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## **Project « Innovative Regional System for controlling Fruit Flies in West Africa – SyRIMAO »**

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# **Overall Project Assessment**

2020 to 2024



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## Introduction

SyRIMAO, a project aimed at increasing the incomes of West African fruit and vegetable farmers, enhancing food security, reducing poverty, and creating jobs in the sub-region.

### Three major challenges at the heart of the Project SyRIMAO

In a context marked by climate change, the Project SyRIMAO was built around structuring challenges. Taking them into account was crucial in guiding its action and ensuring the coherence of its results. The challenges in question are as follows:

- Consolidation and large-scale dissemination of research results: The aim is to transform scientific achievements into practical solutions accessible to the stakeholders concerned. This requires an effort to popularize and share knowledge on a regional scale.
- The extension of activities to all 15 countries in the ECOWAS area: The project must cover a vast and diversified geographical area, with different national realities. The challenge is to guarantee harmonized and coordinated implementation in all Member States.
- Taking charge of the operational mechanism at the regional and national level by a mechanism to sustain this surveillance and control system in the 15 States Members of ECOWAS.

### Project components

The Project SyRIMAO was conceived and implemented from September 2020 to August 2024. With a budget of €13,935,000, the project was

implemented by ECOWAS, with financial partners, the European Union (EU), the French Development Agency (AFD). The project is structured around four components:

- **Research - Action - Development (RAD):** Creating strong links between research, innovation, training and development to encourage producers to adopt effective and ecological practices against fruit flies.
- **Support for National Public-Private Coordination Structures (ASN):** Strengthened support for public-private structures to ensure advocacy, organize training for actors and ensure the monitoring and evaluation of activities at national level.
- **Surveillance - Monitoring - Early Warnings (SVA):** Consolidation and extension of the surveillance and early warning system involving all actors for a rapid and effective response to infestations.
- **Coordination - Monitoring - Evaluation (CSE):** Regional and national coordination of training, monitoring of studies, administrative and financial management, as well as facilitation of exchanges between partners

### Actions

The SYRIMAO project has deployed its interventions through four (4) components, each oriented towards specific results. These integrated actions have made it possible to respond coherently to the set objectives.

4  PROJECT « INNOVATIVE REGIONAL SYSTEM FOR CONTROLLING FRUIT FLIES IN WEST AFRICA – SYRIMAO »



Presentation workshop of the project's phytosanitary surveillance and monitoring system SyrImao, Cotonou, Benin. Source: <https://lematinal.bj/lutte-contre-les-mouches-des-fruits-en-afrique-de-louest-le-systeme-de-surveillance-et-de-lutte-presente-aux-membres-du-syrimao/>

### Research-Action-Development

- Support to the reference laboratory (CNS-FL) in its role as regional coordinator
- Support for research protocols and dissemination of results
- Support for the functioning and capacity building of laboratory actors

### Support for National Public-Private Coordination Structures

- Support for national committees in their functioning, in the supervision of field activities, participation and organization of national and regional meetings

- Strengthening national capacities on phytosanitary standards and risks
- Structuring the mango sector at national and regional level and sustaining funding

### Surveillance - Monitoring - Early warnings

- Extension of the surveillance system
- Data collection and analysis, issuing alerts

### Coordination - Monitoring - Evaluation

- Coordination technical, financial and administrative of the project
- Monitoring-evaluation and audits
- Communication and visibility

## Support for Action-Research-Development

### Support to the reference laboratory

The SyRIMAO has strengthened the regional fight against fruit flies by creating a center of excellence, developing and disseminating technologies, as well as popularizing them among producers.

