

Food and Agriculture Organization of the United Nations



INVESTING IN YOUTH VOCATIONAL TRAINING

PROFESSIONAL TRAINING PROGRAMME IN THE AGROPASTORAL AND FISHERIES SECTORS IN CAMEROON

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INVESTING IN YOUTH VOCATIONAL TRAINING

PROFESSIONAL TRAINING PROGRAMME IN THE AGROPASTORAL AND FISHERIES SECTORS IN CAMEROON

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Abstract

This study focuses on the training and vocational integration of young people in agriculture as part of the agropastoral training programme (AFOP) in Cameroon. The training system was redesigned under the supervision of two ministries (Agriculture and Livestock) and involves 122 public, parastatal, municipal and private training structures (centres and schools).

The crux of the analysis is based on more than 12 years of programme data drawn from its internal monitoring and evaluation system. Additional data was collected from key programme actors and technical assistance.

The model of human capital development promoted in the AFOP programme is part of the training-integration continuum preparing young people for jobs in the agropastoral and fishery sectors (with ten standards developed).

In approximately ten years of programme operation, 13 319 young people have been trained (33 percent of whom are women): 10 509 as entrepreneurs, 480 in entrepreneurial support professions and 2330 in advisory professions. As part of the entrepreneurial support professions that started in 2014, 3670 young project initiators (28 percent of them women) have been trained and settled, including, 3532 farmers, 64 agropastoral entrepreneurs and 74 master fishers to date, for a total of USD 9.85 million in funding granted.

Analysis of the system shows that the training contributes to learners' entrepreneurial and social skills through gaining mastery of technical and professional competencies in strategic decision-making in the management of a production system. Other skills, particularly in processing, are less developed, owing to a shortage of local learning opportunities.

Financial data as of 2018 show that the cost of training and integration of a young person is USD 5770, with an estimated average annual profit of USD 2880 generated by the businesses of settled graduates. The return on investment for a young person's training is thus achieved within two years after professionally integrating.

The success of the model is based on fostering common values centred on the young person's life project, the involvement of professionals and families in the training, and on building national expertise in conception, designing, implementing and evaluating the system. Finally, the limitations of the renovated system in terms of technical, financial and institutional sustainability will also be discussed.

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Abbreviations and acronyms

AFD	French Development Agency (Agence Française de Développement)
AFOP	Support Programme for the renovation and development of Professional Training in the Agropastroral and Fisheries sectors
AHCI	Agriculture Human Capital Investment
ASD	AgroSup Dijon
ASTI	Agricultural Science & Technology Indicator
BTS	Higher National Diploma (Brevet de Technicien Supérieur)
C2D	Debt Relief-Development Contract
CEMAC	Central African Economic and Monetary Community (Communauté Économique et Monétaire de l'Afrique Centrale)
CEP	Primary Education Diploma (Certificat d'Études Primaires)
DRAAF	Regional Directorate of Food, Agriculture and Forests (Direction régionale de l'Alimentation, de l'Agriculture et de la Forêt)
DRIF	Regional Training Engineering Delegate (Délégué Régional à l'Ingénierie de Formation)
EAP	Agropastoral Entrepreneur (Entrepreneur Agropastoral)
ECAM	Cameroon Survey (Enquête Cameroun)
EESI	Environment and Energy Study Institute
EFA	Family Agropastoral Farm (Exploitation Familiale Agropastorale)
ENSFEA	National Agricultural Training Institute (École Nationale Supérieure de Formation de l'Enseignement Agricole)
ETA	Technical Agricultural Training (Enseignement Technique Agricole)
FAO	Food and Agricultural Organization of the United Nations
GDP	Gross domestic product
GIS	Geospatial Information Service
GPEC	Forward-Looking Jobs and Skills Management (Gestion Prévisionnelle des Emplois et des Compétences)
HCI	Human Capital Index
I&D	Institutions & Development (Institutions & Développement)
ICT	Information and communication technology
IFOCAP	Farming Cadres Training Institute (Institut de Formation des Cadres Paysans)
IFPRI	International Food Policy Research Institute
INS	National Statistical Institute (Institut National de la Statistique)
MIDFR	Masters in Rural Development Engineering and Training (Master en Ingénierie de Formation en Développement Rural)
MINADER	Ministry of Agriculture and Rural Development (Ministère de l'Agriculture et du Développement Rural)
MINEFOP	Ministry of Employment and Vocational Training (Ministère de l'Emploi et de la Formation Professionnelle)
MINEPIA	Ministry of Livestock, Fisheries and Animal Industries

	(Ministère de l'Élevage, des Pêches et des Industries Animales)
MINESUP	Ministry of Higher Education (Ministère de l'Éducation Supérieure)
MSP	Socio-Professional Environment (Milieu Socio-Professionnel)
NGO	Non-governmental organization
OPA	Observation Participation Autonomy
PCP	Consolidation and Viability Phase (Phase de Consolidation et de Pérennisation)
PIM	CGIAR Research Programme on Policies, Institutions and Markets
ROI	Return on investment
TIERGE	Advanced Technician in Infrastructures, Rural Equipment, and Water Management (Technicien Supérieur en Infrastructures, Équipements Ruraux, et Gestion de l'Eau)
TSGE	Advanced Technician in Water Management (Technicien Supérieur en Gestion de l'Eau)
TSGEC	Advanced Technician in Cooperative Enterprises Management (Technicien Supérieur en Gestion des Entreprises Coopératives)
UN	United Nations

Introduction

Sustainable agricultural production, food security and poverty reduction remain the main challenges for governments and development organizations around the world. However, progress is stalled by various crises, including climate change, public health emergencies and associated economic slumps. With the growing population and increased demand for agricultural food, fuel and materials, these concerns require investments in agriculture, rural infrastructure, adaptation to natural resource management and climate resilience.

Agricultural investments often focus on farms' physical and financial capital, including land, fertilizer and debt. However, investment in agricultural human capital (AHCI) is crucial to stimulating innovation, better farm management decisions and smallholder empowerment. Human capital is an economic term that encompasses assets that increase individual productivity, such as education and health. For this study, human capital is defined as the habits, knowledge, and social and personality attributes (including creativity) that let individuals perform work in a way that produces economic value (Goldin, 2016). Human capital enables people to make effective use of other types of capital. For example, farmers' education and knowledge influence their ability to make decisions, adopt new technologies, assess risks and manage agricultural resources.

A global study, commissioned by the Food and Agriculture Organization of the United Nations (FAO) and led by IFPRI with the support of PIM, has been examining opportunities for investment in human capital in agriculture in both the public and private sectors. It aims to address knowledge gaps in promising investments in programmes that develop agricultural human capital, particularly in specific target groups such as smallholders, women and youth.

As part of this global study of promising AHCI initiatives, nine case studies were selected across various geographical areas and contexts, examining different types of agricultural human capital. They were selected based on criteria established through extensive literature reviews and reviews from experts. The criteria included effects and impact analysis, issues of adaptation and evolution, replicability and institutionalization, inclusion and empowerment, holistic integration, and sustainability. The selection process included a series of workshops where technical experts discussed potential cases, case study selection and case study teams.

This case study gives a perspective on investing in youth vocational training and learning by examining empirical evidence from Cameroon's Support Programme for the Renovation and Development of Professional Training in the Agropastoral and Fisheries sectors (AFOP), which focuses on agropastoral vocational training and the professional integration of young people at the national level.

Chapter 1 Background

This case study concerns the development of human capital in agriculture, mostly formalised through a nationwide programme under the Ministry of Agriculture and Rural Development (MINADER) and the Ministry of Livestock, Fisheries and Animal Industries (MINEPIA). The agropastoral vocational training system involves public and private centres and schools set up for the education of young people in agriculture, livestock and fisheries. The centres are responsible for the training of primary-educated young people and working producers, while the schools are responsible for the training of secondaryschool graduates.

