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Formation Agricole et Rurale

PRE-FEASIBILITY STUDY FOR ENHANCING AGRICULTURAL AND RURAL TRAINING IN 6 PILOT STATES IN NIGERIA

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EXPERTISE FRANCE

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ACCOS	Agricultural Credit Corporation of Oyo State
ADP	Agricultural Development Program
AFD	French Development Agency
ARMTI	Agricultural and Rural Management Training Institute
ASTC	Agricultural Services and Training Centre
ATVET	Agricultural Technical and Vocational Education and Training
BARDA	Benue Agricultural and Rural Development Agency
CBN	Central Bank of Nigeria
CIADT	Centre for Integrated Agricultural Development and Training
FCT	Federal Capital Territory
FMBNP	Federal Ministry of Budget and National Planning
GIZ	German Agency for International Cooperation
GUYS	Graduate Unemployment Youth Scheme
HND	Higher National Diploma
IAR&T	Institute for Agricultural Research and Training
IFAD	International Fund for Agricultural Development
IITA	International Institution for Tropical Agriculture
ITF	Industrial Training Fund
KNARDA	Kano State Agricultural and Rural Development Agency
LGA	Local Government Area
MDAs	Ministries, Departments and Agencies
NBTE	National Board for Technical Education
ND	National Diploma
NDE	National Directorate of Employment
NSQF	Nigerian Skills Qualification Framework
OND	Ordinary National Diploma
PPP	Public Private Partnership
REFILS	Research-Extension-Farmers-Input-Linkage-System
Réseau FAR	International Network for Agricultural and Rural Training
RIFAN	Rice Farmers' Association of Nigeria
SAFE	Sasakawa Africa Fund for Extension Education
SIWES	Student Internship Work Experience Scheme
SMEDAN	Small and Medium Enterprise Development Agency of Nigeria
SSC	Senior Secondary Certificate
TETFUND	Tertiary Education Trust Fund
TSA	Treasury Single Account
VCDP	Value Chain Development Project
WOFAN	Women Farmers' Advancement Network

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EXECUTIVE SUMMARY

The prefeasibility study for the development of agricultural and rural training in Nigeria carried out during the second quarter of 2021, comes after the opportunity's study done by Réseau FAR in 2020. It aligns with an appraisal process which would have to enable the Nigerian authorities to prepare a request to source for funding from the French Development Agency (AFD).

This study was targeted on 6 states of Nigeria, selected in concertation between the Federal Ministry of Finance, Budget and National Planning and AFD and included Plateau, Benue, Kano, Oyo, Imo and the FCT.

The core of the study was grounded on information collected on the field during a 6-weeks mission effected by 2 experts of Réseau FAR, with distance support from an international expert. On the spot, a provisional Steering Committee that brought together the representatives of 4 Federal Ministries was put in place. These included the Federal Ministries Finance, Budget and national planning, Education, Agriculture, Science and Technology. This committee has the mandate to hold every 6 months with AFD during the entire period of the project appraisal and its implementation.

The study had to lead to an in-depth analysis of the first potential intervention axes identified in 2020 including:

- The renovation of the agricultural and rural training system,
- The development of services and provision of resources to players of the sector in renovated pilot centres,
- The strengthening of the coordination and steering between the Federal and State levels in association with actors of the private sector,
- The improvement of the funding and governance of the system.

The study also had to enable a profound analysis and understanding of the inclusion of women in the agriculture and rural training and socio-professional integration system, as well as adaptation to climate change to which the Nigerian agriculture is particularly sensitive.

On the field, some 70 visits were made between the 26th of April and the 28th of May 2021, in accordance with the following distribution:

- Training and/or agricultural research centres : 26
- Administrations : 15
- Development agencies : 10
- Professional Agricultural Organisations : 6
- Funding agencies : 5
- Banks : 4
- NGOs : 4

All of these visits led to the generation of a very impressive amount of data which today is available for the next steps of the project appraisal.

In each of the states, a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) of the agricultural and rural training system was carried out, and was completed by a mapping of the actors which turned out be very complex that there is generally no centralized financing and steering mechanism of the Agricultural and Rural Training (ART) system.

The table below summarizes the major strengths and weaknesses observed.

Strengths	Weaknesses
• Higher education and agricultural research are well developed and efficient. • There is a strong will of the Federal and State governments to transform agriculture and make a pillar of the economy. • There are national agricultural policies with a clear strategy for agricultural training. • The government provides strong support in the supply of agricultural inputs. • Farmers are well organised (Farmers' Organisations) around strategic agricultural commodities. • The interest and level of participation of young girls in agricultural and related training programs is relatively high and increasing.	• Public agricultural training establishments are highly dilapidated and insufficiently funded, especially those under the tutelage of state governments. • Lack of acquisition of professional competencies during training in Agricultural Colleges. • There is a disconnect between training and professional integration / transition to work. • High rate of unemployed youths. • Not enough agro-industries to facilitate the valorization and marketing of numerous products. • Low use of New Information Technologies in the training system. • Market information system still in its embryonic stage. • Insufficient inclusion of rural women in the agricultural training system and related agribusiness development activities.

The visits also enabled the identification of innovative training approaches whose goal is to prepare and backstop young agricultural entrepreneurs (referred to as "Agripreneurs"), notably in Oyo state. For women, the opening for the small scale transformation of food products is an opportunity to develop, as very few training institutions have the necessary pilot materials and control equipment.

From these analyses, it is possible to define and validate with the potential beneficiaries 3 major results expected for the future project on the renovation of Agricultural and Rural Training (ART):

➔ Strengthening of the quality of the agricultural and rural training offer to better cover the first levels of both initial and continuing training;

- Increase in the number of young farmers, agribusiness promoters and operators trained in the different links of the value chain going from the "fork (production) to the fork (consumption)";
- Institutionalization of the long term financing of agricultural technical and vocational education and training;

To attain these results, the main activities to be carried out have been defined and regrouped into 3 components. The activities proposed are all grounded and result from the discussions and visits made, but have to be confirmed and well-organized during the upcoming feasibility study scheduled for the second semester of 2021. They also have to be differentiated with respect to their implementation in function of the pilot States where significant disparities were observed (scientific environment, types of commodities, proximity of food produce markets, etc.).

The organization of the future project was proposed with 3 components, that respond to the major stakes expected and the weaknesses observed on the field:

Component 1: Modernisation of state and federal agricultural training institutions

- Sub-component 1: Rehabilitation of agricultural training institutions
- Sub-component 2: Strengthening of the equipment of agricultural training institutions

Component 2: Improvement of the quality of training and transition to work

- Sub-component 1: Improvement of the quality of training (federal and state training)
  - Training of trainers
  - Support to the renovation of curricular in partnership with the NBTE
  - Continuing training and strengthening of the provision of services to farmers / private sector
- Sub-component 2: Building of the capacities of administrative and financial managers of training institutions
  - Support to the innovation and growth of income generating activities (continuing training, services provision and sales of products, etc.)
- Sub-component 3: Support to the socio-professional integration and settlement of trained youths

Component 3: Project management at the Federal level

- Sub-component 1: Project management unit and Technical Assistance
- Sub-component 2: Monitoring and evaluation
- Sub-component 3: Support to inter-ministerial dialogue

Transversal (Crosscutting) component: Fight against gender inequalities

- The reduction of gender inequality within the agricultural sector will be a crosscutting component for which specific activities shall be implemented.

Finally, a quantitative and qualitative analysis data was conducted in order to determine among the 6 states visited, which of them presented à priori, the best guarantees in terms of the ease of implementation of the project, the potential impact and sustainability of the project, while taking cognizance of the fact that the political engagement of the states would be easier to evaluate, as the project advanced and became more concrete. A first "Concept Note" of what the project could be like, was presented and validated during a distance working session held on the 15th of July 2021.

At the end of this analysis phase 3 pilot states were proposed including:

1. Benue
2. Oyo
3. Plateau

The evaluation of Kano state was very close to that of Benue state but the latter was not retained due the lack of interest noted on the side of the Ministry of Budget of this state engage in such a project and to contract a loan. Besides, the security situation of this state in the North of Nigeria risks presenting some difficulties at the moment of the implementation of the project.

A presentation of the conclusions of the study was made to the Nigerian partners in order that proposed structure of the project especially with a Coordination Unit at the federal level be well understood.

The major conclusions of this study are as follows:

4. The project will have to focus on basic and intermediate level training (State Colleges of Agriculture for training at the ND and HND intermediate levels, public and private schools / skills development centres for courses at lower levels), with respect to formal training or non-formal training taking into account initial and continuing training.
5. The training has to be oriented towards labour markets and strive to give the trainees professional competences to meet the requirements of that market, in addition to the acquisition of knowledge on contemporary practices. The different links of value chains especially that pertaining to transformation / valorisation of raw materials have to be taken into account.
6. Pedagogic interventions with respect to course delivery to trainees in the training centres does not have to end at the award of a diploma but should go on, over a fairly long period of time, to support the youths in their professional integration / transition to work. This new dimension of the pedagogical act has to be progressively recognised by the tutelary authorities.
7. Higher education and agricultural research are well organised due to their longstanding experience in these domains which were inherited from the colonial administration and further developed after independence and can therefore serve as a relay / support to some of the project activities.

The validation on the 15th of July of the results of this prefeasibility study by Key Nigerian actors identified in partnership with AFD, led to the drafting of the terms of reference of the feasibility study which shall be carried out towards the end of 2021.

RESUME EN FRANÇAIS

L'étude de préfaisabilité du projet de développement de la formation Agricole et rurale au Nigéria, réalisée au second trimestre 2021, fait suite à l'étude d'opportunité conduite par le Réseau FAR en 2020. Elle s'inscrit dans un processus d'instruction devant permettre aux autorités nigérianes de préparer une requête auprès de l'AFD pour l'obtention d'un financement.

Cette étude était centrée sur 6 Etats du Nigéria, sélectionnés en concertation entre le Ministère Fédéral des Finances, du Budget et du Plan National, et l'AFD : Plateau, Benue, Kano, Oyo, Imo et FCT.

Le cœur de l'étude s'est fondé sur les informations recueillies sur le terrain au cours d'une mission de 6 semaines menées par 2 experts du Réseau FAR, avec un appui à distance par un expert international. Sur place un comité de pilotage provisoire a été mis en place, rassemblant les représentants des 4 Ministères Fédéraux potentiellement concernés par le projet : Finances, Education, Agriculture, Science et Technologie. Ce comité a vocation à se réunir tous les 6 mois avec l'AFD pendant toute la durée de l'instruction du projet et de sa mise en oeuvre.

L'étude devait permettre d'approfondir les premiers axes d'intervention potentielle identifiés en 2020 :

- Rénovation du dispositif de formation agricole et rurale,
- Développement de services et fourniture de ressources aux acteurs du secteur dans des centres pilote rénovés,
- Renforcement de la coordination et du pilotage entre le niveau fédéral et le niveau des Etats, en association avec les acteurs du secteur privé,
- Amélioration du financement et de la gouvernance du système.

L'étude devait également permettre d'approfondir l'insertion des femmes dans le dispositif de formation et d'installation, ainsi que l'adaptation au changement climatique auquel l'agriculture nigériane est particulièrement sensible.

Sur le terrain 70 visites ont été effectuées, entre le 26 Avril et le 28 Mai 2021, selon la répartition suivante :,

- Centres de formation et/ou de recherche agricole : 26
- Administrations : 15
- Agences de développement : 10
- Organisations Professionnelles Agricoles : 6
- Bailleurs de fonds : 5
- Banques : 4
- ONG : 4

Toutes ces visites permettent de disposer aujourd'hui d'un corpus très important de données indispensables pour la suite de l'instruction du projet.

Dans chacun des Etats visités, une analyse FFOM (Forces, Faiblesses, Opportunités, Menaces) du système de formation agricole et rurale a été effectuée, complétée par une cartographie des acteurs qui s'est avérée complexe dans la mesure où il n'y a généralement pas de système centralisé de financement et de pilotage du dispositif de FAR.

Le tableau ci-dessous résume les principales forces et faiblesses observées.

Forces	Faiblesses
• L'enseignement supérieur et la recherche en agriculture sont bien développés et efficaces. • Une forte volonté du gouvernement fédéral et des gouvernements des États existe pour transformer l'agriculture et en faire un pilier de l'économie. • Il existe des politiques agricoles nationales avec une stratégie claire pour la formation agricole. • Le gouvernement apporte un soutien fort dans la fourniture d'intrants agricoles. • Les agriculteurs sont bien organisés (OPA) autour de produits de base stratégiques. • L'intérêt et le niveau de participation des jeunes filles dans les programmes de formation agricole et rurale sont relativement élevés et croissants.	• Etablissements étatiques de formation agricole fortement dégradés et insuffisamment financés, surtout dans les établissements sous tutelle étatique. • Manque d'acquisition de compétences professionnelles durant la formation dans les Collèges d'Agriculture. • Rupture entre la formation et l'insertion professionnelle. • Taux élevé de jeunes sans emploi. • Pas assez d'industries agroalimentaires pour permettre la valorisation et l'écoulement de nombreux produits. • Peu d'utilisation des Nouvelles Technologies de l'Information dans le dispositif de formation. • Le système d'information sur les marchés encore embryonnaire. • Inclusion insuffisante des femmes rurales dans les systèmes de formation agricole et des activités connexes de développement de l'agri business.

Les visites ont également permis d'identifier des formules innovantes de formation dont le but est de préparer et d'accompagner des jeunes entrepreneurs agricoles (appelés "Agripreneurs"), notamment dans l'Etat d'Oyo. Pour les femmes le créneau de la transformation agroalimentaire à petite échelle est une voie à développer, trop peu d'établissements de formation disposant du matériel pilote et d'équipements de contrôle à cet effet.

A partir de ces analyses il a été possible de définir et valider avec les bénéficiaires potentiels 3 principaux résultats attendus pour le futur projet de rénovation de la FAR :

1. Renforcement de la qualité de l'offre de formation agricole et rurale pour mieux couvrir les premiers niveaux de formation, tant initiale que continue ;
2. Augmentation du nombre de jeunes agriculteurs, de promoteurs d'agrobusiness et d'opérateurs formés dans les différents maillons de la chaîne de valeur allant "de la fourche à la fourchette";
3. Institutionnalisation et financement pérenne de l'enseignement et de la formation techniques et professionnels agricoles.

Pour atteindre ces résultats les principales activités à mener dans le projet ont été définies et regroupées en 3 composantes. Les activités proposées sont toutes issues des entretiens et des visites réalisées mais devront être confirmées et hiérarchisées lors de la prochaine étude de faisabilité prévue au second semestre 2021. Elles devront également être différenciées dans leur mise en œuvre en fonction des Etats pilote où de fortes disparités ont été observées (environnement scientifique, type de spéculations, proximité des marchés de consommation, etc.).

Une proposition d'organisation du futur projet a été faite en 3 composantes, répondant aux enjeux majeurs attendus et aux faiblesses observées sur le terrain :

Composante 1 : Modernisation des institutions fédérées de formation agricole

- Sous-composante 1 : Réhabilitation des institutions de formation agricole
- Sous-composante 2 : Renforcement des équipements des établissements de formation agricole

Composante 2 : Amélioration de la qualité de la formation et transition vers l'emploi

- Sous-composante 1 : Amélioration de la qualité de la formation (institutions agricoles fédérales et étatiques)
    - Formation des formateurs
    - Appui à la rénovation des curricula en partenariat avec le NBTE
    - Formation continue et renforcement de la prestation de services aux agriculteurs / secteur privé
- Sous-composante 2 : Renforcement des capacités des responsables administratifs et financiers des institutions de formation
    - Appui à l'innovation et à l'essor d'activités génératrices de revenu (formation continue, revente de services et productions, etc.)
- Sous-composante 3 : Appui à l'installation et à l'insertion professionnelle des jeunes diplômés

Composante 3 : Gestion de projet au niveau fédéral

- Sous-composante 1 : Unité de gestion de projet et d'assistance technique
- Sous-composante 2 : Suivi et évaluation
- Sous-composante 3 : Appui au dialogue interministériel

Composante transversale : lutte contre les inégalités de genre

- La réduction des inégalités de genre au sein du secteur agricole sera une composante transversale pour laquelle des activités spécifiques seront mises en œuvre.

Pour finir une analyse quantitative et qualitative a été menée pour déterminer parmi les 6 Etats visités quels étaient ceux qui présentaient à priori les meilleures garanties en termes de facilité de mise en œuvre du projet, d'impact potentiel et de durabilité, tout en sachant que l'engagement politique des Etats sera d'autant plus facile à évaluer que le projet sera plus avancé et plus concret. Une première "Concept Note" de ce que pourrait être le projet a été présentée et validée lors d'une séance de travail à distance tenue le 15 Juillet 2021.

A l'issue de cette analyse 3 Etats pilote ont été proposés :

1. Benue
2. Oyo
3. Plateau

L'Etat de Kano, présentant une évaluation globale proche de celle de l'Etat de Benue, n'a pas été retenu car il a été noté un manque d'intérêt du Ministre du Budget de cet Etat pour s'engager dans un tel projet et contracter un prêt. Par ailleurs la situation sécuritaire de cet Etat du Nord du Nigéria risque de présenter des difficultés au moment de la mise en œuvre locale du projet.

Une présentation des conclusions de l'étude a été faite aux partenaires nigérians pour une meilleure appréciation de la structure du projet et surtout le fait que l'Unité de Coordination d'ensemble sera au niveau fédéral.

Les principales conclusions de la présente étude sont les suivantes:

1. Le projet devra être axé sur la formation de base et de niveau intermédiaire (collèges d'État d'agriculture pour la formation de niveau intermédiaire ND et HND, écoles publiques et privées / centres de développement des compétences pour les cours de certificat inférieurs), sous forme formelle ou non formelle, prenant en compte la formation initiale et continue.
2. La formation doit être orientée vers les marchés en donnant aux apprenants des compétences professionnelles pour y répondre, en complément l'acquisition de connaissances telle qu'elle se pratique aujourd'hui. Il faudra en tenir compte des différents maillons de la chaîne de valeur, notamment celui de la transformation / valorisation des matières premières.
3. Les interventions pédagogiques auprès des apprenants des centres de formation ne doivent pas s'arrêter après l'obtention du diplôme mais accompagner les jeunes dans leur insertion professionnelle, sur des pas de temps assez longs. Cette nouvelle dimension de l'acte pédagogique doit être progressivement reconnue par les autorités de tutelle.
4. L'enseignement supérieur et la recherche en agriculture, fruits de l'héritage de l'administration coloniale, développés d'avantage après l'indépendance, sont bien organisés et peuvent servir de relais / support pour certaines des activités du projet

La validation le 15 juillet 2021 de cette étude de préfaisabilité par les principaux acteurs Nigérians identifiés en partenariat avec l'AFD, a permis la rédaction des termes de référence de l'étude de faisabilité qui sera menée à la fin de l'année 2021.

Introduction: Recapitulation of context and objectives of the study

In 2018, the Nigerian Federal Ministry of Finance, Budget and National Planning (FMFBNPP) approached AFD to finance a support program for the renovation of the Agricultural, Technical and Vocational Education and Training (ATVET) in Nigeria. In order to frame the theme and assess the opportunity for AFD to invest in this sector, it was agreed that an opportunity's preliminary study be launched, which would enable AFD and Nigerian authorities to identify ATVET main challenges and to agree on geographical areas to be involved in the project.

This Opportunity's preliminary study was carried out in March 2020 by the International Network for Agricultural and Rural Training (International network FAR) with funding from the French Development Agency (AFD), in support of the Federal Ministry of Budget and National Planning (FMBNP).

In conclusion of the survey carried out in March 2020, four potential areas of intervention were proposed as follows:

1. Renovation of the agricultural technical and vocational education and training system (initial and continuing), and the socio-professional settlement support system in targeted states.
2. Development of services and the provision of resources to agricultural and rural actors in the renovated pilot centres.
3. Strengthening of the federal and state coordination and steering of the ATVET system in association with the private sector and other concerned actors.
4. Structuring of funding alongside the strengthening of the governance of the ATVET system.

The present pre-feasibility study had to explore these areas further in 6 Nigerian selected states: Plateau, Benue, Kano, Imo, Oyo and FCT. This selection was done in partnership between Nigerian Authorities and AFD. The operation was based on a multi-criteria analysis form which facilitated the final selection of the five States and the FCT that were *a priori* eligible for the implementation of the project.

The main objective of the present study was to assess the Nigerian public and private, rural and agricultural vocational training system with special emphasis on the current challenges faced by rural dwellers, the key professions and needs in the rural sector. It also sought to establish a diagnosis of the agriculture and rural training system, key actors and existing initiatives in Nigeria. It was also intended to identify strengths and weaknesses, opportunities and threats (SWOT analysis) of the Nigerian Agriculture and Rural Technical and Vocational Education and Training system.

A methodology note was submitted and approved by AFD and FAR International network on the 13th of April 2021 and shared with the Nigerian authorities. During 6 weeks of field visits, from 19 April to 28 May 2021, 2 experts of FAR Network met with around 72 potential stakeholders of the project in the 6 selected States.

A provisional steering committee was set up and held its first meeting in Abuja on Friday 23rd April 2021. The committee comprises Representatives of the 4 MDAs (Finance, Budget and National

Planning; Agriculture and Rural Development; Education; Science and Technology) the National Enterprise Development Scheme and AFD and FAR network as observers.

At the end of the field visits a multi-stakeholder workshop was organized in Abuja, including presentation of lessons learnt in each state and a session of questions/ answers.

The present report reflects the approved methodology note and includes the ongoing recommendations of AFD made during the beginning of field visit.

The first chapter is devoted to figures and facts of ATVET in each of the 6 selected States, using data collected on the field and current documentation.

The second chapter is focused on various analyses that make it possible to define and justify the basic axes of the future project. These analyses include:

- Analysis of the socio-economic and policy environment,
- Analysis of the agricultural sector policies relevant to economic growth and poverty alleviation,
- SWOT analysis of ATVET systems,
- Identification, mapping and analysis of the different actors of ATVET,
- Analysis of gender transformative change, climate resilience and strategies for greening agriculture in the renovation of ATVET,
- Multi-stakeholders' workshop (restitution and questions / answers session).

In the third chapter a proposal of the future project is drafted, including objectives, expected results and activities presented under components and subcomponents.

The last chapter proposes a multicriteria-matrix to evaluate the potential involvement of each visited State in the future project and to assist the steering committee to select the final list of States to be targeted by the next feasibility study.

Chapter 1. Presentation of the socio-economic context of Nigeria and ATVET in the 6 selected States

1.1. BRIEF PRESENTATION OF THE SOCIOECONOMIC CONTEXT OF NIGERIA

Nigeria with its population of about 206 million inhabitants, and GNI of about US$400 billion, is ranked as the 27th largest economy in the world in terms of nominal gross domestic product (GDP) and the largest economy in Africa, ahead of South Africa (UN, 2020). Over the years, Nigeria has depended heavily on the crude oil industry, which accounts for some two-thirds of state revenues but only contributes to about 9 percent of her GDP and only about 2.7 percent of the world's oil supply. The volatility of oil prices continues to influence the growth performance of the country because of her dependence on the oil and extractive industries to the detriment of the agricultural and construction sectors, which are highly labour and employment-intensive, therefore leading to high and growing unemployment, underemployment and poverty rates.

