



Ministry of Agriculture Forestry and Fisheries
General Directorate of Agriculture



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PREFACE

Agricultural Extension plays an important role in transferring new technologies and innovations that are resilient to climate change. This extension contribution to solve the problems of natural disasters and others issues to farmers and Agricultural Cooperative to promote productivity, quality of food security, and increase family income. The Ministry of Agriculture, Forestry and Fisheries has introduced the policy of Agricultural Extension in Cambodia in 2015, to provide extension services with Pluralism, such as involving all stakeholders in providing outreach to farmers, these mechanisms support, coordinate, and connect the link between all of Cambodia's agricultural service providers to respond to the needs of producers and market demands.

Agriculture Service Programme for Innovation, Resilience and Extension (ASPIRE) have prepared the "**HR strategy for Extension**" was organized as a workshop, SWOT analysis, risk management, stakeholder analysis, training needs and consulting workshops with agricultural extension technical, specialists and stakeholders from institutions and extension agencies, technical units from the Department of Agriculture, Forestry and Fisheries of 25 Municipality/Provinces, Private Sectors and Non-Governmental Organizations.

Agriculture Extension Policy in Cambodia and the Role and Responsibility of Agricultural Extension in Cambodia has also been used as a reference for the design of this strategy.

The strategy is for the people involved in agricultural media, which are providing services specifically to farmers, but also other stakeholders in the agricultural sector as users of technology and information. This strategy responds to human and human resources issues both in the public and private sectors.

The General Department of Agriculture, Ministry of Agriculture, Forestry and Fisheries will submit a **Human Resource Strategy for Extension**, which is a basic document for PDAFF officers in Municipality/Provinces, Districts/Khan, NGOs, implementation agencies, and all stakeholders apply for new agricultural techniques transfer, approaches, exchange of experiences, sharing knowledge and bring about increased agricultural production, stabilize the family economy, facilitate farmers to adapt, according to the evolutionary condition of globalization, diversification and adaptation with climate change contributes to effectively supplying agricultural products at the market.

PhnomPenh Municipality, Date.....Month.....2018

General Directorate of Agriculture

EXECUTIVE SUMMARY

This Human Resources Strategy for Extension has been prepared under the Agriculture Services Programme for Innovation, Resilience and Extension (ASPIRE) funded partly by a loan from the International Fund for Agricultural Development (IFAD). The Programme goal is to reduce poverty and increase the resilience of poor and vulnerable smallholder farmers in Cambodia.

Agriculture is a leading sector which plays a vital role in the economic growth in Cambodia. It accounts for about 30% of the gross domestic product, and a recent Ministry of Agriculture, Forestry and Fisheries estimate now puts its employment level at almost 50 percent of the population, but importantly 90 percent of the poor live in rural areas and engage in agricultural activities, with women and ethnic minorities among the most vulnerable groups.

The Royal Government of Cambodia's vision is to modernize and intensify Cambodia's agriculture while simultaneously ensuring efficient management of the land, the environment, and other natural resources. The need for new technologies and innovations for modernizing and commercializing agricultural systems is therefore more evident now than ever before. Agricultural extension is the major conduit for knowledge and information sharing, and plays a key role in linking farmers with research and markets.

MAFF is the Ministry responsible for agricultural development as specified in the Policy on Agricultural Extension in Cambodia (May 2015). This policy aims to make knowledge and technology accessible to farming communities, thus increasing productivity. Then in June 2017, MAFF with assistance from the ASPIRE project, produced a paper on Roles and Responsibilities for Agricultural Extension in Cambodia. This document is based on the premise of an agricultural extension [system] that responds to the needs of farmers and has high quality agricultural extension service delivery through a pluralistic agricultural extension system that encompasses public sector as well as private sector service providers such as non-government organisations (NGOs), private businesses, community based organizations and development partners. It will build upon human resources to ensure the necessary knowledge, skills and attitudes to enable stakeholders in the agricultural sector to produce efficiently and to compete in a global market.

To drive the changes envisioned to implement the Policy, the Roles and Responsibilities document has calculated the [total] future staffing needs in government agencies being approximately as follows

- 50 personnel at national level
- 320 personnel at provincial level
- 1600 at district and commune level

This is based upon the intended nationwide ratio of one extension practitioner for every 1000 farming households and it is the model which the Human Resources Strategy uses but it does not include private sector practitioners. Recent estimates of staff numbers from MAFF show a shortfall in total being in the order of 1400 persons for which it is proposed that this is filled progressively through till 2030. In terms of qualifications there will need to be "knowledge leaders" with post-graduate qualifications. A total of five PhD level staff to be deployed in DAE and one Masters or PhD qualified person in each Office of Agricultural Extension (in PDAFF). Further it is recommended that the PDAFF staff is qualified in extension processes rather than in a technical discipline. Some of the total new staff needed are already employed but will need

to be relocated But for the greater part of the requirement, recruitment needs to be progressive and will be a major exercise. There is however a pool of potential recruits for DAO – the Extension Advisor position. CEWs currently or previously employed under project budgets already have had training and work experience and with shorter period and highly targeted training could be upgraded to the necessary level of competency and get the recruitment process underway quickly.

This Human Resources Strategy for Extension document is developed to support the implementation of the policy of agricultural extension at the national, provincial, district, and Commune level stakeholders to provide guidance to all stakeholders involved in agricultural extension so that there is a harmonized approach in its implementation, monitoring and evaluation across both public and private sectors.

The Strategy is built upon three pillars namely

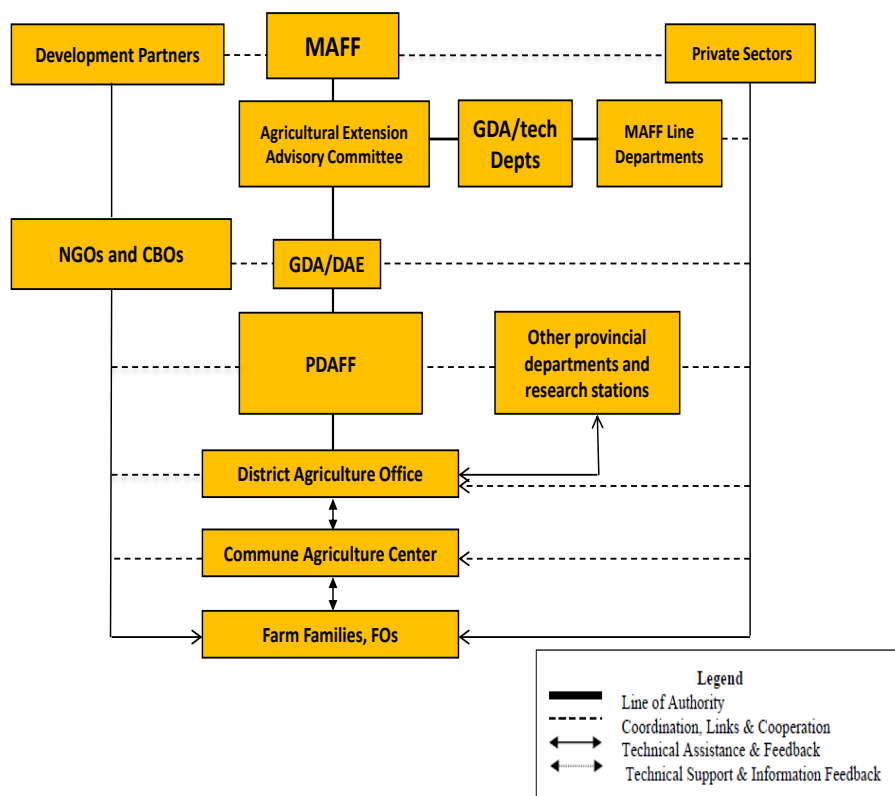
- ❖ Organisation and institutions
- ❖ Human resource development and
- ❖ Human resource management

And to this is added a discussion which relates directly to the pluralistic nature of agricultural extension which is the role of the private sector [agri-business, NGOs, CBOs etc] in the agricultural extension process. This discussion is in terms of their human resources and the nature of the interaction of the human resources between government and non-government sectors in agricultural extension activities.

The Strategy concludes with a section on a proposed plan and structure for implementation of the strategy. A pilot phase under the financing of ASPIRE project is proposed although the bigger picture is a nationally applicable strategy not just one tied to a Development Partner project.

The model for a pluralistic extension system which informs the approach taken in the Strategy is produced below.

Extension Service Provision and Organization in Cambodia



The Strategy in summary proposes that a series of competencies should be drawn up for each and every position in the agricultural extension system. Staff is recruited at an appropriate level of education and their competency status assessed. They will then undertake professional development based on an individual plan that is designed to raise their competency level so that they become more specialized in areas that are appropriate to their personal role. It is presented across three pillars.

1. Organisation and institutions

The recommendation is that service delivery should be made by extension practitioners with the least distance between their base and the client farmers in particular for the public sector extension system as location of private sector practitioners is determined by their particular situation. Whilst extension services would ideally come through the Commune Extension Workers their deployment is limited to project activities funded by development partners. Nationwide coverage by CEWs under government funding is not feasible in the foreseeable future. It is a moot point as to whether the delivery of extension comes through the CEW but to do so requires significant investment of funds that may not be justified. However delivering competence building activities to CEWs can be done through e-Learning as courses have been set up and the costs can be borne by the employing DP project.

The grassroots deliverer of extension messages is therefore the District Agricultural Office staff member. It is proposed that each DAO have a staff of at least seven (or more) in line with the 1:1000 ratio with subject specialists consistent with the dominant agricultural production systems in the area. Their role is to support CEWs where they are deployed and to undertake

extension activities with farmers i.e. in technology transfer and in providing *ad hoc* advice as required by clients.

The Provincial Office for Agricultural Extension has its major responsibility in planning, coordination and evaluation of extension activities in the province as well as organizing/providing training to District and Commune staff, but the staff seldom would be directly engaged in the transfer of technology to farmers. The Provincial office is also proposed as the focal point for coordination of the public and private sectors in the provision of extension services. A small staff of about seven people is proposed with a focus on expertise in cross-cutting issues such as marketing, gender, farm business etc.

The Strategy proposes some changes in the Department of Agricultural Extension which is the National level agency leading the sector. Its mandate should broadly be to support, coordinate, monitor and evaluate the activities of all agricultural extension service providers and recognize the roles of concerned stakeholders relative to extension services delivery. The proposal is for a staff of approximately 45 staff including a pool of administrative support staff that will be rotationally allocated to gain experience in all aspects of the agency work. The “Offices” have some realignment to number just five but without any reduction in coverage of responsibilities.

2. Human resource management

Human resource management essentially deals with the functions of what some organizations call “Personnel Department”. This section in the Strategy recognizes that various management systems are in place but it does not evaluate them. The changes suggested are made to enhance management of staff in order to provide more effective extension services.

The discussion includes issues of recruitment procedures, nurture and retention of staff, remuneration, staff assessment, operation of a staff database and occupational health and safety in the workplace. The latter issue is of particular relevance to agricultural extension practitioners as they regularly meet farmers who are using unsafe practices in using equipment and in the handling of chemicals. It is proposed that safety in using machinery and in the handling and application of chemicals needs to be included in all discussions with farmers and in all print and audio-visual media with a special section should be placed on the website. This topic should also be one for discussion with the private sector extension practitioners in particular with those who are the sellers of the chemicals.

3. Human resource development

Human resource development is the key element of this strategy and it is based upon competencies. In this Strategy competency refers to the set of knowledge, skills, attitudes, and behaviors that allow extension workers to effectively perform their tasks as expected by their clients i.e. doing it both efficiently and effectively. A competency thus is a characteristic of an employee that (a) contributes to successful job performance and (b) achievement of organizational results.

This Strategy covers two main areas – entry level and in – service learning to acquire the necessary competencies for an effective, efficient and pluralistic extension system. The proposal is that Competency descriptions should be prepared for all jobs in extension and be used in selection, in assessment of staff and in determining training needs.

The Strategy recognizes effectively three categories of extension practitioners – Worker, Advisor and Specialist – and whilst these are used in describing the staff in the public sector the

meaning of the terms can be applied to the private sector. Workers and Advisors are those people who provide services to the clients whilst Specialists tend to be the people who support the other two groups.

Entry level competencies will largely be determined by formal education qualifications supplemented by additional courses to cover deficiencies. In the case of CEW (and VEW) such courses must be completed within a specified time after engagement. For the other two categories which require a degree level qualification such courses will also be required but probably not the complete package.

"How do we enable life-long learning?" The career development or in-service training is recommended to be a program tailored to each individual and is built upon a modular approach and is also attached to a registration and accreditation procedure. It is recommended that all extension practitioners study the basic modules so that the approach to extension is similar across all providers although the depth of such modules existing level of knowledge. Subsequent courses should be elective to add to/improve the level of competency. Several ANNEXES to the Strategy provide detailed overviews of how a modular course might be implemented, the sources being other ASPIRE international consultants DAE has the responsibility to review the course contents and develop a course which meets the needs of present and future extension practitioners. They need to work with the agricultural education institutes who will deliver the courses to ensure commonality of objective and essential course details. Then course delivery must be under the management of DAE although not necessarily the actual presentation which should be contracted out.

4. Private Sector Integration

The overall objective for agricultural extension is to have a pluralistic system. Today there are multiple categories of players but there is no real evidence of integration and coordination. The challenge is how to bring that about to forge a truly pluralistic system. The Strategy proposes that coordination and integration of the private sector extension service providers with the government sector be based around four activities:

- Registration
- Accreditation
- Provincial colloquium
- Sharing of training opportunities between sectors

Registration is recommended so that a database can be created of all people providing extension services. It should use the Extension Practitioners Survey to create the beginnings of the database. Having a database will facilitate cross sector coordination and cooperation especially with NGOs who tend to work in isolation from government. It will also facilitate the Public Private Partnerships to be undertaken under ASPIRE funding. Clients (farmers) can always seek help from those who do have the means to access and contact details should be made available to them.

Accreditation is the second step and adds "substance" to the database. Accreditation will also give a more professional cachet to extension practitioners and separate the better operators from the more ordinary who just do their job. Accreditation will be gained and maintained by undertaking courses to build competencies and/or by participating in other types of professional development such as participating in conferences, writing papers etc. Farmers and other extension system clients will be able to directly (or with help) identify accredited

practitioners, their areas of expertise and location so that they might be avail themselves of services.

The Provincial Colloquium is the forum at which public and private sector meet. It is informal but has structure to ensure effective outcomes. But it is not a mechanism for government to control the private sector rather to share across a wide spectrum of stakeholders. Other experts have proposed more “legalistic” forum but the HR Strategy has opted for this model at least as a first step to ascertain the willingness of the private sector to participate in such a meeting.

And finally it is well recognized that there are many training courses being conducted around agricultural production technology and extension processes. But the courses are very often a “closed shop” for no good reason and could be opened up to a wider audience. The proposal is that all (except the most confidential) training activities be posted on the DAE website with invitations extended to all interested extension practitioners to join the benefits of which include being able to attend courses that the employer may not conduct and to further develop a network of extension practitioners..

Since ASPIRE is the funding source for writing this Strategy it is proposed that a number of activities be undertaken through a Five year period from 2018 in a pilot modality. Concept Notes are provided for each Activity along with additional ANNEXES:

- ❖ Action Plan
- ❖ Indicative Budget
- ❖ Monitoring Matrix
- ❖ Risk Management Matrix

This will allow implementation of the strategy to move forward whilst also allowing for reflection and modification before full implementation.

The Strategy is supported by a number of ANNEXES (apart from those related to the pilot project) and includes (a) a model of competencies (b) e-Learning course for CEWs (c) outline of modules for building capacity/competence (d) Training of Trainers course outline and (e) roles and responsibilities for DAE.