Cameroon, nicknamed "Africa in miniature" because of its cultural and agroecological diversity, is a Central African country located at the eastern end of the Gulf of Guinea. It covers an area of 475 442 km² and shares borders with Nigeria to the west, Chad to the north, the Central African Republic to the east, and Gabon, Equatorial Guinea and Congo to the south (Figure 1). Its population is estimated at 25 million, with an average density of 49/km². The population is predominantly young, with 42.5 percent under 15 years of age and only 3.6 percent aged 65 years or older (INS, 2017). The proportion of the population living in rural areas is steadily declining in favour of urban areas, from 86 percent in 1960 to 43 percent in 2019 (World Bank, 2019). This trend goes hand in hand with poverty, which is more widespread in rural areas, where 56.8 percent of people are affected compared to 8.9 percent of those in urban areas (INS, 2014).

Cameroon's gross domestic product (GDP) was estimated at USD 34.2 billion in 2016, with a contribution of USD 4.3 billion from the agropastoral sector (INS, 2017). The country has huge potential for agricultural production due to its agroecological diversity, which enables a range of agricultural forms (agro-industries, family, urban and peri-urban agriculture, etc.). These are practised mainly by an estimated 2 million family-run agropastoral farms, with an average size of 2.4 hectares (INS, 2017). The bulk of food production comes from these family farms, which employ around 60 percent of the working population and contribute about 70 percent of intracommunity agricultural trade within the Central African Economic and Monetary Community (CEMAC).

However, the human capital (see Table 1) behind most of this production is being eroded by an aging population and rural exodus, the latter related to (among other things) the low attractiveness of agropastoral jobs and the lack of desirable positions for young people in rural areas. Once in the city, these mostly unskilled youth often find themselves unemployed or underemployed in the informal sector. According to the National Statistical Institute (INS), in 2011 the unemployment and underemployment rates were 8.1 percent and 55.7 percent respectively in urban areas, compared with 1.4 percent and 78.8 percent in rural areas.

Since 2003, Cameroon has been planning for the creation of wealth and formal employment through various general and sectoral policies based on the vision of an emerging, democratic Cameroon united in its diversity by 2035. These policy frameworks have identified development of human capital as an important factor contributing to growth and employment objectives.

In 2006, the Government took the opportunity of the Debt Relief and Development Contract (C2D) to redesign public and private agricultural training systems, which had retained different procedures and lacked a genuinely local approach to education and professional integration. At that point the country had about 35 public MINADER training centres whose mission was to train farmers in modern research-based production techniques; 22 underutilised private centres (averaging 20 graduates every three years); and 21 public schools under the ministries of agriculture and livestock farming (18 MINADER and three MINEPIA) training independent auditors who lacked any real prospects since the civil service – the main employer of graduates from these schools – froze recruitment in the 1980s. These educational offerings were unsuited to the political demands or the specific needs of rural areas (both economic and social).

In this context, the AFOP programme was identified as a tool for redesigning the system with the goal of preparing human capital for:

- leading the modernisation of family-run farms and medium-sized agricultural enterprises;
- new duties to be assigned to rural professional organization, rural communities and the private sector, while the state would focus on its sovereign functions;
- sustainable management of natural resources for performance sustainability; and
- professional integration in the agriculture, livestock and fisheries sectors, not only to rejuvenate the rural working population but also to professionalise it in those occupations associated with the growth of agricultural production.



Figure 1 Map of Cameroon

SOURCES: United Nations Geospatial, Map No. 4227 Rev 3, Apr 2020.

Table 1 Key indicators characterising agricultural human capital in Cameroon

Indicator category	Indicator name	Year	Indicator value
General	Total population	2018	25 216 237
	Rural population (% of total population)	2018	43
	Number of smallholders/family farmers ^a	2016	2 000 000
	Ratio of poor population at USD 1.90 (%)	2014	23.8
	Rural poverty rate (%) ^b	2014	56.8
	Unemployment rate in rural areas (%)°	2011	1.4
	Rate of underemployment in rural areas (%)°	2011	78.8
	Prevalence of malnutrition (%)	2017	9.9
	Human Capital Index (HCI) Score	2017	0.671
Enabling environ-	Anticipated years of study, men and women	2016	9; 1
ment: Level of education	Primary schooling completion rate, total	2018	64
	Literacy rate, total adults (% of persons aged 15 and over)	2018	77
Enabling environ- ment: Funding	Data on national expenditure on agricultural research as percentage of agricultural GDP (ASTI) ^d	2018	0.39
Enabling environ-	Mobile phone subscriptions (per 100 people)	2018	73
ment: ICT-related indicators	Secure internet servers (per 100 people)	2019	15
	Access to electricity (% of population)	2018	62.7
Enabling environ- ment: Policies	Has a national agricultural investment plan or policy		Yes

SOURCES: World Bank database (2020), ASTI (2018)^d, INS (2011°, 2014^b, 2017^a).



Chapter 2 Overview of AFOP programme

HISTORY AND LIFE OF THE PROGRAMME

AFOP is an activity-oriented programme that for over 12 years has involved hundreds of individuals in redesigning and implementing the system for national agropastoral training and professional integration of young people in Cameroon. Launched in 2008, the programme underwent two initial phases that enabled the implementation of the redesign strategy. The current third phase, known as the Support Programme for the Renovation and Development of Professional Training in the Agropastoral and Fisheries Sectors – Consolidation and Viability Phase (PCP-AFOP), aims to consolidate and make viable the achievements of the previous phases. Figure 2 below shows the redesign process.

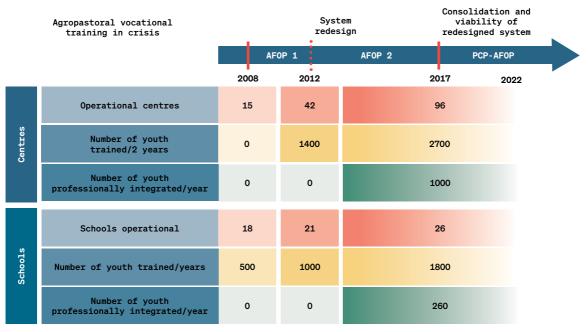


Figure 2

Evolution of AFOP programme from 2008 to the present.

SOURCE: Authors' elaboration based on Mechali, 2016.

FACTORS SUPPORTING PROGRAMME IMPLEMENTATION

The cultural and linguistic diversity of rural communities in Cameroon's regions and the country's wealth of natural resources allow for a range of potential agricultural activities.

The assistance provided by AFOP to young people in their agropastoral integration starts at the beginning of their training and continues during the early stages of professional integration. To achieve this, a large network of men and women is involved from the centres to the villages, localities, and families, all interested in developing new skills for agropastoral entrepreneurs. With a cascade structure, the system has needed coordination to keep it operational both technically and financially and it is now seeking to institutionalise its main functions.

In the 1970s and 1980s, Cameroon had adopted an ambitious agricultural and rural vocational training policy intended to train technicians, ensure the development of the rural sector by the government, and train farmers in modern techniques. The agrarian reforms, which aimed to increase agricultural production through the systematic application of modern techniques and agricultural research in Cameroon, were developed in a diffusionist manner that impacted not only agricultural consultancy but also education.

In the original context of a highly interventionist policy environment, the supervision of producers and their input supply was ensured by public services, as was the marketing of cash crops, the main source of income for producers. This policy led to the setting up of public centres providing technical support in the agricultural production and livestock sectors, as well as private centres offering training to primary-educated youth who were considering becoming farmers, stockbreeders, or fishers.

However, in the more recent context of structural adjustment plans, that training system proved inadequate in terms of both demand and the specific needs of communities.

The new training system being developed must therefore respond to current and future needs in agricultural and related professions and to the socioeconomic integration of young people. The entire spirit and framework of the training system are therefore being revisited. This includes the centres' projects for optimal integration in their territory; managers' attitudes (support versus top-down diffusion); the preparation and status of trainers for an active and innovative pedagogy; integration of courses and content into national legal frameworks; promotion of agricultural professions through the awarding and recognition of diplomas; pedagogical methods and modes of integration of young people; and education frameworks based on the capacities to be developed.

