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Plant Health Strategy for Africa 2022 - 2036



African Union Inter-African Phytosanitary Council: AU-IAPSC

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Foreword



The continued occurrence of plant pests exacerbated by the changing climate are resulting in high rates of loss of plant species and biodiversity which has in turn placed thousands of plant species to which Africa is host at risk. This growing trend needs to be reversed, given the centrality of agriculture to Africa's economy where it accounts for 40% of Gross Domestic Product (GDP), 15% of exports, 60 to 80% of employment, and 75% of intra-African trade. If this negative trend is not reversed, Africa's economic gains and aspirations through various development initiatives and strategies (such as the Agenda 2063 and the African Continental Free Trade Area (AfCFTA) leading to increased intra-African trade), will be undermined.

In order to deal with the above stated negative trends, a Plant Health Strategy for Africa (PHSA) is needed to manage plant health threats that undermine the operationalization of the continent's development strategies and initiatives such as AfCFTA. Unless proactively dealt with through a harmonized strategic framework, non-tariff barriers, particularly those related to Sanitary and Phytosanitary (SPS) issues have the potential of slowing down the attainment of the Malabo Declaration aspirations and ultimately the African Union Agenda 2063. Additional benefits of the strategy will be reduction of duplication of efforts, facilitating synergy leveraging on resources and capabilities, and enhancing lesson learning and best practices. This strategy is developed as a tool for the implementation of the Continental SPS Policy Framework for Africa endorsed by policy organs in 2020.

Coordinated efforts towards plant protection activities on the continent are a priority, and among others should focus on: information exchange, a regional standard development program, and provision of inputs into international standard setting and regional pesticide programs. There is need for strong leadership in promoting integrated pest management (IPM) programs for building national capacities in member states for strong plant health systems resulting in better livelihoods and enhanced trade and conservation of biodiversity.

The PHSA addresses the adoption and promotion of effective measures to:

- (a) comply with international standards set by IPPC and Codex
- (b) increase participation in international standards setting processes (e.g. SPS, Codex);
- (c) influence policy and decision makers to contribute to improved and strengthened plant pest management in Africa;
- (d) reduce/control the negative effects of pandemic and exotic invasive plant pest species on livelihoods and biodiversity; and
- (e) improve capacity building (e.g., develop and tailor training programs and improve infrastructure) to address specific plant health challenges.

In this regard, the following priorities are targeted by this Strategy:

- a) Promote policy and legislative frameworks for plant health interventions;
- b) Strengthen institutional frameworks to implement the plant health strategy;
- c) Promote initiatives for implementation of sustainable pest management and control strategies;
- d) Enhance capacity building, development, and implementation of the World Trade Organization's Sanitary and Phytosanitary (WTO SPS) and AfCFTA Agreements and ISPMs;
- e) Strengthen continental coordinating mechanisms and trade; and
- f) Increase resource mobilization (financial, equipment and human).

The development of the PHSA required coordinated effective stakeholder consultation across the African plant health fraternity. Alongside this stakeholder consultation, in-depth strategic analysis and iterative processes were also undertaken in order to come up with a strategy that would be robust and contribute to practical implementation of priority actions under the plant health sector. In terms of the materials for the formulation of the strategy: it drew from the 26 – 28 October 2020 Continental SPS Meeting; the on-line Survey Report which was specifically conducted to solicit stakeholder input into the development of the strategy, various continental and regional policies and strategies and heavily from the 1-4 June 2021 Stakeholder Consultation Meetings which had participation of 130 African and international delegates. The Advisory Group and SPS Committee provided technical support and general guidance during the preparation of the PHSA.

I would like to extend my passionate appeal to all Member States, Partners and Other stakeholders to come on board and support the successful implementation of this Strategy, for the economic and social development of the peoples of Africa, powered by the agricultural sector as an engine to bring about this economic transformation and social change. This calls for all stakeholders to passionately commit themselves towards the realization of the PHSA's vision, goal and strategic objectives.

H.E. Josefa Leonel Correia Sacko

Commissioner for the Department of Agriculture, Rural Development, Blue Economy and Sustainable Development

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Acronyms and Abbreviations

AfCFTA	African Continental Free Trade Area
AFASA	African Farmers Association of South Africa
AFSTA	African Seed Trade Association
APHIS	Animal and Plant Health Inspection Service
ALOP	Appropriate Level of Protection
ASARECA	Association for Strengthening Agricultural Research in Eastern and Central Africa
AU	African Union
AUC	African Union Commission
AUC-STC	Africa Union Special Technical Committee
CAADP	Comprehensive Africa Agriculture Development Programme
CABI	Centre for Agriculture and Bioscience International
CCARDESA	Centre for Coordination of Agricultural Research in Southern Africa
CGIARs	Consultative Group for International Agricultural Research
CPAC	Central African Inter-State Pesticide Committee
CODEX	Codex Alimentarius Commission for International Food Standards
COMESA	Common Market for Eastern and Southern Africa
CORAF	Central African Council for Agricultural Research and Development
DARBE	Department of Agriculture, Rural Development, Blue Economy and Sustainable Development
EAFF	Eastern Africa Farmers Federation
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EPPO	European and Mediterranean Plant Protection Organization
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAO-RAF	Food and Agriculture Organization Regional Office for Africa
FAW	Fall Armyworm
GDP	Gross Domestic Product
IAPSC	Inter-African Phytosanitary Council
ICIPE	International Centre of Insect Physiology and Ecology
ICP	International Cooperating Partners
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IGAD	Intergovernmental Authority on Development
IITA	International Institute for Tropical Agriculture
IPPC	International Plant Protection Convention
IPM	Integrated Pest Management
ISPMs	International Standards for Phytosanitary Measures
ISSBs	International Standard Setting Bodies
KEPHIS	Kenya Plant Health Inspectorate
MoU	Memorandum of understanding
NARO	National Agricultural Research Organization
NPPO	National Plant Protection Organization
OIE	World Organization for Animal Health
PAFO	Pan African Farmers Organization
PCE	Phytosanitary Capacity Evaluation
PHI	Plant Health Index
PHSA	Plant Health Strategy for Africa
REC	Regional Economic Community

RPPO	Regional Plant Protection Organization
SADC	Southern African Development Community
SPS	Sanitary and Phytosanitary
SWOT	Strengths, Weaknesses, Opportunities and Threats
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WTO-SPS	World Trade Organization's Sanitary and Phytosanitary

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Dr. Joyce Mulila-Mitti is acknowledged for the long hours she has spent in putting this document together as the Consultant for the development of the PHSA. The United States Department of Agriculture (USDA) is saluted for providing valuable technical support during the preparation of this Strategy. DARBE appreciates the Plant Health Strategy Advisory Group which worked hard to provide technical backstopping. The Advisory Group consists of the following institutions: IITA, CABI, ICRISAT, ICIPE, IPPC, AFSTA, FAO-RAF-Accra, University of Douala, CropLife Africa Middle East, PAFO, EAFF, AFASA, RECs, NARIs, NPPOs, CPAC, SCP, EU, APHIS and Pest Control Products Board, Kenya.

Our thanks also go to the representatives of the Member States and to the various experts who actively participated in the development of this strategy.

This strategy was developed under the Leadership of Dr Simplicie Nouala, Head of Agriculture and Food Security Division at DARBE and, the Coordination of Ms. Luiza Munyua, Senior Scientific Officer at AU-IAPSC supported by Ms Maryben Chiatoh, Scientific Officer at AU-IAPSC and Mr Nana Sani Flaubert, Assistant Senior Scientific Officer at AU-IAPSC.

Last but not the least, all those who have been working behind the scenes are appreciated for their valuable inputs in dealing with all the attendant logistical needs. Without their input, this document would not have been put together.

Godfrey Bahigwa

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Executive Summary

Background

There is dire need to protect plant species against the ever changing climate which has exacerbated plant pest outbreaks and other negative impacts on human health, animal health and the environment including increased risks from pesticide misuse and mismanagement. A Plant Health Strategy for Africa (PHSA) will serve as a harmonized framework that will deal with any plant health risk that might undermine effective realization of goals and objectives of Africa's development frameworks and strategies (such as the SPS policy framework and the African Continental Free Trade Area (AfCFTA)). Globalization and increased agricultural trade result in an accelerated potential for the introduction and spread of plant pests; thereby adding pressure on national Sanitary and Phytosanitary (SPS) regulatory systems responsible for protecting human, animal and plant life or health.

If trade is not regulated, the introduction of harmful organisms from one place to another will result through commodities of plant origin. The International Plant Protection Convention (IPPC) makes obligatory provisions for each member party to act effectively to the best of their ability, using available scientific evidence, to determine the risks and to prevent the spread and introduction of pests as well as promote appropriate measures for their control. The WTO SPS Agreement and Annex 7 of the AfCFTA re-affirmed that, no member should be prevented from enforcing the necessary measures to protect human, animal and plant life or health. These measures, should not be developed or/applied in a manner that (a) constitute a means of arbitrary restriction, (b) discriminate between members or (c) unnecessary restrict international trade. It is important that while enforcing the necessary SPS measures, all members must base their measures on scientific principles, evidence and risk assessments.

Coordinated efforts towards plant protection activities on the continent are a priority with such efforts focusing on information exchange, a regional standard development program, and provision of inputs into international standard setting and sub-regional and regional pesticide programs. Leadership is required in promoting integrated pest management (IPM) programs for building national capacities for strong plant health systems resulting in better livelihoods and enhanced trade and conservation of biodiversity. These measures should address: (a) implementation of international phytosanitary standards by AU Member States; (b) enhancement of effective participation of AU member states in standards setting processes; (c) influencing policy and decision makers to contribute to improved and strengthened plant pest management in Africa; (d) the negative effect of risks of pandemic and exotic invasive plant pest species on livelihoods and biodiversity, and; (e) supporting capacity enhancement (including for national research) and tailor-made training programs that address specific plant health challenges.