- Transformation of the National Specialization Center - Fruits and Vegetables (CNS-FL) into a Regional Center of Excellence (CRE): a decisive contribution from SyRIMAO
- Tools for identifying fruit fly species to support the sub-region's sovereignty in order to take rapid action in the event of an invasion of harmful species
- Development and registration of **02 technologies** (Mango Protect, SEN-BIOTRAP)
- Dissemination and use by farmers of **02 new technologies** (Mango Protect, SEN-BIOTRAP)
- Response from the regional laboratory to 6 requests
- Organization of **100 days of demonstration/ popularization of technologies** for fighting against fruit flies

### Support for research protocols

Support for research protocols, an action of SyRIMAO which has made it possible to identify, experiment, validate and disseminate relevant technologies for controlling fruit flies within ECOWAS communities

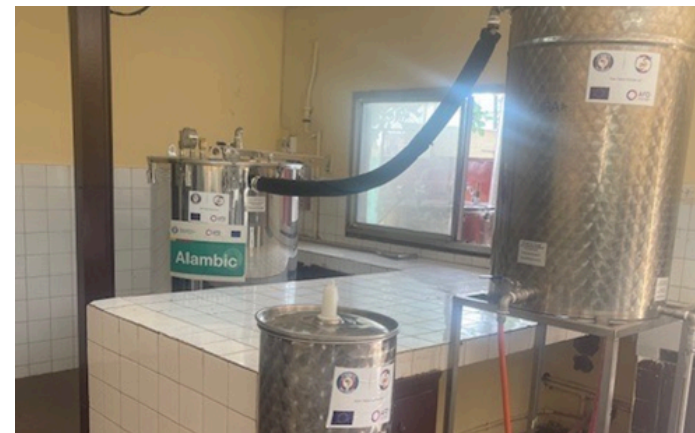
- Support, testing and dissemination of **13 research protocols**
- Identification and testing of technologies (Mango Protect, SEN-BIOTRAP, Parasitoids, entomopathogenic nematodes, IPM package)
- Installation of at least **5 pilot orchards per year and per country** (Benin, Burkina, Ivory Coast, Nigeria, Senegal and Togo)
- Training of nearly **358 technicians and 1000 farmers in conducting experiments** and using fruit fly control technologies
- Registration of the **02 technologies developed in Togo and in Côte d'Ivoire** (Mango Protect, SEN-BIOTRAP)
- Realization of **03 capsules on the achievements** of the Research-Action-Development component
- Development of video « **Farmer to Farmer** » (**F2F**) on the two technologies (2 F2F videos in French and English, translated into 5 local languages each)
- Elaboration of **02 Technical sheets and 04 technico-economic sheets on technologies** for fighting fruit flies
- Publication of **12 articles scientists**: It was detected for the first time, **02 species fruit flies** (*Dacus georgini* and *D. flavicrus*)

## Support to national laboratories

The SyRIMAO contributed to the operation of national laboratories, the training of stakeholders and the access of producers to fruit fly control technologies

Through its Research-Action-Development component, the SyRIMAO project supported national laboratories. This support materialized through :

- Installation in Senegal, of a production unit of SEN-BIOTRAP and in Burkina Faso of a Mango production unit protect: a major achievement for the adoption of the "mass trapping » Update of 03 training modules on surveillance
- Provision of surveillance equipment and scientific equipment to national research laboratories
- Training of 38 technicians and focal points of the National System of Agricultural Research, in taxonomy, on how to train trainers and producers in the use of fruit fly control technologies
- Support for the proper functioning of national laboratories and their coordination with the National Fruit and Vegetable Specialization Center (CNS-FL).



SEN-BIOTRAP production unit in Senegal

## Support to national public and private coordination structures

### Support for National Committees

National committees supported in their operation and in the operationalization of their activities

In the framework of the SyRIMAO project, National Committees (NC) have been set up to facilitate the implementation of the project at the national level. The project supported these committees, leading to the following results:

- **01 Committee, that of Cape Verde, remains to be boosted:** During the first three years of the project, the country did not adhere to it. It is in the 4<sup>th</sup> year that the country joined but did not benefit in time from the payments of money due to the late respect of the required national conditionalities, keeping its committee non-functional.
- **14 National committees out of the 15 targeted, are supported to be functional and operational:** This support has materialized through the development and validation of Annual Work Plans and Budgets (AWPB), multi-year plans, review workshops, supervision/supervision missions (05 missions carried out, including 01 in Senegal, 01 in Gambia, 01 in Burkina Faso and 2 in Guinea), annual public/private meetings held at critical times (approximately 29 meetings).