According to the African Development Bank, the Nigerian economy shrank by 1.8% in 2020, reversing three years of recovery, due to a fall in crude oil prices on account of falling global demand and containment measures to fight the spread of COVID–19. The economy is projected to grow by 1.5% in 2021 and 2.9% in 2022, based on an expected recovery in crude oil prices and production.

Some key socioeconomic indicators of Nigeria are presented in table 1 below.

Table 1. Key socioeconomic indicators of Nigeria

Indicators	Values
Population	206 139 587
Active Population (population between 15 and 64 years old)	55.9%
Population growth rate	2.64%
Rural vrs Urban population	48.04% R / 51.96% U
GDP (billion dollars)	442.98
Poverty (headcount ratio)	40.1%
Unemployment rate	33.3%
Youth unemployment rate	53.4%
Share of Youths Not in Employment Education or Training (NEET)	31.39%
Gross enrolment rate in primary schools	84.7%
Existence of a National Agricultural Policy	Yes
Existence of a National Policy on Education	Yes
Share of Budget allocated to Agriculture	1.37%
Share of budget allocated to ATVET	< 1%

Source: Statista, (2020); National Bureau of Statistics. (2020) & Worldmeter (2021)

The section that follows presents some critical facts and figures linked to the context under which the Agricultural Technical and Vocational Education and Training (ATVET) system operates in the Federal Capital Territory (FCT) and 5 selected states of the Federal Republic of Nigeria (FRN) which were concerned by the pre-feasibility study. These states include Plateau, Kano, Benue, Imo, Oyo and the FCT.

1.2. KEY FACTS AND FIGURES ON THE SOCIOECONOMIC CONTEXT OF THE 6 STATES EARMARKED BY THE PRE-FEASIBILITY STUDY

Some key statistics on the demographics, education, poverty levels, youth unemployment and the importance of agriculture and agricultural and rural training in the 5 selected states and the FCT are summarised in the tables that follow:

❖ Plateau State

Table 2. Key figures and facts on socioeconomic context of Plateau state

Areas of interest	Criteria	Indicators
State demographics	State population	4 766 095
	Proportion of rural to urban population	44%R / 56%U
	Proportion of active population	52.6%
	Local Government Area	17
	Poverty level (Headcount ratio)	55.1%
	Youth unemployment rate	26.59%
	Youths Not in Education, Employment or Training (NEET)	19.4%
Key Education demographics	Existence of a policy on Education	National Policy / UBEP
	Gross Enrolment rate in Primary Schools	89.6%
	Transition rate to Secondary Schools	53.3%
	Gross Enrolment rate in Secondary Schools	49.1%
Importance of agriculture in the state	Existence of an agricultural policy	Yes
	Share of State budget allocated to Agriculture	4 %
	Share of State budget allocated to ATVET	< 1%

Source: Statista, (2020); National Bureau of Statistics. (2020) & Worldmeter (2021)

❖ Kano state

Table 3. Key figures and facts on socioeconomic context of Kano state

Areas of interest	Criteria	Indicators
State demographics	State population	14 948 133
	Proportion of Rural to Urban population	41.7%R / 58.3%U
	Proportion of active population	50.0%
	Local Government Areas	44
	Poverty level (Headcount ratio)	55.1%
	Youth unemployment rate	31.3%
	Youths Not in Education, Employment or Training (NEET)	40.8%
Key Education demographics	Existence of a policy on Education	National Policy / Kano State UBEP
	Gross Enrolment rate in Primary Schools	123.7%
	Transition rate to Secondary Schools	56.8%
	Gross Enrolment rate in Secondary Schools	45.8%
Importance of agriculture in the state	Existence of an agricultural policy	Yes
	Share of State budget allocated to Agriculture	NA
	Share of State budget allocated to ATVET	NA

Source: Statista, (2020); National Bureau of Statistics. (2020) & Worldmeter (2021)

❖ Benue State

Table 4. Key figures and facts on socioeconomic context of Benue state

Areas of interest	Criteria	Indicators
State demographics	State population	6 656 320
	Proportion of rural to urban population	40% R / 60% U
	Proportion of active population	50.7%
	Local Government Areas	23
	Poverty level (Headcount ratio)	32.9%
	Youth unemployment rate	20.1%
	Youths Not in Education, Employment or Training (NEET)	32.2%
Key Education demographics	Existence of a policy on Education	National Policy / Benue State UBEP
	Gross Enrolment rate in Primary Schools	84.6%

	Transition rate to Secondary Schools	67.5%
	Gross Enrolment rate in Secondary Schools	56.9%
Importance of agriculture in the state	Existence of an agricultural policy	Yes
	Share of State budget allocated to Agriculture	4%
	Share of State budget allocated to ATVET	<1%

Source: Statista, (2020); National Bureau of Statistics. (2020) & Worldmeter (2021)

❖ Imo State

Table 5. Key figures and facts on socioeconomic context of Imo state

Areas of interest	Criteria	Indicators
State demographics	State population	6 362 130
	Proportion of rural to urban population	42% R / 58% U
	Proportion of active population	50.8%
	Local Government Areas	27
	Poverty level (Headcount ratio)	28.9%
	Youth unemployment rate (NEET)	30.2%
	Youths Not in Education, Employment or Training (NEET)	26.4%
Key Education demographics	Existence of a policy on Education	National Policy / Imo State UBEP
	Gross Enrolment rate in Primary Schools	121.9
	Transition rate to Secondary Schools	58.8%
	Gross Enrolment rate in Secondary Schools	52.6%
Importance of agriculture in the state	Existence of an agricultural policy	No
	Share of State budget allocated to Agriculture	NA
	Share of State budget allocated to ATVET	NA

Source: Statista, (2020) National Bureau of Statistics. (2020) & Worldmeter (2021)

❖ Oyo State

Table 6. Key figures and facts on socioeconomic context of Oyo state

Areas of interest	Criteria	Indicators
	State population	8 300 000

State demographics	Proportion of rural to urban population	26% R / 64% U
	Proportion of active population	58.5%
	Local Government Areas	33
	Poverty level (Headcount ratio)	9.8%
	Youth unemployment rate (NEET)	17.99%
	Youths Not in Education, Employment or Training (NEET)	16.4%
Key Education demographics	Existence of a policy on Education	National Policy / Oyo State UBEP
	Gross Enrolment rate in Primary Schools	89.7%
	Transition rate to Secondary Schools	60.2%
	Gross Enrolment rate in Secondary Schools	54.6%
Importance of agriculture in the state	Existence of an agricultural policy	Yes
	Share of State budget allocated to Agriculture	4.5%
	Share of State budget allocated to ATVET	< 1%

Source: Statista, (2020); National Bureau of Statistics. (2020) & Worldmeter (2021)

❖ FEDERAL CAPITAL TERRITORY (FCT)

Table 7. Key figures and facts on socioeconomic context of the FCT

Areas of interest	Criteria	Indicators
State demographics	State population	5 161 505
	Proportion of rural to urban population	23% R / 77% U
	Proportion of active population	60.4%
	Local Government Areas (Area Councils)	6
	Poverty level (Headcount ratio)	38.7%
	Youth unemployment rate (NEET)	23.63%
	Youths Not in Education, Employment or Training (NEET)	16.4%
Key Education demographics	Existence of a policy on Education	National Policy / FCT UBEP
	Gross Enrolment rate in Primary Schools	105.88%
	Transition rate to Secondary Schools	93.43%
	Gross Enrolment rate in Secondary Schools	58.6%

Importance of agriculture in the state	Existence of an agricultural policy	Yes
	Share of State budget allocated to Agriculture	NA
	Share of State budget allocated to ATVET	NA

Source: Statista, (2020); National Bureau of Statistics. (2020) & Worldmeter (2021)

1.3. ATVET CONTEXT IN THE SELECTED STATES

It should be noted that the structure of ATVET in all of the 6 states visited is characterized by the existence of a formal, a non-formal and an informal training system.

According to Hawkins (2021), the formal ATVET system refers to education and training programs that are an integral part of the formal educational system based on a curriculum, a training package or occupational standards which are given recognition by the authority in charge of Education or by any of its agencies empowered to grant such certification. Such formal ATVET is offered in secondary technical and vocational schools, ATVET Training Centres, Colleges of Agriculture (Monotechnics or Polytechnics) and Universities. The training often concludes with the award of qualifications including diplomas, certificates or what is increasingly referred to as levels.

Non-formal ATVET on the other hand refers to a system of training in which course work or classes may be guided by a training package, curriculum or occupational standards, but are not part of the formal education system and may not necessarily be recognized by the competent education authority. Non-formal ATVET can include short training courses, hands-on practical training in farmers' fields or other sites. Such training programs are generally organized by development projects / programs, training organisations, non-governmental organisations, companies, public and private training centres etc., and usually target both the farmers themselves and their trainers such as extension workers, advisory service providers, mentors, internship masters etc. The training courses may conclude with the award of testimonials, attestations of participation and other justification documents that are not necessarily recognized by the formal certification system.

The Informal ATVET system is the learning system most often encountered, and where learning is not structured as provided for by curricula, training packages and occupational standards but is essentially acquired through experience in everyday work and life. In some cases, this informal approach is referred to as the 'learning by doing' approach to training.

The tables that follow present statistics mostly on the formal and non-formal systems that could be characterised because of their level of organisation. The information pays particular attention to the actors, training offers, governance organs, funding mechanisms, and strategies to support graduates to initiate productive activities post training.

❖ ATVET context in Plateau state

Table 8. Key figures and facts on formal ATVET context in Plateau State

Category of Institution	Institutions	Criteria	Indicators
Federal Colleges	**Federal College of Land Resources Technology - Kuru**	Tutelary Ministry	FMARD
		Number of departments	5
		Types of qualifications awarded	ND & HND
		Number of agriculture-related courses	11
		Typologies of candidates admitted	Post-secondary school (***formal initial training***)
			Workers of Federal and State Ministries of Agriculture (***continuing training for grade improvement***)
		Total population of students	140
		Proportion of female / male students	40% F / 60% M
		Total number of staffs	130
		Academic / Non-academic staffs	82 / 48
		Some Key strengths	• More focus on practical training • Sufficiently qualified staff • Provision of services to farmers and other organisations
		Some major Weaknesses	• Irregular & insufficient training of trainers • Laboratories and workshops not well equipped • No tracking and tracing system of trained youths • Lack of funds
	Federal College of Forestry - Jos	Tutelary Ministry	Federal Ministry of Environment

		Number of departments	9
		Types of qualifications awarded	ND & HND (2 years)
		Number of agriculture-related courses	5
		Typologies of candidates admitted	Post-secondary school (**initial training**)
			-
		Total population of students	700
		Proportion of female / male students	60% F / 40% M
		Total number of staffs	300
		Academic / Non-academic staffs	155 / 145
		Some Key strengths	• Rich endowment in infrastructure • Highly professional staff • Strong revenue generation potential from tree nursery
		Some major weaknesses	• Outdated curricular irregularly reviewed • Insufficient funds • The 4-year rolling development plans not respected
	Federal College of Animal Health and Production Technology	Tutelary Ministry	FMARD
		Number of departments	8
		Types of qualifications awarded	Remedial (1 year); Environmental Health Technician / Assistant (2 years); Certificate; ND (2 years); HND (3 years)
		Number of agriculture-related courses	8
		Typologies of candidates admitted	Post-secondary school – Remedial, Technicians, Assistants, Certificate, ND, HND (***initial formal training***)
			Short courses (***continuing training***)

		Total population of students	1600
		Proportion of female / male students	40% F / 60% M
		Total number of staffs	200
		Academic / Non-academic staffs	115 / 85
		Some Key strengths	• Enough infrastructure • Highly professional staff • Strong partnership with Veterinary research institute
		Some major weaknesses	• Old curricular irregularly reviewed • Insufficient funds • No support to graduate transition to work
State Colleges	**Plateau State College of Agriculture - Garkawa**	Tutelary Ministry	Plateau State Ministry of Agriculture and Natural Resources
		Number of departments	6
		Types of qualifications awarded	Pre ND (1 year); ND (2 years); HND (2 years)
		Number of agriculture-related courses	8
		Typologies of candidates admitted	Post-secondary school (***initial formal training***)
			-
		Total population of students	1800
		Proportion of female / male students	60% F / 40% M
		Total number of staffs	300
		Academic / Non-academic staffs	80 / 220
		Some Key strengths	• Some LGAs contribute to ATVET funding • Strong potential for Income Generating Activities (IGAs) • Location of College in an agrarian area • Willingness of State Government to support

		Some major weaknesses	• Infrastructure seriously dilapidated • Governing council not functioning as required • Insufficient funding • Poorly equipped workshops and laboratories • Lack of seed capital for graduate settlement

In addition to the colleges presented in table 2 above, a number of institutions including the Agricultural Development Program (ADP), the 3 Agricultural Services and Training Centres (ASTCs), the Potato Value Chain Development Project, Research institutions, the FADAMA III Farmers' Bank, public and private farms are involved in non-formal ATVET training in Plateau state. They offer non-formal generally continuing training to beneficiaries. Their training interventions either directly target farmers or extension workers and advisory service providers who then reach out to farmers in their farms using various approaches.

❖ ATVET context in Kano State

Table 9. Key figures and facts on formal ATVET context in Kano state

Category of Institution	Institutions	Criteria	Indicators
University	**Faculty of Agriculture Bayero University Kano**	Tutelary Ministry	Federal Ministry of Education
		Number of departments	3
		Types of qualifications awarded	BSc, MSc, PhD
		Number of agriculture-related courses	6
		Typologies of candidates admitted	Post-secondary school (***initial & subsequent postgraduate training***)
			Extension workers (***continuing training for BSc***)
		Total population of students	800
		Proportion of female / male students	35% F / 65% M
		Total number of staffs	400
		Academic / Non-academic staffs	130 / 270
		Some key strengths	• Highly qualified staffs

			• Well organised course delivery system • Rich endowment in infrastructure
		Some major weaknesses	• Low evolution of curricula to match industry needs • Low employment rate of graduates • Ineffective graduate tracer system
Federal Colleges	**Federal College of Agricultural Products Technology**	Tutelary Ministry	FMARD
		Number of departments	4
		Types of qualifications awarded	ND & HND
		Number of agriculture-related courses	11
		Typologies of candidates admitted	Post-secondary school (***initial training***)
			-
		Total population of students	1400
		Proportion of female / male students	40% F / 60% M
		Total number of staffs	180+
		Academic / Non-academic staffs	100+ / 80+
		Some key strengths	• Strong experience in training on post-harvest issues • Highly qualified staff • Varied course offer including Pre-ND and Remedial
		Some major weaknesses	• Curriculum lag behind industry needs • More theoretical training • Low graduate employability
State Colleges	**Audu Bako College of Agriculture**	Tutelary Ministry	Kano State Ministry of Agriculture and Natural Resources
		Number of departments	13
		Types of qualifications awarded	Certificate; OND (2 years); Pre-ND (3 years); ND (2 years); HND (2 years)

		Number of agriculture-related courses	47
		Typologies of candidates admitted	Post-primary school (***Certificate***) Post-secondary school (***initial training***)
			Practising farmers (***continuing training***)
		Total population of students	3000
		Proportion of female / male students	30% F / 70% M
		Total number of staffs	430
		Academic / Non-academic staffs	130 / 300
		Some key strengths	• Strong partnerships with individuals, national & international organisations • State government waiver of part of TSA • Enough land for expansion
		Some major weaknesses	• Limited infrastructure development • No access to TETFUNDs • Insufficient training of trainers

Many initiatives exist in Kano State with respect to non-formal ATVET. Some of the prominent initiatives in the state are presented below.

➔ **KNARDA Skills Development Training**

For the training of new entrants and practising farmers at the foundation level, the Kano State Agricultural and Rural Development Agency (KNARDA) runs some 7 Skills Development Centres where training targets livestock, poultry, horticulture, farm mechanisation and irrigation. The origin and characteristics of the beneficiaries of these trainings depend on the needs expressed, but when they are organised, each Local Government Area (LGA) sends in 3 participants for a total of 132 participants per training session for the 44 LGAs in the state. In some cases, training focuses on special needs such as the promotion of backyard farming, organic farming, irrigation, produce processing etc. The duration of these trainings is on average 3 weeks at the end of which a certificate of participation is given to the participants. In some cases, a minimum package is offered as post-training support to enable the trained participants initiate some production activities and hence valorise their training.

➔ **Central Bank of Nigeria (CBN)-sponsored farmer training**

The Central Bank of Nigeria (CBN) has put in place the Anchor borrowers' scheme to make investments

in the agricultural sector in line with the Federal Government's quest to attain food sufficiency, diversification of the economy away from oil, create jobs for the youth and reduce poverty. The bank collaborates with recognised training providers to train individual borrowers, groups, clusters, commodity associations and cooperatives in various aspects of production, processing, packaging and marketing of various strategic commodities especially rice in Kano state. Some of these training providers include the National Directorate of Employment (NDE), the Industrial Training Fund (ITF), the Small and Medium Enterprise Development Agency of Nigeria (SMEDAN), the Federal College of Agriculture and Produce Technology Kano, the Audu Bako College of Agriculture Dambatta and the Kano Entrepreneurship Development Centre. These training programs generally last from 2 to 4 weeks at the end of which participants are given a certificate of participation.

➔ **Leventis Foundation Agricultural School**

The Leventis Foundation which is a non-governmental, charitable, non-profit making organisation runs an Agricultural School at Panda which offers a 1-year training course to young Junior Secondary and Senior Secondary School leavers, retired workers and people seeking reconversion to agriculture. The yearly intake of youths is 150 including about 30% females and 70% males, but usually, more than 1700 applications are received and the number has been growing each year. Training which is very practical focuses on crop production, animal production, agricultural engineering (agricultural mechanisation, maintenance and repairs of agricultural machines) and rural enterprise development.

The Foundation operates a micro credit scheme which at the end of the training extends some small loans amounting from 50000 to 100 000 Naira per ex-trainee, especially those who have initiated an activity in the area of agriculture and need some support. They are generally encouraged to cluster in groups or cooperatives to facilitate growth of their farm business enterprises and follow-up. A system for the tracking / tracing of the graduates has been put in place and statistics are available which give an idea of graduates who continue their education, those who initiate and grow farm enterprises and those who abandon their production activities and drift away to other areas.

➔ **Women Farmers' Advancement Network (WOFAN) training scheme**

The Women Farmers' Advancement Network (WOFAN), provides training in various domains to its members constituted of some 28000 women and 14000 men. Some 30% of these beneficiaries are youths within the age bracket of 18 – 35 years. Working in collaboration with GIZ, WOFAN has built the capacities of target women's groups and has put up matching grants for their empowerment projects, with training in the areas of sustainable rice production, processing, bagging and marketing, based on the Farmer Business School approach. The Network is also involved in the training of youths and trainers with specific approaches to make agriculture and agribusiness attractive and fashionable. Some 10500 youths alongside 350 extension workers have been trained. The extension workers in their turn, train some 150 farmers each in rice production, processing and marketing techniques.

➔ **Other non-formal training programs**

Many other organisations in the state including the Rice Farmers Association of Nigeria (RIFAN), the Livestock Traders and Meat Association of Kano, the Hadejia Jama'Are River Basin Development Authority, the Centre for Dryland Agriculture and various microfinance institutions are involved in the non-formal training of farmers and other actors who want to improve their skills in agriculture and

agribusiness or who want to take them up for a livelihood. Whereas some of these trainings are sublet to training colleges, others are handled by development agencies that have the mandate and necessary experience in the domain.

❖ ATVET context in Benue State

Table 10. Key figures and facts on formal ATVET context in Benue state

Category of Institution	Institutions	Criteria	Indicators
University	**Federal (Joseph Sarmuan Tarka) University of Agriculture Makurdi**	Tutelary Ministry	Federal Ministry of Education
		Number of departments	10
		Types of qualifications awarded	BSc, MSc, PhD
		Number of agriculture-related courses	34
		Typologies of candidates admitted	Post-secondary school (***initial degree & subsequent postgraduate training***);
			Post-primary and secondary for tailor-made initial training in the Enterprise Development Centre (***Business Education, Metal and wood works and Motor Mechanics***)
			Farmers and youths (***Tailor-made continuing training courses – Seed production, entrepreneurship etc..***)
		Total population of students	11000
		Proportion of female / male students	40% F / 60% M
		Total number of staffs	2000
		Academic / Non-academic staffs	800 / 1200
		Some key strengths	• Specialised Agriculture University • Emphasis on practical work • Implantation by TETFUND of infrastructures & equipment • Partnerships with local agro-allied actors

		Some major weaknesses	• Subject-based university training approach • Low employment rate of graduates • Ineffective graduate tracer system
State Colleges	**Akperan Oshi Polytechnic College of Agriculture - Yandev**	Tutelary Ministry	Benue State Ministry of Agriculture and Natural Resources
		Number of departments	5
		Types of qualifications awarded	ND (2 years); HND (2 years); Postgraduate (4 years); Attestations of participation in outreach programs (Pig production, Agricultural Extension, Fruit tree multiplication etc..)
		Number of agriculture-related courses	15
		Typologies of candidates admitted	Post-secondary school (***initial training***)
			Practising farmers (***continuing training***)
		Total population of students	1400
		Proportion of female / male students	40% F / 60% M
		Total number of staffs	216
		Academic / Non-academic staffs	176 / 40
		Some key strengths	• Strong support of Benue State government • Longstanding experience in training on fruit tree production techniques • Increasing enrolment of female candidates • Access to TETFUNDs is now a reality (polytechnic) • Availability of land for expansion
		Some major weaknesses	• Insufficient training of trainers

			• Insufficient exposure to practical experience (only 40% of the training) • Books and documents in the library are old • Not enough laboratories and workshops • Insufficient tractors for training and production activities

Non-formal Agricultural TVET in Benue state is delivered by a host of organisations including among others the All Farmers' Association of Nigeria (AFAN), the Agricultural Development Program (ADP) / Benue Agricultural and Rural Development Agency (BARDA), the IFAD-sponsored Value Chain Development Project (IFAD – VCDP) concerned mostly with the organisation of farmers in groups, clusters or cooperatives around specific commodities and training them, the Ministry of Industries and Cooperatives in collaboration with the Federation of Cooperative Associations and the Lower Benue River Basin Development Authority.

These organisations target different categories of farmers and operators and develop training offers that are very variable in terms of objectives, content, duration and application.