Methodological Approach for Developing the PHSA

Development of the PHSA has employed three main ways to solicit inputs that have been the basis for the development approach: (a) Review of relevant policies and strategies on the continent; (b) June 2021 Stakeholder Consultative Meeting that was attended by 130 plant health stakeholders and; (c) An on-line survey that was designed specifically for the purpose of generating stakeholder inputs into the PHSA.

The June 2021 Consultative Meetings identified four (4) critical weaknesses which formed the basis for the development of this Strategy. These are: (a) Insufficient policy and legislative framework and its implementation to support plant health matters at various levels; (b) Low capacity in phytosanitary and diagnostics infrastructure, and coordination of plant health matters at various levels (national, regional and continental); (c) Poor implementation and reporting of plant health matters to existing frameworks; and (d) Inadequate financial resources for plant health interventions. These weaknesses shaped the focus of this document.

The Main Focus of the PHSA

The PHSA addresses policy, institutional reforms and capacity building as the key pillars of the identified weakness by the plant health stakeholders. The identified pillars are translated into the following priority strategic thematic thrusts to guide the implementation of this PHSA:

- (a) Promote and harmonize policy and legislative frameworks for plant health interventions;
- (b) Strengthen institutional frameworks to implement the plant health strategy;
- (c) Promote initiatives for implementation of sustainable integrated pest management and control strategies;
- (d) Capacity Development and implementation of the ISPMs as required by the WTO-SPS Agreement and IPPC; and
- (e) Strengthen continental coordinating mechanisms and trade;

In order to produce the intended results in each of the above priority areas of the PHSA, the following vision, mission and goal have been put in place.

Vision: A robust and practical management system for healthy plants in Africa.

Mission: The African continent has harmonized standards/procedures and capacity to effectively manage the introduction and spread of pests and their controlled impacts that subsequently improve safe trade, food and nutrition security, economic growth and environmental protection.

Goal: To develop and implement a vibrant, robust and practical plant health system for Africa to improve food security and nutrition, improved livelihoods and trade.

Strategic Objectives

In chapter 4 the PHSA has identified seven important strategic objectives for the realization of its mandate, which are: (a) To improve legislative frameworks for plant health interventions using risk-based approaches and available evidence; (b) To strengthen institutional capacity (including research) and coordination for plant health system; (c) To improve and build capacities for research, pest management strategies and control measures that can aid the plant health interventions to improve production; (d) To enhance continental harmonization of phytosanitary policies, regulations and standards and promote continental cooperation and mutual recognition of measures; (e) To strengthen phytosanitary capacity in the region to support market access for exports; (f) To assist Member States to effectively participate in international coordinating mechanisms and influence continental plant health positions, and; (g) To assist Member States to improve phytosanitary communication and awareness and build and strengthen stakeholder relationships.

Implementation Arrangements

The PHSA has identified seven (7) critical implementation elements deemed critical, described in chapter 5. These are:

(a) **PHSA Theory of Change (ToC) - this sets the business case for the Strategy**, stipulating what the Strategy has been designed to achieve, if certain inputs are employed;

(b) **The Results Framework and Monitoring and Evaluation** – the Results Framework is the bedrock for an effective Monitoring and Evaluation (M&E) system. It presents objectives at the various levels of the objective hierarchy, their Key Performance Indicators (KPIs), which are objective markers and conditions/assumptions which must be obtained for the achievement of the objectives. A baseline will need to be conducted in order to provide KPI baseline values to facilitate the assessment of change in future evaluations. The tracking of KPIs has been proposed to be undertaken on an annual basis in order to identify challenges early enough and consequently employ appropriate corrective measures.

(c) **Key Actors, their Roles and Responsibilities** – the implementation of the PHSA will be required at various levels, namely; country, regional and continental. At each level, key actors of those who will be involved in the implementation of the strategy have been identified and their roles and responsibilities have also been defined. These include stakeholders representing relevant government entities, the agriculture industry, NGOs, academia and research institutions. This is meant to avoid duplication, enhance resource leveraging and promote accountability and transparency among others.

(d) **Coordination Mechanisms of PHSA** – Coordination of the Strategy is the responsibility of the existing structures at various levels – national, regional and continental. However, these coordination structures will need to be strengthened for them to effectively undertake their mandate. Recognition will be made of lessons learnt of best practices in coordination from the RECs to inform the process of strengthening coordination particularly at the continental level.

(e) **Success Factors** - For the successful implementation of the Strategy, eight (8) success factors have been given attention. These are: (i) Stakeholder ownership; (ii) Effective political leadership and commitment; (iii) Positioning the PHSA to pivot continental plant health initiatives that contribute to the realization of the AfCFTA and economic growth (iv) Existence of vibrant private and public sectors; (v) Establishing an effective institutional framework that links the implementation, monitoring and evaluation and reporting systems across the Continental, Regional and Member States levels with improved communication and sharing of resources and information (vi) Pro-active programming for

climate change, (vii) Gender mainstreaming during implementation of the Strategy; and (viii) Leveraging opportunities for local innovations and inventions taking into account indigenous knowledge..

(f) **Budgetary Considerations** – poor funding of the plant protection actions has been identified by stakeholders as one of the four major weaknesses of the plant health sector. The Strategy places emphasis on adequate funding of plant protection initiatives. In this regard, the Strategy identifies various possible sources for funding which could be harnessed in order to sustain an effective implementation of the PHSA for the realization of its goals and objectives.

(g) **Risk Assessment, Mitigation and Management** – six (6) possible risks have been identified which may negatively impact the implementation of the Strategy. These relate to: (i) Continued fragmentation of plant health legislation; (ii) Continued insufficient funding to support the implementation of the PHSA; (iii) Inadequate participation of key stakeholders in plant health actions; (iv) Continued gaps and weaknesses in legislation to support plant health actions; (v) Inadequate plant health expertise particularly at country level, and; (vi) Future pandemics similar to COVID-19 resulting in restrictions negatively impacting the performance of the plant health sector. Each of the six risks have been assessed using a risk rating of high, substantial, moderate and low. An assessment has been done of risk mitigations measures embedded in the PHSA. After assessing the mitigations measures' ability to deal with the identified risks, another risk rating was undertaken in which the PHSA was rated as a low risk intervention.

Glossary of Words

Area of low pest prevalence (ALPP): An area, whether all of a country or all or parts of several countries, as identified by the competent authorities, in which a specific pest is present at low levels and which is subject to effective surveillance or control measures; (ISPM5).

Commission: The Commission on Phytosanitary Measures (CPM) established under Article XI (IPPC, 1997);(ISPM5).

Equivalency of phytosanitary measures: the situation where for a specified pest risk different phytosanitary measures achieve a CPs appropriate level of protection

International Plant Protection Convention (IPPC): as deposited with FAO in Rome in 1951 and subsequently amended (FAO, 1990)

International Standards for Phytosanitary Measures (ISPMs): an international standard adopted by the Conference of FAO, the Interim Commission on Phytosanitary Measures or the Commission on Phytosanitary Measures, established under the IPPC ;(ISPM5).

Non-quarantine pest: Pest that is not quarantine pest of an area

Pest Free Area: an area in which a specific pest is absent as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained (ISPM5).

Pest risk analysis: the process of evaluating biological or other scientific and economic evidence to determine whether an organism is a pest, or whether it should be regulated, and the strength of the phytosanitary measures to be taken against it

Pest status (in an area): presence or absence, at present time of a pest in an area, including where appropriate its distribution, as officially determined using expert judgement on the basis of current and historical pest records and other information; (ISPM5).

Phytosanitary action: an official operation, such as inspection, testing, surveillance or treatment undertaken to implement phytosanitary measures

Phytosanitary certificate: an official paper document or its official electronic equivalent, consistent with the model certificate of the IPPC, attesting that a consignment meets phytosanitary requirements

Phyto measure: any legislation, regulation or official procedure having the purpose to prevent the introduction or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests

Quarantine pest: a pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled; (ISPM5).

Regulated pest: a quarantine pest or regulated non-quarantine pest; (ISPM5).

National Plant Protection Organization (NPPO): competent and legally responsible entity officially established by a government to discharge functions specified by the IPPC ;(ISPM5).

Sanitary and Phytosanitary Measures (SPS): meant to protect humans, animals and plants from diseases, pests or contaminants.



I. BACKGROUND AND CONTEXT

Africa is host to thousands of plant species, many of which are endemic. Unfortunately, expanding and increased frequency of occurrence of plant pests and misuse and mismanagement of pesticides (e.g. overuse, use of highly toxic formulations, counterfeit products poor disposal, inadequate protection during application etc.) within the context of changing climate are leading to high rate of loss of species and biodiversity. In addition, some plant pests of economic importance have become more serious with widespread movement of plants and plant products through international trade. Pest introductions and outbreaks cost governments, farmers, and consumers in the African continent a wealth of money every year as well as contributing to negative impacts on health and the environment. Recent pest outbreaks include the devastating desert locusts and the Fall Armyworm (FAW) in Africa. Outbreaks of plant pests, particularly those that are invasive in nature, have become more frequent and threaten agricultural production which negatively affects food and nutrition security at household, national and continental levels. The economic impacts of losses due to invasive pests can be enormous. In household surveys conducted in Ghana and Zambia in 2018, average maize yield losses were on average 26.6% and in Zambia 35% with 98% of the farmers reported to have been affected by FAW damage. Extrapolating these losses nationally gives an estimate of US\$ 177million and US\$ 159 million for Ghana and Zambia, respectively (CABI 2020). In the case of the Tomato leaf miner (*Tuta absoluta*) which has had devastating impact in Africa causing total crop losses and leading to a sharp rise in tomato prices, it is reported that in Eastern Africa by 2017 losses among smallholders were in the order of US\$ 794 million per year.