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ACRONYMS and ABBREVIATIONS

ASPIRE	Agriculture Services Programme for Innovation, Resilience and Extension
CEW	Commune Extension Worker
CBO	Community Based Organization
CC	Commune Council
CSO	Civil Society Organisation
DAO	District Agricultural Office
DAE	Department of Agricultural Extension
DPHRD	Department of Personnel and Human Resource Development
FAO	Food and Agriculture Organisation
GDA	General Directorate of Agriculture
HR	Human Resources
HRM & HRD	Human Resource Management & Human Resource Development
IFAD	International Fund for Agricultural Development
ITC	Information Technology and Communication
KCNCA	Kompong Cham National College of Agriculture
KPI	Key Performance Indicator
MAFF	Ministry of Agriculture, Forests and Fisheries
NCDDS	National Committee for Sub-National Democratic Development Secretariat
M&E	Monitoring and Evaluation
NGO	Non-government Organisation
PADEE	Project for Agricultural Development and Economic Empowerment
PAEC	Policy for Agriculture Extension in Cambodia
PAEPSG	Provincial Agricultural Practitioner Sector Group
PDAFF	Provincial Department of Agriculture, Forests and Fisheries
PLNCA	Prek Leap National College of Agriculture
PPP	Public Private Partnership
RGC	Royal Government of Cambodia
RUA	Royal University of Agriculture
SNEC	Supreme National Economic Council
SWOT	Strength, Weakness, Opportunities and Threats [analysis]
TSSD	Tonle Sap Poverty Reduction and Smallholder Development Project
VEW	Village Extension Worker
VLA	Village Livestock Agent (or Worker)

1. INTRODUCTION and BACKGROUND

1.1. Agriculture Services Program for Innovation, Resilience and Extension (ASPIRE)

It is under financial support from ASPIRE project that this Human Resource Strategy for Extension is being developed.

The Royal Government of Cambodia has received funding from the International Fund for Agricultural Development (IFAD) to implement the Agriculture Services Program for Innovation, Resilience and Extension (ASPIRE). The goal of ASPIRE is to reduce poverty and to increase the resilience of poor and vulnerable smallholder farmers in the Kingdom of Cambodia. The primary objective is that by 2021 an enhanced Cambodian model of agricultural extension services is demonstrated as effective for assisting a diversity of smallholder farmers to contribute to broad-based economic growth through profitable and resilient farm businesses.

ASPIRE will identify innovative extension models and methodologies that will contribute to the development of improved extension systems that can be delivered to Cambodian farmers by Department of Agricultural Extension (DAE) staff (and other partners) through the ASPIRE project. The opportunity to build partnerships with multiple extension providers will be explored and other practical considerations such as quality assurance systems for extension delivery and core adviser skills and competencies will be identified, piloted and evaluated.

1.2. Agriculture in Cambodia

Agriculture is a leading sector which plays a vital role in the economic growth in Cambodia. It accounts for about 30% of the gross domestic product, and a recent MAFF estimate puts the employment level in the sector at almost 50 percent of the population. But importantly 90 percent of the poor live in rural areas and engage in agricultural activities, with women and ethnic minorities among the most vulnerable groups. About 60 percent of agricultural production is still for family subsistence, Sustainable development and commercialization of agriculture are fundamental to poverty reduction, and are closely linked to the rural-urban development nexus.

The Royal Government of Cambodia's (RGC) vision is to modernize and intensify Cambodia's agriculture while simultaneously ensuring efficient management of the land, the environment, and other natural resources. Cambodia's development strategy (The Rectangular Strategy Phase III, 2014–2018) gives enhancement of the agriculture sector as the first priority, along with further rehabilitation and construction of physical infrastructure, private sector development and employment generation, and capacity building and human resources development.

The approach to agricultural growth has three closely linked components: productivity enhancement, diversification, and value chain development, all within the related themes of poverty reduction, food security and environmental sustainability. There is a three-pronged focus to transforming the agriculture sector in general, from subsistence-based to commercial agriculture, including productivity enhancement, diversification,

and commercialization. Of these, diversification of production (through high quality, niche varieties, and organic products) and the related commercialization through supply chain development and value chain strengthening are of key importance. Establishment of value added processing facilities in rural areas, development of infrastructure linking rural areas and secondary towns to markets, provision of appropriate support services such as business development and workable access to finance are some of the measures that can be taken. Furthermore, improved technology delivery through extension and other related measures can be expected to have a significant impact on poverty reduction and economic growth, as these investments link agricultural productivity enhancements to market opportunities.

The need for new technologies and innovations for modernizing and commercializing agricultural systems is therefore more evident and more needed now than ever before. Agricultural extension is the major conduit for knowledge and information sharing, and plays a key role in linking farmers with research and markets.

1.3. Agricultural extension in Cambodia

Agricultural extension is the application of scientific research and knowledge to agricultural practices through farmer education. Generally, agricultural extension can be defined as the “delivery of information inputs to farmers.”¹

Extension activities in Cambodia began in 1957 when the agriculture ministry set up an extension unit that used television, radio and printed publications to disseminate information to farmers. The civil war in the 1970s devastated the country's economy and all agricultural extension infrastructure was destroyed. Agricultural extension services for farmers only returned in 1986 with an extension (and rural credit) office within the Agriculture Ministry tasked with developing basic extension materials such as scripts for radio and TV programs, booklets, and posters to disseminate to farmers. In the early 1990s an Australian NGO (Australian Catholic Relief) implemented a project providing long-term training in extension methodologies with supervised practical experience in provinces. The NGO project was replaced by the bilateral Cambodia Australia Agricultural Extension Project (CAAEP) in 1996 and with the project's support MAFF created the Department of Technique, Economic and Extension (DTEE) which was renamed as Department of Agriculture Extension (DAE) in 2000. With Australian assistance being provided over more than a decade the DAE developed and piloted national extension guidelines using an agroecosystem analysis *cum* farming systems development approach rather than an emphasis on extension service delivery. A significant part of the project was capacity development of the staff but it was not done within an overall strategy but rather through annual work plans.

The GFRAS website for Cambodia describes the nature of institutions that provide extension services.² The delivery of services has been done through a pluralistic system

¹ <http://ag4impact.org/sid/socio-economic-intensification/building-human-capital/agricultural-extension/>

² See : <http://g-fras.org/en/ggp-notes/94-world-wide-extension-study/asia/south-eastern-asia/287-cambodia.html#title-extension-providers>

for more than two decades but an integrated system is still not in existence. Key players include

- **Public sector** as represented by in particular MAFF and its various technical departments including the Department of Agricultural Extension (DAE), also the Ministry of Rural Development (MRD), agricultural education institutions and research institutions.
- **Private firms** who provide services mostly in the areas of input supply to farmers or buy product from them under some contract arrangement
- **Non-Governmental Organizations** and **other Donors** who work in partnership with other stakeholders to provide agricultural extension and advisory services to farmers mostly in production and agribusiness supply chain development.
- **Farmer Based Organizations and Cooperatives** which are usually built around common interest in production or in group access to inputs

The number of extension workers is not accurately known. As reported by the MAFF personnel office in 2017 the number of government agricultural extension officials currently working and coordinating agricultural extension activities in Cambodia was as follows

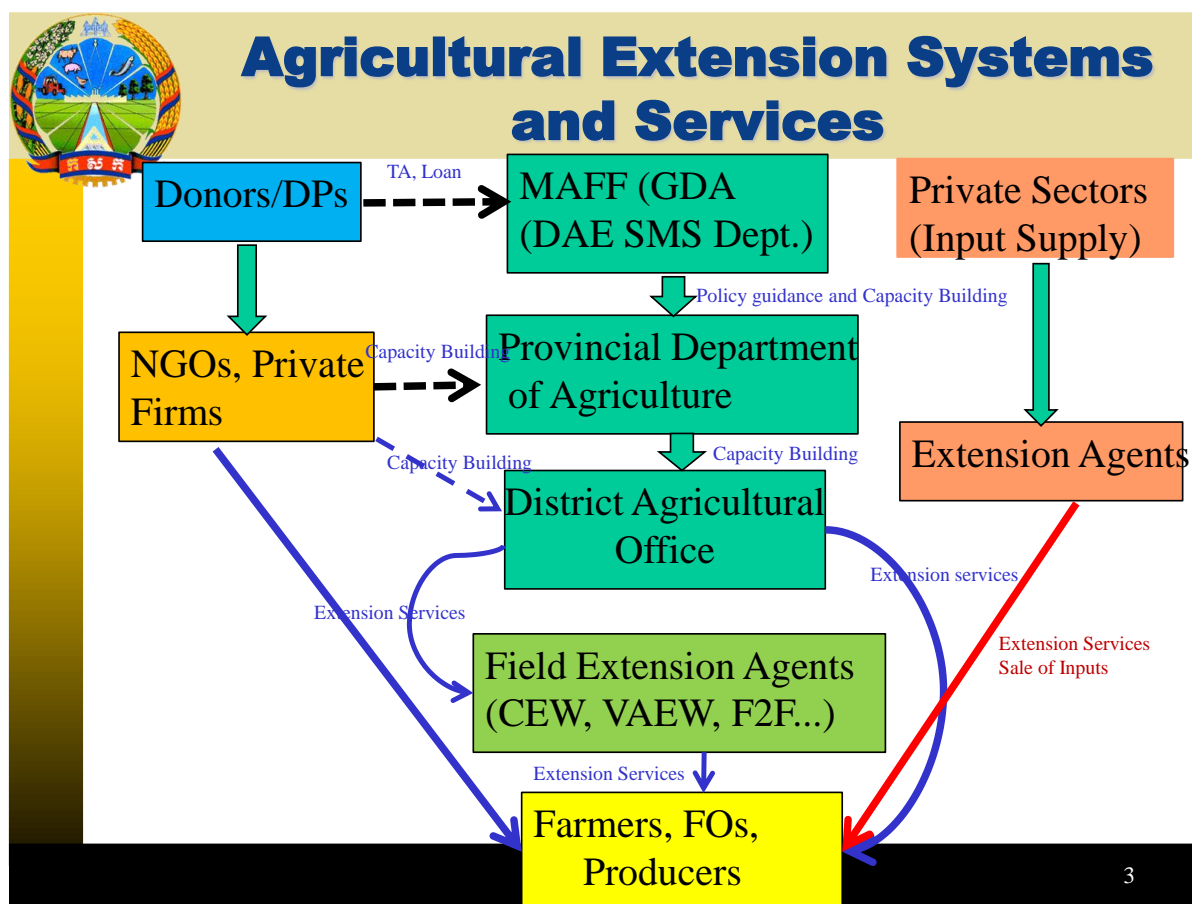
- central agricultural extension officer – 58
- provincial [capital] agricultural officers – 125
- district agricultural officer – 601 including administrative staff

At the local level there are reportedly 1220 commune extension workers [mostly employed through donor funded projects] and at village level 9276 village extension workers and 120, 674 village livestock agents spread across the approximately 14,000 villages in the country.

To this must be added an unknown number of staff employed by NGOs [and CSOs/CBOs] that have some role in extension often as part of community development, commonly associated with donor funded projects. There are now a growing number of private sector persons working in the main with agribusinesses and an embryonic sector of independent advisors. A much clearer picture on the deployment of extension personnel should become available after the ASPIRE funded Agriculture Extension Practitioner Survey is completed. The human resources therefore are considerable and are an eclectic mix making the development of a strategy both necessary and a challenge.

The diagram below which has been produced by Dr Mak Soeun of General Directorate of Agriculture (GDA) encapsulates the current system.

Figure 1: Agriculture Extension in Cambodia



1.4. Policy Framework

The highest level of national development policy in Cambodia is embodied in the Rectangular Strategy Phase III (2014–2018) which gives enhancement of the agriculture sector as the first priority. The priorities and intentions of the Rectangular Strategy are further translated in the National Strategic Development Plan (2014 - 2018), which is managed by the Ministry of Planning and outlines what is expected from the different sectors and ministries.

The vision to modernize Cambodia’s agriculture is based on a new approach and with changed scope and pace, to transform the sector from primarily depending on expanded use of available resources (such as land and other natural resources) and traditional agricultural inputs, into one which primarily depends on the application of techniques, new technologies, mechanization and irrigation to improve the yield and diversify activities into high value crops, livestock, and aquaculture in an environmentally sustainable manner.” In summary the policy is focused on increasing skills and knowledge, productivity, diversification, processing capacity, storage, distribution and marketing.

MAFF as the agency responsible for agricultural development has produced (or is producing) its own policy and planning documents such as ADB funded Master Plan

for Crop Production in Cambodia by 2030 and EU funded Agriculture Master Plan Specifically for agricultural extension there is the Policy on Agricultural Extension in Cambodia dated May 2015 produced with support from USAID.. This policy aims to make knowledge and technology accessible to farming communities, thus increasing productivity. It will be overseen by staff from the Department of Agricultural Extension, working with development partners and the private sector. Then in June 2017 MAFF with assistance from the ASPIRE project produced a paper on Roles and Responsibilities for Agricultural Extension in Cambodia³ based upon the 2015 Policy on Agricultural Extension in Cambodia. This document has been built on the premise of the existence of “an agricultural extension [system] that responds to the needs and high quality agricultural extension service delivery” with an ultimate goal to enhance productivity, quality and safety of agriculture products to satisfy markets demand, as well as to promote resilience to climate change.

To drive the changes envisioned to implement the policy, the Roles and Responsibilities document has calculated the [total] future staffing needs in government agencies being approximately as follows

- 58 personnel at national level
- 320 person at provincial level
- 1800 at district and commune level

This should be compared with the MAFF figure quoted earlier in the document; there is clearly a shortfall that needs to be filled at all levels but particularly at district and commune level (approx 1800 nationally) but this is contingent upon the structure of the extension service and in particular who are the grassroots staff delivering technology to the farmers and other clients; this HR Strategy will address this issue.

1.5. Situation Analysis

Several agricultural organizations around the world have increasingly realized that their most important resources are human.⁴ Furthermore, two important domains in the field of human resources have been distinguished: Human Resource Management (HRM), and Human Resource Development (HRD). These two fields are interrelated and have a significant influence on organizational performance. This is especially true of extension services, of which the major commitments are education, training, and development. Therefore, this consultancy assignment to write a Human Resource Strategy has its focus in the current and future situation of HRM and HRD in the agricultural extension system of Cambodia. As noted above agricultural extension services in the country commenced several decades ago and had a renaissance beginning in 1990s and staff endeavors have accomplished much in a relatively short time span assisted substantially by development partners notably Australia.. Nevertheless, despite the achievements, there are still a number of barriers and restrictions which are hampering extension procedures, and as a result extension, has not been appropriately successful or satisfactory for farmers through recent years⁵. In order to explore what could be done to support extension

³ Roles and Responsibilities for Agriculture Extension in Cambodia [ASPIRE project May 2017]

⁴ USAID 2016: Modernizing Extension and Advisory Services Project (MEAS) Final Report

⁵ USAID 2016: Strengthening Agricultural extension Service in Cambodia (by Murari Suvedi)

systems and facilitate its evolution; several studies have been conducted in Cambodia. These studies indicate that not sufficient effort is being made towards HRD and HRM in agricultural extension in the country and that technology has largely been the focus, not the people who deliver the technology. Therefore, this consultancy assignment pays specific attention to the obstacles in the field of HRM/HRD in agricultural extension organizations in Cambodia, recommendations will be presented to overcome the barriers observed, and several strategic guidelines will be formulated.

2. STRATEGY FRAMEWORK

In developing the HR Strategy for agricultural extension as a starting point a description or definition of human resource strategy is needed. It is as follows *“a human resource strategy is designed to develop the skills, attitudes and behaviors among staff that will help the organization meet its goals. An HR strategy aims at integrating an organization’s culture, its employees and system by coordinating a set of actions to get the required (business goals). Therefore it must be aligned to organization’s mission, vision and goals.”*⁶ This description is a composite drawn from several articles found on the Internet which are focused more upon business than on government although similar principles do apply. So a strategy is like a road map showing the way forward, and is macro rather than micro in its coverage.

2.1 Strategic Analysis

HR Strategy has not always been at the forefront of management in either private sector or the government sector especially in relation to agricultural extension. And in the current environment with continual business landscape changes taking place, strategies that worked in the past will not necessarily work today and only organisations that can adapt to changing conditions will survive and prosper.

