technology transfer towards the poor farmer, especially in Africa. May his soul rest in peace.

Now, I would like to thank:

- All the participants for their active participation,
- The local organizers (Secretaries, Technical Assistants, Drivers…),
- SAFE staff, specially, Tesfaye Worku, Dr. Mercy Akeredolu, Dr. Jeff Mutimba, and Dr. Deola Naibakelao for their support at this workshop, and
- Our host country with beautiful Addis Ababa and its people.

On behalf all the officials, I would like to declare this East Africa Regional SAFE Networking Workshop in Addis Ababa, Ethiopia, closed.
APPENDICES

Appendix 1: Programme for East Africa Regional SAFE Networking Workshop, Desalegn Hotel, Ethiopia, October 12-14, 2009

Workshop Theme: Coping with emerging training needs and demands

Purpose of the workshop
➢ To explore ways of improving the training of mid-career extension professionals based on our experiences so far.

Specific Objectives:
➢ To share ideas and experiences regarding opportunities and challenges of implementing mid-career training programmes.
➢ To provide better understanding of the off-campus practical experiential component which is the backbone of the mid-career programmes.
➢ To develop strategies for coping with emerging training needs.
➢ To share ideas on means of sustaining the mid-career training programmes beyond the Nippon Foundation Funds.

Expected Outputs:
➢ The challenges and opportunities in the implementation of the mid-career training programmes identified.
➢ Strategies for coping with emerging training needs identified.
➢ Mechanisms for long-term sustainability of the mid-career training programmes beyond the Nippon Foundation Funds identified.

Date: October 12-14, 2009

Place: Desalegn Hotel, Addis Ababa, Ethiopia

Sunday, October 11, 2009:
Arrival of participants in Addis Ababa, check in at Atlas Hotel

Monday, October 12, 2009
0800 – 0900 Registration of workshop participants

Opening session
0900 – 0905 Dr Norman Borloung dedication
Chairperson: Mrs Leonides Halos-Kim
0905 – 0930 Self-introductions of workshop participants
0930 – 0950 Welcome remarks: Dr. Deola Naibakelao, Managing Director, SAFE
0950 – 1010 Welcome remarks: Mr Chris Dowswell, Executive Director, SAA
1010 – 1030 Opening remarks: Mr Gezahagn Tadesse, FMoA
Chairperson’s closing remarks
Group photograph
1030 – 1100 Refreshments
**Session I**

Chairperson: **Dr Kinde Tesfaye**

1100 – 1130 Setting the rules of the workshop and participants expectations
Workshop objectives and expected outcomes – **Jeff Mutimba**

1130 – 1200 Extension staff development needs, challenges and expectations
*Federal Ministry of Agriculture, Ethiopia*

1200 – 1230 Experiences with the mid-career programme: progress and challenges
*Haramaya University, Ethiopia*

1230 – 1300 Discussion

1300 – 1400 Lunch break

**Session II**

Chairperson: **Dr Frank Matsiko**

1400 – 1420 Experiences with the mid-career programme: progress and challenges
*Hawassa University, Ethiopia*

1420 – 1440 Experiences with the mid-career programme: progress and challenges
*Bahir Dar University, Ethiopia*

1440 – 1500 Discussion

1500 – 1530 Coffee/tea break

**Session III**

Chairperson: **Mrs Alice Nyanzi**

1530 – 1600 Extension staff development needs, challenges and expectations
*Ministry of Agriculture, Tanzania*

1600 – 1630 Experiences with the mid-career programme: progress and challenges
*Sokoine University of Agriculture*

1630 – 1700 Discussion
Wrap-up & announcements
Free time for inter-institutional meetings/discussions

**Tuesday, October 13, 2009**

**Session IV**

Chairperson: **Dr Zeleke Mekuriaw**

0900 – 0930 Extension staff development needs, challenges and expectations
*NAADS, Uganda*

0930 – 1000 Experiences with the mid-career programme: progress and challenges
Makerere University

1000 – 1030 Discussion

1030 – 1100 Coffee/tea break

**Session V**

Chairperson: **Dr Catherine Msuya**

1100 – 1130 Extension staff development needs, challenges and expectations
*Ministry of Agriculture, Malawi*
1130 – 1200 Experiences with the mid-career programme: progress and challenges  
*Bunda College of Agriculture*

1200 – 1230 Discussion

1230 – 1300 Experiences with the mid-career programme: progress and challenges  
*University of Bobo-Dioulasso, Burkina Faso*

1300 – 1400 Lunch break

**Session VI**

Chairperson: *Dr Charles Masangano*

1400 – 1500 An overview of the value chain concept  
*Toshiro Mado*

1500 – 1600 Action Research: A practical step-by-step guide for agricultural extension professionals  
*Jeff Mutimba*

1600 – 1630 Coffee/tea break

1630 – 1700 Formation of small working groups; clarification of the terms of reference of the working groups based on the objectives and outcomes of the workshop.