Today, the training courses developed in the centres and schools as part of the redesigned system are governed by Law No. 2018-010 of 11 July 2018, whose implementation is managed by the Ministry of Employment and Vocational Training (MINEFOP) and which governs vocational training in Cameroon. The contents of this law are fully in line with the large-scale experiment AFOP represents for the agricultural sector, as well as with the documentation published by the programme's host ministries (MINADER/MINEPIA) on an experimental basis since 2009 prior to the redesign.

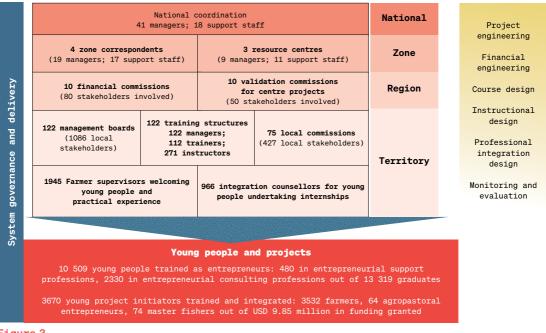
AN INCLUSIVE PROCESS AND PROGRAMME

The initial outline of the programme's activities was identified as the programme unfolded, guided by the competences to be acquired by the participants. Exchanges and study trips with French partners allowed for collaborative development of the training and integration systems.

Led by a committed central coordination team and with responsive local communities, the process has mobilised a multitude of stakeholders in a largescale, long-term, innovative project that has broken down traditional sociocultural patterns and elicited a massive response ranging from administrative executives to rural communities, through families and, of course, the learners themselves.

Thanks to its inclusive voluntary orientation, the national training system serves local communities by relying on a rational agriculture that responds to social demand and is always guided by young people's projects. Each young person's project is considered from a professional point of view and involves the technical and economic design and implementation of a sustainable activity that is socially rooted in the locality.

Alone or with family members, young trainees become stakeholders in the community, developing their own resources in agriculture or livestock, and becoming able to provide for their family (entirely or partially) or to develop other activities. The young person's plan integrates both personal and professional dimensions. All pedagogical support in the AFOP experimental system follows a conceptual and pragmatic approach that considers the individual, their history, environment and family in the professionalisation process they are undertaking. Rarely can one observe a system's birth, growth and transition from a functional experimental system to an institutional one; this is the current challenge of the AFOP programme and it involves the entire programme coordination team (Figure 3).



Steering Committee of PCP-AFOP programme

Figure 3

Human organization of system and skills acquired.

SOURCE: Authors' own elaboration.

The aim of the redesign of the national training and integration system carried out by AFOP was to meet current and future training needs in agricultural and related professions as well as addressing the socioeconomic integration of young people educated in their own environment. To achieve this the programme has been working on the following elements:

- development of new teaching content based on professional standards;
- updating the pedagogy (active methods aiming at professionalisation) in training structures (centres and schools);
- improving governance of the system;
- strengthening capacities of stakeholders in charge of managing and delivering the system;
- acquisition of teaching and learning materials;
- construction or refurbishment of educational and peripheral infrastructures and equipment;
- support for young graduates who have completed basic training as entrepreneurs (Farmers and Master Fishers in centres, Agropastoral Entrepreneurs in schools) and have put together a business proposal to create or improve a farming or fishing business – this programme support is multifaceted and covers technical, economic, financial, management and marketing aspects.

Through the co-construction of a national project, the AFOP programme also enables the sharing of a common culture, solidarity, and the development of individual and collective skills. The fluid connections between the various levels of the system facilitate its responsiveness and the adaptation of all stakeholders to supporting young people's projects.



Photo 1: youth engaged in pig farming; two young fishermen.

SOURCE: ©INSTITUT AGRO/FRÉDÉRIC LHOSTE, ©PCP-AFOP/SEINGUI DANIEL GERVAIS.









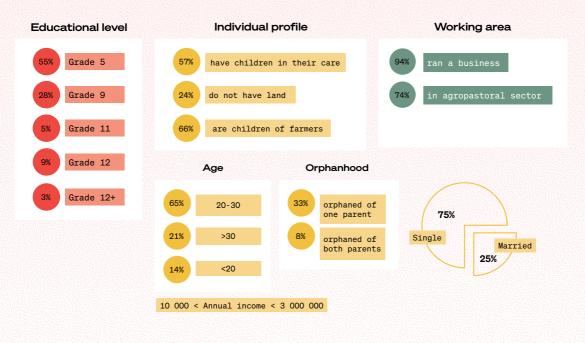
Chapter 3

Focusing on the human capital development model promoted under the AFOP programme

TARGET GROUPS AND CHARACTERISTICS

The AFOP programme has two main targets: primary-educated young people (18 - 35 of age) with a target of 40 percent women, and secondary school graduates. The analysis of those enrolling in the centres to become farmers shows that 65 percent of them are aged between 21 and 30, and 36 percent are women; 55 percent have the minimum Primary Education Diploma (CEP) required for the training, while 45 percent have a higher diploma. Most enrolments (66 percent) come from farming families and are already running a business (94 percent), often quitting their business to attend the training because they are looking for a stable job, especially as the majority (57 percent) have children to look after.

Young people are selected through a national test with the involvement of local stakeholders, who verify and publish the results. The test assesses primarily their motivations, the availability of land or the possibility of owning land at the end of the course for the implementation of their project, and the prerequisites for attending the course. With regard to the ability to acquire land, the test determines whether the young person is able to obtain land from parents or family to set up a farm at the end of the course. Some young people do not have the land at the beginning of the training but have a commitment or promise from a parent or guardian to make land available to them. During the two years of training, they are also supported in the process of acquiring land from their families.



Profile of learners beginning farmer training

Figure 4 Profile of learners

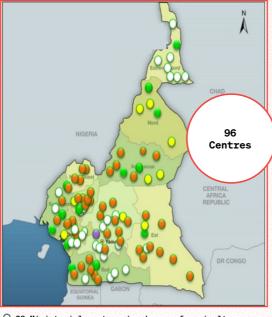
SOURCE: Authors' own elaboration.

TYPES OF REDESIGNED TRAINING STRUCTURES AND GEOGRAPHICAL COVERAGE

The redesigned system includes 122 training establishments, including 96 centres and 26 vocational training schools. The centres are responsible for the initial training of primary-educated young people and the continuing practical training of farmers and fishers, while the schools provide initial training for secondary school graduates. There are various categories of these structures, which are spread across the country, albeit unevenly (Figure 5). They include public (MINADER and MINEPIA), municipal, parastatal and private training establishments.

TYPE OF COURSES DEVELOPED AND SKILLS TARGETED

The courses developed in the centres and schools are vocational and supported by profession-wide standards developed jointly with sector and institutional stakeholders. These standards are based on institutional directives (MINADER and MINEPIA) and career surveys with professionals to determine the tasks involved in each job (see Figure 6 for overview). To date, nine of the ten standards developed have been implemented in the training centres and schools (the tenth is for monitors and trainers).



28 Ministerial centres in charge of agriculture
 13 Ministerial centres in charge of livestock breeding
 9 municipal centres
 1 parastatal centre

• 45 private centres

Figure 5

Maps of centres (left) enrolled in the renovated system and schools (right).

SOURCE: AFOP (2020a).

The boundaries and names shown and the designations used on this/these map(s) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

TRAINING IN THE CENTRES

The centres are responsible for the training of primary-educated young people and for the continuing practical training of farmers and fishers. Only the Farmer and Master Fisher standards are applied in the centres.

The standard for professional farmers covers a variety of specialities: plant production (perennial or annual crops), livestock smallholding or pastoralism, fish farming, etc. Professional agropastoral training is based on five areas of expertise: (i) production management; (ii) farm management; (iii) natural resource management; (iv) processing; and (v) marketing.

