

FUNDING OPPORTUNITIES WITH STDF (Sanitary and phytosanitary - SPS)

STDF PROJECT GRANT APPLICATION FORM

Proposal Title	Preparation of Phytosanitary Capacity Evaluation (PCE) and project proposal to improve plant health systems for food safety for public health and trade in Nigeria.
Budget requested from STDF	US \$38,400
Full name and contact details of the requesting organization (s)	<p>Dr (Mrs.) Maria A. Ayodele, International Institute of Tropical Agriculture, Ibadan, Oyo State, Nigeria. +234803498117 E-mail: m.ayodele@cgiar.org</p> <p>Dr. Charles Awa Onyeani, Suregreen Agriconsult Ltd. RC 1368322, No. 2 Awa Onyeani Street, Ipaja, Lagos, Nigeria. +2348033005529 E-mail: awa.onyeani@yahoo.com</p> <p>Dr. Shakiru Adewale Kazeem, Post-Entry Quarantine Station, Nigeria Agricultural Quarantine Service, Moor Plantation, Ibadan, Oyo State, Nigeria. +2348037760276 E-mail: kazeems2001@gmail.com</p>
Full name and contact details of contact person for follow-up	

Background and rationale

1. Relevance to Project Preparation Grants

This project proposal seeks to improve the capability of the National Plant Protection Organisation (NPPO), Nigeria to use Phytosanitary Capacity Evaluation (PCE) tool developed by International Plant Protection Convention (IPPC) to evaluate their phytosanitary capabilities which would enable them plan their national phytosanitary programmes. In addition, the proposal will conduct a feasibility study that will help NPPO Nigeria formulate a project proposal that would help the country address agricultural commodities import and export certification capacity building needs and bring about a robust Plant Health system that would reduce pest risks and contribute to better livelihoods, enhance trade and biodiversity preservation in Nigeria and Africa as a whole.

The PCE as an interactive tool designed by IPPC help NPPOs to conduct a situational analysis of their existing phytosanitary system, and assess its progress over time in the implementation of the IPPC and the international standards on phytosanitary measures. In other words, IPPC developed the Phytosanitary Capacity Evaluation (PCE) tool to serve as a diagnostic tool for the NPPO to gauge the capacity gap between the current situation and what is needed to meet the requirements

of the IPPC and its ISPMs. The PCE includes a logical framework tool that can be used to generate a strategic framework for enhancing the phytosanitary system in a country and is aligned with the Phytosanitary Capacity Building Strategy of the IPPC to:

- a) Identify gaps in the phytosanitary system which need to be addressed
- b) Conduct stakeholders' analysis and keep track of stakeholders that are relevant in the phytosanitary system of the country.
- c) Conduct a problem analysis to identify the root cause of the gaps identified
- d) Conduct and document strengths, weaknesses, opportunities and threats facing the NPPO in managing an effective phytosanitary system.
- e) Assist in the development of a strategy to address key weakness identified.

The project is consistent with the strategic aim of STDF in assisting developing countries to enhance their capacity to analyze and implement international sanitary and phytosanitary standards in order to improve their human, animal and plant health situation and participate in trade. It is believed that the Technical support this project will provide to Nigeria NPPO and by extension the Inter African Phytosanitary Council (IAPSC) will reinforce strategy adoption and implementation of the Sanitary and Phytosanitary Standards' (SPS) Framework at national, regional, and continental levels and lay the foundation for increased agricultural development and trade of safe food products within Africa and beyond the continent.

2. Problem of SPS in Nigeria to be addressed

Nigeria NPPO is facing challenges in upgrading and/or updating her phytosanitary systems due to budgetary and other resource constraints and these have resulted to the inability or persistent challenges in accessing markets for agricultural produce due to deficiencies in systems for managing phytosanitary concerns that hamper phytosanitary services delivery. Nigeria is very strategic in African continent especially the West African sub-region in international trade. Sanitary and phytosanitary system of the country if not well articulated and prioritized, would inadvertently rob off on the phytosanitary system of the other member countries.

Previous PCE project in Nigeria was conducted in the early 1980s and cannot be relied upon in evaluating the effectiveness of the national sanitary and phytosanitary system. The NPPO Nigeria phytosanitary system needs critical appraisal so as to overhaul the whole system and align it with the world's best phytosanitary practices.

