

Competency-based approach to technical and vocational education and training in Africa.

Country report: Rwanda

Published in 2020 by:

IIEP-UNESCO Dakar
Almadies - Route de Ngor
BP 3311 Dakar – Senegal
Tel. : + 221 33 820 57 56
<https://dakar.iiep.unesco.org>

IFEF
Pointe des Almadies
Dakar, Senegal
+221 33 859 22 58
<https://ifef.francophonie.org>

Attribution:

Competency-based approach to technical and vocational education and training in Africa. Studies covering 7 African countries: Benin, Ethiopia, Ghana, Morocco, Rwanda, Senegal and South Africa. Country report: Rwanda IFEF, IIEP-UNESCO Dakar, 2020.



ShareAlike

Non-commercial use

No Derivative Works

You are free to share, reproduce, distribute and communicate the work.

According to the following conditions:

- Attribution — You must attribute the work in the manner specified by the author of the work of the copyright holder.
- Non-commercial use — You do not have the right to use this work for commercial purposes.
- Non derivative works — You do not have the right to remix, transform or build upon this work.

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of IFEF, UNESCO or IIEP concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The ideas and opinions expressed in this publication are those of the authors and do not necessarily reflect the views of IFEF, UNESCO or IIEP.

TABLE OF CONTENTS

Executive Summary	5
Abbreviations	7
1. Background.....	8
1.1 STUDY OBJECTIVES	8
1.2 METHODOLOGY.....	8
1.3 LIMITATIONS OF THE COUNTRY MISSION.....	8
2. Analysis.....	9
2.1 HISTORY AND INSTITUTIONAL CONTEXT OF CBT INTRODUCTION.....	9
2.2 PROCESSES OF JOB AND ECONOMIC POTENTIAL ANALYSIS IN THE COUNTRY	9
2.3 DEVELOPMENT OF WSA, OCFs, TRAINING AND ASSESSMENT.....	11
2.4 EXTENT OF IMPLEMENTATION OF CURRICULA IN ACCORDANCE WITH THE CBT APPROACH	12
Financing	12
2.5 TRAINING TRAINERS ON CBT TEACHING METHODOLOGY.....	13
2.6 DEVELOPMENT OF OCCUPATIONAL CERTIFICATION FRAMEWORKS.....	13
2.7 IMPACT OF CBT APPROACH ON THE QUALITY OF TVET.....	14
Public private partnership	14
3. Conclusion	15
DECENTRALISE.....	15
COMMUNICATE	15
DEVELOP PARTNERSHIPS	15
TRAIN, EQUIP AND PAY TRAINERS BETTER	16
ANNEX 1 - Interview Guidelines	17
ANNEX 2 - List of persons/entities contacted/met	23

EXECUTIVE SUMMARY

Thanks to the reconstruction initiated after the genocide of 1994, the Rwandan economy achieved a substantial growth: 7.5 % in 2018 and 7.8 % in 2019 (World Bank's forecasts). This economic "miracle" is the result of many factors, i.e.: a political stability guaranteed by the successive elections of president Paul Kagame, a low corruption index, a high school enrolment rate and, primarily, the political will of Rwandans to lift themselves out of poverty while working for the common good.

Between 75% and 85% of the population live and work in rural areas. The last decade saw an increase in agricultural yield thanks to the development of monocultures (mainly corn, rice, coffee and tea). Agricultural exports have grown fourfold between 2007 and 2016. For Rwanda to become a middle-income country by 2024 and a high-income country by 2050, the government is backing up those ambitions by transforming a rural economy into a knowledge-based economy and by developing industry and services. This economic strategy factors in the country's strong demographic growth: by 2050 Rwanda's population is set to double and exceed 20 million (against 12 million people today).

Youth is the economic future of the country: 3 inhabitants out of 5 are less than 25 years of age. To address the challenge of their employment prospects, government designed two strategies, i.e.: A National Strategy for Transformation and a policy to transform technical and vocational education and training (TVET).

These strategies are expected, on the one hand, to enable the economy to create 1.5 million jobs (214,000 every year) and, on the other hand, to enable the vocational training system to take in 60% in 2019 (and 80% by 2024) of the pupils completing their basic education (after 9 years of schooling). Coherence between vocational training offer and the needs of the economy is being ensured by the Labour Market Information System. Thanks to that coherence, it is expected that by 2024 the employability rate of those who graduate from vocational training centres (VTC) would reach 80%.

Placed under the authority of the ministry for education (MINEDUC), vocational training is run by two entities, i.e.: The Workforce Development Authority (WDA) which validates and oversees the quality of vocational training, and the Rwanda Polytechnic (RP) which is in charge of implementing TVET.

To meet the labour market demand in terms of qualifications, Rwanda has set itself the aim of increasing the percentage of students enrolled in TVET from **31.1 % in 2017 to 60 % in 2024**.

Since 2015, some 146 vocational training curricula were developed or revised using the competency-based approach (CBT), a teaching method that was officially adopted by the MINEDUC which has authority over vocational education. The updated curricula were reintroduced as from academic year 2015-2016. In September 2019, CBT was extended to all sectors up to level 5 of the national certification framework. The remaining two levels (6 and 7) of TVET will be launched in 2020. The main tools of a CBT (work situation analysis (WSA), occupation competencies frameworks (OCF), training frameworks, evaluation frameworks and teaching material guide) are all available. The missing teaching guide and aids, for trainers and trainees, will be developed eventually.

Trainers take part, gradually, in three training packages, namely:

- a technical upgrading module which reflects the requirements of the new curricula (these require a practical knowledge that is much more important than for previous curricula which were mostly theoretical in nature);

- a CBT-specific teaching methodology; and
- in-company apprenticeship.