The provision of agricultural extension services in Cambodia historically has not been seen as a business yet that is one model that has long been operating in western countries and has been recognized for its potential and is now being tested under the ASPIRE project.⁷ In many ways it is new since traditionally in Cambodia the government i.e. public sector has been dominant in agricultural extension. But always there have been a number of NGOs that have also provided a service albeit limited by geography i.e. not national and usually only to their project beneficiaries often as part of a multi-sector rural development project. They can no longer keep perindating about a closer relationship with the government sector. What is new is that a more “energetic” pluralistic system is emerging with the private sector providing extension services which are very clearly tied to their business of supplying inputs to farmers such that the cost of getting that advice is included within the price of the inputs. Buyers of farmer produce e.g. rice millers are now also starting to provide some form of extension advice often related to quality of produce that they will buy rather than the technology to produce it. The next step, but probably still well into the future, is the payment for extension services without the inputs.⁸

This is the scenario therefore in which human resources are being recognised as a key element that must be adequately prepared and deployed in order to capably play the role

⁶ For example : http://www.ehow.com/about/7497916_definition-human-resource-strategy.html

⁷ Presentation by Dr Suvedi to Agricultural Extension Advisory Committee on December 21, 2017

⁸ See <https://www.bcg.org.au> and <http://www.agripath.com.au/>

they have been given i.e. the provision of broad based high quality advice on how to produce and market agricultural products.

2.2 Key Issues

The SWOT Analysis and the interviews conducted during stakeholder analysis along with the personal experience of the consultant in agricultural extension systems particularly in the ASEAN region identified a number of key issues around which the Strategy has been written. In summary these are as follow

- (i) Lack of front-line extension practitioners within the public sector in the order of 1200 persons
- (ii) Poor competency levels in extension processes
- (iii) Poor image in the public mind of government extension staff
- (iv) Insufficient budget for regular village visits
- (v) Competency especially in technical areas not well matched to agricultural production systems of the District in which (government) staff are assigned



2.2. Vision

In the Agricultural Extension Policy in Cambodia document of 2015 it states that “the vision for Agricultural Extension Policy in Cambodia is to increase the effectiveness of agricultural extension services delivery to improve the livelihoods and well-being of the Cambodian people.”⁹

⁹ MAFF 2015 Policy on Agricultural Extension in Cambodia

For the purposes of this strategy document a vision for agricultural extension is suggested as being *“to provide effective leadership and education towards changing positively the knowledge, skills, and attitudes of farmers and agribusinesses which can lead them to make more informed choices across commodity, community, and resources areas.”*

2.3. Goals

The Agricultural Extension Policy in Cambodia states the goal of the policy is that “all Cambodian farmers and farming communities will access and adopt improved agricultural knowledge, information, and technologies to enhance agricultural productivity, diversification, commercialization, and sustainable natural resources management.”¹⁰

In similar manner for this strategy the goal is restated as *“a pluralistic agricultural extension system will be built upon human resources that have the necessary knowledge, skills and attitudes to enable stakeholders in the agricultural sector to produce efficiently and to compete in a global market”*

2.4. Strategic Objectives

The objectives for agricultural extension are described in the Roles and Responsibilities document and are paraphrased below¹¹:

- Clearly defined roles and responsibilities of agricultural extension institutions and systems at all levels for effective operation, cooperation, and coordination with strengthened linkages between partners in a pluralistic system
- Improved processes in delivery to respond to farmer and producer clients needs as well as recognition of market demands
- Strengthened and effective linkages between extension service deliverers and research entities so that technology is appropriate and accessible for farmers
- Extension materials are developed in ways that promote transfer of knowledge and skills, and their adoption, and
- Delivery of extension services that facilitate improved decision-making among farmers for increasing agricultural productivity, diversification, commercialization, and income generation.

3 HUMAN RESOURCE STRATEGY

3.1 Introduction

This strategy is a Human Resource Strategy, and it is important to distinguish it from a strategy for delivery of agricultural extension services and also from a strategy for HRD. But elements of delivery must of necessity be considered for incorporation into the HR

¹⁰ MAFF 2015 *ibid*

¹¹ MAFF 2017 Roles and Responsibilities for Agriculture Extension in Cambodia (p 10)

strategy so whilst the objectives in Section 2.4 above relates more directly to the organisation of agricultural extension achieving them requires human resources and hence the strategy must recognize the delivery mechanisms as guidelines that point to the human resource requirements.

The strategy needs to cover a widely ranging set of issues in terms of human resource management and development not just technical issues.

There are thus three pillars identified upon which this strategy will be built, namely

- ❖ Organisation and institutions
- ❖ Human resource development and
- ❖ Human resource management

And for each pillar there are a number of themes that will be discussed and inform the strategy.

The strategy will also include one other theme which relates directly to the pluralistic nature of agricultural extension in the future, that being the role of the private sector [agri-business, NGOs, CBO/CSOs] in the agricultural extension process in terms of their human resources and the nature of the interaction of the human resources between government and non-government sectors in agricultural extension activities. The challenge in developing this strategy is how to integrate the work of the private sector into the system so that it is one system and not two [or more] systems as tends to be the case today. And the challenge also is to let the private sector remain independent and not be controlled by the public sector although but perhaps be inter-dependent.

The final pieces to fit into the strategy will be a proposed plan and structure for implementation of the strategy. A pilot phase under the financing of ASPIRE project is proposed although the bigger picture is a nationally applicable strategy not just one tied to a DP project. A budget along with monitoring and evaluation of its implementation is included in the Annexes to this document.

It should be borne in mind when reading this document that it refers in particular to agricultural extension in Cambodia and at the macro-level should give due recognition to the government's long term plans for the development of the agriculture. The overall role of agricultural extension staff is to educate farmers, local communities and producers to enable them to help themselves. There needs to be linkages that link farmers/producers with basic research and information technology to enhance productivity, quality, service and safety of agricultural products. The problem with doing nothing is that you do not know when you have finished. The responsibility of state extension service staff is to play a central coordination role among farmers and researchers, agricultural inputs suppliers, buyers of farm produce, creditors and other private sector actors such as NGOs. They also should of course be providers of agricultural technology along with associated agricultural information and techniques.

The client of the extension system is in particular the producer [farmer] although some service providers will also be clients of the government extension system at some times.

Since the system is supposed to be demand driven – responsive to farmers needs – this strategy turns “conventional wisdom” on its head and proposes a bottom down approach, not top down or bottom up i.e. everything starts with the farmer.

The target is to have service delivery by a cadre of (government) extension agents with each servicing a nationwide average of approximately 1000 farming households. These “grassroots” staff should be located in places that make them readily accessible to the clients in accord with the well demonstrated fact that “the closer the extension agent is to the farmer the more effective extension will be” i.e. a decentralized approach (rather than a centralized one).¹² On this basis the extension practitioners would ideally be located at the level of the Commune but in the immediate short term future that is highly unlikely to happen although the Policy does specifically include the CEW when discussing “minimum qualifications and training requirements”¹³ In addition to the public sector extension agents there are also private sector people but these are not evenly deployed across the country so that some provinces will have a more intensive coverage than 1:1000 households.

In this Strategy paper the key concept around which much of the paper is built is **competence** it is a concept for which there seems to be general understanding amongst those who use the term in an employment sense but for which there is no concise definition. In this paper competence (and competencies) refers to the set of knowledge, skills, attitudes, and behaviors that a person has. In the context of agricultural extension a competent person therefore carries out their roles and responsibilities in a manner that is expected of them by both their employers and importantly their clients,¹⁴ the concept is elaborated further in Section 3.3.1

3.2 Organisation and institutions

3.2.1. Organogram

The roles and responsibilities at each level in the government agricultural extension system as presented in the relevant document¹⁵ The discussion herein has minor variations in line with the thoughts of the HR Strategy consultant. There tends to be less duplication with some responsibilities undertaken at only one level or predominantly at one level and the number of “managers” has been reduced.

The paper by Murari Suvedi “Implementation Guidelines for Policy on Agricultural Extension in Cambodia” (page 15) recognizes the Commune Agricultural Centre and the CEW as key elements in extension delivery but more as a “bridge” between DAO and the farmer rather than being the deliverer of extension messages/technology to the farmer and the farming families. The diagram below is taken from that paper and shows lines of authority and communication (coordination and cooperation). The HR Strategy consultant agrees with this depiction of the institutions and their relationships and endorses it as the model upon which the following sections are discussed.

¹² FAO <http://www.fao.org/docrep/t8654e/t8654e05.htm>

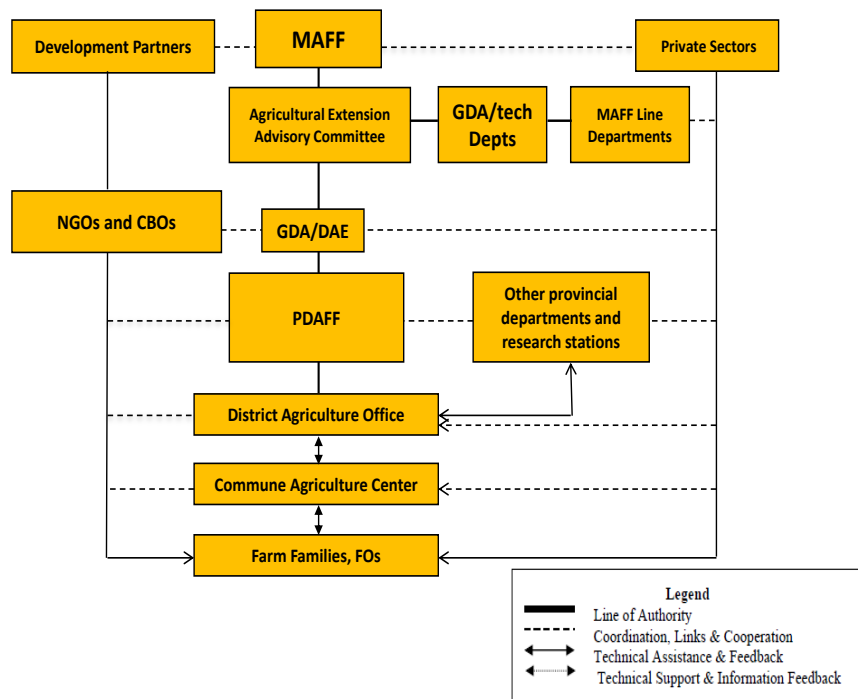
¹³ Ibid page 13

¹⁴ Maddy, Niemann, Lindquist, & Bateman, (2002) Core competencies for the cooperative extension system

¹⁵ Roles and Responsibilities for Agriculture Extension in Cambodia [ASPIRE project May 2017]

Figure 2: Extension Services Provision and Organization in Cambodia

Extension Service Provision and Organization in Cambodia



The diagram shows that private sector [businesses etc] has a cooperation and communication relationship with the various levels in the government system but there is no “chain of command”. The Development Partner relationship is similar but depending on the detail in the Memorandum of Understanding with the government there may be a level of authority involved - ODA partners in many cases are funding the government [and others] to implement the projects so have a clear contractual arrangement even if not actually a controlling situation. On the other hand NGOs (and CBOs/CSOs) usually have simply a communication relationship even if they do provide some funding to government. Cooperatives have a slightly different relationship because of registration but in terms of providing extension services the relationship is predominantly one of communication.

The Village Extension Worker (VEW) does not appear in the organogram as their value as an extension agent is not clearly demonstrated (see notes on Lao PDR system)¹⁶; instead building up the capability of the CEW is seen by the consultant as leading to more effective technology transfer outcomes. There is however reference to “model farmers” who can also be referred to as contact farmers. They are mostly the more progressive and successful farmers who are the early adopters of technology and may be a person to whom other farmers look to for help. People talk to these more progressive farmers to learn from them and the ASPIRE project has formulated guidelines to assist the process but these

¹⁶ lad.nafri.org.la/fulltext/LAD010320071103.pdf

may be redundant since it may not necessary to have a system that organizes the way people talk to each other. So in terms of an HR Strategy there is little reference to the model farmers (or Village Extension Worker which is another term used).

3.2.2. Roles and responsibilities

This section refers to the agricultural extension system and services at national and sub-national levels of government but not to the private sector. The private sector as part of their overall human resource policies would normally have comprehensive job descriptions for each employee which will detail the roles and responsibilities.

Each institution [agency] has a **primary role** in providing **supporting** services namely capacity building and technical support to the institutions at its **immediate lower** level. So the District Agricultural Office provides this critical input to Commune and the CEWs, and the Provincial Department [PDAFF] likewise to the District Agricultural Office. But each office also has roles unique to itself, for example DAO has the responsibility to monitor the work of the CEWs. This is similar to the work of the District Training and Monitoring Teams (DTMT) under the Ministry of Education, Youth and Sport which has elements of inspection but also a mentoring function through feedback on performance. Provincial Department of Agriculture Forestry & Fisheries through its agricultural extension office will be responsible for leadership of all extension activities in the province in the government sector through the planning function - developing strategic [long term] plans, action plans and the annual program budget. It will also be responsible to evaluate effectiveness of agriculture extension activities in the province although not the monitoring of activities which is assigned to the DAO. And the PDAFF is the focal point for liaison and coordination with the private sector.

The sections following do not reproduce the details provided in the Roles and Responsibilities document but summarise the important points and especially where the consultant is recommending a deviation or emphasis in a role. At each level there will be administrative and financial responsibilities as well as upward reporting responsibilities so these are not spelled out. The roles and responsibilities are not allocated to individuals in this section but just at agency level and so they may be performed by one or several staff. And it should always be borne in mind that the overarching theme in this document is Human Resources not extension systems and methodologies.

❖ Commune

The CC through its planning process will identify opportunities for increasing agricultural production and constraints to the sector's growth and incorporate relevant activities into the development and investment plans.

Through the Commune Extension Worker farming households will be educated in technology appropriate to agricultural production under the local agroecosystems. The CEW will also provide education in farming as a business including marketing. The CEW will be the focal point for any national agricultural programs being implemented in the Commune and be the conduit for relaying local agricultural information to higher level authorities.

❖ District

The District Agricultural Office will be supporting the CEWs as their technical backstop. It will also monitor the work of the CEWs through regular visits with feedback and mentoring. But with the need for a more intensive engagement with farmers required the numbers of DAO staff cannot provide that high level of personal contact right across the district. The office can however be a point of interaction with the private sector extension practitioners and with researchers.

❖ Province

The Agricultural Extension office in PDAFF becomes the focal point for all extension activities conducted under the government in the province but its staff would seldom be engaged directly in the technology transfer process with farmers. It is the planning and evaluation office for extension activities in the province as well as for national programs to be implemented. With a number of specialists in both technical disciplines and in cross-cutting issues such as gender and farm business PDAFF also plays a significant role in capacity building of all extension agents directly with District and Commune. The conduct of the bi-annual extension colloquium is organized and led by staff in PDAFF. The key word for the province is COORDINATION of agricultural extension activities in the public system but also it needs to interact with the private sector system and especially in forming partnerships (as described in the report of the an ASPIRE consultant on PPP).

❖ National

The responsibilities for the agricultural extension activities at National level are spread across a number of agencies but the primary agency is the Department of Agricultural extension under the General Directorate of Agriculture.

The roles and responsibility are substantial and varied. Firstly DAE provides the Secretariat for the Agricultural Extension Advisory Committee which thus includes a role in development of policy. Secondly there is a role in extension methodology leadership in researching and piloting various options for suitability in Cambodia. Incorporated into this should also be a role in Quality Assurance in evaluating the effectiveness of the extension services provided to clients – farmers and others. Thirdly there is a role in researching/collating technical information from other agencies in Cambodia and elsewhere that become the basis of the technical messages for extending. DAE has role in the development of media messages to be used in extension activities including the preparation of TIPs (Technical Information Packages). Another role associated with media is the development and maintenance of the extension information portal and website so that all extension practitioners are always current and up-to-date with information. The DEA has a significant role in Human Resources in maintaining all staff records and in the development and delivery of capacity building activities. And in line with recommendations in this document it will maintain the lists of all Registered and Accredited extension practitioners.

Agencies that play a specialized role include the agricultural education institutions (such as Royal University of Agriculture, Prek Leap National School of Agriculture, National School of Agriculture Kampong Cham) the research institutions such as CARDI (Cambodian Agriculture Research and Development Institute) and the line agencies of

MAFF responsible for animal health and production, forestry and fisheries. In this section these are not discussed in any detail as the reference document already does so.

The overarching role for DAE is one of assuring quality and effectiveness of agricultural extension service delivery by providing leadership in the operation and management of agricultural extension services to both the public and private sectors.



3.2.3. Plantilla [staff]

In this section the discussion focuses upon the *plantilla* which is a list of staff members necessary to effectively undertake the roles and responsibilities outlined above. The *plantilla* in the context of this document is not just jobs by “title” but also with the numbers that should be deployed. It needs to be considered also with the information in ANNEX 1. The information in this section varies from the reference document, in part as it is a summary but it also is the recommendations of the HR Strategy consultant. The main recommendations are briefly (i) the number of offices is reduced by merging several together and revising names and (ii) the number of staff is reduced with the numbers of general administrative staff only an estimate.