A well prepared and up to date PCE will result in objective identification of gaps in the present phytosanitary system in Nigeria and would enable the government to factor national phytosanitary planning into the country's development plans. Similarly, an up-to-date research and review of existing phytosanitary legislations in Nigeria to determine gaps in implementation and enforcement will not only bring about improved phytosanitary system in the country but will also boost the implementation and enforcement of the African Continental Free Trade Area (AfCFTA) project by the African Union. This project preparation grant would be used to develop a full

proposal for a project that engages relevant public and private sector stakeholders in Nigeria to improve the national phytosanitary system in relation to agricultural import and export certification programs that improve people's livelihood and trade in the country.

3. Institutions and Government agency supporting this project

This application is based on demand from the public and private sector in Nigeria. Implementation of the PPG (and the resulting project) would be based on a public-private partnership model, between the Nigeria Agricultural Quarantine Service and farmers/processors cooperatives, exporters etc. The project will be conducted in collaboration with subject matter experts and specialists from International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria and some Nigerian Universities. It would be conducted throughout the six zonal offices of Plant Quarantine Department in Nigeria, including coordinating and convening meetings and events.

The following Organizations support this request:

Country: Nigeria

International Institute of Tropical Agriculture (IITA)

Nigeria Agricultural Quarantine Service (NAQS)

The International Institute of Tropical Agriculture (IITA) is a non-profit institution that generates agricultural innovations to meet Africa's most pressing challenges of hunger, malnutrition, poverty, and natural resource degradation. Working with various partners across sub-Saharan Africa, to improve livelihoods, enhance food and nutrition security, increase employment, and preserve natural resource integrity.

International Institute for Tropical Agriculture (IITA), has developed a strategy to overcome some of the critical institutional bottlenecks to ensure domestic and international regulatory compliance essential for promoting export trade. This relied on using a suite of fit-for-purpose digital tools and knowledge products for agricultural commodity export certification, pest information updates, pest risk assessment and pest surveillance by NAQS in accordance with WTO-SPS guidelines.

Nigeria Agricultural Quarantine Service is a regulatory agency under the Federal Ministry of Agriculture and Rural Development saddled with the responsibility of prevention of introduction, spread, and establishment of foreign/exotic pests and diseases of plant/plant products, Animal/Animal products and Aquatic Resources products into and out of the country. It also enhance the safe export and import of Agricultural commodities through scientific inspection, laboratory diagnosis, treatment and certification to ensure compliance with sanitary and Phytosanitary (SPS) measures of World Trade Organization (WTO), World Organization of Animal Health (OIE), Convention on International Trade on Endangered Species of Flora and Fauna (CITES), Codex Alimentarius Commission and other International Standards.

4. Previous STDF Grants Project

The International Institute of Agriculture in collaboration with NAQS implemented the World Trade Organisation Standards and Trade Development Facility (WTO-STDF) Project Proposal Grant Project Proposal Grant (PPG) titled; “Strengthening phytosanitary capacity in Nigeria for facilitating market access: Developing and integrating digital system for pest surveillance, pest reporting, export certification and traceability.

5. Discussion with other donors

This proposal has not been discussed with any other donor.

6. Implementation

In Nigeria, women play important roles in agricultural production ranging from farming, harvesting, processing and marketing. They will be involved the resulting project of this Project preparation grant. Dr (Mrs.) Maria Ayodele; an experienced Consultant in IITA would lead in implementation of this project.

7. Budget

The total cost of this project is US \$48,000 of which STDF is requested for US \$38,400. The IITA as implementing agency would contribute US \$9,600 as in-kind contribution (Staff time), training resources and financial (see table below)

Activity	Responsible	Estimated Budget (US \$)
Activity	Responsible	Estimated Budget (US \$)
Consultants	IITA	10,000
Travel expenses: Visits to all the NAQS Zonal offices (6 Nos), major Quarantine stations and stakeholder consultations	IITA, NAQS	10,000
Meeting expenses: Experts and Stakeholder consultations	IITA, NAQS	5,310
Training workshop for selected NAQS staff as PCE in-house facilitators	IITA	10,000
General operations costs	IITA, NAQS	6,000
Total Direct Costs		
Indirect Cost (16.20%)	IITA	6,690
Total		48,000

ATTACHMENTS

1. CURRICULUM VITAE

DR (MRS.) MARIA AYODELE

Plant Diseases ☹️ (Bacteria and Fungi)Status, Epidemiology, Economics Importance, Diagnostics, control and current challenges in Nigeria