As things stand today, out of 4,499 trainers employed by TVET in 2019 (they were just 912 in 2010), 1,600 of them were trained with the support of Korean cooperation on all three modules mentioned above.

In 2019, 97,144 youths (56% males and 44% females) were enrolled in 360 private or public VTCs covering 12 economic sectors. In 2010, they were just 53,753 students.

To ensure a coherent education and training pathway for these youths, MINEDUC adopted an education qualification framework (*Rwanda Education Qualification Framework*) consisting of 10 diploma levels. The first 9 years of schooling correspond to levels 1 and 2. TVET issue diplomas from level 3 (starting from 9 years of schooling) to level 7 (equivalent to a bachelor of arts). This framework serves to forge bridges between the various levels to enable young people to continue their studies. In fact, the six vocational training centres visited for the purpose of this study stated that 60% of the students joined the centres after having completed level 5 (12 years of schooling or the equivalent of a general certificate of secondary education).

It is too early to determine the external impact of the introduction of CBT in Rwanda as the majority of cohorts will start graduating only in June 2020. Rwandan authorities are striving to improve the employment rate of TVET graduates by increasing it from 70% in 2016 to 86.2% in 2024, thanks mostly to CBT.

The TVET system is governed and steered by the State (WDA and RP). Economic and business operators contribute in three levels, namely:

- the *Rwanda Development Board* (employers federation) assesses labour needs and their projections;
- the 13 *Sector Skills Councils* refer the skills needed in every sector and contribute to the compilation of work situation analyses (WSA) and to occupation competencies frameworks (OCFs), which are cornerstones of the CBT process; and
- companies take in students in their initial training and teachers for their in-service training.

In conclusion, the generalisation of CBT across Rwanda is the result of a strong will and of a clear economic vision. Whilst the process has just been started, the resources allocated to TVET (15% of MINEDUC's budget) and the coordination of technical and financial partners (TFP) around this vision allowed for the decisive launch of several projects such as the establishment of a partnership with representatives of economic operators, the design of curricula, the building and equipment of training centres, and the training of trainers.

ABBREVIATIONS

CBT	Competency-based training
GIZ	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i> (German Cooperation agency)
ICT	Information and Communication Technologies
IFEF	<i>Institut de la francophonie pour l'éducation et la formation</i>
IIEP	International Institute for Educational Planning (UNESCO)
IPRC	Integrated Polytechnic Regional College
MINEDUC	Ministry for Education
RDB	Rwanda Development Board
RP	Rwanda Polytechnic
RTTI	Rwandan TVET Trainer Institute
TFP	Technical and Financial Partners
TVET	Technical and Vocational Education and Training
WDA	Workforce Development Authority
WSA	Work situation analysis
UNESCO	United Nations Educational, Scientific and Cultural Organization

1. BACKGROUND

1.1 Study objectives

IIEP-UNESCO Dakar and *Institut de la Francophonie pour l'éducation et la formation* (IFEFF) wished to find out how CBT was customized, how curricula were adjusted and made CBT-compliant and what positive practices were taken to sustain the competency-based training approach. To that effect, they conducted a joint study to find out how competency-based training (CBT) approach is customized and adapted in 7 African countries, 4 of which are members of the OIF (i.e., Benin, Morocco, Rwanda and Senegal) and the other 3 are non-francophone countries (i.e., Ethiopia, Ghana and South Africa). The study focuses on non-francophone African countries who apply a modular CBT, the certification of which is validated by companies.

The aim of the study is, firstly, to identify good practices and explore how those practices can be used in other contexts/countries to enhance the performance of the CBT approach in their TVET systems and, secondly, to identify the challenges that emerged when the CBT approach was introduced and/or sustained. The identification of positive or negative tipping points when implementing the CBT approach is carefully looked into in order to take stock of the lessons learned. Based on the findings drawn from the implementation of CBT in those 7 countries, the study put forward recommendations on the best ways to adapt CBT to the specificities of African countries.

1.2 Methodology

An initial planning and guidance work was completed in November 2018, thus enabling the fine-tuning of the terms of reference (ToR) of the study, streamlining the conceptual views and practices of the team members, defining precisely the scope and goals of the study and developing the tools used for data collection. That was followed in January 2019 by a joint workshop where tools were compared and preliminary outcomes from the two country missions carried out in Morocco and Senegal were compared. Held with the participation of consultants and representatives from UNESCO and IFEFF, the workshop served to finalize the tools and enhance functional linkages between members of the team while seeking synergies. The mixed pool of experts that contributed to this study was most valuable for the various methodological approaches and, in particular, for understanding the qualitative and cultural dimensions of assessment and for the analysis and interpretation of the data collected.

1.3 Limitations of the country mission

The main challenges that the country mission faced were:

- The scarce availability of stakeholders: the large number of activities to which they were invited at the same time made it difficult for them to attend all of them;
- Frequent changes made to the work schedule, even though contact was established and planning was completed two weeks before the launch of the mission, in addition to the excellent collaboration extended by the focal point at Rwanda Polytechnic (RP);
- The long time it routinely took to confirm attendance of events;
- The wide range of stakeholders that had to be met with to secure the triangulation of data, as they come from various ministries and entities.

2. ANALYSIS

2.1 History and institutional context of CBT introduction

Vocational training is part of Rwandan Government's economic development strategy which aims at developing industrialisation and a knowledge-based economy so that Rwanda becomes a high-income country by 2050. One of the key points in that strategy is to encourage self-entrepreneurship in order to absorb the increasing number of youths entering the labour market, knowing that industrialisation and gearing the economy towards sectors that yield high added value require much more time.