Following the format of the previous section (3.1.2) the presentation that follows here is done in a “bottom up” manner.

❖ Commune

The “only” extension staff at the Commune level in the short-term are those associated with DP funded projects although there is usually one Commune Councilor assigned to be responsible for agricultural matters. There are specific cases where a CEW has been employed by a project & has subsequently been elected a Councilor so where these people are still engaged they should be included in the capacity development activities.

❖ District

The District should be functional with staff taking specific responsibilities and a total of seven persons are proposed.

There should be a Chief of Office who will be responsible for managing all extension activities, of providing leadership to the team and being the expert on legislation. The team of technical experts should reflect the prevailing agricultural production systems in the district and they would be supported by an Administration and Finance officer.

❖ Province

The PDAFF has wide responsibilities and extension is just one of many that come under the control of the PDAFF Director. So for the provision of an effective extension system there is a need for close collaboration between staff from the different line agencies under MAFF through the provincial Agricultural Extension Office. And in terms of cross-cutting issues such as gender and environment the extension office coordinates with staff of Provincial Department of Environment and Provincial Department of Women's Affairs. And it is also at this province level where public and private extension systems most effectively and literally meet.

For the coordinating role the extension office needs only a relatively small staff of 7 people. There should be a Chief of Office who will be responsible for managing all extension activities and of leading the technical team which will have expertise in extension related topics but will not be industry experts This team would be supported by an Administration and Finance officer.

❖ National

The mandate of DAE is to support, coordinate, monitor and evaluate action of relevant agricultural extension service providers. It therefore works with all national and sub-national agencies engaged in the delivery of extension services to farming families throughout the nation. This includes collaborating with the private sector.

The HR Strategy consultant is recommending variations in both the current structure and also those in the Roles and Responsibilities document. The model proposed for DAE is for a total of approximately 45 staff spread across 5 "Offices". The suggested changes are explained in more detail in ANNEX 1.

The ratio of 1:1000 quoted in a previous section includes all government extension staff in the DAE, OAE and DAO not all of whom will be regularly dealing with farmers in providing extension services. With an estimated national farming population of 2.1 million households that mean there is a need for approximately 2000 (government) extension workers in total who would be deployed as follows

❖ DAE	58 persons	(8 needed)
❖ OAE	320 persons	(195 more needed)
❖ DAO	1600 persons	(1000 more needed)

Whilst the majority of extension personnel are basically prepared with a Bachelor or Associate degree they all need to undergo some form of specialized training (which is discussed in a later section) But Specialists are also needed with a higher level of qualification (masters or doctoral level) as “knowledge leaders” and would be deployed ideally with five persons in DAE and one person in each PDAFF. Their expertise should not be in an agricultural production discipline since the line agencies already employ many such experts. In the PDAFF (OAE) expertise in extension processes is needed whilst In DAE a number of options for the expertise can be considered including farm management economics, marketing, ITC and media, To reach the numbers of staff required at DAO a big recruitment drive will be needed with significant financial implications in terms of salary and logistics support . Some of the recruitment can be accomplished by employing CEWs who can meet the standards in terms of competency already or with little further training. There is a need to curate the highest calibre talent to ensure extension goals are met. If the recruitment is staged over a period of about 12 years so that it is completed by 2030 the average number recruited *per annum* will be about 120 and it is proposed that this be accomplished progressively as follows.

Table 1: Incremental Extension Staff

Year	Number		Year	Number
2018	80		2024	120
2019	80		2025	120
2020	80		2026	120
2021	120		2027	120
2022	120		2028	120
2023	120		2029	120

However it should be noted that recent estimates of the number of farming households are declining and the total requirement may finally be a lesser number.

As discussed later this training can be carried out by RUA and PLNAC using a mixture of “residential” courses and e-Learning as well as by enriching current course offerings to better prepare people for extension work. DAE and the agricultural education institutions need to engage in serious dialogue to set out the plan for training if the bigger objectives of the RGC policies for agriculture are to be successfully achieved.



3.3. Human resource management

Managing an organisation’s human resources should be a part of any HR Strategy and this section is included on that basis. For the public sector extension system the Department of Personnel and Human Resource Development of MAFF is responsible for ensuring that procedures of the Ministry of Civil Service are implemented in DAE and in PDAFF.

This section recognizes that various management systems are in place. It does not evaluate them nor should any changes suggested be construed as criticism of the current situation but rather to enhance them to provide more effective extension services. And with the same objective of service provision the general principles can also be applied to the private sector agricultural extension service providers who all have their own HRM practices

3.3.1. Administration and management of the human resources

Six separate activities are identified and discussed hereunder although these are not an exhaustive list but include the main issues for the public agricultural extension system

3.3.2. Selection procedures

The DPHRD has overall responsibilities for selecting and hiring staff working closely with the leader (staff) of the Office wishing to hire new staff i.e. in DAE and in PDAFF in accord with standard procedures even if the staff are contracted under a project.. Any existing job description (sometimes referred to as TORs) should be reviewed or a new one written. This Strategy proposes that the required competencies be included in the documentation. After applications are received interviews and testing is carried out as appropriate ensuring that the interview panel is well balanced in terms of knowledge of the job requirements. After selection procedures are completed a short report is prepared for forwarding to DPHRD for endorsement of the decision.

3.3.3. Remuneration

Salary is the main component of a remuneration package for government staff. Expenses for travel on duty are another part – paid either as a re-imbursable expense or a fixed sum according to guidelines. Although not a cash payment, leave for public holidays, sick leave, annual leave, study leave and special leave are also part of the remuneration package. The package follows civil service regulations but the HR staff should make clear to each staff member exactly what their entitlements are during mobilization.

3.3.4. Performance assessment

Every staff member even at Director level should undergo an annual performance assessment. Whilst in private business it is often used as a basis for salary increases that is seldom the case in the public sector agricultural extension system. However a new procedure is likely to be initiated in 2018 once the necessary Sub-decree is finalized.¹⁷ It should also be noted that in the presentation to AEAC by the ASPIRE Quality Assurance Advisor there was indirect reference to staff assessment in the assessment of extension activities.

Staff assessment should be undertaken to identify the strengths and weaknesses of each staff member in order to map out a career path and their capacity development plan and to identify areas for performance improvement. The basis for the performance assessment should be Key Performance Indicator (KPI). On an annual basis every staff member should agree with their manager on their KPIs for the coming 12 months and have them signed – off by an HR staff member. The Guidelines state that assessment is conducted by the staff member being assessed and by their Supervisor.

3.3.5. Occupational health and safety

A workplace environment should be safe and this responsibility is handed to the HR Office (in DAE). It comprises four main areas of activities

- conducting an audit about every 6 months of the workplace to identify hazards and working with other Chiefs to decide upon safety measures
- holding short workshops with all staff to create awareness of safety in the workplace
- developing a set of guidelines for safety during work related travel, and
- working with the “technical” Office Chief to identify health and safety issues for staff in the field

The fourth activity is one faced everyday by staff in the field i.e. in the farming areas. Farmers use machinery that is dangerous often without safety measures and they also use hazardous chemicals. The latter is a “cross-cutting” issue! Safe handling and application of chemicals needs to be included in all discussions with farmers and in all print and audio-visual media; a special section should be placed on the website. This topic should

¹⁷ Ministry of Civil Service (2016) Guidelines on Performance Management System

also be one for discussion with the private sector extension practitioners in particular with those who are the sellers of the chemicals.



3.3.6. Establishment and maintenance of HR database

This is a relatively obvious activity but for completeness needs to be included in this section. A database needs to be created and always kept up-to-date for each and every staff member. It should record all training and all (significant) meetings attended results of performance assessment etc.

3.3.7. Nurture and retention of workforce

It is a widely held belief that the most valuable asset that an organisation has its human resource. And that maxim applies to any agricultural extension service provider. Take away the people and what is left? Nothing!! Retaining the staff, often staff into whom time and money has been invested in personal development is essential. And they need motivation to maintain their interest and have them working effectively. The HR staff along with each Office Chief needs to be doing that continuously. But should staff for any reason terminate their service, or in some instances relocate to another office then the HR staff need to conduct an “exit interview”. It should be done in a way that is positive for the interviewee and also provide information for the organization to improve their performance ¹⁸

3.4. Human resource development

Human resource development is the key element of this strategy and it is based upon **competencies** as detailed in the HR Strategy consultant’s report of a survey of a sample

¹⁸ [tps://en.wikipedia.org/wiki/Exit_interview](https://en.wikipedia.org/wiki/Exit_interview)

of extension practitioners and also in the paper by Suvedi ¹⁹ The following discussion covers two main areas – entry level and in – service learning to acquire the necessary competencies for an effective, efficient and pluralistic extension system

3.4.1. Competence

Competence is the fundamental concept upon which this section on human resource development is based. It is a concept for which there seems to be general understanding amongst those who use the term in an employment sense but for which there is no succinct definition. Competence refers to the set of knowledge, skills, attitudes, and behaviors that allow workers to effectively perform their tasks as expected by employers and “clients”.²⁰ Competence can be seen as a combination of practical and theoretical knowledge, cognitive skills, behavior and values used to improve performance; or of having the ability to perform a specific role. It is thus a characteristic of an employee that (a) contributes to successful job performance and (b) achievement of organizational results. These include measurable or assessable knowledge, skills, and abilities plus other characteristics such as values, motivation, initiative, and self-control that distinguish superior performers from average performers. Simply it can be stated as the knowledge, skills and attitudes that staff should have for assignment to a particular position and this is how the word competence will be used in the rest of this document. An example is provided in ANNEX 2 of the set of competencies required of an Agricultural Extension practitioner.

Competence statements should be written for every position but they can initially be generic and refined in the details as experience shows what needs inclusion (or deletion). The HR Office of DAE needs to take the lead in writing them with input from each Office Chief for DAE and the Provincial Chief of Extension for sub-national staff. As already referred to above the ASPIRE survey and the Suvedi paper both contain similar lists of competencies required in particular by CEWs ²¹ In that document the levels of competency are described and the same description will be used here.

0	=	No Skills or Knowledge
1	=	Some Skills, Partially Competent
2	=	Moderately Competent
3	=	Mostly Competent
4	=	Completely Competent
5	=	Expert

¹⁹ Murari Suveda, Ramjee Ghimire, Ty Channa (2017) Examination of core competencies of agricultural development professionals in Cambodia

²⁰ Maddy, Niemann, Lindquist, & Bateman, (2002) Core competencies for the cooperative extension system.

²¹ See the **Competencies Survey Report** for list of competencies included in the survey

3.4.2. Entry level competence

Entry into the public sector extension service currently is based on a qualification without particular regard to having the necessary competencies to undertake the roles and responsibilities of the position. Most commonly this is through a Bachelor degree from one of the Cambodian agricultural education institutions. The course offerings have not especially produced graduates with the necessary level of competency to be outstanding extension practitioners but under ASPIRE the curriculum for a number of subjects are being enriched to be more relevant to Cambodian agriculture in the 21st century.

The Policy paper describes entry level qualifications and whilst these are adequate for the Strategy some modifications have been made. (See table below)

Table 2: Types of Extension Workers

Type of Extension Worker	Location/Office	Minimum Education Requirements
Agricultural Extension	DAE	4 year degree +/- diploma
<u>Specialist</u>	PDAFF	
Agricultural Extension	PDAFF	2 year diploma (associate degree) +/-
<u>Advisor</u>	DAO	certificate courses
Agricultural Extension	Commune	Certificate courses OR specialized
<u>Worker (CEW & VEW)</u>	Village	training courses

The VEW is basically an honorary position with the role of being a facilitator or intermediary between farmers and extension practitioners. These people need some very basic competencies relating to extension processes – a combination of topics drawn from Module 1 in the paper Implementation of PAEC written by Prof Suvedi. Several short-duration and in-person training events can deliver the necessary information.

The CEW is likely to be contracted to work on a DP funded project. Preferably they will have undergone the complete Modules 1 studies – both compulsory and elective subjects. However if they have not completed the course they should complete Modules 1.1 and 1.2 during a 6 month probationary period and complete the electives in the next 12 months. There are reportedly 846 CEWs in the workforce - ASPIRE and TSSD have been two projects that employ them. This represents a pool of personnel who already have experience as extension practitioners who can be upgraded and meet a significant part of the need for extension workers.

The Extension Advisor will be a graduate – preferably Bachelor degree or an Associate degree and depending upon the actual courses studied may be required to undertake Module studies.

For Specialist positions having a post-graduate degree is highly desirable, maybe mandatory but in the future it should be competency that counts equally & that can be acquired through a number of ways such as having a primary degree and adding specific subjects to it to develop competency. However for this Strategy it is proposed that entry level be a Bachelor degree except in special circumstances. Furthermore there are jobs within extension and in particular in the public sector that does not require a degree in agriculture for example administrative/financial and other positions that support the

frontline extension practitioners. But at this time all positions/roles with the notable exception of CEW would ideally be filled by a person holding a university degree from a recognized institution (although the minimum qualification is lower). And it is quite likely that in the future some CEWs would be university graduates as the role to be effective will become more demanding in knowledge and skills.

It should be noted that it is not necessary for the performance in the job that all competencies must be at level 5 – the level depends on the position. For example a CEW need not be more than partially competent (level 2) in rubber production if it is not being grown in the local area. So it is proposed that the entry level should require a minimum of level 3 for core competencies and level 2 for other competencies during the period of being piloted.

To put this part of the strategy into action it is recommended that as a component of the job description (the tasks to be performed) a Competency Statement be included containing the competency level for entry and the level to be attained at some pre-determined time into the future. This will serve in aiding selection but also in guiding staff in their personal development plans.

3.4.3. Career development and in - service training

In-service training is a life long learning process that is part of personal development for staff in any organization and is a priority for improving the extension system and service. Ideally it would be linked to a career path so that people who choose to do so can move from the basic level of extension Worker to Advisor and then to Specialist through a modular approach. That however is not possible at present under RGC Civil Service procedures. What is possible is to have an accreditation system for extension practitioners which when implemented can also maintain quality of service. It is a key tenet of the Strategy that any extension practitioner has the opportunity and ability to improve their competencies.

ANNEX 3 provides an outline of training modules based on the paper for Implementation of PAEC and its associated **Human Resources Development Implementation Guidelines**. Essentially there are four tiers or sets of modules grouped around Process and Technology as the main divisions; the modules are

- Basic Agricultural Production
- Introduction to Agricultural Extension
- Agricultural Extension Management
- Advanced Agricultural Technology

To gain and retain accreditation extension practitioners at the different levels will be required to undertake both compulsory modules and also a number of optional modules (the standard of achievement will vary between the different levels.) Subjects taken during the completion of a university undergraduate degree (or Diploma) will be accepted as equivalent to some modules. But in the long term all extension practitioners will have similar competencies.

As well as the Suvedi suggestions ANNEX 4 presents another option which is an e-Learning course outline primarily for CEWs but it can be easily adapted to be either a pre-

service or an in-service course; it can also be adapted for people who already have degree level education

Accreditation and career development can also come through formal courses e.g. Master degree or Certificate, through course units (specific subjects), short (or long) term training courses and can be done in a number of ways such as in – person attendance, reading, e-learning, study tours, and workshops for example. And in the paper on Implementation of PAEC it is proposed that a variety of delivery modalities be used.

The proposal in this Strategy thus builds on the outline in “Implementation for PAEC” is proposal in principle but varies in the details. In essence each person in the agricultural extension system should have an annual career development plan to follow in order to build their competencies (as already described in Section 3.3.1c)

Whilst this section refers in particular to the public sector agricultural extension system it equally applies to the private sector which possibly are better organized in this regard at present. As will be explained in more detail in succeeding sections of this Strategy there is a strong connection between in-service training and the proposed accreditation of agricultural extension practitioners. By providing knowledge and tools for career-building and leadership the benefits are for both the individual employee as well as for the organization.