Expert on Plant Protection – Maria Ayodele

1. Name Maria Ayodele
2. Position: Expert on Plant Protection
3. Employer: IITA

4. Education:

School, College and/or University Attended	Degree/Certificate or Other Specialized Education Obtained	Date Obtained
University of Ibadan, Nigeria	PhD – Plant Pathology	1997
University of Aberdeen, Scotland, UK	MSc. - Plant Bacteriology	1981
State College of Agriculture, Deventer, Netherlands	BSc. Tropical Agriculture / Plant Pathology	1972

Summary of Qualifications:

Dr. Maria Ayodele set up and has been in charge of **International Institute of Tropical Agriculture's** Germplasm Health Unit (GHU) since 1998. Dr. Ayodele obtained her first degree in the Netherlands on **tropical agriculture**, MSc in **plant bacteriology** from the University of Aberdeen, Scotland, and PhD in **plant pathology**, University of Ibadan, Nigeria.

She is an internationally recognized plant pathologist by training, specializing in bacteriology and mycology (fungi), in seed pathology, **phytosanitary regulations**, and **capacity building**.

As a research support scientist, Dr. Maria Ayodele helps IITA in testing seeds for import or for sending to partners by making sure that they are disease-free to prevent the spread of exotic pests and diseases. She liaises with the plant protection and quarantine service organizations of partner countries where IITA sends or imports seeds or other plant materials for use in research. With FAO, she provides technical backstopping in **plant health and phytosanitary regulation**, and also **capacity building for SSA partner countries**, including Nigeria, Bénin, Burkina Faso, Gabon, Gambia, Guinea Bissau, Mali, Togo, Cote'Ivoire, Niger, and Senegal.

Last year, she was part of a team that conducted training on pest risk analysis and the safe movement of germplasm for partners in the national programs of **Tanzania, Zanzibar, Uganda, Kenya, and Zambia, Burundi, Malawi, and DR Congo**. She also does some research, specifically in the areas of classification and characterization of anthracnose for yam, morphological characterization of gray leaf spot in maize, and the establishment of pest-free areas for multiplying germplasm materials.

Her work experience includes:

- Diagnostic surveys: Survey of the Black Sigatoka disease incidence in West Africa (Nigeria, Benin Rep., Togo, Ghana and Cote D'Ivoire) and in East African Sub Region (Rwanda, Burundi, Tanzania, Zanzibar, Uganda and Kenya)
- Survey of soybean diseases in 19 States in Nigeria (IITA in collaboration with NCRI, IAR&T, University of Agriculture Makurdi (IITA internal document). To determine the occurrence, spread and establishment of soybean rust disease in the 19 states where the crop is grown
- Survey study in Angola: was conducted to determine the presence or absence of cassava and plantain diseases in farms visited in different locations. In Angola the survey was conducted in Mazozo Research Station, Cabinda to assess the fields, In Cabinda, visited the National Research Station in St. Vincent where rice, maize, Amaranthus, Cassava, Sweet Potatoes and oil palm were grown, CaCongo in Landana visited farms in Tokosiala village, Buku li Tsiela, and Conde/ INHUCA. (An IITA document)

- She served as an International Phytosanitary Training Consultant for FAO in all the International Standard for Phytosanitary Measures (ISPMs) in several projects such as:
 - TCP/RAF/0176/UTF/UEMOA for eight (8) West African French Speaking Countries – Benin, Cote D’Ivoire, Burkina Faso, Guinea Bissau, Mali, Niger, Senegal and Togo.
 - TCP/GAB.2801/2901 for Gabon
 - TCP/GAM/3102 for Gambia
 - TCP/BDI/3301 for Burundi
 - TCP/CMR/3303 for Cameroun

Most of these trainings involved field pest survey for pest determination, identification and characterization.

6. Professional Certification or Membership in Professional Associations:

- ❖ Nigerian Society for Plant Protection (NSPP)
- ❖ International Seed Testing Association (ISTA)
- ❖ International Plant Protection Society (IPPS)
- ❖ American Phytopathology Society (APS) 186234
- ❖ International Society for Tuber and Root Crops, African Branch (ISTRC-AB)

7. Other Relevant Training:

- | | | |
|------|---|--------------------------|
| a) | Training in Pest Risk Analysis Dar Es Salaam Tanzania | Feb., 2002 |
| b) | Serological and Molecular tools (PCR) for the detection and Identification of bacterial plant pathogens at: | |
| i) | Pacific Agric Research Station, Vancouver, Canada | Nov '94 – Jan '95 |
| ii) | Oregon State University, Corvallis, USA | Jan - Mar 1995 |
| iii) | APHIS/PPQ Centre for training Plant Quarantine Officers Frederick, USA - Certificate in Quarantine System Analysis | 1983 |
| iv) | Danish Institute of Seed Pathology for Developing Countries, Hellerup, Denmark - Certificate in Seed Pathology | 1978 |

8. Countries of Work Experience:

Nigeria, USA, Togo, Benin, Cote D’Ivoire, Burkina Faso, Guinea Bissau, Mali, Niger, Senegal and Togo, Cameroon, Ghana, T’Chad, DRC, Congo Brazzaville, Cape Verde, Burundi, Rwanda, Uganda , Tanzania, Kenya.