I.1 Background

A Plant Health Strategy for Africa (PHSA) is needed as a harmonized framework that will deal with plant health risk that might undermine the operationalization of the African Continental Free Trade Area (AfCFTA). Unless proactively dealt with through a harmonized strategic framework, non-tariff barriers, particularly those related to Sanitary and Phytosanitary (SPS) measures or standards have the potential of slowing down the attainment of Malabo Declaration aspirations and ultimately the African Union Agenda 2063. In addition, the Strategy will minimize duplication of efforts, facilitate synergy leveraging on resources and capabilities, and enhance lesson learning and best practices.

The development of this PHSA required an effective and wide-ranging stakeholder consultation, in-depth strategic analysis and iterative process in order to come up with a strategy that would be robust and contribute to practical implementation of priority actions under the plant health sector. The materials used to put together this strategy have been drawn from various sources, the key ones being: the 26-28 October 2020 Continental SPS Committee Meeting Report; the Continental Consultative Meeting of June 2021; the on-line Survey Report conducted prior to the consultative meeting to solicit stakeholder input into the development of this strategy, and; various continental and regional policies and strategies.¹

The June 2021 continental stakeholder consultative meeting was attended by 130 participants across the Plant Health fraternity (including cooperating partners) and identified five major weaknesses related to the continental plant health sector (see **Appendix I** for the Consolidated SWOT Analysis

¹ The key continental and regional policies and strategies include: the SPS Policy Framework; the Animal Health Strategy; the IPPC Plant Health Strategic Plan, and; the SADC Plant Health Strategy among others.

by the stakeholders): (a) Inadequate policy and legislative framework and its implementation to support plant health matters; (b) Low capacity in phytosanitary diagnostic and reporting infrastructure, (c) poor coordination of phytosanitary systems at national, regional and continental); (d) Poor implementation and reporting of plant health matters to existing frameworks; and, (e) Inadequate financial resources for plant health interventions. These weaknesses have shaped the focus of this document.

1.2 Context and Rationale

Coordinated efforts towards plant protection activities on the continent is a priority. Among other things, the coordination efforts should focus on information exchange, a regional standard development program, and provision of inputs into international standards setting and regional pesticide programs. There is need for leadership in promoting integrated pest management (IPM) programs for building national capacities in member states for strong plant health systems resulting in better livelihoods and enhanced trade and biodiversity. It is critical that these measures address: (a) compliance of AU member states with international standards for phytosanitary measures; (b) effective participation of AU member states to standards setting processes; (c) facilitating policy and decision makers to contribute to improved and strengthened plant pest management in Africa; (d) mitigating risks of disasters and invasive plant pest species on livelihoods and biodiversity; and (e) capacity enhancement and tailor-made training programs that address specific plant health challenges.

2. BRIEF SITUATION ANALYSIS

2.1 Centrality of Agriculture to the African Economy

Agriculture is central to the African economy, accounting for about 40 percent of GDP, 15 percent of exports and between 60 to 80 percent of employment. Moreover, about 75 percent of intra-African trade is in agricultural products. It is, therefore, expected that agricultural commodities will become a major contributor to trade in the African Continental Free Trade Area (AfCFTA). Hence, improving the overall performance of the agricultural sector will be vital to achieving the sustainable socio-economic development of African societies and increasing food and nutritional security. However, on the continent, pre- and post-harvest crop losses of 30 – 40 percent caused by various plant pests have been reported (Kurmar and Kalita, 2017). These losses significantly reduce the potentially available food for a growing population and put Africa's competitiveness of agricultural products in the regional and global markets at stake. Hence, despite the huge potential of Africa's agricultural sector, the continent has not been able to fully harness the sector's potential benefits. High cost of labor, inadequate infrastructure, low productivity, and the presence of SPS risks, and hazards are major constraints to Africa's agricultural transformation agenda.

2.2 Agriculture Performance and Plant Health Issues

The introduction and spread or outbreak of pests associated with plants and plant products, including other regulated articles significantly affects food security, biodiversity and economic prosperity (FAO, 2021). Globalization and increased agricultural trade increases the incidence of trans-boundary pests leading to an accelerated potential for introduction and spread of plant pests, which adds to capacity pressures on national SPS regulatory systems responsible for protecting human, animal and plant life or health (Ousamane, 2011). If trade is not regulated, the movement of commodities may result in unintentional introduction of harmful organisms. The International Plant Protection Convention (IPPC) makes provisions for each member party to effectively prevent the spread and introduction of pest through plants and plant products and promote appropriate measures for their control. The WTO - SPS Agreement and Annex 7 of the AfCFTA re-affirmed that, no member should be prevented from enforcing the necessary measures to protect human, animal and plant life or health. These measures should also not be developed or applied in a manner that restricts international trade or constitutes a means of arbitrary discrimination between countries.

2.3 Plant Health Institutions and their Mandate

Preventing the entry, establishment and spread of pests in new countries and regions is the principle aim of national plant protection organizations (NPPOs), the International Plant Protection Convention (IPPC) as well as Regional Plant Protection Organizations (RPPO) such as IAPSC. The IPPC is a 1951 multilateral treaty overseen by the Food and Agriculture Organization (FAO) that aims to secure coordinated, effective action to prevent and to control the introduction and spread of pests of plants and plant products and to promote appropriate measures for their control. The IPPC develops and sets International Standards for Phytosanitary Measures (ISPMs).

ISPMs are intended to harmonize phytosanitary measures for the safe international trade of plants and plant products including other regulated articles. ISPMs provide guidance to member countries to assist them in implementing national phytosanitary activities and programs. They further guide WTO member countries in the establishment of measures in alignment with trade policy commitments of the WTO SPS Agreement. Compliance with IPPC obligations and ISPMs are a vital element in countries' ability to trade internationally and enhance food security. These standards are important, as they protect consumers, producers and the environment from the risks of introduced pests, and help exporters demonstrate that their products are safe. As earlier stated, harmonization with phytosanitary measures are part of the World Trade Organization's Sanitary and Phytosanitary Measures Agreement, (the "SPS Agreement"). The promotion of development of ISPMs in Member States is a key responsibility of the RPPOs.

2.4 Supportive Plant Health Policy Frameworks

2.4.1 Continental Policy Frameworks

The African Union Agenda 2063 launched in 2013 by the African Union Heads of States and Government establishes the strategic framework for the socio-economic transformation of the continent. It builds on and seeks to accelerate the implementation of past and existing continental initiatives for growth and sustainable development that include the Comprehensive Africa Agriculture Development Programme (CAADP), the Malabo Declaration and Regional and National Plans and Programs. Both the Agenda 2063 and the Malabo Declaration recognize the key role of the agricultural sector in the transformation of African economies. To facilitate this process, the AUC has developed the SPS policy framework that was endorsed by the AU Assembly of Heads of States in February 2020 and seeks to strengthen efficient intra-African trade under the AfCFTA through harmonization of SPS standards and border procedures, sharing information and technical capacity among others (AU, 2019). The AfCFTA brings together a market of more than 1.2 billion people and is expected to increase trade opportunities in plants, animal and food products.

2.4.2 Global Policy Frameworks

Annex 7 of the AfCFTA aims to protect countries from risks and facilitate trade guided by the WTO SPS Agreement and the ISSB standards (Codex, IPPC, OIE). In addition, The SPS Policy Framework seeks to align African SPS systems with international science-based standards. The AfCFTA is established with 54 AU member states as signatories, and as of 7 July 2021, 37 African countries had ratified the Agreement. Annex 7 is a supportive structure for the implementation of AfCFTA focusing on equivalence and harmonization² of SPS measures based on international standards, guidelines and recommendations. This Annex is aligned to the WTO SPS Agreement and the IPPC.

The established AUC technical arms of DARBE and IAPSC are strategically positioned to establish and coordinate continental mechanisms for the management of plant pests through policies and strategic frameworks developed and owned by member states. It is on this premise that AUC -DARBE and

² Compiled Annexes to the establishment of Continental Free Trade Area: Available from: <https://www.tralac.org/documents/resources/african-union/2163-compiled-annexes-to-the-afcfta-agreement-legally-scrubbed-version-signed-16-may-2018/file.html>

IAPSC have jointly led the development process of the continental strategy for Plant Health in a consultative approach.

2.5 Selected Cross-cutting Issues

2.5.1 Climate Change and Environment

Climate change has brought another dimension of threats to plant health across Africa, which includes an increase in the introduction and proliferation of pests (insect pests, nematodes, weeds, and plant diseases) as experienced in the last decade. When ineffectively regulated, trade in agricultural products can exacerbate these threats. This threatens agriculture production and consequently has negative effects on food and nutritional security at household and national levels. In addition, studies by the World Bank (World Bank, 2010), the Standards and Trade Development Facility (STDF, 2009), the Consultative Group on International Agricultural Research (CGIAR) and the Food and Agriculture Organization (FAO) of the United Nations (FAO, 2008), amongst others, indicate that climate change is also impacting SPS systems and will continue to do so in future. Pests not only affect the productivity levels, food safety and security, but also threaten biological diversity and the status of natural resources, which has important consequences for agricultural economic development, especially for developing countries that are major producers and exporters of agricultural and food products.

The changing climate will likely result in the increase of the amount and frequency of pesticides used. Pests themselves are a primary concern and issue for growers, particularly urgent pest pressures such as Fall Armyworm and Desert Locust. When used appropriately, pesticides are an essential tool in increasing agricultural productivity and supporting overall food security. Consequently, PHSA will promote safe and appropriate use of pesticides to protect against human health risks, especially for women, while also protecting crops from pest damage in line with Annex 7 of the AfCFTA, the SPS Policy Framework, Codex and the WTO SPS Agreement. The strategy will support policy makers, using science to regulate pesticides in a way that protects agriculture and human health. Pesticides risk reduction interventions are a priority component for sustainable pest management particularly for smallholder farmers who are in the majority in the continent. The PHSA will promote appropriate Integrated Pest Management (IPM) practices, with special focus on meeting the needs of resource constrained smallholder farmers who may not afford safer pesticide options. Practitioners of IPM can reduce pest damage and economic loss by recognizing and using natural and biological control measures such as weather conditions, pests, diseases and predators, pest life cycles, and modified agricultural practices.