The Strategy herein described will not be implemented quickly and therefore there remains a need for “training activities” for the public sector extension staff and this will be in accord with the AWPB of ASPIRE. But it should be noted with some serious concern that many of the current extension staff have been recipients of a significant amount of training through past years and yet in the ASPIRE Competency Survey there was a low level of competence recorded along with a very high requirement for training in almost every subject. So what has gone wrong that there has been **no impact**? The strategy is suggesting some new approaches to rectify that waste of resources.

3.5. Private sector actors in agricultural extension

The Agricultural Extension Policy states, “It is recognized that the private sector generally has a profit motive and operates in a different way than the public sector. In certain aspects, private services are better prepared and implemented independently from government. As one of several extension services providers, however, the private sector must be operating within the regulatory framework of the government “. Further a key factor in the continued growth of the agricultural sector in Cambodia is “Maintaining a private sector-friendly policy environment.” ²² The way this section of the policy is implemented will determine the effectiveness of the pluralistic extension system. It is only when the government truly recognises this paradigm shift will it have some chance of achieving a fully effective pluralistic agricultural extension system.

As already stated the private sector businesses and NGOs have been involved in the delivery of extension services for decades. For the businesses it is usually in association

²² World Bank: <https://opendevelopmentcambodia.net/topics/agricultural-policy-and-administration/>

with the provision of supply of inputs or the purchasing of products grown by farmers, and with the NGOs it is usually part of the implementation of a project often a community based livelihood enhancement project. But to date there are very few, if any, people whose primary role is that of an extension practitioner i.e. providing technology and farm business advice to farmers on a fee - for - service basis. The organization iDE is probably the exception to this generality with their plans to separate the sales function and the technology delivery function through formation of two separate entities.

In a fast-changing world where demographic shifts and technology-led disruption have left farmers concerned about their futures, governments alone can no longer be counted on to be the sole “rescuers” Businesses can and should be doing more to help create a sustainable future for agricultural extension.

In this strategy paper four particular recommendations are made to incorporate the private sector actors to make a more truly pluralistic system but at this stage they are seen as voluntary actions rather than being mandatory. However it is noted that there are similarities between the two systems of government and private sector so “integration” is by no means difficult. For example the private sector employs staff that fit their needs and selection criteria, therefore most who are working in extension will have graduated from one of the three agricultural education institutions [RUA, PLNCA, KPNCA] as are the public sector staff.

3.5.1. Registration

Persons who are working in agricultural extension will be registered with the Department of Agricultural Extension. Based upon the definition given in Section 1.2, any person who spends more than 25 per cent of their working time in “delivery of information inputs to farmers” is deemed to be an extension practitioner and therefore will be required to register.²³

Initially there will be no other criteria applied and registration is purely voluntary but in the longer term there will be a number of benefits from registration that provides an incentive to register for both employer and employee

- (i) the development of registration criteria and their application will ensure that extension practitioners have the required competency to do the job
- (ii) registration will lead to a more unified methodological approach and to a reduction in the current variation in information - today it is quite variable and not always suitable to the particular farm environment
- (iii) it will give some status to the agricultural extension profession which is mentioned in the policy²⁴. Other professions outside agriculture that have a high status especially those that interact with the public by providing specific services usually have a process of registration. And these

²³ 25% is an arbitrary figure but is suggested for purposes of discussion

²⁴ Section 50 of Policy on Agricultural Extension in Cambodia

professionals often charge [high] fees for their services for example accountants, lawyers, doctors, and engineers.

- (iv) there would be some protection provided to farmers against poor advice by allowing them to check whether an advisor is registered or not.

Registration applies to all agricultural extension practitioners not just private sector and as a starting point those identified during the survey of practitioners should be the first registrees. Applications should be submitted through the extension office in PDAFF for verification that the person does work in that province. The Department of Agricultural Extension will be charged with maintaining the register.

The Register produced from Extension Practitioners Survey will need to be cross – referenced with the lists of “private service providers” that have already been identified and recorded on website.

The primary objective is to raise the standard of agricultural extension in Cambodia, not to raise revenue and not for the government to exercise control over the private sector practitioners.

3.5.2. Accreditation

The second recommendation which is associated with and an expansion on, registration is to establish a system for accreditation of extension practitioners. So basically there are two lists – registration and accreditation – and extension staff can move “upwards” from registration to accreditation.

The background to this recommendation comes through the proposal from the first HR consultant for a “competency based agricultural extension” model for Cambodia. The model was developed in a Concept paper but it did not really develop the theme of competencies and how to assess them. Instead it moved into a discussion of the Expert Working Group. The associated survey of a sample of government extension agents did seek information on how they viewed their current level of competencies. An analysis of the data showed all were weak in all competencies (with few exceptions).

To better understand the concept of competency a detailed description of competencies in agriculture is provided from the Australian experience [see Certificate III in Agriculture²⁵ And in terms of the people eligible to be trainers and assessors of competencies the standards are also laid down. ²⁶ .

The essence of this recommendation is that extension agents will undertake personal development so that their competency increases and compliance will be measured against a set of activities that have a numerical point value. There are a standard number of points that must be gained over a set period to maintain the Accredited Extension Agent title. It should be noted that this is not a compulsory competency review but is entirely voluntary. The major benefits are not unlike those for registration namely

²⁵ <https://training.gov.au/Training/Details/AHC30110>

²⁶ <https://www.myskills.gov.au/courses/details?Code=TAE40116>

- (i) the skills and knowledge of extension agents are progressively raised
- (ii) accreditation can be a criteria for promotion for merit payments
- (iii) farmers will have more confidence in the advice given by an accredited agent

A paper describing how the system works for professional agriculturalists in Australia can be accessed on the Internet.²⁷ For Cambodia it is proposed for maintaining accreditation that the standard be a minimum of 75 points relevant professional development over 2 years (approved and audited). And after submitting two accreditation statements with a minimum of 100 points in total, the requirement will be reduced to 40 points over 2 years. As an example for Cambodia the points allocation might be as in Table 3 below

Table 3: Examples of eligible activities and claims points

APPROVED ACTIVITY	MAXIMUM CLAIMABLE POINTS
<i>Formal study leading to a qualification or Statement of Attainment</i>	
Post-graduate study (Masters, PhD)	75 points per year
Training at Certificate or Diploma level	50 points per year
Short Course (Statement of Attainment)	maximum of 7 points per day
e-Learning course	20 points per course with maximum of 1 course per year
<i>Active participation in</i>	
Seminar or workshop	1 point per hour to a maximum of 7 points per day
Field or study	tour a maximum of 6 points per day
Conference	a maximum of 6 points per day
<i>Professional activities over and above normal work</i>	
Preparation & delivery of talks, seminars, workshops, or lectures not considered part of normal work	to a maximum of 4 points per lecture (sample to be attached. only one time per lecture)
Committee work not considered part of normal work	to a maximum of 10 points per year
Contributing to technical publications, refereed papers, submissions or reports not considered part of normal work	work to a maximum of 8 points per paper sample to be attached
<i>Other professional development activities</i>	
Evidence of PD activity to be submitted for consideration.	points allowed will be based on assessment of activity to a maximum of 10 points per year

The Accreditation along with the Registration will be administered by DAE and the lists of names will be available on a website.

²⁷ http://www.aginstitute.com.au/pdf/Accreditation_October2011.pdf

The e-Learning activities under ASPIRE could be the model for acquiring competencies with extension agents required to complete e-Learning modules as part of maintaining registration as an extension agent. Certainly new modules would need to be written as well as existing ones updated particularly in technical areas based around the detailed module contents contained in the paper for Implementation of PAEC. The staff in the agricultural education sector should be further trained under ASPIRE in how to prepare curriculum and associated learning materials to meet competency requirements.

This approach is perhaps a longer term view of the endpoint for Human Resources in agricultural extension but illustrates the principle of competencies and its application in a country with more advanced agricultural systems but to which Cambodia should aspire.

3.5.3. Groups for mutual exchange

It is proposed that there be Provincial Agricultural Practitioner Sector Group (PAEPSG) formed in each province. This is the third activity that brings the private sector into a closer relationship with the public sector extension system through a format for discussions very clearly focused on local and practical issues. An existing grouping that provides a model is the Provincial Education Sub-Sector Working Group which brings together both public and private sector stakeholders.

The background to this recommendation is contained in the Policy which suggests that a national forum on agricultural extension is held regularly to create awareness, generate knowledge, exchange ideas, and share experiences and lessons learned.

One method for integrating the various actors in agricultural extension was proposed by the first HR Strategy consultant [Dr Michelle Glenn]. This was to centre on the development of Teams of Expertise or Expert Working Groups (EWGs).²⁸ *“These teams would be built in each province of members of the provincial agriculture extension personnel, private sector, other extension providers, university or agriculture school personnel, and research institutions. Teams should develop plans for program delivery and team capacity enhancement, or professional development. The EWG members are also expected to evaluate program impacts and document progress on extension activities in the province in support of PDAFF. This approach to HR Strategy can provide a platform to create a seamless interface between Extension, Private Sector Partners, Universities and other Extension delivery organizations, The result will be an increased capacity to deliver quality training programs to the farming communities as well as increased job satisfaction for extension practitioners.”*

The new recommendation is for a more pragmatic approach with wide representation and without the overtone of control by government over extension activities by the various actors especially the private sector. It should be open to all interested persons who have the desire to contribute to the work of the group. It is clearly to be a forum for discussion and sharing of experiences so amongst the topics might be

- announcements from government of special campaigns
- new technologies and variations to existing ones

²⁸ Information extracted from report of December 2016 for ASPIRE titled “Competency Based Agriculture Extension Model for Cambodia Concept Paper”

- new projects under DPs or NGOs
- new products from companies
- review of case studies of extension activities

3.5.4. Collaboration in Training

Both the public and private sectors in agricultural extension provide training for their staff, with little or no collaboration. The exception occasionally found is when an NGO invites (or contracts) with a government agency such as PDAFF to be the trainers especially for particular agricultural technologies. But NGOs and private businesses in providing training for staff also contract other agencies to be the resource experts as it is appropriate to the subject. The recommendation for this Strategy is that all extension service agencies invite other agencies to participate in courses that they are delivering. It is accepted that all agencies at times have training that is confidential and such activities are not included in the recommendation. But a far more open sharing approach can and should be taken.

4 IMPLEMENTING THE STRATEGY

4.1 Introduction

As a starting point in this section the question can be asked “what is needed in a Human Resources function for a Department of Agricultural Extension to implement the strategy?” The current situation and/or the proposal in the document on Roles and Responsibilities in agricultural extension indicates that there should be an Office of Human Resource Development subordinate to the Office of Administration, Planning, Accounting and International Cooperation in DAE²⁹. But the actual focus seems to be upon HR development plus a disparate group of activities not directly related to HRM.

There are however several areas of responsibility for HRM that when implemented effectively lead to higher job performance and employee satisfaction. These are

- job design, recruitment, and selection
- performance management and assessment, and rewards
- training and development
- record keeping and
- career planning and succession management

These roles are important in implementing the HR Strategy and several of them are already being undertaken. The HR Strategy proposes some changes but mostly these are in the detail and can be easily accommodated. However the concept of **competency** is relatively new and as the core of the approach to HR will require significant change in both the thinking and in the way HR work will be undertaken. Accordingly it is recommended that a short-term consultant be engaged to work with the Office of Human

²⁹ Roles and Responsibilities for Agricultural Extension in Cambodia [page 21 pp]

Resources Management and Development. In summary the consultant will assist the Office to

(i) develop competency statements for all positions (not individual persons) in the DAE and in the sub-national offices associated with extension services delivery

(ii) review the courses available in particular at RUA, PLNCA and KCNCA to identify the agreement (compliance) with required competencies

A tentative timeline for implementing the HR Strategy is proposed with it being progressively rolled out during 2018 – 19. The development of competency statements will take time but should be completed over a 6 month period (if done part-time) The capacity building activities, as has been the practice in the past are delivered throughout the year. Selected trainings should be given in 2018 as an interim measure while modular courses are further developed based around the models in this document.

The Registration and Accreditation of extension practitioners realistically will be a slow but also not a process that is time dependant and will be facilitated by the survey to be undertaken - Extension Practitioner Survey. That may in fact provide the vehicle for Registration using an “opt - out” approach.

A proposed Action Plan for the implementation of the HR Strategy in 2018 is presented in ANNEX 10 with a Risk Matrix in ANNEX 13

4.2 Monitoring and Evaluation

The progressive implementation of the HR Strategy in its pilot phase should be closely monitored as a part of the ASPIRE project in order to make adjustments that might be identified. However until the elements of the Strategy are discussed and adopted, Milestones and a timeline are difficult to enunciate at this time but once critical decisions on HR Strategy are made a detailed monitoring framework can be developed. However some elements fit into regular ASPIRE project activities for example capacity development (training) and these will be monitored through the existing procedures – there is no necessity to change.

An M&E framework for the 2018 Action Plan for implementation of the HR Strategy is presented in ANNEX 12.

4.3. Financing the HR Strategy Implementation

The major cost of implementing the HR Strategy is contained in the salaries and recurrent expenditure to employ additional staff in particular Extension Advisors to staff the DAO offices to provide the 1:1000 ratio. Of course in the ideal situation CEWs who have been employed at least temporarily through Developing Partner projects (and budget) would be engaged on a longer term basis but this appears highly unlikely. This is a significant impost on the government budget but without engaging the additional approximately 1400 extra staff then a truly effective professional and pluralistic extension service will not eventuate. However the numbers of other staff proposed need verification against existing numbers which should come through the Extension Practitioners Survey which should commence in the immediate future. Some re-deployment between DAO and PDAFF would be a useful short – term measure to improve service delivery.

An expanded capacity building program is also required and whilst that has some costs they can be included in the 2018 ASPIRE budget. The courses should be in both technical

subjects and in extension methodology related subjects and some should be delivered through e-Learning rather than in face-to-face workshops as has been the traditional practice.

The proposed Provincial based Colloquium on extension should be conducted in all 11 ASPIRE provinces for one day on 2 occasions in 2018. One day each time is probably enough as it will be somewhat new for participants and the process will need to evolve through the 2 meetings. There would be costs at government rates for *per diem*, travel, and accommodation for extension staff of PDAFF, DAO and the CEWs. There would also be meeting costs such as materials, venue, snacks but not lunch.

In accordance with standard procedures in MAFF an ANNEX is appended for each of the three pillars of the strategy plus an additional one for Private Sector Integration. These are presented in the CONCEPT NOTE format. These are ANNEXES 6,7,8 and 9

ANNEXES

List of ANNEXES

1. Roles and Responsibilities
2. Competency
3. Suwardi course
4. e-Learning
5. ToT
6. Organisation and Institutions (Concept Note)
7. Human Resource Management (Concept Note)
8. Human Resource Development (Concept Note)
9. Private Sector Integration (Concept Note)
10. M&E
11. Risk Matrix
12. Proposed Action Plan
13. Indicative Budget

ANNEX 1: Proposed Roles and Responsibilities of Extension Staff

The following sections describe the proposed roles and responsibilities of organizations and staff at both National and Sub-national level in line with the proposed HR Strategy. They are based upon the ASPIRE document Roles and Responsibilities for Agricultural Extension in Cambodia with modifications suggested by the HR Strategy consultant.

❖ Commune

The “only” extension staff at the Commune level in the short-term are those associated with DP funded projects although there is usually one Commune Councillor assigned to be responsible for agricultural matters. There are specific cases where a CEW has been employed by a project & has subsequently been elected a Councillor so where these people are still engaged they should be included in the capacity development activities.

❖ District

The District should be fully functional with staff taking specific responsibilities and a total of 7 persons is proposed.

There should be a Chief of Office who will be responsible for managing all extension activities, of providing leadership to the team and of providing expertise in a technical area probably taking the role of the expert on legislation. The supporting technical experts should reflect the prevailing agricultural production systems in the district and the technical team would be supported by an Administration and Finance officer.

Under the requirement for an extension practitioner to provide services to approximately 1000 farming household and with the unlikely event of CEWs being funded by government budget the staff of the DAO become the grassroots staff who deliver the extension messages to the farmers and other clients. Logistical support including budget will be a pre-requisite for these staff to perform effectively.

❖ Province

The PDAFF has wide responsibilities and extension is just one of them that comes under the control of the PDAFF Director. So for the provision of an effective extension system there is a need for close collaboration between staff from the different agencies under MAFF through the Agricultural Extension Office.

