

# Newsletter

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## International Women Day: Tackling weeds and making a difference in the lives of women in cassava farming



A woman farmer bends to weed cassava field

More action against sexual violence, workplace discrimination, and demands for a higher quota for women in key positions in the corporate and political landscape were perhaps the most discussed issues for this year's International Women Day (IWD) celebration.

Though all of these are important, one must not forget the agony, pains and trauma the cassava woman farmer is facing in Africa trying to control weeds with some of them breaking their backs.

In context, cassava has grown in importance transitioning from a subsistence/food crop to an industrial/cash crop. This transition has opened up vast lands for cassava cultivation. However, the expansion in cultivation of cassava has not fully embraced mechanization and therefore manual labor still dominates the cassava farming landscape.

Women being major stakeholders in rural communities play a significant role in cassava production and processing. To control weeds, for instance, women contribute about 90% of the hand-weeding, and in some cases

where the burden is huge and unbearable, children are withdrawn from school to assist in weeding, an action that compromises the future of the home.

Besides, hoes and cutlasses are the major tools that women use in controlling weeds. These implements demand that women must bend their backs for between 200-500 hours annually to clear the weeds on the field and prevent economic losses in cassava fields especially in fields infested with difficult weeds. In instances where the woman is nursing a baby and has to back the child, the negative health impact of weeding on the waist and chest of the woman farmer can be better imagined.

This sad reality which the African woman farmer faces on a yearly basis has never gained sympathy nor desired attention from policymakers or donors, rather weeding is a 'new normal,' and even the farmers who face this uphill task hardly recognize it as a challenge. Several policies or programs initiated by governments in Africa either downplay or have never given enough attention to weed control. On the contrary, more attention is paid to issues such as the development of improved varieties, procurement of fertilizers, and value addition or processing. But without effective weed control, the gains of genetic improvement can hardly be realized. In cassava for instance, if a farmer fails to control weeds during the first 16 weeks of the crop, they can hardly harvest cassava roots from the field. Research evidence attributes Africa's low productivity in cassava fields partly to poor weed management. While Asia records cassava yield of 30-40 tons per hectare, Africa and Nigeria in particular is still grappling with an average yield 12-13 tons per ha.

The greater implication of this scenario is that Africa's dream for a Green Revolution lies ahead in a distant future and emancipating the continent from the grip of hunger and poverty needs more efforts and collaboration.

In spite of this gloomy picture, the IWD offers us the opportunity to reflect and

examine what options can bring about change and make a difference in the lives of women in agriculture.

In this reflection, the Cassava Weed Management Project holds promise in bringing about change and transformation in the lives of women farmers and children. The project which involves researchers from the International Institute of Tropical Agriculture (IITA) with partners from National Root Crops Research Institute (NRCRI), Umudike, Abia State; Federal University of Agriculture Abeokuta, Ogun State; and the University of Agriculture Makurdi, Benue State is for the first time assessing sustainable weed management technologies in cassava systems in Nigeria.

The five-year project aims to develop integrated weed control measures that would alleviate the burden of weeding and put more money in the pockets of farmers especially women who are in the majority of 70 percent of rural dwellers in Africa.

The attainment of the goals of this project will certainly bring about change in the livelihood of the African woman farmer who lives on less than \$2 dollars a day, and produces about 50 percent of food needs in the developing countries.

### CWMP to hold 2015 Annual Work Planning Meeting

The 2015 Annual Review & Work Planning Meeting of the Cassava Weed Management Project will take place at the International Conference Center, IITA-Ibadan on the 29-30 April 2015.

The meeting aims to review progress as well as plan for the implementation of activities in the upcoming months, for each of the project's dimensions and work streams along with the partners of the projects. During the Work Planning Meeting, the project will be strategizing on best possible ways to achieve targets set for the second year.

## IITA DDG (Research), Dr Ylva Hillbur, commends Cassava Weed Management Project team

The Deputy Director General (Research), International Institute of Tropical Agriculture, Dr Ylva Hillbur has commended the IITA Cassava Weed Management Project team for the progress made so far in addressing the problem of weeds in cassava.

The DDG who paid a courtesy visit to the Weed Science Center also spoke on the need to revive research in weed science generally, stating that the issue of weeds is everywhere across the world, hence it should be mainstreamed into agricultural systems.

She urged the team to publish findings from the research, stressing that communication was critical to the success of the project.

Dr Alfred Dixon, Project Leader for the IITA Cassava Weed Management Project, agreed with the propositions of the DDG, and promised that evidence based results would be published in scientific journals.