This strategy is also the result of discussions held in the aftermath of the 1994 genocide. Improving the quality of education and standard of living was included in the key guidelines of Government's Vision for 2050. The focus is on the need to develop skills to foster the emergence of a knowledge-based economy and a gradual industrialisation of the country. To achieve that, access to education then to vocational and technical training was strengthened and that enabled TVET to double the number of learners between 2010 (51,773) and 2018 (102,463). As for vocational training centres, there were 63 in 2010 and 360 in 2018.

In its technical and vocational education and training policy of April 2008, the ministry¹ for education (MINEDUC) adopted the CBT approach with the aim of adjusting vocational training offer to match the needs of the labour market. The 2015 TVET policy document² endorsed the suitability of CBT in support of social and economic development.

MINEDUC set up a Workforce Development Authority (WDA) totally dedicated to TVET. Its mission, up to 2018, was to develop the Rwandan methodological framework for CBT, design the vocational training offer and oversee its quality, and implement the TVET policy. To that end, WDA organised a partnership between the government and companies for the purpose of identifying skill requirements and validate OCFs.

International cooperation, especially Belgian cooperation, supported those policies and helped WDA to customize the CBT approach to Rwanda. Currently, external assistance falls under that framework. As from 2019, Rwanda Polytechnic took over the implementation of TVET; the design, implementation, assessment and revision (every 5 years) of curricula all fall under its remit. WDA is in charge of quality assurance of the entire TVET process.

2.2 Processes of job and economic potential analysis in the country

With an economic growth of 7.2 % in 2018 and of 6.1 % in 2019³ (expected to reach 8 % in 2020), Rwanda's economy is quoted as an example in all economic journals. This growth is sustained by the services (4.1%) and manufacturing (1.5%) sectors. Long-term structural and in-depth reforms, together with a "Made in Rwanda" policy to promote exports, support a dynamic growth. Good governance and a cautious recourse to borrowing attract foreign investors in the services and manufacturing industries.

Rwanda designed two strategies for economic development and poverty reduction covering the periods 2008-2012 and 2015-2018. They are meant to support Government's efforts to achieve its Vision 2020. The 2018-2021 National Strategy for Transformation aims at continuing social, economic and political reforms. It also empowers the private sector to speed up growth. In addition to

¹ Technical and vocational education training (TVET) policy in Rwanda, MINEDUC, April 2008.

² TVET Policy, MINEDUC, July 2015.

³ See African Development Bank's website: afdb.org/fr/countries/east-africa/rwanda/rwanda-economic-outlook

incentives to foster investment and access to ICT, the development of human resources is a critical feature in the current strategy.

DISTRIBUTION OF ECONOMIC SECTORS IN % OF TOTAL EMPLOYMENT, GDP AND ADDED VALUE

Distribution of economic activity by sector	Agriculture	Manufacturing	Services
As a % of total employment	65.7	8.3	25.3
As a % of GDP	31	15.8	46.4
Added value (annual growth in %)	6.6	4.2	7.1

Rwanda exports coffee, tea, animal skins and tin ore. ICT, tourism (especially ecotourism) and energy (methane mining project in Lake Kivu) sectors are in full development. The sectors of agriculture (reformed for more productivity and specialisation), crafts industry and services, building and civil engineering, absorb around 90% in terms of employment.

To address these challenges, private sector operators organised themselves in the Rwanda Development Board (RDB) to better target their investments and anticipate employment needs. Once RDB studies are completed and disseminated, 13 committees representing as many economic sectors – *Sectors Skills Councils* – identify the needs in terms of skills (levels and quantities).

Experts from the 13 committees are invited by WDA then by RP to contribute to WSA and to validate the DACUM charter (occupation competencies frameworks - OCF).

TVET STUDENT ENROLMENT BY ECONOMIC SECTOR IN 2018

Trade	Sector	Number			Percentage
		Males	Females	Total	
Construction and related services	Services	25,430	5,729	31,159	33.6 %
Technical services (mechanical, electronic, etc.)	Services	10,334	3,350	13,684	14.7 %
ICT	Services	7,055	6,409	13,464	14.5 %
Business services (accountancy, customs, etc.)	Services	2,341	9,911	12,252	13.2 %
Hospitality and tourism	Services	2,102	4,933	7,035	7.6 %
Agriculture and Agri-Food	Agriculture	3,184	3,569	6,753	7.3 %
Arts and handicrafts	Industry	1,072	4,215	5,287	5.7 %
Transport	Services	786	372	1,158	1.2 %
Beauty and aesthetics	Services	222	867	1,089	1.2 %
Manufacturing and mining	Industry	497	92	589	0.6 %
Media and film	Services	160	93	253	0.3 %
Energy	Industry	63	49	112	0.1 %

Total		53,246	39,589	92,835	100 %
--------------	--	---------------	---------------	---------------	--------------

COMPARISON BETWEEN THE WEIGHT OF ECONOMIC SECTORS IN TERMS OF EMPLOYMENT AND THE PERCENTAGE OF GRADUATES BY SECTOR

Distribution of economic activity by sector	Agriculture	Industry	Services
As a % of total employment	65.7	8.3	25.3
Distribution in % of TVET graduates	7.3 %	6.3 %	86.3

Consistency between the vocational training offer and the weight of sectors must be tweaked in such a way as to secure better employability while maintaining an efficient system. According to the ministry the mismatch may be explained by the fact that youths are not keen on training in agricultural trades. One other reason might be related to private training offers in the services sector. Adequacy between training and employment is ensured during the designing of standards, with expert input when defining competencies, but not in a systemic way prior to training.

