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**Authors:**

Guy Nouatin

Rubain Bankole

Esaie Gandonou

Johanna M. Kemper

Karina Maldonado-Mariscal

## Contact

Faculté des Sciences Agronomiques  
Université Abomey-Calavi (UAC)  
B.P. 1399 Calavi, Bénin  
Tel.: +229 95-065008  
Faculté d'Agronomie  
Université de Parakou  
BP 123 Parakou, Bénin  
Tel: +229 96-637237/+229 96-559230.  
E-mail: tvet4incomebenin@gmail.co

ETH Zurich  
KOF Swiss Economic Institute  
Leonhardstrasse 21  
8092 Zurich, Switzerland,  
KOF ETH Zurich

Project website: <https://r4d.tvet4income.ethz.ch/>  
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## Authors:

Guy Nouatin  
Rubain Bankole<sup>1\*</sup>  
Esaie Gandonou  
Johanna M. Kemper<sup>2</sup>  
Karina Maldonado-Mariscal<sup>2</sup>

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<sup>1</sup>Corresponding Author: Rubain Bankole, e-mail: [rubainbankole@yahoo.fr](mailto:rubainbankole@yahoo.fr).

<sup>2</sup>ETH Zurich, KOF Swiss Economic Institute, Leonhardstrasse 21, 8092 Zurich, Switzerland

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## Content

<b>List of Figures</b>	<b>iii</b>
<b>List of Table</b>	<b>iii</b>
<b>1 Introduction</b>	<b>1</b>
<b>2 Concepts and Theoretical Framework to Classify Formal and Non-Formal TVET</b>	<b>3</b>
2.1 Concepts	3
2.2 Conceptual Framework for Classifying Formal and Non-Formal TVET Programmes	5
<b>3 Method</b>	<b>8</b>
3.1 Asset Mapping	9
3.2 Expert Interviews	9
3.3 Case Studies	11
<b>4 Results</b>	<b>12</b>
4.1 Asset Mapping of Benin	12
4.2 Case studies of Selected TVET Programmes	13
4.2.1 Formal-formal TVET programme: Lycees Techniques Cycle 1 and 2	17
4.2.2 Formal-informal TVET programme: Certificat de Qualification Professionnelle (CQP)	27
4.2.3 Formal-informal TVET programme: Certificat de Qualification aux Métiers (CQM)	38
4.2.4 Non-formal-informal TVET programme: Informal Apprenticeship	40
<b>5 Conclusions and Outlook</b>	<b>45</b>
<b>6 References</b>	<b>47</b>
<b>Appendix</b>	<b>50</b>
Appendix A. Asset Mapping of TVET Programmes in Benin	50
Appendix B. Expert Interviews in Benin	69
Appendix C: Tables from Case Studies Benin	71

# List of Figures

Figure 1: Asset mapping according to the six possible categories of formal and non-formal informal education programmes and informal and formal labour market.....	6
Figure 2: Education-employment linkage for different types of TVET.....	7
Figure 3: Curriculum Value Chain (CVC) .....	7
Figure 5: Overview of the Beninese education system .....	15
Figure 6: Employability of some graduates of the technical high schools in Benin in 2008.....	22

# List of Table

Table 1: Four categories or “ideal types” of TVET education.....	6
Table 2: Criteria for a TVET programme to be included in the asset mapping.....	9
Table 3: Summary of interviews .....	10
Table 4: Criteria to select TVET programmes competing in the same category against one another.....	11
Table 5: Distribution of TVET programmes in Asset Mapping by category and finally selected TVET programmes for Benin .....	13
Table 6: GDP and employment by sector, 2014 .....	17
Table 7: Enrolment in first- and second-cycle secondary education in Benin (2009–2010; 2010–2011 and 2014–2015) .....	18
Table 8: Enrolment and graduation rates for academic year 2014–2015 .....	19
Table 9: Distribution of the training pathways in industry (STI) field .....	20
Table 10: Development of the operating expenses of the lower education ministry (MESTFP) from 2007–2011.....	23
Table 11: Operating public spending on the technical high schools in 2010–2011 .....	23
Table 12: Donors’ indirect contribution to technical high schools (FCFA in million) .....	24
Table 13: Dispatching of loan contracted by private technical high schools from financial institutions (2006–2008) .....	25
Table 14: Financial resources of FODEFCA and number of apprentices in CQP by year .....	35
Table 15: Revenue of FODEFCA through the contribution of donors (in millions of dollars 2007-2014) ..	36
Table 16: Apprentices enrolment and graduation in the CQM programme .....	39

# 1 Introduction

This country case study provides an overview of the landscape of Benin's formal and non-formal technical vocational education and training (TVET) programmes. In particular, it will provide a more detailed insight of four of these TVET programmes, its actors and institutions in the form of case studies. The selection of TVET programmes for the case studies was based on a theoretical framework that classifies TVET programmes in six categories of formal and non-formal TVET programmes in employment and education systems. Thereby, we aimed to choose at least one TVET programme per category per country to be described in a case study, in case there was a TVET programme available for the respective category.

As part of the LELAM-TVET4Income project, this publication for Benin is part of a series of case studies that have also been published for Costa Rica, Chile and Benin. By selecting countries representing low- (Benin and Nepal), middle- (Costa Rica) and high-income countries (Chile<sup>1</sup>), we want to approximate the heterogeneity of TVET programmes and economic settings of different countries across the world (OECD, 2018:465). In that regard, Benin and Nepal represent countries with a large informal sector (about 80 and 60 percent respectively), where also a substantial part of the country's TVET activities takes place. These two countries are also representative for their geographical regions West Africa and East Asia. In contrast, Costa Rica and Chile represent countries in Middle- and South America, where TVET typically takes place in schools and labour market informality is much lower (10-40 percent). Benin, Costa Rica, Chile and Nepal are all part of the LELAM-TVET4Income project (see the box below). In this context, the case studies represent an important step aiming to better understand the TVET landscape in the four countries. Therefore, the main purpose of this study is to gather descriptive evidence to trace out particularities, strengths and difficulties of the countries' TVET programmes.

## About the LELAM TVET4Income project

As summarized by its title: *“Linking Education and Labour Markets: Under what conditions can Technical Vocational Education and Training (TVET) improve the income of the youth?”* (short title: *LELAM TVET4Income*), the aim of this project is to find out under what conditions and to what extent TVET can help to improve the labour market situation of the youth- especially in east developed, low and middle-income countries. The project consists of six teams coming from five different countries and four continents: Chile, Costa Rica, Benin, Nepal and Switzerland. This project is financed jointly by the Swiss National Science Foundation (SNSF) and the Swiss Agency for Development and Cooperation (SDC). For more info, see: <http://www.r4d.tvet4income.ethz.ch/>. Each year, stakeholder teams from these four countries attend the CEMETS Summer Institute (<http://www.cemets.ethz.ch/>), which is a reform-lab for reform-leaders from all over the world who want to improve their national TVET systems. This study helps practitioners to understand the whole TVET landscape in Benin.

Of the total of ten TVET programmes found in the asset mapping for Benin, four were selected for an in-depth analysis in case studies. These comprise the formal secondary TVET programme offered by technical high-schools (cycle 1 and 2; *Lycee techniques*), the formal *Certificat de Qualification Professionnelle*

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<sup>1</sup> Chile became a high-income economy in 2012 and for the purpose of this study, we considered Chile as a middle-income country (United Nations, 2014; World Economic Situation and Prospects report, 2014)

(CQP, or *Apprentissage Traditionnel de Type Rénové*); and *Certificat de Qualification aux Metiers* (CQM). And finally, the “informal” apprenticeship programme, which we classify as non-formal programme.

This document is structured as follows. In the second chapter, we introduce some concepts that are important to guarantee a common understanding of terms used in this study. In addition, we introduce a theoretical framework that aims to classify and select TVET programmes for the case studies. In the third chapter, we describe how we conducted an asset mapping and expert interviews to gather information about all TVET programmes in Benin and describe how we selected TVET programmes for the case studies. In the fourth chapter, we present the results of our selection procedure and describe the selected TVET programmes in case studies. In the fifth chapter, we give conclusions and outlook of this study.

## 2 Concepts and Theoretical Framework to Classify Formal and Non-Formal TVET

Worldwide, the understanding and definitions of TVET differ and often depend on the country-specific context. In the following, we provide an overview of the most important definitions and concepts. We then use these to construct a conceptual framework for classifying formal and non-formal TVET programmes, which we use to select TVET programmes for the case studies. In addition, we use the concept of Education and Employment Linkage (Bolli et al., 2018), which refers to the extent to which education and employment systems are linked. Finally, we introduce the concept of the Curriculum Value Chain (Renold et al., 2015), which refers to three steps to develop a curriculum and represents a helpful tool to analyse selected TVET programmes.

### 2.1 Concepts

#### Different Definitions of Technical Vocational Education and Training (TVET)

There are many different definitions for TVET<sup>2</sup>. In general, definitions are socially constructed concepts that are greatly influenced by national and socio-cultural contexts (Renold, forthcoming). Put on an abstract level, Popper (1994) noted that the definition of a given concept or term—in our case the definition for TVET—does not stipulate its application. Instead, the application of the concept (e.g. TVET) stipulates its definition—which makes it a socially constructed concept. Hence, according to Popper (1994), definitions are always derived from applications (“usage definitions”). At first sight, this implies that definitions for TVET can only be derived from their applications in real life. However, a definition of TVET can also be derived from theory. Popper (1994) states that the principles of any theory can be understood as an implicit definition of the “fundamental concepts” it uses. Moreover, application of fundamental concepts to reality stipulates the definition of this theory. Hence, a definition of TVET does not necessarily need to be derived from real life applications (concrete examples of TVET programmes), but can also be derived by applying different theories of TVET.

Following Popper (1994), we conclude that all existing definitions of TVET are “working definitions” and therefore not very helpful for the purpose of this paper, as we want to capture formal and non-formal TVET programmes for which learning may also take place in the formal or informal labour market. Hence, instead of using one explicit definition of TVET, we suggest a more open approach that tries to define TVET programmes according to their formality, such as formal and non-formal programmes that may also operate in the informal or formal labour market. In the following, we provide definitions of formal, non-formal and informal education programmes. These definitions are equally applicable to TVET programmes.

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<sup>2</sup> See for example: “(...) TVET, as part of lifelong learning, can take place at secondary, post-secondary and tertiary levels and includes work-based learning and continuing training and professional development which may lead to qualifications. TVET also includes a wide range of skills development opportunities attuned to national and local contexts. Learning to learn, the development of literacy and numeracy skills, transversal skills and citizenship skills are integral components of TVET. (...)” (UNESCO-UNEVOC, 2017a). Or: “(...) Technical and Vocational Education and Training (TVET) is concerned with the acquisition of knowledge and skills for the world of work. (...)” (UNESCO-UNEVOC, 2017a). (...) Throughout the course of history, various terms have been used to describe elements of the field that are now conceived as comprising TVET. These include: Apprenticeship Training, Vocational Education, Technical Education, Technical-Vocational Education (TVE), Occupational Education (OE), Vocational Education and Training (VET), Professional and Vocational Education (PVE), Career and Technical Education (CTE), Workforce Education (WE), Workplace Education (WE), etc. Several of these terms are commonly used in specific geographic areas. (...)” (UNESCO-UNEVOC, 2017a).



## Defining Formal Education, Non-Formal Education and Informal Education

### *Formal education*

Formal education can be provided in educational institutions, such as schools, universities, colleges, or provided as off-the-job education and training in enterprises' training centres (in-company training centres) and workplaces (UNESCO-UNEVOC, 2017b). Usually, it is structured in terms of learning objectives, time or support (from a trainer, instructor or teacher) and typically leads to a formal recognition (diploma, degrees). Formal education is intentional from the learner's perspective (UNESCO-UNEVOC, 2017c). A written curriculum laying down the objectives, content, time, means of knowledge acquisition and awarded degree exists. Diploma/degrees are usually part of the education system and regulated by the legal framework.

### *Non-formal education*

Non-formal education is embedded in planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support). Education that takes place through a short course of instruction but does not usually lead to the attainment of a formal qualification or award, for example, in-house professional development programmes conducted in the workplace (UNESCO-UNEVOC, 2017d). Non-formal education is often delivered by educational providers, companies, social partnership organizations, and public-benefit bodies. In contrast to formal education, non-formal education leads to a formal degree (diploma) that allows the programme graduate to progress within the formal education system (GTZ, 2017). In non-formal education, a written curriculum may exist.

### *Informal education*

Informal education is not structured in terms of objectives, time or learning support. In most cases, it is unintentional from the learner's perspective and does not lead to a formal degree. It is the kind of education resulting from daily life activities related to work, family or leisure. It is often referred to as experience based learning (e.g. learning-by-doing) and can, to a certain degree, be understood as accidental learning (UNESCO-UNEVOC, 2017e). A hidden curriculum, that is, lessons that are learned but unwritten, unofficial, and often not openly intended such as the transmission of norms, values, and beliefs taught in the classroom or social environment (Martin, 1983), may exist.

## Pathway, programme and curricula

Similar to the definition of TVET, there is also no unique common understanding for the concepts of "pathway, programme and curricula". Any education system can be divided into three nested layers: pathway, programme and curricula. In the following lines, these descriptions are applied to the TVET context (Renold et al., 2016).

### *TVET or PET pathway*

Are all formal education and training programmes that prepare students specifically for the labour market or focus more on vocational topics, either at the secondary, postsecondary non-tertiary level (TVET pathway) or the tertiary level (PET pathway). In contrast to general education or academic programmes aiming to prepare students for university entry, TVET or PET programmes typically prepare for a direct labour market entry after graduation. In some countries, TVET programmes provide access to higher education (Renold et al., 2016).

### *TVET or PET programmes*

"Programme" refers to the different ways education is organized within either the academic or vocational pathway. Examples for TVET programmes within the vocational pathway are dual programmes combining work-based with school-based TVET (e.g. apprenticeships), purely school-based TVET or training

programs at the tertiary level (PET). Programmes contain one or more curricula for one or more specialisation. For the purpose of this study, we focus on the programme level.

### *TVET or PET curricula*

Curricula are study-field specific or occupation-specific learning plans within each programme that lay down the learning content, goals and evaluation criteria to pass or fail a programme.

## 2.2 Conceptual Framework for Classifying Formal and Non-Formal TVET Programmes

In this section, we constructed a framework to classify TVET programmes<sup>3</sup> for the four country cases. For this framework, we combine the classification of TVET programmes in formal and non-formal education with the notion that TVET programmes that involve workplace-based training can be classified as being part of the formal or informal labour market.

Although informal education exists, there are no informal TVET programmes (see Figure 1). In the previous chapter, we described informal education as unintentional from the learner's perspective, as a kind of education resulting from daily life activities related to work, family or leisure, often referred to as experience based learning (e.g. learning-by-doing) or even accidental learning. In contrast, the concept "programme" refers to the structure or form in which education is delivered, which contradicts the un-structured nature of informal training.

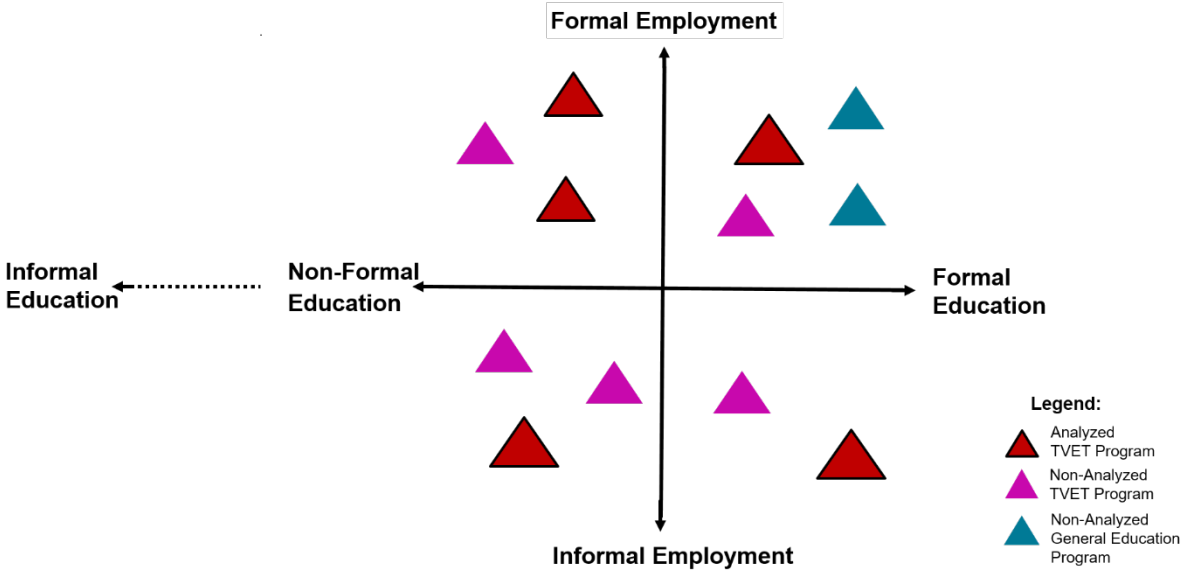
Since the unit of analysis for this study is the programme level, this forces us to restrict the framework to the programme categories formal and non-formal (education system) and formal and informal (employment system) because using the above definition of informal education and learning in combination with the definition of "programme" provides a conceptual contradiction. Therefore, by limiting our conceptual framework to the programme level, TVET programmes are classified into four categories according to whether they are formal or non-formal, and according to whether they involve workplace-based training in the formal or informal labour market.

The framework is depicted in Figure 1. The horizontal dimension of Figure 1 captures, from left to right, whether a given TVET programme is formal or non-formal. The vertical dimension depicts whether the programme involves workplace-based learning in the formal or informal labour market. The top right quadrant in Figure 1 displays all formal programmes that may involve training in the formal labour market, the quadrant represents formal programmes below that may involve training in the informal labour market. The upper quadrant on the left represents all non-formal programmes that may involve training in the formal labour market. The lower quadrant shows all non-formal programmes that may involve training in the informal labour market. Blue triangles in Figure 1 represent general education programmes and pink triangles TVET programmes that are not selected for the case studies. Red triangles represent the TVET programmes that we selected for the case studies. Table 1 depicts all four categories with examples of TVET programmes for each category.

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<sup>3</sup>The term «programme» is generic and linked to the concept of social system theory. See: Renold et al. (2015; 2016).

**Figure 1: Asset mapping according to the six possible categories of formal and non-formal informal education programmes and informal and formal labour market**



Source: own illustration.

**Table 1: Four categories or “ideal types” of TVET education**

Category number	Category	Type of Education	Type of Employment	Example
1	formal-formal	formal	formal	Swiss VET system
2	formal-informal	formal	informal	CQP training programme Benin
3	non-formal-formal	non-formal	formal	Master of Business Administration (MBA) that does not allow to progress in formal education system (e.g. to PhD)
4	non-formal-informal	non-formal	informal	SAMI project in Nepal

Source: own illustration.

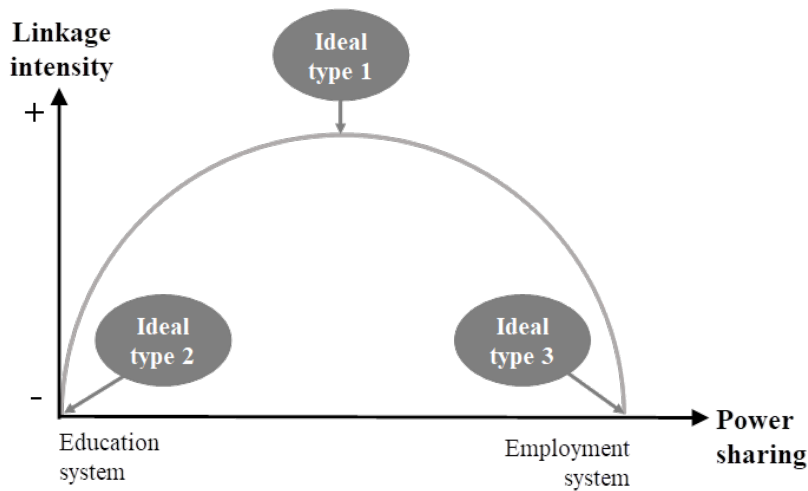
**Defining the Education and Employment Linkage**

Independent of the question whether a TVET programme is formal or non-formal and may involve training in the informal or formal labour market, optimal labour market outcomes are more likely to be reached if all actors involved in a given TVET programme have a net benefit from participating. Renold et al. (2015; 2016; 2018) argue that in a setting where TVET takes place in schools and firms, the likelihood of achieving relatively better labour market outcomes may be higher than in a setting where TVET is either purely school- or workplace-based. This may be due a stronger involvement of firms in the design of curricula and organization of training, increasing the labour market relevancy of skills. Likewise, in a setting where training not only takes place in firms, but also in schools, it is more likely that the skills taught are not too firm specific. This increases the likelihood that students find jobs in other but the training firms and can upgrade their skills set later on. Hence the more actors from education (e.g. schools) and employment systems (e.g. firms) are involved in the organization and setup of TVET and the better their interest are balanced, the better they are “linked” in the TVET process. Generally, “linkage” refers to all processes where actors from the education and employment systems interact in TVET. Rageth and Renold (2019) build on ideal types of TVET programmes where the education and employment linkage can be visible. shows three ideal types of TVET programmes. Ideal type 1 depicts an equal power sharing between both education system and

employment system, while ideal types 2 and 3 show an unbalanced power sharing between the two systems in different directions.

Along the lines of Renold et al. (2015; 2016; 2018), we hypothesize that TVET programmes that are close to ideal type 1 are more likely to yield better labour market outcomes than programmes that are closer to types 2 or 3; irrespective of whether they are formal or non-formal, involve training in the formal or informal employment.