Master Fisher training is based on four areas of expertise: (i) boat handling; (ii) risk prevention and safety and health at work; (iii) fishing operations; and (iv) management of a fishing company. The centre-based courses last two years. They lead to a qualification and on successful completion a certificate is issued by MINADER and MINEPIA.

Our discussion of the development of human capital in agriculture will be based mainly on the study and analysis of centre operations.



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Schools

TRAINING IN SCHOOLS

Schools provide initial training for secondary-school graduates; the professional standards applied are:

- Agropastoral Entrepreneur (EAP)
- Agropastoral Adviser (CAP)
- Advanced Technician in Infrastructures, Rural Equipment and Water Management (TSIERGE)
- Advanced Technician in Cooperative Enterprises Management
 (TSGEC)
- Advanced Technician in Water Management (TSGE)
- Agricultural Technician
- Livestock Technician.

The main aim of these courses is to develop skills in entrepreneurship and management (EAP), advising (CAP), management of cooperatives (TSGEC), production techniques (Agricultural/Livestock Technician), and agropastoral water planning and management (TSIERGE, TSGE). The courses last two years and lead to an Advanced Technical Diploma (BTS, except for Agricultural and Livestock Technician), thus enabling the pursuit of higher education. The diplomas are awarded by the Ministry of Higher Education (MINESUP).

These professions along with the professions taught at the centres (Professional Farmer and Master Fisher) are grouped into three main categories (Figure 6), namely:

- 1. Entrepreneurial professions (Professional Farmer, Master Fisher and EAP): these professions lead to self-employment through the creation of an agropastoral farm or fishing company.
- 2. Entrepreneurial support professions (Agricultural Technician, Livestock Technician, TSGE): graduates of these training courses are recruited as specialised workers in agropastoral farms or agrobusinesses.
- 3. Advisory professions (CAP, TSIERGE, TSGEC): these courses lead to paid employment in NGOs, the civil service, decentralised local authorities, etc.

A support sub-scheme for young people trained as entrepreneurs (young project leaders) has been set up to assist them in the development and implementation of their project to create or improve a farm or fishing business.

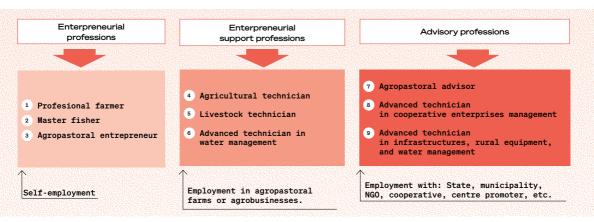


Figure 6 Overview of profession.

SOURCE: Authors' elaboration based on AFOP (2020a).









Chapter 4 Organization and delivery of courses

PEDAGOGICAL CHOICES TO SUPPORT LEARNERS IN THE IMPLEMENTATION OF THEIR PROJECT (TRAINING-INTEGRATION CONTINUUM CENTRED ON THE YOUNG PERSON)

Appropriate training approaches and tools have been developed to implement the above professional training standards. Two innovative main training modes have been developed, namely:

- initial work-linked training in centres preparing for the profession of Farmer
- initial training with internship periods in all schools for the seven professions they prepare for, as well as in the centres preparing for the profession of Master Fisher.

There are two distinct types of training: work-linked training in the centres (a continuous sequence of two weeks of learning with farmer supervisors and two weeks of teaching and reflection) and a period of initial training (teaching) followed by a period of work experience (internship) in schools. **Work-linked training** is based on the principle of "learning by doing". The training begins with two weeks of practical learning in a socio-professional environment (MSP). This takes place either with the family or with a farmer supervisor (professionals who welcome the learner to their farm for two weeks) and is followed by a two-week training phase at the Centre to share experiences, obtain scientific explanations and analyse the practices experienced in the socio-professional milieu. Three types of stakeholders are involved in this process:

- 1. the family supports the learners in building the socio-cultural skills they need to successfully integrate into society
- 2. farmer supervisors, or co-trainers, support learners in building technical or professional know-how
- integration counsellors, or trainers, in the centres, help learners access scientific explanations and analyse the practices experienced with the farmer supervisors.

To maintain the specificity of the training, which takes place in different locations with several participants, different approaches and tools have been developed: (i) questioning, which guides the learner's approach during their MSP learning experience; and (ii) a logbook, which informs participants about the training activities carried out in the two domains (MSP and centre) and records learners' progress throughout their MSP learning according to the OPA principle (observation, participation, autonomy). Similarly, as training is based on work status, a tool designed to organise training time and location based on the agricultural calendar has been made available.

In parallel with the training, learners are supported in reflecting upon their professional integration project as part of the mentorship scheme set up for this purpose.

Initial training with internship periods begins in the centre or school to provide learners with the conceptual and methodological basis and the tools necessary for their MSP learning experience. Approaches and tools have also been developed to organise training time and location according to the relevant professional calendar.

The aim of these two types of training is to provide young professionals with skills and increase their human capital, with the ability to adapt, innovate, create and be competitive in the profession for which they trained. To this end, the training is organised and conducted based on professional examples so that learners can experience relevant professional practices or know-how (MSP learning), understand the foundations or scientific basis of these practices (teaching), and take a step back from the knowledge and know-how acquired to reflect on their choice (reflection).

Currently, the skills to be developed concern the implementation of production and processing systems for agricultural products with a view to increasing the autonomy of new businesses (inputs, consumables, sales channels, etc.). In the results chapter below, we address the skills (combination of knowledge, know-how and life skills) from various perspectives (sociability, entrepreneurship and leadership).

PROFILE OF TRAINERS AND CO-TRAINERS

In the renovated system, trainers organise and run courses in centres and schools, while co-trainers are professionals in the target field who support learners during their MSP learning experience.

In training centres, trainers are recruited through tests based on their agriculture, livestock farming or fishing competences at the level of advanced agricultural technician (BAC+2). Once recruited, they are trained as centre facilitators, with the centre providing them with pedagogical skills and the ability to support a professional project. This training is based on the relevant professional standard implemented in the resource centres established for this purpose. Three resource centres have been set up as part of the AFOP programme, mainly to provide initial and ongoing training for centre instructors and refresher courses for school trainers.

At the school level, the trainers are engineers or veterinary doctors from MINADER and MINEPIA or recruited as contract staff for the AFOP programme and assigned to the schools to organise and run the courses. They can attend pedagogical capacity-building sessions at resource centres to organise and facilitate the training of learners. A Master's degree in Agricultural Engineering for Rural Development (MIFDR) is being set up in collaboration with the Faculty of Education of the University of Ngaoundéré to provide basic and further training for school trainers.

The co-trainers (farmer supervisors in the centres and trainee teachers in the schools) are selected by the pedagogical teams of the training structures on the basis of well-defined criteria. These criteria cover three areas:

- 1. professional being recognised locally as a professional;
- social being of good character and sociable, willing to share knowhow on a voluntary basis;
- economic living off the profession in which they are training learners and having basic facilities to accommodate learners during the MSP learning phase.

Once selected, the internship liaisons and mentors are trained according to the standard drawn up for this purpose. This standard is structured around four capacities, namely:

- a. supporting the learner in the learning process
- b. assessing learners in work situations
- c. supporting the learner's socio-professional integration
- d. ensuring communication in the support relationship.

SOURCE AND FUNDING MECHANISM OF THE MODEL

The redesign of the national training and integration system in the agropastoral and fisheries sectors carried out by the AFOP programme is financed by the State (10.9 percent), families (3.6 percent) and the French Development Agency (AFD) (85.5 percent) as part of the C2D framework. The funding of training and integration activities in the centres and schools is based on an Institution Plan, the institution's steering and negotiation tool co-constructed with local stakeholders. In the centres and schools, the programme has constructed or refurbished and provided equipment to pedagogical and peripheral facilities and supplied training structures with computers and teaching materials as well as motorbikes for monitoring learners during the MSP learning phases. A total of 33 classrooms and 22 dormitories have been built, 91 educational buildings refurbished, and 275 motorbikes made available to the training structures. Training in the centres is residential and free of charge. Learners are entitled to a food allowance of USD 1.70 per day during their stay at the centre, which is fully covered by AFOP. Families are responsible for supporting learners during the MSP learning phases. In schools, on the other hand, training comes at a cost of USD 358 per year in public schools and an average of USD 448 per year in private schools.

