



# Retrospective Evaluation of Scaling Associated with the IITA Cassava Weed Management Project (CWMP)

## Stakeholder Validation Workshop Brief

22<sup>nd</sup> February 2024

## Overview

Herbicide use in Nigeria and other developing countries has the potential to contribute significantly to increasing agricultural productivity, improving food security, and enhancing the livelihoods of farmers but over-reliance and over-usage can pose health risks, and environmental pollution reducing biodiversity.

To enhance agricultural productivity, the Bill and Melinda Gates Foundation (BMGF) funded the Cassava Weed Management Project (CWMP, 2013–2018) in Nigeria targeted at minimizing manual weeding by smallholder farmers, promoting the use of safe and environmentally friendly herbicides, increasing cassava productivity by using improved and integrated approaches to weed management that reduce labor requirements, and enhancing the productivity of smallholders' cassava farms.

BMGF engaged the International Food Policy Research Institute (IFPRI), to work in collaboration with Sahel Consulting to design and implement a mixed-methods retrospective evaluation to understand the extent and drivers of private sector scaling of the herbicides associated with the CWMP. This evaluation is funded by BMGF, in partnership with the Evaluating Inclusive Transformation in Agriculture (EVITA) program at the Evans School Policy Analysis and Research (EPAR), University of Washington.

This retrospective evaluation focused on the period after the CWMP ended and includes an analysis of the factors behind companies' decisions to register and scale some herbicides and not others, the role of public policy and regulation, and demand side intelligence to understand the breadth and depth of the herbicide market.

To validate the findings from the retrospective evaluation of scaling associated with the IITA Cassava Weed Management Project (CWMP), a stakeholder workshop was convened on 22<sup>nd</sup> February 2024. The workshop brought together representatives from government institutions including NAFDAC and the Ministry of Environment, the University of Agriculture Makurdi, Michael Okpara University of Agriculture, Umudike and Agro companies, and large cassava farmers including Bayer, Syngenta, Saro Agrosiences, Jubaili Agrotech, Psaltry, Crest Agro and other stakeholders including Sasakawa, BMGF, EPAR and the Industrial Cassava Stakeholder Association of Nigeria (ICSAN) and the Alliance for Action on Pesticide (AAPN).

## Workshop Objective

The objective of the workshop was to:

- Facilitate engagement between stakeholders to confirm that the findings resonate with the general views of the outcomes following the CWMP.

## Event Summary

The workshop, moderated by Ms. Omobolanle Onilogbo of IFPRI, began with a welcome remark from Kwaw Andam, Country Program Lead, IFPRI-Nigeria. In his address, Dr. Kwaw provided an overview of the study, underscoring the importance of the CWMP and its impact on cassava productivity. He emphasized the importance of collaboration among stakeholders present in providing information to enable the attainment of the project objectives.

## Remaining Questions and Gaps

Some research questions remained unanswered due to insufficient data from agricultural companies and

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policymakers, hindering comprehensive analysis. The sales data received covered only a limited timeframe and addressed only a subset of the recommended herbicides.

To answer these pending questions, the workshop explored the three critical project gaps:

- **Market Structure, Size, and Competition:** Data on the demand for recommended herbicides, sales trends before and after CWMP, and most sold herbicides for cassava weed.
- **The Policy and Regulatory Environment:** Information on the Importation of Paraquat, enabling environment, and the import data of recommended herbicides.
- **Delivery systems:** Collaborative Activities and the current price of the recommended herbicides. Outlined below are the essential climate stakeholders key to the project outcomes:

To provide insight into these questions and gaps, stakeholders made feedback and commitments to provide data on herbicide sale and demand records.