**Figure 2: Education-employment linkage for different types of TVET**

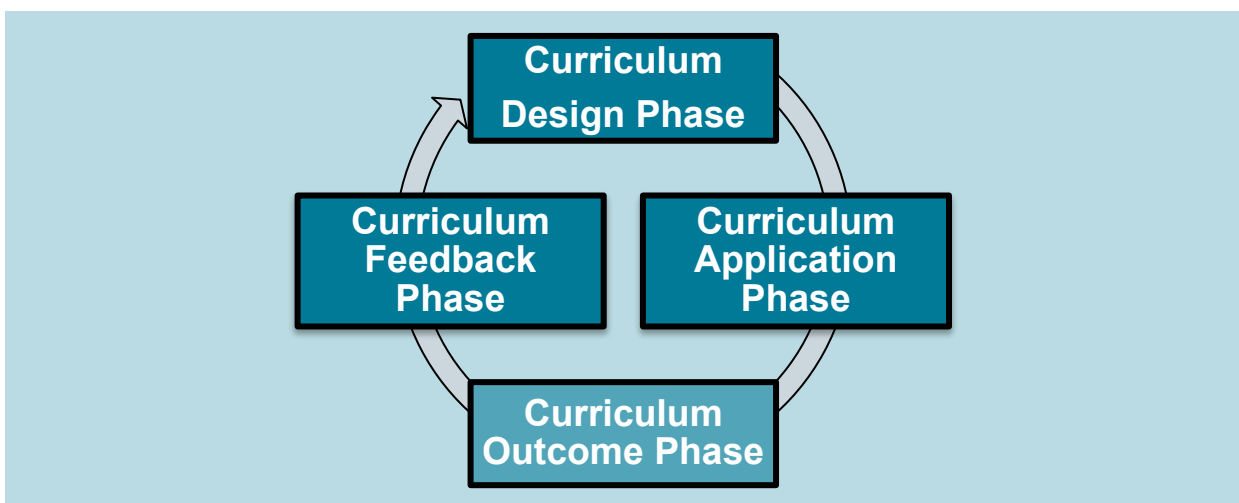


Source: Rageth and Renold (2019) Three ideal types of VET programs, Figure 5, p. 18

### Curriculum Value Chain

The curriculum is a central element for the functioning of a TVET or PET system by defining the framework and the (quality) standards for the education system. The development of a curriculum can be decomposed into a three-step process with a curriculum design, a curriculum application and a curriculum feedback phase. This theoretical concept called the Curriculum Value Chain (CVC) is depicted in below (Renold et al., 2015). The concept of the CVC helps us to describe the involvement of actors from the education sector and labour market in the TVET programmes described in the case studies. Importantly, this provides us information about which actors are involved and to what extent they are involved in a given programme.

**Figure 3: Curriculum Value Chain (CVC)**



Source: (Renold et al., 2015).

In the curriculum design phase, TVET curriculum content and qualification standards are decided upon by the relevant actors. The curriculum application phase revolves around the implementation of the curriculum. Hence, while the curriculum design phase captures the processes of determining the curriculum, the curriculum application phase captures the resulting processes of education and training. Finally, the curriculum feedback phase intends to collect and analyse curriculum outcomes. This evaluation process is important as it may render a more refined curriculum design than was possible in the first place.

### *Curriculum Design Phase*

The design phase is crucial for the whole curriculum process. In order to ensure that the skills taught in the TVET programmes correspond to the needs of the labour market, experts from companies should be involved in defining the qualification standards and learning contents of the curricula.

The curriculum design phase consists of creating the curriculum guiding the education process. It describes who decides what the content of the curriculum will be, who decides on the content, what the standards will be, who decides on the standards, and how achievement will be measured in granting certifications. Defining content relates to identifying the skills students must learn to be proficient at their occupations. Defining the qualification standards is about how this proficiency should be measured through exams. It can involve actors from both the education and employment system.

### *Curriculum Application Phase*

The way in which a curriculum is implemented—especially with respect to learning environments—is important to achieve the intended learning outcome.

The curriculum application phase refers to the process of implementing the curriculum. The main functions or sub-dimensions of the application phase consist of the learning place, the examination regulations in the workplace, financing, equipment provision, teacher provision, and career counselling, and the logistics of the examination. Again, all of these dimensions can involve actors from the education and employment systems, so all are included.

### *Curriculum Feedback Phase*

The curriculum feedback phase deals with the question, whether and how educational outcomes are analysed. Based on this, the curriculum could be re-worked and improved.

Outcomes of the CVC—for students as well as society and the economy—are simply the results of processes in the design and application phases. These outcomes are gathered, analysed, and utilized for updating in the curriculum feedback phase. This captures the process of gathering information on education outcomes as well as the decision process to redesign the curriculum or restart the cycle of the CVC. Its sub-dimensions are information gathering and update timing. As both can involve actors from the education and employment systems, both functions are included.

## 3 Method

As mentioned before, the main goal of this study is to provide a detailed picture of different TVET programmes in Benin.

The methodology of this study is a country case analysis based on explorative and descriptive research (Yin, 2018: 229). First, the explorative research consisted on desk-based research to gather basic information about all TVET programmes of Benin. In this phase, we elaborated an inventory of TVET programmes in Benin, a so-called asset mapping. We complemented the asset mapping with expert interviews to reassure we cover all TVET programmes known in Benin. The expert interviews represent the “practical insider knowledge”, which is especially useful in an explorative research phase (Bogner, Littig and Menz, 2009: 2). Second, the descriptive research consisted on selecting and describing in detail a small number

of TVET programmes in Benin, e.g. three to four TVET programmes fitting into one of the four categories of TVET programmes, as described in chapter 1 for an in-depth analysis. The selection of cases was based on the representation of diversity of case-study types (Gerring, 2007).

In this section, we describe the criteria TVET programmes had to fulfil to be included in the asset mapping, the criteria used to select experts for interviewing, as well as the criteria used to select programmes for a case study.

## 3.1 Asset Mapping

The aim of the asset mapping was to create an inventory of all TVET programmes in Benin, which serve as a basis to select programmes for the case studies. The TVET programmes that were identified in the asset mapping were documented in a way that helped gathering the necessary information to assign the programmes to one of the four categories of the framework (formal/formal, formal/informal, non-formal/formal, non-formal/informal) described in chapter 1. In the course of documenting TVET programmes for the asset mapping, we allocated the respective TVET programme into one of the four categories, described as “ideal types”.

### Criteria for TVET programmes to be included in asset mapping

For a TVET programme to be included in the asset mapping, we developed five inclusion criteria: 1) it must be a TVET programme. 2) It should be identifiable to fit into one of the four categories. 3) The duration of the programme had to be at least a year. 4) The main purpose of the programme had to be initial education and training. Finally, 5) the target group had to be youth, disadvantaged youth or young women. Table 2 provides an overview of the relevant indicators for the asset mapping. The information based on which the inclusion criteria 2-5 are defined, can be found in the Asset Mapping Table A1 provided in Appendix A (using the indicator number in the right column in Table 2).

**Table 2: Criteria for a TVET programme to be included in the asset mapping**

Criteria	Decision rule or criteria	Indicator from Table A1
1.	Must be a TVET programme	
2.	Degree of formality: Unambiguously identifiable to fit in one of the four categories of the framework described in Figure 1.	<b>8, 11-13, 15-17</b>
3.	Programme lasts at least a year	<b>3</b>
4.	Main function/purpose of programme is initial education and training	<b>6</b>
5.	Target group is youth, disadvantaged youth, young women	<b>5, 7</b>

Source: own illustration.

## 3.2 Expert Interviews

Interviews to experts represented an explorative research to complete information of TVET programmes in Benin. These interviews were particularly important to identify programmes that are non-formal or are very

small programmes, which are known only by practitioners. We define country-specific expert characteristics to be considered in the selection process of experts (see Table B1 in Appendix B for more details).

**Criteria for selecting interviewees**

Our working definition of experts consists of two parts. First, the representativeness of the *institutional affiliation* of the expert for the national TVET sector. Such institutions could be education providers, institutions that monitor and control the system, representatives from the employee (e.g. unions) or employer-side (e.g. trade associations). Second, the *individual role* of the expert *within his/her institution*, which reassures he/she is at the top of his/her institution, or at least in some sort of a key position, and at the same time knowledgeable with respect to TVET. Table B1 in Appendix B provides an overview of *individual attributes* of experts for the formal and informal sector, sorted by the broad category of their *institutional affiliation*.

In the following, we give a short summary of the conducted expert interviews in Benin. Additional criteria considered for selecting interviewees in Benin was the coverage of federal and provincial levels, and the inclusion of diverse sectors of the economy such as government, non-government and private. Ten expert interviews were conducted (see more in Table 3 and Table B2 in Appendix B).

From these ten interviews, four persons are in the government, four persons are intermediaries, one person is a researcher, and one person is part of a non-governmental institution. Under the government, four senior officials were selected. One of them represented one of the TVET related ministries who had plenty experience of implementing TVET programmes under the ministry. The other three interviewees were implementers and managers working at the federal as well as provincial levels. As intermediaries, one of the interviewee was selected as one of the renowned trade unionists of the country. Other intermediary was the leader of a hotel association in the country and one intermediary represent the construction sector in the country. Similarly, one intermediary is a freelance consultant with experience on TVET of more than 15 years. As researcher, the interviewed person has been working in the non-formal and formal TVET sector in a private technical institution.

Finally, as non-governmental institution, one person is one of the international development partners, which has been collaborating with the government in the sector of TVET for more than five decades.

Interviews were conducted face to face, both in Kathmandu as well as in other locations of Province-1, province-2 and province-3. Initial interview sessions generally lasted for one hour. Further information was collected either by visiting the organizations repetitively or through telephoning follow up. For reasons of confidentiality as ethical proceedings in conducting interviews, we do not list the names of interviewees.

**Table 3: Summary of interviews**

Stakeholder	Number of Interviews
<b>Government</b>	4
<b>Intermediary</b>	4
<b>Researchers</b>	1
<b>Non-governmental institutions (or Institutions composed of actors from two or more of the above categories)</b>	1
<b>Total</b>	10

Source: own illustration.

### 3.3 Case Studies

The case studies represent a descriptive research in which programmes were chosen due to their characteristics of diversity. This means that each selected programme represents one of the four categories of TVET programmes described in the conceptual framework in chapter 2. Therefore, it is part of the formal/non-formal education and/ or formal and informal labour market. Three main special cases were identified when selecting TVET programmes:

1. No TVET programme was available for a certain category: in such cases, the category was left blank. As a result, a case study for a programme falling into one of the other categories was conducted.
2. Only one TVET programme was available per category: in such cases, the respective TVET programme was directly chosen for the case study.
3. More than one TVET programme per category was available: in such cases, prioritized larger programmes in terms of enrolment and number of curricula/specialisations offered. Secondary level programmes were preferred over higher education programmes and dual over purely school-based programmes.

These criteria are summarized in Table 4. The information based on which the decision rules are defined, can be found in the Asset Mapping Table A1 provided in the Appendix A (using the indicator number in the right column in Table 4).

**Table 4: Criteria to select TVET programmes competing in the same category against one another**

Criteria	Decision rule or criteria	Indicator/characteristic from Table A1
<b>Scope of the programme</b>	- Take the larger programme in terms of enrolment and number of curricula /specialisations offered.	<b>2a), 9</b>
<b>Effectiveness</b>	- Programmes that target disadvantaged groups received a higher weight - Programmes located at higher levels of the education system (i.e. in the informal system: programmes where age of average student is higher) received a lower weight than those at lower levels, since the latter ones have a larger potential to improve the educational outcome and labour market situation of the youth - Programmes with a work-based component received a higher weight over programmes that are purely school-based.	<b>5,7-8,10,12</b>

Source: own illustration.



## 4 Results

In the first part of this chapter, we provide the results of the asset mapping and expert interviews. The second part of the chapter provides a short summary of Benin's education system and the structure of the economy. The third part of this chapter contains the case studies of four TVET programmes in Benin.

### 4.1 Asset Mapping of Benin

In the following, we give a short summary of the results of the asset mapping. The detailed asset mapping table can be found in Table A2 in Appendix A.

As described in chapter 2 and 3, the selection of TVET programme for the case studies was based on the theoretical framework for classifying formal, and non-formal TVET programmes, where we aimed to represent at least one TVET programme per category per country for the cases that a programme with these characteristics were existent. In the following, we describe the procedure of how we selected the TVET programmes for the case studies and provide information about the selected programmes.

Through desk research, we identified three main categories of TVET programmes in Benin: apprenticeship programmes, TVET programmes provided by secondary and higher schools and professional development programmes offered by public and private institutions/organizations. The asset mapping of Benin TVET describes these 10 programmes.

The apprenticeship system involves three programmes: the so-called informal apprenticeship (*Apprentissage traditionnel*); the *Certificat de Qualification Professionnelle* (CQP, or *Apprentissage Traditionnel de Type Rénové*); and *Certificat de Qualification aux Métiers* (CQM).

TVET programmes provided by secondary and higher schools include two programmes: technical high-schools at cycle 1 (*Lycee techniques*) and technical high-schools at cycle 2 (*Lycee techniques*). In higher education, Benin has three programmes: higher national diploma (*Brevet de Technicien Supérieur*), higher vocational training cycle 1 (*Formation Professionnelle niveau Licence*) and higher vocational training cycle 2 (*Formation Professionnelle niveau Master*).

There are many professional development programmes in Benin. In the asset mapping, we focused on only two programmes offered by public and private institutions and organizations. The professional development programme offered by the Beninese Statistics Office (INSAE) and professional development programme offered by the CENTRE SONGHAÏ.

Table 5 contains six categories or generic types of TVET programmes, described in section 2.2. The Beninese TVET programmes were classified into these categories according to their degree of formality (formal, non-formal, see section 2.1. for more details) and whether graduates mainly enter the formal or informal labour market. The TVET programmes included in the Asset Mapping belong to four categories of these "ideal types" of TVET.

Three formal and one non-formal TVET programme were selected for the case studies. First, the formal secondary TVET programmes offered by technical high-schools (cycle 1 and 2; *Lycee techniques*). These were chosen as they are important secondary TVET programmes in terms of enrolment. In 2015, 7'084, in 2011, 11'241 students were enrolled in the first cycle. In 2015, 19'804, in 2011 42'976 students were enrolled in the second cycle programme. Second and third, the CQP and CQM programmes. Though these programmes are not outstanding in terms of enrolment, they are the only formal dual TVET programmes in Benin and therefore important to describe. In addition, both are the product of a reform that aimed to formalise the so-called informal apprenticeship. Finally, the so-called informal apprenticeship, as it is *the* most important TVET programme in Benin: more than 200,000 youth are enrolled in the informal apprenticeship. We classify the informal apprenticeship as non-formal programme, since master craftsmen follow a non-written curriculum when instructing apprentices

**Table 5: Distribution of TVET programmes in Asset Mapping by category and finally selected TVET programmes for Benin**

Category number	Category	Total number of programmes in asset mapping	Names of TVET programmes selected for case studies
1	formal-formal	5	Technical high-schools at cycle 1 and at cycle 2 ( <i>Lycee techniques</i> ).
2	formal-informal	2	CQP, CQM
3	non-formal-formal	2	-
4	non-formal-informal		Informal apprenticeship

Source: own illustration.

## 4.2 Case studies of Selected TVET Programmes

In this chapter, we first provide a short overview of the Beninese education system and economy. In the second part, we present the case studies describing four different TVET programmes in Benin.

### The Context: Benin's Education System

Primary education is the only mandatory element of Benin's education system (US Embassy, 2012). As the only mandatory education stage, it is arguably the most important component of the country's education system. Primary education lasts six years. Upon completion, students earn a certificate of primary studies, called *Certificat d'Etudes Primaires (CEP)*. Educational performance in Benin differs quite substantially from what one would expect in OECD countries. With an adult literacy rate of 42 percent, Benin is one of nine African countries with adult literacy rates below 50 percent (UNESCO, 2012, p. 92).

There are two separate pathways in lower secondary education, as presented in Figure 5. One programme in this pathway is first-cycle general secondary education, which lasts four years and lists the CEP as an entry requirement. Upon completion, students earn the *Brevet d'Etudes du Premier Cycle (BEPC)* (UNESCO, 2013a).

The other pathway is the first cycle of secondary technical and vocational education and training. To gain access to the technical programme in this pathway, students must hold the CEP and pass an entry test for technical education. Students complete this programme in three years, and success grants the Certificate of Professional Aptitude (CAP, *Certificat d'Aptitudes Professionnelles*) or the certified diploma of nursing, *Sciences de la Santé (SS)*, depending on the chose specialty (UNESCO, 2013a).

In upper secondary education, also known as the second cycle of secondary education, there are two separate programmes. First is the general upper secondary (second cycle) education programme, which takes three years to complete and results in the attainment of the *Baccalauréat (BAC)*. The other is the second cycle of technical and professional secondary education, which takes three years to complete and grants students the *Technical Baccalaureate (Baccalauréat Technique)*. One exception is the second cycle of technical and professional secondary education with a focus on agricultural sciences, which takes four years to complete and results in the Diploma of Agricultural Sciences (BEAT- *Brevet d'Etudes Agricoles Techniques*) (UNESCO, 2013a).

At the tertiary level, there are numerous types of diplomas that can be attained.

### **Lower-level university degrees (DEUG and DEUL)**

Upon completion of the BAC, students may enter university to earn a 'general' or a literary degree. This takes two years and grants successful students the *Diploma of General University Studies (DEUG)* or the *Diploma of Literary University Studies (DEUL)*. Both degrees allow for one year of further studies to attain a license.

### **License, License Professionnelle**

With the BAC, students can directly enter the License or License Professionnelle programmes. Attaining a license takes three years for students entering with a BAC. As stated above, students can also complete both license programmes in one year if they previously earned either the DEUL or DEUG. Students with a Higher Technician's Brevet (*Brevet de Technicien Supérieur, BTS*) can only enrol in the License Professionnelle and complete this degree in one year. The DEUG, DEUL and License cover the typical spectrum of natural and social sciences.

### **Masters, Advanced Masters (DEA and DESS) and Doctorate**

Students holding a License or License Professionnelle can enter a master's or professional master's programme, which typically takes one year to complete. A master's degree gives students the opportunity to attain a Research Master Diploma, *Diplôme d'Etudes Approfondies (DEA)*, or Specialised Higher Education Diploma, *Diplôme d'Etudes Supérieures Spécialisées (DESS)*, with an additional year of study. A master's is also the prerequisite for the CAPET and CAPES programmes (see section on teacher education) as well as doctorate programmes, which typically take three years to complete (UNESCO, 2013a).

### **Higher Technician's Brevet and Diploma (BTS and DTS)**

As an alternative to the aforementioned programmes, students can also enter a technical college with a BAC. This technical programme takes two years to complete and results in the BTS (UNESCO, 2013a).

Yet another programme is attaining the Higher Technician's Diploma, *Diplôme de Technicien Supérieur (DTS)*, which is one stage above the BTS. Students can enrol directly with a BAC and then spend three years studying for the degree. Another possibility is direct entry after completing the BTS, which lowers the programme's duration to one year (UNESCO, 2013a).

### **Engineering Diploma**

According to the UNESCO (2013b) classification, there is a separate engineering diploma that is independent of the subjects within the DEUG. Students may enter this five-year programme with a BAC.

### **Technical Education in Agricultural Sciences (DEAT)**

Completing the BEAT paves the way for attaining a higher diploma in agricultural sciences—*Diplôme d'Etudes Agricoles Tropicales (DEAT)*. This degree specifically requires the BEAT as an entry requirement, rather than the BAC, as all other pathways list (UNESCO, 2013).

Nowadays, TVET is becoming more and more an important for Beninese youth. In Benin, the technical high school (THS) is considered the second priority of the formal education system after the primary education (MESTFP, 2001; PDDSE, 2006:25; MPDEPP-CAG, 2010:72).

In 2001, reforms were introduced in Benin's TVET system to create new programmes in sectors such as agricultural science and technology and craft occupations (MESTFP, 2001). In 2005, law No. 33/2005 was introduced to improve the existing legal framework on educational policies (MPDEPP-CAG, 2010). In 2006, the government designed an education sectorial decennial plan for 2006–2015<sup>4</sup>. It enabled the government to define specific training policies at all levels of the education system. Since more and more students are

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<sup>4</sup> *Plan Décennal de Développement du Secteur de l'Éducation (PDDSE)*.

interested in the TVET programmes, the decennial plan aimed to update training programmes' content to improve trainers' capacity and provide more and better equipment.

### **Other technical higher education**

The Beninese state offers a large variety of formal TVET subjects in higher education—in total, 25 subject areas. The training duration of these subjects varies from two to eight years, depending on the domain and the degrees. After two years, students participate in a national exam for the BTS. The students who complete the first level of the higher TVET programme receive their bachelor's, BAPET (*Brevet d'Aptitude Pédagogique de l'Enseignement Technique*) or BAPES (*Brevet d'Aptitude au Professorat de l'Enseignement Secondaire*). Both degrees provide qualification for assistant trainers for TVET and general education in secondary school. Students who are trained for level 2 of the higher TVET programme receive their master's degree, engineering degree or CAPES (*Certificat d'aptitude au professorat de l'enseignement secondaire*) and BAPET. The formal TVET programmes provide training to many youth. However, there are no data about their employment and income. Further research may study this.

### **Non-formal education programmes**

The non-formal education and training sector is dominated by national and international non-governmental organisations (NGOs). Most institutions provide professional development programmes or capacity-building training. An illustrative example we studied in asset mapping is the 'Centre Songhai', which offers training to youth in agricultural science and technology. Public organisations also offer training in many fields to improve and update the competence of their workers. An excellent example is the INSAE (*Institut National de la Statistique et de l'Analyse Economique*) programme. Many others are also run in public sector through a formal certificate called *Attestation de Qualification Professionnelle* (AQP).

## **The Context: the Beninese Economy**

Benin is a West African country with about ten million people and a very young population: 42.56 percent of the population is aged 0–14, 20.44 percent aged 15–24 and 30.44 percent aged between 25–54 (CIA Factbook, 2019). This age structure implies that investing in education and training is important and has a huge potential for Benin's development. Investing in education is even more important in the light of Benin's low level of development in terms of life expectancy, expected and average years of schooling, and income per capita (GNI per capita, PPP\$), as summarised by the Human Development Index (HDI). In 2017, Benin had an HDI-score of 0.51. Therewith, Benin lags behind its neighbouring countries Ghana (0.59) and Nigeria (0.53), where a higher score indicates a higher level of development (UNDP, 2017).