A VIABLE ECONOMIC MODEL

The PCP-AFOP programme, with technical support, carried out an economic review of the renovated training and agropastoral integration system to ensure its sustainability.

The economic review is based on a multifunctional vision of the training centres and schools, which are stakeholders but also are answerable to public policies and local authorities, which invest daily in their operation. Hence, the estimate of the full costs of training and integration takes into account local costs, where the main component is the contribution of families (direct or indirect – i.e. the opportunity cost of the young person leaving the farm or family for 2 years). The return on investment (ROI) or profit is represented by the gross added value, the investments made, and the agricultural income generated by the farms of integrated graduates.

Table 2 summarises the aggregated figures from this study, current as of 2018 (Loussouarn, 2020). It shows that the full cost of training and integration support for a graduate is USD 5770, or a rate of USD 15 per day. ROI analysis shows that the projects implemented by graduates after integration generate an average of USD 2880 per year, which means that ROI is reached within 2 years. However, some graduates do not integrate (settlement rate: approximately 66 percent), and better results can be expected, especially as the programme now has insights into supporting professional integration.

Table 2

Economy of training

Integration flow (young persons / year)	900
	(USD,000)
Cost of support (training + financial support for settlement) / young person	2.13
Integration cost (counselling) / young person	0.77
Depreciation costs (renewal of fixed assets and human capital)	0.84
Cost self-financed by learners (actual costs and opportunity cost of attending the centre) / young person	2.01
Full cost / young person (over 2 years)	5.77
Full cost / learner / day	0.015
Return per young person Year 1	2.19
Return per young person Year 2	3.57
Projected return per young person in subsequent years)	3.57
Duration of Return on Investment 2 years	2 years

SOURCE: Authors' own elaboration.









Chapter 5 Methodological approach

This case study is based on primary and secondary data collected mainly from the programme's own database, built up over more than 12 years from its internal monitoring and evaluation system and a series of external studies conducted on the modernisation of agricultural training. Based on these observations, the team in charge of the study agreed on a methodological approach with IFPRI that was structured around two stages of data collection and analysis. The first stage consisted of rigorous use of existing data on the experience of the AFOP programme in terms of investment in human capital. The second stage consisted of collecting additional or missing information through surveys carried out with key stakeholders in the programme and its technical assistance. Figure 7 illustrates the methodological approach used.

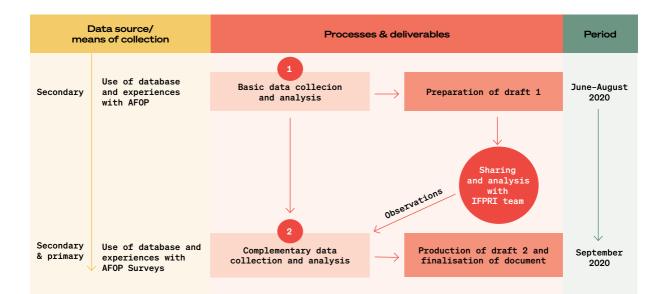


Figure 7 Methodological approach employed.

SOURCE: Authors' own elaboration.

The information used from the programme database came mainly from the AFOP programme's internal monitoring and evaluation system and from studies carried out as part of the technical assistance provided by the Institut Agro for more than 10 years. These data are objective and reliable, even if the crucial point remains the quality of data collection.

Regarding the information from the programme's internal monitoring and evaluation system, three main databases were used.

(i) The consolidated national table of indicators for piloting the renovated system, filled in quarterly by all the stakeholders concerned for the following key indicators:

- number of skills developed
- number of learners in training
- number of continuing training sessions
- number of active farmers trained
- balance of organization's accounts
- number of projects validated
- number of projects postponed
- number of projects funded
- subsidy amount transferred
- number of project leaders supported
- number of support contracts in progress
- amount of subsidies disbursed.

(ii) The results of studies (carried out by external consultants recruited on a competitive basis) of the impacts of training and integration on direct and indirect beneficiaries.

(iii) Consolidated sheets for ranking or establishing the reference situation of learners at the start and end of the training. These sheets are prepared by the training organizations through interviews conducted with learners by their training leaders. Their aim is to assess the benefit to learners of the two years of training by making a comparative analysis of the reference situation of the learner when entering training and their situation upon completion of the training.

With regard to the data taken from studies conducted as part of the technical assistance¹ provided by the Institut Agro, four types of studies were used, namely:

 studies of the economics of training, updated annually using software designed for this purpose with the technical assistance of

1. Montpellier SupAgro as Consortium Coordinator

4. Institut de Formation des Acteurs du Monde Agricole et Rural (IFOCAP)

- 7. École Nationale Supérieure de Formation de l'Enseignement Agricole (ENSFEA)
- 8. Réseau géographique Cameroun : Enseignement Technique Agricole (ETA)
- 9. AgroSup Dijon (ASD) / Institut Eduter
- 10. Inspectorate of Agricultural Education / Ministry of Agriculture and Food

¹ The consortium set up to provide this technical assistance continues to evolve to better meet the expectations for skills relating to AFOP's fields of activity. Today it includes the expertise of the following organizations:

^{2.} Associate members of Montpellier SupAgro: DRAAF Nouvelle-Aquitaine; C4D

^{3.} Réseaux des Délégués Régionaux à l'Ingénierie de Formation (DRIF)

^{5.} Institut de Recherches et d'Applications des Méthodes de Développement (IRAM)

^{6.} Institutions et Développement (I&D)

Institut Agro; this permits rigorous assessment of the total cost of training a learner and the ROI;

- studies of the process of training and integration of young people in the agriculture sector and their effects and impacts conducted by student interns at Master's level in the Institut Agro;
- various studies conducted by the consortium's experts led by Institut Agro as part of the technical and institutional assistance missions to the AFOP programme and its supervisory ministries responsible for agriculture and livestock;
- capitalisation studies on the process of modernising agricultural and rural vocational training in Cameroon.

The surveys used a data collection grid (see Appendix) focused on the model's success factors, its limitations and possibilities as well as on the conditions for its success in other contexts. The grid was sent by email to key stakeholders in the programme and technical assistance; the survey participation rate was 50 percent (8 out of 16 potential respondents).

Precise targeting made it possible to identify eight respondents (seven men and one woman, which once again reveals the efforts still required to attain representativeness of the actors), who were selected for their direct involvement in the design, implementation and evaluation of the programme. These actors are best placed to provide additional information relating to the success factors of the model, its limitations and possibilities, as well as the conditions for implementation in other contexts.

The information obtained from the database and the surveys was both quantitative and qualitative. The quantitative data were processed and analysed using Microsoft Excel, while the qualitative data were summarised, analysed thematically and reformulated according to the information of interest.

The data collected during the surveys fed into the case analysis and the recommendations presented at the end of the report.







Chapter 6 Results

ENCOURAGING FIGURES OVER A PERIOD OF TEN YEARS

The data illustrating the results come mainly from the programme's internal monitoring and evaluation system (dashboard, annual activity report, etc.) and analyses of surveys and external sources used (technical assistance, briefs, etc.).

The results recorded as part of the AFOP programme in terms of training to date show 10 509 young people trained in entrepreneurship, 480 in support professions for entrepreneurs and 2330 in Advising professions, making 13 319 young people trained in total. Of these, 33 percent were women (Figure 8). This result reflects the greater attractiveness of agricultural professions for young people who are increasingly interested in agropastoral and fisheries training in centres and schools that had recorded relatively low enrolment prior to modernisation (500 trained per year in schools before the programme intervention compared to 1800 each year today).