Also, the private sector does not contribute to the funding of TVET. That funding is supported by the State (wage bill of trainers and staff and part of the equipment of VTCs), the families (tuition fees, school supplies and equipment) and the VTCs as they invest in the training of trainers, equipment, maintenance and repairs.

2.3 Development of WSA, OCFs, training and assessment

Initially, WDA was in charge of strategy and implementation of vocational and technical training. Since 2015, WDA's activities were split into two so that the Authority may not end up acting as "judge and jury". TVET system was entrusted to two entities placed under MINEDUC, i.e.: WDA and RP.

WDA's role is to develop standards for training offer, accreditation of public and private VTCs, quality of assessments, collection of data on both internal and external outcomes of TVET and to ensure that such standards are complied with.

Rwanda Polytechnic (RP) develops and implements curricula and assessments in vocational centres and colleges (levels 3 to 5 – 10 to 12 years of schooling) as well as in the 8 Integrated Polytechnic Regional Colleges (IPRCs) (levels 3 to 7 – up to 14 years of schooling or 2 years of university studies). RP also trains trainers in CBT approach and technical aspects with the help of the Rwandan TVET Trainer Institute (RTTI).

In respect of CBT, WDA chose DACUM as a methodology structured around 4 elements, i.e.:

- development of DACUM charter which comprises WSA, OCF and training framework;
- cost analysis;
- assessment framework; and
- list of equipment per programme.

WSA are carried out with the help of experts from the relevant sectors. There are also sector-based skills committees which team up with WDA to design training programmes for occupations that are needed by the labour market. Their work is supported by studies provided by the Rwanda Development Board (RDB) and the Labour Market Information System (an electronic system to access and analyse developments in the labour market). In actual fact, and because these

committees have only been created recently, WSA may also be carried out by experts appointed directly by WDA. In any case, professionals are closely involved in that exercise.

OCFs, training and assessment frameworks, as well as teaching aids and materials are the responsibility of RP. Up till now, RP focused on the development of WSA, training standards and implementation. The lack of time and human resources did not allow for the development of the entire documentation especially in so far as teaching materials and aids were concerned. This is why trainers had few tools to help them deliver CBT-compliant training curricula.

Training centres and trainers receive programmes (training standards). To address technological and attitude changes required by companies, VTCs sometimes adapt the contents of curricula to comply with CBT. To do that, an application for modification is lodged with WDA which responds within a few weeks. Minor changes are made to curricula in an informal manner by the trainers.

The assessment process is a pretty complex one: VTCs need to carry out assessments at different levels but with little linkages - if any - to the evaluation of competencies. Units which make up competencies are assessed followed by the assessment of the competencies themselves. Then come quarterly assessments followed by an annual summative assessment. It would appear that a scholastic evaluation rationale adds up to the CBT. The consequence of that is an increase in the costs of materials and supplies to cater for all the assessments.

In this respect, the views of trainers are rarely sought. They comply with the assessment standard associated with the curricula but they are also expected to carry out additional evaluations over and above those that are required under the assessment standard. Imposed by RP, these additional quarterly assessments are not connected at all to the way the learning of those skills is organised in terms of time.

2.4 Extent of implementation of curricula in accordance with the CBT approach

CBT was introduced in WDA in 2008-2009 with the assistance of international cooperation partners especially the Belgian development agency. Until 2015, WDA developed and updated 146 vocational training curricula covering 12 economic sectors⁴. Starting in 2015, level 3 to 5 curricula were introduced in all public and private TVET centres all over the country. Applied in all technical ministries (agriculture, tourism, etc.), they are coordinated by RP.

The CBT-compliant curricula for levels 6 and 7 will be introduced gradually as from 2020.

The move from a goal-oriented pedagogy to a CBT approach took around 10 years. Thus, the scaled-up implementation of CBT was initiated in 2015. This is why there are few cohorts of CBT graduates. The scaling-up of CBT was accompanied by an increase in the budget earmarked for TVET and that made it possible to train and equip most of the training centres. With a clear strategy in hand, MINEDUC, WDA and RP were able to channel the financial contributions of technical partners to those aspects of the strategy that were in dire need of funding.

Financing

As things stand, TVET is funded mostly by the State. Government funds are used to pay the wage bill and most of the expenses relating to training centres' facilities. TFPs also contribute to the building and equipping of VTCs. Public TVET does not come free of charge: parents pay around € 70/year of tuition fees to cover for teaching materials. All VTCs and IPRCs visited had the same comment to make: government funding and tuition fees are not enough to cover training costs and enable trainees to acquire the skills they need.

⁴ The curricula cover a wide range of sectors including construction, technical services (mechanics, electricity, electronics, carpentry, welding, etc.), ICT, business (accountancy, corporate), hospitality and tourism, agriculture and agri-food, arts & crafts, transport, beauty and aesthetics, mining and industry, media and films, and energy.

IPRC-Karongi, in Eastern Rwanda on Lake Kivu, stated that half of their budget came from government coffers. The other half was contributed through tuition fees, payable services (e.g.: car repair, carpentry work, engineering, civil engineering and electrical consultancies, rental of rooms, restaurant of the tourism studies section) and computer training services offered to nearby businesses.

IPRCs are granted the status of a tertiary education entity and thus enjoy a greater financial independence. Generally, centres and colleges which host levels 3 to 5 (*CAP* to *Bac pro*) are less autonomous and generate some income through the sale of products or services to clients. Consequently, they end up competing with the very businesses that they need for the placement of their students in apprenticeship. Continuous and "à la carte" training programmes geared towards companies are not widespread in use. Also, trainers' wages are low: they earn between € 40.00 and € 120.00 per month depending on their level.