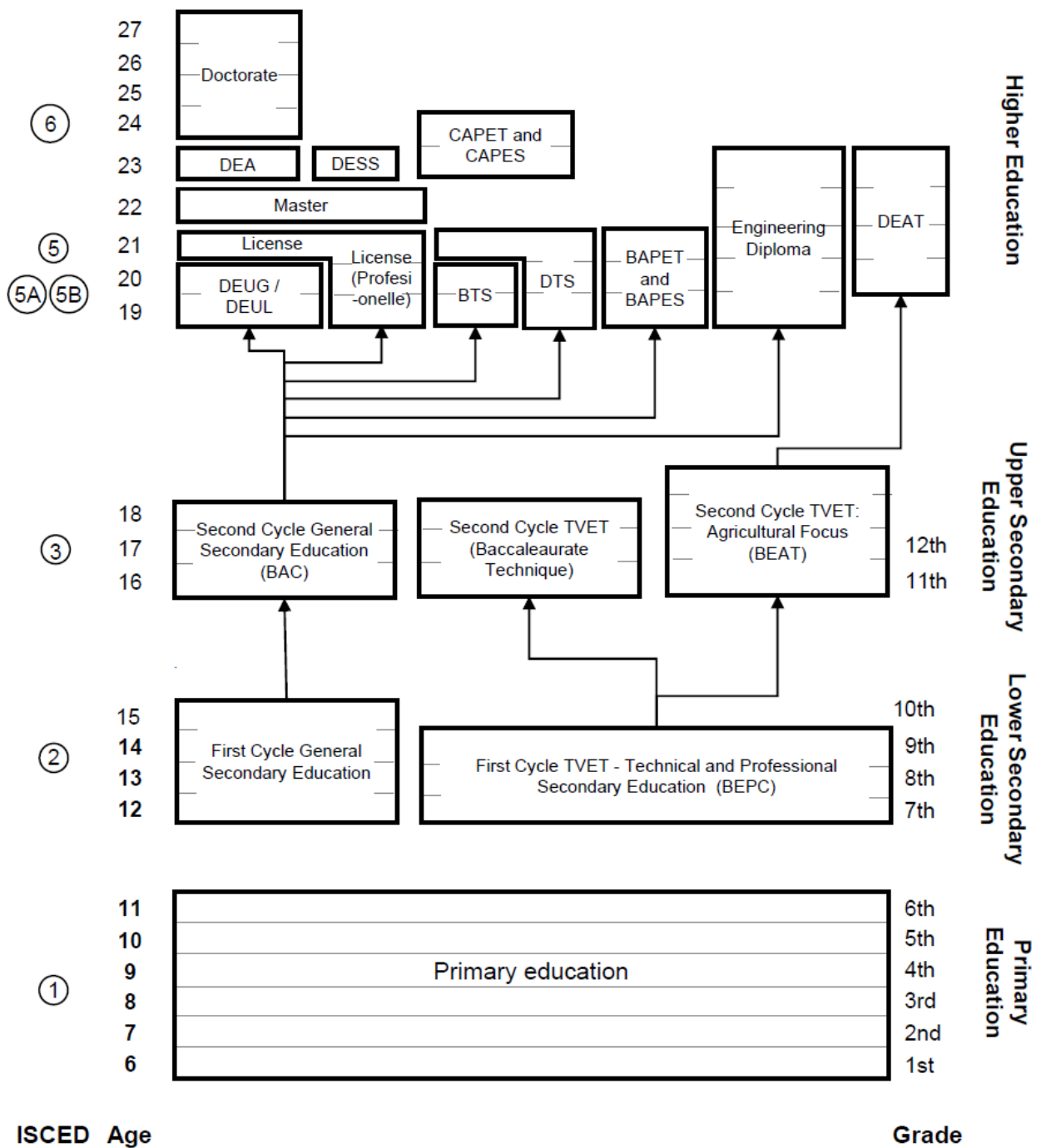
According to estimations, around 94 percent of Benin's working population works the informal economy (EMICoV, 2011). This percentage has risen in recent decades (60.5 percent in 1992, 70.2 percent in 2002). The informal sector currently accounts for up to 70 percent of Benin's gross domestic product GDP. Not only because of the age distribution, but also since young people are more likely to work in the informal sector, youth make a significant contribution to this sector (Education Development Centre, 2011).

Youth unemployment rates in Benin were low: 1.45 percent in 2008 and 4.23 percent in 2018 (ILO, 2017)<sup>5</sup>, despite the relative increase between 2008 and 2018. In countries like Benin, unemployment is typically low because many people cannot afford not to work. In 2018, about 69.7 percent of all people aged over 15 years and 40.9 percent of youth aged between 15–24 indicated that they were employed. However, this does not imply that people had enough work or earned a decent living. In fact, 88 percent of all employed people in Benin were in 'vulnerable employment' in 2018, that is, worked as contributing family workers or own-account workers (WDI, 2019).

### **Figure 4: Overview of the Beninese education system**

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<sup>5</sup> <https://www.statista.com/statistics/811678/youth-unemployment-rate-in-benin/>



Source: Own illustration based on 2008 data in UNESCO (2013b).

**Size of the different sectors of the Beninese economy**

Table 6 describes the structure of Benin's economy. It shows GDP and the distribution of employment by sector<sup>6</sup>. The relative importance of agriculture stands out in Benin's economy. Agriculture constitutes more than one third (35.7 percent) of the country's GDP. Industry contributes 14 percent, while the tertiary sector accounts for more than half (50.2 percent).

Almost half of Benin's workforce (45.1 percent) was employed in the primary sector compared to only 5 percent in the EU—28 countries on average in 2010. Only 10.4 percent of the people employed in the formal sector worked in the secondary sector in 2010. An almost equal share of the workforce (44 percent) was employed in the tertiary sector (73.1 percent).

**Table 6: GDP and employment by sector, 2014**

Sector	Benin: (% of GDP)	Benin: Em- ployment 2010 <sup>7</sup> (%)
Primary sector	35.7	45.1
Agriculture, hunting and forestry, fishing	35.7	45.1
Secondary sector	14.0	10.4
Manufacturing, mining and quarrying, and other industrial ac- tivities	9.5	n/a
of which: Manufacturing	8.2	n/a
Construction	4.5	n/a
Tertiary sector	50.2	44.0
Wholesale and retail trade, repairs; hotels and restaurants; transport; information and communication	29.4	n/a
Financial intermediation; real estate, renting, and business ac- tivities	10.1	n/a
Public administration, defence, education, health, and other service activities	10.7	n/a

Source: Ndoye & Fall (2015), World Bank (2015a), Eurostat (2015a; 2015b).

## 4.2.1 Formal-formal TVET programme: Lycees Techniques Cycle 1 and 2

Vocational education offered by technical high schools, or *Lycees Techniques*, is a formal programme. Its' certificates are officially recognised and provide access to further education in the formal education system. Though it is not completely clear to the authors, we think that most graduates of this programme enter the formal labour market. Therefore, the programme is classified as formal-formal. Both cycles of TVET at technical high schools are described in detail in the following section.

<sup>6</sup> For Benin's economy, a disaggregation by value added was not available; therefore, the sectors' weights in the economy are listed as percent of GDP.

<sup>7</sup> Employment data by sector for Benin is scarce. The World Bank's database only has data on Benin from 2003 and 2010. Detailed employment data by subsectors was only available for the year 2003. We use the most recent data from the year 2010, which disaggregates employment in a broader sense into the three principal sectors (primary, secondary, tertiary sector).

## Introduction

Vocational education offered by technical high schools is offered at two levels of the education system: first (*cycle 1*) and second cycle (*cycle 2*), corresponding respectively to levels 2 and 3 in the International Standards Classification of Education (see also Figure 5) (MESTFP, 2016). Each of the two cycles takes three years to complete, with the exception of the occupational field agricultural science and technology (STA), where the second cycle takes four years to complete (UNESCO, 2013a).

TVET in technical high schools is offered in seven different occupational fields: administrative management science and technology (STAG, *sciences et techniques administratives et de gestion*); industry science and technology (STI, *sciences et techniques industrielles*); agricultural science and technology (STA, *sciences et techniques agricoles*); Medical Education and Social Science (STMS, *sciences de la santé et science sociale*); hotel management and tourism studies (SSATH, *hôtellerie-restauration*); family and social studies (STEFS, *Sciences et Techniques de l'Enseignement Familial et Social*); and science and technology for art crafts (STMA, *Sciences et Techniques des Métiers d'Art*) (ibid).

To enter the first cycle, students must have successfully completed the CEP and pass an entry test to technical education. The applicants with the best results in the entry test can enter vocational training in the occupational field of their choice. Students who did not score high enough may be placed in a different field. A few students per cohort are eligible to receive a scholarship from the government (UNESCO-BIT, 2013: 22).

Upon successful graduation of the first cycle, students receive the Certificate of Professional Aptitude (CAP, *Certificat d'Aptitudes Professionnelle*) in their chosen training field. Students completing the occupational field agricultural science and technology obtain the BEAT. Graduates of the SS occupational field obtain either the *Diplôme d'Infirmier Breveté (DIB)*, the State Nursing Diploma (DIE), the Laboratory Technician Diploma (DTL) or the Midwifery Diploma (DSF), depending on their specialty. Graduates of the family and social studies (STEFS) field earn the Social Worker Diploma (DAS) (ibid).

To be admitted to the second cycle, students must be at least 14 years old, must either hold a first-cycle certificate (CAP, BEAT, STMS, DIE, DTL, DSF or DAS) or have graduated from general education at the lower secondary level (BEPC). As in the first cycle, applicants for second cycle of technical high schools can apply for a scholarship. Their eligibility is judged based on their academic performance.

At the end of cycle 2, students receive a technical diploma or a professional baccalaureate (*BTEC- Baccalauréat technique* or *Baccalauréat professionnel*). With this certificate, students can either enter higher education in public or private universities or enter the labour market (MEA, 2014). Graduates of the second cycle in the industry field (STI) receive the Industrial Technician Diploma (DIT- *Diplôme de Technicien Industriel*) or the agricultural diploma (DEAT) for the agricultural field. These two qualifications are equivalent to the BTEC (MEA, 2014: 61–62).

### Development of students' enrolment in technical high schools

Data on students' enrolment in general-education high schools and technical high schools, collected from official sources (2009–2010, 2010–2011 and 2014–2015), are presented in Table 7. Over the depicted time period, the percentage of students in technical high schools (cycles 1 and 2) increased from 6.7 percent during the school year 2009–2010 to 7.75 percent in 2010–2011, but then dropped to 2.29 percent in 2014–2015.

**Table 7: Enrolment in first- and second-cycle secondary education in Benin (2009–2010; 2010–2011 and 2014–2015)**

Academic year	Training programme	Cycle 1	Cycle 2	Total
2014–2015	General education high schools	704,646	237,043	941,689
	Technical high schools	2,294	19,804	22,098
	Total	706,940	256,847	963,787



	Percent of students in technical high schools (%)	<b>0.32</b>	<b>7.71</b>	<b>2.29</b>
2010–2011	General education high schools	530,767	168,334	699,101
	Technical high schools	11,241	42,973	54,214
	Total	542,008	211,307	753,315
	Percent of students in technical high schools (%)	<b>2.7</b>	<b>20.33</b>	<b>7.75</b>
2009–2010	General education high schools	508,751	138,940	647,691
	Technical high schools	10,043	31,826	41,869
	Total	518,794	170,766	689,560
	Percent of students in technical high schools (%)	<b>1.93</b>	<b>18.63</b>	<b>6.07</b>

Source: Own table based on MEA (2014), MESFTP (2016).

According to the data presented in the 2014–2015 statistical yearbook of the ministry of education, 189 schools offer technical education at the secondary level. Among these, 163 are private schools, and 26 are public. Despite the importance of private schools, the same report states that 65.3 percent of all students are enrolled in public schools, most probably because of the higher school fees for private schools. This implies that public schools remain the main provider of technical high schools at cycles 1 and 2 (MESFTP, 2016).

Table 8 summarises the results of the national final examination held at the end of the cycle 1 and 2 in 2014–2015.

**Table 8: Enrolment and graduation rates for academic year 2014–2015**

Certificates	National exam takers	Graduates	Success rate (%)
<b>CAP and equivalence (cycle 1)</b>	7,654	5,601	73.2
<b>BAC et equivalence (cycle 2)</b>	15,669	8,511	54.3
<b>Total</b>	<b>23,323</b>	<b>14,112</b>	<b>60.5</b>

Source: Own table based on MESTFP (2016).

For the academic year 2014–2015, the overall success rate was 60.5 percent. About 73.2 percent of all cycle-1 students and 54.3 percent of cycle-2 students passed the final exam.

### Occupations and contents of training programme

In the following, we describe the content of training programmes offered by technical high schools (level 1 and 2) by occupation. Data used come from official literature of the ministry in charge of TVET, Ministère des Enseignements Secondaires Technique et de la Formation Professionnelle (MESTFP), the Ministry of Planning and Development and interviews with experts.

According to an evaluation report of the Ministry of Planning and Development, about 45 occupations, grouped in seven occupational fields, are offered at technical high schools (MPDEPP-CAG, 2010: 43). These will be described in the following.

- Administrative management science and technology

In this occupational field, students can choose from five occupations:

- Assistant management accounting (*Aide comptable*)
- Administrative assistant (*Employé de bureau*)



- Administration management services (*Secrétariat*)
- Accounting services (*Comptabilité*)
- Commerce (*Commerce*)

The first two occupations each only take three years to complete (cycle 1). Upon successful graduation, students are granted the Certificate of Professional Competence (*Certificat d'Aptitude Professionnelle, CAP*). The fields administration management services, accounting services and commerce, are offered for cycle 1 and 2. First-cycle graduates in these three occupations are granted the CAP. Second-cycle graduates in administration management services receive the BTEC G1, accounting services the BTEC G2 and commerce the BTEC G3 (MEA, 2014).

- Industry science and technology

In this occupation field, 10 occupations are offered in cycle 1 and 13 in cycle 2. These are displayed in Table 9.

**Table 9: Distribution of the training pathways in industry (STI) field**

Pathways for Cycle 1	Pathways for Cycle 2
Mechanic	Building construction
Building	Metallic construction
Electricity	Building house
Wood carpentry	Electronic
Motorbike Mechanic	Electricity
Cold and air conditioning	Carpentry
Surveying	Car mechanic
Plumbing	Cold and Air conditioning
Coating	Topography
Metallic construction	Architecture
	Maintenance and computer science
	Mechanic construction
	Water and sanitation

Source: Own table based on MESTFP (2016).

Table 9 shows the complementarity between the two cycles. At the end of the cycle 1, students receive the CAP. Students in metallic construction receive BACE, and those who learn in electronics get the BTEC F2. Graduates of the other occupations get the Industrial Engineering Diploma (DTI, *Diplôme de Technicien Industriel*) upon graduation from the second cycle.

- Agricultural science and technology

Occupations subsumed under the agricultural field last for three years in the first and four years in the second cycle. These occupations are:

- Animal science (*Production animale*)
- Crop production (*Production végétale*)
- Fishing and aquaculture (*Pêche et Aquaculture*)
- Forestry (*Foresterie*)
- Engineering and rural equipment (*Aménagement et Equipement Rural*)
- Food processing and nutrition (*Nutrition et Transformation Alimentaire*)

These different occupations offer promising labour-market perspectives for youth. Students receive the BEAT certificate at the end of cycle 1 and the agricultural diploma (DEAT) at the end of cycle 2 (MEA, 2014).

- Medical education and social sciences

Medical education and social sciences comprise three occupations:

- Nursing assistants (*Sciences et Techniques Médico-Sociales*)
- Social workers (*Aides-soignants*)
- Healthcare technicians (*Assistants sociaux*) (e.g. nurses, midwives, laboratory technicians)

Social workers and healthcare technicians, on the one hand, are trained for three years to obtain either a diploma in patented nursing (DIB), state nursing (DIE), laboratory technician (DTL) or midwifery (DSF). Nursing assistants, on the other hand, are trained for two years and graduate with the CAP. Their training is generally based on knowledge of different medical services such as maternity, surgery, medical laboratory and social services (e.g. awareness and vaccination) (MEA, 2014).

- Hotel management and tourism studies

There are two occupations in this domain. Both are offered in cycle 1 and 2:

- Hotel and restaurant management (*Hôtellerie Restauration*);
- Tourism (*Tourisme*).

These two occupations lead to the CAP after successful completion of the first cycle and the DTI after the second cycle.

- Family and social studies

This occupational field contains only the family and social studies (STEF) occupations. Students are trained in home economics, nutrition, childcare and culinary art, among others. The first cycle leads to the CAP, the second cycle to the Family and Community Counselling certificate (*Diplôme Technique d'Enseignement Familial et Social*). Graduates have the option to train students in one of the modules mentioned above (MEA, 2014).

- Science and technology for art crafts

Training in science and technology for art crafts leads to the CAP upon successful completion of the first cycle and to the DTI upon successful completion of the second cycle.

### **Quality of the training**

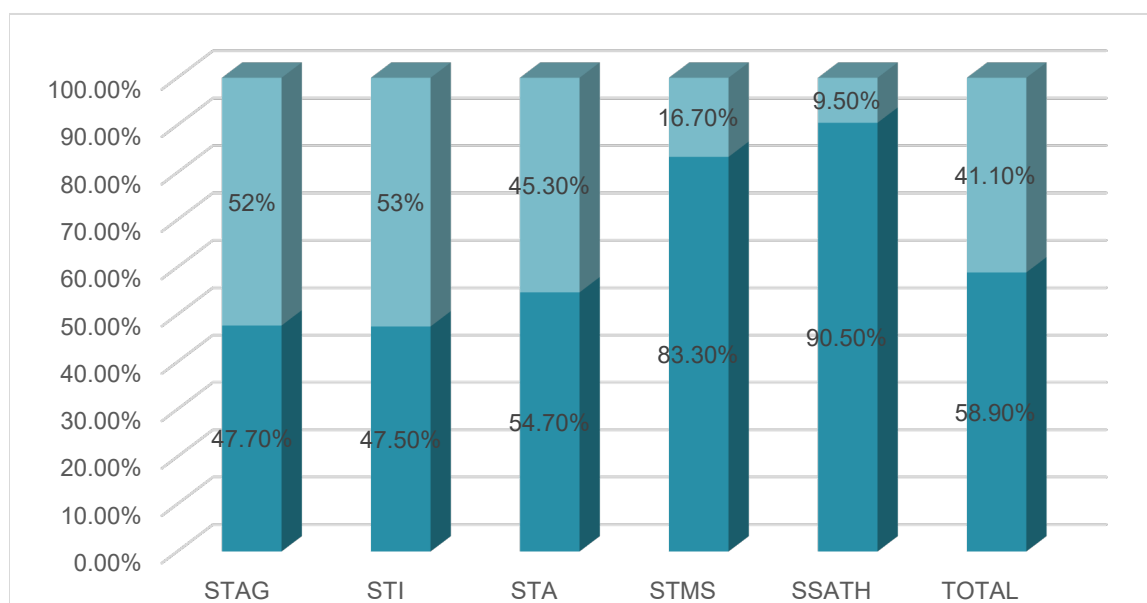
The MSETFP organises the quality control of technical high schools in Benin (MPDEPP-CAG, 2010). In the annual performance report of the lower education ministry (MESTFP) on TVET for the year 2005, the estimated unemployment rate of technical high school graduates was estimated to be 17.2 percent (MPDEPP-CAG (2010: 96). A survey of 302 graduates from five occupational fields (STAG, STI, STA, STMS and SSATH) showed that 58.9 percent of all graduates were employed in 2008 (see Figure 6).

The data depicted in Figure 6 show that graduate students of the occupational field SSATH have a smoother labour market entry than graduates of other occupational fields. The students who were trained in STMS and SSATH had the highest employment rates (83.3 percent and 90.5 percent, respectively).

However, those who graduated either in STAG or the industry field (STI) had a harder time entering the labour market (47.7 percent and 47.5 percent unemployment rate, respectively). Their employment rates were estimated to be 52 percent for STAG graduates and 53 percent for industry field (STI) graduates. In the agricultural field, 54 percent of graduates were found employed (MPDEPP-CAG, 2010).

According to RESEN, Benin (2008), the demand for new occupational fields like agribusiness, hotel and tourism, crafts, transit, health and commerce, transit and transportation, hotel and tourism, marketing and communication has been rising. It is the task of the lower education ministry (MESTFP) to accredit programmes for these subjects.

**Figure 5: Employability of some graduates of the technical high schools in Benin in 2008**



Source: Own figure based on MPDEPP-CAG (2010: 96).

## Key Actors

In the following, we describe the key actors of cycle 1 and 2 technical high school programmes in more detail.

### The government

According to the Beninese Constitution, the government and the public authorities are responsible for the regulation of the national education system (Art.12). Their role is to make decisions, organise the legal framework and implement training policies. The lower education ministry (MESTFP) is in charge of the TVET sector. Through the National Institute of Engineering Training and Capacity Building of Trainers (*Institut National de l'Ingénierie de la Formation et du Renforcement des Capacités des Formateurs*, IN-IFRCF), the ministry develops curricula for the technical high schools (MEA, 2014).

The Direction of Secondary Education and Technical Vocational Education and Training (*Direction de l'Enseignement Technique et de la Formation Professionnelle*, DETFP) is in charge of implementing the training schemes. Moreover, the Direction of Control and Pedagogical Inspection (*Direction de l'Inspection Pédagogique, de l'Innovation et de la Qualité*, DIPIQ) controls and inspects technical high schools. The Direction of Test and Exam Services (*Direction des Examens et Concours*, DEC) organises the examinations (ibid).

### Advisory and representative bodies

Further public and private organisations involved in TVET are the following (MEA, 2014):

- The National Education Advisory Board (*Conseil National de l'Éducation*, CNE) is in charge of the provision and implementation of the education sectorial decennial plan (*Plan Décennal du Développement du Secteur de l'Éducation*, PDDSE). This plan is considered as a strategic framework for the national education policies.
- The Coordination body for Consultation of Education Actors (*Cadre de Concertation des Acteurs de l'Éducation*, CCAE) is a local organisation that exists in each region. Through this platform, training

providers and parents' associations are involved in the implementation of technical high schools in local communities.