In terms of support for integration into the sector, the programme records 3670 young project leaders trained and set up in the sector, of whom 28 percent were women: 3532 farmers, 64 agropastoral entrepreneurs and 74 master fishers, for a total budget of USD 9.85 million in funding granted (AFOP, 2020). The projects implemented generally incorporate several inter-related farms, with the project's core being the main farm around which the others are clustered.

An analysis of the progress of the farms (based on a sample of 1843 projects begun more than two years ago) revealed that the proportion of functional projects is 79 percent as against 21 percent of projects in difficulty. The causes of projects being in difficulty are diverse and may be linked to:

- production management: insufficient quality and quantity of inputs, poor management of the farm, multiple activities, inexperience;
- context of entry: livestock diseases and epidemics, social conflicts, land tenure difficulties, instability of selling prices;
- social constraints: marital instability, marriages of young girls;
- death of project leader (AFOP, 2019).

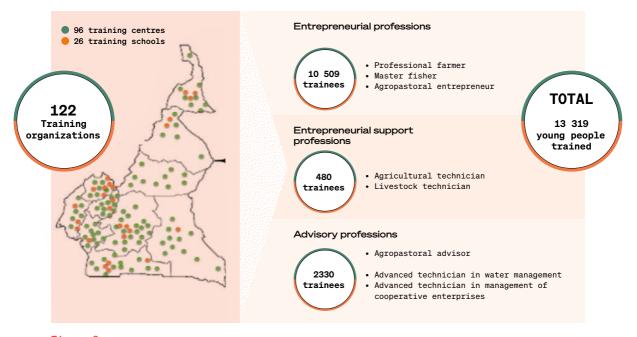


Figure 8 Number of young people trained by type of profession.

SOURCE: Authors' own elaboration.

SKILLS DEVELOPED BY LEARNERS IN DIFFERENT AREAS

The internal and external studies conducted have revealed that the training model promoted allows for the development of many different skills in learners.

Development of skills targeted by training

As part of their graduation thesis at Institut Agro, Ayite and Leppens (2016) and Hernández-Espinosa and Sinelle (2016) developed a methodological tool for understanding to what extent the young trainees who enter the agriculture sector as part of the AFOP programme attain command of the skills targeted by the training. These skills should be possessed by the learners as attested by the certification evaluations organised by the training centre; the objective of the tool was therefore to verify the young trainees' real command of those skills and their subsequent application on the farms where trainees have begun to work. A stepped scoring system from 0 to 2 permits assessment of the level of acquisition of the skills through a detailed analysis of the discourse of the young people surveyed, consolidated by field visits.

This tool was applied to the Farmer professional benchmark, which aims to develop seven skills in learners, namely:

- C1: mobilizing general skills in a professional context
- C2: identifying the influence of agropastoral activities on the natural environment
- C3: making strategic and tactical decisions to manage the farm
- C4: managing a production system sustainably
- C5: selling farm products
- C6: processing plant and animal products
- C7: demonstrating local adaptive capacity.

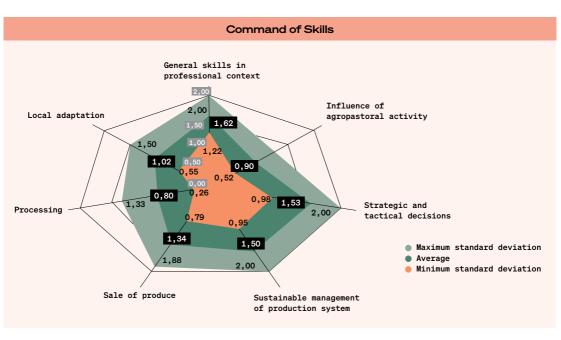


Figure 9 Levels of skills mastered by young people trained in the profession of farmer

SOURCE: Hernández-Espinosa and Sinelle, 2016.

Interviews were conducted with 50 young trainees who entered the sector. The youth panel, which comprises 30 percent women, is representative of the areas where the young people live within the centres studied (age, sex, region of origin, etc.). The results obtained are shown in Figure 9 as a radar diagram.

Each vertex of the radar diagram represents a benchmark skill in the farming profession. According to the authors, analysis of the radar reveals a good mastery by the learners of four skills: C1, C3, C4 and C5, whose average is above 1. However, the authors draw attention to the fact that command of three skills is poor. These are skills C2, C6 and C7, whose average is barely equal to or below 1. This weakness is explained by the fact that some localities are poor in learning situations, particularly in the field of processing. To counter this deficit, educational workshops are planned for the training organizations.

Development of entrepreneurial and social skills

To be a young person in a rural area is to be on a long journey towards social and economic integration. Gradual changes in attitude are noticeable in the behaviour of young girls and boys during the process of training and professional integration. These changes are noticeable both at an individual level and within learner peer groups, but also in their daily environment (family, other farmers, village communities, etc.). This is reflected in improvements in living accommodation, acquisition of means of transport, and improvements to the quality of the daily diet (among others).

The trained and integrated young people come to see that agriculture is profitable and compatible with a life project

Analysis of the monitoring & evaluation system, a continuous process that tracks young people upon entering and leaving training and then during their integration into the sector, offers several (qualitative) lessons on the skills acquired:

- The change of lifestyle and a move from a city to a rural environment is often difficult to accept, but the gradual assumption of responsibility allows the young persons to assert their role as farm managers.
- The young people trained stand out from other farmers thanks to their technical knowledge, which is tailored to the methods of production, conservation and marketing of produce. Being more autonomous, they are less dependent on the vagaries of suppliers despite the uncertain financial position of their small agricultural facilities. For the young person, the increasing autonomy of the project represents freedom from social, moral or intellectual dependence and becoming a stakeholder in their own development. The young men and women supported by the programme who achieve this maturity are generally resourceful and show greater resilience to hazards. This is the desired goal and a source of pride of all the stakeholders working for AFOP.
- These young people have bank accounts opened as part of the support provided for the implementation of their integration project. They benefit from the support of integration counsellors in disbursements, the use of funds and keeping farm records. This support strengthens their skills in management and financial education acquired during the training and helps improve their credibility with microfinance institutions.

Development of leadership and training skills

By implementing best practices as part of their agricultural activities, the young people integrated into the sector successfully carry out tasks seen as complex by farmers (setting up an incubator for poultry, a nursery for cocoa plants, etc.). This enables them to carry out demonstrations and train other farmers in the area, which affords them recognition and social status through access to responsibilities within the community.

The young people trained under the programme are seen as "resource persons" who are consulted by close relatives and other farmers in their areas of professional expertise, as well as on social issues. They are increasingly respected in their communities: "The neighbours are interested in my techniques and my field, and when they see the crops, they adopt them, they are good cheaters [they copy]," emphasises a young trainee integrated into the sector (Ayite and Leppens, 2016).

Development of sociability skills

Backed by theoretical contributions, the practical learning with farmer supervisors offered through the work-linked training model is a feature welcomed by the project leaders. The farmer supervisors teach them the correct processes, practical tips and know-how. Local connections of mutual support and exchanges of practices, services or products are thus established between farmers.

Young people can be the target of jealousy and may have difficulty adapting to local customs. "Sociology impacts the project more than the technical aspects," notes an integration counsellor from a training centre in Bouam (Berges, 2015). Human factors linked to becoming accepted in a (sometimes new) community and the quality of the social links the young person forges are decisive in the success (or otherwise) of their project. The region and its stakeholders can be welcoming and facilitating through mutual aid, cooperation, innovation, etc., as well as limiting or even off-putting as a result of greed, rivalry, insecurity, etc.