Lastly, most of the officers met (principals, trainers and officials at the central level) unanimously stated that the main challenge was the lack of resources for teaching aids and materials; however, they showed a strong determination and motivation to go ahead and scale-up CBT. Some of the students interviewed also expressed their great satisfaction in the CBT-based training and acknowledged its added value in contrast to goal-oriented education.

2.5 Training trainers on CBT teaching methodology

Of the 4,700 trainers that work in public TVET centres, the first cohort of 1,600 trainers received a 6-month training on CBT approach. Having graduated from universities or vocational colleges, these trainers received a technical upgrade together with 1 month of in-company placement within RTTI thanks to funding from the Korean cooperation agency. Assigned to training centres, these trainers supervise their colleagues who are tasked with teaching CBT-based curricula.

Some 3,100 trainers are waiting to receive their training in the application of the CBT approach. To be eligible, they must have completed level 6 or 7 (1 or 2 years of tertiary education), gained experience as trainers, be Rwandan nationals and have communication skills.

Once this RTTI certified training is completed, the trainers may be promoted and allowed to provide training at different levels. RTTI certification will be required from all TVET trainers, with the same success or failure conditions as required for technical training.

In addition to the training of trainers, principals will also receive a management-focused training to enable them to develop partnerships with businesses and to manage the financial resources of their centres.

The cost of the 6-month CBT training is estimated at 700,000 Rwandan Francs (€ 685.00) per trainee. To mitigate these costs, RP is considering the possibility of setting up an electronic platform for the purpose of completing the courses given in class with online sessions.

2.6 Development of occupational certification frameworks

The organisation of vocational training is part of the Rwandan qualification system.

<p>Levels in the Rwanda National Qualifications Framework</p>	<p>Levels in the previous qualifications framework</p>
--	---

	Adult education	Basic education	TVET	Tertiary education
10				Doctorate
9			Masters in technology	Masters
8			Bachelor in technology	Bachelor
7			7	Advanced diploma
6			6	Diploma
5		Upper secondary	5	12 years of schooling
4			4	
3			3	
2		Lower secondary	2	9 years of schooling
1	1, 2, 3	Primary	1	

Levels 1 and 2 lead to short-term qualifying diplomas so that their holders may find employment opportunities.

Levels 3 to 5 are open to those who completed 9 years of schooling. These levels are organised in such a way as to enable students to look for a job after the completion of each individual level or continue their studies; that is what most students opt for.

Levels 6 and 7 correspond to 2 years of university studies and are offered in the 8 IPRCs in the country.

2.7 Impact of CBT approach on the quality of TVET

The scaling-up of CBT started gradually in 2015. It is hard to measure its impact on TVET quality today as few cohorts of learners have completed their training cycle. A system to follow up graduates has been contemplated but, so far, no such follow-up has been carried out systematically in respect of TVET graduates.

Public private partnership

The CBT implementation process helped set up a bridge between the State and the private sector. The curricula that are developed take into account the feedback offered by private sector operators and the skills needed by the labour market.

Using studies produced by the National Department of Statistics, RDB carry out assessments at the national and district levels, especially in the agricultural sector. The labour market changes quickly and TVET must also evolve faster by adjusting its offer to supply the skills needed at the national level but also at the regional and sector-specific levels. To achieve that, RDB encourages greater decentralisation so as to analyse and customise the training programmes to meet employability requirements in the districts. Regional and local centres should be in a position to design training curricula quickly without having to wait for a central approval to be issued.

Also, RDB underscores the need to forge partnerships between VTCs and small enterprises locally as these seem to be often excluded.

Last but not least, it is of utmost importance that trainers are given in-company training. Most of those interviewed received one single month of in-company placement.

3. CONCLUSION

It took Rwanda some ten years to successfully complete the reform of its TVET system and to scale it up. By endowing itself with financial and human resources, the country introduced CBT in all its vocational training centres for 5 levels out of 7. The remaining levels (6 and 7) will be covered gradually as from 2020. These resources were coupled with the commitment of trainers and principals to the reform. Nobody questions the process even though some do insist on the need to make adjustments for a better implementation of CBT.

Besides the competency-based training approach, Rwanda banked on the quality of TVET and its adequacy with Government's economic development strategy to massively guide youths to TVET (they were 51,000 in TVET in 2010, and 102,000 in 2019).

To strengthen the positioning of TVET, a number of critical points need to be looked into.

Decentralise

Vocational training centres know little about businesses and employment needs in the regions where they are located. They do not have the means to offer "*à la carte*" or initial training offerings. If they had the possibility to analyse employment outlooks, with the help of RDB, and to quickly develop training offers, they would gain both financially and in terms of quality. Also, in respect of CBT implementation, trainers must be in a position to make proposals as that is key to customising curricula and assessments (content and pace). Governance at the central level should be receptive and favour a bottom-up relationship instead of a top-down interaction.

Communicate

Economic data should be widely disseminated; the same should be done for data relating to what become of TVET graduates. Kigali institutions carry out surveys on these two aspects but data are not shared with training centres. Depending on such data and with appropriate regulation, VTCs would be in a better position to adjust their training offerings so as to suit the needs in terms of skills at the national and district levels.

Develop partnerships

At present, partnership with businesses is limited to specific functions (upstream TVET studies, WSA, internships for learners). These partnership arrangements do not provide for a greater role for the private sector in the management of the system, be it on financial or on decision-making aspects (there are no partner-led management committees in training centres). Rwanda is considering setting up a fund to enable businesses to financially contribute to the development of TVET.