1700 – 1900 Work in small groups

**Wednesday, October 14, 2009**

**Session VII**

Chairperson: *Dr Andargachew Gedebo*

0900 – 1000 Plenary session - Presentation of small group reports

1000 – 1100 Plenary session – Discussion of small group reports

1100 – 1130 Coffee/tea break

**Session VIII**

Chairperson: *Dr Mercy Akeredolu*

1130 – 1200 Summary of the workshop

1200 – 1215 Workshop evaluation

1215 – 1245 Official closing ceremony for the workshop

1300 – 1400 Lunch

1400 – 1800 Tour of Addis Ababa and other tourist sites in Addis Ababa

1930 – 2130 Dinner at Yod-Abysinia Cultural Restaurant
Appendix 2: Participants’ assessment of the workshop based on their expectations

<table>
<thead>
<tr>
<th>Participants expectations and suggestions</th>
<th>Participants’ assessment</th>
<th>Yes</th>
<th>No</th>
<th>% satisfied</th>
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<tbody>
<tr>
<td>1. Gained and shared experience regarding opportunities and challenges of implementing the mid-career training programmes</td>
<td></td>
<td>22</td>
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<td>100</td>
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<tr>
<td>2. Issues discussed will help improve mid-career programmes</td>
<td></td>
<td>22</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>3. Participants participated actively in all sessions</td>
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<td>22</td>
<td>0</td>
<td>100</td>
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<td>4. Time was well managed</td>
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<td>2</td>
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<td>5. Issues discussed will improve networking</td>
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<td>20</td>
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<td>6. Now have better understanding of SEPs</td>
<td></td>
<td>19</td>
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<tr>
<td>7. Strategies of coping with emerging needs were discussed</td>
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<td>19</td>
<td>2</td>
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<td>8. Challenges facing mid-career training programmes were discussed</td>
<td></td>
<td>16</td>
<td>5</td>
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<td>9. There was consensus on all major issues discussed</td>
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<td>13</td>
<td>8</td>
<td>59</td>
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<td>10. Sustainability of the mid-career training programmes was discussed well enough</td>
<td></td>
<td>8</td>
<td>13</td>
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<tr>
<td>11. One thing I learned:</td>
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<tr>
<td>• Philosophy of SEPs</td>
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<td>4</td>
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<tr>
<td>• Strong farmer associations in Burkina Faso</td>
<td></td>
<td>2</td>
<td></td>
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<tr>
<td>• Strong team spirit/cooperation/experience-sharing</td>
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<td>2</td>
<td></td>
<td></td>
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<tr>
<td>• Innovative elements in country programmes</td>
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<td>• Where government is committed, programme runs well</td>
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<td>• Good planning and focus</td>
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<td>• Value addition</td>
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<td>• Strategies for sustaining the mid-career programme</td>
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<td>• How increase access</td>
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<td>• Need to attract more female students on the programme</td>
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<td>• Networking necessary for curriculum revitalization</td>
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<td>• Workshops like this actually bring differences</td>
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<td>• Increasing the number of students per intake</td>
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<td>• Importance of mid-career programme</td>
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<td>12. One thing I am still unsure of:</td>
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<td>• Supervision of SEPs/maintaining quality</td>
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<td>• Sustainability</td>
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<td>• Length of SAFE support</td>
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<td>• Appropriate name for SEPs</td>
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<td>• Concept of SEPs</td>
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<td>• Follow-up of the workshop</td>
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<td>• Equal weighting of courses given our diverse national goals</td>
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<td>• Why SAFE in not at ease with programmes that admit direct entrants</td>
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<td>• How to measure impact</td>
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<td>• Non</td>
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<td>13. Suggestions for improving future workshops:</td>
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<td>• None/Adopt similar approach</td>
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- Increase number of days to 4
- Better relaxed workshop
- Identify outstanding issues from this workshop and discuss them in the next workshop: e.g. how to cope with emerging needs
- Participants should be urged to prepare their reports on time
- Participants should bring real figures not to brainstorm them at the workshop
- Hold the next workshop outside Ethiopia
- Circulate discussion papers early
- Involve policy makers
### Appendix 3: Workshop Participants' Information

<table>
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<th>Telephone (Office)</th>
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