## Strengthening national capacities on phytosanitary standards and risks

Different training courses are provided to different actors, to improve the detection, management and prevention of fruit flies, while guaranteeing compliance with international standards and the governance of the phytosanitary inspection system.

The strengthening of national capacities within the framework of the SyRIMAO project took place through training courses aimed at different types of actors, the provision of equipment to structures, and the strengthening of governance systems. In short:

- 06 formations of trainers of the Directions of the Protection of Vegetables, Organizations Professionals, Border posts are trained to be able to transmit fruit fly control techniques and ensure monitoring in the field.
- 06 trainers of phytosanitary inspectors are trained to strengthen inspection and phytosanitary certification capacities.
- 1243 agents of the Directions of Plant Protection, Professional Organizations and border posts are trained detection, control and management of fruit flies, as well as monitoring and prevention of infestations
- 895 phytosanitary inspectors are trained on inspection procedures, compliance with international standards and certification of exported products.
- 10 inspection services of the departments of Plant Protection, are equipped with inspection.

### *The number of interceptions in 2023: an encouraging trend*

*A stricter application upstream and downstream of phytosanitary provisions, guided by the results of surveillance (opening and closing of the campaign according to the risks of infestation), company surveillance put in place action, have contributed to reduce interceptions to 40 in 2023, a reduction of 54%.*

Source : Annual report from January 1 to 31 December 2023, Project SyRIMAO

## Structuring the mango sector at national and regional level and ensuring the sustainability of funding

SyRIMAO has consolidated the mango sector by structuring the players, securing funding and facilitating partnerships.

The project SyRIMAO supported the structuring of the mango sector at the national and regional level, by supporting the National Committees, strengthening interprofessions, setting up financing mechanisms, and facilitating partnerships between economic players.

- Support from the mise in setting up interprofessional in Guinea, in Senegal, and Benin
- Establishment of 05 mechanisms for financing the sector at national (Togo, Côte d'Ivoire, Burkina Faso, Guinea, Senegal, and Mali), including 3 operational (Burkina Faso, Senegal, Côte d'Ivoire);
- Evaluation of the mechanisms made operational in Burkina Faso and Senegal to make the necessary adjustments.
- Facilitation in Togo, Côte d'Ivoire, Burkina Faso, Ghana, Liberia, Senegal, and Mali, consultations interprofessions/suppliers of inputs for producers' access to treatment technologies.
- Facilitation of dialogue in view of a partnership with suppliers of inputs/exporters (7 partnerships facilitated) to make the necessary adjustments
- Establishment of 15 partnerships with input suppliers

### **Structuring of the sector**

*To structure the sector, the activities were mainly focused on supporting the process of setting up the mango Interprofession of Guinea, Benin and Senegal. Thus, the Interprofessions of Guinea and Senegal have been established and the processes of their official recognition initiated. At the level of Benin, the SyRIMAO intervenes in synergy with the Territorial Development Agency Agricultural pole 5 (ATDA 5) which ensures the control of work of the process. Only Burkina Faso and Senegal were able to operationalize their mechanisms in 2023. The mechanisms in Burkina Faso and Senegal have made it possible to collect respectively 42,352,000 FCFA and 220,170,000 FCFA i.e. a total of €400,212.2.*

Source : Annual report from January 1 to December 31, 2023, Project SyRIMAO

## **Support for Surveillance – Monitoring – Early warnings**

### **Extension of the surveillance system**

The operational data collection system is operational in all 15 ECOWAS countries

All member countries of SyRIMAO have received surveillance equipment to install their fruit fly surveillance data collection system. The Cape Verde which was the only country experiencing a delay in the execution of the activities planned by the project, has finally joined the extension of the surveillance system. At the same time:

- Progressive extension of the system to all member countries: initially to Senegal, Mali and Guinea (2021), then to Liberia, Sierra Leone, Niger, and finally operational in all 15 countries and 37 production zones in 2024, with the inclusion of Cape Verde.
- Support for 15 national committees for drafting their action plan
- Acquisition and installation of surveillance equipment on 1290 observation points covering 36/37 production areas.