VTCs do not enter into partnerships with local companies to attract additional resources. Their interaction with businesses focuses on the placement of their apprentices. Training programmes offered to business employees and the development of technical solutions for such businesses are lacking. To increase their resources, some VTCs compete with business firms by offering the same products and services. Rwanda Polytechnic is designing a management training course for principals.

It would be interesting to harmonise the status of VTCs with that of technical high schools (up to 14 years of schooling).

Micro-enterprises account for 80% of the total of businesses in Rwanda. To boost the productivity and competitiveness of Rwanda's economy, SMEs should be involved, including by training trainers and providing them with in-company placements.

Increasing TVET funding, co-managing training centres through a management board, providing trainers with in-company training regularly, and facilitating internships are a few among many partnership efforts which would benefit the implementation of CBT. That would require some reflection on power-sharing between the State authorities and economic operators.

Train, equip and pay trainers better

The process of training of trainers is well organised.

In respect of the implementation of CBT, although the process is quite recent, trainers need pedagogical support (teaching aids for trainers and students). Sometimes, teaching materials and aids are lacking. Last but not least, the salaries offered are too low to attract more competent trainers.

ANNEX 1 – INTERVIEW GUIDELINES

Themes	Sub-themes	Questions
1. History and institutional context of CBT introduction	Implementation conditions and history	<ul style="list-style-type: none"> • Could you please explain the history of CBT implementation? • How and by whom was it initiated? <ul style="list-style-type: none"> ○ Who made the decision to initiate it? ○ What type of CBT approach was adopted (what external support) and how was it adapted to the specificities of the country? ○ What contributions have been made by government, TFPs, private sector and civil society? ○ What was the level of commitment of each of these actors? • How is TVET organised: technical education and vocational training, apprenticeship? • What is the status of CBT roll-out across the different sectors and regions? (Management of the transition) <ul style="list-style-type: none"> ○ What have been the difficulties or obstacles to roll-out? ○ What are the roles of regional and local actors in CBT implementation (education system, link between TVET and the private sector)? • What influence do private school operations have on CBT (e.g., Don Bosco)?
	Political and institutional framework	<ul style="list-style-type: none"> • What key legal documents are required for the implementation of the CBT approach? • How has the CBT approach influenced TVET operations and institutions? • How did you (do you) establish linkages with socio-economic development priorities by sector? • Has the partnership inherent to CBT implementation helped to organise partnership governance mechanisms? <ul style="list-style-type: none"> ○ What is the scope of that partnership? ○ How about its national, regional, local and sectoral roll-out?
	Issues of financing	<ul style="list-style-type: none"> • Who funded (is funding) CBT implementation? <ul style="list-style-type: none"> ○ And, has CBT implementation facilitated private sector involvement in funding the mechanism? ○ What has been the trend in the level of government involvement? Has it increased or decreased? • What was the impact of transition to the CBT approach on funding? • What was the extent of funding invested in CBT teaching and training and what were the funds used for?

		<ul style="list-style-type: none"> • Question on continuing education and apprenticeship.
2. Processes of job and economic potential analysis in the countries	Background and analytical process	<ul style="list-style-type: none"> • Before CBT implementation (or in the case of non-CBT design programmes), what process was used to analyse jobs and economic potential? <ul style="list-style-type: none"> ○ What has changed since CBT implementation?
	Job analysis process	<ul style="list-style-type: none"> • What mechanism was used to analyse jobs by priority economic sector? • How are priorities set to select economic sectors or industries for CBT programme design? • How are new occupations identified? • What is the decision-making framework/process for developing new fields/occupations or for discontinuing fields that no longer meet needs? <ul style="list-style-type: none"> ○ How is the situation of trainers in the discontinued fields being dealt with? • How are businesses/employers associated in decision-making? <ul style="list-style-type: none"> ○ At what level are decisions made? At public, private, partner level? • Has the training method facilitated CBT implementation?
	Managing and regulating the flow of students	<ul style="list-style-type: none"> • How does the CBT approach help manage/regulate the flow of students?
	Consideration of distinctive features of regional/local development	<ul style="list-style-type: none"> • How are the distinctive features of regional/local development factored in to training programme development/revision? • Have vocational training centres (VTCs) begun specialising in sectors according to the qualification needs of businesses in their respective economic environments and geographical areas?
	Monitoring mechanism	<ul style="list-style-type: none"> • Is there a monitoring mechanism to support regular revision and adaptation of training programmes to meet new qualification needs? <ul style="list-style-type: none"> ○ Is the system revised on a regular basis to meet the needs of the labour market? ○ What organisation or body organises or deals with programme revision? Is the private sector involved? • Has CBT approach facilitated the monitoring of the supply of training and the productive sector's demand for skills and needs in terms of qualification (regulation of certification)? <ul style="list-style-type: none"> ○ What is the structuring effect of CBT approach in rationalizing of needs or their analysis? ○ Has the CBT approach helped facilitate the decision-making process?