❖ ATVET context in Imo State

Table 11. Key figures and facts on formal ATVET context in Imo state

Category of Institution	Institutions	Criteria	Indicators
University	**Faculty of Agriculture and Veterinary Medicine Imo State University**	Tutelary Ministry	Federal Ministry of Education
		Number of departments	5
		Types of qualifications awarded	BAgric, MSc, PhD
		Number of agriculture-related courses	12
		Typologies of candidates admitted	Post-secondary school (***initial degree & subsequent postgraduate training***)
			Farmers and youths (***Tailor-made continuing training courses***)
		Total population of students	1000

		Proportion of female / male students	60% F / 40% M
		Total number of staffs	84
		Academic / Non-academic staffs	60 / 24
		Some key strengths	• Highly qualified staffs • Emphasis on practical work • Increasing involvement of females in Agricultural training at higher level • Functional entrepreneurship and skills development centre
		Some major weaknesses	• Unavailability of funds • Low transition of graduates to work • Ineffective graduate tracer system
Federal Colleges	**Federal College of Land Resources Technology Owerri**	Tutelary Ministry	FMARD
		Number of departments	5
		Types of qualifications awarded	ND & HND
		Number of agriculture-related courses	12
		Typologies of candidates admitted	Post-secondary school (***initial training***)
			Practising farmers/ motivated persons (***Short-term continuing training***)
		Total population of students	1400
		Proportion of female / male students	60% F / 40% M
		Total number of staffs	236
		Academic / Non-academic staffs	130 / 106
		Some key strengths	• Vibrant communication plan and activities • Acquisition of transport means for field outings • Focus on practical work • Highly qualified staffs

		Some major weaknesses	• Curriculum lag behind industry needs • Irregular and insufficient staff training • Lack of funds for increased development of training activities • Low graduate employment
State Colleges	**Imo State Polytechnique Umuagwo**	Tutelary Ministry	Oyo State Ministry of Agriculture and Natural Resources
		Number of departments	5 (schools)
		Types of qualifications awarded	ND (2 years); HND (2 years)
		Number of agriculture-related courses	12
		Typologies of candidates admitted	Post-secondary school (***initial training***)
			Practising farmers (***continuing training***)
		Total population of students	5000 (2000 HND; 3000 ND); (≈ ***900 in core Agriculture courses***)
		Proportion of female / male students	40% F / 60% M
		Total number of staffs	1000
		Academic / Non-academic staffs	400 / 600
		Some key strengths	• Strong partnership with IITA Agripreneur skills development program • Strong support of State government • Additional funding from TETFUND • Available land for expansion (≈ 360 ha)
		Some major weaknesses	• Unavailability of didactic materials • Curricula for older courses are equally quite old

			• Insufficient farm produce transformation equipment for training & practice

As concerns non-formal ATVET, many institutions are involved in farmer and youth training in Imo State, using non-formal approaches. These include among others, the Agricultural Development Program (ADP), the Anambra – Imo River Basin Development Authority, the IITA Youth Agripreneur Program (*The sub-centre was not functional at the time of the field visits*), Research institutions, the Extension service of the State Ministry of Agriculture, public and private farms and the All Farmers Association of Nigeria (AFAN).

The 2 skills development centres of the State Ministry of Agriculture including the Songhai Redemption Farms and the Avutu Poultry Farm are no longer functional as their buildings are in an advanced state of dilapidation (in the case of the Songhai Redemption Farms) or totally destroyed (Avutu Poultry Farm).

❖ ATVET context in Oyo State

Table 12. Key figures and facts on formal ATVET context in Oyo state

Category of Institution	Institutions	Criteria	Indicators
University	**Faculty of Agriculture University of Ibadan**	Tutelary Ministry	Federal Ministry of Education
		Number of departments	6
		Types of qualifications awarded	BSc, MSc, PhD
		Number of agriculture-related courses	6
		Typologies of candidates admitted	Post-secondary school (***initial degree & subsequent postgraduate training***)
			Farmers and youths (***Tailor-made continuing training courses***)
		Total population of students	2700
		Proportion of female / male students	45% F / 55% M
		Total number of staffs	250
		Academic / Non-academic staffs	110 / 140
		Some key strengths	• Highly qualified staffs • Emphasis on practical work • Rich endowment in infrastructures & equipment

			• Partnership with IITA Youth Agripreneur Program
		Some major weaknesses	• Low employment rate of graduates • Ineffective graduate tracer system • No mechanism for support to transition to work
Federal Colleges	**Federal College of Agriculture Moor Plantations**	Tutelary Ministry	FMARD
		Number of departments	5
		Types of qualifications awarded	ND & HND
		Number of agriculture-related courses	8
		Typologies of candidates admitted	Post-secondary school (***initial training***)
			-
		Total population of students	2600
		Proportion of female / male students	40% F / 60% M
		Total number of staffs	210
		Academic / Non-academic staffs	110 / 100
		Some key strengths	• Professional teaching staff • Admission strictly on merit • Up-to-date infrastructure and equipment • Focus on research and practical instruction
		Some major weaknesses	• Curriculum lag behind industry needs • More theoretical training • Low graduate employment • No support to graduation settlement
	Federal Cooperative College Ibadan	Tutelary Ministry	FMARD
		Number of departments	5
		Types of qualifications awarded	ND & HND
		Number of agriculture-related courses	8

		Typologies of candidates admitted	Post-secondary school (***initial training***)
			Professional cooperative managers (***1 year continuing training***)
		Total population of students	205
		Proportion of female / male students	40% F / 60% M
		Total number of staffs	127
		Academic / Non-academic staffs	69 / 58
		Some key strengths	• Longstanding experience in cooperative training • Well-equipped ICT Unit for digital integration in cooperative training • Rich library with recent publications
		Some major weaknesses	• Curriculum lag behind industry needs • More theoretical training • Fewer outlets for youth employment
	Federal College of Animal Health and Production Technology Ibadan	Tutelary Ministry	FMARD
		Number of departments	7
		Types of qualifications awarded	ND & HND; Attestations of attendance (6 weeks vocational training)
		Number of agriculture-related courses	7
		Typologies of candidates admitted	Post-secondary school (***initial training***)
			Practising farmers/ motivated persons (***Short-term continuing vocational training***)
		Total population of students	1300
		Proportion of female / male students	45% F / 55% M
		Total number of staffs	187
		Academic / Non-academic staffs	102 / 85

		Some key strengths	• Integral part of the IAR&T • Professional and highly qualified staff • Sufficient infrastructure for training and expansion
		Some major weaknesses	• Curriculum lag behind industry needs • More of theoretical training • Low graduate employment
State Colleges	**Oyo State College of Agriculture and Technology**	Tutelary Ministry	Oyo State Ministry of Agriculture and Natural Resources
		Number of departments	6 (faculties)
		Types of qualifications awarded	ND (2 years); HND (2 years)
		Number of agriculture-related courses	20
		Typologies of candidates admitted	Post-secondary school (***initial training***)
			Practising farmers (***continuing training***)
		Total population of students	3000 overall (***600 in core Agriculture courses***)
		Proportion of female / male students	37.5% F / 62.5% M
		Total number of staffs	601
		Academic / Non-academic staffs	208 / 393
		Some key strengths	• Strong partnership with state agribusiness agency (OYSADA) • Strong support of State government • Additional funding from TETFUND
		Some major weaknesses	• Insufficient exposure to practical experience (only 40% of the training) • Curricula for older courses are equally quite old • Not enough laboratories and workshops

With respect to non-formal ATVET, many different organisations and institutions organize trainings with different durations, objectives and target beneficiaries. They include the IITA under its various Youth Agricultural Entrepreneurship programs as well as the 'Start Them Early Programs (STEP), run with primary and secondary schools, the Institute of Agricultural Research and Development that trains youths and practising farmers, the Oyo State Agribusiness Development Agency, the Agricultural Credit Corporation of Oyo State (ACCOS), the State Ministry of Agriculture and Natural Resources, Oyo North Agricultural Development Project and other private concerns initiated by young Agripreneurs like FarmKonnect and Ekimiks.

❖ ATVET context in FCT

Table 13. Key figures and facts on formal ATVET context in FCT

Category of Institution	Institutions	Criteria	Indicators
University	**Faculty of Agriculture University of Abuja**	Tutelary Ministry	Federal Ministry of Education
		Number of departments	4
		Types of qualifications awarded	BSc, MSc
		Number of agriculture-related courses	6
		Typologies of candidates admitted	Post-secondary school (***initial degree & subsequent postgraduate training***) Post-secondary (***remedial and certificate courses***) Workers / Non workers (**short tailor made courses**)
		Total population of students	500
		Proportion of female / male students	35% F / 65% M
		Total number of staffs	122
		Academic / Non-academic staffs	75 / 47
		Some key strengths	• Highly qualified staffs • Emphasis on practical work • Strategic location in the Federal Capital
		Some major weaknesses	• Incomplete relocation to permanent site • Low employment rate of graduates

			• Ineffective graduate tracer system

It should be noted that in the FCT no State nor Federal Colleges that train in agriculture and related disciplines were identified, probably because of the specificity of the territory. This is however a serious setback though there is a number of non-formal ATVET structures that are working hard to bridge the gap.

These structures include the Leventis Agricultural Training School, the IITA Youth Agripreneur Training Centre, the Central Mechanical Workshop, the Aquaculture & Allied Centre, the Centre for Integrated Agricultural Development and Training (CIADT) Yaba and private farms. The Different departments of the FCT Secretariat for Agriculture and Rural Development and the Agricultural Development Programs that also provide some short training programs to farmers.

❖ Lessons drawn

From the above facts and figures on the context of ATVET in the 5 selected states and the FCT, it comes out clearly that there are diverse training institutions and organisations that offer formal and non-formal agricultural and rural training to beneficiaries in the states concerned. It also comes out that the student population is very variable from one training institution to the other. Whereas in the universities this population is growing progressively, in Federal and State Colleges of Agriculture and Specialised Agriculture-related training institutions, **student population is declining over the years**. Overall, the population of females who enrol and take training in agriculture and related disciplines is growing especially when these colleges run courses such as laboratory science technology, computer sciences, accounting, agricultural extension and management etc., that are very attractive to females. The academic staff population is relatively high and also very variable from one training institution to the other. The ratio of trainers to students ranges from 1 : 2 for the Federal College of Land Resources Technology Jos (Plateau State) through 1 : 23 for the Plateau State College of Agriculture Garkawa (Plateau State) and the Audu Bako College of Agriculture Dambata (Kano State) to 1 : 25 for the Joseph Sarmuan Tarka University of Agriculture Makurdi (Benue State). The generally acceptable ratio for vocational training is 1 : 40, indicating that **all of the Agricultural and Rural Training Institutions in the 6 selected states are overstaffed**.

It may be necessary during the feasibility study to carry out a more detailed analysis of the economics and efficiency of agricultural and rural training in the states that have been retained for the pilot project. This would probably give some orientation as to the strategy to adopt with respect to staffing of the training institutions.

In all 6 states visited, the governance of all formal agricultural and rural training institutions like other training institutions in Nigeria, is in the hands of Governing Councils. These Councils are the governing authorities of training institutions and act in formulating broad policies and guidelines for the general control and management of the institutions. The councils have custody, control and disposition of all the property and finances of the training institutions. They play a key role in the general management and supervision of the affairs of the training institutions in such a manner as to best promote the

interest, aims and functions of the institutions that they govern. The composition of the governing council may vary from one institution to another but generally, they are comprised of a Chairperson and members representing various interests in the institution's community. The appointment of members of the council is done at federal level for federal colleges and at state level for state colleges.

Generally, the key strong points of the training institutions are the high levels of qualification of staffs, the strong drive for internal revenue generation, the effort to make training more practical and the relatively high level of support that they have from the federal and state governments in terms of salaries paid to staffs. On the other hand, the major weaknesses of the institutions are the insufficiency of funding, the lack of adapted workshops and the insufficiency of modern equipment, the rather old curricula used for training delivery and their mismatch in relation to the needs of the agricultural labour market and the private sector, the insufficient training of trainers in ATVET pedagogy, the lack of graduate tracing and tracking systems and above all, the lack of a mechanism for support to graduate creation of agricultural enterprises in the territories where they settle down, or in their transition to work.

In the chapter that follows, an in-depth analysis of ATVET in the 6 selected states is done in order to have a detailed understanding of the sector and possible avenues for its enhancement.

Chapter 2. Results of on the field activities

2.1. ANALYSIS OF THE SOCIO-ECONOMIC AND POLICY ENVIRONMENT OF NIGERIA, AND THE 6 SELECTED STATES

On the African continent Nigeria is the leading economy in close competition with South Africa. On the global scene, the country is the 30th largest economy, by GDP volume. However, Nigeria's economy is highly dependent on oil and is therefore very vulnerable to fluctuations in crude oil prices and production. As a result, the economic crisis of 2014 to 2016 caused by unstable oil prices and the recent Covid-19 pandemic have strongly influenced the country's growth. In 2020, the Nigerian economy retracted due to the COVID-19 outbreak, reporting a negative growth balance of 1.8%, compared to 2.2% in 2019. According to very recent forecasts (April 2021) by the IMF, growth in the Nigerian economy estimated at 2.5% of GDP is expected to resume in 2021 and stabilise in 2022 at 2.3%.

The sharp drop in oil prices amidst a drop in global demand has left Nigeria drastically deprived of earnings, given its dependence on this commodity as a major source of income. Public debt is projected to decrease to 31.9% of GDP in 2021, from 35.1% in 2020 and is expected to remain stable at 32.5% in 2022. The latest economic data indicate that Nigeria continues to fall far short of the projections of its Economic Recovery and Growth Plan, initiated by the government in the aftermath of the 2016 recession to set aggressive growth targets from 2017 to 2020.

The Economic Recovery and Growth Plan aimed to industrialise Nigeria by establishing industrial clusters and staple crop processing zones to give firms a competitive edge through access to raw materials, skilled labour, technology, and equipment. The main obstacles to development in Nigeria are the unappropriated energy supply system, the deficient transport infrastructures, inefficient judiciary system, widespread corruption, together with high inflation. The gap between the official value of the naira and its value on the black market is substantial and the banking system is rendered more fragile by the deteriorating quality of assets.

One other important sector of Nigeria's economy is the industrial sector which makes up 27.4% of the GDP and employs 12.2% of the workforce. Its development has however been constrained by power shortages. The largest industries in the country are the petroleum industry, tourism, agriculture, and mining. The petroleum industry currently suffers from oil theft, which is believed to cost the country potential revenues valued as much as USD 10.9 billion. Services represent 49.7% of the GDP and employ 53.1% of the population. The financial, telecommunications and especially retail sectors, are very dynamic. Tourism is also a significant sector, however, this sector is still struggling from the country's poor power supply, insufficient road infrastructures, and poor water quality. The Covid-19 pandemic has had a huge impact on tourism in Nigeria.

Despite the country's dynamism, the real challenge for Nigeria is the risk of a demographic explosion. According to the United Nations, the population of Nigeria could reach 730 million inhabitants in 2100, up from 206 million today. Concerns regarding this potential population boom are aggravated by the fact that currently, half of the inhabitants live below the poverty line. In addition, pandemics including HIV and tuberculosis are rampant; infant mortality is high and the country is struggling with significant levels of inequalities.

According to the International Monetary Fund, before the COVID-19 pandemic, Nigeria's unemployment rate was already high at 23.1%, while underemployment stood at 16%. (IMF, 2021). The pandemic has aggravated the trend and fuelled youth unemployment. It is estimated that the proportion of youths not in employment, education and training (NEET), stands at some 31.39%, and may continue to increase if nothing is done. The situation prompted the Nigerian government to launch a huge public works program to create jobs for the unemployed youths.

The Nigerian agricultural sector employs 44.7% of the workforce and contributes to about 22.0% of GDP (World Bank, 2020). It still has enormous potential to employ many more Nigerians especially youths, if government action intended to drive agricultural transformation from a mostly subsistence level to a modernized commercial level, built on value chains of strategic commodities is truly effective. The need for agricultural transformation and attraction of more youths to the sector is more pressing as the rate of rural to urban migration has been increasing steadily over the years. In 2010 for example, the proportion of the Nigerian urban population was estimated at 43.48%. It rose to 47.84% in 2015 and then to 51.96% in 2020. Projections by the UN indicate that the Nigerian urban population will attain 67.1% in 2050 (World Bank, 2020). The implication of this rapid urbanisation is that rural populations that are generally involved in food production will progressively drop. Paradoxically, the rapidly declining population of rural dwellers, who are also ageing are being expected to produce increasing quantities of food to feed the swelling urban populations. This may lead to serious strife is appropriate policies and strategies are not put in place to manage the diverse problems engendered by the phenomenon.

2.2. ANALYSIS OF THE AGRICULTURAL SECTOR POLICIES RELEVANT TO ECONOMIC GROWTH AND POVERTY ALLEVIATION

❖ National Agricultural policies

Agriculture in Nigeria has gone through various phases of development depending on different government policies. According to the Central Bank of Nigeria (2016) the agricultural sector in the 1960's contributed 85% of Nigerian foreign exchange earnings, 90% employment generation and about 80% to gross domestic product.

Since independence, Nigeria has grappled with policies to place agriculture on a sound footing for national economic development. Nigeria was a big exporter of agricultural produce namely palm oil, groundnuts and cocoa in the 1960s. Agriculture was the bedrock of the economy both in terms of its capacity to engage the labour force and the foreign exchange earnings that the sector brought into the economy to drive industrialisation. What had been missing was the value-addition that was necessary to ensure that industrialisation took a foothold. However, in the 1970's, the rising fortunes of the nascent petroleum industry and its enormous contribution to gross domestic product caused successive governments to neglect the development of the agriculture sector. Decreasing interest in agriculture coupled with a rapid population growth rate, led to food insecurity as a new national challenge. This problem was further exacerbated by the enormous post-harvest losses due to lack of affordable technologies to preserve and process agricultural produce. The insufficient use of appropriate technologies for the production, transformation and distribution of agricultural produce continues to burden the sector. Nigeria is deficient in local technology needed to mechanize farming

and significantly improve productivity and increase production of farm products. In response to these challenges, successive governments have over the years, introduced a number of agricultural policies to help achieve food security in the country.

The first National Fadama Development Project (NFDP-1) was designed in the early 1990s to promote simple low-cost improved irrigation technology under World Bank financing. Fadama is defined as flood plains and lowland areas underlined by shallow water bodies and found along Nigeria's river systems. The main objective of the National Fadama project was to sustainably increase the incomes of floodplain users through expansion of farm and non-farm activities with high value-added output. Overall appraisal of the first and second phases of the project showed remarkable success hence, the initiation of the current third phase (FADAMA III).

Since 1999 government policies and programs related to agricultural development included the National Economic Empowerment and Development Strategy (NEEDS) initiated by Obasanjo. The key elements of this development strategy included poverty eradication, employment generation, wealth creation and value reorientation. NEEDS offered farmers improved irrigation, machinery and crop varieties which would help to boost agricultural productivity and tackle poverty since half of Nigerian's poor people were engaged in agriculture.

In 2002, the National, Special Programme on Food Security (NSPFS) was launched. The broad objective of the program was to increase food production, eliminate rural poverty and assist farmers in increasing their output, productivity and income. The program also sought to strengthen the effectiveness of research and extension service provision and training of farmers on farm management for effective utilization of resources as well as the promotion of simple technologies for on-farm self-sufficiency. Major limitations of the program were the inability of beneficiaries to repay their loans on time, the complexity and incompatibility of innovations introduced and the difficulty of integrating technology into existing production systems. Lack of modern storage facilities and high costs of farm inputs were also significant setbacks.

After many years of benign neglect culminating in a sharp decline in economic development in Nigeria over the period from 2001 to 2003 the government was prompted to pay more attention to agriculture.

The Agricultural Transformation Agenda (ATA) was initiated in 2011 under the Jonathan administration, and ran till 2015. The policy was built on the principle that agriculture is a business that needs to be supported by government. The main objective of the ATA was to achieve increased productivity, encouragement of private sector investment, enhanced competitiveness, adequate funding, increase of skilled manpower, increased investment in research and development and the improvement of value addition to selected agricultural commodities through well-developed value chains.

The Agricultural Transformation Agenda paved the way to re-engage key stakeholders in Nigerian agriculture to shift focus towards building a self-sustaining agribusiness economy. Some of the key achievements of the policy were the restructuring of the federal fertilizer procurement system, an increase productivity, effectiveness and efficiency of Nigerian agriculture and the development of an impetus for companies, individuals and donors to take keen interest to invest in Nigerian agriculture as it was viewed as a business that can provide a reasonable basis for wealth and job growth in Nigeria.

ATA however faced some setbacks resulting in continued importation of food especially wheat, rice, fish and sundry items, including fresh fruits. Wastage in production areas remained high causing agro-industries to continue to import supplies. The net effects were limited job growth across the agricultural value chain from input production to market systems, and continued use of limited foreign currency earnings to import vast quantities of food.

This ushered in the Agricultural Promotion Policy (APP) (2016 – 2020) with strategic focus on how to build on the initial progress made, and transition Nigeria to a new level in terms of agribusiness. The policy set out to bridge the two main gaps faced by Nigerian agriculture, including (i) the inability to meet domestic food requirements, and (ii) the inability to export at quality levels required for market success.

According to the World Bank (2021), growth in Nigeria's agriculture remained positive through 2020 though at a considerably slower rate. Despite increased government attention, the sector grew by 2.2% compared to the average rate of 3.0% over the period from 2014 to 2019. However, the emergence of the corona virus pandemic, the ensuing restrictions, flooding and low crop yields in 2020 dragged growth of the crop production sub-sector down to 1.4%.

It is expected that in 2021, there will be an improved policy response of the Federal Government particularly on long-standing issues such as land use, farming methods, and farm input quality such that as the pandemic abates globally and locally, growth of the Nigerian Agriculture sector will improve. It is anticipated annual growth would attain 2.5%, though it would be lower than the 5-year (2014 – 2019) average growth rate of 3.0% due to overall instability in the key food-producing states.

❖ Brief Analysis of agricultural policies of 6 selected states

Of the five states and the FCT under this pre-feasibility study, only Imo state and the FCT did not have recent agricultural policy documents that articulate their perception of the agriculture sector in their respective administrative units. Oyo State has a recently drafted (2021) document (20-year Strategic Plan) which spells out the thrust in transforming agriculture from its subsistence state and social activity status into a business. Agriculture is being leveraged to transform the economic fortunes of the State.

Benue State also published in January 2020, the Benue State Agricultural Policy which sets out the vision, goals and objectives and strategies to achieve them. It has also set up a coordination framework for policy implementation involving the 4 key stakeholder ministries including, Agriculture, Education, Trade and Investment, Water Resources and Environment.

Kano State on its part has through subsisting policies strengthened the agricultural sector through the establishment of two key agencies namely: i) Kano State Agricultural Supply Company (KASCO) and ii) Kano State Agricultural and Rural Development Authority (KNARDA).

Plateau State on its part, is in the process of developing a State Agricultural Policy document which is very focused on a sectoral strategic document that emphasizes 4 elements: agriculture as a business; agriculture as a job creator for youth; and agriculture as key sector to increase the State IGR (internally generated revenue). The establishment of a Peace Agency by the current government ensures these elements can be achieved when conflict is minimised or eliminated in the farming communities.

The FCT administration generally adopts the Federal Policy and develops strategies to undertake programmes and projects that actualise the policy goals within its territory.

Agriculture was also identified as the priority contributor to the State economy in Imo State and current policy thrust is to support that effort.

2.3. ANALYSIS OF NATIONAL ATVET POLICIES

2.4. ANALYSIS OF ATVET SYSTEMS IN EACH OF THE 6 SELECTED STATES

❖ SWOT Analysis of ATVET systems in the 6 states

A SWOT analysis of the ATVET system was conducted in each state. The detailed results of these analyses were presented at the multi-stakeholder workshop and can be found in Annex 4.

❖ Analysis of ATVET systems in the 6 states

In the section that follows, the ATVET system in the 6 selected states is analysed with specific focus on agricultural and rural training policies, the structuring of training offers, attractiveness of the training system, the funding of the training system, curriculum development and training modalities. Attention is also paid to certification of training and links between training and support to the socio-professional integration or transition to work by trained beneficiaries.