- Training of 567 farmers and export business leaders in surveillance by national committees
- Training of 14 super-users in surveillance
- Development of 06 plans developed and the systems of surveillance put in place (Liberia, Sierra Leone, Cape Verde, Niger, Guinea Bissau, Nigeria and Togo)
- Update of 08 plans national (Benin, Burkina, Cote d'Ivoire, Ghana, Guinea, Gambia, Mali and Senegal) of fly surveillance
- Coverage of 37 agroecological zones by the surveillance and alert system

- Training of More than 465 farmers and staff of export companies trained in the data collection methodology, and 158 representatives of export companies and producers in surveillance.
- Effective ten-year surveillance on 92,630 ha in 2022, 106,132 ha in 2023, with identification of infested areas and targeted treatment (e.g. 67% of infested areas treated in 2023).
- Issuing regular alerts to farmers, technical decision-makers and exporters, with 12 alerts in 2021, 60 in 2022 and 401 alerts in 2023.
- Updating of 05 modules of training in surveillance and data collection procedures

## Data collection and analysis

The regional data collection mechanism is deployed and operational across all ECOWAS countries.

All member countries of SyRIMAO have received surveillance equipment to install their fruit fly surveillance data collection system. The Cape Verde which was the only country experiencing a delay in the execution of the activities planned by the project, has finally joined the extension of the surveillance system. At the same time:

Various relevant data are also rendered available. They concern the composition and density of the available populations, the rates of attacks on fruits by flies by points, number of agro-ecological zones covered, orchards, observation points, on the number and frequency of alerts issued.

## Coordination - Monitoring - Evaluation

### Overall coordination

Support to NCs in financial management and in the execution of their activities

The overall coordination of the SyRIMAO Project mainly materialized by support provided to NCs in financial management and in the execution of their activities. To this end Sixty-four (64) specific supports are provided to national committees in the execution of their action plan.

### Cases of material and technical support

*The support provided by the SyRIMAO project allowed the acquisition of offices for the team at ARAA/Lomé and at DADR/Abuja. Also, the Accountants of the NCs of Senegal, of Guinea Bissau, of Mali and of Niger encountered technical difficulties, and received therefore, training on the administrative and management system accounting of the project.*

**Source :** Annual report from January 1<sup>st</sup> to October 31, 2024, Project SyRIMAO

## Communication and visibility

### Strategic communication, regional visibility and known impacts

The communication and visibility actions of the SyRIMAO project have played a role key to sharing its results and strengthening the commitment of stakeholders. They helped to promote achievements, ensure transparency and encourage widespread dissemination of knowledge. Through various tools and channels, the project has increased its visibility.

- 04 issues of the quarterly newsletter
- 01 note to decision-makers
- 02 presss release
- 103 radio awareness spots
- 864 broadcasts of radio awareness spots
- 06 product video spotss and broadcast
- 800 poster prints products during the SyRIMAO
- 750 brochures distributed at events
- 02 articles of the project published in the bulletin Ecowas news
- 03 capsules of video focusing on SEN BIOTRAP and Mango technologies Protect

## Monitoring-evaluation

Monitoring and evaluation made it possible to measure results, ensure accountability and guide decisions to strengthen the effectiveness of the project.

The project has put in place a structured monitoring and evaluation system, combining strategic management, regular data collection and analysis, and the integration of monitoring into communication activities. At the same time, performance and financial management have been strengthened through regular audits and an external evaluation covering several countries.