		<ul style="list-style-type: none"> ○ Have CBT practices in private training centres had an impact on the practices of public institutions?
3. Development processes for work situation analysis (WSA), occupational competency standards, training frameworks and evaluation frameworks	Development and validation processes	<ul style="list-style-type: none"> ● Is the CBT programme design process supported by a normative and/or methodological framework (e.g., CBT guide) or is reflected in a government policy? Who is involved in programme design (oversight and decentralisation)? <ul style="list-style-type: none"> ○ What is the subsequent validation process for the programmes developed? ● What body(ies) are involved in CBT programme development? ● What is the validation process? <ul style="list-style-type: none"> ○ Who validates the certification/evaluation standards?
	Partnership approach	<ul style="list-style-type: none"> ● Were standards designed in partnership with all stakeholders in vocational training and notably with the participation of the employers organisations, businesses and industries, as well as government?
	Management of the transition	<ul style="list-style-type: none"> ● How substantive is the transition? <ul style="list-style-type: none"> ○ Is the CBT implemented alone (pure CBT) or is there a transition between outcome-based training and CBT? in the country? Within the same vocational training centre? Within a single programme (e.g., a CBT approach but a conventional assessment system)? ● What are the obstacles to a full transition? <ul style="list-style-type: none"> ○ How long has the transition been taking place? ● What is the degree of acceptance/ownership of CBT use? <ul style="list-style-type: none"> ○ Has the transition been successful? ○ Do donors still invest in the transition? ● What major changes have been observed since the adoption of the CBT approach?
4. Implementation of curricula in accordance with the CBT approach	Independent management of vocational training facilities (including their finances)	<ul style="list-style-type: none"> ● How was the CBT implementation process set in motion? <ul style="list-style-type: none"> ○ What is the current status of roll-out? ○ What are the obstacles and leverage for its deployment? ○ How well is the process accepted? ● Are all VTCs given administrative, financial and pedagogical autonomy? <ul style="list-style-type: none"> ○ Can they hire professional trainers? ○ Do they devise their own strategic and operational planning? ○ Do they manage their own budgets? ○ Has the CBT approach led training centres to generate funds through production units (financial innovation) and/or influenced their teaching methods (application)? ○ Has the CBT approach helped training centres develop a lifelong learning plan? ○ Have VTCs become players in the economic development of their respective areas? Or

		<p>communities?</p> <ul style="list-style-type: none"> ○ Is budget adapted to CBT requirements (materials, infrastructures, equipment, working materials)? ● Is there an accountability mechanism in place? If so, how does it work?
	Organisation of learner-centred teaching	<ul style="list-style-type: none"> ● What teaching changes have been made as a result of CBT (more specific questions)? ● What is the role of the student in the learning process? <ul style="list-style-type: none"> ○ What learning strategies were put in place: subject-to-modular approach; multidisciplinary approach; reflective learning, etc.? ○ What percentage of training time is used for practicals? ○ What is the ratio of workstations (tool sets) to learners per class?
	Training environment modelled on the working environment	<ul style="list-style-type: none"> ● What changes have been noted in the training environment as a result of CBT? ● Are technical and professional tools in line with what is used in the local industry? ● Are the consumables used the same as the ones used locally? ● Beyond compliance, is there any added value that can enhance the quality of production locally?
	Partnership dynamics	<ul style="list-style-type: none"> ● What changes resulting from the introduction of CBT are observed on local partners? <ul style="list-style-type: none"> ○ Has a school-environment consultation framework (professional environment, NGOs, etc.) been put in place? ○ Have teaching methods used for training in conjunction with companies (work-study, apprenticeship), or in the workplace, been adopted and coupled with CBT approach? ○ Are they followed?
	Quality assurance system	<ul style="list-style-type: none"> ● What changes resulting from the introduction of CBT are observed in the quality assurance systems of training centres? ● Is there a mechanism to gauge the status of CBT implementation (quality over the mid to long term)?
	Degree of compartmentalisation (roll-out)	<ul style="list-style-type: none"> ● What stage have you reached in the roll-out of the CBT implementation process? ● What are the challenges that hindered, or the levers that helped, the roll-out (to other sectors and geographical areas) of CBT?
5. Training trainers on CBT teaching methods	Training trainers	<ul style="list-style-type: none"> ● How are trainers trained on CBT methods? <ul style="list-style-type: none"> ○ Duration. ○ Resources. ● Do trainers have access to standards and guides? ● Do trainers use the standards and guides? Do they understand them? <ul style="list-style-type: none"> ○ What challenges and/or difficulties are encountered? ● What changes in teaching practices resulted from the training of trainers?

		<ul style="list-style-type: none"> • Who, in the VTC, is officially in charge of the implementation, coordination and management of CBT? • Is there a teaching methods unit within the VTC (or outside the centre, such as inspectors, sectoral, regional/national) for the purpose of pooling trainers learning or for sharing/sustaining the training of trainers? • What strategies are in place to support trainers' acceptance of, or commitment to, CBT implementation? <ul style="list-style-type: none"> ○ What are the main challenges faced? • Were apprentice instructors and trainers, seconded from businesses, trained on CBT? <ul style="list-style-type: none"> ○ Are they supervised? ○ Do they have access to documentation (standards, guides)?
	Training of other players in the vocational training centre	<ul style="list-style-type: none"> • Are teaching consultants and/or inspectors, entrusted with the revision and development of syllabi (or with the facilitation of implementation), trained in CBT? <ul style="list-style-type: none"> ○ Are they trained at the same time as the trainers? ○ What kind of training do they receive? • Are VTC administrative and management staff trained on CBT? <ul style="list-style-type: none"> ○ Are they trained at the same time and in the same place as the trainers? ○ What is the content of the training they receive? What are they trained on? Merely teaching methods or their implications
6. Development of occupational certification frameworks	Development and/or revision of certification/qualification frameworks	<ul style="list-style-type: none"> • Has the introduction of CBT impacted the development and/or revision of certification/qualification frameworks? • Is there a linkage between certification/qualification framework and the national occupational framework? • Has CBT approach facilitated the development/revision of systems for the validation of acquired experience (VAE)? • Does the qualification and certification framework work? • How are professional organisations involved in the assessment and certification process? • What is the impact of the CBT approach on creating bridges between TVET and other educational sub-systems (basic education, basic entry level for illiterates) and higher education? • How has CBT changed the certification offer (creation of new degrees and diplomas)?
7. Impact of CBT approach on the quality of TVET	Business satisfaction	<ul style="list-style-type: none"> • How has business satisfaction changed in relation to staff recruited after their graduation from TVET following the introduction of the CBT approach? <ul style="list-style-type: none"> ○ Have actual improvements been observed in the professional act of freshly graduated staff?