Plateau State

ATVET policies and strategies

Currently, there is no overall agriculture sector strategy document in Plateau State to coordinate initiatives in the agricultural sector, therefore there tends to be duplication of efforts across MDAs and depletion of resources that could otherwise be used for human capacity building. However, the 2019 – 2023 Development Strategy Document lays out the strategic avenues and implementation plan to achieve government's global vision in sectors including agriculture in general and human capacity building initiatives in particular. Accordingly, plans are underway to build capacity and disseminate knowledge through partnerships and technology so as to improve farmer access to information and increase profitability. For this, the government intends to increase the amount of financial resources available to educate and empower farmers to adopt innovations by partnering with development organizations and to incentivize knowledge sharing between farmers so as to drive adoption of technologies for scaling up production.

Specifically, the state plans to partner with schools to build a training centre for potato seed production, farming and processing, to work with the Agricultural Services and Training Centre (ASTC) and FADAMA III in order to identify skill gaps in the agricultural sector. It is expected that within the framework of the partnership with schools, there shall be some work to adjust relevant curricula to bridge skills gaps that would have been identified. Furthermore, the government plans to liaise with

agro-processing companies such as NASCO, and communal farmers to offer students yearly one-month internship placements.

Structuring of training offers

Training offers are structured depending on the institutional ownership of the training institutions (Federal / State; Ministry of authority), the domain of specialization of the institution (agriculture, forestry, land resources technology, veterinary and animal health) and the status of the institution with respect to whether it is a monotechnic (which generally offers fewer training courses) or a polytechnic (which offers many more courses). Training courses vary from one institution to the other, but there are training offers that are transversal to all institutions irrespective of their area of specialization, institutional ownership or status. These common courses include agricultural technology (crop and animal production) and agricultural extension and management. Courses are generally offered at ND and HND levels but the Plateau StateCollege of Agriculture has also opted for Pre-ND or Certificate courses as a strategy to attract more trainees.

Many of the colleges with the status of monotechnic institutions are pushing to move up to the status of polytechnics in order to benefit from the Tertiary Education Trust Fund (TETFUND), but the risk here is that the training offer in core agricultural courses may be diluted by adding many more basic and applied science subjects to meet the conditions for status change set by the NBTE.

Invariably, agricultural and rural training at the middle level (ND and HND) as well as at university level is quite well organized though a large number of graduates from these training programs are generally not employed and each year, graduate turnout from colleges and universities only goes to further complicate an already very complicated employment situation for Nigerian university and college graduates.

In Plateau state, there is no formal agricultural and rural training offer at the levels of national technical and national vocational certificates although they exist for other non-farm occupations like building, mechanics, plumbing, electricity and electronics, wood works, metal works etc. Incidentally, it is the persons with these very practical skills though with a relatively lower educational level that are highly demanded by agricultural industries and the private sector. It will be necessary to initiate suitable training at this level in order to create opportunities for youths at these lower echelons of agricultural occupations.

Attractiveness of training systems

In some colleges there are about 60% females to 40% males but the number of students registered for crop production courses is generally declining for both males and females indicating that the level of attractiveness for agricultural production activities and training in that domain is not high to many youths.

Funding of training

In all cases, the greatest source of funding (about 60 – 80%) is from the government (the federal government for federal colleges and the state government for state institutions) in the form of salaries

paid to the staff. This could amount to some 45 million Naira. Other sources of funding which are of much less importance are registration / tuition fees, revenue generated from production activities and consultancy services provided by staffs of the colleges. Internally generated revenue is paid into the government Treasury Single Account (TSA) and some 75% of it is later remitted to the training institutions for the coverage of their expenses. Generally funding is not sufficient and the training structures barely have to struggle to keep the training activities running and specially to ensure procurement of didactic materials, equipment and the rehabilitation of training facilities.

Curriculum development and training modalities

Curriculum development for agricultural and rural training in universities is handled by the National Universities Commission (NUC), whereas for middle-level training in colleges including mono and polytechnics, curricula are developed by the National Board for Technical Education (NBTE). Although university curricular are reviewed much more regularly, there is still a significant mismatch between graduate qualifications and the needs of employers (agro-industries and private sector) which explains the unemployment dilemma in which graduates find themselves. This is because training at university level is much more theoretical with only minimal exposure to practical training in real life conditions. At level 4, university students of agriculture and related disciplines are expected to go out to various organisations for internship but this does not seem to be enough to bridge the practical skills gap decried by employers.

The curricula for the middle level ND and HND courses are quite old and are reviewed less regularly. Training here is a little more practical as compared to university training, and is estimated overall at about 40% as against 60% theoretical training. Despite the fairly higher level of practical exposure that middle-level trainees benefit from, there is also a mismatch between their qualifications and the employability requirements of the industry and profession. This is likely due to the fact that curricula here generally lag behind technical and technological evolutions in the industry and profession.

The following implications come out clearly from this situation:

1. Curricula for agricultural colleges need to be critically examined and carefully rewritten taking into consideration systems and competency-based approaches to training;
2. The curricula have to be regularly reviewed to keep pace with the technical and technological evolutions in the agricultural and rural sectors;
3. The drafting and subsequent review of curricula must involve private sector actors who have good mastery of the situation in the field;
4. Training delivery has to be more practical and designed in a way as to ensure better and more regular exposure of learners to real life situations.

Certification (Recognition of Qualifications)

Nigerian universities are accredited by the Nigerian Universities Commission which means that degrees awarded by these universities are recognized throughout the national territory and even beyond. On the other hand, the Nigerian Skills Qualification Framework (NSQF) under the supervision of the

National Board for Technical Education and Training (NBTE) provides quality assurance and recognition of the qualifications such as the ND and HND awarded by colleges accredited by the board.

Link between training and socio-professional integration (settlement) of beneficiaries

Agricultural and rural training institutions in Plateau State generally keep statistics on admissions and graduation of students from the system however, there is no organised tracing / tracking system in place. There is therefore no organised follow-up of trainees after graduation. However, some colleges have developed strategies with their alumni to collect the contacts of the graduates, send them bulk SMS messages with simple questionnaires, collect data from them, analyse the data collected to generate information on the graduates including information on their activities on the field.

Above all, there is no organized system for support to the socio-professional integration and settlement of the graduates after their training. If such a system existed, it would have contributed immensely to attracting and stabilising youths in agriculture in Plateau State.

Kano State

Agricultural and Rural Training (ART) policies and strategies

Kano state does not have a specific Agriculture Development strategy, however, its 2016 – 2025 Development Plan envisages the empowerment of women, youth and people with special needs through functional, vocational, technical and entrepreneurial training that will contribute to economic and social development of the individuals and the state. The plan underpins capacity building for smallholder farmers in areas of group formation and awareness creation through participation in State and National Agricultural Shows / Exhibitions. It also targets the promotion and facilitation of the employment of more women in the formal sector of the economy and the intensification of public sensitization on the role of women in the development process in order to raise the awareness of this target group. Furthermore, it envisages the provision of educational support services for girls' education through advocacy and social mobilization.

Structuring of training offers

Training offers that are officially provided can be grouped into two main categories including (i) tertiary ATVET offered in the faculties of Agriculture and specialized university centres and (ii) middle-level training offers targeting ND and HND qualifications. The Audu Bako College of Agriculture offers courses at OND and Certificate levels, which could be a laudable option to bring in many more youths into agriculture, but the qualifications awarded do not seem to be recognised by the NBTE. The structuring of training offers and training delivery at the university and middle-level are well organised but like elsewhere, there is a vacuum at the lower level which needs to be filled as the demand for personnel with practical skills in various aspects of production, and transformation is high in the state. Paradoxically, structures that could be used for regular training of youths at this level have been constructed by the Kano Agricultural and Rural Development Authority, but are only occasionally used for other trainings (*see pictures below*).

Entrance of Centre	Classroom Block	Girls'/Women's Hostel

Plate 1. Photographs of some facilities in the Skills Development Centre in Tukui, Kano State

The Audu Bako College of agriculture offers as many as 47 programs in 13 departments probably because of the fewer number of colleges in the state that could offer some of the training programs. It is not clear how efficient course delivery is under such conditions, but the staff of the college met during the study declared that they were very confident about the quality of their training delivery which explains why the college is being approached by many organisations and some private individuals for consultancy services and continuing training. Except however, that these claims were not underpinned by hard statistics on the number of graduates transiting to work or the number of beneficiaries of the continuing training as well as its contribution to the improvement of beneficiaries' production and productivity.

Attractiveness of training systems

In the Faculties of Agriculture and related faculties of universities in Kano State, the population of students has been increasing steadily contrary to the situation in the colleges. Although the population of students enrolled in the Audu Bako College of Agriculture for example is currently estimated at about 3000, the decision to offer certificate and OND courses and the exceptional admission of candidates nominated by some elites as well as candidates considered to be vulnerable, could largely explain this situation.

Generally, there are about 70% males to 30% females but the attractiveness of core production courses (crop and animal production) is progressively dropping mostly because of the perception that young people have of agriculture and the drudgery involved in production activities that are basically manual or use very rudimentary tools. To reverse these trends and attract more youths to production agriculture, appropriate technologies aimed at reducing the tediousness of work have to be introduced. Facilitation of access to tractors and training on their use is one of such technologies to be considered. On the other hand, there is a need for a change in the perception by the general public of agriculture as a menial profession and the mind-set of youths with specific respect to the fact that agriculture can be a business capable of creating decent jobs and a lot of wealth.

Funding of training

In Kano State, the bulk of funding (about 60 – 80%) of agricultural and rural training is from the federal government for federal colleges and the state government for state institutions. Like elsewhere, this

government funding is directed mainly towards the payment of staffs. A certain reticence was noted on the part of college authorities to give exact figures of the budgets of their colleges. Government contributions in terms of salaries evaluated on the basis of the staff strength cannot be generalised for all institutions as staff statistics vary very significantly from one college to the other. Tuition fees, revenue generated from the sales of farm products, honoraria from consultancy services and small grants from LGAs, organisations and individuals constitute the secondary sources of funding for agricultural training institutions in the state.

Similarly, as in the other states, internally generated revenue is paid into the government Treasury Single Account (TSA) and about 75% of it is later remitted to the training institutions for the coverage of their expenses. Exceptionally, the administration of the Audu Bako College of Agriculture approached the State government and arranged for a remittance of 90% of revenue paid into the TSA instead of the usual 75%. This is an indication that through dialogue with the relevant authorities, training institutions can secure waivers from certain rules or special benefits as institutional support.

Funding is usually not enough which explains why all of the training structures are facing a lot of difficulties in the acquisition of training materials and equipment and in the maintenance of equipment and infrastructure.

Curriculum development and training modalities

Minimum standards of curricula for universities that offer agricultural and rural training are developed by the National Universities Commission (NUC), while the NBTE develops and coordinates the review of curricula for colleges, mono and polytechnics. Like in the other states, university curricular are reviewed much more regularly, but there is still a significant mismatch between graduate qualifications and the needs of employers (agro-industries and private sector) which explains the difficult access to employment faced by graduates. This situation seems to be due first of all to the fact that in Kano State majority of the students who offer agriculture in the university, simply default into it without any real interest in the subject. Secondly, as in the other states, this situation may be due to the fact that training in the university is very theoretical with very little practical training in real life situations. Despite the internship that university students must go through, its organization, deployment, monitoring and closure, do not suffice to enable it bridge the practical skills gaps observed. Some stakeholders in the state are of the opinion that the structuring and organization of the Students' Internship Work Experience Scheme (SIWES) should be completely reviewed to align it with the achievement of the objectives of agricultural technical and vocational training.

As observed in the other states, curricula for the middle level ND and HND courses are quite old and are not regularly reviewed. Though the training is a little more practical, most of it is done in college pedagogic and production workshops which themselves lack basic equipment and where the trainees are obliged to use rudimentary tools or poorly functioning and ill maintained equipment. Although this practical training is said to take up 40% of the entire training delivery as against 60% theoretical training, it instead tends to contribute to deepen this rather negative conception that youths have of agricultural activities, as they manipulate only obsolete tools, equipment and materials, giving the impression that this is general situation reserved for agricultural training and for the profession as a whole.

Training delivery has to be more practical and designed in a way as to ensure better and more regular exposure of learners to real life work situations.

Certification (Recognition of Qualifications)

Nigerian universities are accredited by the Nigerian Universities Commission which means that degrees awarded by these universities are recognized throughout the national territory and even beyond. On the other hand, the Nigerian Skills Qualification Framework (NSQF) under the supervision of the National Board for Technical Education and Training (NBTE) provides quality assurance and recognition of the qualifications such as the ND and HND awarded by colleges of agriculture (both federal and state) accredited by the board.

Link between training and socio-professional integration (settlement) of beneficiaries

Agricultural and rural training institutions in Kano State generally keep statistics on admissions and graduation of students from the system however, there is no organised tracing / tracking system in place. There is therefore no organised follow-up of trainees after graduation, hence very little is known about their professional progress in the domain of agriculture after their training.

The Audu Bako College of Agriculture is however working in collaboration with the College alumni to do some tracing and tracking but it is not yielding good results compared to the number of graduates who have left the college. The college plans to create a unit that will be charged with this, and the liaison with the agribusiness environment.

in addition to the lack of information on the whereabouts of the graduates after their completion from the colleges, there is no organized system for support to their socio-professional integration and settlement to some productive activity in the sector.

Benue State

Agricultural and Rural Training (ART) policies and strategies

Since January 2020, the Benue state government put in place a policy on agriculture which will serve as a roadmap for the transformation of Benue state agriculture towards ensuring food and nutrition security, employment generation, poverty reduction and overall economic development of the state. The key guiding principles for the implementation of the policy are (i) the recognition of agriculture as a business and as the key to long term economic growth and security of the state, (ii) the support and prioritization of mandate crops where the state has comparative advantage, (iii) the value chain approach to commodity development, (iv) the strengthening of demand for produce by facilitating linkages between producers and off-takers, (v) ensuring gender prioritisation and (vi) guaranteeing that Benue citizens are free of hunger.

The policy document specifically targets agricultural training as one of its main pillars and clearly points to agricultural extension as the only time-tested means of expanding the knowledge base of farmers for good agricultural practices and good returns on investment.

The government intends to revamp agricultural extension, adopt a Public Private Partnership (PPP) model for extension service delivery in the state, create an Agricultural Extension Fund and make extension service demand-driven, client-centred, farmer-led and responsive to women, youths and vulnerable groups. Government through the agricultural policy also envisages the strengthening and adequate funding of the Research-Extension-Farmers-Input-Linkage-System (REFILS) which will utilise intervention program employees and develop their capacity as extension agents and agricultural entrepreneurs. It is also envisaged that E-extension shall be established in the state, be interactive and reach all registered farmers. However, for all of this to come to fruition, there must be initial and continuing training and human capital development at all the levels of the Agricultural and Rural development sectors.

The government of Benue State is keen on skills development and vocational training and education to better prepare those of the youths who want to take up agriculture as a life-time occupation. For this, the government plans to:

- set up "**in-school agricultural programs"** that shall encourage the establishment of young farmers' clubs in schools and stimulate youth interest in agriculture,
- introduce and enhance the teaching of agriculture in school curricula,
- facilitate the establishment of school farms and gardens to make the teaching of agriculture in schools more practical and to inculcate into the youths, the mind-set that agriculture creates decent and admirable jobs.

The state is also working to add the number of polytechnics that train in agriculture and related disciplines considering that ATVET focuses on agriculture and dovetails into alternatives in agribusiness. Some further approaches that government intends to use to attract youths to agriculture are:

1. The introduction and use of modern technologies underpinned by the automation of some precision processes in agriculture;
2. The use of traction work that is no longer human but depends on alternative sources of energy (animal, mechanical, combinations…).

Benue state government is convinced that emphasis has to be on the integration into agriculture of technologies that save on labour with a drive to increasing productivity and production.

Unfortunately, however, there has been much more focus on agricultural training at higher and middle levels, to the detriment of training at the lower levels resulting in gross abandonment of structures that used to train at that level. Despite this neglect, officials of the training centres are struggling to forge ahead, though the conditions under which they work and under which the youths learn are very unconducive. (see below, some photos of abandoned Mbatie Training Centre (right) quite close to a highly endowed Akpera Oshi Polytechnic College of Agriculture (left). If training at the lower level has to be revitalised, then there will be the need for infrastructures in the concerned training institutions to be rehabilitated.

Akpera Oshi Polytechnic: Note the level of endowment in buildings

Mbatie Training Centre: Note the advanced state of deterioration of buildings

Plate 2. Photographs comparing some infrastructures in two training institutions of Benue State

Structuring of training offers

Universities in Benue State offer training in agriculture and related disciplines leading up to Bachelors, Masters and PhD degrees at the tertiary level. The AKPERA OSHI College of Agriculture Yandev received approval on the 10th June 2020 to move to the status of Polytechnic. This implies a change in the actual

structure and a change in the supervisory ministry from Agriculture to Higher Education at the level of the state. The College continues to offer middle-level agricultural training courses targeting ND and HND qualifications, but with the shift in its status, the college is now trying to break new grounds in the area of postgraduate training in order to uphold its newly acquired status.

To further strengthen this status, the college is proposing to add some new courses including mechanical engineering, electrical and electronics engineering, civil engineering and computer engineering to its portfolio of courses. Though the administration is confident that this will contribute to the training of the students in the mechanisation and automation aspects of some operations in crop and animal production, there is the risk that instead of this expected synergy between the traditional agricultural courses and the new ones added, there will rather be a massive drift from those less attractive agricultural courses to the more fashionable and smart engineering courses. Such a drift would be to the detriment of core agricultural training and agricultural transformation in the state.

Furthermore, with these ongoing dynamics, there is the risk that middle-level ATVET training in Benue state suffers and that it eventually phases out just like training at the lower level is gradually shutting down.

The structuring of ATVET training offers in the state needs to be bolstered if the ambitions set by the agricultural policy document have to be achieved.

Attractiveness of training systems

The University of Agriculture and Faculties of the Benue State University that offer agriculture and TVET related courses seem to be attracting increasing populations of youths over the years. Conversely, student enrolment in the college of agriculture has been dropping over the past few years from some 4000 students to the current 1400 with the sex ratio evolving from about 70% male to 30% female to the present 60% male to 40% female. This is probably because of the shift from knowledge-based to operational skills-based training pathways which are more demanding upon the students. In addition, the level of competition among institutions of higher learning for students is very high and rising as there are more and more polytechnics created in the state (7 currently operational in Benue State).

Furthermore, the student population in the core agricultural disciplines, is hardly over 300, with the most popular courses being animal production, fisheries and home economics. This is probably because when the youths who specialise in these disciplines finish from the college, they can begin to practice without waiting for substantial external financial resources and technical and advisory interventions.

Funding of training

Access by universities to financial resources has always posed a threat to the quality of their programs and hence the products. For this reason, institutions of higher learning are constantly exploring ways of achieving financial self-sufficiency. This is supported in the Nigerian National Policy on Education (Section 8:2004, revised) which states that "*Universities and other tertiary institutions are encouraged*

to explore other sources of funding such as endowments, consultancy services and commercial ventures".

The universities in Benue state therefore obtain their funding from diverse sources including the federal or state government, grants, the Tertiary Education Trust Fund (TETFUND) etc. The College of Agriculture on the other hand is largely funded by the State Government which takes charge of some 90% of the expenses paid as salaries to the staff. The college authorities place this amount at some 40 million Naira.

Some 10% of the funds used in the college are internally generated revenue including school fees (80%), farm production (5%), consultancy (10%) and tractor hiring services (5%). Revenue is also generated from an outreach program developed for the marketing of agricultural products, agricultural extension training involving continuing training of practising extension workers and initial training of a batch of some 50 youth within the framework of the N-Power program. Additionally, over 500 youths have been trained under the Graduate Unemployment Youth Scheme (GUYS). Through the consultancy unit, the college has been producing and supplying seedlings of mangoes, cashew, palms and citrus to the FMARD over the period from 2002 to 2015. Presently, the college is involved in the Swine Improvement Program domiciled on its campus. These different sources may be generating substantial amounts of revenue but as required by law, internally generated revenue is paid into the government Treasury Single Account (TSA) and about 75% of it is later remitted to the college for the coverage of the expenses incurred.

Officials of most of the colleges argue that funding is often grossly insufficient which is why the different institutions and especially the training centres are facing a lot of difficulties in the maintenance of infrastructure, the acquisition of training materials and equipment and the continuity of their training activities.

Curriculum development and training modalities

Curricula for the universities that offer agricultural and related training courses are based on minimum standards developed by the National Universities Commission (NUC). The respective universities may then enrich the content depending on their real needs and context. As regards colleges, mono and polytechnics, the NBTE is the authority that develops and organises the review of curricula for training delivery.

As was observed in the other states, university curricula in Benue state are reviewed much more regularly, but there is still a significant mismatch between graduate qualifications and the needs of employers (agro-industries and private sector) which explains the unemployment problem in which graduates find themselves. For example, more than 400 young graduates submitted applications to the Lower Benue River Basin Development Authority for just 20 places in its Graduate Youth Empowerment Project. As indicated in the case of other states, university education in Benue seems to be a lot more theoretical than practical without enough exposure of students to problem solving situations that prepare them to develop the necessary competencies in order to become directly operational and competitive upon graduation.

Training in the AKPERA OSHI Polytechnic College of Agriculture is slightly more theoretical (55%) than practical (45%) and is done mostly in the college pedagogic and production workshops which often lack modern tools, equipment and machines and which do not therefore appropriately prepare the students for work.

Training delivery here will need to be restructured to become more practical and designed in a way as to ensure better and more regular exposure of learners to real life practical situations.

Certification (Recognition of Qualifications)

The universities that operate in Benue state are accredited by the Nigerian Universities Commission which means that the degrees they award are recognized throughout the national territory and even beyond. On the other hand, the Nigerian Skills Qualification Framework (NSQF) under the supervision of the National Board for Technical Education (NBTE) provides quality assurance and recognition of the qualifications such as the ND and HND awarded by colleges accredited by the board.

The postgraduate courses offered by the Akpera Oshi Polytechnic are run in affiliation with the Benue State University and are therefore recognised under the banner of the university.

Link between training and socio-professional integration (settlement) of beneficiaries

In the AKPERA OSHI Polytechnic College of Agriculture, statistics on students who have graduated from the college exist at the level of the different departments but are not consolidated and centralised at one point. In addition, details on where the graduates are and the activities that they are carrying out are not available. Consequently, it is difficult to determine the rate of socio-professional integration of young graduates from the institution. If these statistics were available, it would be possible to see what proportion of graduates gain employment with the public or private sectors, what proportion of them set up agricultural enterprises or employ themselves in non-agricultural areas and what proportion pursue their education in higher institutions of learning. It is therefore incontestable that this information is absolutely indispensable for all training structures.

As observed in some of the states concerned by the study, there is no organized system for support to the socio-professional integration and settlement of the graduates after their training in Benue state. The officials of the training institutions contacted, recommended that this aspect should be paired with training to obtain more lasting results than for either of them to be implemented in isolation. In other words, training and support to transition to work should go hand in hand.

Imo State

Agricultural and Rural Training (ART) policies and strategies

Imo State does not seem to have a clear policy on agricultural development nor a roadmap for the transformation of the state's agriculture and the institution of strategies to ensure food and nutrition security, employment generation, poverty reduction and overall economic development of the state. Onubuogu and Esiobu (2014) pointed out that there was a void in the in-depth analysis of policy

advocacy for sustainable agricultural development strategies and roadmap for agriculture and green economy in the State, probably because such a policy had not been formulated.