- The Parents Association (*Association des parents d'élèves et étudiants*, APE) is involved in managing technical high schools. Each school, whether public or private, has such an association. It brings together representatives of parents of students designated by the community to discuss issues related to their children's education.
- In Benin, many national and international governmental and NGOs provide decisive support for the education sector. Examples include the Danish Development Cooperation (DANIDA), which helped finance the TVET system;<sup>8</sup> the Islamic Development Bank, which supports Benin's TVET system by material provision;<sup>9</sup> and the Swiss Development Corporation.<sup>10</sup>
- Consultants and researchers are important of the advising actors from the public sector and international organisations.
- The private sector is more and more involved in the TVET system through the creation of private technical high schools. The lower education ministry (MESTFP) gives accreditation to schools if they meet the required conditions. Many of them are confessional organisations. The Beninese Constitution allows them to participate to the national education system (Art. 14).

## Finance

The three main actors involved in the financing of technical high schools in Benin are the government through the budget allocated to the lower education ministry (MESTFP), students paying training fees as well as donors.

### The public funding by the government

The allocation of the financial resources on technical high schools through the government depends on the public expenditure priorities on education. Public spending on education grew strongly between 2000 and 2010, from \$100'962'836.02 (FCFA 59.2 billion) to \$ 268'779'441.84 (FCFA 157.6 billion), which corresponds to an average annual increase of 10% (MEA, 2014).

Table 10 displays public spending on TVET system<sup>11</sup> between 2007 and 2011. It shows that while spending increased from 2007–2009, it decreased from 2010–2011.

**Table 10: Development of the operating expenses of the lower education ministry (MESTFP) from 2007–2011**

Years	2007	2008	2009	2010	2011
Operating expenditures on technical high schools (FCFA)	31,875,695	38,801,953	52,333,382	47,056,006	42,197,427
Dollars US <sup>12</sup>	47,813.54	58,202.93	51,500.07	70,584.01	63,296.14

Source: Own table based on UNESCO-BIT (2013: 41).

Table 11 shows the operating public spending on technical high schools from 2010–2011. Comparing the operating public spending of the two cycles show that a large part of public spending goes to cycle 2 of technical high schools. According to MEA (2014), this is because of higher spending on material and personnel.

**Table 11: Operating public spending on the technical high schools in 2010–2011**

<sup>8</sup> *Projet d'appui à la formation professionnelle.*

<sup>9</sup> *Projet de construction de 2 écoles de formation professionnelle.*

<sup>10</sup> *Projet d'Appui à la Formation Professionnelle et à l'insertion des jeunes.*

<sup>11</sup> *Enseignement technique secondaire and formation professionnelle par apprentissage (ETS).*

<sup>12</sup> The estimated value change rate used in the document is FCFA 1 = \$666.67.

Training levels	Operating public spending (in FCFA)	Estimated value in US dollars
Cycle 1	1,795,365,441	2,693,048.16
Cycle 2	3,788,173,914	5,682,260.87

Source: Own table based on MEA (2014:113).

### Tuition fees paid by students

Tuition fees for technical high schools vary by occupational field and whether the school is private or public. Since a large share of technical high schools is private, tuition fees are an important financial source for them. The share of the total costs borne by tuition fees was estimated at 52.4 percent in 2010. Hence, the cost share borne by student's tuition fees is larger than that covered through public expenditures MEA (2014). Due to the dependence of the *Lycee Techniques* programme on student funding, there is substantial inequality in access to technical and vocational education. According to UNESCO-BIT (2013: 42), the system favours those who have a certain amount of financial resources and excludes poor and marginalised populations. Costs per student are approximately 30 percent lower in private institutions than in those administered by the public sector: the latest available data list the cost per student as 282'519 FCFA (\$ 486) per annum in public institutions and 197'844 FCFA (\$ 340) p.a. in private institutions. (UNESCO, 2013b).

### Financial support through donors

Donors do not directly support technical high schools financially. However, indirect support from foreign donors between 2008–2011 was non-negligible. It amounted to approximately \$ 70' 340'758 (FCFA 49.6 million) to support the implementation of the sectorial decennial plan of education. Table 12 provides information about the mobilisation of the financial resources from 2008–2011.

**Table 12: Donors' indirect contribution to technical high schools (FCFA in million)**

Donors	Years				Total in USD	Total in FCFA
	2008	2009	2010	2011		
<b>Fast Track Initiatives (BM)</b>	14,059,500	13,135,000	4,387,000	0	31,581,500	21,054,122,790
<b>Danish Development Cooperation</b>	2,005,000	2,000,000	2,000,000	0	6,005,000	4,003,293,300
<b>AFD</b>	819,946	983,936	9,404,362	0	11,208,244	7,472,087,945
<b>German KfW Development Bank</b>	1,639,893	1,967,871	6,895,850	0	10,503,614	7,002,339,309
<b>Dutch Development Cooperation</b>	262,400	3,640,000	3,640,000	3,500,000	11,042,400	7,361,526,384
<b>TOTAL</b>					<b>70,340,758</b>	<b>46,893,369,728</b>

Source: Own table based on DANIDA and AFD (2012: 173).

### Private-sector support

Many private technical high schools contract loan agreements from microfinance institutions and banks. In 2006, 151 private technical high schools contracted loan agreements from microfinance institutions. In 2007, it was already 167 private technical high schools (INSAE, 2010).

In 2008, the total credit of private technical high schools was estimated at \$ 644,661.35 (FCFA 378 million). This was lower than the credit contracted in 2007 (\$ 939,704.77 or FCFA 551 million) (INSAE, 2010). As observed in 2007, the total value of loan agreements taken from microfinance institutions (87.7 percent) was larger than the total value of credit offered by banks (59.4 percent) (INSAE, 2010). Table 13 provides data on the value of loan agreements contracted by private technical high schools.

**Table 13: Dispatching of loan contracted by private technical high schools from financial institutions (2006–2008)**

FINANCIAL INSTITUTIONS	Years and amounts in FCFA		
	2006	2007	2008
National banks	168,200,000	39,560,000	84,657,000
International banks	184,300,000	28,000,000	68,730,000
<b>Total of bank</b>	<b>352,500,000</b>	<b>67,560,000</b>	<b>153,387,000</b>
Regulate financial microfinance institutions	157,850,000	179,950,000	218,431,000
Non-regulate micro financial Institutions	4,000,000	303,950,000	6,200,000
<b>Total microfinance Institutions</b>	<b>161,850,000</b>	<b>483,900,000</b>	<b>224,631,000</b>
<b>Total regulate microfinance Institutions</b>	<b>510,350,000</b>	<b>247,510,000</b>	<b>371,818,000</b>
<b>Total</b>	<b>514,350,000</b>	<b>551,460,000</b>	<b>378,018,000</b>

Source: INSAE, (2010: 37).

## Curriculum Development

The curriculum is a central element for the functioning of a TVET programme, because it defines the framework and (quality) standards for the programme. The development of a curriculum can be decomposed into a three-step process: curriculum design, curriculum application and curriculum feedback. This theoretical concept is called the Curriculum Value Chain (CVC; Renold et al., 2016).

In the curriculum-design phase, curriculum content and qualification standards are decided upon by the relevant actors. The curriculum-application phase revolves around implementation. It specifically addresses where learning takes place and whether the curriculum dictates both school and workplace learning or only one of the two. Curriculum outcomes are finally collected and analysed in the curriculum-feedback phase. This evaluation process is important, as it may render a more refined curriculum design.

### Curriculum Design Phase

Since 2015, the National Institute of Engineering Training and Capacity Building of Trainers (INIFRCF) has been in charge of defining training standards and competencies for qualification frameworks. The INIFRCF is a new organisation from the lower education ministry (MESTFP) that must coordinate the revue of TVET curricula. Before 2015, the lower education ministry (MESTFP) was in charge of designing curricula of technical high schools (MESTFP 2016). Therefore, the lower education ministry (MESTFP) developed their own method. The first step consisted of designing the TVET policy framework. The second step consisted of defining training standards and competencies (ibid).

In the first step, the design of the TVET policy framework was done as follows. A team composed of 'supervisors', that is, inspectors and advisers from the secondary education system, organised workshops with TVET experts. In the workshops, experts were informed about guidelines for TVET curricula. A focus group ('*Groupe noyau*') was created to design standards for the new careers for the education programme. This focus group developed guidelines for the training (MESTFP 2016).

The second step aimed to develop curricula according to the focus group's standards. Through a company survey, experts provided a list of skill needed by companies. The results of this survey were used to design curricula in the occupations: carpentry and joinery (*Menuiserie ébénisterie*), car mechanic (*Mécanique auto*), building and construction (*Construction bâtiment*), electricity (*Electricité*) and office administration. Stakeholders had to validate the standards provided. The curricula were finally designed through a competencies-based approach (*Approche par compétences*) (MESTFP 2016).

According to UNESCO-BIT (2013), technical high schools in Benin have little interaction with the business sector in terms of identifying and meeting skills needs. It states further that there is a mismatch between training programmes and labour market needs (ibid).

### *Curriculum Application Phase*

The lower education ministry (MESTFP) is the main public institution that is in charge of the implementation of training in technical high schools. Public authorities from Benin's 12 departments are also involved. The government is responsible for providing equipment and infrastructure for the quality of the training. However, private schools receive accreditation from the lower education ministry (MESTFP) to provide training.

In 2010, the public operating spending for infrastructure and other public investments on technical high schools was estimated at 2.4% of total public spending on the secondary education (MEA, 2014).

The Ministry of Labour (MTEFP, *Ministère du Travail et de la Fonction Publique*) recruits teachers, while the Ministry of Finance and Economy pays their wages. In 2010, the total number of teachers in public sector was 1,101 (365 in cycle 1 and 736 in cycle 2) (MEA, 2014: 107), while in 2015 this number had increased to 2,388 teachers in public sector and 2,678 in the private sector (MESTFP, 2016: 92).

Through the DEC, the lower education ministry (MESTFP) designs the final exam for technical high schools. Each year, students are evaluated.

### *Curriculum Feedback Phase*

Evaluation of programme outcomes is the main task undertaken in the curriculum-feedback phase. It aims to analyse the efficiency of the training programme. According to the results for the evaluation of the curriculum-design phase, the OEF (2010, cited in UNESCO-BIT, 2013: 26) has noticed that equipment as well as curricula in Benin's public technical high schools are outdated (UNESCO-BIT, 2013: 26), while the lower education ministry (MESTFP) lacks resources, equipment and infrastructure to improve the quality of these schools (UNESCO-BIT, 2013: 61).

## **Conclusion**

Technical high schools in Benin provide in-classroom TVET in which youth are trained for specific careers: STAG, STI, STA, STMS, SSATH, family and social studies (STEFS) and STMA.

Challenges of the programmes offered in technical high schools is the lack of linkage between education content and skills requirements, the low quality of equipment and teachers, a lack of financial resources and competition between public and private schools.



## 4.2.2 Formal-informal TVET programme: Certificat de Qualification Professionnelle (CQP)

The *Certificat de Qualification Professionnelle* (CQP) described in this section is a formal programme, as it is officially recognised by the Beninese state. However, it does not provide access to further education in the formal education system. Since most graduates enter the informal labour market, the programme is classified as formal-informal. The CQP programme is described in detail in the following.

### Introduction

Many West African countries have a long-lasting tradition of 'informal' apprenticeship (sometimes also referred to as 'traditional apprenticeship'), where apprentices spent the entire apprenticeship in their master's workshop learning informally. Informal apprenticeship is an important source of skills acquisition in Western Africa, especially for young people from disadvantaged backgrounds who are not able to access formal education, either because they do not fulfil the entry conditions (e.g. having finished primary education) or do not have the financial means to study in formal education programmes. The UNESCO (2013b) estimates that the number of students in informal apprenticeships is 10 times higher than in the formal education system. In his study, Walther (2008) showed that the informal apprenticeship system also plays a big role in Benin's informal economy. The informal apprenticeship not only educates a large share of Benin's youth, but the informal businesses that offer informal apprenticeship also provide employment opportunities for them.

Even though the informal-apprenticeship system is widely established, its graduates often do not earn a decent living, because many workshops are located in low-productivity sectors and the acquired skills do not sufficiently increase graduates' productivity. In addition, the lack of formal sanctioning mechanisms, quality standards and skills certification bears the risk that masters do not treat their apprentices adequately, leading to precarious employment outcomes and delayed graduation Walther (2008).

In the early 2000s, the Beninese government, in cooperation with foreign donors like the Swiss Development Cooperation (SDC) and Swisscontact, launched a formal dual-TVET programme in Benin, which aimed to formalise Benin's informal apprenticeship programme, the so-called CQP (ibid).

The CQP was introduced with the aim to improve the skills and labour-market situation of youth in Benin, which belongs to the group of countries with the lowest income per capita worldwide (rank 162 from 187 countries). About 90 percent of Benin's labour force works in the informal sector, where most workers (60-80 percent) are self-employed, poorly educated (about 55 percent have completed only basic education) and earn low wages: about 50 percent of the population earns less than USD 1.90 a day (WDI, 2019). In addition, the CQP was introduced to provide low-income youth with a formal degree and to abolish the graduation ceremony (*Cérémonie de libération*) that marks the end of the informal apprenticeship. Students often had to go into debt to pay for the ceremony. In addition, it gave master craftsmen the power to delay their apprentices' graduation to benefit from their high productivity (Walther, 2008).

The CQP differs from the informal apprenticeship in several ways. In contrast to informal apprenticeships, the CQP is a combined formal-informal three-year, dual-TVET programme, which follows a structured curriculum. Students receive classroom education provided by vocational education and training centres one day a week, including entrepreneurship training. Apprentices sign a formal training contract with their master, which guarantees work and training standards in the informal workshops. This also guarantees a training duration of no more than three years, while fully informal apprenticeships last four to five years on average. Students are finally granted a formal certificate upon graduation.

Besides the CQP, the Beninese government also introduced the Certificate of Skills Qualification (*Certificat de Qualification aux Métiers*, henceforth CQM) through decree no. 117/2005, which provided master craftsmen the opportunity to earn a formal certificate by passing a test (MEA, 2014).

This section of the case study describes the CQP in more detail.



## Overview of the CQP

The CQP is part of Benin's *formal* TVET system (MESTFP, 2016). So far, the CQP has been introduced for only 13 out of 311 occupations that exist in Benin (see box below for more details), and several cohorts have graduated from the programme. The CQP was introduced as a pilot programme from 2003–2005. Even though absolute enrolment has increased since its introduction, the CQP has remained a small programme. No exact data exist for the number of students who went through the programme. It is estimated that about 13,326 out of 16,974 eligible students were trained between 2007 and 2014 (Ferland, 2016: 195). In comparison to the number of apprentices enrolled in the informal apprenticeship (200,000 in 2011), this number of apprentices in the CQP is very low (MPDEPP-CAG, 2010; UNESCO-BIT, 2013).

The CQP school year has no fixed periodicity. In principle, a new cohort of the CQP starts each year. The start and end dates are typically subject to various hazards. Thereby, the availability of financial resources is an important variable, as the number of available seats depends on the government budget available for the CQP. Therefore, the number of seats fluctuates from year to year. In addition, the often-unpredictable timing of the entry exam slows down the allocation of students to centres and delays the start of the CQP, which distracts many potential students (David-Gnahoui and Ahouangnivo, 2017a).

To be eligible for the CQP, a person has to fulfil the following criteria (UNESCO-BIT, 2013: 26; MPDEPP-CAG, 2010: 62; Atindehou; 2013: 52):

- 1) be at least 14 years old;
- 2) have completed at least five years of primary schooling, ensuring that youth who enter the programme have a minimum level of education and are able to do basic calculus as well as read and write French;
- 3) have been employed for at least six months in one of the trades for which the CQP is available and have a work contract;
- 4) be willing to participate in the CQP; and
- 5) pass the entrance examination for the CQP, which is organised by the lower education ministry (MESTFP).

## Learning places

By design of the CQP, in-classroom courses in training centres are provided one day a week, and students should spend the remaining five days in their training firms (Walther, 2008: 80). However, this altering mode was only maintained until approximately 2012, when Swisscontact, a Swiss NGO, stepped down from co-managing the CQP and handed the lead over to FODEFCA. Ever since, cases have increased where instead of altering in-classroom training in centres and in-workshop training on a weekly basis, in-classroom training was shifted to take place multiple weeks in a row every two, three or six months. This practice was more likely to happen in rural areas (information from interviews with local stakeholders, September 2018; also mentioned by David-Gnahoui and Ahouangnivo, 2017a).

It is difficult to estimate the hours of in-workshop training. Apprentices stay in their master's workshop for at least eight hours a day and may stay longer, depending on the master's need. For example, hairdresser apprentices may stay for 10 hours during celebration periods (e.g. wedding period).

## Training centres

Training duration in centres is structured in three levels, one level per year, including 32 weeks for each level. There are five categories of training centres: public centres, community centres, private denominational centres, individual private centres and NGO-run centres. Since 2007, the accreditation of vocational training centres has been formalised. Private vocational training centres must be accredited by the Direction de la Programmation et de la Prospective (DPP), TVET directorate (DETFP) and the FODEFCA. Public training centres do not need to be accredited (David-Gnahoui and Ahouangnivo, 2017a).

A study by the Crafts Support Office (Bureau d'Appui aux Artisans, BAA, 2016 as cited by David-Gnahoui and Ahouangnivo, 2017a) showed that 56 percent of all private centres were operating without accreditation, which put pressure on DPP, TVET directorate (DETFP) and the FODEFCA to check training centres for accreditation ex-post. According to David-Gnahoui and Ahouangnivo (2017a), the accreditation of private training centres is not explicitly regulated anywhere.

In 2015, the total number of vocational training centres was estimated at 111. Thereof, 51 were public, and 60 were private (MESTPF, 2016). Table C1 in Appendix C provides a detailed list of public and private training centres across Benin. It shows a large disparity in the distribution of training centres across the 12 regions of Benin. For example, there are 20 vocational training centres in Zou and 16 in Borgou. In contrast, Alibori and Collines have two vocational training centres each, and Plateau has five. The number of inhabitants cannot uniquely explain this disparity, as for example Alibori has more inhabitants than Zou. However, the presence of training centres in certain regions may be correlated with the preferences of the Beninese government or foreign donors for certain departments or regional differences in the ability of students and their parents to pay training fees.

Training in centres is more general in nature than in-workshop training, which is often firm- or occupation-specific. Besides occupation-specific skills, students also receive classes on general-education topics; for example, mathematics for carpenters or bookkeeping. Training in centres follows standards designed for each of the 13 occupations (Walther, 2008; Swisscontact, 2017). Table C3 in Appendix C provides examples of lectures for the CQP occupations cold and air conditioning, wood carpentry, plumbing, hairdresser, and cut sewing. The number of lectures for each craft is also specified in Table C4 in Appendix C.

### **Profile of teachers in training centres**

The Direction of Control and Pedagogical Inspection (*Direction de l'Inspection Pédagogique, de l'Innovation et de la Qualité*, DIPIQ) controls the issuing of certificates for teachers who can teach in training centres or the certificates of master craftsmen (David-Gnahoui and Ahouangnivo, 2017a).

According to the CQP regulations, trainers in training centres must either be:

- master craftsmen with at least 10 years of working experience in their trades or graduates of technical education and vocational training schools (leading to the certificates BEAT, agricultural diploma (DEAT), BEPC) or
- graduates of teacher-training colleges with a degree in basic technical education and vocational training (Atindehou and Zinsou, 2013).

In practice, the above-mentioned criteria guaranteeing a certain quality of teachers are often not met. Teachers in training centres are consequently often not well qualified. In addition, quality controls to ensure the presence of qualified trainers in training centres are weakly enforced by the regulatory authorities (David-Gnahoui and Ahouangnivo, 2017a).

### **Training in workshops of master craftsmen**

For the in-workshop training, master and apprentices have to follow a competence chart designed by Swisscontact that regulates the training process (Swisscontact, 2017). However, in practice, each master craftsman organises training accordingly to the products and services they produce and according to their capacities and skills.

Master craftsmen who train CQP apprentices are obliged to know how to read, write and speak French. By design of the CQP, master craftsmen should in principle receive a series of training funded by FODEFCA and aimed at strengthening their technical skills to ensure that they are at the same level as their apprentices (Atindehou and Zinsou, 2013).

### **The quality of training**

The quality of training depends on the relevance of skills and the quality of training provision. Regarding skill relevance, David-Gnahoui and Ahouangnivo (2017a) reported that the curricula of the CQP have been updated more than 10 years ago. Similarly, another study by the Ministry of Planning came to the same conclusion (MPDEPP-CAG, 2010). The World Bank and the French Development Agency recently invested in updating the existing and developing new curricula for the CQP.

The Direction of Control and Pedagogical Inspection (DIPIQ) is in charge of controlling and inspecting the quality of the CQP training provision (David-Gnahoui and Ahouangnivo, 2017a). According to David-Gnahoui (2017b), experts from FODEFCA said that pedagogical inspections in vocational training centres are not regularly done due to a lack of financial resources. The lack of inspection and control can have negative effects on the quality of the training provision.

### **The final exam**

The Direction of Test and Exam Services (DEC) is in charge of the organisation of the CQP exam, the registration and distribution of candidates to test centres, design of the tests, implementation of the examination, proclamation of results and issuance of certificates and diplomas. The organisation of the examination involves a considerable number of commissions for sorting and validating tests, visiting the training centres, launching of examination, supervision and secretarial work. These commissions are put in place by ministerial orders or memos of the DEC. Their large number and centralisation of the process results in a high cost of certification (David-Gnahoui and Ahouangnivo, 2017a).

The evaluation of apprentices includes 10% of a theoretical test at the examination centre, 20% continuous control in training centres during the three years of education, 40% workshop activities judged by the master and 30% practical test at the examination centre (David-Gnahoui and Ahouangnivo, 2017a).

The CQP certificate does not provide access to further education in the formal education system as there are no progression routes. However, as we learned during our interviews with local stakeholders, certificates in general have a huge value in Benin. Hence, besides the potential impact of the CQP in that it may increase graduates' productivity, it also seems to increase their social status in the community. If this is true, the certificate can also help master craftsmen signal their quality and to attract new clients.

## **Key Actors**

Two main categories of actors are involved in the CQP: public organisations from the ministries and private organisations. Besides information provided in personal interviews with TVET experts, we used other documents about the CQP to produce this overview.<sup>13</sup>

### **Government**

In public sector, the first organisation involved is the lower education ministry (MESTFP). The following organisations are all subordinated:

- TVET directorate (DETFP)

The TVET directorate (DETFP) is part of the lower education ministry (MESTFP). It is one of the key stakeholders in the system. The main mission of the DETFP is to design, implement and monitor Benin's policy on technical and vocational training (MESTFP, 2016). This includes the design and development of regulatory texts in the field of vocational training, the supervision of training centres, ensuring their compliance with quality standards and providing them accreditations (together with the

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<sup>13</sup> These sources are: Atindehou and Zinsou (2013); (Adanhounzo et al. 2016); David-Gnahoui and Ahouangnivo (2017a); World Bank (2014).