products		<ul style="list-style-type: none"> ○ What are the main differences observed? ● What systems to collect business operators' feedback were put in place to feed and facilitate CBT implementation? ● What tools are used to gauge business satisfaction?
	System to measure employability	<ul style="list-style-type: none"> ● Is there a tool to monitor the professional integration of graduates? <ul style="list-style-type: none"> ○ In the affirmative, are there elements to determine whether the CBT approach facilitated their employability? ○ If so, what changes have been observed in the measuring of professional integration following CBT implementation?

ANNEX 2 - LIST OF PERSONS/ENTITIES CONTACTED/MET

Name	Position and address	Contacts
Kigali		
Ms Valentine UWAMALIYA	Deputy vice-chancellor in charge of training – Department of Institutional Development and Research – Rwanda Polytechnic (RP) – Focal Point for the Study	dvcidr@rp.ac.rw
Mr. Boniface NIYIVUGA	Trainer Certification Specialist - RP	bniyivuga@rp.ac.rw
Mr. Diogène KAGANGO	Fund Raiser - RP	dkagango@rp.ac.rw
Mr. Anselme NDIKURYAYO	Train-the-Trainer Officer - RP	andikuryayo@rp.ac.rw
Mr. Theodore HABIMANA	TVET Standards Quality Officer – WDA – Kigali	thabimana@wda.gov.rw habitheo@gmail.com
Mr. Ildephonse HABİYAMBERE	Accreditation Specialist – WDA – Kigali	ihabiyambere@wda.gov.rw / ildehab14@gmail.com
Mr. Amon KWESIGA	Quality Assurance Directorate – WDA – Kigali	akwesiga@wda.gov.rw / amonkwesiga@gmail.com
Mr. Jean-Paul BENIMANA	IPRC Deputy Director - Kigali	
Mr. Kiba MUVUNYI	Principal, SOS TVET School – KG 14, 337 Gasabo District	Kiba.muvunyi@sos.rwanda.org
Mr. Eric NIYONGABO	Vocational Training Specialist – MINEDUC	eniyongabo@mineduc.gov.rw
Mr. François NGOWOBA	Rwanda Development Board	
Ms Marie-Pierre NGOMA	<i>Association pour la promotion de l'éducation et de la formation à l'étranger</i>	Mp.ngoma@apefe.org
IPRC Kigali		
Mr. Diogene MILIMDAHABI	Principal	mdiogene@iprckigali.rp.ac.rw
Mr. Pascal NZABAKIRIHO	Director, Quality Assurance	uzabapascal@gmail.com
Mr. Pascal BEMIMANA	ICT Trainer	benimana@gmail.com
Mr. Jean d'Amour JAMBO	English Assistant Trainer	Jambojean2020@gmail.com
Mr. Etienne GASASIRA	Head of Department, Electrical and Electronics	Gasasira2007@yahoo.fr

Gitarama/Muhanza – MPANDA TVET Centre		
Mr. Gilbert NDANGAMIRA	Principal	gilbertn2000@yahoo.fr
Ms Judith MUKABADEGE	Trainer, Cooking and French for Professional Purposes	
Mr. Aloys SIKUBWABO	Trainer, Electricity	
Mr. Christophe NDUTIYE	Trainer, Carpentry	
Ms Rosine NIYIRORA	Trainer, Entrepreneurship	
Nyanza TVET Centre		
Mr. Telephone NSHIMIYIMANA	Principal, Nyanza TVET School – Southern Province, Nyanza District, Ruhango	telephorenshimiyimana@gmail.com etogitarama@gmail.com
Ms Rosine NIYIRORA	In charge of discipline	lilianeniyonsaba@gmail.com
Mr. Fidèle TWAGIRIMANA	Trainer	fideletwagirimana@gmail.com
Mr. Cyrille SHYIRAMBERE	Trainer	cshyirambere2020@gmail.com
Mr. Damien NZEYIMANA	Trainer	nzeyimanapierredamien@gmail.com
Giheke		
Mr. Christian Jean Baptiste NTIRENGANYA	Principal	giheketss@gmail.com
Karongi		
Mr. Innocent HAKUZWIMANA	Director of Studies, IPRC Karongi	hakuzwinno100@gmail.com
Mr. Samson NDORIMANA	Head of Department, Electrical and Electronics	kukuwacu@gmail.com
Mr. Jacques NDABAMENYE	Trainer, Electricity/Electronics	jackenda@gmail.com
Ms Espérance KAMPIRE	Trainer, Hospitality	Espeka3@gmail.com
Mr. Philogène MANARAHARI	Trainer	Mphilogene2015@gmail.com
Mission Members		
M. Naceur CHRAITI	Head, PEFOP – IIFE-UNESCO Dakar	mn.chraiti-h-sini@unesco.org
Ms Barbara MURTIN	Coordinator, Youth Training and Employment Programme – IFEF-Senegal	barbara.murtin@francophonie.org