Though no specific strategy exists for Agricultural, Technical and Vocational Education and Training in the state, the different stakeholders met during the pre-feasibility study argued that Imo state is deeply involved in agriculture and huge amounts of the commodities produced are consumed at local level because a lot of farmers are subsistence farmers engaged in family agriculture on parcels of land measuring 1 to 3 ha maximum. Government is therefore committed to scaling up the training of young people and encouraging them to settle down to agriculture and agribusiness as well as enhancing the training of farmers and contribute to a significant increase to their productivity and production.

Structuring of training offers

The faculty of Agriculture and Veterinary Medicine of the Imo State University at Owerri offers agriculture courses and related disciplines leading up to Bachelors, Masters and PhD degrees. Course delivery at this level is well organised though faculty officials point to lack of funding which makes it difficult to recruit enough manpower for the training of youths in agriculture, their support to initiate agribusinesses and their follow up to grow and consolidate their businesses.

In both the Federal College of Land Resources Technology and the Imo State Polytechnic, courses are designed to train middle-level technicians leading up to the National and Higher National Diplomas. Courses here, are also well organised. However, it was observed that many buildings had been constructed by the TETFUND and were apparently not being used for course work. This situation is contradictory to the fact that one of the reasons for the College to transit from the State College of Agriculture to Polytechnic was to be able to access these Tertiary Education Training Funds, which are generally used for infrastructure construction. It can be concluded here that the simple construction of buildings in new or existing training institutions may not be the only solution to the attraction of youths to agriculture. Other strategies including a systems approach that integrates solutions to all the shortcomings identified should be combined to tackle the problem.

Training offers at the lower level are totally inexistent as the structures which are supposed to offer such training including especially the Songhai Redemption Farms and the Avutu Poultry farms which are both structures of the State Ministry of Agriculture and Natural Resources are no longer functional. Majority of the stakeholders encountered in the field pointed out that the protracted abandonment of both facilities by the State Ministry of Agriculture led to the dilapidation of the infrastructure and equipment in the Songhai Farms on the one hand, and the complete destruction by discontented youths of buildings, equipment and materials at the Avutu Poultry Farms on the other hand. If Imo state wants to transform its agriculture the government needs to draw up and implement a clear policy and strategy for ATVET, focusing on the revitalisation of its agricultural and rural training system with a focus on the involvement of youths at the middle but also at the lower levels.

The Anambra – Imo River Basin Development Authority is building its own training centre along the Songhai model, in the hope of revitalising agricultural training in the state by providing a conducive working and learning environment which would attract trainees and impact positively on them and their trainers. See photos below illustrating both scenarios.

Units of the abandoned Songhai Redemption Centre of the Ministry of Agriculture	
	
Piggery house (barely useable)	Broiler house (totally broken down)
	
Fish tanks for fish farming	Layer house (Walls completely broken)
Some Farm Units at the Anambra-Imo River Basin Development Authority **Songhai Farm Centre – Projected Training Centre**	
	
Piggery at the River Basin Authority farm	Maize plot with plastic mulch
	
Concrete fish tanks for fish farming	New production unit under construction

Plate 3. Photographs of some facilities abandoned in Songhai Redemption Farm and replicate facilities in the Anambra - Imo River Basin Authority's centre

Attractiveness of training systems

The population of students in the Faculty of Agriculture and Veterinary Sciences of the Imo State University is evaluated at some 1000 constituted of 60% females and 40% of males. University authorities argue that the lower population of males is because boys want to make quick money consequently, they prefer other alternatives than university education in general and much less agricultural training in particular. Despite the fact that the bulk of farmers in the rural areas of Imo state are women, very few of the female students that constitute the majority of students in the faculty of agriculture and veterinary medicines are interested in crop and animal production activities as they perceive them as labour-intensive characterised by drudgery. They generally enrol in the faculty by default with the hope that they would get a job anywhere upon graduation and not because they want to build a career in agriculture.

In the Imo State Polytechnic, the student population has been gradually declining. In 2018 – 2019 the population was estimated at some 8000 students with 3000 – 4000 enrolled for HND while some 4500 – 5000 were enrolled for the ND programs. The current population is about 5000 students with some 2000 enrolled for the HND and about 3000 enrolled for the ND courses. College officials believe that this drop in student population can be attributed to a number of factors including the following:

- The reorganization of the campuses with their assignment to specific colleges and departments. Students who did not like to go to the new campuses simply withdrew;
- The introduction of new courses which are much more intellectually demanding in terms of entry requirements and course work; and
- The physical conditions of some of the candidates with respect to some of the engineering courses that are offered.

The student sex ratio for the HND courses is estimated at about 60% females to 40% males while that for ND courses is about 55% female to 45% males. Females generally prefer courses in the areas of Business, Office Technology, Nutrition, Food Science and Technology, Accounting, Cooperatives and Extension and Management as they are generally not physically demanding and tend to lead to career opportunities with a lot of openings for interaction with people.

In the Federal College of Land Resources Technology, there are some 1800 students currently on roll (2020 – 2021 session), this student population includes 60% females and 40% males. According to the administration of the college these trends simply reflect the natural situation in the rural areas of the state where there are more women engaged in agriculture than men. Today, boys take to business to make big and fast money, raise a family and take care of their families; they are not very interested in taking courses for 3 years or more in a college and then to wait many more years to have a job. Generally, the student population has been declining over the years because of the few security issues which have however been taken care of through the traditional rulers of the communities. It is expected that at the end of admissions for 2021 – 2022 session, the student population will start to rise.

Of the 1800 students, about 55% are offering HND courses while some 45% are enrolled in ND courses. The current population of the college is higher than its potential capacity. The hostels for example have a capacity of 200 Males and 350 Females but a good number of students, lodge out of the hostels as

the space is not enough. The female hostels have been given some special preferential facilities (solar panels for electricity and boreholes for a steady supply of water) to make boarding life comfortable.

Overall therefore in Imo state, core agriculture training courses do not appear to be appealing to the youths as they rather prefer such fashionable courses as agribusiness, accounting, engineering and technology that may offer better chances of leading to employment upon graduation.

Funding of training

The Faculty of Agriculture and Veterinary Medicines of the Imo State University obtains the bulk of its funding from the state government as salaries paid to the staff, special accreditations that lead to some subsidies, sustenance by the TETFUND and tuition fees paid by students. Like in all cases, internally generated revenue is paid into the TSA and it is only subsequently that some 75% are remitted to the establishment.

In the case of the Imo Polytechnic a substantial amount of the funds come from the state government in terms of salaries of workers. School fees also generate some funds while production units generally handled by students are considered as social programs hence funds generated from them are not considered as state revenue. Internally generated revenue is paid into the TSA account before some 75% are remitted to the College.

Funds from the Tertiary Education Trust Fund are generally directed to the construction and equipment of buildings. It should be noted that when the college was running as a monotechnic, it obtained very little funds but every aspect of agricultural training was given serious attention. This goes to confirm the conclusion that technology, business and engineering-based courses that are introduced as a prerequisite for transitioning of Colleges of Agriculture to polytechnics tend to entice candidates interested in agriculture to shift to these other options. The solution here is to render all core agriculture courses more technology and digital driven in order to also make them fashionable and attractive.

The Federal College of Land Resources Technology is one of the 3 Federal Colleges of its type and receives most of its funds directly from the Federal Ministry of Agriculture and Rural Development which is its anchor ministry. Its other sources of funding are registration fees, consultancy fees and income generated from production activities. Revenue generated from these last three sources is paid into the Treasury Single Account, after which some 75% of the amount are remitted to the college.

It comes out from stakeholder analyses that faculties of agriculture of state universities and state colleges of agriculture tend to receive less funds from the state government than federal training institutions receive from the federal government. This situation shall require a much more critical analysis by the feasibility study.

Curriculum development and training modalities

As observed in the other states, the National Universities Commission (NUC) develops the Minimum Standards for the curricula of the Faculty of Agriculture and Veterinary Medicine of the Imo State University. The faculty adds specific discipline-related content to complete the curriculum so that it

respond to the needs and demands of the milieu. On the other hand, the NBTE develops curricula for colleges, mono and polytechnics like the Imo State Polytechnic Umuagwo and the Federal College of Land Resources Technology – Owerri.

Course work in the Faculty of Agriculture and Veterinary Medicine is organised to make it 40% practical (2 days in the farm) and 60% theoretical (3 days in class and laboratory). The 1-year industrial attachment at the end of the course was intended to be purely practical but as the payment of students' stipends by the Industrial Training Fund (ITF) is no longer effective, majority of the students have to take care of themselves. Sometimes they prefer to stay in family business concerns that may not have much to do with agriculture. The faculty has had to make arrangements with nearby institutions like IITA, the National Crop Institute at Moor Plantations, Umodike Research Centre and other institutions to host students on internship. In some cases, they go to farms of their choice.

This internship is very useful for the students as it enables them to gather a lot of practical experience in real-life work situations. At the end of the internship, they have to prepare and present reports of their experience. Some of them bring back products that they had either produced themselves or which they participated in producing.

In the Imo State Polytechnic, training in agricultural disciplines is more practical than theoretical with about 60% of the course work being practical as against 40% theory. The facilities which are used to facilitate practical training include a seed multiplication plot measuring 5 ha, a cassava demonstration plot measuring 5 ha, a plot for seed yam multiplication with focus on new technologies of planting, field production and processing and a cassava mill for the production of cassava flour with a throughput of 1 ton of flour/day using some 15 tons of fresh tubers.

The Federal College of Land Resources Technology lays emphasis on what is referred to as entrepreneurship and practical work such that at graduation, students look for their jobs. However, it is not clear if this training approach yields the expected results of high graduate employment after graduation.

Certification (Recognition of Qualifications)

The universities that operate in Imo state are accredited by the Nigerian Universities Commission which means that the degrees they award are recognized throughout the national territory and even beyond. On the other hand, the Nigerian Skills Qualification Framework (NSQF) under the supervision of the National Board for Technical Education (NBTE) provides quality assurance and recognition of the qualifications such as the ND and HND awarded by colleges accredited by the board.

Link between training and socio-professional integration (settlement) of beneficiaries

In all of the training institutions, statistics on students who are admitted and those who have graduated exist. However, details on the whereabouts of the graduates and the activities that they are carrying out are not available. Consequently, like in the other states, it is difficult to determine the rate of socio-professional integration of young graduates from the institutions. Graduate employment with different organisations and progress to higher institutions of learning is not known. This situation makes it very difficult to draw any conclusion on the influence of agricultural training on the

employability of graduates and to state clearly in what way the curriculum, training organisation, delivery and assessment influence the quality of the graduates.

There is no organized system for support to the socio-professional integration and settlement of the graduates after their training. This may be a key determinant of the attractiveness of agriculture core courses in the agricultural and rural training institutions in Imo state.

Oyo State

Agricultural and Rural Training (ART) policies and strategies

In 2018, the government of Oyo State launched a 20-year development policy built on the roadmap for accelerated development (2019 – 2023) drawn up by the state governor with the ambition to make Oyo state the centre of agriculture and agro-processing, the hub of the investment destination, one of the major contributors of non-oil exports in Nigeria and to achieve a productive industrial base for the state.

With respect to agricultural and rural training the policy envisages the expansion of school agricultural programs especially in secondary schools in the state, as a form of "***catching them young***" to agricultural enterprises, the development of agricultural training centres for youths with focus on farm mechanization through collaboration with educational and agricultural research institutions in the state, the mobilisation of small farmers for action by supporting them with agricultural inputs while training them on the timely use of such inputs and in the appropriate quantities.

The policy document envisions the encouragement of young agripreneurs to take up farming by revitalizing the 9 farm settlements in the state to accommodate these youths. At such farm settlements, the young agricultural entrepreneurs will have access to basic amenities especially primary schools for the education of their children, good housing, roads, stable electricity and linkages to subsidized input markets and off takers. The government also intends to empower the youths through various measures of developing their potentials through education, skills acquisition, entrepreneurship training and poverty eradication programs.

The government of Oyo State is highly committed to skills development and vocational training and education to better prepare those of the youths who want to take up agriculture as a life-time occupation. That is why work was initiated with the International Institute for Tropical Agriculture (IITA) that has the potential to play an important role in developing strong "social capital" in rural areas, to address the issue of widespread youth unemployment and to provide a platform that propels youth toward self-employment in agriculture.

Structuring of training offers

In Oyo State, the Faculty of Agriculture of the University of Ibadan is involved in the training of high level personnel in various areas leading up to Bachelors, Masters and PhD degrees at the tertiary level. Whereas, the State College of Agriculture and Technology and the Federal College of Animal Health and Production personnel train middle-level technicians for the ND and HND qualifications under the supervision of the NBTE.

The training offers at these two levels are well organised contrary to the situation at the lower levels where training is reduced to non-formal usually short training programs organised by a host of institutions using various approaches. For example, the Faculty of Agriculture of the University of Ibadan organises what it calls non-conventional training courses in its outreach strategy. These training programs target soft skills that are tailor-made, based on the Farmer Business School model of the GIZ. They last 4 to 12 weeks and are usually practical and hands-on training courses for example:

- training on snail production,
- training on cassava and potato production with emphasis on β-carotene potato varieties (in collaboration with the Research Council of Nigeria), sweet potato flour for the pastries industry and baby foods,
- training on vegetable production,
- the Rural Youths Extension Program through the department of agricultural extension and rural development.

Trainings target men and women alike and the objective is to improve on production and processing techniques of the crops targeted.

Attractiveness of training systems

The population of students in the Faculty of Agriculture of the University of Ibadan is estimated at about 1400 undergraduate students (studying for the Bachelor's degree) and 1300 post graduate students (Masters and Doctorate degrees). The student population comprises some 45% females to about 55% males. This population has been progressively increasing over the years, indicating that the faculty has been attracting more and more candidates but it is not clear if they register to take agriculture courses because of genuine interest and motivation in the sector, or they hope to use the university degree as a springboard for employment in other domains.

The Oyo State College of Agriculture and Technology (OYSCATECH) on its part has a student population of about 3000 with 1000 in the Faculty of Management and Communication, 600 in the Agriculture-based courses (animal science and fisheries ≈ 500, plants and environmental science ≈ 100). Some 60 – 65% of the 3000 students are male while about 35 – 40% are females. The student population is increasing as the entire quota allocated by JAMB was obtained and the college administration asked for 10% more. It is expected that the number of students will increase to 4500 for the coming academic year. Students tend to be more attracted to Management courses rather than agriculture-based courses for the following reasons:

- The level of technology in agriculture based courses is low and unattractive,
- Students have a strong ambition for white collar jobs and are therefore more attracted to management jobs and hence they avoid agriculture,
- There is low exposure to profitable ventures in agriculture such as intensive all-season farming under controlled conditions,

- The general public perceives agriculture as a common national occupation and social activity, furthermore, the traditional and cultural nature of agriculture makes it very unattractive for parents who prevent their children from enrolling to study it,
- Youth perception of agriculture is low hence professions in the agricultural sector are not attractive,
- The situation of insecurity and herder – farmer conflicts are making agriculture less attractive,
- There is a serious lack of incentive to initiate activities in the agricultural sector as very few youths are employed after graduation from agricultural colleges and universities so the others are not attracted to the field (there are very few role models to inspire youths in the field),

The Experiences of the IITA **Empowering Novel Agribusiness-Led Employment for Youths (ENABLE – Youth)** and its other programs like **Start Them Early Program (STEP)** and **Technologies for Africa Agricultural Transformation (TAAT)** indicate that agriculture becomes attractive to young people if it is technology-driven, agribusiness-led and inculcated early to operate the appropriate mind-set change.

For example, for a 1000 target of youths to benefit from the ENABLE – Youth incubation program, some 27000 requests for participation were received from potential candidates indicating the very high number of unemployed graduates who are out in society. After the incubation of some 2828 persons, 166 enterprises have been established creating some 323 jobs.

Funding of training

The Faculty of Agriculture of the University of Ibadan is funded in large part though government contribution, TETFUNDs, tuition fees and service provision fees for consultancy work done by faculty staff.

In the case of the Oyo State College of Agriculture and Technology most of the funding comes from the State government which allocates a yearly budget for capital expenses and the functioning of the college. Tuition fees also generate some income but in conformity with the law on IGR, this revenue is paid into the TSA which then returns everything for operational costs. Revenue generated from students' projects are generally considered as contribution to social responsibility.

The key challenge that all of the training institutions face it the inadequacy of funding which explains why they are facing a lot of difficulties in the maintenance of infrastructure, the acquisition of training materials and equipment and the continuity of their training activities.

Curriculum development and training modalities

Development and review of curricula for the Faculty of Agriculture of the Ibadan University is under the purview of the National Universities Commission (NUC) that is responsible for the development of Minimum Academic Standards which are then enriched. These curricula are reviewed much more regularly though this has not significantly contributed to bridging the skills mismatch observed in the state and to a larger extent, the entire country.

Eneh and Eneh (2015) advocating a rethink of Nigerian university curricula, pointed out that out of the estimated 130,000 graduates that pass out every year from Nigerian universities and higher institutions, only 13,000 (10%) of them are able to secure employment as they are neither employable, nor enterprise-ready. In their opinion, there is a yawning gap between the curriculum of Nigerian university education system and the roles its graduates are expected to play in the society, in the present dispensation. To them, it has therefore become imperative to rethink the curriculum of Nigerian university education system. The new curriculum they conclude, should aim at making the Nigerian university graduates enterprise-ready for employment and self-reliance.

As in the other states, the NBTE develops and organises the review of curricula for the Oyo State College of Agriculture and Technology. Although the students go through all the links of the value chains in agriculture related courses, they are not always taken out of the college campus for practical work and for exposure to real life situations. There are very few excursions because of lack of funding and it is only at the end of their training that students go for the SIWES internship. This accounts for the higher weighting of theoretical training estimated at 60% as against 40% practical training.

Certification (Recognition of Qualifications)

The University of Ibadan and other universities in Oyo state are accredited by the Nigerian Universities Commission thus giving the degrees awarded, national and international recognition. Conversely, it is the NBTE that certifies the National and Higher National Diplomas awarded by the Oyo State College of Agriculture and Technology under its Nigerian Skills Qualification Framework (NSQF) which provides quality assurance and recognition of the qualifications.

Link between training and socio-professional integration (settlement) of beneficiaries

In the University and College of Agriculture and Technology, statistics generally exist on students' admission and exit from the institutions but there are no recorded databases on the graduates' whereabouts, the activities they are engaged in nor their educational pursuits. At the level of the training institutions, there is no organized system for support to the socio-professional integration and settlement of the graduates after their training, which may partly explain the decline in youth motivation to embrace agriculture especially production activities as a professional pathway.

However, the state government is deploying many different strategies (agricultural entrepreneurship, rehabilitation of farm settlements, small loans, etc.) in partnership with such institutions as the IITA, the Agricultural Credit Corporation of Oyo State (ACCOS), and the private sector to open up opportunities for youths in the state to enter agricultural production, agribusiness and agro-industrial transformation and marketing activities. It is expected that if these initiatives take root, Oyo state would become the hub of agribusiness and agro-industrial development in Nigeria.

Federal Capital Territory (FCT)

Agricultural and Rural Training (ART) policies and strategies

The Federal Capital Territory Agricultural Strategic Plan (2010 – 2019) had as goal to stimulate economic growth in the agriculture sector in all Council Areas of the FCT through coordinated planning and implementation that are interactive, and effective, with the full participation of the stakeholders, towards the promotion of food security, wealth creation and poverty eradication. The Plan leveraged the stimulating role of the Agricultural and Rural Development Secretariat (ARDS) of the FCT towards faster agricultural growth and food security in the FCT with the objective of intensifying the on-the job training and capacity building of staff of the Secretariat in areas of program development, project implementation and resource utilization, improved coordination and communication of policies, research, extension, and training and improved effectiveness of public institutions, programs and expenditures. The plan provided for the conduct of a Skills Gap Analysis and Training Needs Assessment of all the technical staff of the ARDS followed by the structuring of trainings for the 5 years' period covered.

With respect to agricultural and rural training the strategic plan targeted the revitalization of the Center for Integrated Agricultural Development and Training (CIADT) Yaba, the upscaling of the training of youths in the Leventis Agricultural Training School and the improvement of the training of farmers on budding/grafting in order to enhance the farmers' skills in tree crop production, the provision of extension advice, training of farmers and the gathering of data for planning purposes.

Structuring of training offers

The Faculty of Agriculture of the University of Abuja awards 3 Agriculture-based first degrees including BAgric.in Agriculture, BAgric in Food Science and Nutrition, BAgric. Water Resources, Aquaculture and Fisheries. The departments of the faculty of Agriculture include Agricultural Economics, Animal Science, Crop Science, Soil Science, Agricultural Extension and Rural Sociology. Courses in the faculty were launched in the 2005/2006 session and since then, the faculty has been admitting students progressively.

Apparently, there are no agricultural colleges or polytechnics in the FCT that offer middle-level courses in agriculture and related disciplines however, although the Agricultural and Rural Management Training Institute (ARMTI) has its main campus in Ilorin, it offers some courses in Abuja relating to Agricultural Project Management, Women and Youth Development, Agricultural Finance and Rural Credit, Rural Infrastructure & Institutions Development, Extension Management, Enterprise Development Management, General Management and Computer Training and Information Management. In addition to its traditional courses, the ARMTI runs tuition-free courses in various areas of agribusiness development.

Training at the lower level is offered by the Leventis Agricultural Training School Abuja which started in 2008, and the Centre for Integrated Agricultural Development and Training (CIADT) Yaba.

The IITA Youth Agribusiness Training centre runs courses that are tailor-made in order to leverage both urban and rural youth inclusion in agribusiness to transform rural communities into agribusiness hubs and to make them comfortable enough as to further attract more youths. Production techniques that are being developed, are focused on greenhouses use (for controlled year round production), soilless farming (with hydroponics techniques), proper packaging and marketing of the products. Training on

aquaculture is developed and delivered to groups of youths using the fish ponds in the training centre and the equipment available including nets and smoking kilns. After the training, the youths are attached to mentors for technical support. Business development officers help to create contacts in the local communities. To facilitate advocacy, a database of youths interested in agriculture and agribusiness has been developed and more than 1000 youths registered. Plans are underway to conduct training using an E-learning platform so as to attract more youths to the sector.

Trainings at the lower level as well as the customized training of the type developed by the IITA training centre need to be carefully analysed and structured to open up opportunities for the teaming populations of youths in the FCT who may be interested to take up agriculture as a profession.

Attractiveness of training systems

The population of students in the Faculty of Agriculture of the University of Abuja is growing progressively as more qualified youths are getting enrolled in the faculty.

On the other hand, when training was launched in the Leventis Agricultural Training School in 2008 there were 28 trainees on roll, all originating from the FCT. Since 2008, the School has trained about 600 farmers in both the regular and ad-hoc training programs. Currently, the school admits 150 students for training each year with about 30% females and 70% males, but with its 50 ha of arable land the school has enough room for expansion in the future.

The graduates from this school also receive a package of about 200000 Naira as seed capital or starter pack including both cash and equipment to start their farm projects. Subsequently, they are encouraged to constitute groups or clusters in their respective communities according to their interests in terms of the commodities they are concerned with or the activities they are carrying out. Generally, the graduates return to their communities where they settle down to production, transformation and marketing activities. Since 2020 however, training activities have somewhat slowed down as a result of lack of funding.

Funding of training

Almost all of the funding for the Leventis Agricultural Training School is provided by Leventis Foundation Ltd, which is a charity organisation. On occasion, the state government makes contributions especially for support to the socio-professional integration and settlement of the trained youths.

