Co-developing a regional plan for preparedness and response to pest and disease outbreaks in West and Central Africa

Alcade C. Segnon | Esdras Obossou | G. Esaïe Kpadonou | Komla Kyky Ganyo | Niéyidouba Lamien | Robert B. Zougmoré

December • 2023

Info Note

Key messages

- Climate change is a key driver of the spread of pests and diseases that affect food production in West and Central Africa.
- Science-policy linkages are essential for developing effective pests and disease management systems that can minimize agricultural losses to pests in Africa.
- With AICCRA support and engagement, a regional plan for preparedness and response to pest and disease outbreaks in West and Central Africa has been developed.
- The process of developing the regional plan was informed by a foresight analysis and is rooted in science-policy interaction based on multi-stakeholder consultation with local and regional experts.
- The plan will serve as a regional guide for holistic pest and disease management at regional, national, and sub-national levels.

CGIAR | AICCRA
Accelerating Impacts of CGIAR Climate Research for Africa

BACKGROUND

Climate change is a major development challenge for the West African region, posing and exacerbating both biotic and non-biotic risks for agriculture and food systems. Climate change and weather patterns directly affect the distribution, development, and population dynamics of insect pests and it may facilitate the spread of indigenous and exotic species. In recent years, emerging diseases and invasive species (including whiteflies, fruit flies, fall armyworms, and more recently, cotton jassids) have spread dramatically throughout the sub-region.

The plethora of pest and disease species and strains requires a rigorous approach to risk assessment and adaptation, based on identified needs to inform management (Andrew & Hill, 2017). Moreover, responding to these emerging plant pests and animal diseases requires a degree of anticipation through a concerted, predefined strategy and actions. Besides, collaboration is essential for developing effective integrated pest management systems that can minimize agricultural losses caused by pests in Africa. (Mafongoya et al., 2019).

Due to the increased uncertainties associated with such risks, foresight and scenario planning may offer the best approach to designing systems that are resilient in the face of global change (Sutherst et al., 2011). Foresight analysis is a systematic approach to exploring plausible futures. It enables decision-makers in the agricultural sector to assess how different investments in agricultural research and development may perform based on anticipated changes associated with various drivers, such as climate change, increasing wealth, or changing policy environments.

In the context of climate change vulnerability and increased exposure to pest and disease risks in the agricultural sector, and in response to the demand of its regional partner the CORAF, AICCRA supported the development of a regional Coordinated Preparedness and Response Plan to improve Pest and Disease Outbreaks Management in West and Central Africa. This infoNote documents the process of developing the regional plan for preparedness and response to pests and diseases to provide key lessons for further policy response plans across the scale.

CO-DEVELOPMENT APROACHES

The collaborative development of the regional plan for pest and disease outbreak preparedness and response in WAC involved four steps: (Figure 1)

FORESIGHT-INFORMED RESPONSE PLAN DEVELOPMENT

Designed and facilitated by AICCRA, a foresight analysis was applied to develop a draft regional pest and disease response plan in West and Central Africa. The application of the foresight analysis was carried out during an expert consultation workshop held in Dakar, Senegal, from October 17 to 21, 2022 (Chesterman et al., 2022). The workshop engaged national experts in pest and disease control to work with the foresight experts to develop a draft roadmap for pest and disease outbreak preparedness and response for the West and Central Africa region. Experts convened were from diverse backgrounds in agriculture, veterinary medicine, and climate change, and represented several institutions across West and Central Africa (Chesterman et al., 2022). The workshop resulted in the proposition of a draft Regional Coordinated Preparedness and Response Plan to improve Pest

and Disease outbreak management in West and Central Africa, in alignment with CORAF's priority intervention domain on agriculture, food, and nutrition security. The draft plan outlines three phases for preparation and response to an outbreak - before, during, and after. These phases have been developed with input from key experts, facilitated by foresight methods. Pre-preparedness, which focuses on resilience and preparedness; during, which focuses on early warning and response; and after, which focuses on deeper response to improve and strengthen resilience.

Figure 1: Regional plan development process

EXTERNAL REVIEW PROCESS

In 2023 an external reviewer was commissioned by AICCRA to review and support the consultation and finalization process of the draft response plan. The external reviewer is a member of the regional West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL), a large-

scale research-focused Climate Service Centre designed to help tackle this challenge and thereby enhance the resilience of human and environmental systems to climate change and increased variability. He possesses extensive research experience in West Africa's pest and disease management. Moreover, he has developed policy instruments for pest management in the region's fields of agriculture, natural resources, and climate change. The role of the external reviewer was to thoroughly review and analyze the proposed draft plan to identify gaps and opportunities to target efforts for the technical consultation. He was also tasked to consult with key partners as refined inputs for the technical consultation; and provide design support for the facilitation of the technical consultation.