FODEFCA and the DPP), the development of skills matrices and charts of competencies together with artisan associations and other partners and the financing of CQP and CQM.

- Direction of Control and Pedagogical Inspection (DIPIQ)

The DIPIQ is responsible for ensuring the follow-up and quality control of the CQP training. The DIPIQ is in charge of inspecting training centres and controlling the training provided to apprentices in the workshops. However, David-Gnahoui and Ahouangnivo (2017a) state that, due to a lack of resources, it has been many years since these inspections were conducted in any of the centres visited in this study.

- Direction of Test and Exam Services (DEC)

The DEC is in charge of designing and conducting the entry test and final exam for the CQP, the proclamation of results and issuance of CQP certificates.

- National Institute of Engineering Training and Capacity Building of Trainers (INIFRCF)

The INIFRCF was created in 2015. It is assigned to design curriculum and organise trainings to masters for capacity building.

The Ministry of Labour (MTFP) is also involved in the legislative texts and financing of the CQP. It subordinates these responsibilities to the following organisations:

- The Department of Continuous Training, Manpower and Apprenticeship (DFCMA)

The DFCMA is responsible for the regulation of relations between master craftsman and apprentices.

- FODEFCA

The FODEFCA was created by the Beninese government in 1999 in cooperation with World Bank (decree No. 99-053/1999). It plays a decisive role among the public organisations involved in the dual apprenticeship. It seeks donors to finance the training, provides scholarship to apprentices, has a strong contact to private training centres and participates in the accreditation of private training centres. The role of the FODEFCA is to receive and manage financial resources to fund the CQP, to accredit training centres and controlling training workshops and to finance training of master capacity-building courses and works with many private organisations (Ferland, 2016).

- Direction Générale du Renforcement des Capacités et de l'Employabilité (DGRCE)

The DGRCE is the implementing body for all public policies on vocational training (e.g. development and retraining of the workforce, promotion of training). As the FODEFCA, the DGRCE is also in charge of the accreditation of training centres and controlling training workshops, such as controlling (i.e. enforcing) contracts covered by the labour regulation.

## **Education and training providers**

There are public and private training centres. The training centre's main task is to carry out the theoretical and technical training of apprentices. Public training centres are under the supervision of the TVET directorate (DETFP); private training centres have to go through an accreditation process of the TVET directorate (DETFP), FODEFCA and DPP. The minimum condition required for private centres to gain a training contract with the FODEFCA is accreditation by the lower education ministry (MESTFP) and the Ministry of Labour (MTFP). According to Ferland (2016), there are 111 vocational CQP training centres, of which 60 are private.

Vocational training centres have a responsibility to be in constant exchange with their students' training workshop and parents to get feedback on the students' learning progress. They have to follow the curricula and training plans and are responsible for conducting the theoretical part of the final exam.

The master craftsmen are expected to

- Participate in the curriculum development;
- Train apprentices during the three years of the CQP (i.e. five or six days of training in the workplace or firm a week);
- Facilitate the partnership between parents and vocational training centres by making sure apprentices complete the journal book they have to write on a constant basis;
- Collaborate well with other training providers by participating to the meetings and involving them in other activities;
- Be involved in the final CQP evaluation exam (theory and practice).

### **Crafts representative and advisory bodies**

In private sector, the National Union of Chambers (*Union des Chambres Interdépartementales des métiers*, UCIMB) and the National Craftsmen Confederation (*Confédération Nationale des Artisans du Bénin*, CNAB) are the most important organisations for the CQP. The UCIMB was created in 2003 by decree No. 557/2003 under the Ministry of Culture. By law, the UCIMB may have a role in the organisation and consulting of craftsmen with respect to the CQP (art. 72 and 78 of UEMOA code No.01/2014). However, it has not played any role so far in the implementation of the CQP. The regional Unions of Chambers are involved as representative bodies of the craft occupations in six regions: *Atacora-Donga*, *Borgou-Alibori*, *Zou-Colines*, *Ouémé-Plateau*, *Mono-Couffo* and *Atlantique-Littoral*.

The second representative body of craftsmen is the CNAB, which plays an important role in the organisation of the CQP from the call for applications until the final exam. It was created in 2008. The role of the CNAB is to mobilise its members and apprentices for enrolment in the CQP when the call for participation is sent out. It organises workshops for master craftsmen to build their capacities and participates in the development of curricula competence matrices and training programmes. Further, the CNAB aims to promote craft occupations and deals with the interests of the master craftsmen (Ferland, 2016).

### **Foreign donors**

In the past, different foreign donors have supported the CQP: The DANIDA, Swiss Development Corporation and Swisscontact. The two current active foreign donors are the World Bank with the *Projet Emploi Jeune* and the French Development Cooperation (AFD) with the project AFPIJ. However, the PEJ project will terminate in the end of 2018 or beginning 2019. The AFPIJ project continues financing a CQP cohort that starts 2018.

### **Finance**

The financing of the CQP consists of three cost components: workshops, training centres, and the processes of curriculum development, testing and certifying. As discussed in detail below, training in workshops is financed by trainees and their parents. The Beninese government and donors finance training centres and the test and certification process through the FODECFA. Donors change over time. On average, they finance around one third of the costs.

### **Training in workshops**

Apprentices are bound to their master craftsman by a verbal or (rarely) written contract that specifies the apprenticeship fees. According to David-Gnahoui and Ahouangnivo (2017a), about 69% of apprentices surveyed say they have not signed any contract. Apprenticeship fees are not regulated. Together with the apprentice's costs for food, tools and, eventually, housing, these fees are borne by the parents. According to Zinsou (2012, cited in David-Gnahoui and Ahouangnivo (2017a)), the annual apprenticeship fees vary between FCFA 108'000 and FCFA 252'000, depending on the occupation and the area of residence where the workshop is located. This estimate is higher than the fees charged in some informal workshops of the aluminium carpenter trade we visited in Benin (October 2018). There, the annual apprenticeship fees in two workshops were FCFA 55'000 and FCFA 62'000, while another master did not charge any fee.

According to David-Gnahoui and Ahouangnivo (2017a), apprentices are often kept beyond the duration of their apprenticeship because their parents cannot afford the training costs. They become effective but free labour for the master craftsman. Since CQP apprentices receive their certificate after successful completion of three years training and the final exam from the DEC, some master craftsmen have complained that CQP apprentices run away without paying their training fees after they receive their diploma. In contrast, in the informal apprenticeship, master craftsmen can refuse to issue their apprentices a diploma until they have paid their apprenticeship fees.

### **Training in centres**

The Beninese government, through the FODEFCA, pays about 90 percent of the training costs in training centres, whereas 10 percent have to be paid by the apprentices' parents. Between 2003 and 2011, Swisscontact paid 5 percent of the parental share. From 2012, Swisscontact's contribution dropped to 3 percent (David-Gnahoui and Ahouangnivo, 2017a). In absolute terms, the part paid by the FODEFCA per apprentice ranges from € 160 to 400, or FCFA 108'000 to 252'000 per level (UNESCO-BIT, 2013, p. 30; David-Gnahoui, 2017b: 11).

In the past, the major part of the total operating costs for training centres was financed through FODEFCA from various sources (e.g. National Budget, TFP, NGOs).<sup>14</sup> According to David-Gnahoui (2017b), the public money allocated to Benin's TVET system amounts to 0.17 percent of the total spending on education, whereas 0.04 percent of all students in Benin are TVET students.

In 1999, as the FODEFCA was set up, the World Bank and the Beninese government decided that it would be partly financed through an apprenticeship tax (2 percent of payroll) charged on workshops and firms both with or without apprentices (David-Gnahoui and Ahouangnivo, 2017a). However, the apprenticeship tax was never enforced, and a subsidy system was chosen instead. According to Ferland (2016), the consultant in charge of writing the audit report for the FODEFCA, they would have no funding problems if the apprenticeship tax had been enforced from the beginning.

Table 15 shows that the contribution of the SDC in 2014 was about FCFA 166.3 million out of FCFA 66 million expected. The DANIDA and the World Bank have paid FCFA 2'057.8 and FCFA 66 million respectively between 2007–2014. The government provided FCFA 6'456 million, and the beneficiaries paid FCFA 795.1 million from 2007–2014. In the local provision of financial resources, the government and beneficiaries did not meet expectation. The foreign contribution of Swiss aid allowed the FODEFCA to alleviate the shortage of financial resources (Ferland, 2016).

Analysis of the data shows that the dual apprenticeship is very costly. Therefore, it is very important to learn about the efficiency of the programme. The next section describes the curricula development for the dual-apprenticeship schemes in Benin.

### **Costs for curriculum development, testing and certification process**

We have no information about the costs for developing curricula for the CQP. For the testing and certification, an annual subsidy of around FCFA 50 million from the national budget was made available between 2005 and 2013. However, as this amount was always insufficient, the Direction of Test and Exam Services (DEC) had to invest part of its budget. From 2013 onwards, the budget allocated to the CQP was merged into the overall TVET exam budget. The actual budget for the testing and certification of the CQP is currently around FCFA 90 million (David-Gnahoui and Ahouangnivo, 2017a).

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<sup>14</sup> Donors have been bearing a large part of the total costs for the CQP. Among foreign donors, we identified Danish Development Corporation (DANIDA), Swiss Development Corporation (SCD), Swisscontact and French Development Corporation (AFD) and the World Bank. As examples, the Swiss Development Corporation was involved with AFPIJ project and the World Bank with PEJ project. Swisscontact has also been involved in the CQP by developing curricula with its own money.



**Table 14: Financial resources of FODEFCA and number of apprentices in CQP by year**

<b>Total annual budget FODEFCA: all training schemes in millions FCFA</b>									
<b>In millions FCFA / Year</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
National budget	806	750	750	900	600	825	840	985	522
Contributions of beneficiaries	33	142	143	100	122	102	72	83	80
<b>Total budget national resources</b>	<b>839</b>	<b>892</b>	<b>893</b>	<b>1000</b>	<b>722</b>	<b>927</b>	<b>912</b>	<b>1068</b>	<b>602</b>
<b>Total budget foreign donors</b>	<b>96</b>	<b>358</b>	<b>366</b>	<b>362</b>	<b>659</b>	<b>332</b>	<b>-</b>	<b>238</b>	<b>920</b>
<b>Total</b>	<b>935</b>	<b>1'249</b>	<b>1'259</b>	<b>1'362</b>	<b>1'380</b>	<b>1'259</b>	<b>912</b>	<b>1'305</b>	<b>1'522</b>
<b>Total annual budget of FODEFCA for CQP in millions FCFA</b>									
<b>In millions FCFA / Year</b>					<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	
National budget					101.6	289	445.9	272.1	
Budget foreign donors					418.6	300.8	-	132.5	
Contribution of foreign donors in %					80.5	51		32.8	
<b>Total annual budget for CQP</b>					<b>520.2</b>	<b>589.8</b>	<b>445.9</b>	<b>404.6*</b>	
<b>Contrasting potential/realized number # of apprentices and potential/realized cost per apprentice</b>									
<b>In millions FCFA / Year</b>					<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
Taking total # of enrolled students (1st year of CQP)...					1,341	975	1,109	4,817	<b>8,242</b>
... what is the total cost per apprentice (total budget/# of students)?					387,897	604,913	402,074	83,986	
Projection: what is the total # of students that could have been achieved with total budget...					1,084	1,229	929	843	4,084
... assuming a total cost per apprentice of FCFA 160,000 per apprentice per year (*3 years)					480,000	480,000	480,000	480,000	

Source: Ferland (2016). Note: \*May be only a projection, not finally realized budget.



**Table 15: Revenue of FODEFCA through the contribution of donors (in millions of dollars 2007-2014)**

Sources of financing	2007	2008	2009	2010	2011	2012	2013	2014	Total million FCFA	Total in dollars
National budget	806	750	750	900	600	825	840	985	6456	4303,956.96
DANIDA	95.5	357.8	300	362.3	620.2	322			2057.8	1,371,852.948
Apprentices	33	141.5	142.7	100	121.7	101.7	72	82.5	795.1	530,061.366
BIT/CEJEDRAO					38.3	10.3		71.2	119.8	79,865.868
SDC <sup>15</sup>								166.3	166.3	110,865.558
World Bank			66						66	43,999.56
Total	934.5	1249.3	1258.7	1362.3	1380.2	1259	912	1305	9661	6,440,602.26

Source: Ferland (2016: 174).

## Curriculum Development

### Curriculum-Design Phase

The curricula and related material for the existing 13 trades was developed under the lead of Swisscontact in collaboration with craftsmen representative bodies or associations.<sup>16</sup> The writing of curricula and related material for new trades and the revision of existing ones is or was being done by the bodies in charge of the design of programmes and manuals (TVET directorate (DETFP), DIPIQ, INIFRCF, UCIMB, CNAB). All materials were developed according to the DACUM ('Develop a curriculum') method (c.f. Collum, 1999). This method is promoted by the Canadian Association of Professional Education. It is based on the specific duties to develop competences for a job or occupation (Norton, 1997). The method was improved by an international team of facilitators of the Centre on Education and Training for Employment (Ohio State University).

For the CQP, skills development with the DACUM method was done in two steps of pilot testing. The first step involved three craft occupations: motorcycle mechanic, hairdresser and cut sewing. This first step was implemented in four regions: Cotonou, Parakou, Porto-Novo and Abomey-Bohicon. The second step dealt with the training of local experts using the DACUM method. Five experts were trained on craft analysis and skills development.<sup>17</sup> They were selected by the FODEFCA, Swisscontact, BAA and *Cabinet Africain d'Ingénierie de Formation*. These organisations have participated in curriculum development since the introduction of the CQP.

The results of David-Gnahoui and Ahouangnivo's (2017a) study show that the 13 crafts were introduced step by step (see Table C5 in Appendix C for detailed information). After the introduction of the three craft occupations in 2003, two others were developed in 2004: cold and air conditioning, and wood carpentry. A curriculum for the occupation weaving was developed in 2005. Four other crafts were introduced in 2006: metallic construction, masonry, electricity and coating. In 2007, photography and car mechanic were developed. In 2008, a curriculum for plumbing was developed. Throughout the curriculum-design phase, a chart of competency was designed for each craft with the participation of master craftsmen (UNESCO-BIT, 2013). The competency charts specify the qualification standards and content of the training in theory and practice sessions.

### Curriculum-Application Phase

The curriculum-application phase describes the implementation of the training programme.

As mentioned before, by design, the CQP combines in-classroom courses in training centres provided one day per week and in-workplace training five days a week (Walther, 2008: 80).

Vocational training centres as well as masters' workshops must both follow the instruction given through the competency charts in the provision of training. Before private training centres can receive CQP students, they must be accredited by the FODEFCA. In addition, vocational training centres must provide the required infrastructure, including equipment and materials, among others.

Requirements for master craftsmen in the CQP are that they should be well qualified, have a minimum work experience and guarantee minimal working conditions.

### Curriculum-Feedback Phase

There is no impact evaluation of the CQP, nor is there consistent data on graduates. However, we examined data from the Swisscontact project '*Projet d'Appui à la Formation Professionnelle et à l'Emploi (PAFPE)*'. In case of the CQP graduates in the PAFPE project, the CQP improved the working conditions of 77 percent of the CQP graduates. Among them, 67 percent founded their own firms and earned more

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<sup>16</sup> Under related material competency profiles, evaluation grid (decomposing competencies into objectively verifiable and unambiguous tasks, operations and success criteria), repositories and training programmes (content and progression of the training) are subsumed.

<sup>17</sup> <https://drive.google.com/file/d/1yeNEupOcwF4EWMWfksNcB6Kjm02SU7un/view>

than the minimum wage of FCFA 40'000 (about € 59). The remaining 33 percent found employment in other master craftsmen's workshops.

## Conclusion

The introduction of the CQP with the goal to formalise informal apprenticeship was a significant reform of Benin's TVET system in the early 2000s. Since the informal apprenticeship is an important means of skill acquisition, especially for youth from disadvantaged backgrounds, the intention of introducing the CQP was very good. Even though no impact evaluation of the CQP currently exists, one conclusion that can be drawn from anecdotal evidence is that the impact on youth who participated in programme is positive, at least for some graduates.

The introduction of the CQP was also a success, as it brought a change in the way the government thought about TVET in Benin. Besides a fully school-based programme in *Lycees Techniques*, which was the only formal TVET programme in Benin before the introduction of the CQP, the CQP was the first dual TVET programme. Further, it came hand-in-hand with the introduction of the CQM, which both allows master craftsmen and informal apprentices to acquire a formal certificate by passing a test. Both the CQP and the CQM led master craftsmen and informal apprentices to develop a 'taste for certificates', as holding these increases their social status. A side effect was the accumulation of human capital, as either participating in the CQP or learning for the CQM increases skills. While many apprentices are applying for the programme, the government does not have enough financial resources to bear the training cost of the CQP for all applicants. Moreover, the involved actors noticed a mismatch between the contents of the CQP programme and skills CQP graduates required on the job. Hence, Swisscontact and other actors revised the framework documents in 2017.

A setback for the CQP were allegations of corruption against FODEFCA employees, uncovered in 2015. It was a time when the foreign donors had taken a lot of money into their hands to finance the CQP for the years to come. As a result of the corruption allegations, any further financing of the CQP was withdrawn by the donor partners. An audit with the involved actors, especially the FODEFCA, took place in 2016, and an audit report was drawn up.

To finance the cohort of the CQP until the end in 2015, the World Bank stepped in with financial resources. After that, however, it did not invest in a new CQP cohort. Instead, it financed the development of new curricula for the CQP. In 2016, there was no money to finance a CQP cohort. It was not until 2017 and 2018 that the Beninese government was supported by French development aid to partially finance the CQP in the form of a loan.

Since most graduates enter the informal labour market, the programme is classified as formal-informal. The CQM programme is described in detail in the following.

### 4.2.3 Formal-informal TVET programme: Certificat de Qualification aux Métiers (CQM)

#### Introduction

The informal apprenticeship is the most popular form of vocational training in West African countries. Besides the reforms that introduced the CQP, the Beninese government also launched the CQM, which provided master craftsmen the opportunity to earn a formal certificate by passing a national exam provided by the lower education ministry (MESTFP).

#### Overview of the CQM programme

The aim of the CQM reform is to provide master craftsmen recognition of their prior learning through a formal certificate based on a national examination. In addition, it also standardises the training provided to youth in informal apprenticeships by developing occupation-specific standards. Therefore, the long-

term goal of the CQM programme is to upgrade and standardise the informal apprenticeship (MESTFP, 2016).

The minimum age to enrol in the programme is 16 years. There is no minimum literacy-level requirement. The assessment test is oral and practical. For this reason, master craftsmen are more interested in the CQM than the CQP, since many of them are illiterate or have very poor reading, writing and calculus skills. To avoid conflicts between masters and apprentices of informal apprenticeships, the admission condition to this programme is that apprentices have completed training with their master. However, the Beninese government has defined a maximum duration of three years to be admitted to the CQM exam. Moreover, the certification procedure allows graduate learners to receive their diploma without the graduation ceremony, which interferes in the decision power of the master craftsmen. This affects the practice of paying dowry to the masters and the spending for graduation ceremony. Nevertheless, the practice of a graduation ceremony still exists today in rural as well as urban regions.

Table 16 shows data available on student enrolment in the CQM programmes from 2013–2015. The number of graduates from the CQM were estimated at 13,233 out of 14,350 learners within these three years.

**Table 16: Apprentices enrolment and graduation in the CQM programme**

Year	2013	2014	2015	Total
Enrolment	1,190	5,582	7,578	14,350
Graduates	1,148	5,177	6,908	13,233

Source: Swisscontact (2017); data collected from DETFP, September 2018.

### The contents of the training schemes in CQM programme

As in the informal apprenticeship, the master train their apprentices on the job and is the main person teaching them before they are assessed by the CQM exam. However, to guide the on-the-job training, the government has developed training standards and competencies for some craft occupations.

There are 311 craft occupations in Benin. Before legally providing assessment in an occupation, the lower education ministry (MESTFP) must develop training standards. It has happened that apprentices applied for the CQM before training standards were developed. To develop craft occupations, Swisscontact has supported the Beninese government in designing 46 matrices of competencies laying down training standards (Swisscontact, 2017). Further development and updating training standards were financed by the PEJ World Bank project. So far, training standards for only 15 percent of all 311 occupations have been developed.

### Quality of training

Just as in the case of informal apprenticeships, there is no inspection from the public organisation on the quality of workplace training in informal workshops. According to interviewed masters, they measure the achievement of their apprentices by the ability to reproduce or develop skills in the workplace. Other masters told us that they send their learners to stay with another master for a short period to test their knowledge in an unknown setting.

### Key Actors

Three main categories of actors are involved in the CQM programme: public organisations (DETFP, DEC, INIFRCF); private organisations like actors from CNAB, UCIMB, local associations, craftsmen; and finally, the students and their parents (MEA, 2014).

As for the *Lycees Techniques* and the CQP programme, the TVET directorate (DETFP), INIFRCF and Direction of Test and Exam Services (DEC) play a similar role in the CQM. The TVET directorate (DETFP) is responsible for the execution of the training policies of the programme, the INIFRCF designs standards and competencies through the matrix of competencies in each occupation and the Direction of Test and Exam Services (DEC) provides the assessment forms for the test.

From the private-sector side, the CNAB plays a large role in sensitising master craftsmen to convince apprentices for the programme. For this purpose, it organises awareness activities for master craftsmen in local associations. The UCIMB is also involved in organising awareness events for master craftsmen in each region (art. 73 of UEMOA directive No. 01/2014).

The local associations are old forms of organisations of master craftsmen in Benin (Davodoun, 2011a). Through the local associations, the authors noticed their capacities to improve their training system. In 1997, the local associations of craftsmen created the first assessment test (EFAT). This has provided an empirical framework for the CQM programme.

## Finance

As is the case for the informal apprenticeship, apprentices pay training fees to their masters for the duration of the training. Moreover, apprentices must also pay between \$18.75 (FCFA 12'500) and \$37.5 (FCFA 25'000) for the application for the CQM test. This fee includes the contribution to local associations that allow the enrolment of the apprentices or masters for the assessment tests.