The IITA Youth Agribusiness Training Centre was founded by Mastercard but presently, the institution receives funds from other sources including some government agencies.

Curriculum development and training modalities

the National Universities Commission takes charge of the development of Minimum Academic Standards for the curricula of the Faculty of Agriculture of the University of Abuja. It is subsequently enriched by the scientific committee of the university and submitted for approval.

On the contrary, the curriculum for the Leventis Agricultural Training College is drawn up by the Leventis Foundation for all of its 6 schools in the national territory, The National Board for Technical Education neither participates in the design of the curriculum nor supervises its construction and review.

Certification (Recognition of Qualifications)

Degrees awarded by the Faculty of Agriculture of the University of Abuja are recognised in the national territory and even internationally. The Leventis Foundation School of Agriculture however does not qualify for the Nigerian Skills Qualification Framework (NSQF) which provides quality assurance and recognition. Therefore, certificates obtained by the school's trainees are not necessarily recognised by the certification authority.

The officials of Leventis Foundation, recognise this gap and agree that there is the need to engage dialogue with the NBTE to work out mechanisms for the certificates delivered by its schools to align with NSQF and hence to be recognised.

Link between training and socio-professional integration (settlement) of beneficiaries

Contrary to what obtains in most public training institutions, there is an organized system for support to the socio-professional integration and settlement of graduates after their training in the Leventis Agricultural Training School. The starter pack that is provided enables the beneficiaries to start and grow an activity. If they succeed, they generally become role models in their communities. This contributes to motivating other youths to follow their examples.

❖ Overall perception of determinants of attraction of youths to agriculture

The Director of the Department of Science and Technology of the Federal Ministry of Education strongly holds that in order to attract youths to agriculture and reverse the trends of rural to urban migration, there is need to:

- Revolutionise agriculture moving it from hoes and machetes to machines especially as for a start, the equipment do not need to be sophisticated. Rather, they should just be adapted to those who are using them; small machines for smallholder farmers and bigger machines for bigger farmers,
- Give adequate training to the youths in their respective areas of interest not on topics and issues that are of no interest to them,
- Finance agriculture for new entrants with starter packs; the funds could come from the Federal or State governments, funding agencies or from some PPP arrangement,
- Bring the trained and settled youths together in clusters or cooperatives so that they can grow their enterprises through collective action,
- Monitor and coach the individuals and groups, clusters or cooperatives in areas like financial management so that they can grow their businesses,

- Place emphasis on support for marketing and take out interlopers (middlemen) from the marketing channels of most of commodities so that the young produces benefit directly from their hard work.
- Catch them young and grow the technology step by step right from primary school as necessary step to operating much needed change in their mind-sets quite early;
- Above all provide land to the youths to open their farms. Communities, LGAs, State governments and even the Federal government have to intervene at one point to provide land to the youths,

In line with such a strategy, agricultural engineering courses at the intermediate and higher levels should focus on the fabrication of parts for small machines in order to solve the problem of spare parts; this can be taken care of in Technical and Science Colleges. Sustainability and suitability of technology are very important but its affordability is also very critical and must be taken into consideration.

On the other hand, the IITA Youth Agripreneur Program officials argue that youths who have not attended school but have some experience in agriculture can also be trained and assisted to build their skills and develop competencies in agriculture and related activities.

The model that the program uses is robust and addresses needs that lead to youth-led agribusiness start-ups and growth as well as the skill sets required to secure decent employment. It is based upon modern farming technologies and enterprises, skill set development through experiential learning, and strategic mentorship.

All of these activities could be designed and implemented in a way as to channel the youths' skills into areas that can ensure potential for agriculture, laying emphasis on a change of youth mind-set with regards to agriculture, value chain development in agriculture and their potentials to create wealth and gainful employment.

2.5. IDENTIFICATION, MAPPING AND ANALYSIS OF THE DIFFERENT ACTORS OF ATVET IN EACH OF THE SELECTED STATE

There is a diversity of actors in all 6 selected states that play an important role in agricultural and rural training in one way or the other. The key areas of interest with respect to these roles include (i) policy and strategy formulation and governance, (ii) supervision of policy and strategy implementation, (iii) the actual implementation of the policies and strategic actions developed at the level of each state (iv) provision of consultative services for agricultural and rural training and (v) support services organisations.

The typologies of organisations and the roles that they play are summarised in the table below.

Table 14. ATVET actors, their responsibilities and roles

Public and Private Sector actors concerned	Roles and responsibilities with respect to agricultural & rural training and development

Federal Ministry of Agriculture and Rural Development for Federal Colleges	• Policy formulation on agriculture in general and agricultural & rural training in particular • Supervision of Agricultural policy and strategy implementation at state levels • Funding, control and supervision of the functioning of Federal Colleges located in various states
Federal Ministry of Finance, Budget and National Planning	• Formulates national policies on fiscal matters with particular attention to controlling inflation and deflation in the economy • Mobilizes domestic and external financial resources for economic development purposes • Manages revenue allocation through the Federation Accounts Committee • Monitors government revenue from oil and non-oil sources • Relates with relevant international organizations and financial institutions The ministry if the entry doorway for external financial resources that could serve for the funding of ATVET among other development projects
Federal Ministry of Education	• Lead ministry in matters of National Education policy starting from basic through secondary to tertiary education • Its Directorate of Technical and Vocational Education is in charge of Technical and Vocational Training • The National Board for Technical Education – NBTE (one of its agencies) is charged with curriculum development and review, training supervision and certification over the entire national territory
Federal Ministry of Environment	• Develops policies and strategies aimed at ensuring a conducive environment for human health and wellbeing • Caters to the protection of fauna and flora and the promotion of sustainable use of natural resources • Ensures the restoration and maintenance of the ecosystem and ecological processes • Ensures the preservation of biodiversity • Funding, control and supervision of the functioning of some Specialized Federal Colleges located in various states such as the Federal Forestry College Jos The Ministry collaborates very closely with the Federal Ministry of Agriculture and Rural Development, Civic Society Organisations, International organisations and the private sector in matters relating to natural resource management and climate change mitigation strategies

Federal Ministry of Science and Technology	• Formulates policies and strategies in the areas of technology development • Facilitates the development and deployment of science, technology and innovation to enhance the pace of socio-economic development of the country • Intervenes in areas that would be of specific interest to agricultural and rural training such as technology incubation, biotechnology, technology acquisition and promotion, natural medicines technology, leather technology and science and engineering technology among others
Federal Ministries of Labour, Youth Development, Women's Affaires etc	• Intervene to a lesser extent in the areas of agricultural and rural training but could eventually play major roles if the necessary institutional dialogue is engaged through the project envisaged
State Ministry of Agriculture and Natural Resources	• Formulates State agricultural policy and strategy • Ensures supervision and governance of agricultural and rural training (ART)
State Ministry of Finance **State Ministry of Budget and Planning** **State Ministry of Higher Education** **State Ministry of Education** **State Ministry of Environment**	• Provide sectoral support to state agricultural policy, strategic planning and governance and the implementation of agricultural and rural training (ART) at state level. • Supervise training and capacity building actions that could also involve agriculture
National Board for Technical Education	• Ensures curriculum development, curriculum review, quality control of training delivery and certification through the National Skills Qualification Framework (NSQF) • Ensures accreditation of Colleges, Mono and Polytechnics as well as the courses that they offer • Gives accreditation for transition from Monotechnic to Polytechnic
Industrial Training Fund (ITF) **Tertiary Education Trust Fund (TETFUND)**	• ITF in the past provided funding to training institutions to support the organisation and provision of stipends to students on internship (Student Internship Work Experience Scheme); presently ITF is much more concerned with the conception and delivery of training programs for industries including agro alimentary industries;

	• TETFUND provides financial resources for construction and equipping of infrastructure in tertiary institutions.
Agricultural Universities **Faculties of Agriculture** **Colleges of Agriculture (Monotechnics and Polytechnics) for middle level training** **Schools of Agriculture / Skills Development Centres for lower level training**	• Implementation of formal Agricultural and Rural Training programs target initial training but also some continuing training
Donor Agencies, **NGOs,** **Development Programs / projects (ADP)** **Development Authorities and Agencies,** **Research projects,** **State Farms / Centres,** **Private Farms,** **Cooperatives, etc**	• Implementation of non-formal Agricultural and Rural Training programs especially by continuing training

The relationships between the different actors are often very complex and tend to vary from one state to the other. However, the overall setup and structure starting from the federal to state, and college level are not very variable. The figure below illustrates in template form, the level of complexity of relations that exist between the different actors of ATVET at the level of the states.

	Key of relationships	
	↔	Inter-ministerial collaboration at Federal level
	↔	Inter-ministerial collaboration at State level
	↔	Federal – State ministry hierarchical relation

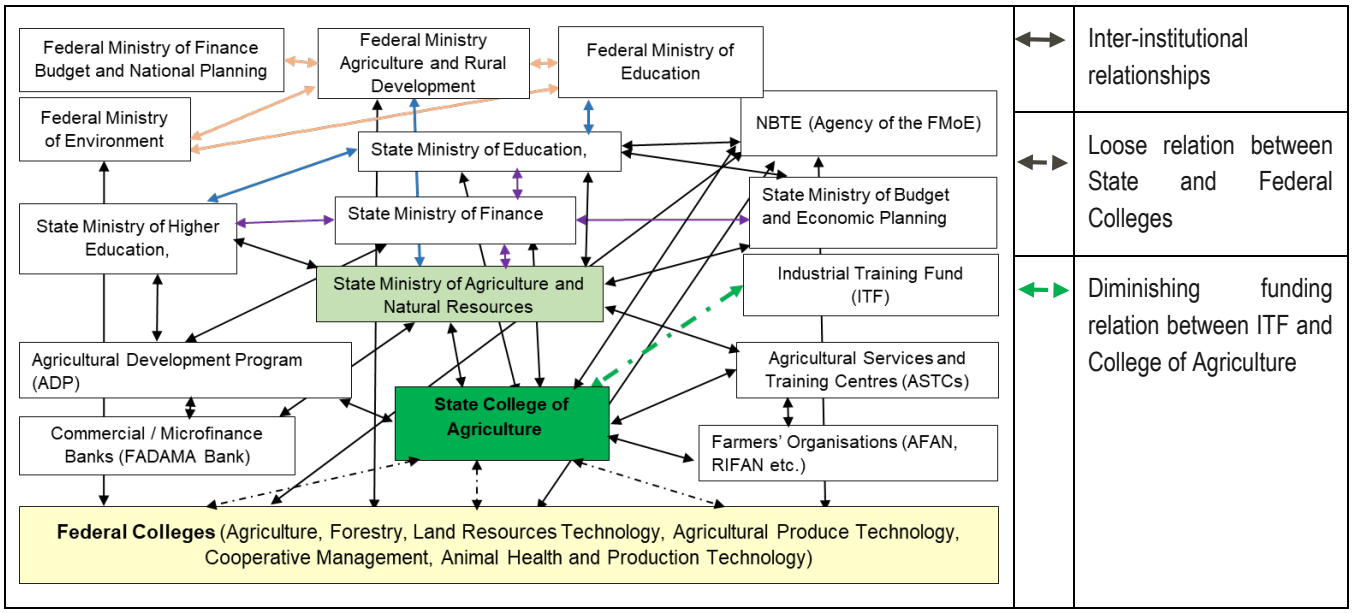

Figure 1. Illustration of relationships between typologies of actors directly or remotely involved in ATVET in selected states.

2.6. ANALYSIS OF CROSSCUTTING ISSUES: TRANSFORMATIVE GENDER INCLUSION, CLIMATE CHANGE AND STRATEGIES FOR DIGITALISATION OF ATVET

Three crosscutting issues have been summarised below; for full information see Appendix 6.

❖ Transformative Gender Inclusion

There is still much gender inequality in Nigerian where women are generally relegated to mere agents of domestic engagements at home, with considerable reproductive roles. This problem of gender inequality has also affected education in Nigeria in spite of all steps taken by the Federal Government to give equal gender opportunity to education such as the provision of the Universal Free Primary Education (UPE) in 1976 and today, the Universal Basic Education (UBE). The female gender is still lagging behind in education and this has much implication in the social-economic status of the females in the nation.

In Nigerian agriculture, rural women, more than their male counterparts, take the lead in agricultural activities, making up to 60-80% of the labour force. They have either no part or just a minimal part in the decision-making process regarding agricultural development. Although women farmers may now have better access to farm inputs and credits, many barriers remain and would have to be addressed to further enhance their role in the development of the country's agriculture, rural development and food security.

Agricultural and rural training institutions and all the stakeholders met, demonstrated a strong commitment to foster the training of women and encourage their participation in the agricultural sector. Some specificities were noted in the 6 states visited as follows:

Plateau State

Federal and state institutions, local NGOs and CSOs have developed strategies, incentives and tools to support women especially in their installation as entrepreneurs. The Federal College of forestry Jos for example is deploying a dedicated communication through local media to attract more women to their training programs. In the forestry nursery and other entrepreneurship activities developed in the college, particular attention is given to the female students. This is an indication that support to gender transformative inclusion in Plateau State could be an important transversal objective of the project with dedicated budget and activities. In addition, access by women to land and other natural resources is a critical issue that would need to be addressed during project implementation if they are to succeed in their social integration after training.

Kano State

State institutions like the Kano State Agricultural and Rural Development Agency, local NGOs and CSOs like WOFAN have developed strategies, incentives and tools to support women especially in the setting up of agricultural enterprises.

Benue State

Some 70% of farmers in Benue State are women therefore according to state government, young women should be particularly targeted and included; technologies that work for women should be given very special attention; women should be able to mount, drive and use tractors in the field just like men can, which means that agriculture has to be gender sensitive.

The Benue State Agriculture Policy document, specifically maps out gender inclusion as one of its key implementation pillars. The document indicates that policy focus shall be on prioritizing gender across all value chains. In its section 3.5 on Women in agriculture, the policy document states as follows: "*(i) Value chain upgrade will be a priority to support women in agriculture in the transition from subsistence farming to medium and large-scale agribusiness*"; " (ii) *Food security shall be ensured to support women farmers in improving the quality and quantity of food production and consumption*"; " (iii) *Sector governance shall seek to improve women's active participation in sector decision-making and institutions*".

Imo State

In Imo state, South–eastern Nigeria, rural women constitute more than half of the rural population. The state government recognises that their contribution to agriculture is enormous and crucial to both local and national economic growth. Imo rural women are engaged in multifarious household and livelihood activities which include crop cultivation, livestock management, processing, marketing, petty trading, caring for family members and home management. They produce between 60 to 80% of the food and are responsible for food security and self-sufficiency in the state.

Oyo State

The Oyo State Roadmap for Accelerated Development 2019 – 2023 recognises that the opportunities for women in Oyo State are constrained, not least, due to violence and insecurity. Government is therefore committed to making social inclusion and protection underpinned by equal opportunities for men and women, boys and girls and the redressing of the disadvantages of vulnerable and marginalized groups, one of its key strategies.

Specific policy thrusts in the agricultural and rural training sector envisage facilitating access to land and conservation of land for good agricultural practices, targeting women and marginalised groups. Among its inclusive agricultural strategies government plans to encourage, train and empower youths and women in fish rearing and modern fish value addition.

FCT

One of the foundations of the FCT Agriculture Strategic Plan was to improve women's contributions and participation in enhancing the growth of rural economies of the territory. For this, the Agriculture and Rural Development Secretariat had to identify emerging opportunities that would be explored to ensure sustainable growth.

Focus has been on the development of rural organisations supported by activities comprising produce processing, agricultural mechanization, land development, extension delivery and technology support for inclusion of women in agriculture and access to inputs.

The operational skills of women groups enhanced in the different areas of the processing and utilization of high quality cassava flour, processing and utilization of soybeans, complimentary feeding of infants, back yard broiler production and vegetable gardening. These strategic axes indicated that has given priority to women in agriculture as they have the potential to significantly transform it. If this transformative inclusion continues, the Federal Capital Territory will certainly count on women to ensure food security for the rapidly growing population of the Abuja metropolis and its other satellite towns.

❖ Climate Change

There is ample evidence now that Nigeria's climate has been changing over the years. This change is exemplified by increases in temperature, variable rainfall, rise in sea level and flooding, drought and desertification, land degradation, more frequent extreme weather events, affected fresh water resources and loss of biodiversity. The duration and intensities of rainfall have increased producing heavy runoffs and serious flooding in many parts of Nigeria. It is projected that rainfall variation will continue to increase as precipitation is expected to increase accompanied by rising sea levels which will in turn exacerbate flooding and submersion of coastal lands. In the northern parts of the country, droughts have also become a persistent problem as a result of a decline in rainfall and an increase in temperature. Since the 1980s, temperature has risen significantly and the Federal Ministry of Environment predicts further increases in temperature over all ecological zones of Nigeria.

Generally, states in the north experience higher degrees of vulnerability to climate change than those in the south, with the northeast and the northwest being the most vulnerable. The combination of

rising heat and less rain has hastened desert encroachment, with loss of wetlands, and fast reduction in the amount of surface water, flora and fauna resources.

Climate change is a serious issue because over 70 percent of the country's population is engaged in agriculture as their primary occupation and means of livelihood. Considering that most of Nigeria's agriculture is rain-fed, unpredictable variations in climate make it very difficult for farmers to plan their farming operations. Rising temperatures, lower rainfall, droughts, and desertification reduces farmlands, lowers agricultural productivity and affects crop yields. Climate change is therefore posing a serious threat to food security in the country as crop and animal production are negatively affected, fisheries activities are seriously impacted as freshwater quality is changing while sea levels are rising making maritime fishing very hazardous.

In order to institute and push up climate change mitigation and adaptation actions at all levels especially in those sectors that affect the nation's natural resources, the Nigerian government drew up the Nigeria Climate Change Policy Response and Strategy (NCCPRS) document which clearly spells out the strategies to actions plans to be implemented in an effort to mitigate and adapt to the effects of climate change.

Policy Response Approaches include (i) generating adequate energy from a mix of sources for rapid socio-economic development without significantly increasing the country's greenhouse gas emissions, (ii) continuously reducing greenhouse gas emissions in all sectors, particularly in the oil and gas, and transportation sectors, (iii) Enhancing food security, reducing poverty and promoting healthy living for all Nigerians and (iv) integrating disaster risk management of climate-related hazards into development activities. The key sectors targeted by the policy response approach include energy, agriculture, water, coastal areas, forestry and land use, transport, health, culture and tourism, population, human settlement and ICT (climatechange.gov.ng, 2020).

Some worthy mitigation measures are ongoing in the country and need to be bolstered. They include (i) the promotion and use of renewable energy sources such as hydroelectricity and solar energy, (ii) the production of bioenergy from such sources as sugar cane, maize and cassava (iii) the encouragement of suitable lifestyle choices among Nigerians that help economise energy.

In addition to the various mitigation measures being developed, climate change adaptation has to be in centre stage of the actions of the different players who in one way or the other contribute to climate change. In the case of smallholder farmers, these adaptation strategies include variation in sowing time, the use of improved stress-tolerant crop varieties, and shifting to new crops. Adaptation management strategies can also involve varying land size, sales of crops, mulching, application of organic fertilizers, livestock rearing, mixed cropping, mono-cropping, water and soil conservation practices, among others. These farm-household strategies could significantly reduce risk and, as a result, reduce the negative impact of climate change.

All the agricultural and rural training institutions have taken cognizance of the serious negative effects of climate change on agricultural production potential and are integrating elements of climate change mitigation and adaptation in their training courses. The following specificities were noted in the 6 states visited.

Plateau State

Research, development, and training institutions in Plateau state are engaging in mitigation measures involving climate smart strategies such as afforestation and agroforestry schemes, the introduction of early-maturing and stress tolerant cultivars, controlled cultivation techniques in green and screen houses in order to limit environmental effects on farmers' production potential. The colleges are introducing issues related to climate change in their training programs, while the Ministry of Agriculture and Natural Resources is providing improved seeds to farmers, annual information on seasonal rainfall as well as support to diversify their farming systems to integrate year round activities in their production practices. Training and capacity building will continue to play a key role in this effort.

Kano State

In Kano, majority of rural dwellers who are predominantly agrarians still face the problem of food security. This is largely attributed to climate, which is increasingly becoming harsh. Rainfall is invariably not stable for so many years with recurring drought. Desertification and deforestation of vegetative cover have compounded the problem of agriculture in the state to the extent that agriculture is not growing at a rate commensurate with the efforts put in by government.

Benue State

The Benue State Agriculture Policy document espouses climate change mitigation and environmental sustainability as one of the key guidelines for policy implementation. It states clearly that policy instruments shall focus on sustainability in the use of natural resources (land, soil, water and ecosystem) with futuristic considerations while expanding production, marketing and other human activities in the agriculture sector.

Development agencies, and other organisations in Benue State are engaging in climate change mitigation measures that are anchored on developing better knowledge of the farmers and their activities, organising them, training them to adopt and use production and transformation practices that are environmentally friendly, and working with these well-structured farmer-based organisation and communities to transform agriculture into a business oriented activity while maintaining its production base and potential for sustained growth.

Imo State

Through self-observation and experience, the majority of the farmers in Imo State are aware of climate change within their environment. Officials of the Ministry of Agriculture and Natural Resources pointed out that in recent times, flooding had increased which is an indication of climate change. Trends in temperature and rainfall which are the two most significant climate elements that affect food crop production in Imo state, are exhibiting significant increases. Some of the adaptation strategies that farmers in the state have adopted are late commencement of planting, use of fertilizers, choice of cropping systems, breakage of daily work schedule and planting of cover crops among others.

Agricultural and rural training colleges have noticed that climate is adversely changing and hence they are envisaging capacity building to enhance farmers' adaptation and resilience to climate change. The state government is dedicated to putting in place concerted efforts to reverse the negative trends in

climate change which encouraging individual households and private investors towards supporting environmentally sustainable production activities.

Oyo State

Many different studies in Oyo state have revealed that farming populations were vulnerable to climate change effects which have resulted in reduction in crop yield, shortage of food production, pest and disease outbreaks, water shortages and rapid loss of tree cover which affect their livelihood activities.

Major adaptation strategies that are utilized include soil protection through tree planting, planting of different varieties of Non-Timber Forest Products (NTFPs) and Timber Forest Products (TFPs), shifting cultivation and use of organic fertilizer.

The government points out that more has to be done and that in addition to increasing economic activity and lowering poverty, electrification with renewable energy will help promote a more sustainable development, and could help mitigate climate change.

FCT

In its section 8.2.2 on environmental and sustainable natural resource management, the Agricultural Strategic Plan of the FCT envisaged putting in place strategies that minimize the effect of climate change on the FCT environment, and natural resource management that safeguards the ecology for future generations. The strategies envisaged by the document to attain this goal were (i) the promotion of community forest management, agro-forestry and use of alternative firewood sources for cooking in rural areas, (ii) the development of a territory-wide watershed management and the promotion of wildlife reservation for leisure, conservation and training.

The Abuja Environmental Protection Board had to work in synergy with different agencies and departments on the aspects of rural sanitation and hygiene and to evaluate the effects of pesticides on the ecosystem, the effects of farming systems on climate change / global warming, and to propose adequate mitigation measures.