To play out the coordinating role the extension office in fact needs only a relatively small staff of 7 people. There should be a Chief of Office who will have similar responsibilities to those of the DAO Chief. The supporting technical team will have expertise in a number of areas but will not be industry specialists but rather be required to provide high level support in “cross-cutting” issues such as farm business, marketing, gender, and legislation. The office will include support by an Administration and Finance officer.

The major responsibility is in planning, coordination and evaluation of extension activities in the province as well as organizing/providing training to District and Commune staff, but PDAFF staff seldom would be directly engaged in the transfer of technology to

farmers. The PDAFF also is the focal point for coordination of the public and private sectors in the provision of extension services.

❖ National

The mandate of DAE is to support, coordinate, monitor and evaluate action of relevant agricultural extension service providers and recognize the roles of concerned stakeholders relative to extension services delivery. It therefore works with all national and sub-national agencies engaged in the delivery of extension services to farming families throughout the nation. This includes collaborating with the private sector.

The HR Strategy consultant is recommending variations on both the current structure and also that in the reference document. Most significant is the reduction in the number of Deputy Directors and in the Deputy Chief (or Vice Chief) positions. Also in a relatively small department it is probably not necessary to have administration staff assigned to each office but instead have a pool of administration staff who will serve the needs of all offices assigned on a rotational basis.

The model proposed is for a total of approximately 45 staff.

The Director of DAE will be supported by 4 Deputy Directors who will each be assigned oversight of specific “Offices”, ODA projects and special government “campaigns”. Each section within an “Office” will have a leader and a supporting professional staff member with exceptions where the workload and especially its diversity requires additional staff assigned

- Administration (18)
 - Planning
 - International Cooperation
 - Finance and Accounting
 - Administration (including 10 administrative support staff)
- Human Resources Management and Development (5)
 - Human Resource Management
 - Human Resources Development and Training
- Information Services (8)
 - Information Portal
 - Media Production
 - Public Information and Relations
- Agricultural Extension (5)
 - Extension Methodology Research and Development
 - Private Sector Liaison
 - Policy Development
 - Monitoring and Evaluation

- Agricultural Systems and Technology (7)
 - TIP Development
 - Economics and Marketing
 - Farm Business

ANNEX 2: Competencies for an Agricultural Extension Practitioner

The following is a proposed set of competencies that an agricultural extension practitioner should have for example a CEW or DAO staff. The actual level for technical subjects might vary as they are not expected to have a high level competency in every subject.

Competency Group – Crop Technology		
Competency Title	Description	Entry Level Score #
Crop varieties	Knows characteristics of main varieties for each crop & can select the most suitable for a location.	<u>3</u>
Soils	Knows characteristics of major soil associations of country & can identify those in the local area	<u>2</u>
Water management	Shows understanding of crop water requirements & how to estimate irrigation needs	<u>2</u>
Plant pests	Can identify major insect pests, weeds and diseases of crops grown locally; can describe life cycle of each	<u>3</u>
Pest control	Able to provide recommendations for chemical and non-chemical control.	<u>3</u>
Use of fertilizer and crop chemicals	Can calculate fertilizer needs & mixtures for agrochemical application; can describe methods for safe application	<u>3</u>
Plant nutrition	Can describe symptoms of major nutrient deficiencies & recommend treatment to overcome	<u>3</u>
Crop calendar	Able to develop crop calendar for all major crops in local area	<u>2</u>
Post - harvest	Knowledgeable on major issues in post-harvest and treatment & storage methods	<u>2</u>
Organic production	Understands the requirements for organic production.	<u>2</u>

NOTE

Explanation of Entry Level Scores

- 0 No Skills or Knowledge
- 1 Some Skills, Partially Competent
- 2 Moderately Competent
- 3 Mostly Competent
- 4 Completely Competent
- 5 Expert

Competency Group – Animal Production

Competency Title	Description	Entry Level Score
Nutrition	Can identify value of various animal foods calculate a balanced ration.	<u>2</u>
Pests and diseases	Identifies major diseases & can prescribe prevention & treatment methods including vaccination	<u>3</u>
Breeds	Shows understanding of the characteristics of main breeds & their suitability for various conditions	<u>2</u>
Breeding	Can develop herd/flock models based on breeding cycles	<u>2</u>
Housing	Selects suitable housing for animals, materials for construction	<u>2</u>
Animal quarantine	Aware and familiar with needs for animal quarantine & regulations that apply	<u>2</u>

Competency Group – Farm business and marketing

Competency Title	Description	Entry Level Score
Value adding	Articulates the principles of value adding; able to undertake basic studies	<u>2</u>
Enterprise budget & cost-benefit analysis	Calculates simple enterprise budgets & use to make a cost-benefit analysis	<u>3</u>
Record keeping	Develops format for farmers record keeping including cash flows	<u>3</u>
Marketing plan	Can identify market chain, major players and develop a simple marketing plan	<u>2</u>

Competency Group – Natural Resources, Climate Change & Resilience

Competency Title	Description	Entry Level Score
Climate change	Describes manifestation of climate change, causes & potential impacts on agriculture	<u>2</u>
Resilience	Describes approaches that can be taken to increase resilience in local area	<u>3</u>
Risk management	Identifies specific measures that can be taken to minimize risk	<u>2</u>

Natural resource management	Can identify natural resources in an area, the value to farmers & management strategies	<u>2</u>
Conservation agriculture	Describes principles of conservation agriculture, its application in locality	<u>2</u>

Competency Group – Planning, Monitoring and Evaluation

Competency Title	Description	Entry Level Score
Planning	Coordinates ideas and resources to achieve goals ; prepares plans on annual basis	<u>3</u>
Budgeting	Can prepare <i>ad hoc</i> , monthly and annual budgets	<u>3</u>
Monitoring	Can describe principles of monitoring & prepare & implement a monitoring plan	<u>3</u>
Evaluation	Describes purpose of monitoring, the core parameters & can carry out a simple assignment	<u>3</u>
Needs assessment	Demonstrated ability to conduct needs assessment particularly with farmers	<u>3</u>
Problem census	Able to undertake a problem census in association with needs assessment	3

Competency Group – Personal Work Management

Competency Title	Description	Entry Level Score
Accountability & Dependability	Takes personal responsibility for the quality and timeliness of work, and achieves results with little oversight.	<u>3</u>
Adaptability & Flexibility	Able to work with a diversity of people from different backgrounds & views	<u>2</u>
Decision Making & Judgment	Makes timely, informed decisions that take into account the facts, goals, constraints, and risks.	<u>2</u>
Self Management	Manages own time, priorities, and resources to achieve goals.	<u>3</u>
Problem Solving	Resolves difficult or complicated challenges.	<u>3</u>
Teamwork	Promotes cooperation and commitment within a team to achieve goals and deliverables.	<u>3</u>
Role and responsibilities	Understand roles & responsibilities of your job & be in compliance	3
Empathy	Demonstrate understanding of other peoples situation	2

Competency Group – Extension Methodology

Competency Title	Description	Entry Level Score
Adult learning	Understand and apply the principles of adult learning to all contact with farmers	<u>3</u>
Extension methods	Able to describe various extension methods , identify strengths & weaknesses of each method	<u>4</u>
Demonstrations	Capable of establishing demonstrations to achieve technology transfer	<u>3</u>
Extension theory	Know & be able to describe the process for farmers adopting technology	<u>3</u>
Cooperation & coordination	Be open to & willing to join with private sector in extension activities	3

Competency Group – Communications

Competency Title	Description	Entry Level Score
Report Writing	Write clear meaningful reports to deadlines	3
Open communications	Communicate in an open & clear manner with all farmers in particular	<u>2</u>
Effective public speaking	Know & use techniques for effective public speaking	<u>3</u>
Obtaining feedback	Know how to elicit & analyse feedback	<u>2</u>
Language	Able to use appropriate language across all socio-economic classes	<u>3</u>
Listening	Know & demonstrate the capacity to be a good listener	3
Use of IT	Capable of using IT equipment & systems to improve efficiency in the workplace	4
Use of computer	Able to perform simple word processing & spreadsheets; use Internet & Email for communication	3
Group discussions	Lead/facilitate group discussions especially amongst farmers	3

Competency Group – People Skills

Competency Title	Description	Entry Level Score
Influencing Others	Influences others to be excited and committed to furthering the organization's objectives.	2
Relationship & partnership building	Builds constructive working relationships characterized by a high level of acceptance, cooperation, and mutual respect.	2
Teamwork	Promotes cooperation and commitment within a team to achieve goals and deliverables.	3
Managing client complaints	Sensitively listens to others to find common ground to obtain agreement	2
Resolving conflict	Helps create a win-win situation in resolving issues	2
Gender	Understand need for gender balance in work & apply	3

ANNEX 3: Model Description for Human Resources Development

This ANNEX has been taken from a report prepared by Dr Murari Suvadi entitled Implementation Guidelines for Policy on Agricultural Extension in Cambodia – APPENDIX A entitled as above. It is a lengthy document that presents detailed information on every proposed course. Because of the length of the document considerable editing has been made (hopefully without losing the essential nature of the document). And also note there has been no formatting – it is in the original format. The list of topics to be covered as well as the practical exercises and the references have been deleted to shorten this ANNEX.

The HR Strategy consultant does not endorse the document in its entirety but offers it as indicative of the contents of courses that could form the basis of competency development of agricultural extension practitioners. It needs to be considered in association with the course contents of degree courses offered at agricultural education institutions as there is overlap..

Because of the length of the document considerable editing has been made (hopefully without losing the essential nature of the document). And also note there has been no formatting – it is in the original format.

Objectives of Extension Human Resource Development Program

To develop extension workers who are able to manage agricultural resources to achieve sustainable food and income security at household and national levels, the program seeks to attain the following objectives:

- Provide uniform training and education to students on agricultural extension and related subjects needed for agricultural development.
- Develop agricultural extension human resources – village extension workers, commune extension workers, agricultural extension advisors, agricultural extension specialist -- who are competent in technical subjectmatter as well as extension skills and competencies.

Training Approach

A **modular approach** is proposed to train extension human resources in Cambodia. The training curriculum is made up of a number of sequential modules so that students can enter at the level best suited for them and then progress as far as they can go into subsequent modules. The earlier modules are pre-requisites for later modules. There are four **entry levels**: village extension workers, commune extension workers, agricultural extension advisors, and agricultural extension specialists.

This modular approach lets extension management plan, invest in, and offer training in areas where there is pressing demand or need. This approach is bottom-up and beneficiary-led -- grass-roots-level beneficiaries and associated stakeholders identify/nominate the prospective VEWs/CEWs and suggest the areas for training or subject-matter focus for extension workers on the basis of their communities' needs. This approach results in high retention and low attrition among students, thus contributing to sustainable human resource management.

Training Modules

Proposed modules are listed in the table below. There are four tiers of training: Module 1 is on basic agriculture, Module 2 is an introduction to agricultural extension, and Module 3 is about management-based technical training for agricultural extension advisors. Module 4 comprises 13 technical modules and provides details that colleges and universities can refer to while developing and/or revising their technical training modules.

Trainee group	Module number and name
Village extension workers (VEWs) (2-4 weeks)	Module 1.1: Agricultural Extension in Cambodia (required)
	Module 1.2: Participatory Tools & Techniques (required)
	Any ONE module from the list BELOW (choose module on the basis of village/commune needs).
	Module 1.3: Field Crop Production
	Module 1.4: Horticultural Crop Production
	Module 1.5: Aquaculture
	Module 1.6: Livestock Production
	Module 1.7: Plantation Crop Production – Rubber
	Module 1.8: Forestry
Module 1.9: Animal Health	
Commune extension workers (CEWs) (2-4 months)	Module 1.1: Agricultural Extension in Cambodia (Required)
	Module 1.2: Participatory Tools & Techniques (Required)
	Any FOUR modules from the ABOVE list (1.3-1.9).
	INTERNSHIP – 2 weeks
Agricultural extension advisors (AEAs) (3-6 months)	Module 1.1: Agricultural Extension in Cambodia (Required)
	Module 1.2: Participatory Tools & Techniques (Required)
	Any EIGHT from the Module 2 BELOW and remaining modules under Module 1
	Module 2.1: Rural Sociology
	Module 2.2: Agricultural Communication
	Module 2.3: Social Mobilization
	Module 2.4: Community Development
	Module 2.5: Management of Farmer Associations & Cooperatives
	Module 2.6: Group Development & Management
	Module 2.7: Gender and Development
	Module 2.8: Working with a Community
Module 2.9: Agricultural Marketing & Cooperatives	
INTERNSHIP – ONE MONTH	
Agricultural extension specialist (AESs) (6-9 months)	Module 1.1: Agricultural Extension in Cambodia (Required)
	Module 1.2: Participatory Tools & Techniques (Required)
	Any TWELVE from the Module 3 BELOW and Module 2
	Module 3.1: Extension Program Development
	Module 3.2: Program Monitoring & Evaluation
	Module 3.3: Agribusiness Management
	Module 3.4: Marketing & Supply Chain Management
	Module 3.5: Office and Personnel Management
	Module 3.6: Leadership Development & Management
Module 3.7: Working with Stakeholders	
Module 3.8: Conducting Research in Agricultural Extension	

Suggested topics for additional modules are listed below.

Module 4.8: Climate Change Adaptation

Module 4.9: Commercial Crop – White Pepper, Coffee, Ginger, Cardamom Production

Module 4.10: Irrigation Water Management

Module 4.11: Sheep and Goat Production

Module 4.12: Conservation Agriculture

Module 4.13: Community-Based Natural Resources Management

ANNEX 4: e-Learning Course for CEWs

This ANNEX has been taken from a report entitled CEW In-service Curriculum Residential and e-Learning (Blended Approach) prepared by the ASPIRE of the International Consultant Residential & e-Learning. It is presented here in part for the curriculum contents (*vis-à-vis* that in ANNEX 3) and also because it presents a different delivery modality. The detailed weekly program details have been deleted as have some other sections (where marked)

Introduction

The vision of Ministry of Agriculture, forestry and fisheries (MAFF) through the Agricultural Extension Policy in Cambodia is to increase the effectiveness of agricultural extension services delivery to improve the livelihoods and wellbeing of the Cambodian people. One of the key areas of the policy is to ***Strengthening Agricultural Education Institutions***.

To strengthen the capacity of the Commune Extension Workers(CEW's), MAFF intends conduct in-service training through the training institutions, Prek Leap National College of Agriculture has been selected to conduct these trainings through the support of the ASPIRE project.

This training curriculum has therefore been developed to support residential and eLearning training for the CEW's.

Overall Goal and objectives of the course

The goal of the course is to provide an in-service training for the CEW's and other extension workers to improve their skills and gain a formal academic qualification.

The 3 month in service course provides an intensive training that focuses on improving competencies of the CEW. The course will take a blended approach; residential and eLearning.

Specific objectives of the course:

At the end of the course, it is expected that participants will be able to:

1. Explain the role of agricultural extension workers
2. Explain how to use adult learning principles in agricultural extension work
3. Identify and Discuss the key components in program planning, implementation and evaluation
4. Communicate effectively orally, communicate through mass media and written reports
5. Understand how to use ICT in extension work
6. Define climate change and explain its impact on agriculture in Cambodia
7. Understand farm business
8. Understand climate smart agriculture and climate resilience in farming

Course overview

This is a competency based in-service course for the CEWs in Cambodia, designed in a Learner-centric format.

The entire subject matter is divided into short multiple units, the learner does not have to commit to a longer stretch of time to devote to training. This is practical, considering the CEW's are also busy working. Each concept is focused in a different module. This provides enough time to trainee to understand and assimilate the knowledge that is shared without

being burdened with information overload. The learner also gets a chance to apply their knowledge and get motivated to move on to the next unit in the curriculum.

Course Format:

This course is designed for residential and eLearning modes of study. The learners will be expected to attend a one week residential session at the beginning of the course, then study at home through eLearning modules.

Course structure

This course is structured into units each with **specific objectives**, content and evaluation/quizzes the end of each module. Learners are expected to follow instructions provided within each section.

Evaluation Elements:

Class participation(during residential session)	10% of grade
online assignments 5 assignments worth 10% each)	50% of grade
Final group presentation (during residential session)	10% of grade
Final exam	30%
Total	100%

Pre-requisites:

This course has no perquisites, all the in-service CEWs are eligible to attend and take the course

Certification:

PLNCA will award a certificate upon successful completion of the recommended Units

Course materials:

A tablet will be provided to facilitate the eLearning process. Learners will be instructed on how to download course materials, and how to submit the assignments. The eLearning modules will provide relevant links to resources and notes for further reading.