Donors and international organisations such as the DANIDA, SDC, Swisscontact, French Development Corporation (AFD) and the World Bank have invested in the CQM programme.

## Curriculum Development

### *Curriculum-Design Phase*

This phase consists of formulating training standards and competencies matrices for the different occupations. So far, 46 competencies matrices have been designed for the CQM, involving experts and members of trade associations.

### *Curriculum-Application Phase*

The matrix of competence designed for the CQM programme is not used for the training but only for the evaluation exam. Master craftsmen train apprentices just as in the informal apprenticeship.

### *Curriculum-Feedback Phase*

Since the CQM programme is an exam, the test results and number of apprentices and masters who pass the test constitutes direct feedback.

## Conclusion

The CQM enables master craftsmen and their apprentices to obtain a formal certificate. The introduction of the CQM has been increased further by a recent World-Bank project (PEJ).

Potential threats to the CQM is that it interferes with masters' 'sovereign territory' by specifying how long apprentices are allowed to be enrolled in informal apprenticeship. This takes from masters the opportunity to profit from the productivity increase of their apprentices towards the end of apprenticeship as long as they want. In addition, by prohibiting the graduation ceremony and making the training certificate issued by the master craftsmen obsolete, the CQM also removes the mechanism of master craftsmen to ensure that the apprentices does not run away prematurely.

## 4.2.4 Non-formal-informal TVET programme: Informal Apprenticeship

In the informal apprenticeship, apprentices learn from their master while working. We classify the informal apprenticeship as non-formal programme, since master craftsmen follow a non-written curriculum when instructing apprentices. Most of the graduates stay in the informal sector, becoming masters themselves or working as employee in a workshop. Therefore, we classify the programme as non-formal-informal.

## Introduction

Informal apprenticeship is an important source of skills acquisition for young people from disadvantaged backgrounds in Benin—not only because it educates a large share of Benin’s youth, but also because the informal businesses that offer informal apprenticeship provide employment opportunities for them.

The informal apprenticeship is the common form of learning an occupation in Benin. According to Swisscontact (2017), informal apprenticeship is less frequent and less developed in the industrial sector. Overall, it is said that youth in informal apprenticeships often grew up under difficult circumstances (Swisscontact, 2017). Many of them dropped out from school. Through informal apprenticeships, they can learn an occupation and eventually become self-employed (MPDEPP-CAG, 2010).

Although an informal apprenticeship is a vocational training programme, it is not part of Benin’s formal education system. This implies that the government does not recognise the informal apprenticeship.

In the following, we describe the informal apprenticeship in more detail.

### Overview on the informal apprenticeship in Benin

The main purpose of the informal apprenticeship is to prepare apprentices for the labour market (UNESCO-BIT, 2013: 32). However, the training workshops often belong to the informal sector, as many of them do not have a serial number and tax identity. The local administrations collect taxes from the masters (interviews, September 2018).

In informal apprenticeships, apprentices are only trained on the job. Apprentices have to be in their master’s workshop for five or six days a week. Enrolment in informal apprenticeships has increased gradually over time, despite a general slowing of population growth. In 1979, the number of informal apprentices was estimated at about 36,000; 144,414 in 1992, 150,000 in 2005 and 200,000 in 2010 (MPDEPP-CAG, 2010; UNESCO-BIT, 2013). The data also show that an informal apprenticeship in craft occupations is an important training and employment opportunities for youth, mainly those who dropout from formal school.

In 2010, the Ministry of Planning and Development conducted a study about the informal apprenticeship programme. This study estimates that about 150,000 informal apprentices graduate each year (MPDEPP-CAG, 2010). For comparison and to underline the importance of the informal apprenticeship: A little more than 1’000 students enrolled in the CQP each year from 2007–2014, and about 22,098 students enrolled in one of the two programmes at *Lycees Techniques* in the years 2014–2015. The study also showed that many of informal-apprenticeship graduates become self-employed after finishing their apprenticeship (MPDEPP-CAG, 2010).

Due to the fact that the informal-apprenticeship programme is not regulated by formal law, there is no specific requirement to enter in the programme. The recruitment of apprentices is uniquely at the discretion of the master craftsman. Recruitment often occurs by reference through the personal network of masters, such as local trade associations of which most masters are member of or family or friends’ referrals. The average age of informal apprentices is not known. However, master craftsmen typically accept apprentices in the age range of 10–25 years, even though the legal minimum working age is 14.

Most training contracts between master and apprentice are verbal, sometimes underlined through a symbolic entrance celebration. If a written contract exists, it is often formulated according to the master’s individual requirements, which are often not in line with working regulations (Swisscontact, 2017).

We visited a master in hairdresser in Parakou in July 2018. The master showed us a training contract form in which the duration of the training was specified between three and four years. The most important required condition for admitting a student was to receive the symbolic approval of the newcomers’ parents. The master considered this symbolic approval a ritual of entry. In addition, the newcomer or their parents had to pay an annual training fee of \$270 (FCFA 180’000).

The training duration of the informal apprenticeship is not formally specified. Most apprentices stay about four to five years in their master’s workshop until they graduate. Thereby, the point in time for graduation

is uniquely determined by the master craftsmen, who is the only person to evaluate the apprentice's progression and achievement. This puts apprentices in an inferior situation vis-à-vis their masters, since leaving the workshop before graduation implies terminating the informal apprenticeship without a graduation ceremony or certificate, which they receive upon graduation. Without the graduation celebration or the certificate, apprentices have a harder time opening their own businesses or finding employment elsewhere. For example, no customer orders a dress before verifying that the craftsman is certified.

The graduation ceremony signifies the apprentice's graduation to the local community. For this celebration, apprentices and their relatives have to pay a dowry to the master craftsman, which must include money and goods for the master and their colleagues. Davoudoun (2011a) estimated the cost of the celebration of the graduation at about FCFA 150'000 to 300'000 (€ 225 to 450). Although the directive No. 116/1991 of the Ministry of Culture and other texts prohibit the dowry, the graduation ceremony is still held. In 1997, the craftsmen organisations, jointly with public authorities, introduced a certification. The certification attests the qualification of apprentices through the EFAT (*Examen de Fin d'Apprentissage Traditionnel*) evaluation exam. This certification provides apprentices another means to certify their skills.

Informal-apprenticeship graduates cannot progress in the formal education system. However, they can apply for the CQP or can take the CQM exam. Upon successful participation in the exam, informal-apprentice graduates or masters receive a formal certificate. It is important to note that some master craftsmen still continue to provide non-formal diplomas or certificates.

### **The contents of the training programme**

There is no prescriptive content of on-the-job training in informal apprenticeship. The transfer of skills depends on each master's knowledge and on the occupation structure. Since the master craftsmen decide the training content, the 'advantage' of the informal apprenticeship is that apprentices receive labour market-relevant training. The only downside may be that the more specific the training, the lower apprentices' labour-market mobility if they do not become self-employed and may lower their productivity in case they open their own business and cannot apply (all) what they have learned (Walther, 2008).

In 2017, the Council of Ministers adopted eight categories of craft occupations, 40 classes and 311 occupations. The eight occupation categories are agri-food, food supplying and restauration (*Métiers d'Agroalimentaire, Alimentation et Restauration*); mines and quarries and building (*Métiers des Mines et Carrières et Construction-Bâtiment*); metal and metallic construction, mechanic and electro mechanics, electronic, electricity and transportation (*Métiers des Métaux et Constructions Métallique, Mécanique, Electromécanique, Electronique, Electricité et petites activités de Transport*); wood sector (*Métiers du Bois et assimilés, Mobilier et Ameublement*); textile, dressing, leather and sheepskin (*Métiers du Textile, Habillement, Cuirs et Peaux*); communication and media (*Métiers de l'Audiovisuel et Communication*); hygiene and skin care (*Métiers Hygiène et Soins corporels*); art and decor (*Métiers d'Artisanat et de Décoration*). Overall, the International Labour Organisation ILO (2011) remarked that while the CQP is based on formal training policies and legislation, agreements in informal apprenticeship are embedded in local culture and traditions, with the incentives to participate rooted in the society's norms and customs.

### **Quality of training**

Due to the lack of training standards and purely specific training, the quality of informal-apprenticeship training is rather low (UNESCO-BIT, 2013). Further, the non-uniform cost of training, the strategic interaction and conflictual relationship between masters and apprentices, the unsanitary conditions of the workplace, the outdated material and equipment supplying, the low level of education by most of the master craftsmen, the lack of formal qualifications through the informal apprenticeship, and other factors lower the quality of the informal apprenticeship. (UNESCO-BIT, 2013; Swisscontact, 2017).



## Key Actors

Due to the absence of legal texts and official institutions that regulate the informal apprenticeship, the government does not play any role in the programme. Only the local administration is involved in that they collect local taxes from the informal training workshops.

The main actors involved in the informal apprenticeship are master craftsmen, apprentices and their parents, and local trade associations.

The trade associations of craftsmen at local, regional and national levels are key bodies, in which master craftsmen are involved in making decisions that concern the informal apprenticeship. In local communities, there are the associations of craft trades (*Collectif des Artisans*); in regions, the unions of chambers and the craftsmen federation; and at the national level, the CNAB and the UCIMB. These organisations of craftsmen are forums of exchange for craftsmen regarding any business-related matter.

## Finance

The informal apprenticeship does not receive any financial support from the government or donors. Apprentices pay their masters depending on the training contract. The training cost in turn depends on the craft and the location in which the training occurs. According to Zinsou (2012, cited in David-Gnahoui and Ahouangnivo, 2017a), the apprenticeship fees in informal apprenticeships vary between FCFA 108'000 and FCFA 252'000. In addition to this annual fee, apprentices have to provide materials or financial resources for their symbolic admission to the training process (Davodoun, 2011a). Sometimes, the admission of the apprentices requires them to buy or pay for training tools. In some cases, apprentices receive a chop-money, or money for transport costs.

The costs of the training constitute a significant charge for some parents, who might also pay for the celebration of the graduation (Swisscontact, 2017). Some parents leave their children with the master craftsman until the end of the training. In this regard, some apprentices have difficult financial burden to bear the costs of the training and the celebration of the graduation. Either they work for their master or they look for another job to earn money to be able to pay the training fees and the graduation celebration (UNESCO-BIT, 2013). In some cases, some master craftsmen train apprentices who cannot pay the entire fees for free or at a cheaper cost, which helps those who live in difficult circumstance receive training (ILO, 2011).

## Curriculum Development

### *Curriculum-Design Phase*

There is no written curriculum for informal apprenticeships. Only the master craftsman is able to specify the contents and standards of their training. Each master craftsman is influenced by their own master, transfer of skills is done from a master to the apprentice and so on.

### *Curriculum-Application Phase*

The informal apprenticeship uniquely takes place in the informal workshops of the master craftsmen (Swisscontact, 2017). Each master decides how, when, under what conditions and what kind of skills to transfer to apprentices.

Due to the often-poor education of masters, the training apprentices receive in the workplace is often also very poor. In addition, the material and equipment used for training are often not up-to-date with the current technology developed in the craft occupations (UNESCO-BIT, 2013).

Through the duration of the training, two main actors are involved as trainers: the master craftsman and the advanced learners ('*Sous-patron*'). Due to the fact that the training contents are not written down, the master craftsman is the most competent trainer in a workshop; they keep all the skills in mind and proceeds by transferring competences to the apprentices. The training process typically involves three



common phases: observing, skills acquisition by following instruction and performing tasks. The observation period implies newcomers observe the master and the other advanced students in their work. The second phase allows the apprentice to learn about the tools of work and how to use them. The third phase implied that apprentices have to perform or reproduce products independently.

All master craftsmen in a community are involved in the graduation ceremony.

### *Curriculum-Feedback Phase*

The informal apprenticeship has no legal and institutional framework. However, during their regular meetings or craftsman celebration days, masters often debate about the constraints that they meet in training youth and in the labour market. Sometimes, when their old graduate apprentices have performance issues in the labour market, this draws the attention of the entire craftsmen corporation. If, for example, a master craftsman is renowned for the quality of their training, (i.e. graduates skills), everyone will want to be trained by them. This allows them to charge higher training fees. Hence, masters have an incentive to provide good-quality training. A similar mechanism applied to the popularity of certain trades: Trades that promise a higher return on investment in terms of income after graduation and trades where apprentices do not need to 'get their hands dirty' or which involve heavy physical work are more demanded by apprentices.

### **Conclusion**

The informal apprenticeship plays an important role in youth education and employment in Benin. This case study showed that many youth from disadvantaged backgrounds or dropouts from school are trained through this programme. The skills delivery performed in masters' workshops seems to have a positive effect on the achievement of the learners, since the systems keeps on attracting youth. The informal apprenticeship not only educates a large share of Benin's youth, but the informal businesses that offer informal apprenticeship also provide employment opportunities for them.

Even though the informal apprenticeship system is widely established, its graduates often do not earn a decent living. This is because many workshops are located in low-productivity sectors, and the acquired skills do not sufficiently increase productivity of graduates. In addition, the lack of formal sanctioning mechanisms, quality standards and certification of skills bears the risk that masters do not treat their apprentices adequately, leading to precarious employment outcomes and delayed graduation.

# 5 Conclusions and Outlook

## Conclusion

This study shows that Benin TVET system involves the three forms of education: formal education/training and non-formal education/training education/training.

Our case studies focused on three formal programmes: TVET at technical high schools or *Lycee techniques* at cycle 1 and 2, the dual CQP programme and the CQM programme; and one non-formal programme: the informal apprenticeship.

Results of the case study for the technical high schools or *Lycee techniques* at cycle 1 and 2 show that the programmes attract a decent amount of youth and helps graduates to find jobs. One disadvantage of the programme include that it is difficult to access for youth from disadvantaged backgrounds, since school fees are rather high. Another disadvantage is the discrepancy between training content and skills requirements demanded on the labour market, the rather low quality of equipment and teachers and a lack of financial resources to reform and update the programme. Hence, updating the curricula of programme and introducing workplace training could help to improve the quality of the training and the employment situation of youth. In addition, increasing the number of scholarships for the programme may help to address the equity problem in terms of access.

The dual CQP programme has been introduced with the aim to increase productivity, hence income, of informal apprentices and workshops by upgrading informal apprenticeships. In contrast to informal apprenticeships, which last four to five years, the CQP is a formal three-year dual TVET programme. It follows a structured curriculum, students receive one day of classroom education, sign a formal training contract with their master, and are granted a formal certificate upon graduation. However, due to corruption problems, the CQP experienced a major withdrawal of financial resources from foreign donors in 2015/16. Given the low priority of the Beninese government to put more money into the CQP and the high dependence of the CQP on foreign money, its future is unclear as of August 2019. It is to be hoped that in the future, the CQP will be able to find start-up funding again, perhaps to launch an improved version of the CQP, with improved incentive mechanisms and verification systems, such as training for masters and an electronic database to record CQP students. According to David-Gnahoui (2017b), the CQP must become less dependent on foreign resources. As part of a solution, he suggests the reintroduction, or better, enforcement, of an apprenticeship tax.

The CQM programme allows former and currently enrolled informal apprentices to earn a formal certificate through recognition of prior learning assessed by means of a test. The main challenges of this programme are the pre-scribed duration of three years and the abolishment of the final graduation ceremony of informal apprenticeships. By specifying how long apprentices are allowed to be enrolled in informal apprenticeship, the CQM interferes with masters "sovereign territory", which takes masters the opportunity to profit from the productivity increase of their apprentices at the end of their apprenticeship. In addition, by prohibiting the graduation ceremony and making the training certificate issued by the master craftsmen obsolete, the CQM it also takes away the mechanism of master craftsmen to ensure that their apprentices do not run away before they declare the apprenticeship as finished.

The informal apprenticeship is the common form of skills acquisition for youth in many West African countries, especially for youth from disadvantaged backgrounds. In Benin, more than 200,000 youth are enrolled in the informal apprenticeship. The informal apprenticeship not only educates a large share of Benin's youth, the informal businesses that offer informal apprenticeship also provide employment opportunities for a large part of Benin's youth. However, graduates of the informal apprenticeship often do not earn a decent living because many workshops are located in low-productivity sectors and the acquired skills do not sufficiently increase productivity of graduates. In addition, the lack of formal sanctioning mechanisms, quality standards and certification of skills bears the risk that masters do not treat their apprentices adequately, leading to precarious employment outcomes and delayed graduation.

This paper aimed to describe the Beninese TVET system through four case studies programmes. Data used for this research was collected from official literature and interviews with TVET experts. Additional information was collected from conferences and workshops. However, experts from National Institute of Engineering Training and Capacity Building of Trainers (INIFRCF) and Direction of Test and Exam Services (DEC) were not reached to get further information because they were on mission while collecting additional data. Hence, some analysis may not reach the expectations of some TVET stakeholders. Nevertheless, we believe that these case studies provide detailed information about the four TVET programmes in Benin.

## Outlook

In section 2.2, we argued that TVET programmes that link actors from education and employment system (i.e. where TVET takes place in schools and firms), have a higher likelihood of achieving relatively better labour market outcomes than programmes where education and labour market actors do not interact (i.e. TVET is either purely school- or workplace-based). Involving firms in the design of curricula and organization of training increases the labour market relevancy of skills. Involving schools provides that skills are not too firm specific, which increases the likelihood that students find jobs in other but the training firms and can upgrade their skills set later on. Therefore, Caves et al. (2019) study education employment linkage in Benin and these insights will be deepened in the context of an ongoing research study.

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# Appendix

## Appendix A. Asset Mapping of TVET Programmes in Benin

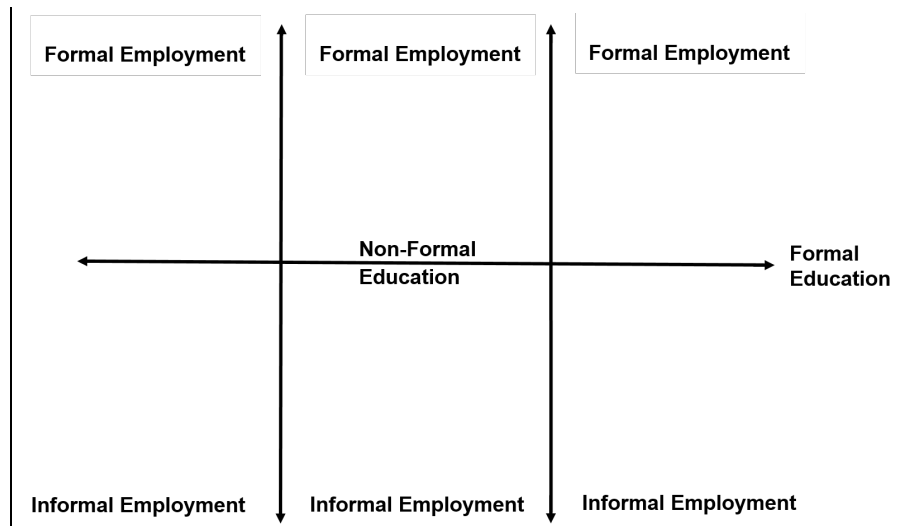
Table A1: Template for Asset Mapping for one Programme

Short title of indicator	Question and reasoning
<b>Title of the programme</b>	Please write the name of the programme
<b>1. Form of education</b>	<input type="radio"/> formal <input type="radio"/> non-formal
<b>2. a) Number of students enrolled in the programme</b>	<p><b>Specification:</b> How many students are enrolled in this programme in a given year? Please state enrolment in absolute numbers, no percentages.</p> <p><b>Reasoning:</b> In general, the number of students in a specific programme is a good proxy for its importance, as it tells how many students can be reached by the programme.</p>
<b>2. b) Optional: Number of students who completed programme</b>	<p><b>Specification:</b> How many students graduate from this programme in a given year? Please state graduation in absolute numbers, not in rates.</p> <p><b>Reasoning:</b> Helps understanding successfulness/effectiveness of programme.</p>
<b>3. Duration of the programme</b>	<p><b>Specification:</b> How long does the programme last (typically)? Duration of the programme in weeks/months or years; indicating a range is better than setting an arbitrary mean.</p> <p><b>Reasoning:</b> The duration of a programme may say much about its quality. We include this indicator to help demarcating TVET programmes from training programmes that we would not classify as TVET, e.g. active labour market programmes.</p>
<b>4. Geographical location/spread of the programme</b>	<p><b>Specification:</b> Is it a nation-wide programme or is it geographically restricted? If it is restricted, what is the smallest geographical unit used in your national language to describe the programme's scope?</p> <p><b>Reasoning:</b> It may be helpful to create a map to illustrate the coverage of a programme geographically - e.g. by colouring regions on a map.</p>
<b>5. Age of the average student or typical age-range of students</b>	<p><b>Specification:</b> What is the age of a typical student in the programme? OR: How old are the students in the programme on average?</p> <p><b>Reasoning:</b> This information can help disentangling certain vocational programmes from TVET, e.g. from training in the course of active labour market programmes. This may be an important criteria when selecting programmes.</p>
<b>6. Main function/purpose of the programme</b>	<p><b>Specification</b></p> <ul style="list-style-type: none"> <li>- Initial education and training</li> <li>- Continuing education and training</li> <li>- Labour market integration: from unemployment to employment in formal sector</li> <li>- Labour market integration: from informal to formal sector employment</li> <li>- Poverty alleviation</li> <li>- Increase share of people with formal education, formalize the education system</li> <li>- Other: specify!</li> </ul>