Development of self-confidence

The training seeks to develop in young people a sense of leadership, mastery of animal and plant production techniques, farm management skills, marketing techniques and sustainable management of soil fertility as well as a desire to take their training further. The following are testimonials from some of the young people:

- "The training has changed us. I respect the dimensions (for sowing) and the yields are very, very different." AFOP trainee.
- "I have become someone today and I can raise my voice in my family and even in the community." AFOP trainee.
- "We do archaic mixed farming, we plant our cassava at random. He lays out, he plants in staggered rows, he ploughs in furrows, he makes ridges, he sows in lines; it's a beautiful sight to behold." Parent of a young respondent. (Ayite and Leppens, 2016)

Even more than knowledge and skills, the training enables young people to develop a better opinion of themselves, something they often lack. They are aware of their skills, and many say that they evolved during these two years of training:

"The training forced me to think outside the box. After two years, I have a different outlook on life. It opened up a new field for me." Young person trained and integrated in a Centre in West Cameroon. (Berges, 2015)

Armed with their knowledge, they gradually manage to break away from the image of "a guy who hangs out in the neighbourhood," a symbol of idle youth. The training allows them to dream of something better, of being "one of the great livestock breeders or farmers of the village." As one young trainee testifies: "People see me going into the bush every morning, they don't know what's going on. In five years' time, they will see me in this village and won't recognise me, I will be in my own car!" (Ayite and Leppens, 2016)



Photo 2: Young man transporting yam from his field to market; young woman in her cocoa plantation; house in a rural area built by a young trained and settled.

SOURCES: Gervais/PCP-AFOP and T Chamberlin/Centre de Formation Agricole et Rurale (CFAR) de Nkol Bolmo, 2020.



Chapter 7 Analysis of case study and recommendations

ANALYSIS OF CASE STUDY AND RECOMMENDATIONS

The use of data collected from key stakeholders in charge of steering, organising and technical assistance for the AFOP programme made it possible to identify the main success factors of the training–integration model as well as its limitations, and to identify a number of recommendations.

SUCCESS FACTORS OF THE TRAINING MODEL

The definition of the success factors of the model promoted under the PCP-AFOP programme is based on the philosophy of its stakeholders (the "DNA" of the programme) and the results of the surveys carried out specifically as part of this study. Seven key factors have been identified, as listed below.

1. Construction of common values with young people at the centre of the action

All the activities of the PCP-AFOP programme are based on a philosophy in which the young persons who enter training carry with them a dream of the skills they want to develop in order to achieve their professional and life project. This philosophy presupposes a specific attitude for all stakeholders involved in organising and leading the training: the young people are stakeholders in their training, and the role of the trainer is that of a guide and not of a prescriber of lessons the learner must ingest. In other words, it is the young person who accomplishes the project by planning it under their own responsibility rather than simply applying developed recipes which amount to methodological plans or toolboxes prescribed by specialists. This philosophy is shared by all the actors within the modernised system and constitutes the common thread of their actions. Significant work is undertaken to support stakeholders in changing attitudes, even if this is not without difficulties linked to the innovative character of this approach in a context where the modernist model of agricultural development backed by advanced technologies and a transmissive or topdown pedagogy remains strongly anchored in practices.

2. Two-year training course based on work-study programmes open to the dynamics of the regions

The selection of the young people for training is based less on their educational level—some have passed the *Probatoire* (Grade 11) exam and sometimes even the *Baccalauréat* (Grade 12), while others have difficulty writing—than on their motivation and ability to acquire land. This mode of selection allows young people to approach their training with peace of mind and to plan more concretely how to adapt their project to their needs.

In the centres the young people are then provided with two years of training, which is enough time to establish a pedagogy based on work-study programs and ensure the acquisition of all the skills and attitudes needed to establish and develop a professional agricultural project. The integration of young people into the agriculture sector is the fruit of a long-term process of channelling of the young people in the development of their projects which, like them, continues to evolve. Post-training support from the integration counsellor enables continued support for the young people in their professional working milieu.

The pedagogy is based on the model of centre, family and professional milieu and helps secure the young person's project thanks to local anchoring of their integration in the sector and the sustainability of their actions.

The duration of the training (two years in work-study programs) as well as the method of selection of learners based above all on their motivation constitutes an effective filter that helps retain in training those young people who have truly chosen agriculture or fishing as a profession, rather than young adventurers and opportunists liable to abandon training or work at the slightest difficulty. This is reflected in the relatively low attrition rate (14 percent) and the perseverance in agropastoral and fishery work observed among young people trained as project leaders despite the failures and difficulties encountered when setting up their project. An assessment of the level of integration carried out in 2018 by the AFOP programme through internal monitoring and evaluation showed that 79 percent of projects funded were operational after two years (AFOP, 2019).

3. Pedagogy at the service of the life projects of young people – a continuum of training and integration

The articulation of training with support for socio-professional integration is what gives this model its strength. In developing their projects, the young people mobilise what they have learned during the two years of training: theoretical knowledge, technical processes, and substantial practicality. This knowledge and practicality acquired through theoretical learning and time spent in the field in a socio-professional environment help the trainees establish their independence from suppliers and other farmers, family and so on. Networks are formed, both those from before the training but especially those built up during it, while close links are forged with the farmer supervisors. Integration into agriculture and livestock breeding is a complex process that requires not only professional skills but also productive resources while being strongly influenced by the environment and the socioeconomic and cultural fabric.

Training in a farming profession can therefore only be effective if it is complemented by a process of support for learners in the design and implementation of their socio-professional integration in rural areas, which is also referred to as the learners' life projects in the context of the AFOP programme.

4. Involvement of professionals and families as co-trainers supporting the integration of young people

The support of regional stakeholders in the process of modernising the national training system has laid the foundations for a strong local anchoring of training structures. The involvement of professionals in the development and implementation of benchmarks, which are primarily based on the professions, allows for the development of contextualised training content focused on skills and not on disciplinary or theoretical knowledges which are sometimes disconnected from the reality of the profession. The involvement of families in training in a socio-professional environment during the work-study phases allows learners to develop the socio-cultural skills necessary to succeed in their social integration in the communities. Agriculture and fishing are activities influenced by the social and cultural environment, and this is sometimes the root cause of failure of integration projects in these sectors. As well as becoming functional and competitive professionals, learners under this approach also develop as citizens aware of cultural wealth, local know-how and social relations.

The sustainability of the integration of young people in agriculture cannot be guaranteed without the constructive and benevolent involvement of stakeholders in the region who contribute significantly to the resolution of social problems (jealousy, family interference, etc.) and of access to land encountered by young trainee project leaders for the start-up or development of their farms.

5. Developing a pedagogy based on the principle of Doing– Understanding

Principle is translated into action by the organisational mode of work-study training, which begins with a two-week learning phase in a socio-professional environment (*doing*) followed by a two-week training phase at the Centre to share, provide scientific explanations and analyse the experiences of learners in a socio-professional environment (*understanding*). This way of organising training is a source of motivation for learners since they are learning on the basis of lived experience (learning by doing). This form of training is also a means for assigning value and questioning and continuously improving

endogenous know-how, since the human capital developed in this context enters the sectors of agriculture, livestock and fishing, which in turn contributes to training through the integration counsellors, farmer supervisors and family.

Starting training with the practical "doing" phase in a socioprofessional environment, followed at a Centre by sharing of lived experiences and theoretical contributions, suits young people with a relatively low educational level, including those who left school to start work several years earlier. This pedagogical approach has been positively evaluated by the learners. (PROCASUR, 2019)

6. Establishing a personalised support system for learners

The training provides learners with the skills base needed to become a professional farmer regardless of the sector chosen. A tutoring system has been set up between trainers (tutors) and learners to offer the latter the chance to benefit from individualised support in developing specific skills according to their professional integration project or their skills gaps. This applies, for example, to learners who have difficulties with written or oral expression or public speaking when they enter training. Tutor support allows them to develop these specific skills. In addition, the initial assessment of learners at the start of tutoring allows trainers to identify the resource learners who can be relied upon to lead certain subjects, thereby valuing the skills the learners already possess.