2.5.2 Gender

Among the several cross-cutting issues, gender considerations have been recognized as vital in the development of this strategy and have been mainstreamed in the design and implementation of the strategic objectives. Women in Africa contribute significantly to all agricultural activities, including food production and decision making to provide safe and nutritional food for household consumption and sale. There is a significant gender gap in agriculture, which translates into a costly loss of opportunity to improve the quantity and quality of the food supply. Recognizing the difference women can make in the field of plant protection is important, as women are frequently involved in traditional farming practices and are important observers of plant pest problems. They can play a vital role in pest scouting

and surveillance, reporting and promotion of IPM strategies which could be of particular importance as women are usually less informed about the safety precautions of pesticides than men. Finally, women play a key role in transferring agricultural knowledge to the youth.

There are many experiences in IPM advocate policies that support strategies which adequately promote women's participation. These strategies include promotion of less toxic options such as: - minimum risk pesticides, education in safe use of hazardous chemicals, identification of counterfeit products, increased access to other training and information designed to improve women's awareness, knowledge and skills with respect to plant protection. Such interventions are required to overcome the barriers that are often raised by women's socio-economic status and education. The strategy explores use of more appropriate and smarter communication technologies in order to value women's role in building safety nets, producing safer quality food and access to markets.

In view of the observations presented above, and with considerations of the principle of inclusivity, the Plant Health Strategy for Africa (PHSA) seeks to achieve comprehensive gender integration by establishing a gender sensitive Monitoring and Evaluation (M&E) system that meets the different needs of men, women, youth and other marginalized groups. The strategy identifies the gender related goals and priorities of the different strategic objectives and ensures adequate gender integration in all activities and particularly capacity development interventions.

2.5.3 Pandemics and their implications

The June 2021 Stakeholder Consultative meeting identified COVID-19 restrictions as a threat to the successful implementation of plant health actions. The economic toll brought about by COVID-19 is still unclear as the world faces an unprecedented economic recession. It is estimated that COVID-19 will reduce African economies by about 1.4 percent of GDP, with smaller economies facing shrinkage of up to 7.8%. These contractions will mainly be a result of market adjustments affecting primary commodity exporters and the attendant losses to tax revenue. This will in turn reduce the capacity of government to extend public services necessary to respond to the crisis (UNCTAD, 2020).

The PHSA proposed actions will be undertaken within the COVID-19 context, as long as it persists. The pandemic has posed a serious threat to the implementation of programs and must be considered in on-going planning. To illustrate this point, the June 2021 stakeholder consultation took place virtually to collect inputs for the formulation of this Strategy and was successfully undertaken within the context of COVID-19 restrictions. It will be important to learn lessons of the impacts and mitigation measures from the COVID pandemic as way of preparing for similar disasters in future.

2.6 Challenges/Justification for the PHSA

Results of efforts to increase crop production in Africa have been minimal due to several factors hindering productivity, particularly at the smallholder farm level. Among the several factors responsible for low productivity, losses due to pest damage and inappropriate use of pesticides and/or fraudulent chemicals are among the major constraints affecting the smallholder farmer sector in Africa. The continent is host to thousands of plant species including beneficial organisms, many of which are endemic. Unfortunately, continued occurrence of plant pests and unsafe use of pesticides within the

context of changing climate are leading to high rate of species and biodiversity loss. In addition, there are increasing problems with pests that have become widespread caused by the movement of plants and plant products through international trade. Pest introductions and outbreaks cost governments, farmers and consumers' money, food and nutrition insecurity and health (FAO, 2001). Specifically on the African continent, five invasive alien species are causing US\$0.9 – 1.1 billion in economic losses to smallholder farmers (CABI, 2017³).

Plant pests have the potential to move across entire regions, making existing endemic problems worse, thus posing additional threats to national economies and endangering the livelihoods of people particularly in the rural areas. Enhanced trade and exchange of contaminated seed are often the root causes for the spread and incursion of plant pests in new areas. If not prevented, pests will quickly spread across the continent. The devastating effect of Desert Locust and Fall Armyworm (FAW) are examples of the significant negative impacts of plant pest incursions.

The plant health sector has inadequate national, regional and continental plant health data generation and a lack of common platforms for sharing data. An appropriate continental web-based database is required to offer the competent authorities a tool for the management of harmonised plant health data. At Member State levels, a systematic tracking and monitoring of a set of minimum core indicators will improve the process of data sharing. At the regional and continental levels, this information will enable tracking of progress and performance of policies and generate a wide range of reports to guide decision-making and resource mobilisation both from the public and private resources.

The IPPC requires countries to report on the occurrence, outbreak, and spread of pests with the purpose of communicating immediate or potential danger. NPPOs have the responsibility to collect pest information by surveillance and to verify pest records collected. Pest reports should contain information on the identity of the pest, location, pest status, and nature of the immediate or potential danger. The provision of reliable and prompt pest reports confirms the operation of effective surveillance and reporting systems within countries. An effective surveillance and monitoring service is necessary to provide scientific and technical justification for claims of pest freedom and to support emergency pest response systems.



³ CABI (2017). Five invasive pests cost African economy \$1 billion every year. <https://www.cabi.org/news-article/five-invasive-pests-cost-african-economy-1-billion-every-year/>

3. THE STRATEGY

The PHSA has been developed as an integral part of the commitments reflected in the CAADP and is meant to facilitate the bigger goal of improving plant health systems in Africa within the context of the AU SPS Policy Framework. The PHSA aims to contribute to improved livelihoods, vibrant trade and food and nutrition security in Africa. This is to be achieved through strengthening all components of the plant health systems to align and be compliant with the SPS policy framework and realize the aspirations of the AfCFTA. The PHSA will guide Member States with a practical plant health management approach to strengthen their ability to increase productivity levels in agriculture and at the same time satisfy national obligations in terms of the WTO SPS Agreement, IPPC and to improve regulatory protection against plant health risks associated with international trade thereby improving Members States' ability to access and maintain export markets in line with the AU SPS Policy Framework and the AfCFTA goals.

The PHSA is intended to add value and be complementary to existing REC level strategies. Examples include the SADC Plant Health Strategy, COMESA SPS Strategy both of which are aligned to the IAPSC Plant Health Strategic Plan as well as the IGAD SPS Strategy and the pesticides management for ECOWAS and ECCAS.

The Strategy places emphasis on efforts to prioritize plant protection activities and programs that address information exchange, regional standard development and harmonization and increase inputs into international standard setting and regional pesticide management programs. It promotes the uptake of integrated pest management (IPM) programs for building national capacities in member states in order to build strong plant health systems for better livelihoods, enhanced trade and biodiversity conservation.

These programs or interventions ought to focus on improving the compliance of AU Member States to international phytosanitary standards, enhancing effective participation of AU Member States in international standard setting processes, and influencing policy and decision makers to contribute to improved and strengthened plant pest management in Africa. The programs should also address the risks associated with pandemics and plant pests and support biodiversity in Africa with tailor made training programs that address specific plant health challenges. Innovative management strategies to control pests need to be developed in close consultation with Member States for harmonization and integration for their successful implementation.

There is a need for better coordination within the plant health sphere taking into consideration that within Africa, plant health is a multidisciplinary and multi stakeholder effort involving public, private and non-state actors. Fragmented and scattered responses by different players, with overlapping activities are not going to solve Africa's plant health challenges. The PHSA envisages minimizing duplication of efforts while helping to achieve synergy through leveraging the resources and capabilities of different players; the strategy provides guidance and direction to the plant health efforts that are much needed on the continent. Implementation of the AfCFTA non- tariff barriers in relation to plant health if not addressed proactively will impede operationalization of the AfCTFA.

The PHSA has addressed policy, institutional reforms, and capacity building as the key pillars of the identified weakness that have been translated into the following priority strategic thematic thrusts:

- a) Promote harmonized policy and legislative frameworks for plant health interventions;
- b) Strengthen institutional frameworks to implement the plant health strategy;
- c) Promote initiatives for implementation of sustainable pest management and control strategies;

- d) Capacity Development and implementation of the ISPMs as required by the WTO-SPS Agreement and IPPC; and
- e) Strengthen continental coordinating mechanisms and free trade;

3.1 Vision, Mission, Goal

Highly coordinated stakeholder consultations across the African plant health fraternity, alongside an in-depth strategic analysis and iterative process have led to the development of the strategy, the vision, mission and goal which have been defined as follows:

- 3.1.1 Vision:** A robust and practical management system for healthy plants in Africa.
- 3.1.2 Mission:** The African continent has harmonized standards/procedures and capacity to effectively manage the introduction and spread of pests and their impacts that subsequently improve safe trade, food and nutrition security, economic growth and environmental protection.
- 3.1.3 Goal:** To develop and implement a vibrant, robust and practical plant health system for Africa to enhance food and nutrition security, improved livelihoods and trade.

3.2 Scope

Scope is concerned with the extent and level of sophistication of the PHSA. The appropriate level of sophistication of a strategy will be determined by primarily the following four issues: (i) the purpose of the strategy; (ii) the availability and accessibility to financial resources; (iii) availability and accessibility to expertise (including among primary stakeholders in the plant health sector and partner organizations at national, regional and continental levels); and (iv) desirable level of participation in plant health interventions by various stakeholders at all levels. The scope recognizes the three functions of the plant health system:

(a) Plant Health System at Production Level

Plant health management systems at production level should be compatible with the agricultural system employed by Member States in order to enhance compliance with the phytosanitary requirements of the importing countries.