	<p><b>Reasoning:</b> This indicator helps to identify TVET programmes and to delineate it from other programmes, such as active labour market programmes.</p>
7. Target group of the programme	<p><b>Specification</b></p> <ul style="list-style-type: none"> <li>- Youth</li> <li>- Women</li> <li>- Disadvantaged groups (e.g. from excluded ethnicities)</li> <li>- Informal sector workers</li> <li>- Returnee migrants who have been working abroad</li> <li>- People affected by environmental disaster or war</li> <li>- Other: specify!</li> <li>- No specific target group</li> </ul> <p><b>Reasoning:</b> Same as before.</p>
8. Prior education needed to enter programme and other entry requirements	<p><b>Specification:</b> What is the type and level of education (e.g. primary education) that is needed to be able to enter the programme? If possible, please also mention the name of the degree that is needed to enter the programme.</p> <ul style="list-style-type: none"> <li>- Are there other entry requirements or maybe requirements that have to be fulfilled in addition to a completed degree? If yes, please also state these here!</li> <li>- For example, for the CQP programme in Benin, students only need to have 5 years of education (with or without degree), need to be at least 14 years old, must have worked for at least half a year in a workshop along with a master.</li> </ul> <p><b>Reasoning:</b> This indicator has several aspects. First, it helps to position a programme within the formal education system. In case of non-formal programmes, this indicator nevertheless helps to get an idea of the position of these programmes in relation to the formal education system. Second, this indicator also says something about the potential of the programme to improve the educational background of the students and thereby their labour market situation, which is one of our criteria for the selection of programmes.</p>
9. Number of curricula covered by the programme	<p><b>Specification:</b> Are there curricula for the programme? If yes, how many curricula are there? Are they available in written-form? If possible, please list all sectors and/or trades for which curricula are offered.</p> <ul style="list-style-type: none"> <li>- For which sectors and/or trades does the programme have curricula? Please specify these!</li> </ul> <p><b>Reasoning:</b> The number of curricula tells something about the importance of the programme in terms of scope. Knowing the distribution of curricula across sectors and/or trades can help to identify further programmes (e.g. by searching in sectors for that no programme has been discovered so far).</p>
10. Percentage school- and work-based training	<p><b>Specification:</b> What share of the overall time in education and training do students spend in school and what share in the workplace?</p> <p><b>Reasoning:</b> This indicator helps us understanding the nature of the programme.</p>
11. Examination at end of programme	<p><b>Specification:</b> Is there an examination that marks the end-point of the programme? Is it a formal, officially recognized exam?</p> <ul style="list-style-type: none"> <li>- If no formal examination exists, is there any other way in which the skills of the students are assessed at the end of the programme? What serves as a “standard” for the evaluation (if there is one)? Who tests the skills of the students?</li> </ul>



	<p><b>Reasoning:</b> This indicator reveals whether or not there is a curriculum for the programme setting standards for the student's skills. This is an indicator to determine the quality and degree of formality of a programme.</p>
<p><b>12. Progression routes from programme</b></p>	<p><b>Specification:</b> Does the programme allow progressing in the formal education system? What is the name of the awarded degree upon completion? If the programme does not provide access to the formal education system, does it provide access to non-formal programmes? What is the name of the programme to which it is possible to transfer?</p> <p><b>Reasoning:</b> This indicator helps understanding whether or not the programme is formal, it is effective in helping getting access to other formal programmes and to find other (formal or non-formal) programmes.</p>
<p><b>13. Accreditation of programme</b></p>	<p><b>Specification:</b> Is the programme accredited? Which body does the accreditation and what kind of body is that (independent, public, private)?</p> <p><b>Reasoning:</b> Assessing whether or not the programme is accredited by some formal body is an indicator to determine the quality and degree of formality of a programme.</p>
<p><b>14. Implementation of the programme</b></p>	<p><b>Specification:</b> Who is responsible for the implementation of the programme?</p> <p><b>Reasoning:</b> Helps identifying one of the main actors in the programme.</p>
<p><b>15. Formality of firms in which training takes place</b></p>	<p><b>Specification:</b> Does the majority of the training firms pay taxes and social security contributions for their employees?</p> <p><b>Reasoning:</b> With this indicator, we can assess the degree of formality of a programme.</p>
<p><b>16. Formality of the programme</b></p>	<p><b>Specification:</b></p> <ul style="list-style-type: none"> <li>- Is the programme structured in terms of learning objectives, learning time or learning support (from a trainer, instructor or teacher) and typically leads to a formal recognition (diploma, certificate)?</li> <li>- Does the programme entail planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support)? Does it lead to a formal degree that allows to progress within the formal education system?</li> <li>- Does education and/or training in the programme result from daily life activities related to work, family or leisure? Are these activities intentional or structured in terms of objectives, time or learning support? Does the programme lead to a formal degree?</li> </ul> <p><b>Reasoning:</b> With this indicator, we can assess the degree of formality of a programme.</p>
<p><b>17. Insert graph of sextant category programmes</b></p>	<p><b>Specification:</b> Please place the programme in the position in the sextant that you think best corresponds to its degree of formality.</p>



**Reasoning:** With this indicator, we can assess the degree of formality of a programme.

**Table A2: Country-specific asset mapping**

For the asset mapping, three main categories of programmes were identified: apprenticeship training programmes, technical and vocational education provided in secondary and higher education and professional development programmes provided by public and private institutions and organizations. The asset mapping summaries data and information on 10 programmes. It is not an exhaustive list of TVET programmes in Benin. However, it includes all programmes in secondary school, in higher education and in Benin's apprenticeship system. Data used to describe the programmes was collected from official literature. We also interviewed experts of Ministry in charge of TVET, FODEFCA and resource persons.

## Apprenticeship training programmes

In this section, three programmes are presented: informal apprenticeship, the *Certificat de Qualification aux Métiers* (CQM) and the dual *Certificat de Qualification Professionnelle* (CQP).

I. Informal apprenticeship (Apprentissage traditionnel)		
	Short title of indicator	Characteristics
1.	<b>Form of education:</b> formal, non-formal, informal	Non-formal.
2.	<b>a) Number of students enrolled in the programme</b>	The total number of apprentices was estimated in 2006 to 61,352; 61,602 in 2007 and 200,000 in 2011. In 2007 there were 74,088 firms in which 45,139 train apprentices and 28,949 graduate apprentices were poached.
	<b>b) Optional: Number of students who completed programme</b>	The total number of apprentices who completed their training in 2006 was estimated to 9,936 and 7,491 in 2007.
3.	<b>Duration of the programme</b>	The duration of the programme is not specified; it varies from 3 to 10 years depending on apprentice age, his ability to achieve skills and on the master craftsman. Apprentices work in their masters' firms 6 days per week. The training process is structured in three (3) steps: observation, skills acquisition and practice. - <b>Observation:</b> this step consists in observing the master and advanced apprentices to practise; - <b>Skills acquisition:</b> at this stage, apprentices learn on the tools used in the craftwork; - <b>Practice:</b> apprentices practise step-by-step and achieve skills to perform the training and to train new comers.
4.	<b>Geographical location/spread of the programme</b>	The 12 regions or departments of Benin
5.	<b>Age of the average student or typical age-range of students</b>	The age of the average student is not specified, the age range is from 10 to 25 years.
6.	<b>Main function/purpose of the programme</b>	The main function/purpose of the programme is to prepare apprentices to the labour market entry or integration.
7.	<b>Target group of the programme</b>	The informal apprenticeship is not addressed to any target group. However, it is noticed that youth who are trained in this programme dropped out from formal long-term education.
8.	<b>Prior education needed to enter programme and other entry requirements</b>	Generally, no prior education entry is required; however, there is verbal acceptance and written contract between the master craftsman/woman and apprentices.

9.	<b>Number of curricula covered by the programme</b>	Benin standard classification of crafts has defined 311 trades in which youth are trained. For the informal apprenticeship, there is no formal curriculum. The training contents depends on the master craftsman in the workshop.
10.	<b>Percentage school-and work-based training</b>	100% work-based training.
11.	<b>Examination at end of programme</b>	There is no evaluation test at the end of the programme. The master craftsman remains qualified person who can appreciate apprentices' skills achievement.
12.	<b>Progression routes from programme</b>	The student graduated cannot automatically progress to another degree. The programme allows apprentices to take part of CQP programme or CQM programme if the required conditions are met.
13.	<b>Accreditation of programme</b>	Not accredited
14.	<b>Implementation of the programme</b>	The master craftsman/woman
15.	<b>Formality of firms in which training takes place</b>	Masters' firms often work informality. Local administrations collect fees from them.
16.	<b>Formality of the programme</b>	There is no official recognition, but the programme receives a social legitimacy from the community.
17.	<b>Insert graph of sextant category programmes</b>	Non-formal-informal

II. Certificat de Qualification aux Métiers-CQM					
1.	<b>Form of education:</b> formal, non-formal, informal	Formal			
2.	<b>a) Number of students enrolled in the programme</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
		1,190	5,582	7,578	4,910 <sup>18</sup>

<sup>18</sup> This number is only for the first cohort CQM candidates in 2016.

	<b>b) Optional: Number of students who completed programme</b>	1,148	5,177	6,908	8,516
3.	<b>Duration of the programme</b>	The apprentice has to past at least three (3) years in the craftsman's company before taking the evaluation exam.			
4.	<b>Geographical location/spread of the programme</b>	From 2013 to 2016 the programme involved 7 regions or departments (Alibori, Atacora, Borgou, Donga, Ouémé, Plateau and Littoral). From 2017 up today, the examination of CQM covers all the 12 departments of Benin.			
5.	<b>Age of the average student or typical age-range of students</b>	The age of the average student is 16 years to access to the programme. However, the age range of apprentices we meet on masters' firms is from 10 to 25 years.			
6.	<b>Main function/purpose of the programme</b>	Give formal stamp approval to the informal apprenticeship and provide formal qualification to graduate learners.			
7.	<b>Target group of the programme</b>	Apprentices who have completed their training contract with a master craftsman/woman.			
8.	<b>Prior education needed to enter programme and other entry requirements</b>	Being in apprenticeship on a master's firm.			
9.	<b>Number of curricula covered by the programme</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
		36	49	55	49
10.	<b>Percentage school-and work-based training</b>	100% of training on master firm			
11.	<b>Examination at end of programme</b>	Yes, the evaluation exam is based on standards designed through a competence matrix in each craft occupation.			
12.	<b>Progression routes from programme</b>	The graduate students are eligible to take part of the dual apprenticeship programme.			
13.	<b>Accreditation of programme</b>	Yes			
14.	<b>Implementation of the programme</b>	The firms work in informal but they pay fees to local administrations. Many public and private institutions are involved in the implementation of the programme; there are: Ministry of Secondary Education and Technical Vocational Education and Training, Fund of continuing vocational			

		education and training development (FODEFCA) <sup>19</sup> , local administrations, Associations/unions of craftsmen, National Confederation of craftsmen of Benin <sup>20</sup> , interregional union of chambers of crafts of Benin <sup>21</sup> .
15.	<b>Formality of firms in which training takes place</b>	The master craftsman/woman must pay fees to the town council before registering his apprentices to the examination. apprentice must also supply a document for the examination.
16.	<b>Formality of the programme</b>	Almost formal, because education is non-formal and the programme is formal.
17.	<b>Insert graph of sextant category programmes</b>	Formal-informal

### III. The dual apprenticeship programme (Formation professionnelle par apprentissage de type dual-Certificat de Qualification Professionnelle-CQP)

1.	<b>Form of education:</b> formal, non-formal, informal	Formal										
2.	<b>a) Number of students enrolled in the programme</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
		NA <sup>22</sup>	NA	1,218	1,325	1,398	1,143	975	682	1,105	4,817	3,890
	<b>b) Optional: Number of students who completed programme</b>	293	301	303	474	994	734	853	682	797	853	767
3.	<b>Duration of the programme</b>	The training is structured in three (3) levels. Each of the level includes 32 weeks. Apprentices are trained in vocational training centres or technical high schools as well as in masters' firms or workplaces.										
4.	<b>Geographical location/spread of the programme</b>	The 12 regions of Benin are involved.										
5.	<b>Age of the average student or typical age-range of students</b>	- Minimal age 14 years; and 15 years according to UEMOA directives (No. 01/2014). - Maximum age is not specified.										

<sup>19</sup> Fond du développement de la formation continue et de l'apprentissage (FODEFCA)

<sup>20</sup> Confédération nationale des Artisans du Bénin

<sup>21</sup> Union Interdépartementale des Chambres de Métiers (UCIMB)

<sup>22</sup> Not-available

6.	<b>Main function/purpose of the programme</b>	Provide specific training to apprentices through an alternative training and improve masters' capacities.
7.	<b>Target group of the programme</b>	Apprentices in in informal apprenticeship.
8.	<b>Prior education needed to enter programme and other entry requirements</b>	<ul style="list-style-type: none"> <li>- Being in apprenticeship (acceptance of 6 months at least);</li> <li>- 14 years old</li> <li>- fifth grade in primary school</li> <li>- Succeed in the test of entry</li> <li>- Be beneficiary of FODEFCA scholarship</li> </ul>
9.	<b>Number of curricula covered by the programme</b>	There are 13 crafts: Hairdresser; Metallic Construction; Sewing cut; Electricity; Cold and Air Conditioning, Masonry; Car Mechanic; Motorcycle Mechanic; Wood Carpentry; Photography; Plumbing; Coating and Weaving.
10.	<b>Percentage school-and work-based training</b>	83.33% of practice (5 days on the firm) and 1 day (16.67%) in the vocational training centre).
11.	<b>Examination at end of programme</b>	Yes
12.	<b>Progression routes from programme</b>	The graduate students cannot progress to another degree.
13.	<b>Accreditation of programme</b>	Yes, the programme is accredited.
14.	<b>Implementation of the programme</b>	Ministry in charge of TVET: DETFP, DIPIQ, DEC; Ministry of Labour: FODEFCA, DGRCE; Ministry of Art: UCIMB Private actors: CNAB, masters craftsmen/women and vocational training providers.
15.	<b>Formality of firms in which training takes place</b>	Vocational training centres must be accredited by the ministry.
16.	<b>Formality of the programme</b>	Official recognition
17.	<b>Insert graph of sextant category programmes</b>	Formal-informal



## Technical and vocational programmes in formal schools

In this section, we describe the vocational education and training programmes provided by the formal education through secondary and higher schools (universities).

IV. Technical high School Cycle 1 (Enseignement Technique Secondaire Cycle 1)					
1.	<b>Form of education:</b> formal, non-formal, informal	Formal, given in the public and private high school.			
2.	<b>a) Number of students<sup>23</sup> enrolled in the programme</b>	<b>2009-2010</b>	<b>2010-2011</b>	<b>2013-2014</b>	<b>2014-2015</b>
		10,043	11,241	NA	7,084
	<b>b) Optional: Number of students who completed programme</b>	<b>2010</b>	<b>2011</b>	<b>2014</b>	<b>2015</b>
		NA	NA	5,601	NA
3. -	<b>Duration of the programme</b>	The duration depends on the training pathway. The minimum duration is 3 years and the maximum duration is 4 years for getting CEAP, BEAT certificates.			
4.	<b>Geographical location/spread of the programme</b>	The 12 regions			
5.	<b>Age of the average student or typical age-range of students</b>	The age of the average student not known. But the minimal age of students is specified by the ministry: 11 years and over to start the junior high school.			
6.	<b>Main function/purpose of the programme</b>	Prepare the students to the labour market entry or integration.			
7.	<b>Target group of the programme</b>	Students who have completed primary degree.			
8.	<b>Prior education needed to enter programme and other entry requirements</b>	<ul style="list-style-type: none"> <li>- Primary degree (CEP) + 2 years in secondary school</li> <li>- Test</li> <li>- 11 years</li> <li>- File review</li> </ul>			
9.	<b>Number of curricula covered by the programme</b>	Seven domains and 45 training pathways:			

<sup>23</sup> Data we collected here are from official literature. However, we note a lack available and / or reliable data.

		Administrative Management Science and Technology <sup>24</sup> ; Industry Science and Technology <sup>25</sup> ; Agricultural Science and Technology <sup>26</sup> ; Medical Education and Social Sciences <sup>27</sup> ; Hotel Management and Tourism Studies <sup>28</sup> ; Family and Social Studies <sup>29</sup> ; and Craft Science and Technology <sup>30</sup> .
10.	<b>Percentage school-and work-based training</b>	It depends on the training pathway. The student has to stay in an enterprise for one to three months per year. As example, students in Agricultural science and technology have to stay three months.
11.	<b>Examination at end of programme</b>	Yes
12.	<b>Progression routes from programme</b>	The graduate students can progress to another degree for the cycle 2.
13.	<b>Accreditation of programme</b>	Yes
14.	<b>Implementation of the programme</b>	Ministry of Technical Secondary Education and Technical Vocational Education and Training
15.	<b>Formality of firms in which training takes place</b>	Approved by the ministry.
16.	<b>Formality of the programme</b>	Official recognition
17.	<b>Insert graph of sextant category programmes</b>	Formal-formal Non formal-formal

## V. Technical high School Cycle 2 (Formation Technique Secondaire Cycle 2)

1.	<b>Form of education:</b> formal, non-formal, informal	Formal, given in the public and private high school.			
2.	<b>a) Number of students enrolled in the programme<sup>31</sup></b>	<b>2009-2010</b>	<b>2010-2011</b>	<b>2013-2014</b>	<b>2014-2015</b>
		31,826	42,976	NA	19,804
	<b>b) Optional: Number of students who completed programme</b>	<b>2010</b>	<b>2011</b>	<b>2014</b>	<b>2015</b>
NA		NA	NA	8,511	
3.	<b>Duration of the programme</b>	2 to 4 years (CAP, DTI, agricultural diploma (DEAT)). The duration depends on the fields of study and the stream.			

<sup>24</sup> *Sciences et Techniques Administratives et de Gestion (STAG)*

<sup>25</sup> *Sciences et Techniques Industrielles (STI)*

<sup>26</sup> *Sciences et Techniques Agricoles (STA)*

<sup>27</sup> *Sciences et Techniques Médico-sociales (STMS)*

<sup>28</sup> *Sciences Sociales Appliquées, Tourisme et Hôtellerie (SSATH)*

<sup>29</sup> *Sciences et Techniques de l'Enseignement Familial et Social (STEF)*

<sup>30</sup> *Sciences et Techniques des Métiers d'Art (STMA)*

<sup>31</sup> Data we collected here are from official literature. However, we note a lack available and / or reliable data.

4.	<b>Geographical location/spread of the programme</b>	The 12 regions
5.	<b>Age of the average student or typical age-range of students</b>	The age of the average student not known. But the minimal age of students is 14 years and over.
6.	<b>Main function/purpose of the programme</b>	Prepare the students to the labour market entry or integration.
7.	<b>Target group of the programme</b>	Students who have O-level.
8.	<b>Prior education needed to enter programme and other entry requirements</b>	- O-level (BEPC) - Test - 14 years - File review
9.	<b>Number of curricula covered by the programme</b>	Seven domains and 45 training pathways: Administrative Management Science and Technology <sup>32</sup> ; Industry Science and Technology <sup>33</sup> ; Agricultural Science and Technology <sup>34</sup> ; Medical Education and Social Sciences <sup>35</sup> ; Hotel Management and Tourism Studies <sup>36</sup> ; Family and Social Studies <sup>37</sup> ; and Craft Science and Technology <sup>38</sup> .
10.	<b>Percentage school-and work-based training</b>	The percentage of school and work-based depends on the training field: 1 to 3 months per year.
11.	<b>Examination at end of programme</b>	Yes
12.	<b>Progression routes from programme</b>	The graduate student can progress to college or university.
13.	<b>Accreditation of programme</b>	Yes
14.	<b>Implementation of the programme</b>	Ministry of Secondary Education and Technical Vocational Education and Training
15.	<b>Formality of firms in which training takes place</b>	Approved by the ministry.
16.	<b>Formality of the programme</b>	Official recognition
17.	<b>Insert graph of sextant category programmes</b>	Formal-formal Non formal-formal

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<sup>32</sup> *Sciences et Techniques Administratives et de Gestion* (STAG)

<sup>33</sup> *Sciences et Techniques Industrielles* (STI)

<sup>34</sup> *Sciences et Techniques Agricoles* (STA)

<sup>35</sup> *Sciences et Techniques Médico-sociales* (STMS)

<sup>36</sup> *Sciences Sociales Appliquées, Tourisme et Hôtellerie* (SSATH)

<sup>37</sup> *Sciences et Techniques de l'Enseignement Familial et Social* (STEFSS)

<sup>38</sup> *Sciences et Techniques des Métiers d'Art* (STMA)

VI. Higher National Diploma (Brevet de Technicien Supérieur-BTS)			
1.	Form of education: formal, non-formal, informal	Formal, given in the public and private universities of Benin	
2.	a) Number of students enrolled in the programme	<b>2013-2014</b>	<b>2014-2015</b>
		5,711	6,708
	b) Optional: Number of students who completed programme	<b>2014</b>	<b>2015</b>
		2,821	4,071
3.	Duration of the programme	The duration of the programme is two years for getting Higher National Diploma <sup>39</sup>	
4.	Geographical location/spread of the programme	The 12 regions	
5.	Age of the average student or typical age-range of students	The age of the average student is 17 years to start college or university.	
6.	Main function/purpose of the programme	Prepare students to the labour market entry or integration.	
7.	Target group of the programme	Students who have succeeded in the two levels of high school.	
8.	Prior education needed to enter programme and other entry requirements	- A-levels or Baccalaureate or equivalents	
9.	Number of curricula covered by the programme	25 curricula according to International Standards Classification of Education <sup>40</sup>	
10.	Percentage school-and work-based training	11% practice and 89% theory (3 months of practice and 24 months of theory).	
11.	Examination at end of programme	Yes	
12.	Progression routes from programme	The graduate student can progress to another degree (bachelor's degree or license) in college or university up the end of the programme.	
13.	Accreditation of programme	Yes, Ministry of Higher Education and Scientific Research	
14.	Implementation of the programme	Public and private universities	
15.	Formality of firms in which training takes place	Formal	
16.	Formality of the programme	Official recognition	
17.	Insert graph of sextant category programmes	Formal-formal	

<sup>39</sup> Brevet de Technicien Supérieur (BTS)

<sup>40</sup> Classification Internationale Type de l'Education (UNESCO 2013c)

<b>VII. Higher vocational training Cycle 1 (Formation Professionnelle Universitaire Niveau Licence)</b>			
1.	<b>Form of education:</b> formal, non-formal, informal	Formal, given in the public and private universities of Benin	
2.	<b>a) Number of students enrolled in the programme</b>	<b>2013-2014</b>	<b>2014-2015</b>
		128,758	108,142
	<b>b) Optional: Number of students who completed programme</b>	<b>2014</b>	<b>2015</b>
		6,639	3,541
3.	<b>Duration of the programme</b>	The duration of the programme is three years. Degree: License, BAPET, BAPES	
4.	<b>Geographical location/spread of the programme</b>	The 12 regions	
5.	<b>Age of the average student or typical age-range of students</b>	17 years and over to start college or university.	
6.	<b>Main function/purpose of the programme</b>	Prepare the students to the labour market entry or integration.	
7.	<b>Target group of the programme</b>	Students who have graduated in high school and those who have Higher National Diploma (BTS).	
8.	<b>Prior education needed to enter programme and other entry requirements</b>	<ul style="list-style-type: none"> <li>- A-level (Baccalaureate) or equivalent, BTS</li> <li>- Test</li> <li>- File review</li> </ul>	
9.	<b>Number of curricula covered by the programme</b>	25 curricula	
10.	<b>Percentage school-and work-based training</b>	11% practice and 89% theory (Three months of practice and Twenty-four months of theory).	
11.	<b>Examination at end of programme</b>	Yes	
12.	<b>Progression routes from programme</b>	The student graduated can progress to another degree at the college or University until the end of the programme.	
13.	<b>Accreditation of programme</b>	Yes, Ministry of Higher Education and Scientific Research	
14.	<b>Implementation of the programme</b>	Public and private universities	
15.	<b>Formality of firms in which training takes place</b>	Formal	
16.	<b>Formality of the programme</b>	Official recognition	
17.	<b>Insert graph of sextant category programmes</b>	Formal-formal	

<b>VIII. Higher vocational training Cycle 2 (Formation Professionnelle Universitaire Niveau Master)</b>			
<b>1.</b>	<b>Form of education:</b> formal, non-formal, informal	Formal, given in the public and private universities of Benin	
<b>2.</b>	<b>a) Number of students enrolled in the programme</b>	<b>2013-2014</b>	<b>2014-2015</b>
		19,480	21174
	<b>b) Optional: Number of students who completed programme</b>	<b>2014</b>	<b>2015</b>
		1,722	1,137
<b>3.</b>	<b>Duration of the programme</b>	The duration of the programme is from two (2) to eight (8) years and depends on the field of training. Degree: Master, CAPES, CAPET, Engineer	
<b>4.</b>	<b>Geographical location/spread of the programme</b>	The 12 regions	
<b>5.</b>	<b>Age of the average student or typical age-range of students</b>	20 years and over.	
<b>6.</b>	<b>Main function/purpose of the programme</b>	Prepare the students to the labour market entry or integration.	
<b>7.</b>	<b>Target group of the programme</b>	Students who have completed high school.	
<b>8.</b>	<b>Prior education needed to enter programme and other entry requirements</b>	- Licence or equivalent - Test - File review	
<b>9.</b>	<b>Number of curricula covered by the programme</b>	25 curricula	
<b>10.</b>	<b>Percentage school-and work-based training</b>	11% practice and 89% theory (Three months of practice and Twenty-four months of theory).	
<b>11.</b>	<b>Examination at end of programme</b>	Yes	
<b>12.</b>	<b>Progression routes from programme</b>	The graduate student can progress to postgraduate degree depending on the training pathway.	
<b>13.</b>	<b>Accreditation of programme</b>	Yes, Ministry of Higher Education and Scientific Research	
<b>14.</b>	<b>Implementation of the programme</b>	Public and private universities	
<b>15.</b>	<b>Formality of firms in which training takes place</b>	Formal	
<b>16.</b>	<b>Formality of the programme</b>	Official recognition	
<b>17.</b>	<b>Insert graph of sextant category programmes</b>	Formal-formal	

## Professional development programmes

In this section, we provide examples of two programmes given by private and public organizations to staff of administrations and youth people. The first example from public organization is INSAE training programme; the second example is from private organization, *Centre de formation Songhai*.