In 1992, the Federal Environmental Protection Agency was created in Nigeria as an integral part of the Presidency of the Federal Republic. A council was set up to govern the agency consisting of representatives of key sectoral ministries including Agriculture and Natural Resources, Commerce and Tourism, Communications, Culture and Tourism, Education, Finance, Health, Industry, Petroleum Resources, Science and Technology, Solid Minerals, Transport, Works and Housing and Youth and Sports. The Agency has responsibility for the protection and development of the environment and biodiversity conservation and sustainable development of Nigeria's natural resources in general and environmental technology, including initiation of policy in relation to environmental research and technology.

The Federal Environmental Protection Agency has representations at the level of all the states, though their appellations may vary from one state to the other.

❖ Digitalisation of ATVET

In the training milieu throughout Nigeria, there is a strong emphasis on strengthening training offer and digital literacy to reduce the technological divide between urban and rural areas and to substantially curb the rural to urban migration that so negatively impacts on the agricultural sector.

In the opinion of most of the stakeholders encountered, ICT could also be considered as an important means for skills enhancement and training dissemination in the agricultural and rural sector as well as a powerful tool to better communicate on the sector and improve its image.

There are all indications that it will be important and relevant to integrate digital issues and Information and Communication technologies in the different trainings that shall be designed.

No specific features were noted during the visits to the 6 States.

Chapter 3. Proposed activities for the future project

From the results of the pre-study carried out in 2020 and the current prefeasibility study, it comes out clearly that the present training system in the 6 states visited is not providing the answers to the policy ambitions for the transformation of Nigerian Agriculture. The present ATVET system is not attracting enough youths as new entrants into the agricultural profession and thereby is not rejuvenating the agricultural workforce to ensure sustained increases in outputs resulting from the injection of new actors who would bring a technology-driven approach capable of driving the needed improvements in production and productivity.

Though specific figures are not available with respect to the employment rate of graduates from agricultural and rural training programs in Nigeria, conservative estimates indicate that just about 10% of those graduates find employment in public and private sector organisations while only very few of them attempt to create agricultural business ventures as a result of the lack of financial resources. This situation only further contributes to entrench the perception by youths that only a dead end awaits those who decide to take up agriculture as a profession.

An appropriate ATVET system that is capable of kindling more interest in young people, of changing their mind-set about agriculture and attracting them to pre-production, production and post-production occupations in the domain has to be developed in order to drive the agricultural transformations envisaged by various policy documents. Such a system has to give priority to the training of youths who will take up agriculture as a livelihood occupation, consider it as a business and develop it to create wealth and jobs in order to contribute to solving the longstanding problem of youth unemployment while ensuring food security and self-sufficiency for the country.

To achieve this goal, agricultural and rural training institutions at all levels have to build a training offer that is grounded on the identification of the needs and demands of the agricultural and rural development actors, in the particular contexts in which they operate. This requires a certain degree of autonomy of such institutions to put in place decentralized management systems that permit them to work in concertation with various local partners so as to build training offers that are adapted to the realities of their environment.

In order to do this, the system must meet the following four main conditions:

1. **A flexible training system that caters to youth employment and wealth creation**

It will be necessary to put in place a training system that is flexible enough to bring in young people who meet the entry requirements and build their capacities through initial training as well as those of existing agribusiness promoters and farmers through continuing training. Such a system would train even at foundation level so that beneficiaries can confidently and competently engage in production, value chain development (transformation) and marketing of quality agricultural products susceptible to adequately compete in the local, regional and international markets. It should not limit itself only to one level of training: high, middle or low.

The training system has to combine scientific knowledge and principles to practical farming operations while integrating farm business management approaches in the instructional methods used. Therefore, training approaches have to be specifically concerned with advancing not only knowledge but also skills and attitudes needed to produce higher food supplies while leveraging agribusiness as a

tool for agricultural transformation. Such a system would essentially be anchored on the systems approach while underscoring the practical aspects which make the graduates functional and able to create and sustain productive farm enterprises.

2. **A system that moulds competent administrators, managers and trainers of agricultural and rural training institutions**

The training system must build the capacities of people who will take charge of the conception of some of its functions, its administration and piloting within the framework of a policy and regulatory environment put in place to institute agricultural and vocational education and training as a key pillar for the transformation of Nigerian agriculture. It should build the capacities of managers of training institutions and trainers who would be able to identify in participation with various stakeholders, the training needs of different categories of youths and existing agribusiness promoters in order to build and deliver adapted training offers capable of evolving with the rapidly changing technologies inherent in contemporary farming and husbandry practices.

Vocational training involving skills delivery demands broad knowledge of subject matter, curriculum, and standards as well as enthusiasm, a caring attitude, and a deep motivation to engage in skilling. Trainers must have the appropriate mastery of discipline and classroom management techniques and a strong desire to make a difference in the lives of the young people they train. It will therefore be necessary for the trainers to be thoroughly prepared, and their pedagogic skills upgraded constantly so that they quickly and competently adapt to the rapidly changing technological landscape related to agriculture.

3. **A system that provides a favourable training and enabling learning environment**

The ATVET system should be able to renovate training structures and equip them with the necessary resources to conceive, plan, organize and deliver training and capacity building packages that meet the needs for agricultural and rural development at the local, state and national levels while responding to the food needs of the population at these levels. To renovate the ATVET system, there will be the need among other factors, to pay particular to physical Infrastructure including classrooms, libraries, laboratories, pedagogic workshops, demonstration units, hostels, offices, etc. In as much as physical infrastructure will be needed, contemporary vocational skilling also requires technology and digital platforms. Digital infrastructure will be needed to scale the different vocational skilling programs and to make them agile and properly equipped for high performance outcomes. Such infrastructure would provide the foundation for the training institutions' information technology operations.

4. **A system that ensures a smooth transition of trained beneficiaries into the professional world**

The agricultural sector including its upstream activities (seed production and distribution, distribution of fertilizers, land preparation and related services etc.) and downstream components of the value chains (product handling, transformation, transport, and marketing etc.) will have to provide jobs for the trained youths. The renovated ATVET system must assess the needs for these jobs in order that the training which is developed is needs-based and demand-driven. Once the scope of current and potential agricultural jobs is clear, the skills required for each job or types of jobs will be more easily assessed so that the training packages developed, provide targeted skills in order to make the trainees competent employees or potential employers. Skills development is a necessary, but not sufficient,

component of an ATVET system. It enables them to acquire the knowledge, competencies, attitudes and qualifications required by the work environment so that they can secure, retain and thrive in productive and decent employment, and adapt to the evolving economy. This component should be linked to the process of making the actual transition whereby young people are able to smoothly access or generate productive and decent work opportunities that make effective use of the skills acquired in training.

Taking into consideration the above underlying considerations, a number of axes need to be renovated and further developed.

3.1 AXES OF RENOVATION

The renovation or enhancement of the ATVET system in the pilot states targeted shall focus on the following six (6) axes of renovation:

❖ System for Support to training institutions

The system for support to training institutions involved in the ATVET enhancement project would be based on a "**College or School's ATVET project**" elaborated by the beneficiary institutions to present their ambitions, goals, strategies and activities to be carried in order to train and provide the necessary support and follow-up for the social integration, transition to work and settlement of their graduates. The project would be a strategic steering tool and a document that would provide the framework for dialogue with federal, state and territorial stakeholders as well as Technical and Financial Partners (TFP). It would be the requisite condition for accessing ATVET enhancement project funds provided through the AFD financial facility. However, during the feasibility study it could be very instructive to clarify the perception of the colleges of such tool and if they had had some prior experience in the elaboration and implementation of such projects.

❖ Governance of the training system

For the training structure to function harmoniously and to deliver the outcomes expected, it will be necessary to put in place a number of new organs, or to extend the functions of some existing organs that will be charged with the proper governance and operation of the different components of the system. Some of the key organs envisaged include:

- **A Federal Steering Committee (FSC)**: This Committee, oversee by the Federal Ministry of Finance, Budget and National Planning, would be an overhauled and enriched version of the existing '***Steering Committee***' that is charged with the facilitation, follow up and validation of the results of the pre-feasibility and feasibility studies. The FSC would coordinate project activities at the Federal Level and facilitate the necessary dialogue between Federal Institutions which would play a role in ensuring the success of the project at all levels;
- **State Coordination Team (SCT)**: This would be a new organ created at the level of the states that shall benefit from the pilot phase of the ATVET renovation or enhancement project. The team would be charged with the coordination of the actual implementation of the project in their

respective states. Members of this team would be drawn from state ministries whose federal mother ministries are represented in the Federal Steering Committee.

- **College / School Governing Council (C/SGC) comprising 3 commissions**:

Presently, all Federal and State Colleges of Agriculture have governing councils that are charged with the governance of the institutions. As indicated earlier, Councils are the governing authorities of training institutions and play a key role in the formulation of policies and guidelines for the general control and management of the institutions. They are custodians of the institutions' property and finances and ensure the supervision of the management of the affairs of the training institutions.

The roles of the governing councils of the training institutions that shall be involved in the pilot phase of the project could be extended to cover such new functions as:

- The coordination of the elaboration of the training institution's project for ATVET enhancement and the projects / business plans of trainees or graduates who need support to initiate an enterprise after their training;
- The monitoring and evaluation of the implementation of the college or school's ATVET project;
- The development of strategies to build partnerships with the various partners in the training institution's territory including Civil Society Organisations (CSOs) and private actors.
- The governing council would also propose alternative funding mechanisms to the Governing Council in order to ensure the continuity of ATVET development when project funds would have been exhausted.

❖ Involvement of private sector actors

In addition to the actions aimed at improving the governance of the renovated ATVET system, it would probably be necessary to involve those actors who can contribute to the training of the beneficiaries and the sustainability of the training system. They could include resource persons who would contribute to make agricultural and rural training in selected institutions a more practical and hands-on training. For this, there would be the need for the identification and involvement of local resource persons in the training of the youths. Usually, students go out on internship to different organisations which may be corporate or promoted by individual entrepreneurs. Such entrepreneurs who could be male or female and run successful farm enterprises and agribusiness ventures in the territory of the training institution could serve as professional mentors or coaches to the youths during their training.

Contacts between these resource persons and the trainees would be established through a number of options including the following:

- Excursions to the farm enterprises / agribusiness establishments,
- Visiting lectures and discussions with the trainees in the training institution,
- Open-door days organised by the training institutions,

The resource persons could eventually also receive students on internship in their farm enterprises or establishments.

❖ Training contents

Course curricula especially for formal ATVET, would have to be reviewed and re-engineered in collaboration with the NBTE and the private sector, to enhance the quality of course contents and their delivery and hence reduce the mismatch between graduate qualifications and the needs of the agricultural labour market.

This curriculum review process goes through a number of steps including the convening of a curriculum review committee taking care to draw members from relevant sectors including the private sector / industry, the identification of emerging issues in specific curricula fields, including weaknesses and strengths of the existing curriculum, the assessment of industry needs, the reviewing of the entire program starting from program name, program goals, objectives, expected outcomes, resources, course units, credit units, course outlines, descriptions and then, the updating of the program.

The reviewed curricula would have to include issues related to climate change, agro-ecology, preservation of biodiversity and agricultural good practices that favour adaptation to climate and its mitigation. The curricula would have to be needs-based and demand-driven in order to produce a corps of agricultural entrepreneurs and technicians with the relevant skills and competencies demanded by the profession and especially the private sector. It would also have to be structured in a way as to deliver the competencies targeted in accordance with nationally recognised standards while inculcating the desire for lifelong learning in the graduates.

The competency-based approach would be the most appropriate for the ATVET project in order that training delivery would eventually easily evolve, to keep up with the constantly changing professional environment in the agricultural and agribusiness sectors. Furthermore, such an approach would bring about various improvements.

1. **Improved efficiency for market needs:** Since training and assessment are relevant to what needs to be done on the job, course delivery in the training environment and skills acquisition in the work environment would have to dovetail into each other thereby reducing the time taken by the learner to become competent on the job. For example, the approach of training by alternation increases the chances for the learner to develop relevant practical skills in the work environment while acquiring the theoretical principles behind the practical situations encountered;
2. **Higher motivation to learn :** competency-based training is goal-oriented as it focuses on performance improvement. The learners will be more motivated to learn as they realise that they are becoming more competent and hence more employable or more apt to set up their own farm and agribusiness enterprises;
3. **Increased productivity of trainers:** When trainers know what performance level is expected of them and their trainees, and work competently to meet their training objectives so as to contribute to the overall strategy of the institution; when they are recognised for their performance, they develop higher job satisfaction which ultimately leads to increased productivity.
4. **Increased learner satisfaction:** Learners who are trained and assessed using the competency-based approach are, by essence, able to perform work competently as they have developed

the needed task, task management, contingency management and job or role environment skills. The more they gain experience working on specific problem areas and finding relevant and feasible solutions, the more their satisfaction grows leading eventually to increased motivation to participate in the perpetuation of the ATVET system that produced them.

5. **Increased social recognition**: Since competencies are performance-based, measurable and linked to the academic and workplace environment, they are observable and recognisable. Graduates from renovated agricultural and rural training programs who perform well will therefore be quickly identified and recognised by their performances. This social recognition will translate into higher visibility of the training institutions and the ATVET Project, hence increased attractiveness of agriculture and agribusiness to more youths who would enrol for the training.

❖ Pedagogic methods

Learning in **Colleges of Agriculture** in all of the states visited during the pre-feasibility study has been predominantly theory-centred, based on academic frameworks where achievement is judged by the ability to recall key points, information imparted or details and sequences memorized. Such an approach cannot produce employable graduates as it focuses only on knowledge and pays little attention to skills and attitudes. There needs to be a radical shift from this approach to one that integrates the ability to recall, to set standards, act and perform in accordance with the standards set, and to build expertise based on lessons learnt. This leap requires a fundamental renovation of pedagogic methods. In addition to knowledge acquisition, the novel methods must give priority to skills development.

The pedagogical methods used should engage learners in a process of constructing their own knowledge by interaction with their environment, rather than as a process of absorbing the knowledge that the traditional systems and teacher would want to transfer to them. This new pedagogy would have to use multidisciplinary approaches based on the learning context, cooperative and interactive learning with peers, discovery, personal and especially reflective learning.

All of these would bring about a fundamental change in the value systems related to course delivery firstly at the level of the training institutions in general and the trainers in particular.

❖ Support to socio-professional integration and settlement of trained youths

Out of the 22 training institutions visited during the pre-feasibility study including 13 that offer formal ATVET training and 9 that are involved in non-formal training, only 3 (Leventis Agricultural Training School in Panda, WOFAN Training Centre in Kano, and the IITA Youth Agripreneur Program in Ibadan, Oyo State and Abuja in the FCT) have put in place a mechanism for support to the socio-professional integration of the beneficiaries of their trainings.

The officials in charge of these mechanisms in the various institutions affirm that they are successful. However, the performances of the youths who benefit from them with respect to the growth, development and continuity of their farm business activities is not well documented but there are

indications that the results are convincing. They would need to be carefully investigated during the feasibility study.

3.2. DESCRIPTION OF THE PROPOSED PROJECT TO RENOVATE ATVET SYSTEM IN THREE PILOT STATES

❖ Global Objective

The goal of the project shall be to strengthen the training, socio-professional integration and settlement systems for young graduates from pilot training institutions in order to build their capacities as agricultural entrepreneurs and value chain operators of strategic commodities in some selected pilot states of Nigeria.

❖ Specific Objectives

Specifically, the objectives of the project shall consist in :

- **Rehabilitation, updating and equipment of especially selected public agricultural and rural training institutions** with particular focus on buildings, classrooms, laboratories, workshops, dormitory facilities, etc..
- **The improvement of the training offer of the selected institutions** particularly targeting the training of post-secondary school youths who are interested in taking up agriculture, agribusiness and key activities along value chains of strategic commodities, as their profession, as well as the continuing training and upskilling of existing agribusiness promoters to enhance their production and productivity;
- **The building of a post-training support system** that shall provide necessary financial, material, technical, managerial, advisory and marketing support services to graduates from the training system, in order to enable them set up and grow their agricultural business enterprises;
- **The revamping and improvement of training curricula** in order to reduce the mismatch between the knowledge, skills and attitudes acquired during the training and those required by the agricultural labour market in order to improve the chances for graduates to successfully transition to work;
- **The development of mechanisms for institutional dialogue, management, monitoring and evaluation of the project**.

3.3. BENEFICIARIES OF THE PROJECT

❖ Direct beneficiaries

There shall be 3 categories of direct beneficiaries of the project including:

The beneficiary states

The states that shall benefit from the pilot phase of the project include Oyo, Plateau and Benue states selected on the basis of the matrix presented in chapter 4 below.

Training institutions

Training institutions that would potentially benefit from the ATVET renovation project would include primarily, State Colleges of Agriculture, public Skills Development Centres and Federal Colleges as the case may be.

These institutions would benefit variously from the project depending on their needs, however, a careful analysis needs to be made to select only those of the institutions that would enable an initial smooth and successful implementation of project activities so that crucial lessons would be learnt, achievements consolidated, mistakes corrected, and risks reduced before expanding to other categories of institutions.

An initial rapid analysis of colleges visited (see table of course delivery in Federal and State ART Colleges*)* leads to the following observations:

- Both Federal and State colleges offer courses at ND and HND levels to students admitted with the required prerequisites;
- The names of the colleges reflect the speciality areas in which they train for example, Federal Colleges of Land Resource Technology offer courses related largely to domains of land use and soil technology, similarly, Federal Colleges of Animal Health and Production Technology offer courses mostly in the domain of animal health. Along this same line, State Colleges of Agriculture offer courses in the core agriculture domains;
- Whereas the colleges that offer core agricultural courses are mostly State Colleges, the Federal Colleges offer almost exclusively agriculture-related courses (Forestry, Land Resources Technology, Animal Health and Production Technology, Cooperatives, Agriculture Products Technology) - (the Federal College of Agriculture, Moor Plantations is an exception);
- The courses offered by the highest proportion of all 13 Colleges visited irrespective of their speciality area and status (Federal vrs. State), include Agricultural Extension and Management (61.5%), Computer Science / Technology (61.5%), Animal Production Technology (53.8%), Crop production technology (46.2%), Animal Health and Production Technology (46.2%), Agricultural Engineering (46.2%) and Horticultural Technology (38.5%). On the other hand, courses offered by the lowest proportion of colleges (1 out of 13 colleges or 7.7%) include Crop Health Management Technology, Landscape Technology, Food Science and Technology, Food Technology, Banking and Finance, Soil and Water Engineering, Farm Power Machinery, Agricultural and Bio-environmental Engineering, Crop Health Technology and surprisingly Agribusiness;
- It appears that course offers in all of the colleges are supply-driven (what the colleges want to offer the students), and not demand-driven (what the student wants to learn in connection with what the market needs in terms of competencies). It is however not clear whether a shift can be made from the supply to the demand-driven approach;
- A college can increase the number of courses in its portfolio by asking NBTE to effect visitation, assess its preparedness, infrastructure, resources and then proceed to relevant accreditation for the delivery of the said courses;

- Federal Colleges appear to be much more endowed in financial and infrastructural resources than State Colleges. State colleges therefore later face a lot more difficulties in rehabilitating their infrastructure and equipping them for pedagogical and other purposes than Federal Colleges;
- Whereas 3 of the 5 State Colleges visited (Oyo State College of Agriculture and Technology, Imo State College of Agriculture and Akpera Oshi College of Agriculture Benue State) had transitioned from Monotechnic to Polytechnic and were benefitting from TETFUNDs, none of the 8 Federal Colleges had acquired the status of polytechnic and therefore did not have access to TETFUNDs. This may be explained by their relative self-sufficiency.
- In the states where Federal Colleges are implanted the state governments have very little supervisory authority over the colleges as they receive their funding directly from the relevant federal anchor ministries and report directly back to them.

In light of the forgoing and with respect to the fact that State colleges are in greater need of support to renovate their ATVET delivery systems, it would be preferable that the direct beneficiary institutions for this initial phase be:

1. **State Colleges of Agriculture for middle-level ND and HND training,**
2. **State Skills Development Centres for lower level (certificate) courses.**

Individual and collective beneficiaries

This category of beneficiaries shall include:

- **Youths aged 17 to 35 years who are holders of at least the Secondary School Certificate** and the other prerequisites to obtain entry into Certificate, ND and HND level initial trainings in Agriculture and related disciplines for formal training, while non-formal training would target youths **17 to 35 years who are not holders of the Secondary School Certificate** ;
- **Graduates of Colleges of Agriculture, mono and polytechnics and faculties of agriculture and related schools** who need specific upskilling to settle down to agricultural production, agribusiness or other activities related agriculture and rural development;
- **Existing farmers, agripreneurs, value chain operators who require specific training / capacity building** to scale up their activities, increase their production and productivity or provide better services to farmers, farmers' groups or cooperatives and farming communities;
- **Agricultural and Rural Development workers of the public, parapublic and private sector** in the quest of skills for self-development;
- **Technical staff in charge of the conception, development and implementation of agricultural and rural development training**. This category includes trainers, staffs of key support organisation such as the NBTE, and administrators of agricultural and rural training institutions.

❖ Indirect beneficiaries

The indirect beneficiaries of the project shall include:

- Farmers' and community-based organisations commodity associations, clusters, cooperatives, Local Government Areas, medium and large farms, agribusiness development organisation, agro-industries, NGOs, CSOs … whose employees would have benefited from the training;
- Rural communities through the improvement of the qualification of farmers and agribusiness promoters through a better training of young farmers and agricultural entrepreneurs on the one hand and a better training of agricultural and rural development workers on the other hand.

3.4. KEY DETERMINANTS OF PROJECT SUCCESS

Certain key determinants need to be in place for the project to yield its expected outputs. In other words, for the project to succeed the following conditions must be met:

1. The targeted youth population must be motivated to enrol for the different levels of the enhanced agricultural and rural training courses and to settle down to farming and related agribusiness activities upon graduation;
2. Training institutions have to align with project requirements and the renovated training approaches based on the revised course curricula;
3. Trainers have to adopt and apply the new pedagogical tools and methods that are designed for training purposes;
4. Trained youths have to mount viable projects or business plans for request for financial support at the end of their training;
5. The first cohorts of youths have find employment or successful implement their business plans / projects so as to attract their peers to the training;

3.5. EXPECTED RESULTS

The results expected from this project are (i) an enhanced agricultural and rural training offer in the pilot states that shall eventually be consolidated and extended to other states of Nigeria (ii) an increase in the number of young farmers, agribusiness promoters and value chain operators who are trained and transition to work (iii) the institutionalization of Agricultural Technical and Vocational Education and Training in the country.

- **An enhanced agricultural and rural training offer in the pilot states**
  - Training institutions develop training that responds to the needs identified locally and which enable the improvement of production, transformation and marketing of farm products with a better competitiveness in domestic and foreign markets;
  - Training programs developed lead to an increased employability of youths and hence, an improved socio-professional integration of the trained beneficiaries who will serve as role models to attract more youths to the agricultural and agribusiness profession;

- Through the different continuing training programs developed, practising farmers, agribusiness promoters and value chain operators have sustained access to livelong agricultural and rural training which permits them to adapt to the rapidly evolving technologies applied to agriculture and related domains;

- Trainers are trained and empowered to ensure better training delivery and assessment in order to significantly reduce the mismatch between the qualification of ex-trainees and the requirements of the professional environment and thereby, increase the employability of trained beneficiaries;

- Officials and administrators of agricultural and rural training institutions are better able to draw up relevant projects for their training structures, build partnerships with local professionals and organisations and engage in strategic communication to encourage territorial actors to take ownership of the institutions and participate in their sustainability.