(b) Internal Plant Health Regulatory System

Existing domestic plant health regulatory system at Member State level affects the ability for stakeholders to comply with the phytosanitary requirements of importing countries. Where harmonised regulatory systems for domestic trade exist, the plant health supply chain adjusts to operate in a regulated environment.

(c) Plant Health system for Advisory Services

Provision of plant health advisory services through technical support to strengthening plant health management of smallholder farmers with an emphasis on sustainable pest management. This includes the establishment of plant health technical committees as well as facilitating improved access of smallholders to plant health technical services. The plant health clinics established in communities by CABI are an example of such services.

The scope covers the following aspects in the context of the three functions for plant health systems:

- a) Linking plant health management capacities with implementation strategies in order to build and increase efficiency within plant health regulatory systems to improve the capacity to respond to plant health risks associated with trade while improving food and nutrition security and livelihoods;
- b) Provide a practical plant health management approach to strengthen the continent's ability to satisfy national obligations in terms of the IPPC, OIE, CAC, WTO SPS and AfCFTA Agreements and the SPS Annex and other relevant treaties;
- c) Provide regulatory protection against plant health risks associated with trade thereby improving Member States' ability to access and maintain export markets;
- d) Protect plants and plant-based commodities, plant biological diversity, aquatic environments, gazetted and protected areas and other related sectors from pests;
- e) Pull together the various phytosanitary actions and associated infrastructure to deliver effective and durable protection of plants; and
- f) Providing for effective advisory service with information dissemination systems that achieve best pest management practices at national, regional, and continental levels.

3.3 Guiding Principles

The following guiding principles provide universal and enduring guidance to the PHSA as it is implemented. The principles will apply in all circumstances regardless to changes in goals and management structure. The principles underscore the Strategy's focus and philosophy with regards to quality assurance and performance management. Ten (10) of these principles are highlighted below.

- a) Partnerships, coordination and collaboration at national, regional, continental and international levels;
- b) Respect for bio-diversity and other environmental concerns in line with international and global agreements particularly those dealing with plant protection;
- c) Promote transparency and enhance sharing of information;
- d) Mutual recognition and application of the equivalent pest risk management measures (alternative measure when the existing option is not ideal) ⁴;
- e) Non-discrimination;
- f) Mutual accountability;
- g) Incentives for compliance;
- h) Science based justification;
- i) Awareness raising; Inclusive cooperation, and;
- j) Subsidiarity, solidarity and complementarity among key actors (RECs, AU Member States, NPPOs, private sector organizations).

⁴ Equivalence of Phytosanitary Measures is a situation where, for a specified pest risk, different phytosanitary measures achieve a contracting party's appropriate level of protection

3.4 Target Audience and Timeframe

The target audience for the PHSA are all organizations and individuals concerned with the promotion of plant health on the African continent; public, private and civil society organizations at all levels of the plant health sector: the community, district, provincial, national, regional, continental and global levels.

Organizations within the above listed levels include NPPOs, National Seed Authorities (Seed Certification Institutes), crop protection service providers, extension service providers, community based plant health service providers, and all others who work within the plant health sector.

The proposed timeframe for the implementation of the PHSA is the period 2022-2036. This timeframe is deemed long enough for the actions proposed in this Strategy to be implemented and for the results to show.

3.5 Alignment with Other Frameworks

The PHSA, which has been aligned to the global IPPC Plant Health Strategic Framework 2020-2030, provides focused strategic interventions and approaches to address plant health in the holistic manner of the One Health (OH) approach. It further aims to harmonize delivery of plant health services on the continent with relevant global and continental strategies and frameworks serving as an overarching strategy to enhance efficiency and effectiveness of continental plant health management. The strategy will deliver the One-Health approach through a collaborative, multi-sectorial and trans-disciplinary approach, working nationally, regionally and globally, including linking of the PHS to the food safety and animal health strategies at continental level through the various continental and international policy frameworks. National and sub-regional relevant policy frameworks will be aligned to the PHSA for effective delivery of the strategy. This approach aims to achieve optimal health and well-being of all plants, animals, people and their shared environment, recognizing their inextricable interconnection.



4. STRATEGIC OBJECTIVES AND KEY STRATEGIES

The PHSA identifies seven (7) critical strategic objectives for the realization of its mandate. These are:

- SO1 To improve legislative frameworks for plant health interventions;
- SO2 To strengthen institutional capacity and coordination for plant health system;
- SO3 To improve and build capacities for research, pest monitoring and management strategies, and control measures that can aid the plant health interventions to improve production;
- SO4 To enhance continental harmonization of phytosanitary policies, regulations and standards and promote continental cooperation and mutual recognition of application of equivalent phytosanitary measures;
- SO5 To strengthen phytosanitary capacity in the region to support market access;
- SO6 To assist Member States to effectively participate in international coordinating mechanisms and influence continental and international plant health positions; and
- SO7 To assist Member States to improve phytosanitary communication and awareness and build and strengthen stakeholder relationships.

Each of these is briefly discussed below, including the justification for its inclusion in the PHSA with references and inputs from relevant articles in Annex 7 of the AfCFTA.

4.1 Strategic Objective One: Improve legislative frameworks for plant health interventions

The plant health sector has tended to have weak and considerable gaps in appropriate legislation which is necessary to support effective implementation of plant health actions particularly at member state level. The emerging issues in the plant health sector brought about partly by climate change have exacerbated the weak legislative framework in terms of its appropriateness to deal with such emerging issues. As a consequence, a number of member states have legislation which has not been adequately supportive to effective implementation of plant health actions. An appropriate legislative framework is critical to ensuring the effective implementation of plant health actions at various levels (national, regional and continental). In this regard, the PHSA has identified the following key strategies to support the effective implementation of plant health actions:

- a) Review and align national legislative regulations, standards, and reforms with WTO SPS Agreement and IPPC;
- b) Help member states enact new legislative measures and policies to deal with weaknesses, gaps, and duplications which have hindered effective implementation of international (IPPC/CODEX) plant health standards; and
- c) Promoting transparency of new legislative instruments through improved compliance to national reporting obligations.



4.2 Strategic Objective Two: Strengthen institutional capacity and coordination for plant health system

The plant health sector has generally adequate institutional capacity to manage plant health matters at national, regional and continental levels; however, gaps exist, including the presence of effective operationalization of certain critical institutions that would facilitate the full realization of the plant health sector objectives. The PHSA seeks to introduce plant health technical advisory committees and related entities at national, regional, and continental level. One of the key mandates of such advisory committees is to provide technical and research-based recommendations to all stakeholders involved in the implementation of plant health actions at national, regional and continental level. In addition, there has been inadequacy of compliance to ISPMs that have future implications in meeting SPS measures and hence undermining objectives of the AfCFTA. The PHSA seeks to address this weakness through the following actions:

- a) Support the establishment of plant health technical advisory committees and related entities at national, regional and continental level – this includes continuing to work on setting up the National SPS Committees and strengthening existing national and regional SPS committees;
- b) Support the establishment of mechanisms for plant health stakeholders to have easy access to the plant health advisory committees and other similar entities;
- c) To promote the use of innovative tools developed by partners for strengthening the implementation of plant health interventions such as plant health clinics and decision guidance documents;
- d) To advocate for inclusion of plant health related actions in the education curricular at different levels;
- e) Utilize private sector expertise to build private public partnerships for capacity building and technical assistance and cooperation.

- f) Advance continental collaborations in plant health research through prioritization of relevant plant pest management technologies including the integration of SPS measures through exchange of expertise and experience among MS.
- g) Support mobilization of financial and other resources for plant health capacity building and exploit technical assistance opportunities to identify and develop further the existing continental plant health centers of excellence (e.g. KEPHIS in Kenya).



4.3 Strategic Objective Three: Improve and build capacities for research, pest monitoring and management strategies and control measures that can aid the plant health interventions to improve production along the value chain

The pest monitoring and management strategies as well as control measures have tended to be absent at certain strategic levels. The PHSA under this strategic objective will undertake a number of actions aimed at addressing the identified weaknesses and gaps. The key ones are highlighted below.

- a) Support research capacities at the national level as well as capacities to effectively disseminate research results;
- b) Establish a Continental Early Warning System linked to Regional and National Early Warning Systems;
- c) Promote an active plant health information system with a database for emerging and current pests of economic importance to agriculture;
- d) Establish a regional pest risk analysis team linking work in State Parties and consolidate annual regional and continental risk maps;
- e) Establish mechanisms to promote active prevention and management of emergencies of endemic and new pest outbreaks;
- f) Develop continental and regional pest management strategies linked to the results of pest risk analysis and nationally developed strategies;
- g) Strengthen implementation of IPM approaches with emphasis on pesticides risk reduction interventions for safe use of pesticides in production and post-harvest including addressing MRLs;
- h) Disseminate information on best pest management practices and provide training at national, regional, and continental levels.
- i) Support the establishment of data and information management systems particularly for surveillance of pests, risk analyses, pest regionalization and plant health information management for generating data that relates and guides evidence-based policy making and attracts both public and private investments for plant health.



4.4 Strategic Objective Four: Enhance continental harmonization of phytosanitary policies, regulations and standards and promote continental cooperation and mutual recognition of equivalent phytosanitary measures

The plant health sector has weak harmonization of phytosanitary policies, regulations, and standards at the continental level. This has resulted in challenges for a coordinated approach on the continent to implement plant health actions, particularly those which relate to plant pests. In addition, there is poor participation by member countries in regional and continental plant health actions, low participation of private sector institutions particularly in testing and inspection, and low promotion of transparency measures. The PHSA will reverse this situation through the following key actions.

