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)

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

4. Education:

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

Summary of Qualifications:
Dr. Maria Ayodele set up and has been in charge of the 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/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

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, Corvalis, 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**

<table>
<thead>
<tr>
<th><strong>Name of assignment or project:</strong></th>
<th>Field Trials for the control of Fall Army Worm using Fawligen a biological pesticide on maize.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year:</strong></td>
<td>2019</td>
</tr>
<tr>
<td><strong>Location:</strong></td>
<td>Nigeria (Iseyin &amp; Mokwa)</td>
</tr>
<tr>
<td><strong>Client:</strong></td>
<td>AgBiTech</td>
</tr>
<tr>
<td>Name of assignment or project</td>
<td>Main project features</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Main project features: Assessment of Efficacy of Fawligen Bio-Pesticide for the control of FAW (Fall Army Worm)</td>
<td>Assessment of Efficacy of Fawligen Bio-Pesticide for the control of FAW (Fall Army Worm)</td>
</tr>
<tr>
<td>Name of assignment or project: Mapping of Corn/ Maize Insect Pests and Diseases across Nine States in Nigeria</td>
<td>Mapping of Corn/ Maize Insect Pests and Diseases across Nine States in Nigeria</td>
</tr>
<tr>
<td>Activities performed: Field Identification and laboratory analysis</td>
<td>Field Identification and laboratory analysis</td>
</tr>
<tr>
<td>Name of assignment or project: Pest Risk Analysis, Biosafety Policy and Regulatory Issues in several projects</td>
<td>Pest Risk Analysis, Biosafety Policy and Regulatory Issues in several projects</td>
</tr>
<tr>
<td>Activities performed: Training of scientist on Pest Risk Analysis, Field identification of indigenous cocoa pest in each of the participating countries.</td>
<td>Training of scientist on Pest Risk Analysis, Field identification of indigenous cocoa pest in each of the participating countries.</td>
</tr>
<tr>
<td>Location: Soyabean growing areas in Nigeria,</td>
<td></td>
</tr>
<tr>
<td>Client: IITA /Agricultural Research Institute (NAS)</td>
<td></td>
</tr>
<tr>
<td><strong>Main project features:</strong> To determine the occurrence, spread and establishment of soybean rust disease in the 19 states where the crop is grown.</td>
<td></td>
</tr>
<tr>
<td><strong>Position Held:</strong> Pathologist</td>
<td></td>
</tr>
<tr>
<td><strong>Activities performed:</strong> Field Identification and laboratory analysis of disease samples collected.</td>
<td></td>
</tr>
</tbody>
</table>

| 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 |

<p>| Name of assignment or project: Agriculture and Food Security Technical Services Participating Agency Service Agreement (PASA) USDA/FAS/Nigeria Agriculture Capacity Strengthening Program: PIRS |
| <strong>Year:</strong> 2009-2019 |</p>
<table>
<thead>
<tr>
<th>Location</th>
<th>Nigeria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client</strong></td>
<td>USDA/FAS/Nigeria Agriculture Capacity Strengthening Program</td>
</tr>
<tr>
<td><strong>Main project features</strong></td>
<td>Data Collection of participants</td>
</tr>
<tr>
<td><strong>Position Held</strong></td>
<td>Monitoring and Evaluation Specialist</td>
</tr>
<tr>
<td><strong>Activities performed</strong></td>
<td>Analysis of Activities</td>
</tr>
<tr>
<td><strong>Name of assignment or project</strong></td>
<td>Survey of Export Crops Pest &amp; Disease Incidence: Sesame, Hibiscus &amp; Vegetables</td>
</tr>
<tr>
<td><strong>Year</strong></td>
<td>2009</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Nigeria</td>
</tr>
<tr>
<td><strong>Client</strong></td>
<td>NAQS</td>
</tr>
<tr>
<td><strong>Main project features</strong></td>
<td>Field Survey</td>
</tr>
<tr>
<td><strong>Position Held</strong></td>
<td>Principal Investigator</td>
</tr>
<tr>
<td><strong>Activities performed</strong></td>
<td>Field Identification and laboratory analysis</td>
</tr>
<tr>
<td><strong>Name of assignment or project</strong></td>
<td>Nationwide Crop Disease and insect Pest Survey – Rice, Maize, Sugarcane, Sesame, Pineapple</td>
</tr>
<tr>
<td><strong>Year</strong></td>
<td>2009 - 2014</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Nigeria</td>
</tr>
<tr>
<td><strong>Client</strong></td>
<td>NAQS</td>
</tr>
<tr>
<td><strong>Main project features</strong></td>
<td>Field Survey</td>
</tr>
<tr>
<td><strong>Position Held</strong></td>
<td>Principal Investigator</td>
</tr>
<tr>
<td><strong>Activities performed</strong></td>
<td>Field Identification and laboratory analysis</td>
</tr>
<tr>
<td><strong>Name of assignment or project</strong></td>
<td>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)</td>
</tr>
<tr>
<td><strong>Year</strong></td>
<td>1988</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Countries cited above</td>
</tr>
<tr>
<td><strong>Client</strong></td>
<td>AU</td>
</tr>
</tbody>
</table>
**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