A student workbook will be provided in hard copy. The course instructor will guide you on how to use it.

Other relevant documents will be printed out and distributed to the learner during the residential session.

Course calendar

The course dates will be provided by the college and communicated timely to the learners by PLNCA management

This course is designed to be completed in 12 weeks.

Units and description

The CEW course is divided into 11 units as outlined below

UNIT 1: General concept and principle of extension	
Unit description	This introductory unit provides an overview of agricultural extension, including an overview of the government of Cambodia agricultural policy. The unit also outlines the roles and responsibilities of the extension worker and characteristics of an effective extension worker. The unit also includes power point presentations on; Introduction to eLearning, advantages and disadvantages of eLearning, types of eLearning. Learners will also engage in group discussions guided by the course instructors.
Unit objectives	By the end of this session the learner will be able to: <ul style="list-style-type: none"> • Understand the term agricultural extension • Identify the types of agricultural extension • Explain roles and responsibilities of extension workers • Define eLearning and explain the advantages and disadvantages of eLearning
Duration	27hours
Unit 2 : Applying adult learning in extension work	
Unit description	This unit introduces the learner to the adult learning principles, the adult learning styles, the unit also covers barriers to adult learning and tips on how to make adults learn better
Unit objectives	By the end of the session the learner will be able to: <ul style="list-style-type: none"> - discuss adult learning theory - Identify basic principles of adult learning and apply them to the training of adults - Identify four basic styles of learning and describe teaching methods to reach each style
Duration	3.5 hours
UNIT 3: Program planning	
Unit description	The unit focuses on addressing the specific elements for professional planning needed by the CEW's provide effective service to the farmers. The CEW's are expected to develop extension programs to address local food production or community development needs. The unit covers sessions on how to conduct needs assessment, prioritize needs and problems, how to identify stakeholders and engage them in extension, how to conduct the nominal group technique. The other sessions in this unit include how to Conduct community forums, brainstorming exercises, how to Design services based on gender analysis, Developing a work plan and a grant proposal
Unit objectives	By the end of this unit the learner will be able to: <ul style="list-style-type: none"> • Analyze and prioritize farmer needs • Conduct nominal groups, brainstorming exercises and community forums • Design extension services based on gender analysis • Develop a work plan

Duration	8 hours
Unit 4: Program implementation	
Unit description	This unit focuses on smooth and careful implementation of agricultural extension programmes. This includes effective extension methods and techniques to effectively manage the extension process. In other words; the sessions covered include: How to Conduct farm and home visits, method and results demonstrations how to Organize farmer field schools (FFS) and farmer field days, how to Conduct meetings effectively ,Manage conflict , Manage time, groups and teamwork. Other topics include how to facilitate groups and write field reports.
Unit objectives	By the end of this unit the learner will be able to; <ol style="list-style-type: none"> 1. Understand how to conduct home visits 2. Explain how to conduct demonstrations 3. Explain how to organize field days 4. Understand how to conduct meetings effectively 5. Outline components of a field report
Duration	7 hours
Unit 5: Program evaluation	
Unit description	Unit 5 will cover techniques in program evaluation. The specific sessions include; designing survey instruments, conducting surveys and participants' observation and how to write evaluation report.
Unit objectives	By the end of this session, the learner will be able to: <ol style="list-style-type: none"> 1. Explain how to design survey instruments 2. Understand how to conduct surveys and personal interviews 3. Understand how to write evaluation reports 4. Outline components of an extension evaluation report
duration	6 hours
Unit 6: Communication and informational technologies	
Unit description	In this unit the CEW will gain skills on effective communication, how to Organize extension campaigns , Write for newspapers or mass media other sessions include Making effective presentations and how to Make good use of information and communication technologies (ICTs)/access and use web-based resources
Unit objectives	By the end of this session, the learner will be able to: <ul style="list-style-type: none"> - Define the term communication - understand verbal and non-verbal communication methods - Discuss the elements of communication - Identify barriers of communication - Understand how to organise an effective campaign - Identify ICT resources that can be used in extension work
Duration	6 hours
Unit 7: Climate change and disaster risk reduction	
Unit description	In this unit, trainees will learn about the difference between climate change and weather, and review the greenhouse effect warming. The unit also covers

	the expected impacts of global climate change in Cambodia. The learners are encouraged to read and discuss the case study on climate change with their colleagues during the residential session.
Unit objectives	By the end of this session, the learner will be able to: <ol style="list-style-type: none"> 1. Define the term climate change 2. Discuss the difference between weather and climate change 3. Explain greenhouse effect and warming 4. Discuss the effects of climate change 5. Explain the term disaster risk and disaster risk reduction 6. Explain climate change adaptation
Duration	3.5 hours
Unit 8: Farm business	
Unit description	This unit focuses on equipping the extension worker with skills on farm enterprise. The sessions include; Definition of Farm business and farm enterprise, Agriculture marketing and value chain, Model for agriculture farm business plan (economic analysis), Seasonal for pig raising market demand and prices, Seasonal for crop planting and condition of Agro-Ecology
Unit objectives	By the end of this session, the learner will be able to: <ul style="list-style-type: none"> - Definition of Farm business and farm enterprise. - Agriculture marketing and value chain. - Model for agriculture farm business plan (economic analysis). - Seasonal for pig raising and market demand and prices. - Seasonal for crop planting and condition of Agro-Ecology
Duration	3.5 hours
Unit 9: Climate Smart Agriculture (CSA)	
Unit description	The Unit on CSA covers; Definition of CSA, Method and steps for establish CSA, identify the tools and methodology for implementing CSA in farmer field schools.
Unit objectives	By the end of this session, the learner will be able to: <ol style="list-style-type: none"> 1. Define the term smart agriculture 2. Explain the Method and steps for implementation CSA 3. Identify Tools and methodology for implementation CSA in farmer field schools
Duration	3 hours
Unit 10 : Marketing skills and business management	
Unit description	This unit will equip the CEW with the skills to develop a business plan for production of various crops and animals. The topics covered include; Business group and sales as a group Business Plan for the Production of Chicken, Pork, Vegetables, Animal medicine and animal feed Looking for Market and Merchants Using Agricultural Market Information Using the Agricultural Market Information System via SMS. The unit also covers Business group and sales as a group Business Plan for the Production of Chicken, Pork, Vegetables, Animal medicine and animal feed Using Agricultural Market Information and Using the Agricultural Market Information System via SMS
Unit objectives	By the end of this session, the learner will be able to: <ul style="list-style-type: none"> - The importance of business groups for marketing.

	<ul style="list-style-type: none"> - Develop a business plan for the Production of Chicken, Pork, Vegetables, Animal medicine and animal feed Understand Marketing communication - Discuss how to Use Agricultural Market Information - Looking for markets and merchants Using the Agricultural Market Information System via SMS - Quiz
Duration	6.5 hours
Unit 11: Climate resilience farming techniques	
Unit description	This unit introduces covers: Climate resilience rice production techniques. Climate resilience vegetable production techniques and Climate resilience chicken raising techniques
Unit objectives	By the end of this session, the learner will be able to understand: <ol style="list-style-type: none"> 1. The meaning of Climate resilience. 2. Understand Climate resilience rice, vegetable production techniques chicken raising techniques
Duration	3.5 hours
Final exam	
Week 12	Exam The exam will be set by the PLNCA lecturers using the content covered during the learning period. The duration of the exam will also be determined by the school using their laid down exam guidelines and procedures

References (Section deleted)³⁰

ANNEX 5: Professional In-Service Training of Trainers of Agricultural Extension Advisors

This ANNEX has been taken from a document as entitled above that was prepared by Mark Fenn the International Curriculum Advisor for ASPIRE Project. **It is a lengthy document that presents detailed information on the proposed course (based on delivery of similar courses in 2017). Because of the length of the document considerable editing has been made (hopefully without losing the essential nature of the document). And also note there has been no formatting – it is in the original format.**

The HR Strategy consultant does not endorse the document in its entirety but offers it as indicative of the contents of courses that could form the basis of competency development of agricultural extension practitioners. It needs to be considered in association with the course contents of degree courses offered at agricultural education institutions as there is overlap. Also the courses proposed by the PAEC Implementation Adviser and the International Consultant Residential & e-Learning need to be considered each having common elements in the course outlines.

Forward

This manual details the official certification training of trainers program for “Agricultural Extension Advisors” (AEA) under the auspices of the Ministry of Agriculture, Forestry and Fisheries of the Royal Government of Cambodia. The AEA level is the second highest of four levels of agricultural extension service providers as described in the re- cent Policy of Agricultural Extension (2015).

³⁰ Details of section deleted.

Though this manual and the accompanying materials provide all of the content and suggested activities and exercises for the three-month training of trainers program, trainers and facilitators are fully encouraged to integrate their own training experiences, and notably their knowledge of the Cambodian context in order to render the learning more effective. These contextual enhancements can serve to continually improve and update this training program

Introduction and Context for the AEA TOT

The Policy on Agricultural Extension in Cambodia (2015) contains a lengthy section on “Human Resources Development” that has the following three points relative to professional inservice training of agricultural extension personnel and notably of Agricultural Extension Advisors:

Component 2.2 of the ASPIRE Project seeks to enhance the capacities of three agricultural academic institutions to provide technical inservice training of existing agricultural extension personnel as well as future extension agents that graduate from these institutions. A three-month inservice training program on extension skills is one of these activities for existing extension personnel to obtain a diploma as a “Agricultural Extension Advisor”.

Overview and Outline of the Training Program

Objectives for Agricultural Extension Advisors

The specific objectives and outcomes of the proposed TOT program are that the future private or public professional extension workers and agriculture advisors have the capacities to design market-oriented extension services that make “business sense” not only to producers but also to input providers and buyers... and the skills to bring buyers into such smart extension services.

Overview of the Content of the AEA TOT

The three key themes upon which the TOT program is designed are the I-R-E of ASPIRE, or innovation, resilience, and extension. That said, the focus is clearly on extension approaches and methods and less on the technical aspects of innovation and resilience. As shown below, the first month focuses on innovation looking at identifying market potential and opportunities, engaging agro-business; partnering farmers and business in clusters; extension approaches for this; and related IT skills. The second month revolves around the theme resilience with approaches on extension for: climate smart agriculture; sustainable land management; and social inclusion. It further developed what has been started in the first month on project proposal development. The third month focuses

purely on new approaches to extension while also giving participants a solid understanding of how adults learn. In this month, participants will finish individual activity proposals.

After the first two 3 week sessions, participants will have required assignments to research and collect information in their home province. This information will be used in the development of their individual project or activity proposals.

Outline of the Content of the AEA TOT

The following outline has been agreed upon with the ASPIRE Program Managers and leaders of the DEA within GDA-MAFF.

First Month of Training	Hours 132	Days 22	Training
Introductory Sessions	12	2	RUA/PNCA
Introductions - Overview of 3 month course - Pre- Evaluation	3	0.5	RUA/PNCA
Group Sessions to develop common understanding of the terms sustainable, resilient, innovation, and extension in the context of Cambodian agriculture	3	0.5	RUA/PNCA
Participatory process for defining priority-elective training modules for Month 3	1.5	0.25	RUA/PNCA
- Overview of evolving agricultural context in Cambodia - Overview of the Agricultural Extension Policy	4.5	0.75	DAE RUA/ PNCA
Market & Demand Driven Agricultural Extension	120	20	RA/ PNCA PADEE
The Agri-Business Cluster Approach (Phases 1 to 4) with small-group research work by sub-regions of	18	3	PADEE
Field trip to PADEE sites (3)	18	3	PADEE
Farm business management	18	3	RUA/PNC A/DAE
Using IT and the Extension Hub (with several practical exercises)	12	2	ASPIRE RUA/PNCA

Engagement with agri-business and provision of support services for them to work with local	6	1	RUA/PNCA
Gender considerations and women economic empowerment	6	1	RUA/PNCA
Project Proposal Development (project proposal training and then initiation of process for individual development of project proposals for either the ASPIRE Grants for Extension Services to Smallholder or for the Innovation Grants (or other donor) - this will be done through small support	12	2	ASPIRE Consultants RUA/PNCA
Mentored homework assignment for the first break period on the following: a) initial mapping of trade and production potential: b) identifying agribusiness entities with potential for growth; and c) all actors providing agricultural extension services and identifying networking potential and opportunities among them.	30	5	RUA/PNCA
Second Month of Training	132	22	
Provision of time and mentoring for development and delivery of individual presentations on agri-business trade and production potential from the (using lectures	12	2	RUA/PNCA
Basics of Climate Change & Developing Extension Programs for Climate-Smart Agriculture and Sustainable Land Management	120	20	CAES/WOCAT
- Climate Change Basics and Evolving Impacts for Cambodia - Climate Smart Agricultural Theory	6	1	CAES/WOCAT
- Climate Smart Agriculture and Adaptation in Agricultural sub-sectors - Group Exercises (mentoring of small group to research on current issues - production constraints - climate adaption measures for crops, vegetables, diverse animal husbandry, soil management,	24	4	CAES/WOCAT RUA/PNCA
- Sustainable Land Management (SLM) in Cambodia - Mentored group work on SLM in sub-sectors	18	3	CAES/WOCAT
Field visits of 2 days to SLM practices	16	2	CAES/WOCAT ASPIRE Consultants
- conducting climate vulnerability assessments - identification and support for marginalised social	6	1	CAES/WOCAT

Using IT to address climate change challenges (theory and practice)	6	1	ASPIRE RUA/PNCA
Practical exercises and demonstrations by group on “communicating climate change and the need for pro- active adaptation measures”	6	1	CAES/WOCAT
Innovation in Adult and Agricultural Education and Extension (Modules on participatory approaches, farmer to farmer guidelines, farmer field schools, SLGs, and other group based approaches)	12	2	DAE ASPIRE Consultants
Provision of time and mentoring for: - individual network mapping and development of an action plan for networking actors involved in agricultural extension complete with milestones and measures of success - concept note development of individual proposals for the ASPIRE Grants for Extension Services to Small-holder or for the Innovation Grants (or other donor) -this will be done through small support groups	6	1	RUA/PNCA
Homework assignment for the second break period on assessing probable climate impacts to provincial rural production and proposing pro-active responses and SLM practices	24	4	RUA/PNCA
Third Month of Training	108	18	
Provision of time and mentoring for presentations on proactive responses to climate change and promotion of SLM in rural production	12	2	RUA/PNCA
Moving the Agricultural Extension Policy Forward	96	16	DAE RUA/P
Delivery of elective modules on innovation in rural production (those decided in the first month)	30	5	RUA/GDA Experts
Back to the Basics - Adult Learning Principles - How adults learn - facilitation and active learning - presentations and public speaking - review of active extension methodologies and	18	3	RUA/P NCA DAE
Small group - practical work on developing training modules for CEWs on participatory approaches, farmer to farmer guidelines, farmer field schools, SLGs, and other group based approaches	6	1	RUA/PNCA DAE

Visits with private sector entities (SMEs) and agribusinesses on the theme “partnering in extension” (these visits will serve to better introduce government extension personnel to the private sector and to understand how partnerships can be developed)	12	2	ASPIRE/ PADEE
- Effective Work Management Skills and Planning - Mentoring for the development individual work or action plans (inclusive of new orientations for existing work plans, new activities and extension approaches)	6	1	ASPIRE RUA/PNCA
Mentored development of full proposals	12	2	ASPIRE RUA/PNCA
Presentation of project proposals (in two groups) for either the ASPIRE Grants for Extension Services to Small- holder or for the Innovation Grants (or other donor) - discussion -	6	1	RUA/PNCA
Program wrap-up and post-training assessments and initial post-training evaluation	6	1	RUA/PNCA

Training Module Template

This Facilitator’s training module template is meant to be adapted and modified according to each unique training situation. Extension agents are expected to use the sessions and activities that match their individual settings and meet their achievement-based objectives.