- a) Publish bilateral agreements on the recognition of equivalent standards and measures;
- b) Identify private sector capacities that may be used to strengthen testing and inspections;
- c) Adapting to regional/ continental conditions;
- d) Promote technological exchanges of best practices;
- e) Promote and support implementation of best practices of transparency mechanisms, and;
- f) Promote pest detection and identification, including diagnosis networking among all stakeholders in Africa.



4.5 Strategic Objective Five: Strengthen phytosanitary capacity in the region to support market access

Agriculture contributes an estimated 40% of the continent's GDP and an estimated 60% to 80% to employment. Increasing access to markets would increase the continent's agriculture contribution to GDP and positively impact household incomes with implications on improved household livelihoods. A number of phytosanitary issues exist, limiting access to domestic as well as export markets for agricultural produce.

For instance, there are weak mechanisms for establishment of appropriate level of protection (ALOP) and pest risk analysis (PRA); pest risk capacity building needs have not been identified; the private sector has not been fully exploited to provide expertise in management of quarantine pest issues, and; there are weak initiatives to enhance intra-regional trade. The PHSA has identified the following key actions to strengthen phytosanitary capacity which would in turn increase the continent's capacity to market access:

- a) Support compliance to SPS and ISPM actions at national, regional and continental level aimed at increasing market success by Member States;
- b) Promote wider adoption and implementation of e-phyto in the member states;
- c) Promote harmonization of legislation across countries and regions aimed at ensuring removal of both tariff and non-tariff barriers in order to realize the full operationalization of the AfCFTA;
- d) Identify pest risk management capacity building needs and develop national and regional training programs;
- e) Leverage private sector expertise to conduct PRA and develop/update national/regional quarantine pest lists;
- f) Promote initiatives to enhance intra-regional trade: support bilateral and multilateral initiatives/ negotiations to address the removal of phytosanitary barriers to trade; and
- g) Develop stronger, more science-based SPS regulatory systems; and enhance implementation of ISPMs by AU-Member States.



4.6 Strategic Objective Six: Assist Member States to effectively participate in international coordinating mechanisms and influence continental plant health positions



Member states, regional economic communities and the continent at large have had poor exposure and access to international mechanisms and fora which deal with plant health actions. If not addressed, inadequate engagement has the potential to undermine the acceleration of the operationalization of the AfCFTA. The low capacity of member states and RECs to effectively deal with emerging plant health issues through the latest techniques, technologies and practices negatively impact agricultural trade on the continent. Improved coordination of plant health activities at national, regional and continental levels is essential for effective participation in plant health fora and benefiting from best practices in plant health. Best practices exist on coordination at regional level with ECOWAS and SADC particularly in pre CPM preparation of delegates. The PHSA will achieve this strategic objective through the following main actions:

- a) Establish membership of the AUC as a contracting party of the IPPC to strength the African voice to articulate continental position for plant health at CPM and other relevant coordination mechanisms;
- b) Advocate for accountability of the RECs to contribute to the articulation of the continental position in close collaboration and coordination with the AUC relevant technical unit responsible for plant health in line with Agenda 2063;
- c) Support active participation in regional, continental, and international SPS coordination mechanisms or institutions;
- d) Develop regional positions in preparation for WTO SPS Committees, CPM, and continental AU general assembly meetings;
- e) Identify topics of interest for Africa for the development of relevant standards,

- f) Establish an effective communication system that would among other things, disseminate details about the upcoming international fora and mechanisms on plant health to make it easier for member states and RECs to adequately plan for such; and
- g) Country, REC and continental levels identification of thematic areas requiring international exposure to facilitate lobbying of international conference organizers for their inclusion as conference themes.

4.7 Strategic Objective Seven: Assist Member States to improve phytosanitary communication and awareness and build and strengthen stakeholder relationships



The plant health sector has a weak, absent and ineffective communication and awareness creation system in which to share and disseminate phytosanitary information across the national, regional and continental levels. This has resulted in insufficient knowledge and awareness raising of phytosanitary issues amongst individuals and institutional stakeholders' Weak stakeholder relationships have further caused challenges in effective communication of phytosanitary information and issues. To deal with these challenges among others, the PHSA proposes the following actions:

- a) Improve information gathering by supporting the strengthening of effective data gathering and analysis by critical institutions dealing with phytosanitary actions and issues;
- b) Development of database and a regional information portal for plant health;
- c) Improve information sharing and raise awareness on phytosanitary matters;
- d) Improve stakeholder relations and engagements by creating opportunities for public private partnerships, and
- e) Support the strengthening/establishment of fora to facilitate regular public/private stakeholder engagement

5. IMPLEMENTATION ARRANGEMENTS

The implementation arrangements will be undertaken in the context of a coordinated value chain (VC) approach at country, regional and continental level. The VC approach will recognize the different resource endowment levels of member states with the view to promoting adequate country investments in plant health actions. Appropriate VC crops (which will address food security needs as well as promote most appropriate market opportunities) will be identified for each country based on carefully identified criteria. Capacity needs of MS will be addressed to ensure they reach a minimum benchmark in plant health matters that provides for a sound balance between the three functions of the system (improvement in productivity, improvement of regulatory services and provision of technical advisory services). The use of the Phytosanitary capacity evaluation (PCE) tool will be promoted in assessment of capacity needs.

The PHSA requires effective implementation arrangements, including: a clear plant health strategy theory of change; a well-designed results framework and M&E system; an elaboration of key actors and their roles and responsibilities; coordination mechanisms of the PHSA; critical success factors for consideration; budgetary considerations; and risk assessment and management. Each of these is briefly discussed below in sequence.

5.1 Plant Health Strategy Theory of Change

The Theory of Change (ToC) for the Plant Health Strategy for Africa (PHSA) is based on the goal and is built on the premise that improved legislative framework for the plant health sector, adequate budgetary allocation to the plant health sector, availability of plant health technical expertise, effective coordination of plant health actions at various levels (country, regional, and continental), and adherence to AfCFTA Annex 7 as part of outputs, will result in tangible results at outcome level. The resulting outcomes will include strengthened institutional capacity at country, regional, and continental levels; improved capacities for the pest management strategies and control measures, and enhanced continental harmonization of phytosanitary policies, regulations, and standards.

The above inputs and outcomes will in turn lead to a vibrant agricultural sector on the continent characterized by increased production and productivity, improved food security, nutrition and, income at smallholder farm level, improved access to market for exports with the inevitable result of increased contribution to the agricultural GDP and a more diversified and resilient economic growth powered by the agriculture sector as its engine.

For this PHSA's ToC to be realized, certain critical assumptions need to hold, including the adequate and timely availability of financial, technical, and other resources such as equipment; the willingness of stakeholders at various levels (country, regional and continental) to participate in plant health actions; continued government support to agriculture (including the plant health sector) across all member states; and the existence of economic and political stability at country, regional and continental level.

5.2 Results Framework and Monitoring and Evaluation

5.2.1 The Results Framework

The PHSA simplified results framework is presented at **Appendix 2**. The key focus at impact level is increased household food, income, and nutrition security. This is the ultimate impact for any agricultural sector that is performing well, leading to sustained economic development. At outcome

level, the emphasis is increased agricultural production and productivity. Clearly, when plant health issues are dealt with appropriately, the inevitable result will be an increase in agricultural production and productivity at all levels (from household to continental level).

In order to achieve the desired impacts and outcomes as stipulated above, there is need for appropriate outputs to be in place. Some of the key outputs which have been identified include: improved legislative framework for plant health sector; adequate budgetary allocation to the plant health sector; availability of plant health technical expertise; effective coordination at various levels (country, regional and continental) and a functioning AfCFTA.⁵ For each of these hierarchy of objectives, appropriate Key Performance Indicators (KPIs) have been developed. The means of verification and assumptions have also been developed (see **Appendix 2** for details).

5.2.2 Monitoring and Evaluation

A baseline needs to be undertaken before the implementation of the PHSA. The PCE tool will be employed for undertaking the baseline and establishing KPIs along with the plant health index. A baseline is important in order to establish Key Performance Indicator (KPI) values as a basis to facilitate the measurement of progress made towards the achievement of PHSA goals and objectives. Baseline values are needed for the measurement of change in the KPIs in future evaluations. It is strongly advised that the KPIs be tracked on an annual basis. The tracking of KPI values on an annual basis will enable the various stakeholders to report on progress against the KPI set targets and make adjustments in implementation for the plant health actions they are responsible for.

Reporting on the performance of the plant health actions will take place at various levels, starting from country, to regional and continental. At a minimum, reporting will be on an annual basis. The Focal Point institutions at country, regional and continental level will be responsible for reporting. A feedback mechanism is part of the Monitoring and Evaluation system. This will enable feedback to get back to various stakeholders responsible for the implementation of various plant health actions. Within the existing fora (particularly one of those which are annual events), space will be created for reporting of plant health actions, their discussions and feedback. This is important in promoting mutual accountability, transparency and financier confidence among others.

5.3 Key Actors, their Roles and Responsibilities

The strategy is to be implemented at various levels with key actors and roles at national, regional and continental levels. The existing plant health structures at continental, regional and national levels are sufficient as a framework for the PHSA, but successful implementation will require strengthening the capacities of these structures to address the weaknesses highlighted in the SWOT analysis. (See **Appendix I**). Actors at all levels will play a key role in facilitating effective implementation of plant health systems on the continent. **Table I** captures the various actors and provides for their respective roles and responsibilities for the implementation of the PHSA.

⁵ Please note that the detailed outputs and activities will be part of the implementation plan when it is developed. Additionally, these will be formulated when preparing Annual Work Plans and Budgets.