He explained that the center aimed to get more graduate students to become researchers in the weed science field as there were very few weed scientists in Africa. The Project Leader further disclosed that the project is presently building the capacity of the National Root Crops Research Institute (NRCRI) to be able to take over the leadership of the project in year 4.



*Dr Hillbur (left) and CWMP team inspecting the Weed Science Center*

Prof Ekeleme, Principal Investigator explained that the project had five strategic objectives: agronomy, screening of environmentally friendly herbicides, integrated weed management, scaling out, and management. “Another important aspect is mechanical weed control,” he said, and added, “Presently, we are targeting 125,000 farmers with key focus on women and children.”

The Communication and Knowledge Exchange Expert, Mr Godwin Atser, gave a progress report on the communication and

knowledge exchange efforts, and highlighted the online presence of the project as well as the Training Needs Assessment that is aimed at understanding the information/knowledge gap of Agricultural Development Program staff with regards to weed management in cassava.

He said that another useful research underway is the Knowledge, Attitudes and Practices (KAP) study that would help researchers to understand current knowledge and practices that farmers are using in containing weeds on farms.

## Heads of partner institutions thumbs up progress made by CWMP team



*R-L: Dr Yemi Olojede (NRCRI), Godwin Atser, J.C. Okonkwo, Friday Ekeleme, Ezinne Ibe, and an official of NRCRI during a visit to the Institute in Umudike*

Heads of implementing partner institutions comprising the National Root Crops Research Institute (NRCRI), Umudike; Federal University of Agriculture Abeokuta (FUNAAB), and the University of Agriculture Makurdi (UAM) have given kudos to the excellent progress made by the Cassava Weed Management Project (CWMP) which is led by the International Institute of Tropical Agriculture.

In a briefing session with the CWMP team on 23 March in Makurdi, the Vice Chancellor of the University of Agriculture Makurdi, Prof Emmanuel Kucha reechoed the support of the University to the project. Prof Kucha who was represented by the

Deputy Vice Chancellor of UAM, Prof John Ayoade said the equipment donated to the University by the project were of great help to research. He thanked the team for efficient and effective sharing of information on the activities of the project through the newsletter and social media, and also called on other projects to emulate the CWMP.

At the NRCRI, the Executive Director, Dr J.C. Okonkwo also lauded the milestones and praised the capacity building efforts of the project.

He promised that his institute would continue to provide the necessary support to ensure that the project attains its goals and

impacts positively on the lives of farmers. Dr Okonkwo on 24 March pledged to ensure that the project’s assets and research trials were protected.

Demonstrating his commitment to the Project, the NRCRI boss promised to release additional 4 hectares to the CWMP for trials this season at Utobi in Benue state.

On 25 March, the Vice Chancellor of the Federal University of Agriculture Abeokuta, Prof O. B. Oyewole said his University was glad to be part of the CWMP. He emphasized that the results from the project would be useful to the society in general, and the advancement of the productivity of cassava in Nigeria.

Earlier the Principal Investigator of the IITA-CWMP, Prof Friday Ekeleme; and the Communication & Knowledge Exchange Expert, Mr Godwin Atser made oral presentations on the activities of the project in the outgoing year and plans for this year. Prof Ekeleme said the successful implementation of the activities of the project last year was a joint effort involving partners from NRCRI, FUNAAB, UAM and IITA under the leadership of the Project Coordinator, Dr Alfred Dixon.

Prof Ekeleme called on partners not to rest on their laurels but to redouble their efforts and commitment to attain the project’s milestones this year.

The visiting team which also had the Project Administrator, Mrs Ezinne Ibe, took time to visit experimental farms across the various partner institutions.

## Agronomy trials: Harvesting cassava “the correct way”

A training course on correct cassava harvest in 5 factorial agronomy trials was put together recently for partners of the Cassava Weed Management Project as well as other units in IITA. The training which took place at the Vigna Room was an opportunity for participants to learn the proper process of harvesting cassava and gathering data with limited errors.

Dr Stefan Hauser at the beginning of the training advised participants to be involved in the practicals not only to learn how to harvest cassava alone but also to have a good understanding of the reasons to do research on cassava weed control and the different processes involved. During the training, he stated that there were several factors such as variety, density, fertilizer, tillage, planting systems – intercropping, that need to be considered during cassava planting to ensure good yields.

Prof Friday Ekeleme who was also present at the first day of the 3-day training advised participants to endeavor to make good use of the training, and to seek clarifications when in doubt.

Speaking on the importance of border plants, Dr Hauser explained: “These are planted to protect cassava plants in the main plot and to create homogenous conditions in relations to light, water and nutrients. They also serve as backup for damaged plants in the main plot in some cases.”