9. Languages:

- ❖ **French – speaking native, reading native, writing native**
- ❖ **English –speaking fluent, reading fluent, writing fluent**

10. Employment Records

From: 2010 **To:** to date

Employer: International Institute of Tropical Agriculture (IITA)

Positions held: Consultant Pathologist

From: 1998 **To:** 2009

Employer: International Institute of Tropical Agriculture (IITA)

Positions Held: Pathologist / Germ Plasm Health Scientist

From: 1994 **To:** 1998

Employer: Federal Ministry of Agriculture and Water Resources

Positions Held: Chief Agric Officer (Plant Quarantine Service, Regulatory)

11. Detailed Tasks Assigned	12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned
	<p>Name of assignment or project: Field Trials for the control of Fall Army Worm using Fawligen a biological pesticide on maize.</p> <p>Year: 2019</p> <p>Location: Nigeria (Iseyin & Mokwa)</p> <p>Client: AgBiTech</p>

Main project features: Assessment of Efficacy of Fawligen Bio-Pesticide for the control of FAW (Fall Army Worm)

Position Held: Principal Investigator

Name of assignment or project: Mapping of Corn/ Maize Insect Pests and Diseases across Nine States in Nigeria

Year: 2018

Location: Nine States in Nigeria

Client: MONSANTO

Main project features: Mapping of Corn/ Maize Insect Pests and Diseases

Position Held: Principal Investigator

Activities performed: Field Identification and laboratory analysis

Name of assignment or project: Pest Risk Analysis, Biosafety Policy and Regulatory Issues in several projects

Year: 2017

Location: Cameroon, Togo, Cote d'ivoire, Ghana & Nigeria

Client: CFC / ICOC

Main project features: Pest of quarantine importance of Cocoa

Position Held: Principal Investigator on Pest Risk Analysis

Activities performed: Training of scientist on Pest Risk Analysis, Field identification of indigenous cocoa pest in each of the participating countries.

Name of assignment or project: Survey of Soybean Diseases in 19 States in Nigeria (IITA in collaboration with NCRI, IAR&T, University of Agriculture, Markurdi (IITA internal document).

Year: 2000

Location: Soyabean growing areas in Nigeria,

Client: IITA /Agricultural Research Institute (NAS)

Main project features: To determine the occurrence, spread and establishment of soybean rust disease in the 19 states where the crop is grown.

Position Held: Pathologist

Activities performed: Field Identification and laboratory analysis of disease samples collected.

Name of assignment or project: Survey study in Angola

Year: 2005

Location: Angola

Client: IITA

Main project features: To assess the Intensity and Spread of Cassava and Plantain Diseases on land races and introduced genotypes.

Position Held: Pathologist

Activities performed: Field Identification and laboratory analysis of disease samples collected.

Name of assignment or project: Nationwide Crop Disease and insect Pest Survey of Cassava

Year: 2019

Location:

Client: FMAR, NAQS, IITA

Main project features:

Position Held: Principal Investigator

Activities performed: Field Identification and laboratory analysis

Name of assignment or project: Agriculture and Food Security Technical Services Participating Agency Service Agreement (PASA) USDA/FAS/Nigeria Agriculture Capacity Strengthening Program: PIRS

Year: 2009-2019

Location: Nigeria

Client: USDA/FAS/Nigeria Agriculture Capacity Strengthening Program

Main project features: Data Collection of participants

Position Held: Monitoring and Evaluation Specialist

Activities performed: Analysis of Activities

Name of assignment or project: Survey of Export Crops Pest & Disease Incidence: Sesame, Hibiscus & Vegetables

Year: 2009

Location: Nigeria

Client: NAQS

Main project features: Field Survey

Position Held: Principal Investigator

Activities performed: Field Identification and laboratory analysis

Name of assignment or project: Nationwide Crop Disease and insect Pest Survey – Rice, Maize, Sugarcane, Sesame, Pineapple