- Institutionalization of the MESECOPS monitoring-evaluation system
- Creation and operation of the Steering committee, strategic monitoring body.
- Training of 14 Monitoring and evaluation focal points for a better data quality.
- More than 90% of the data of the project introduced into MESECOPS
- Regular drafting of annual reports and dissemination of quarterly newsletters.
- Monitoring integrated into communication activities (radio spots, goodies, awareness sheets, video capsules)
- Audit of 14 national committees



Cover page of the annual report of the 2023 report

## Quantified effects of SyRIMAO on the sector and its stakeholders

- Improved performance: enhanced protection against fruit flies through sustainable innovations.
- 74.75% of mango production is destined for local, regional and international markets.
- 12,604 households benefit from the support of SyRIMAO, of which 7,123 see their resilience strengthened.
- Job creation and better market access for women: 3,816 new jobs created, 66% of which for women.
- 7,121 households have seen their income increase by at least 14.29%

## Lessons and recommendations

### Lessons

Based on the results obtained and the challenges encountered during its implementation, the SyRIMAO project highlights rich and promising lessons. These lessons provide a valuable basis for guiding future regional initiatives, for improving the governance of control mechanisms and strengthening the sustainability of actions undertaken for the benefit of producers and sectors.

**Integration of research–Action–Development:** The link established between research, experimentation and popularization has made it possible to transform scientific results into practical solutions, strengthening adoption by producers of fruit fly control technologies.

**Regional and national coordination:** The establishment of National Committees and the Regional Center of Excellence has demonstrated the importance of a governance multi-level to ensure the coherence of actions. She made it possible to organize actions, harmonize practices and facilitate the sharing of information between actors.

**Capacity building:** The massive training of actors (technicians, producers, phytosanitary inspectors) has improved the mastery of technologies promoted by the project

**Structuring of the sector:** Support for interprofessions and financing mechanisms has shown that sustainability depends on the ownership of economic players.

**Communication and visibility:** Media campaigns and popularization tools have facilitated the dissemination of achievements and increased the awareness of stakeholders.

**Country commitment:** The late accession of some countries and institutional delays underline the need for a strong and early political commitment.

### Recommendations

To consolidate the achievements of the SyRIMAO project and address the challenges identified, several strategic recommendations are proposed. They relate to the sustainability of the mechanisms, the expansion of coverage, the strengthening of governance and funding, as well as the continuous promotion of innovation and the capitalization of results.

**Extension of coverage:** ECOWAS should strengthen the involvement of initially less active countries to ensure effective coverage of the 15 member states. This is necessary because the regional impact remains limited if some countries do not participate fully. Operationalization can be done via targeted action plans, technical and financial support, and awareness missions to national authorities.

**Continuous innovation:** ECOWAS is encouraged to support applied research and the approval of new technologies adapted to local contexts and climate change. This recommendation responds to the need to maintain the relevance and effectiveness of interventions in the face of phytosanitary challenges. It can be implemented by financing research projects, facilitating the adoption of innovative technologies and organizing regional workshops to disseminate results.

**Strengthening regional governance:** Maintaining rigorous and participatory monitoring and evaluation at the regional level is essential to adjust interventions and improve efficiency. ECOWAS can operationalize this recommendation by defining common indicators, establishing periodic reports and organizing regular coordination meetings between member states.

**Sustainability of the systems:** The National Committees must consolidate the achievements by institutionalizing the surveillance systems, CRE and interprofessional organizations in national and regional policies. This approach is necessary to avoid losing the project's achievements. It can be implemented by integrating these systems into national programs, training the personnel concerned and securing the corresponding budgets.



TRAINING ON EU PHYTOSANITARY STANDARDS IN LIBERIA (IN 2023)

**Financial sustainability:** To ensure the continuity of activities, the NCs must further develop endogenous financing mechanisms, such as the contributions financial mandatory and public-private partnerships. Implementation involves the creation or strengthening of these funds, the establishment of regular contributions and the search for sustainable partnerships with the private sector.

**Capitalization and communication:** The NCs must increase communication and experience-sharing tools to promote results and inspire other regional initiatives. This recommendation is justified by the need to disseminate good practices and strengthen the project's impact. It can be operationalized through the production of guides, bulletins and videos, as well as through the organization of workshops and experience-sharing forums.



## Financial partners



## Technical partners



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