<table>
<thead>
<tr>
<th>Name of Expert</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>M. A. Ayodele</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

v. Contact Details:

a) **Home address:** 2 Awa Onyeani Street, Off Olayiwula Ayodele Avenue, Fafunwa, Ipaja, Lagos State
b) **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**


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


o) Commission on Phytosanitary Measures, Standards Committee meeting, 12th – 16th November 2012, Rome (Observer)


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”


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.


**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
a) Thesis:


b) Publications in Journals


c) Paper Submitted for Conference/Workshop


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

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

EDUCATIONAL QUALIFICATIONS


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).


CURRENT WORKING EXPERIENCE

Principal Agric. Officer

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

September, 2007 – till date

Lecturer

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

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

May, 2016 – till date

TRAINING COURSES ORGANIZED/ATTENDED

<table>
<thead>
<tr>
<th>Training Course</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Basic knowledge in Bioinformatics for Molecular Research (Resource Person)</td>
<td>Nigeria Agricultural Quarantine Service (NAQS)</td>
<td>25-29th November, 2019</td>
</tr>
<tr>
<td>2. Basic knowledge in Bioinformatics for Molecular Research (Resource Person)</td>
<td>Institute of Nigeria (FRIN)</td>
<td>20-24th May, 2019</td>
</tr>
<tr>
<td>3. Mycotoxin Analysis</td>
<td>Forest Research</td>
<td>20-24th May, 2019</td>
</tr>
<tr>
<td>5. Molecular detection of sugarcane Diseases</td>
<td>CIRAD, France</td>
<td>4-10th, Oct., 2015</td>
</tr>
</tbody>
</table>
2. SUPPORT LETTERS

The Secretariat
Standard and Trade Development Facility (STDF)
World Trade Organization
Rue de Lausanne 154
CH-121, Geneva
Switzerland

Dear Sir/Madam,

STDF Proposal: Phytosanitary Capacity Evaluation (PCE) and improve plant health systems

I am pleased to inform you of the support of the Nigeria Agricultural Quarantine Service (NAQS) for this PPG submitted for STDF funding consideration.

The project seeks to enhance the capability of Nigeria to use the PCE tool to evaluate their Phytosanitary capacities and plan their Phytosanitary programmes for enhanced plant health system and trade through sustainable Phytosanitary practices. This tool fit operational procedures of NAQS and NAQS is committed to adopt the new technologies for overcoming decade old bottlenecks to core operations and key into the African Continental Free trade Area. The trainees from NAQS will be used as facilitators of PCE to contribute the acquired knowledge in the application of PCE tools to NAQS Phytosanitary activities.

We affirmed our commitment to work with the International Institute of Tropical Agriculture and Suregreen Agriconsult Ltd as partners in the implementation of the PCE.

Sincerely,

Akindele O. Gbajumunniayo
Head of Station
delefunmiayo@gmail.com
For Director General
Nigeria Agricultural Quarantine Service

22 July 2021