STAKEHOLDERS' CONSULTATION AND VALIDATION WORKSHOP

From June 19 to 22, 2023 in Cotonou, Benin, CORAF in collaboration with AICCRA organized a technical expert consultation workshop facilitated by the External Reviewer to finalize and validate the proposed WCA pest and disease outbreak preparedness and response plan. The workshop was attended by regional foresight analysis experts, national and regional pest and disease management experts, and technical partners (ECOWAS, UEMOA, PRASAC, FAO, AGRHYMET/CILSS, IITA/BIMAF, WASCAL and WAVE). About 50 national and regional experts participated in the workshop. During the workshop, the pest and disease management plan underwent an assessment by experts in the field. Participants were divided into four working groups to amend and revise different sub-sections of the draft plan, followed by a validation in plenary session. Participants stressed the need to make the plan operational, to take into account initiatives underway at the ECOWAS and CEMAC regions, to reinforce synergy and complementarity, and above all to give the plan political endorsement at the ECOWAS level. The technical consultation was facilitated by an external reviewer who ensured that new input and suggestions from the technical consultation were incorporated into the draft plan. The process resulted in a coordinated final draft plan. Another key outcome of the validation workshop was the establishment of a technical review committee building on the existing ECOWAS Regional Task Force on Pest and Disease in West Africa.

Photo 1: Stakeholders' consultation and validation workshop in Cotonou

ESTABLISHMENT OF A TECHNICAL REVIEW COMMITTEE

The Technical Review Committee (TRC) plays a critical role in the stakeholders' engagement process for the development of engaging stakeholders in the Regional Plan's development. The Technical Review Committee (TRC) reviewed the final coordinated draft plan that emerged from the regional technical consultation, which took place in Cotonou in June 2023. The TRC includes specialized regional task forces such as the ECOWAS Task Force on Pest and Disease, CILSS/AGRHYMET, FAO, WAVE, UEMOA, Alliance Bioversity & CIAT, and CORAF. TRC members were selected based on their technical qualifications, previous experience in developing pest and disease management plans, availability to attend meetings, and ability to articulate the agricultural sector's perspective on climate change in West and Central Africa. The outcome of this process is the final regional plan that will be endorsed and launched by ECOWAS following the internal process.

CONCLUSIONS: KEY LESSONS AND WAY FORWARD

Policy planning and development processes often require a pragmatic, demand-driven approach. The stakeholder-based, demand-driven approach implemented by AICCRA led to the development of a policy response plan for pest and disease management in West and Central Africa. AICCRA demand-driven capacity development has informed the creation and capacitation of a regional foresight community of practice in West and Central Africa (Chesterman et al., 2022; Neely et al., 2022). Moreover, the development of the regional plan was informed by foresight analysis and relied heavily upon the knowledge and insights of local and regional experts. Collaborating with these experts enables us to tailor pest and disease interventions to the specific needs of the region, while also facilitating the establishment of regional networks to effectively manage outbreaks throughout West and Central Africa.

REFERENCES

Andrew, N. R., & Hill, S. J. (2017). Effect of Climate Change on Insect Pest Management. In M. Coll & E. Wajnberg (Eds.), *Environmental Pest Management: Challenges for Agronomists, Ecologists, Economists and Policymakers*. https://doi.org/10.1002/9781119255574.ch9

CORAF. (2023). Atelier régional de finalisation du plan régional de préparation et de réponses aux épidémies de ravageurs et maladies en Afrique de l'Ouest et du Centre.

Chesterman S, Neely CL, Segnon AC, Parramon-Gurney M, Fuller EJ, Lamien N, Zougmore RB. 2022. Applying foresight analysis towards the development of regional policy and strategic priorities for climate-resilient agriculture and food systems in West and Central Africa. AICCRA Report. Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA). Available at: https://hdl.handle.net/10568/126218

Neely C, Segnon AC, Lamien N, Nkoum MNT, Chesterman S, Zougmore R. 2022. Applying foresight analysis in West and Central Africa: Capacity needs assessment from a regional engagement process. AICCRA Info Note. Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA). Available at: https://hdl.handle.net/10568/125494.

Mafongoya, P., Gubba, A., Moodley, V., Chapoto, D., Kisten, L., & Phophi, M. (2019). Climate Change and Rapidly Evolving Pests and Diseases in Southern Africa. In E. T. Ayuk & N. F. Unuigbe (Eds.), *New Frontiers in Natural Resources Management in Africa* (Vol. 53, pp. 41–57). https://doi.org/10.1007/978-3-030-11857-0_4

Sutherst, R. W., Constable, F., Finlay, K. J., Harrington, R., Luck, J., & Zalucki, M. P. (2011). Adapting to crop pest and pathogen risks under a changing climate. *Wiley Interdisciplinary Reviews: Climate Change*, *2*(2). https://doi.org/10.1002/wcc.102

To cite this Info Note

Segnon, A.C., Obossou, E., Kpadonou, G.E., Ganyo, K.K., Lamien, N., Zougmoré, R.B. 2023. Co-developing a regional plan for preparedness and response to pest and disease outbreaks in West and Central Africa. AICCRA Info Note. Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA)

Acknowledgements

Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture. It is led by the Alliance of Bioversity International and CIAT and supported by a grant from the International Development Association (IDA) of the World Bank.

About AICCRA Info Notes

Titles in this series aim to disseminate interim research on the scaling of climate services and climate-smart agriculture in Africa, in order to stimulate feedback from the scientific community.

Photos

Cover © CORAF

Disclaimer

This Info Note has not been peer reviewed. Any opinions stated herein are those of the author(s) and do not necessarily reflect the policies or opinions of AICCRA, donors, or partners.

Partners

CORAF

About AICCRA

AICCRA
Accelerating the Impact of CGIAR Climate Research for Africa

Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture. It is led by the Alliance of Bioversity International and CIAT and supported by a grant from the International Development Association (IDA) of the World Bank. Explore our work at aiccra.cgiar.org

aiccra.cgiar.org aiccra@cgiar.org CGIARAfrica