Learners who enter training have different life trajectories (academic, social and professional), ambitions and specific constraints. These sometimes cause demotivation or dropping out of training if they are not taken into account. The establishment of a system of tutoring or individualisation of training is necessary for this type of learner.

7. Building national expertise in designing, implementing and evaluating a modernised training system

The success of the model relies above all on the skills base developed out of the engineering necessary for the design, leading, and monitoring and evaluation of the modernised training system. The training approaches and tools created within the framework of the modernisation were developed with the support of the consortium led by the Institut Agro, which is in charge of technical assistance. This support was based on two principles:

- developing local expertise capable of running the modernisation mechanism in a fully independent manner;
- jointly building approaches and tools adapted to the Cameroonian context.

• Individual and collective expertise has thus been developed within the modernised system at the national, decentralised and regional levels.

LIMITATIONS AND RISKS OF THE MODEL

The limitations and risks of the training model developed are twofold: limits linked to the teaching method implemented, and risks linked to the technical, financial and institutional sustainability of the model.

Teaching method

Risk of cloning or reproducing the agricultural model of farmer supervisors involved in training

The training model so far has a strong record of experience-based feedback from professionals, but this runs a risk of cloning the farmer supervisors, in the sense that the projects of young people are very often copied from those of the farmer supervisors, which – even if better than other farmers' – may lack viable technical and economic reference points at the level of training structure.

The lesson learned from the work-study training process is that apprenticeship with professionals unconsciously leads learners to reproduce in their operations the practices or ways of doing things learned from their supervisors. The time to analyse and question the practices experienced with the farmer supervisors coupled with the theoretical and conceptual teachings appear to be decisive in the learning of the young trainees.

Absence of some learning situations in professional settings

Choosing to design training based on what already exists in terms of learning situations in socio-professional environments presents a limitation arising from the fact that certain regions have a shortage of learning opportunities, particularly in connection with the processing operations. An assessment of the skills acquired by the learners at the end of the training revealed that the young people trained and integrated in the sector have skills gaps linked to processing.

Risks related to the technical, financial and institutional sustainability of the model

Erosion of skills base on which the success of the model is based

The skills developed as part of the modernisation are taught today by staff of highly varied ages whose professional mobility and retirement constitute major risks to the sustainability of the training model developed.

Model funding depends on C2D funds with a limited lifespan

The mechanism for the modernisation of agricultural vocational training in Cameroon was built on the project model with the help of funding released under the C2D signed between France and Cameroon. This approach has a significant limitation linked to the project's lifespan, which raises the question of its financial sustainability. The strategy for perpetuating the advances achieved by modernisation provides for the transfer of the functions currently provided by the AFOP programme to other central and regional actors. Under these conditions, it is necessary to develop sustainable financing mechanisms and ensure that it retains the same flexibility as today and remains adapted to the requirements of training and integration in the agricultural sector, which are largely dependent on the agricultural calendar.

Model developed on an experimental basis

To implement modernisation in training organizations, in particular through the introduction of new courses, targets and training methods, the programme with the support of technical assistance has developed legislation to regulate the modernised training and integration system set up on an experimental basis. The challenge today is to amend these legal texts to bring them into line with Law No. 2018/010 of 11 July 2018 governing vocational training in Cameroon, which is on track since this law is highly compatible with the experimental model.

PERSPECTIVES

The limitations and risks of the model presented above allow us to highlight the challenges the programme must deal with today in sustainably pursuing its goal of developing human capital in agriculture. Though this is understood in other fields of support, it always concerns the development of human capital. At this stage, it is important to remind readers that even though the programme presents encouraging results, they are part of an experimental mechanism implemented at the national level. The scaling up and evolution of the system with a view to its sustainability will mobilise regional actors along with new stakeholders forming part of two main lines of focus: perfecting the model and ensuring its sustainability.

Perfecting the model

Based on the potential and specificities of each region in which training structures are located, it will be necessary to set up educational workshops to impart innovation and create reflexivity among learners during the training, which will impact the rationale for their project. In addition, these educational workshops will provide a response to the shortages of learning opportunities seen in some regions.

Sustainability

To deal with the risk of erosion of the skills base developed, a reasoned and anticipatory skills management mechanism will be put in place. This mechanism has two lines of focus: establishing forward-looking jobs and skills management (GPEC); and in partnership with the University of Ngaoundéré establishing a Masters in Training Engineering in Rural Development (MIFDR) to help qualify newcomers to the system and improve earlier graduates.

To align the model developed under Law No. 2018/010 of 11 July 2018 governing vocational training in Cameroon, a framework for collaboration between MINADER, MINEPIA and MINEFOP is envisaged. In this context, the following actions will be carried out:

- development of the National Strategy for Agricultural and Rural Training
- support for renewed private organizations in obtaining accreditation
- development of the evaluation and certification framework for agropastoral and fisheries training courses
- development of agropastoral and fisheries training standards
- approval of benchmarks for the agropastoral and fisheries sector
- development of sustainable financing mechanisms for vocational training.

MODEL RECOMMENDATIONS AND TRANSFERABILITY

The experience of the AFOP model can serve as an example in other countries, particularly in Africa, which are in the process of modernising their agricultural training systems without necessarily replicating the system exactly. In the AFOP programme, the principles of action are always oriented towards the general interest and the development of professional skills among young people working in agriculture. The particular strength of the model lies in the strategic choices made (work-linked training, long training, support for integration) and in the capacity of its coordination team to put these choices into operation from the centre to the heart of Cameroon's regions. Focusing actions on the young person's life plan appears to be a sound approach adaptable to other contexts to help young people in their process of achieving independence. Work-linked training seems particularly well suited to supporting young people in rural areas, because they lack experience and are motivated by *learning by doing* while acquiring scientific knowledge in support of the process.

Finally, to develop and succeed in the training model implemented under the AFOP programme, various conditions must be met, formulated here as recommendations:

- There must be the political will to promote agricultural vocational training involving regional stakeholders in the co-management and co-delivery of the mechanism.
- Begin with and remain strongly connected to the economic and social demand for training in the regions, which goes beyond the political demand to maintain the relevance of the training actions.
- Actions must be based on a vision and values held in common and shared with all stakeholders involved; this is what makes it possible to build an original and context-aware model that departs from the methodological and technical toolboxes employed by some donors or specialist consultants.
- Build a national expertise capable of designing, implementing and evaluating the training envisaged in a fully independent manner.

- Formulate a process logic, which can be difficult at the outset when there may be little enthusiasm on the part of young people for training in the agropastoral and fishing professions envisaged; hence the need, from the outset, also to reflect on the incentive mechanisms to be put in place (promotion of professions that are profitable, recognition of diplomas, role of certification).
- The necessary funding must be available, with a flexible financing mechanism adapted to training activities that correspond to work situations and therefore to the agricultural calendar.
- The process must be led by a dedicated team united around common objectives and enjoying a certain autonomy of action and management if it is to be highly operational.

However, it should be borne in mind that there is no model that is applicable or transferable everywhere; the model presented here draws on elements of a methodological nature, the operating mode of the process and values specific to Cameroon in the modernisation of its agropastoral vocational training system.









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Investing in farmers – or agriculture human capital – is crucial to addressing challenges in our agri-food systems. A global study carried out by the FAO Investment Centre and the International Food Policy Research Institute, with support from the CGIAR Research Programme on Policies, Institutions and Markets and the FAO Research and Extension Unit, looks at agriculture human capital investments, from trends to promising initiatives. One of the nine featured case studies is the Support Programme for the Renovation and Development of Professional Training in the Agropastoral and Fisheries Sectors in Cameroon. The programme is part of the training-integration continuum preparing young people for jobs in the agropastoral and fishery sectors and has contributed to strengthening their entrepreneurial and social skills. The success of the model is based on fostering common values centred on the young person's life project, the involvement of professionals and families in the training, and the building of national expertise in the conception, design, implementation and evaluation of the model. This publication is part of the Country Investment Highlights series under the FAO Investment Centre's Knowledge for Investment (K4I) programme.