Year: 2009 - 2014

Location: Nigeria

Client: NAQS

Main project features: Field Survey

Position Held: Principal Investigator

Activities performed: Field Identification and laboratory analysis

Name of assignment or project: Diagnostic Surveys: Survey of the Black Sigatoka Disease Incidence in West Africa (Nigeria, Benin Republic, Togo, Ghana and Cote D'Ivoire) and in East African Sub-Region (Rwanda, Burundi, Tanzania, Zanzibar, Uganda and Kenya)

Year: 1988

Location: Countries cited above

Client: AU

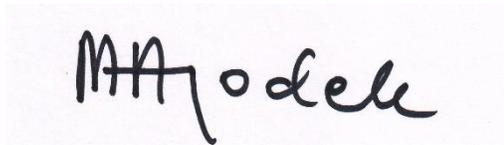
Main project features: Field identification, spread and intensity of black sigatoka disease of plantains of the countries cited above.

Position Held: Consultant

Activities performed: Diagnostic surveys

Certification

I certify that (1) to the best of my knowledge and belief, this CV correctly describes me, my qualifications, and my experience; (2) that I am available for the assignment for which I am proposed;



M. A. Ayodele

23/07/2021

Name of Expert

Signature

Date

CURRICULUM VITAE

I. **ONYEANI**, Charles Awa

Summary of profile

Motivating and talented Plant Pathologist driven to researching into causes and spread of diseases of fruit and arable crops, and Agricultural stored products and controlling them with naturally occurring pesticides extracted from indigenous plants. An Agriculturist with passion for increased crop production free of plant pests; in a view to improving the socio-economic livelihood of rural dwellers. Well experienced in agricultural extension delivery and communication.

Highlights

- Accomplished researcher in Plant disease etiology, epidemiology and management.
- Well experienced in innovative crop production research methods.
- Knowledgeable in pesticides efficacy trials
- Good in the used of modern pests diagnostic tools (ELISA and PCR)
- Expert in surveillance and monitoring of Plant pests; pest risk analysis and assessment
- Knowledgeable in agricultural extension communication and input delivery.
- Excellent in team work and networking.
- Skilled in innovative Plant disease eradication methods.
- Excellent Knowledge of Information and Communication Technology applications.
- A member of the Nigerian Society for Plant Protection and American Phytopathological Society.

Accomplishments

Received University of Ibadan “PYTP Pillar of Support Award” in 2016, International Institute of Tropical Agriculture “Excellence Award” in 2015 and Sacred Heart Parish Abam, Umuahia Diocese “Pillar of Hope Award” in 2010.

ii. Date and place of Birth: 12 September, 1959 in Ozu Abam

iii. Nationality: Nigerian

iv. State of Origin and Local Govt. Area: Abia State/Arochukwu L.G.A.

v. Contact Details:

- a) **Home address:** 2 Awa Onyeani Street, Off Olayiwula Ayodele Avenue, Fafunwa, Ipaja, Lagos State
- a) **Postal Address:** P.O. Box 390, Ipaja, Lagos State.
- b) **E-mail Address:** awa.onyeani@yahoo.com
- c) **Mobile phone Numbers:** +2348033005529; +2348059613842

vi. Marital status: Married

vii. Number of Children with Ages: 1 boy (24 years), 2 girls (16 and 14 years respectively)

viii. Next of Kin: Lucy Ngozi Onyeani

ix. Contact Details of next of kin:

- b) **Home address:** 2 Awa Onyeani Street, Off Olayiwula Ayodele Avenue, Fafunwa, Ipaja, Lagos State
- c) **Postal address:** P. O. Box 390, Ipaja, Lagos State
- d) **Mobile Phone Number:** 08033093667

x. Institutions Attended with dates

- 1966 - 1971 St. Paul's Catholic Primary School, Ozu Abam.
- 1972 - 1973 St. Joseph Catholic Primary School, Bende.
- 1973 - 1979 Abam High School, Ozu Abam.
- 1982 - 1984 Obafemi Awolowo University (Now Federal College of Agriculture, Akure)
- 1987 - 1989 Obafemi Awolowo University (Now Federal College of Agriculture, Ibadan)
- 1997 – 1999 Olabisi Onabanjo University, Ago-Iwoye.
- 2002 - 2004 Olabisi Onabanjo University, Ago-Iwoye.
- 2007 - 2015 Olabisi Onabanjo University, Ago-Iwoye.

xi. Academic Qualifications with dates

- Ph.D. Crop Production (with bias in Plant Pathology), 2015
- M. Sc. Crop production, Viva passed in 2004, Degree ceremony in 2006
- Post Graduate Diploma in Agricultural Extension, 1999

Higher Diploma in Agriculture, 1989

West African School Certificate 1979

West African Senior School Certificate Examination 2000

xii. Work Experience with dates

a) Professional/Administrative Experience

September, 2020 – Date Member, NAQS Committee on drafting of agro pesticide regulation in Nigeria.