Each training module or session has the following components:

- 1) **Title:** The name of the Session or Module
- 2) **Names of Facilitators**
- 3) List of Equipment, Materials and Handouts
- 4) **A brief summary of the facilitator’s understanding of the participants’ knowledge and experience** with an explanation of **how the participants will benefit** from learning this subject or skills;
- 5) **Stated performance objectives** (inclusive of knowledge, skills, and possibly attitudes) for the training which can be effectively measured through both feedback mechanisms and post- training evaluation (It is expected that by the end of training course, the trainees will be able to);

Facilitator Steps:

- 6) **Description of steps for a quick activity for Pre-Evaluation of trainees** in one form or another that allows the facilitator/trainer to quickly understand what learners actually know and what they are expecting

7) Lecture presentation materials (including reading materials and power point presentations following standards norms) which cover **20-25%** of the training time;

8. Description of participant learner activity or activities and steps to conduct that activity that will be done during the course/module and which will cover **50%** of the time, or more;

9. Description of steps for an activity to serve as a “Feedback” mechanism within the course that allow for reinforcing what they have learned, clarification of concepts, and correction of participants learning - which should take **20%** of the time allocated ;

10) Post course or training module evaluation that allows lecturers to improve their practice and to identify follow-up coaching, mentoring, or training that is needed.

ANNEX 6: Organizations and Institutions (Concept Note)

1 Objective

To undertake minor restructuring of the government institutions delivering extension services to make them more demand driven and integrated into a pluralistic system.

2 Outcomes

2.1 An organisation chart that incorporates both public and private sector extension delivery actors with clear delineation between the lines of (a) control and (b) communication and cooperation

2.2 A streamlined organisation structure in DAE that reduces the number of Offices by grouping like functions together for (internal) synergy and promotes interaction with private sector

2.3 A revised set of roles and responsibilities in terms of delivery of extension services for National and sub-national agencies so that a clearer understanding and focus is given including the relativity between each level and facilitates private sector engagement

2.4 Numbers of extension practitioners especially in District Agricultural Office are progressively increased to fill vacancies also at provincial and National level where needs are less and Competency [expertise] of appointees is matched to the agricultural systems of the district

3 Program and Actions

The Strategy document already details the proposed changes (See ANNEX)

The actions required are not leading to radical change and can be summarized as follows

- (a) conduct discussions on recommendations in report and its ANNEXES
- (b) take decisions on acceptance of the various recommendations and associated actions
- (c) obtain approval from higher authorities to implement changes
- (d) conduct discussions with all concerned staff to ensure clear understanding at all levels
- (e) set up and hold regular meetings of facilitation group to monitor progress
- (f) write and disseminate notices on needed actions and progress.

4 Workplan and Budget

See ANNEXES 10 and 11

ANNEX 7: Human Resource Management (Concept Note)

1 Objective

To upscale the selection and retention of staff through introduction of best personnel practice so that the most suitable people are providing first class extension services to clientele across all sectors

2 Outcomes

2.1 New improved selection procedures are being implemented in line with DPHRD systems reviewed, revised and new procedures are being

2.2 All government staff working in relation to agricultural extension undertake annual performance assessments in line with latest Ministry of Civil Service guidelines

2.3 New job descriptions directly related to agricultural extension are being used in selection and promotion

2.4 All extension related staff have a personal competency development plan prepared at least every two years and preferably annually

2.5 All staff working in extension understand key occupational health and safety (OHS) issues and incorporate them into farmer training activities

2.6 Numbers of extension practitioners especially in District Agricultural Office are increased

2.7 A Register of Agricultural Extension Practitioners is available online with Accreditation status incorporated into the Register

3 Program and Actions

The Strategy document already describes the proposed focus of activities in this section (See ANNEX)

- (a) Develop a Register of Agricultural Extension Practitioners based upon the results of Extension Practitioner Survey
- (b) Initiate Accreditation activities - assess applications
- (c) All extension related staff write a personal competency development plan
- (d) Review and revise selection procedures in consultation with DPHRD
- (e) Undertake occupation health and safety audits in all offices and on selection of farms , followed by design and delivery of training courses in offices
- (f) Incorporate OHS messages into all training materials for farmers

- (g) Conduct Annual staff assessments for all staff
- (h) Write new job descriptions using competency based methods
- (i) Undertake a program of staff selection to progressively fill vacancies in District Agricultural Office in line with local agricultural systems

4 Workplan and Budget

See ANNEXES 10 and 11

ANNEX 8: Human Resource development (Concept Note)

1 Objective

To (i) develop the competencies of all prospective and newly engaged agricultural extension practitioners and (ii) raise the competencies of those who are currently employed as agricultural extension staff in both public and private sectors.

2 Outcomes

2.1 Revised and new courses and detailed curriculum with more relevant agricultural extension topics suitable to a pluralistic system are being taught at RUA, Prek Leap & Kg Cham agricultural education institutions

2.2 Annual performance assessments and personnel development plans are Being implemented to guide the competency improvement activities of public sector extension staff.

2.3 Accreditation assessments are taking place and names being added to the list included in the Register

2.4 Competency is the KEY concept in describing jobs and in career development

2.5 DAE is exercising its role and responsibility as the managers of all activities that are related to personnel development for public sector extension practitioners

2.6 Improved public image of agricultural extension practitioners

3 Programs and Actions

The Strategy document already describes the proposed focus of activities in this section (See ANNEX)

- (a) Curriculum relevant to agricultural extension are reviewed by a broad based committee of staff of DAE, RUA, Prek Leap & Kg Cham as well as representatives of NGOs and private sector input/output businesses. The course outlines prepared by ASPIRE consultants should also be considered during the review
- (b) DAE staff conduct “market surveys” to determine the requirements of public sector employers of extension staff
- (c) Consultant is engaged and working with DAE staff to develop competency statements for all extension staff
- (d) Courses – both long and short – are being designed and delivered to upgrade competency of current public sector extension staff

- (e) DAE is leading all competency development in association with resource persons drawn from across academic institutions and other qualified subject matter experts
- (f) Low key public relations campaign undertaken to explain role of extension practitioners and build positive image amongst clients

4 Workplan and Budget

See ANNEXES 10 and 11

ANNEX 9: Private Sector Integration (Concept Note)

1 Objective

To (i) have public sector engage more actively with the private sector agricultural extension service providers (ii) more effectively use resources – human and financial – in extension and (iii) establish a more professional face to the discipline of agricultural extension.

2 Outcomes

In the discussion in this section it should be noted that there is an overlap with the section on Human Resource management.

2.1 A national Register of Agricultural Extension Practitioners is established as part of the extension [hub or portal]. This will initially be based upon the data collected during the Extension Practitioners Survey.

2.2 As part of the Register (above) a National Accreditation Scheme for extension practitioners will be operational

2.3 Competency development activities conducted by all organisations in the pluralistic extension system are being shared with others i.e. they are not exclusive for their own employees

2.4 Meetings are being conducted at provincial level where all organisations engaged in extension are openly and freely sharing information and ideas

3 Program and Actions

- (a) A online database of extension practitioners is being created with basic personal information such as name, DOB, qualification, job title, work location
- (b) Assessment of applications for accreditation are ongoing through a specially appointed panel
- (c) Agricultural Extension Colloquium are conducted bi-annually in each province
- (d) Register is updated every 6 months with new entries and revisions of existing ones
- (e) All organisations engaged in extension activities are posting details of related training courses on the extension portal

4 Workplan and Budget

See ANNEXES 10 and 11

ANNEX 10: Indicative Action Plan for Pilot Implementation of HR Strategy (2018-2022)

No.	Activity (see text)	Yr 1				Yr 2				Yr 3				Yr 4				Yr 5			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Organisation																					
1	Discuss report (DAE, Province)	█	█																		
2	Decisions to accept recommendations		█																		
3	Approvals to take action		█	█																	
4	Discussion/take actions		█	█	█																
5	Conduct regular meetings		█																		
6	Disseminate follow-up notices		█	█	█																
Human Resource Management																					
1	Set-up Agricultural Extension Practitioners Register		█																		
2	Initiate/set up Accreditation system		█	█	█																
3	Review & revise staff selection procedures			█	█																
4	Staff write personal development plans								█				█				█				█
5	Undertake OH&S audits			█		█								█						█	
6	Develop & deliver OHS training			█			█				█				█				█		
7	Conduct annual staff assessments			█					█				█				█				█
8	Write new competency based Job descriptions			█																	
9	Staff selection to fill vacancies			█		█		█		█		█		█		█		█		█	
Human Resource Development																					
1	Review & revise curriculum at RUA PLAC, KCAC		█	█																	
2	Conduct "market surveys" of employers				█																
3	Consultant writing competency statements for all jobs		█	█																	
4	Entry training for new extension staff				█		█		█		█		█		█		█		█		█
5	Upgrading training courses for existing staff		█	█			█	█			█	█			█	█			█	█	
6	DAE leading ALL competency development	→																			
7	PR campaign to upgrade extension image						█				█										
Integration																					
1	Extension Practitioner Register updated 6 monthly		█				█				█				█				█		
2	Accreditation applications being assessed				█				█				█				█				█
3	Biennial Agricultural Extension Colloquium		█				█				█				█				█		
5	All training courses listed on extension portal	→																			

ANNEX 11: Budget for 25 provinces Pilot Implementation of HR Strategy (2018-2022)

Organisation										
No.	Activity (see text)	Unit Name	Unit Cost (\$)	No. Units	Year 1	Year 2	Year 3	Year 4	Year 5	Total
					2018	2019	2020	2021	2022	
1	Discuss report (DAE,Province)	Meeting	50	52	2,600					2,600
2	Decisions to accept recommendations	Meeting	50	52	2,600					2,600
3	Approvals to take action	Meeting	50	26	1,300					1,300
4	Discussion/take actions	Meeting	50	52	1,500					1,500
5	Conduct regular meetings	Meeting	50	104	3,000					3,000
6	Disseminate follow-up notices	Notices	10	52	900					900
	Sub-total				11,900					11,900
	Human Resource Management									
1	Set-up Agricultural Extension Practitioners Register	Online Register	4000	1	4,000					4,000
2	Initiate/set up Accreditation system	System	2000	1	2,000					2,000
3	Review & revise staff selection procedures	Meeting	50	10	500					500
4	Staff write personal development plans	Meeting	1000	1	1,000	1,000	1,000	1,000	1,000	5,000

5	Undertake OH&S audits	Meeting	1000	10	10,000	10,000				20,000
6	Develop & deliver OHS training	Courses	3500	25	87,500	87,500	87,500	87,500	87,500	437,500
7	Conduct annual staff assessments	interviews	10	90	900					900
8	Write new competency based Job descriptions	Person days	600	25	15,000					15,000
9	Staff selection to fill vacancies	Persons	4000	120	480,000	480,000	480,000	480,000	480,000	2,400,000
	Sub-total				600,900	480,000	480,000	480,000	480,000	2,884,900
	Human Resource Development									
1	Review & revise curriculum at RUA PLAC, KCAC	Meeting	50	10	500					500
2	Conduct "market surveys" of employers	Surveys	4,000	1	4,000					4,000
3	Consultant writing competency statements for all jobs	Person days	600	90	54,000					54,000
4	Entry training for new extension staff	Persons	3,235	120	388,200	388,200	388,200	388,200	388,200	1,941,000
5	Upgrading training courses for existing staff	Courses	200	800	160,000	160,000	160,000	160,000	160,000	800,000
6	DAE leading ALL competency development	(No name)	0	1	0	0	0	0	0	0
7	PR campaign to upgrade extension image	Campaign	1,000	5	0	5,000	5,000			10,000
	Sub-total				606,700	553,200	553,200	548,200	548,200	2,809,500

	Integration									
1	Extension Practitioner Register updated 6 monthly	Database	500	1	500	500	500	500	500	2,500
2	Accreditation applications being assessed	Assess-ments	20	500	10,000	10,000	10,000	10,000	10,000	50,000
3	Biennial Agricultural Extension Colloquium	Meeting	1500	50	75,000	75,000	75,000	75,000	75,000	375,000
5	All training courses listed on extension portal	Notices	25	100	2,500	2,500	2,500	2,500	2,500	12,500
	Sob-total				88000	88,000	88,000	88,000	88,000	440000
	GRAND TOTAL				1,307,500	1,121,200	1,121,200	1,116,200	1,116,200	5,782,300

ANNEX 12: Monitoring Framework for Pilot Implementation of HR Strategy

Narrative Statement	Indicators [& source]	Key People Responsible		
		Data collection	User	Decision makers
OUTCOMES				
1. Public & private sector service providers working in collaboration for improved service delivery	Joint activities between public & private sector providers	PDA FF	Private sector service providers & DAE	MAFF
2. Delivery of technology meets needs identified by farmers	Satisfied farmers (Opinions surveys)	CEW & PDAFF	DAE	DAE & MAFF
OUTPUTS				
1. Organisation structures & activities responsive to pluralistic extension concept	Level & type of feedback from farming communities	PDAFF M&E staff	DAE	MAFF
2. Competent extension practitioners	Staff numbers & assessment records	DAE	DAE & private sector service providers	MAFF
3. Vertically integrated extension system that internally monitors itself	Systems (Annual reports)	DAE	DAE	MAFF
4. Verification system for competence of extension practitioners	Competency register	Accredited assessors	DAE	MAFF & private sector service providers
5. Improved staff management procedures	Staff records	DAE	DAE	MAFF
ACTIVITIES				
1. Monitor & mentor CEWs	Number of 3 monthly status reports	DAO staff	CEW	Commune Council [as employer]
2. Manage Extension Practitioner Registration database	Updated database	HR staff of PDAFF & DAE	Extension stakeholders	n/a
3. Write competency statements for staff	Completed documents	HR staff & Office Chief	HR staff of DAE; Office Chief;	DAE Directorate
4. Assess accreditation documents for public & private sector extension staff	Numbers assessed 9Database of accredited extension practitioners)	Accredited assessors	HR staff & private sector extension providers	DAE Directorate
5. Develop and deliver training program to improve competencies of CEWs [also #6 below]	Numbers trained (records of training participants)	HR & training staff at DAE	DE Office Chiefs	DAE Directorate
6 Pre-service training of CEWs	Numbers trained (records of courses)	Trainers at agric education institutions	DAE and Commune Council	Commune Council [as employer]
7. Realign staffing in DAE	Institution organogram and HR records	HR staff	DAE Office Chiefs	DAE Directorate

8. Conduct Provincial Extension Sector Working Group Colloquium	Numbers of meetings (meeting records)	PDAFF staff	All/any stakeholder	n/a
9. Realign staff & responsibilities of PDAFF	Staff records & organization charts	PDAFF HR staff	PDAFF	Provincial authorities
10. Recruit and hire CEWs for every commune	Staff numbers (staff records)	PDAFF staff	Commune Council	Provincial authorities [& MOI]
11. Realign staff & responsibilities of DAO	Staff records & organization charts	PDAFF HR staff	DAO & PDAFF	Provincial authorities

ANNEX 13: Risk Matrix

Implementation of HR Strategy

Risk Description	Likelihood	Impact	Mitigation
1. CEWs appointed only under project related funding	4	4	Allocation of budget through CIP or appropriation from government
2. Private sector does not collaborate in activities	3	2	Review and reinvigorate PPP activities
3. DAO staff not supporting CEWs adequately	2	3	Set annual KPIs for this activity with DAO staff
4. Most private sector practitioners do not register	3	3	Create awareness campaign on need/benefits
5 Few applications for accreditation submitted	3	2	Notify all registered practitioners on procedures
6 Extension staff not meeting farmers technology needs	4	3	Under District led monitoring of CEWs identify causal factors & work to overcome
7 Insufficient qualified CEWs to fill all vacancies	3	4	Promote CEW as a valuable job to College students (and even High School level)
8 Fewer DP funded projects engaging in extension services	2	3	Provide assistance to NGO/CSOs/CBOs with preparation of project funding application
9 Private sector focuses on sales rather than advisory services	4	3	Identify and promote companies who are models for extension services
10 The development of private sector extension services does not take place as anticipated	4	4	Identify businesses that could profitably expand advisory services
11. Employee engagement and productivity under revised roles is slowly occurring	3	4	Use KPIs & annual staff assessment to motivate staff
12 Training for competency development is taking place but does not result in improved extension services	4	3	Follow -up assessment of training impacts needs to occur more often

Key to ratings:

<u>Likelihood</u>	
1	very low
2	low
3	medium
4	high
5	certain

<u>Impact</u>	
1	negligible
2	minor
3	moderate
4	significant
5	severe