➔ **An increase in the number of well-trained young farmers, agribusiness promoters and value chain operators**

- By reinforcing the training delivery of commodity production principles and practices, transformation to reduce post-production losses and add value, and marketing of the products at inciting prices, the number of youths who settle down to agriculture will increase, their success will attract more youths resulting in an overall change in mind-set concerning agriculture.

➔ **Enhanced coordination of MDAs and other private sector actors of Agricultural Technical and Vocational Education and Training**

- The coordination of Ministries directly concerned with ATVET at Federal level would be better organised to avoid duplication of efforts, fragmentation of the system and dilution of accountability which may lead to the weakening of the entire system. Through institutional dialogue, the different actors concerned will have a better mastery of their roles, and will act in synergy to ensure the growth and development of the enhanced ATVET system:
- Steering of the system State and Local levels will be clearly set out to avoid duplication of efforts and resource depletion, which could be dedicated to improvement, consolidation and expansion of the system.

➔ **Gender transformative inclusion in ATVET, agricultural production and agribusiness**

- Gender-transformative inclusion in ATVET, agricultural and agribusiness development would shift the focus towards challenging gender inequalities in the power relations, socio-cultural norms, and regulatory frameworks that shape agricultural and agri-food systems. Solving the problem of unequal access to land and other productive resources is not enough on its own to effect change. Gender transformative approaches that revolutionize the lives of especially participating females and their families, groups and communities are going to be of critical

importance in the context of food security and agriculture. Gender transformative inclusion and greater gender equality will deliver improved development outcomes, gains in the private sector, and improved project performance and sustainability

3.6. DESCRIPTION OF THE COMPONENTS OF THE PROJECT

The project will be focused **on 3 pilot states** (Oyo Plateau and Benue) where a momentum for change already exists through specific policies, strategies, as well as the will of political authorities to invest in the area of agribusiness development, agricultural and rural training, support to graduates for the creation of agricultural enterprises and agribusiness ventures or for transition to work.

As indicated in Chapter 4 below, the selection of the 3 states was done on the basis of a convergence of quantitative and qualitative indicators contained in a matrix designed to facilitate the selection process.

The feasibility study shall determine which Federal Ministry shall be charged with the coordination of the project and which ones shall be associated for its successful implementation.

The project shall comprise 3 components as follows:

Component 1: Modernization of state agricultural training institutions

The aim of this component is to rehabilitate and upgrade infrastructures, where the need arises, and to equip the institutions with modern training tools. The target institutions are still to be determined within the framework of the feasibility study. However, the tendency is that focus would be on State Colleges of Agriculture (for ND and HND training), and Agricultural Training Centres (for training at lower levels), where the greatest need has been identified.

Sub-component 1.1.: Rehabilitation of Agricultural Training Institutions

Considering the advanced level of dilapidation of infrastructures in most of the state colleges, and training centres, this sub-component would seek to rehabilitate and upgrade key infrastructures especially administrative blocks, classrooms, laboratories, libraries, pedagogic workshops etc., and to equip them with up-to-date equipment where necessary, in order to modernise the learning and training environment and make it conducive for skills acquisition.

To ensure that investments in infrastructure in training institutions achieve the maximum positive impact on learning and skills acquisition, it will be necessary to ensure that:

(i) all enrolled learners actually have the possibility to access training in the participating training institutions,
(ii) buildings and other infrastructures in the training institutions provide a safe and healthy working environment,
(iii) existing learning spaces are optimally designed for learning,
(iv) the design of the training institutions should foster current pedagogy and community engagement, and
(v) the development of the infrastructures in a sustainable manner is possible in the long term.

Sub-component 1.2.: Equipment of Agricultural Training Institutions

The ultimate aim of Agricultural Technical and Vocational Education and Training just like for TVET in general, is the acquisition of knowledge, attitudes and employable skills for sustainable development. This calls for effective and efficient training methods involving the utilization of improved and standard instructional equipment, based on relevant curricula. Skills acquisition by trainees can therefore best be achieved when the TVET institutions are adequately equipped with adequate pedagogic facilities.

The sub-component of the project will therefore have the challenge of equipping targeted training institutions with appropriate equipment in order to produce employable graduates trained with appropriate instructional materials, which prepare learners to enter confidently into the job market upon their graduation.

Component 2: Improvement of the quality of training and transition to employment

This second component would enable the renovation of training programs, the training of trainers and the implementation of a new approach of ATVET, that is market-oriented, combining the acquisition of theoretical knowledge and professional skills. The coordination of the component would be at the federal level with steering and implementation units in the states. This component shall comprise 3 sub-components as follows:

Sub-component 2.1.: Improvement of the quality of training consistently with climate change resilience challenges

This sub-component shall be charged with enhancement of 3 key axes including:

2.1.1.: Training of trainers

The capacity of the ATVET system to adequately prepare skilled youths through the delivery of relevant skills, depends largely on the quality of its trainers, and by extension, the quality of the system for the training of these trainers. However, the general tendency that came out of the pre-feasibility study is that the training of trainers either through pre-service or in-service programs is very irregular. In most cases, there are no career paths for entry and growth in the ATVET training profession. The ATVET enhancement project with therefore have to put in place training of trainer programs that are effective, efficient, equitable and innovative, and that are furthermore coherent with federal, state and local objectives as well as the overall policy context.

2.1.2.: Support for the renovation of curricula in partnership with the National Board for Technical Education

It came out that curricula used for ATVET delivery in virtually all colleges of agriculture and related disciplines are old, not regularly reviewed by the NBTE, and hence result in a significant and widening mismatch between the qualifications of the graduates and the needs of the agricultural labour market, To improve on this situation, the project shall work in close collaboration with the NBTE to re-examine course curricula, identify existing gaps, evaluate their potential to serve as a base for skills delivery / acquisition and where necessary, reengineer the relevant curricular in order to upgrade their content and hence the quality of the training.

To complement the curriculum review and reengineering, the project shall also renovate the pedagogic modalities of course delivery so that the trained trainers would apply them to improve on the quality

of the training. These trainers shall need to equip their trainees not just with vocational skills, but also with strong digital and soft skills. These skills are today crucial in the workplace and essential for the use of technology. Pedagogical approaches such as inquiry-based, project-based and collaborative learning can help develop fundamental soft skills such as critical thinking, creativity, team work and communication.

2.1.3.: Continuing training and strengthening of service provision to farmers and private sector actors.

In order to keep pace with developments in the agricultural sector, there is the necessity for ATVET to meet emerging needs in the livelihoods of young agripreneurs and practicing farmers. For sustained personal development of these stakeholders to occur in a rapidly evolving environment, there will be the need for the ATVET project to ensure their re-skilling and up-skilling through continuing training. This sub component of the project aims to instil into the young graduates, agricultural entrepreneurs, value chain operators and farmers the drive for lifelong learning through continuing training. In this way they will be able to quickly and constantly adapt to the rapidly changing environment of the agribusiness sector.

Sub-component 2.2.: Capacity building for administrative and financial managers of training institutions

The sustainability of the enhanced ATVET system will ultimately depend on the capacity of administrative and financial managers to effectively and efficiently manage all of the resources provided by the project. This sub-component will have the responsibility to build the capacity of the managers concerned to ensure the achievement of the objectives set.

Sub-component 2.3.: Innovative programs for professional integration of young graduates

This sub-component will be charged with identifying inspiring success stories in the field and capitalising them to build innovative mechanisms for the socio-professional integration of young graduates either through the creation of vibrant agricultural enterprises or enabling their smooth transition to work as employees.

2.3.1.: Capitalisation and development of existing success stories

Some interesting success stories that were seen on the field and that could serve for inspiration, are as follows:

a) An innovative program called "**Start Them Early Program**" (**STEP**) launched by IITA (International Institute of Tropical Agriculture) in 2018 – 2019 in Oyo state is successfully bringing agribusiness to primary and secondary schools through club participation, course work and experimental learning. Majority of young participants in this program are changing their perception about agriculture and are progressively ready to take up agriculture as a lifelong occupation. This indicates that with the necessary incentive, proper training and constructive orientation, young people would readily change their perception of agriculture and willingly engage in it.

b) Through the IITA Youth Agripreneur incubation program in Oyo state, unemployed young graduates have been trained, empowered and transformed into agribusiness promoters. With loans provided within the framework of the program, they have developed enterprises which

are providing them decent employment and jobs as well as to their peers, while contributing to the development of value chains of some strategic commodities in the state.

c) Staffs of the IITA Youth Agripreneur program are predominantly young females, pointing to the fact that transformative gender inclusion in agriculture can be a reality not only for agribusiness skills development and coaching but even for the practice of the agricultural activity.

d) FarmKonnect in Oyo state is promoted by an Agripreneur who is driving the digitalisation of agriculture to very high levels and is attracting the attention and interest of many youths to the sector. The organisation is creating jobs and providing very intelligent solutions to doing business in agriculture. This is a clear indication that if enough consideration is paid to digital technology, it could contribute immensely not only to solving contemporary problems in agriculture but also to giving a totally new dimension to the activity from the youths' perspective.

The renovated ATVET system could draw a lot of inspiration from these and other existing success stories in order to put in place a functional system for support to the socio-professional integration and settlement of the trained youths.

Component 3: Project management

This last component aims to implement and manage the project, and propose a new mechanism for continuous evolution of the ATVET programs.

Overall coordination of the project shall be at the Federal level while steering units shall be in the states.

Sub-component 3.1.: Project Management and Technical Assistance Unit

As indicated earlier, the project shall be placed under the coordination of the Federal Ministry of Agriculture and Rural Development. In the 3 states, project management shall be under the responsibility of the State Ministries of Agriculture. At the level of the training institutions management shall be handled by the Administration of each institution, under the supervision of the Governing council.

Where the need arises, necessary technical assistance shall be provided by an organisation identified in conformity with the procedures in force.

Sub-component 3.2.: Monitoring and evaluation

The project will be managed by of Federal Ministry of Agriculture and Rural Development, in conjunction with the 3 State Ministries of Agriculture. AFD and FAR network will provide assistance to project management, as much as necessary. A steering committee involving the other ministries (Education, Finance, Environment) will meet at least once every 6 months to ensure the governance of the whole project.

Sub-component 3.3.: Support to inter-ministerial dialogue (support to public policy for agricultural and rural training, governance and funding of training structures, etc.).

Under this sub-component, the project shall construct with the participation of relevant ministries, vibrant inter-ministerial dialogue to facilitate coordination among them in order to ensure synergic implementation of all of the activities envisaged.

3.7. TRANSVERSAL AXES

All the first three components of the project would function in such a way that elements of gender mainstreaming, climate resilience and the digital economy would be integrated into the training and post-training support systems. In addition, regulatory frameworks, dialogue between institutions and strategic communication around the project would take into account, these elements of gender, digitalisation of ATVET and agriculture as a whole and climate resilience strategies to make production activities more sustainable.

The project would take into consideration (i) gender issues related specifically to the economic empowerment of women and their transformative inclusion into agriculture, (ii) climate change and its impact on agriculture, trades and skills and measures for mitigation and adaptation to the effects of climate change, and (iii) the digitalisation of agriculture in order to make it more attractive and fashionable as far as youths are concerned.

According to the Federal Ministry of Agriculture and rural Development, some 75% of workers in the agricultural sector in Nigeria are women who are responsible for producing some 80% of food in the country. Despite the significant contribution that they make to the country's agriculture and overall economic development, women in the sector continue to face serious challenges with respect to access to land, inputs, information, finance, training for skills acquisition and more. These inequalities tend to prevent the country from reaping the full benefits of agriculture for food security and self-sufficiency, poverty eradication, sustainable growth and development. The Comprehensive Africa Agriculture Development Program (CAADP) argues that agricultural transformation and women's empowerment are inextricably linked and that GDP in African countries would grow by 12% if women had equal access to agricultural resources as men do.

Data generated from the pre-feasibility study in the 6 selected states indicates that the proportion of females in agricultural training institutions is about 43.75% as against 56.25% for men. The study also revealed that despite this fairly high proportion of females in training, only very few of them are taking core agricultural courses. This may be explained by the barriers that women come up against in relation to their agricultural activities.

The ATVET enhancement project would seek to reduce the effects of these barriers and open up more avenues for girls to take training on various aspects of agriculture, and to eventually set up enterprises related to various links of the value chains of crops in which they are interested.

As concerns ATVET digitalization, the rationale for integrating digital technologies into the system is that when they are deployed in a context of stakeholders with a propensity for change, they will facilitate new opportunities for the sector. Increased digitization of ATVET would align with the 2015 UNESCO recommendation concerning TVET digitalization in general and its interfacing with the three core concepts of digital innovation, adaptation and acceleration.

Much innovation in digital TVET is institutionally driven, with the labour market following innovation pathways that are not filtering into TVET curricula or the operations of TVET institutions. Yet digitization is being positioned today as the driving force behind flexible learning pathways, lifelong learning and the adaptation to a highly evolving technological environment in which agribusiness and agro-industries operate. The enhanced ATVET system would have to improve on the fundamentals its digitalization as the cornerstone for the three-way collaboration between training institutions, employers, and graduates (or trained employees) if these different actors hope to survive in today's competitive technological environment.

3.8. MODUS OPERANDI

The project would be implemented in each selected state by a dedicated team set up by the state government. At the federal level, a coordination team would be set up by the Ministry of Finance and Planning, including expertise from the Federal Ministry of Education, the Federal Ministry of Agriculture and Rural Development and the Federal Ministry of Science and Technology as well as private sector actors. This modus operandi, however, remains to be clarified by the feasibility study.

3.9. FINANCIAL PROFILE

An initial assessment sets the budget for three target states at some 45 million euros in sovereign loans. The loan would be on-lent (in debt, as a grant, or in a mix) to the beneficiary states. To this could be added a delegation of funds from the EU for an envisaged amount of 10 million euros.

Chapter 4. Proposal of Pilot States to be involved in the future Project

This was an important request from donors with respect to providing an objective analysis to select the final pilot states from among the 6 eligible states, which would participate in the program. The main criteria for selection of the states had to be the following:

- Existence of a favourable context on which rapid impact can be attained: for example existence of structured value chains, existing ATVET training structures, etc.
- Willingness of local actors including technical and financial actors to contract a loan (readiness for a loan).

In order to meet this demand, we proposed to combine a multi-criteria matrix with qualitative information from all visits made.

It was observed that concrete statistics was hard to come by with regards to the criteria as proposed initially. For instance, it was generally noted that Ministries of Budget were reluctant to divulge the figures for the debt burden especially the outstanding Irrevocable Standing Payment Orders (ISPOs). On the other hand it was difficult to secure the willingness of the States without a concept note of the project that remains in the clouds for many stakeholders.

In this framework the proposed multi-criteria matrix includes:

- General criteria on the main socio-economic data of each State (Criteria 1 to 6). These criteria are obviously not discriminating and cannot be used directly
- Information on the rural population, especially young people (Criteria 7 to 9)
- Appropriation / Budgetary indicators in order to evaluate the capacity of each State to be involved in a loan process (Criteria 10 to14)
- Agricultural development / transformation (Criteria 15 and 16)
- Agricultural and Rural Training (Criteria17 to 22)
- Crosscutting elements (Criteria 23 to 26)

Table 15. Multi-criteria matrix for selection of states

Domain of interest	Criteria	Indicators	Zones and States					
			North Central Zone			**North West**	**South East**	**South West**
			Plateau	**Benue**	**FCT**	**Kano**	**Imo**	**Oyo**
	General Information							
Descriptive socio-economic demographics	1. Population of the State	Number	4 766 095	6 656 320	5 161 505	14 948 133	6 362 130	8 300 000
	2. Rural to Urban population ratio	Percentage (R / U)	44 / 56	40 / 60	23 / 77	41.7 / 58.3	42 / 58	36 / 64
	3. GER in primary schools[1]	Percentage	86.6	84.6	105.88	123.7	121.9	88.7
	4. GER in Secondary schools	Percentage	49.1	56.9	58.6	45.8	52.6	54.6
	5. Transition rates to Secondary Schools	Percentage	53.3	67.5	53.43	56.8	58.8	60.2
	6. Proportion of youths 18 – 25 Not in Education, Employment or Training (NEET)	Percentage	19.4	32.2	16.4	40.8	26.4	16.4
Key Information for comparative evaluation								
Key demographics	7. Proportion of active population	Percentage	52.6	50.7	60.4	50.0	50.6	58.5
	8. Youth unemployment rate (*New Nigerian Method*)	Percentage	26.59	11.98	40.4	25.36	56.64	17.99
	9. Level of rural exodus of youths	+++ = Very High ++ = High + = Average - - = Low - - - = Very low	++	++	- -	++	++	++

[1] Education in Nigeria - Statistics & Facts | Statista

Appropriation / Budgetary indicators	10. Debt burden of the state (External Debt Stock as at December 31, 2020)[2]	Amount (000 $ US)	37,924	32,500	30,100	68,402	96,117	83,700
	11. Proportion of state budget allocated to agriculture	Percentage (%)	4	4	NA	NA	1.6	4.5
	12. Proportion of State budget allocated to TVET	Percentage (%)	<1	<1	NA	NA	<0.5	<1
	13. Priority of agriculture in the state economy	1 = 1st Place 2 = 2nd Place 3 = 3rd Place	1	1	1	1	1	1
Agricultural development / transformation	15. Existence of an agricultural policy with a skill development component	0 = No 1 = Yes	1	1	1	1	0	1
	16. Level of development of agricultural value chains	++ = Developed + = Fairly developed + = Not well developed	+	+	+	+	+	+
Agricultural and Rural Training	17. Number of agricultural and agriculture-related colleges (*data disaggregated by state and federal colleges*)	Number	3	1	0	2	2	4
	18. Student population in agricultural colleges / disaggregated by state	Number	≈5700	1400	0	≈5300	≈5800	>5000
	19. Number of agricultural training centres (skills acquisition)	Number	3	2	1	7	2	4
	20. Population of agricultural training centres (skills acquisition)	Number	NA	≈150	NA	NA	NA	≈30

[2] (States, FCT and Federal Government's External Debt Stock as at December 31, 2020 - Debt Management Office Nigeria (dmo.gov.ng)

	21. Existence of mechanisms to support youth installation on available arable land	0 = No 1 = Yes	0	0	0	1	0	1
	22. Existence of a private sector funding system for training	0 = No 1 = Yes	0	0	0	0	0	0
Crosscutting	23. Existence of strategies / projects / initiatives on climate resilience	0 = No 1 = Yes	1	1	1	1	1	1
	24. Existence of strategies / projects / initiatives on the reduction of gender inequalities	0 = No 1 = Yes	1	1	1	1	1	1
	25. Presence of other TFP with interventions on agriculture and/or vocational training	0 = Not present 1 = Present + No intervention 2 = Present + Some Intervention 3 = Present + Strong Intervention	2	2	3	2	2	3
	26 .Existence of enabling mechanisms to favour employment in the sector	0 = No 1 = Yes	1	1	1	1	0	1
	Ease of implementation	+++ = Very easy ++ = Easy with constraints to be taken into consideration + = Difficult – = Very difficult	**+++**	**++**	–	**+**	–	**+++**
	Potential impact	+++ = Strong ++ = Average + = Weak	**+++**	**+++**	**++**	**+++**	–	**+++**

		– = Nil						
	Sustainability	+++ = Excellent ++ = Good + = Fair – = Insufficient	**++**	**++**	–	**++**	–	**++**
	Proposed final ranking		**2**	**3**	**5**	**4**	**6**	**1**
			Plateau	**Benue**	**FCT**	**Kano**	**Imo**	**Oyo**

The interest of the candidate State governments in accessing the loan was strongest in Oyo, Benue and Plateau states in that order. As a testimony to its keen interest, the government of Oyo State had gone ahead to have preliminary discussions with the AFD in anticipation of the loan going through with the Federal Ministry of Finance, Budget and National Planning.

Additional information for ranking Pilot States is available in Appendix 7.

Conclusion: Recall of results achieved and next steps

After 6 weeks on the field in the 6 selected states (Plateau, Kano, Benue, Oyo, Imo and FCT), around 72 visits, meetings and interviews were carried out to deepen the understanding of the issues facing the ATVET system, thereby, complementing the first scoping study carried out in March 2020.

All these visits provided an opportunity to meet all ATVET stakeholders including representatives of Ministries at federal / state level (Agriculture, Education, Science and Technology), training institutions (Research centres, Universities, Colleges of Agriculture, Agriculture Schools), NGOs, professional associations, etc.

A first meeting of a provisional Steering Committee held in Abuja on the 26th of April, 2021 made it possible to clearly define the objectives of this pre-feasibility study with the Nigerian authorities, especially with the Federal Ministry of Finance, Budget and National Planning, which is the compulsory point of passage for international financing.

At the end of the field mission, a multi-stakeholder workshop was organised in Abuja on 28 May 2021 to present the progress of the study and to record the participants' questions.

In each state visited, a SWOT analysis of the ATVET system was carried out and it was pointed out that the training provided, especially at the basic level, was insufficiently oriented towards the reality of the field, with little consideration of the market. The problem of the necessary support for the integration of young people after their initial training was also highlighted. A remarkably interesting model of Agripreneur has been pointed and will be developed in the future project proposed.

Overall, the ATVET system needs to be developed in order to avoid the weaknesses observed, and the future project will implement these proposals of reforms in 3 pilot states and will then consider its extension to other states in Nigeria, in case of success.

The main content of the future project, organised in 3 components, could be defined as follows:

Component 1: Modernization of state agricultural training institutions

Sub-component 1.1.: Rehabilitation of Agricultural Training Institutions

Sub-component 1.2.: Equipment of Agricultural Training Institutions

Component 2: Improvement of the quality of training and transition to employment

Sub-component 2.1.: Improvement of the quality of training consistently with climate change resilience challenges

Sub-component 2.2.: Capacity building for administrative and financial managers of training institutions

Sub-component 2.3.: Innovative programs for professional integration of young graduates

Component 3: Project management

Sub-component 3.1.: Project Management and Technical Assistance Unit.

Sub-component 3.2.: Monitoring and evaluation

Sub-component 3.3.: Support to inter-ministerial dialogue (support to public policy for agricultural and rural training, governance and funding of training structures, etc.).

For each component expected results and activities to be achieved have been proposed.

The feasibility study, which is scheduled for completion in the second half of 2021, should make it possible to integrate the specific features of the three pilot States selected. The feasibility study will also enable all the proposed activities to be sized and, if necessary, some to be added or removed.

From a multi-criteria matrix and a dynamic analysis of the actors, it was possible to propose the 3 states (Oyo State, Plateau State and Benue State) where the conditions for success of the project will be the most favourable. The criteria of the choice of these three states took into account:

- Ease of implementation
- Potential impact
- Sustainability

This pre-feasibility study will be completed by the drafting of ToR of feasibility study of the project in the 3 Pilot States.

Next steps

After having validated and consolidated the present study between AFD and Nigerian authorities, a call for tender will be launched during 2021 in order to conduct the feasibility study. The main contents of feasibility study will be:

- Drafting of the logical framework, including gender aspects and social / environmental aspects
- Planning of activities
- Budgeting of activities
- Definition of actors (Responsible, Accountable, Consulted, Informed)
- Definition of the necessary project management and technical assistance
- Definition of all administrative and financial procedures to safely implement the project.

List of Appendices