June, 2019 – December, 2019 Consultant to IITA for the project (Efficacy Trials of FAWLIGEN Biopesticide) for registration in Nigeria.

March, 2018 – August, 2020 Secretary to Plant Regulation review and upgrade for Plant Quarantine Department, Nigeria Agricultural Quarantine Service.

May - July, 2018 Team leader NAQS Export Improvement Initiative on sesame seeds (*sesamum indicum*) in Nassarawa State, Nigeria

February 2018 – May 2019 Board Member of Abia State Water Board.

2016 – Date Consultant in Suregreen Agriconsult Limited

2012 - 2015 Head of Station and Coordinator of programmes in the Post-Entry Quarantine Station, Ibadan charged with the responsibility of administration, coordination and supervision all activities in the different units of the Station comprising of laboratories, administrative units and training School.

2010 - 2012 Team leader/Operation Officer in the Pre-Entry Quarantine Inspectorate unit charged with the responsibility of supervising phytosanitary certification of plants and plant products.

b) Teaching Experience

2005 - 2015 Assistant Chief Agricultural Officer/Instructor at Nigeria Plant Quarantine Training School, Moor Plantation, Ibadan teaching Plant Protection related courses.

2018 – Date Resource person, NAQS National Awareness training programmes on export standards for crops in Nigeria.

xiii. Research Interests and activities

- 2019 – 2020 Efficacy trial of new bio-pesticides (Fawligen) for the control of Fall Armyworm in Nigeria.
- 2013 – 2016 Banana Bunchy Top disease eradication in Sub-Saharan Africa
- 2007 - 2014 The etiology, epidemiology and control of Mango fruit Anthracnose in Southwest Nigeria.
- 2002 - 2004 Comparative Effect of Aqueous Plant extract in the control of Storage Fungi
- 1988 - 1989 Sourcing for Fungicidal properties in Plant materials

xiv. Major Conferences and Workshop Attended

- a) Public Hearing on the Bill to Establish Nigeria Institute for Plant Protection and for Related Matters (HB. 109), 27 July, 2020, National Assembly, Abuja.
- b) The 2020 Virtual IPPC Regional Workshop for Africa, 8 – 9 September, 2020.
- c) AGRICON 2020 Conference and Expo, March 19 – 20, 2020, Metro Event Centre, Owerri, Imo State.
- d) Third International Workshop of the Learning Alliance on Banana Bunchy Top Disease Control in Africa, 23 - 28 May, 2016, IITA, Ibadan, Nigeria.
- e) Pest Risk Assessment Workshop on Cassava Brown Streak Disease, 16 – 17 June, 2015, IITA, Ibadan, Nigeria. Presented a paper “Over view of existing pest risk analysis on cassava brown streak virus in Nigeria”
- f) International Workshop on “Maize Lethal Necrotic Disease” diagnostics and management in Africa”, 12 – 14 May, 2015, Nairobi, Kenya.
- g) Second International Workshop of the Learning Alliance on Banana Bunchy Top Disease Control in Africa, 9 -14 March 2015, IITA, Ibadan, Nigeria.
- h) Advanced Training Course on “Banana virus diagnostics for clean seed production, safe germplasm exchange and surveillance of banana bunchy top disease”, 15 – 25 July, 2014, Montpellier, France.
- i) Strategic Planning Workshop on “Recovering Banana Production in BBTV affected areas – Community and farm Household approaches”, 20 – 25 January, 2014, Bujumbura, Burundi.