IX. Programme de Perfectionnement et de Formation Continue : INSAE		
1.	<b>Form of education:</b> formal, non-formal, informal	Non-formal
2.	<b>a) Number of students enrolled in the programme</b>	Not available
	<b>b) Optional: Number of students who completed programme</b>	Not available
3.	<b>Duration of the programme</b>	1 to 2 years
4.	<b>Geographical location/spread of the programme</b>	One department (Littoral/Cotonou)
5.	<b>Age of the average student or typical age-range of students</b>	18-25 age for A level graduate Under 40 years of age for Public Sector Agents (APE)
6.	<b>Main function/purpose of the programme</b>	Train statistic and economic experts
7.	<b>Target group of the programme</b>	Graduate students A level; And Public sector Agents <sup>41</sup>
8.	<b>Prior education needed to enter programme and other entry requirements</b>	- For <b>Pathway 1</b> : the candidate is APE, has already achieved at least 5 years in workplace his occupation. The age of the student is under 40 years. He/she must be successful to the test of entry. - <b>Pathway 2</b> : A levels or baccalaureate ("bac C", "bac D" et "bac E"), the age-range is 18-25 and the admission to test of entry.
9.	<b>Number of curricula covered by the programme</b>	1 curriculum: Statistic Sciences with 30 courses.
10.	<b>Percentage school-and work-based training</b>	33% practice
11.	<b>Examination at end of programme</b>	Yes

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<sup>41</sup> Agents Permanents de l'Etat

12.	<b>Progression routes from programme</b>	No, but for APE, the programme allows them to progress in their profession the graduation of this programme.
13.	<b>Accreditation of programme</b>	Yes
14.	<b>Implementation of the programme</b>	Ministry of Plan
15.	<b>Formality of firms in which training takes place</b>	Formal
16.	<b>Formality of the programme</b>	Official recognition
17.	<b>Insert graph of sextant category programmes</b>	Non-formal - formal

#### X. Programme de Perfectionnement et de Formation Continue : CENTRE SONGHAÏ

1.	<b>Form of education:</b> formal, non-formal, informal	Non-formal
2.	<b>a) Number of students enrolled in the programme</b>	Not available
	<b>b) Optional: Number of students who completed programme</b>	About 1,500 trainees from this programme and work as self-employed (entrepreneurs)
3.	<b>Duration of the programme</b>	1 to 3 years
4.	<b>Geographical location/spread of the programme</b>	Porto-Novo, Savalou, Parakou and Lokossa-Kinwédji.
5.	<b>Age of the average student or typical age-range of students</b>	There is no age to enter in the programme.
6.	<b>Main function/purpose of the programme</b>	The main purpose is to train youth and adults in agricultural technology and entrepreneurship
7.	<b>Target group of the programme</b>	Youth and adults who want to work in agriculture
8.	<b>Prior education needed to enter programme and other entry requirements</b>	- Application to the programme - Test
9.	<b>Number of curricula covered by the programme</b>	Songhaï trains only in agriculture in 7 training subject: " <i>Filière Végétale</i> "; " <i>Filière Animale</i> "; " <i>Pisciculture</i> "; " <i>Transformation Artisanale (alimentaire et cosmétique)</i> "; " <i>Filière Energie Renouvelable</i> "; " <i>Nouvelles Technologies</i> " and " <i>Transformation Agroalimentaire</i> ".
10.	<b>Percentage school-and work-based training</b>	Not specified



<b>11.</b>	<b>Examination at end of programme</b>	Yes
<b>12.</b>	<b>Progression routes from programme</b>	The students cannot progress to another degree
<b>13.</b>	<b>Accreditation of programme</b>	No, but Songhaï sometimes receives financial supports from the government to training youth people.
<b>14.</b>	<b>Implementation of the programme</b>	The Songhaï centres are located in 4 regions of Benin (Ouémé, Collinnes, Borgou and Mono) in which people are trained.
<b>15.</b>	<b>Formality of firms in which training takes place</b>	Formal
<b>16.</b>	<b>Formality of the programme</b>	There is no official certification or diploma.
<b>17.</b>	<b>Insert graph of sextant category programmes</b>	Non-formal - formal

## Appendix B. Expert Interviews in Benin

**Table B1: List of individual attributes of experts of the TVET system and their institutional affiliation for the formal and informal sector**

Thematic field	Formal sector	Informal sector
<b>Government</b>	<ul style="list-style-type: none"> <li>• High-ranking/key officials who work directly on TVET...               <ul style="list-style-type: none"> <li>➢ In all relevant ministries,</li> <li>➢ At all levels where TVET is administered</li> </ul> </li> <li>• Institution of expert has to be large enough to be representative for its “thematic field”</li> </ul>	n.a.
	<p><b>Examples:</b> Ministry of Education, Ministry of Labour</p>	
<b>Intermediaries</b>	<ul style="list-style-type: none"> <li>• High-ranking/key individuals who work directly on TVET...               <ul style="list-style-type: none"> <li>➢ In bodies filling all roles played by the private sector in TVET</li> <li>➢ In bodies representing important sectors of the economy</li> <li>➢ In organizations representing employees interests</li> </ul> </li> <li>• Institution of expert has to be large enough to be representative for its “thematic field”</li> </ul> <p><b>Examples:</b> Chambers of commerce (of a certain sector), trade associations, clusters of companies</p> <ul style="list-style-type: none"> <li>➢ e.g. the Chambres de Métiers Régionales (CMR) or the Confédération Nationale des Artisans du Bénin (CNAB) in Benin, or the UCCAEP in Costa Rica</li> <li>➢ Unions, other kinds of employee representatives</li> </ul>	<ul style="list-style-type: none"> <li>• High-ranking/key individuals who work directly on TVET...               <ul style="list-style-type: none"> <li>➢ In bodies filling all roles played by the private sector in TVET</li> <li>➢ In bodies representing important sectors of the economy</li> </ul> </li> <li>• (Social) institution of expert has to be large enough to be representative for its “thematic field”</li> </ul> <p><b>Examples:</b> Chambers of commerce (of a certain sector), trade associations</p> <ul style="list-style-type: none"> <li>➢ e.g. the Chambres de Métiers Régionales (CMR) or the Confédération Nationale des Artisans du Bénin (CNAB) in Benin, or the UCCAEP in Costa Rica</li> <li>➢ Important leaders, such as clan chefs</li> </ul>
<b>Researchers</b>	<ul style="list-style-type: none"> <li>• Senior scholars who work directly on TVET...               <ul style="list-style-type: none"> <li>➢ With advanced degrees in relevant fields,</li> <li>➢ With demonstrable history of research on TVET,</li> <li>➢ In all research institutes dealing with TVET</li> </ul> </li> </ul> <p><b>Examples:</b> Universities, private research institutes, NGOs</p>	

<p><b>Non-governmental institutions or Institutions composed of actors from two or more of the above categories</b></p>	<ul style="list-style-type: none"> <li>• High-ranking/key individuals who work directly on TVET...</li> </ul> <p><b>Examples:</b> Educación 2020 in Chile; Instituto Nacional de Aprendizaje (INA) in Costa Rica</p>	<ul style="list-style-type: none"> <li>• High-ranking/key individuals (who work directly on TVET or are important for the TVET sector)</li> </ul> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>➤ Foreign development aid agencies as for example SDC and others in Nepal</li> <li>➤ Clans, guilds</li> </ul>
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Source: Extension of Table 3.2. in Renold et al (2016), p. 18.

## Appendix C: Tables from Case Studies Benin

Table C1: Dispatching of vocational training centres

Department or region	Craft	Public	Private	Total
Atacora	Sewing cut ( <i>Coupe couture</i> )	1	1	2
	Hairdresser ( <i>Coiffure</i> )	0	2	2
	Electricity ( <i>Electricité</i> )	0	1	1
	Masonry ( <i>Maçonnerie</i> )	0	1	1
	Metalic construction ( <i>Soudure</i> )	0	1	1
	<b>Total Atacora</b>	<b>1</b>	<b>6</b>	<b>7</b>
Donga	Sewing cut ( <i>Couture</i> )	1	0	1
	Hairdresser ( <i>Coiffure</i> )	0	1	1
	Masonry ( <i>Maçonnerie</i> )	1	0	1
	Motorbike mechanic ( <i>Mécanique deux roues</i> )	1	0	1
	Car mechanic ( <i>Mécanique auto</i> )	1	0	1
	Wood carpentry ( <i>Menuiserie bois</i> )	1	0	1
	Metalic construction ( <i>Soudure</i> )	1	0	1
	Weaving ( <i>Tissage</i> )	0	1	1
<b>Total Donga</b>	<b>6</b>	<b>2</b>	<b>8</b>	
Atlantique	Sewing cut ( <i>Coupe couture</i> )	1	1	2
	Electricity ( <i>Electricité</i> )	1	0	1
	Masonry ( <i>Maçonnerie</i> )	0	1	1
	Metalic construction ( <i>Soudure</i> )	1	0	1
	Autres	0	2	2
	Cold and air conditioning ( <i>Froid climatisation</i> )	1	0	1
	Plumbing ( <i>Plomberie</i> )	1	0	1
	<b>Total Atlantique</b>	<b>5</b>	<b>4</b>	<b>9</b>
Littoral	Sewing cut ( <i>Coupe couture</i> )	1	1	2
	Hairdresser ( <i>Coiffure</i> )	0	1	1
	Electricity ( <i>Electricité</i> )	1	0	1
	Autres	0	2	2
	Coating ( <i>Revêtement</i> )	1	0	1
	<b>Total Littoral</b>	<b>3</b>	<b>4</b>	<b>7</b>
Borgou	Sewing cut ( <i>Coupe couture</i> )	1	3	4
	Hairdresser ( <i>Coiffure</i> )	1	3	4
	Masonry ( <i>Maçonnerie</i> )	1	0	1
	Motorbike mechanic ( <i>Mécanique deux roues</i> )	2	0	2
	Car mechanic ( <i>Mécanique auto</i> )	1	0	1
	Metalic construction ( <i>Soudure</i> )	1	0	1

	Weaving ( <i>Tissage</i> )	1	1	2
	Autres	0	1	1
	<b>Total Borgou</b>	<b>8</b>	<b>8</b>	<b>16</b>
<b>Alibori</b>	Motorbike mechanic ( <i>Mécanique deux roues</i> )	0	1	1
	Autres	0	1	1
	<b>Total Alibori</b>	<b>0</b>	<b>2</b>	<b>2</b>
<b>Mono</b>	Sewing cut ( <i>Coupe couture</i> )	1	4	5
	Hairdresser ( <i>Coiffure</i> )	0	2	2
	Wood carpentry ( <i>Menuiserie</i> )	1	0	1
	Metalic construction ( <i>Soudure</i> )	1	0	1
	Autres	1	0	1
	<b>Total Mono</b>	<b>4</b>	<b>6</b>	<b>10</b>
<b>Couffo</b>	Sewing cut ( <i>Coupe couture</i> )	1	1	2
	Hairdresser ( <i>Coiffure</i> )	1	1	2
	Electricity ( <i>Electricité</i> )	1	0	1
	Masonry ( <i>Maçonnerie</i> )	1	0	1
	Car mechanic ( <i>Mécanique auto</i> )	0	1	1
	Wood carpentry ( <i>Menuiserie</i> )	1	0	1
	Metalic construction ( <i>Soudure</i> )	1	2	3
	<b>Total Couffo</b>	<b>6</b>	<b>5</b>	<b>11</b>
<b>Ouémé</b>	Sewing cut ( <i>Coupe couture</i> )	0	2	2
	Hairdresser ( <i>Coiffure</i> )	0	2	2
	Car mechanic ( <i>Mécanique auto</i> )	0	1	1
	Wood carpentry ( <i>Menuiserie</i> )	1	1	2
	Weaving ( <i>Tissage</i> )	0	1	1
	Autres	1	2	3
	Plumbing ( <i>Plomberie</i> )	1	0	1
	Photography ( <i>Photographie</i> )	0	2	2
<b>Total Ouémé</b>	<b>3</b>	<b>11</b>	<b>14</b>	
<b>Plateau</b>	Sewing cut ( <i>Coupe couture</i> )	0	1	1
	Hairdresser ( <i>Coiffure</i> )	1	0	1
	Electricity ( <i>Electricité</i> )	1	0	1
	Masonry ( <i>Maçonnerie</i> )	1	0	1
	Motorbike mechanic ( <i>Mécanique deux roues</i> )	1	0	1
	<b>Total Plateau</b>	<b>4</b>	<b>1</b>	<b>5</b>
<b>Zou</b>	Sewing cut ( <i>Coupe couture</i> )	2	0	2
	Masonry ( <i>Maçonnerie</i> )	1	1	2
	Motorbike mechanic ( <i>Mécanique deux roues</i> )	1	2	3
	Car mechanic	2	0	2

	<i>(Mécanique auto)</i>			
	Wood carpentry <i>(Menuiserie bois)</i>	2	2	4
	Metalic construction <i>(Soudure)</i>	1	1	2
	Weaving <i>(Tissage)</i>	1	0	1
	Technique of agricultural production <i>(Technique de Transformation Agricole)</i>	0	1	1
	Autres	0	2	2
	Photography <i>(Photographie)</i>	1	0	1
	<b>Total Zou</b>	<b>11</b>	<b>9</b>	<b>20</b>
<b>Collines</b>	Sewing cut <i>(Coupe couture)</i>	0	1	1
	Hairdresser <i>(Coiffure)</i>	0	1	1
	<b>Total Collines</b>	<b>0</b>	<b>2</b>	<b>2</b>
<b>Total Benin</b>		<b>51</b>	<b>60</b>	<b>111</b>

Source : Data from MESTFP (2016: 158-160).

**Table C2: Evolution of apprentices borne by FODFCA from 2007 to 2014.**

Year	Enrolment for the test	Assessment test takers	Admission (10/20)	Borne by FODEFCA	Donors	Borne by other organizations	Students abandoned
2007	1840	1740	1218	1218	DANIDA	-	0
2008	3069	2204	1325	1325	DANIDA	-	0
2009	3690	2656	1468	1398	DANIDA	-	70
2010	4910	3326	1719	1143	DANIDA	-	636
2011	3935	3021	1932	1341	DANIDA	-	591
2012	5035	4135	2852	975	National budget and financial support by BUPDOS	50 apprentices borne at Houéyogbé	1877
2013	4435	3493	1583	1109	National budget and PAFPAA project	299 apprentices borne in the regions of Borgou and Alibori	474
2014	6669	6669	4817	4817	PAFPAA and PEJ projects	-	0
TOTAL	33583	27254	16974	13326	-	-	3648
Percentage (%)		100%	62%	79%	-	-	21%

Source: Ferland (2016: 195), MESFTPRIJ (2016).

**Table C3: Contents of the dual training**

Trades	Specific Lectures	Transversals subjects or lectures
Froid et climatisation	Technologie Travaux pratiques	Mathématique appliquée  Français  Gestion de l'entreprise
Menuiserie bois	Technologie Travaux pratiques	
Plomberie	Technologie Dessin Schéma Travaux pratiques	
Coiffure	Technologie Schéma coupe couture Travaux pratiques	
Coupe couture	Technologie Traçage Travaux pratiques	

Source: interview with Mrs. Paulette, CQP graduate, September 2018.

**Table C4: Number of lectures per craft**

N°	Crafts	Number of lectures
1.	Motorbike mechanic ( <i>Mécanique deux roues</i> )	10
2.	Hairdresser ( <i>coiffeur</i> )	13
3.	sewing cut ( <i>coupe couture</i> )	12
4.	cold and air conditioning ( <i>froid et climatisation</i> )	10
5.	wood carpentry ( <i>menuiserie bois</i> )	108
6.	weaving ( <i>tissage</i> )	03
7.	metallic construction ( <i>construction métallique</i> )	08
8.	Masonry ( <i>Maçonnerie</i> )	Curricula in revision by DACUM method
9.	electricity ( <i>Electricité-bâtiment</i> )	
10.	coating ( <i>revêtement</i> )	
11.	Photography ( <i>Photographie</i> )	05
12.	Car mechanic ( <i>mécanique auto</i> )	05
13.	Plumbing ( <i>Plomberie</i> )	07

Source: David-Gnahoui and Ahouangnivo (2017a: 15).



**Table C5: Craft occupations involved in the dual apprenticeship in Benin**

N°	Classification of crafts	Introduction year	Revision period
1.	Motorcycle mechanic	2003	2017
2.	Hairdresser	2003	2017
3.	Sewing cut	2003	2017
4.	Cold and air conditioning	2004	2017
5.	Wood carpentry	2004	2017
6.	Weaving	2005	2017
7.	Metallic construction	2006	2017
8.	Masonry	2006	Revising
9.	Electricity	2006	
10.	Coating	2006	
11.	Photography	2007	
12.	Car mechanic	2007	
13.	Plumbing	2008	2007

Source: David-Gnahoui (2017b); Swisscontact (2017).

**Table C6: Examples of specific subjects offered in *Lycee technique agricole***

Subject areas	Lectures
Production animale	Zootechnique spéciale
	Pathologie et hygiène and inspection des Denrées alimentaires d'origine animal
Production végétale	Agriculture spéciale
	Horticulture
	Protection des végétaux
Foresterie	Sylviculture
	Dendrométrie

Source: David-Gnahoui (2017b); Swisscontact (2017).

**Tableau C7: Allocation of public technical high schools in Benin**

Regions	Cities	Technical High Schools
Alibori	Kandi	Lycée Technique Commercial et Industriel de Kandi
	Banikoara	Lycée Technique Agro-pastoral de Banikoara
Atacora	Natitingou	Lycée Technique de Natitingou
	Natitingou	Lycée Technique Agricole de Natitingou
Atlantique	Ouidah	Lycée Technique de Ouidah
	Sékou	Lycée Technique Agricole de Sékou
Borgou	Bèmbèrèkè	Lycée Technique d'Ina
	Bèmbèrèkè	Lycée Technique Agricole d'Ina
	Parakou	Lycée Technique Agricole de Kika
	Parakou	Ecole de Formation Médico-Social
Collines	Savalou	Lycée Technique Agro-pastoral

Couffo	Klouékanmè	Lycée Technique Agro-pastoral d'Adjahonmè
Donga	Djougou	Lycée Technique Agro-pastoral
	Djougou	Lycée Technique Commercial et Industriel
Littoral	Cotonou	Lycée Technique Coulibaly
	Cotonou	Lycée Technique d'Enseignement Social et Familial
	Cotonou	Lycée Technique et Professionnel de Kpondéhou
Mono	Comé	Lycée Technique Agricole d'Akodeha
	Lokossa	Lycée technique Industriel et Tertiaire de Lokossa
Ouémé	Porto-Novo	Lycée Technique Commercial de Porto-Novo
	Porto-Novo	Lycée technique Industriel de Porto-Novo
Plateau	Pobè	Lycée Technique de Pobè
	Adja-Ouèrè	Lycée Technique Agricole d'Adja Ouèrè
Zou	Bohicon	Lycée Technique de Bohicon

Source: Data from MESTFP (2016).