Table 1: Key Actors, their Roles and Responsibilities in PHSA implementation

S.N	Key Actor	Roles/Responsibilities
1.	The AUC, DARBE and IAPSC	<ul style="list-style-type: none"> • To lead the efforts to promote sustainable environmental management and agricultural development by supporting the adoption of measures, strategies, policies and programmes on agriculture. • Lead the efforts to promote and advocate for the PHSA and adoption of strategies, policies and programs. • To mobilize the necessary resources together with development partners to facilitate the implementation and domestication of the Plant Health Strategy for Africa at national, regional and continental levels. • Coordinate the implementation of the PHSA at continental level • Support building the capacity of various stakeholder to manage risks from pest introductions and spread • To promote the development and use of relevant adopted International Standards for Phytosanitary Measures (ISPMs) • Enhance capacity building of AU-MS in plant protection and phytosanitary matters • Support effective participation of African delegates in ISSOs and particularly in the at the CPM, • Support resource mobilisation for major plant health programs • To coordinate the development of Continental Guidelines for harmonization of pesticides registration to improve plant health on the continent.
2.	SPS Committees and relevant plant health technical committees at (continental, regional and national)	<ul style="list-style-type: none"> • To provide a forum for consultations about food safety or animal and plant health measures which affect trade, and to ensure the implementation of the SPS Agreement. • Provide technical and research-based recommendations to all stakeholders involved in the implementation of plant health actions at national, regional and continental level • Facilitate the coordination of Plant health matters in the SPS committees at the respective levels.
3.	NPPOs	<ul style="list-style-type: none"> • Lead the implementation and coordination of the PHSA at national level. • Promote use of relevant adopted International Standards for Phytosanitary Measures (ISPMs) and domestication of the PHSA.
4.	National Governments ⁶ / Policy makers	<ul style="list-style-type: none"> • Policy development and implementation. • Creation of enabling environment. • Review and align national legislative regulations, standards and reforms with the SPS Agreement and IPPC • Enact new legislative measures and policies to deal with weaknesses, gaps and duplications that have hindered implementation of international plant health standards. • Promote transparency of legislative instruments through improved compliance to national reporting obligations.

⁶ National Governments to include Ministries of Agriculture, Finance, National Planning, etc. according to national structures

S.N	Key Actor	Roles/Responsibilities
		<ul style="list-style-type: none"> • Create strong advocacy for policies and funding for the different plant health interventions outlined in the PHSA
5.	National and International Research Centres (ICIPE, IITA, CABI, ICRAF, ASARECA, CCARDESA, CORAF NAROS ⁷) etc.	<ul style="list-style-type: none"> • Conduct research development on plant health • Ensure sharing of information and knowledge related to plant health including up scaling technologies at all levels (horizontal and vertical all the way to farmers and other beneficiaries).
6.	Extension services, Civil Society, NGOs	<ul style="list-style-type: none"> • Educate and sensitize on SPS compliance. • Plant health technology uptake and exchange. • Provide necessary information to producers. • Educate farmers' organizations and producers on best SPS practices and encourage adoption of these best practices. • Coordinate educational opportunities and or trainings. • Actively participate in raising awareness of the PHSA.
7.	Producers	<ul style="list-style-type: none"> • Advocacy and participation in education. • Compliance with SPS regulations. • Enhance plant health technology uptake.
8.	Consumers	<ul style="list-style-type: none"> • Provide feedback. • Lead the promotion of safe, sustainable, and nutritious diet. • Advocate for effective training in food production, in protecting plant and environment health and to promote human health (Rizzo et al 2021).
9.	Private sector	<ul style="list-style-type: none"> • SPS compliance. • Partnerships and collaborations with competent authorities
10.	Regional and National Farmers Organizations	<ul style="list-style-type: none"> • Collect and aggregate surveillance data. • Influence practices of members. • Advocate for good practices. • Coordinate education opportunities. • To actively participate in the awareness of the PHSA. • Educate members in best SPS practices and influence the adoption • Advocate on behalf of producers, communicate SPS issues and needs to extension agents, NPPOs or local governments
11.	Regional Economic Communities (RECs)	<ul style="list-style-type: none"> • Lead the implementation of PHSA at REC level; • Develop and implement regional policies as well as support harmonization of legislation at regional level; • Coordinate and develop linkages between national, continental, and international SPS bodies.
12.	Global organizations (FAO) International Standard Setting bodies (IPPC)	<ul style="list-style-type: none"> • Coordinate plant health international standards, capacity development and technical assistance.

⁷ National Agricultural Research Organizations

S.N	Key Actor	Roles/Responsibilities
13.	Standards and Trade Development Facility (STDF)	<ul style="list-style-type: none"> • Technical assistance on SPS matters.
14.	Funding Agencies	<ul style="list-style-type: none"> • Provide funding towards national and regional plant health programmes.

5.4 Coordination and Implementation Mechanisms of the PHSA

Coordination of plant health interventions is equally the responsibility of the existing structures at the national, regional, and continental levels. As is the case for implementation, there is a great need for strengthening the coordination considering that plant health is a multidisciplinary and multi stakeholder effort involving public, private, and non-state actors. The PHSA envisages minimizing duplication of efforts while helping to achieve synergy through leveraging on resources and capabilities of different players to achieve effective and efficient implementation.

At the National level, coordination of plant health is the responsibility of the NPPO that is the competent authority and legally responsible entity for implementing the functions outlined in the 1997 revised IPPC Text which encompass the core actions needed to prevent the introduction and spread of plant pests. In countries where National SPS Committees are established, it is the NPPO that represents the plant health component in the national committee. Key actors at the national level include representatives from the national research and extension system, farmer organizations, national seed authorities and private sector and NGOs of relevance to plant health interventions.

At the Regional level, the RECs are responsible for the coordination of plant health at the regional level through various mechanisms including regional SPS committees and relevant plant health/protection technical committees or task forces. The key actors at this level include representatives NPPOs, CGIARs, FAO of the UN, CABI and development partners supporting plant health related work.

At the Continental level, the Inter-Africa Phytosanitary Council (IAPSC) of the AUC is currently responsible for overseeing continental coordination of the various plant health activities working with the private sector, NPPOs, farmer organizations, IPPC, FAO, Codex, other international organizations and development partners, RECs, research and academic institutions. IAPSC is the recognized institution that serves as the Regional Plant Protection Organization (RPPO) (Article IX of the IPPC) representing Africa at the IPPC. IAPSC represents plant health in the continental SPS committee that provides oversight on SPS issues.

At the Global or International level, the Commission of Phytosanitary Measures (CPM) of the IPPC constitute of IPPC member states coordinates ISPM adoption including discussions and resolutions on important plant health issues of international interests. The CPM also provides the platform for coordination of relevant activities from other internationally relevant plant health conventions such as the CBD, Rotterdam Convention and the FAO/WHO Code of Conduct. The CPM provides the forum for interactions of the RPPOs for learning and exchange of plant health related matters particularly at the annual CPM meetings.

5.5 Critical Success Factors

- (a) **Stakeholder Ownership:** The PHSA has been designed with active participation of key stakeholders in the plant health sector at Continental, Regional, and National levels whose contribution has informed the design of the strategy. Effective implementation is only expected if active participation of the stakeholders is sustained at all levels of development, implementation, monitoring, evaluation and reporting.
- (b) **Effective political leadership and commitment:** effective political leadership by way of providing a conducive operating environment will be critical for macroeconomic stability, building investor confidence and attracting foreign and local investments during the implementation of the strategy.
- (c) **Positioning PHSA to pivot PH initiatives on the Continent:** the PHSA is expected to deliver an innovative, harmonized, and sustainable Plant Health System for Africa. In this regard, it should therefore, be centrally situated to drive Plant Health (PH) initiatives at the continental, regional and Member State, levels, with effective coordination by AUC specialized technical unit to be designated as coordination entity for the PHSA, the RECs, and NPPO; respectively and contribute to the effective operationalization the AfCFTA.
- (d) **Existence of vibrant public and private sectors:** the public sector will provide the leadership in coordinating policy development, implementation, monitoring, evaluation and reporting and will also be responsible for providing a conducive operating environment. The role of the private sector will be to focus on the actual implementation of the PHSA. It is imperative that a vibrant private sector is built alongside adequate development of state institutional and human capacities for the mobilization and application of resources for the implementation of the strategy.
- (e) **Establishing an effective institutional framework that links the implementation, monitoring and evaluation and reporting system across the Continental, Regional and Member States levels:** while the ultimate leadership in implementation of the PHSA will take place at national levels, coordination of planning, monitoring and evaluation and reporting at continental, regional and country level will be crucial for successful implementation. In view of this, planning, M&E and reporting cycles need to be synchronized; with M&E frameworks that have clear measurable targets defined across all levels.
- (f) **Proactive programming for climate change:** recognizing the compounding effects of climate change on pest outbreaks with a significant increase in frequency and virulence, PH programming should proactively integrate Climate Smart Agriculture approaches to contribute to increased sustainable crop intensification aspirations for Africa.
- (g) **Gender mainstreaming during implementation:** considering the crucial role of women in agriculture in general and the implications on plant health, the PHSA seeks to achieve a comprehensive dimension of gender integration by establishing a gender sensitive planning, M&E and reporting system that meets the different needs of men, women, youth and other marginalized groups. Meeting the set goals and targets for gender will be very important in the implementation process to achieve the aspirations of the PHSA.
- (h) **Leveraging local innovations and inventions:** based on recognizing already existing innovations such as those of the partners such as CABI and IITA as well as what already exists from indigenous knowledge.

5.6 Budgetary Considerations

Poor funding of the plant health actions across all levels (country, regional, and continental) was identified by stakeholders as one of the major weaknesses of the plant health sector that has seriously constrained its performance. For the PHSA to realize its goal and strategic objectives, it is important that the challenge of poor funding is adequately addressed at all levels. A number of opportunities exist for resource mobilization to support plant health actions some of which were identified by the June 2021 Stakeholder consultation meeting, such as the use of existing platforms with donors, including ICPs and CGIARS.