- j) Workshop on Plant Health management Systems in Africa: Review of draft NPPO structure and organization; Procedures for inspection of plant and plant products including regulated articles, 17 – 19 December, 2013, Addis Ababa, Ethiopia. Presented a paper “An update of Phytosanitary situation in Nigeria”
- k) Yam Improvement for food and Income Security in West Africa Training Workshop on Yam Virus Disease Diagnostics, 23 – 27 September, 2013, IITA, Ibadan, Nigeria.
- l) International Workshop to develop strategies for an Integrated Control of Banana Bunchy Top Disease in Sub-Saharan Africa, 2 – 4 February 2013, Arusha, Tanzania.
- m) Nigeria Society for Plant Protection annual conference, February, 2013, Umudike.
- n) Country consultation seminar on draft ISPMs, 25th – 26th Sept. 2012, Ibadan.
- o) Commission on Phytosanitary Measures, Standards Committee meeting, 12th – 16th November 2012, Rome (Observer)
- p) Workshop on "Status and Surveillance of the Banana Bunchy Top Disease (BBTD) in West and Centre Africa" 20-22 November 2012, Cotonou, Benin.
- q) American Phytosanitary Society centennial celebration meeting, 26th – 30th July 2008, Minneapolis, U.S.A. Presented a paper “Comparative Effect of Aqueous plant extract in the control of Storage Fungi”
- r) International course on Plant Protection & Inspection Services (PPIS), 31st January – 22nd February 2007, Shefayim, Israel.
- s) Biosafety Workshop on Confined field trials for Quarantine Inspectors organised by USAID/PBS, 2nd – 4th March 2006, Accra, Ghana.
- t) Mycotoxins Significance in Agricultural Crops and Feedstuff; Detection and Quantification: (Neogen ELISA) by Brooder house company, 30 October – 1st November, 2006, Moor Plantation, Ibadan.
- u) Nigeria Society for Plant Protection annual conference, September, 2002, Abeokuta.

xv. Professional accomplishment

- a) Received University of Ibadan “PYTP Pillar of Support Award” in 2016
- b) Received International Institute of Tropical Agriculture “Excellence Award” in 2015

xvi. Publications with date

a) Thesis:

- 1) Onyeani, C.A. 2015. The etiology, epidemiology and control of Mango fruit Anthracnose in Southwest Nigeria. An Unpublished Doctor of Philosophy (Ph.D) Thesis, submitted in the Department of Crop Production to the Post-Graduate School, Olabisi Onabanjo University, Ago-Iwoye.
- 2) Onyeani, C.A. 2004. Comparative Effect of Aqueous Plant extract in the control of Storage Fungi. An Unpublished M.Sc. Dissertation submitted in Department of Crop Production, College of Agriculture, to the Post-Graduate School, Olabisi Onabanjo University, Ago-Iwoye.
- 3) Onyeani, C.A. 1998. Impact of Trade Liberalization Policy on the regulatory activities of Plant Quarantine Service in Nigeria: An Extension Perspective (An Unpublished Special Project) submitted to Department of Agricultural Extension and Rural Sociology, College of Agriculture, Olabisi Onabanjo University, Ago-Iwoye.
- 4) Onyeani, C.A. 1989. Sourcing for Fungicidal properties in Plant materials (An Unpublished Higher Diploma project report) submitted to College of Agriculture, I.A.R. & T., Obafemi Awolowo University, Ibadan. Pp26

b) Publications in Journals

- 1) Charles Awa Onyeani, 2017. Susceptibility of Mango Varieties to Anthracnose Fruit Rot in South West Nigeria. *American Jour. Agric. & Bio. Sci.* 12(2): 95-99. DOI: 10.3844/ajabssp.2017.95.99. [Available online]
- 2) Onyeani C. Awa & O. Oguntade, 2015. Molecular Identification of Fungal Species Associated with Mango Anthracnose in Southwest Nigeria. *Jour. Agric. & Environ. Sci.* 4(2): 99-103. DOI: 10.15640/jaes.v4n2a11. [Available online]
- 3) Charles Awa Onyeani & N.A. Amusa, 2015. Incidence and Severity of Anthracnose in Mango Fruits and its Control with Plant Extracts in South West Nigeria. *Int'l Jour. Agric. Res.* 10 (1): 33 – 43. DOI: 10.3923/ijar.2015.33.43. [Available online]
- 4) Onyeani, C.A., S.O. Osunlaja, O.O. Oworu & O.S. Sosanya, 2012. Mango Fruit Anthracnose and the Effects on Yield and Market value of mango in Southwestern Nigeria. *Asian Jour. Agric. Research.* Pp 1 – 9. [Available online]