### Presentation of Research Findings

Mr. Lawrence Kent a Senior Program Officer at the Bill and Melinda Gates Foundation (BMGF) stressed the importance of prioritizing herbicides with the best safety profiles, as hiring labor is often more expensive than utilizing herbicides. He emphasized the need to market the best herbicides to cassava farmers for effective weed control and urged companies to provide information on best practices to Nigerian farmers during herbicide distribution. Additionally, he advocated for the replacement of paraquat (PQ) with a safer alternative. In his remark, Prof. Friday Ekeleme reported a 27% increase in yield from recommended herbicide use, compared to conventional farming methods. The recommended herbicide usage has led to profit margin increases of up to 83%. He stated that training initiatives have successfully promoted the use of appropriate products among farmers, and efforts are underway to ensure the dissemination of information to all cassava-producing states in Nigeria.

Dr. Godwin from Sasakawa emphasized the challenges of weeding in cassava production, particularly due to the long time before maturity. While the project was not solely focused on herbicides, they were integrated into the solution. Combining mechanical methods with herbicides was found to be effective. The elimination of hazardous chemicals is crucial, as many cassava farmers suffer from using inappropriate herbicides. Additionally, he mentioned there is a lack of awareness among farmers regarding the time invested by family members in farm work. To increase awareness Prof. Simon Irtwange from Action Alliance Against Pesticide in Nigeria mentioned that his organization reviewed works of literature that support the harmful effects of pesticides, which resulted in the coalition that was formed. The coalition approached NAFDAC with this research, and as of today, Paraquat has been banned.

The study approach, methodology, findings, and recommendations were presented answering the key evaluation questions:

- **To what extent has the private sector scaled the herbicides tested and found to be effective under the IITA Cassava Weed Management Project in Nigeria?**
  - **Force Up** by Jubaili Agrotech Limited, **Sarosate** by Saro Agrosiences, and **Round Up** by Bayer were widely available in the open market and imported as confirmed by the Mystery Shoppers exercise where Force Up and Sarosate were found in 97% and 84% respectively of the Agro shops visited in Oyo state and 70% and 57% respectively of all Agro shops visited in Benue state.

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- **Lifeline** by UPL and **Gallant Super** by Saro Agrosiences were imported but not readily available in the open market as Lifeline was not found in 30 Agro shops visited in Benue state and was found in 6% of the 32 Agro shops visited in Oyo state.
- **Monsoon Active** by Bayer, **Fierce** by Saro Agrosiences, and **Primextra Gold** by Syngenta have not been commercialized. Moonsoon Active and Fierce were not used by the 200 smallholder cassava farmers engaged in Benue and Oyo states while Primextra Gold was used by 24% and 7% of farmers engaged in Oyo and Benue states respectively.
- **TouchDown Forte** by Syngenta, **Lagon** by Bayer, and **Vigor** by Saro Agrosiences are mostly used by commercial farmers while **Gardoprim Plus Gold** by Syngenta is set to be registered and commercialized this year (2024). As mentioned by a respondent from Saro, *“There is hardly any cassava commercial farm that does not use Vigor or Lagon. These two products are from the CWMP. For the small-scale farmer, the level of adoption is not significant”*.
- **How did the collaboration between IITA and the private sector during CWMP activities influence companies’ decision to register and ability to deploy herbicides?**
  - The CWMP led to Business expansion, increased market share and sales for Agrochemical companies, improved smallholder farmers awareness, and aided the use of safe herbicides by smallholder farmers.
  - Increased yield and profitability, health and safety, and reduced use of manual labour for weeding by smallholder farmers.

**Key recommendations**

Following the findings from the research work, the following recommendations were made.

- Increase education and awareness campaigns to drive the adoption of safe and effective herbicides.
- Enhance direct relationships between Agro companies and farmers.
- Implement training programs for farmers and improve distribution channels.
- Ensure research and development tailored to local market needs.
- Government should intervene with the right policies and regulation to discourage the adoption of harmful Paraquat based herbicides.

**Next Steps**

Task	Delivery Date
Engage Stakeholders on commitments.	February 2024
Develop Final Report	March 2024