There is need to broaden the base of cooperating partners to support plant health actions beyond what has been existing. In this regard, existing partners as well as new partners who support plant health actions should be sought. To facilitate such resource mobilization, AUC should consider supporting the preparation of bankable proposals aimed specifically at resource mobilization. These could be disseminated to all potential cooperating partners after which each partner should be engaged one-on-one.

It is important that member countries make considerable contribution to supporting the plant health sector. One way would be for the Treasury/Ministry of Finance to allocate a percentage of the total budget and disbursement to the agricultural sector to go towards supporting plant health actions. Such proportions should be increased over time as countries plant health sector benefits increasing following the implementation of the PHSA.

As a priority, the PHSA will be fully integrated and mainstreamed into the existing and future national and regional agriculture investment plans under CAADP and other related investment plans.

The development of this strategy has gone hand in with the development of an emergency fund framework to facilitate effective mobilization of financial resources to deal with plant health related emergencies. This facility will provide additional resources to the plant sector albeit of an emergency nature.

5.7 Risk Assessment, Management and Mitigation

Six (6) risks have been identified which may negatively impact the implementation of the PHSA. These are: continued fragmentation of plant health measures; continued inadequate funding to support the implementation of the PHSA; inadequate participation of key stakeholders in plant health actions; continued gaps and weaknesses in legislation to support plant health actions; inadequate plant health expertise particularly at country level, and; COVID-19 restrictions negatively impacting the performance of the plant health sector (see **Table 2**) below.

A risk rating has been undertaken for each risk as well as an analysis on mitigations measures embedded in the PHSA to deal with the identified risks. Based on the risk mitigation measures, it is clear that the Strategy has incorporated within it the necessary measures and actions to mitigate all the identified risks. Consequently, an assessment of the risk mitigation measures embedded in the PHSA has resulted in the PHSA being rated as low risk (see **Table 2** for details).

Table 2: Risk Assessment and Mitigation

Risk	Risk Rating	Risk Mitigation Measures Embedded in the PHSA	Risk Rating After Mitigation Measures
Risk rating: H=High; S=substantial; M=moderate; L=low			
Continued fragmentation of plant health measures: which would lead to undermining of the realization of PHSA goals and objectives	M	<ul style="list-style-type: none"> The strategy has targeted measures and mechanisms to enhance coordination of plant health actions at all levels (country, regional and continental). 	S
Continued inadequate funding to support the implementation of the PHSA: resulting in the failure to realize the aspirations of the Strategy.	S	<ul style="list-style-type: none"> The emphasis by the Strategy on resource mobilization using various sources has been articulated in the document; Linked to the above, the approach of relying on substantial local resources from the Central Treasury is appreciated. Strong monitoring mechanisms need to be put in place to ensure timely and consistent flow of such resources to the plant health sector. 	M
Inadequate participation of key stakeholders in plant health actions: This would significantly undermine the realization of the PHSA aspirations	M	<ul style="list-style-type: none"> The Strategy has emphasized the need for stakeholder coordination which would increase their participation Actions towards strengthening of coordination mechanisms and fora will go a long way in increasing stakeholder participation 	L
Continued gaps and weaknesses in legislation to support plant health actions: This would result among other things, in the failure to deal with emerging plant health issues in the context of climate change, among others	M	<ul style="list-style-type: none"> The PHSA specifically addresses the need to strength legislation and policy framework to support effective implementation of plant health actions. The Simplified PHSA results framework includes monitor able Key Performance Indicators (KPIs) aimed at ensuring that the targets set for such legislation are met within the stipulated timeframe. 	L
Inadequate plant health expertise particularly at country level: This may compromise the implementation of the Strategy.	M	<ul style="list-style-type: none"> The Strategy includes capacity building in plant health actions of various stakeholders; The PHSA has included adequate mechanisms and fora at international level, aimed at exposing countries, 	L

Risk	Risk Rating	Risk Mitigation Measures Embedded in the PHSA	Risk Rating After Mitigation Measures
		regions and the continent at large to latest techniques and technologies in plant health.	
<p>COVID-19 restrictions negatively impacting the performance of the plant health sector: The continuation of the COVID-19 on the continental and the world at large may compromise effective implementation of this Strategy</p>	S	<ul style="list-style-type: none"> • The PHSA actions will be implemented within the “new normal” context of COVID-19. This has already been exemplified through the successful holding of the June 2021 Consultative meeting which provided materials to facilitate the design of this Strategy. • The continent has continued to put measures in place (including vaccinations) aimed at restraining COVID-19 cases. 	M
Overall risk assessment	M		L



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Appendices

Appendix I: Consolidated SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Establishment of NPPOs in countries • Member States as signatories to the IPPC • Existence of regional plant health strategies in some regions • Relevant other Plant health frameworks (e.g. Harmonized Pesticides Regulatory Framework for West Africa and the Harmonized Seed Regulatory System for Southern Africa) • Availability of Standards (ISPMs) to facilitate trade • Capacity for SPS notification by Member States • Presence of strong innovative institutions to address plant health challenges in the Africa Region such as IITA, ICIPE, CABI, DLCO-EA, ICRAF, AVRDC among others • The establishment of an inter-African Phytosanitary Council as RPPO for Africa and the IAPSC strategy in place 	<ul style="list-style-type: none"> • Shortage of specialists in plant health at regional level • Insufficient laboratory facilities/ capacities; particularly for reference at SADC regional level • Inadequate implementation of reporting obligations • Inadequate financial resources for plant health interventions • Weak coordination of plant health systems at national and regional levels (including academia, NPPOs, NARS, private sector) • Inadequate implementation of early warning systems by member states • Poor implementation of harmonized strategies at different levels in member states • Inadequate capacity to develop conformity assessment • Fragmented coordination of plant health related legislation and reporting
Opportunities	Threats
<ul style="list-style-type: none"> • The AfCFTA is in place and has been ratified by 37 Member States, this provides SPS measures that countries need to put in place in order to participate in safe trade in agriculture goods and services • Commitment to the Continental frameworks (CAADP, Malabo Declaration, SPS Policy framework, AfCTA) • Platforms with donors –ICPs, CGIARs in mobilizing resources for plant health services • Access to regional and international markets 	<ul style="list-style-type: none"> • Low priority accorded to plant health matters • Non-existence of SPS committees in some countries • COVID-19 restrictions • Weak linkage between research and plant health • Weak laboratory infrastructure • Limited Research and Develop funding for Plant Health • Differential capacities for implementation and weak regional domestication of plant health matters at MS level • Climate change and natural disasters including emerging invasive pests • Increase in regional, continental and global trade can lead to new pest threats • Actions to counteract the negative effects of pests at governmental levels are insufficient and mainly reactive. • Each REC has its own regional policies, this might pose a threat to harmonization of policies and legislations at some point • Insufficient knowledge of pests and pathogens

Appendix 2: Simplified PHSA Results Framework

Goal: To develop and implement a vibrant, robust and practical plant health system for Africa to enhance food and nutrition security, improved livelihoods and trade.

Objective hierarchy		Key Performance Indicators			Means of Verification	Assumptions, risks and mitigations
		Indicator	Baseline value (2021)	Target (2036)		
IMPACT	1. Increased household food, income and nutrition security	1.1 Average months/year of household food security 1.2 Average household income per year (US \$) 1.3 % of malnutrition (stunting) in under 5 children			<ul style="list-style-type: none"> • Baseline, midline, end line, health surveys 	<p>Assumptions:</p> <ul style="list-style-type: none"> • Favourable climatic conditions • Political stability • Favourable national and sectoral policy framework (including plant health sector) • Stakeholders are willing to participate in plant health actions
	OUTCOMES	2.1 Increased crop production and productivity	2.1.1 Average crop yield (MT/ha) Cereals (by specific type) Legumes (by specific type) Root and tuber crops (by specific type) Stimulant crops (Cocoa, coffee, tea) (by specific type) Oil crops (by specific type) Fruit trees (by specific type) Field crops (by specific type)			
		2.1.2 Average household crop output (MT/ha) Cereals (by specific type) Legumes (by specific type) Root and tuber crops (by specific type) Stimulant crops (Cocoa, coffee, tea) (by specific type) Oil crops (by specific type) Fruit trees (by specific type) Field crops (by specific type)				
	2.2 Increased access to export market	2.2.1 Quantity (MT) of agricultural products accessing export market				

Objective hierarchy		Key Performance Indicators			Means of Verification	Assumptions, risks and mitigations
		Indicator	Baseline value (2021)	Target (2036)		
		2.2.2 Average value of agricultural products accessing export market (US \$)			<ul style="list-style-type: none"> Country statistical offices; Management Information Systems at regional level 	
OUTPUTS	3.1 Improved legislative framework for plant health sector	3.1.1 # of legislation pieces and policies at country, regional and continental level that have been enacted			Country, regional and continental plant health reports	<ul style="list-style-type: none"> Willingness by countries and regions to enact plant health legislation Financial resources to the plant health sector are adequate and timely
		3.1.2 # of legislative pieces and policies at country, regional and continental level implemented or under implementation				
	3.2 Adequate budgetary allocation to the plant health sector	3.2.1 Percentage of the agricultural budget and disbursements allocated to the plant health sector			Country, regional and continental budgets	
		3.2.2 Annual budget allocation (in US \$) to the plant health sector				
		3.2.3 Actual disbursement (in US \$) to the health sector.				
	3.3 Availability of plant health technical expertise	3.3.1 # of trained plant health technical experts by gender at country, regional and continental level			Country, regional and continental plant health reports	
		3.3.2 # of trained plant health technical experts participating in plant health actions and issues.				
	3.4 Effective coordination at various levels (country, regional and continental)	# of functional coordination mechanisms/entities at country, regional and continental level)				
3.5 A functional AfCFTA	# of countries implementing Annex 7 of the AfCFTA					
3.6 Financial resources mobilized	Proportion of resources mobilized per annum at country, regional and continental level for plant health matters					



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