- 5) Onyeani, C.A., S.O. Osunlaja, O.O. Oworu & A.O. Joda, 2012. Evaluation of Effect of Aqueous Plant Extract in the control of Storage Fungi. Int'l Jour. Sc. & Tech. Res. 1(6): 76 – 79. [Available online]
- 6) Onyeani, C. & S. Osunlaja, 2012. Comparative Effect of Nigerian Indigenous Plants in the Control of Anthracnose Disease of Mango Fruits. Int'l Jour. Sc. & Tech. Res. 1(5): 80 – 85. [Available online]

c) Paper Submitted for Conference/Workshop

- 1) Onyeani, Charles Awa, 2020. An Act to Establish the Nigeria Institute for Plant Protection and for Related Matters (Hb.109): Former Plant Quarantine Directorate Staff Position. Memorandum submitted to the National Assembly House Committee on Agriculture.
- 2) Charles A. Onyeani, 2013. Banana bunchy top virus incursion: A threat to agricultural transformation and food security in Nigeria? NSPP Book of Abstract, Umudike.
- 3) Onyeani, C.A., A.O. Ogunfumilayo, K.E. Ogunsola, S.A. Kazeem, 2013. Occurrence of banana bunchy top virus in Southwestern, Nigeria, NSPP Book of Abstract, Umudike.

xvii. Service to International body

- 2019 – 2020 Consultant to IITA for the project (Efficacy Trials of FAWLIGEN Biopesticide)
- 2013 - 2015 Technical partner in CGIAR Research program: Roots, Tubers, and Bananas for Food and Income “CRP-RTB complimentary grant on banana bunchy top disease” project.

xviii. Extra-curricular activities

Reading, writing and listening to music.

xix. Referees

Available when needed

Signature: 

Date: 21th July, 2021

KAZEEM, SHAKIRU ADEWALE

General Research, Surveillance & Diagnostic Unit, NAQS, Moor Plantation, Ibadan 200273, NG
+2348037760276 | kazeems2001@gmail.com; shakiru.kazeem@naqs.gov.ng

CAREER OBJECTIVE

To improve my potentials and skills while working in a challenging and merit driven work environment and contributing professionally to the attainment of corporate goals and objectives.

AREAS OF EXPERTISE

- Report Writing
- Data Analysis
- Research
- Basic bioinformatics
- Grant Writing
- Computer Proficient

CORE COMPETENCIES AND SKILLS

- Experience in conducting experimental research and data analysis.
- Ability to resolve problems independently.
- Extensive knowledge of web-based proprietary databases and library resources.
- Excellent Communication and Interpersonal Relationship Skills.
- use of software programs for basic bioinformatics and geo-referencing DIVA GIS, BioEdit, Primer3, Artemis

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Doctor of Philosophy (Ph.D.): Plant Pathology; *University of Ibadan, Ibadan, Nigeria* (August, 2015).

Master of Science (M. Sc.): Plant Pathology; *University of Ibadan, Ibadan, Nigeria* (April, 2002).

Bachelor of Agriculture (B. Agric.) Crop Science; *University of Benin, Benin City, Nigeria* (Sept., 1998).

Ordinary Diploma: Food Technology; *Federal Polytechnic Ilaro, Ilaro, Nigeria* (Dec., 1992).

CURRENT WORKING EXPERIENCE

Principal Agric. Officer

September, 2007 – till date

Nigeria Agricultural Quarantine Service (NAQS), Ibadan, Oyo State, Nigeria

Job Schedule: Chief Superintendent of Quarantine/Plant Pathologist - with the following key responsibilities:

- Conduct research, laboratory Plant Pest diagnostics (Morphological and Molecular) using SOP.
- Conduct Field Inspection and Diagnostics for import/export certification following ISPM guidelines.
- Lecturing and training of students/ Staff.
- Mycotoxin analysis
- Pest risk analysis
- Monitoring of new pest alert from other countries.
- Handle issues of GMO plants

Lecturer

May, 2016 – till date

Pan African University, Institute of Life and Earth Sciences, University of Ibadan.

- Teaching of Plant Breeding (PPB 820: Special Topic)

TRAINING COURSES ORGANIZED/ATTENDED

Training Course	Location	Date
1. Basic knowledge in Bioinformatics for Molecular Research (Resource Person)	Nigeria Agricultural Quarantine Service (NAQS)	25-29 th November, 2019
2. Basic knowledge in Bioinformatics for Molecular Research (Resource Person)	Forest Research Institute of Nigeria (FRIN)	20-24 th May, 2019
3. Mycotoxin Analysis	BIO-Check, UK	28 th Nov.- 6 th Dec., 2017
4. Mycotoxin Analysis (TLC)	Pathology lab., IITA	4 th - 6 th May, 2016
5. Molecular detection of sugarcane Diseases	CIRAD, France	4-10 th , Oct., 2015.

2. SUPPORT LETTERS