Dr Hauser stated that weed control was a critical issue and many farmers suffer from the negative effect of weeds on their cassava fields. He said it was important to look at areas of using best agronomic practices, and herbicides that may not completely kill the weeds but give the cassava an advantage over the weeds. He added that control measures



*Field demonstration on cassava harvesting*

were needed so that Nigerian farmers could produce more cassava.

During an interactive session, some of the participants were reminded to always take canopy shots as this allows a better understanding of data and also helps in data collation.

There were two days of practical field training for the participants where they had to translate the protocol into action and to set up the facilities to conduct proper harvesting. This included setting up a weighing station, setting up the balances correctly, organizing the team that does the different steps and collects the data the correct way.

In a feedback session, one of the participants, Rebecca Enesi said that the training was a good development which was of great help to her.

Questions were asked by participants on

how to deal with the balances during certain weather conditions, and how to handle power failure situations etc. Dr Hauser gave practical examples on the field of how to handle these situations that were raised by the participants.

He divided the participants into two groups during the field training and assigned harvest supervisors to organize and monitor the activities of the participants to ensure that the correct harvesting procedure was being followed as he had shown on day two.

The 3-day training came to an end with Dr Hauser addressing the group, asking participants to repeat the entire procedure and encouraged corrections if any deviation from the protocol was observed. The training ended with the distribution of batteries to run the balances and sample paper bags to the partner representatives of the Cassava Weed Management Project to ensure all partners have sufficient materials to conduct the harvest correctly.

## Preliminary set up for effective extension gains momentum

The Cassava Weed Management Project is engaging the Agricultural Development Programs (ADPs) in Nigeria as part of efforts towards successful extension of research outputs to farmers.

As part of preliminary set ups for effective extension, the Communication & Knowledge Exchange Expert, Godwin Atser, early this year, made sensitization visits to four ADPs across major cassava growing zones in the country. Specifically, he visited and interacted with extension officers in Oyo, Benue, Ogun, and Abia states. During the visits, the ADP Program Managers agreed in principle to work with the CWMP.

The Program Manager for Oyo State ADP, Mr Victor Atilola welcomed the involvement of the ADPs at the early stage of the project. Also the Program Manager for Abia State ADP, Enyinnaya Elekwachi expressed his total support and participation in the project, while the Program Manager of Benue ADP, James Ker assured that his organization would actively participate in the project. The Program Manager, Ogun State ADP, Mr I. A. Onasanya pledged that



*R-L: Drs Mary Agada (UAM), Moses Egbe (UAM), James Ker (Benue ADP), Godwin Atser (IITA), and another official of the Benue ADP during TNA sensitization visit*

his organization was ready to work with the CWMP team.

The tour of the ADPs which was at the instance of the Project Leader, Dr Alfred Dixon provided opportunity for

the Communication & Knowledge Expert to sensitize the change agents on the forthcoming Training Needs Assessment, and to seek their support for the exercise which comes up later this year.

## SON to work with IITA Cassava Weed Management Project team

Nigeria's standards regulator will work with the Cassava Weed Management Project to tackle weeds ravaging cassava fields in Africa, says the Director of Standards Organization of Nigeria (SON), Dr Joseph Odumodu.

The commitment by SON is amid growing concerns over the threat of weeds to cassava production in the country which has kept productivity low and behind other cassava producing nations of Asia.

"Innovations and standards are correlated. So we would want to collaborate with you," Dr Odumodu said during a courtesy visit to the headquarters of SON in Lagos on 2 March.

The Cassava Weed Management Project which is managed by the International Institute of Tropical Agriculture (IITA), and implemented in collaboration with the National Root Crops Research Institute (NRCRI), Federal University of Agriculture Abeokuta (FUNAAB), and the University of Agriculture Makurdi (UAM) is developing innovations that will reduce drudgery associated with weeding in cassava farms.

The project is exploring a mix of best bet agronomic practices, mechanical weed control, and the use of environmentally friendly herbicides to tackle weeds.

Project Leader, IITA Cassava Weed Management Project, Dr Alfred Dixon said research findings from the project would help reduce the burden faced by women and children.



L-R: Drs Joseph Odumodu (4th from left), Alfred Dixon, Friday Ekeleme and other officials of SON and CWMP during a courtesy visit in Lagos

"It is estimated that women spend about 500 hours per annum to weed, and their children's education in most cases is compromised as they are withdrawn from school to take care of cassava farms," Dr Dixon explained.

He commended the SON for agreeing to work with the research team, and to bring on board SON's expertise in the area of standardization.

The Principal Investigator, IITA Cassava Weed Management Project, Prof Friday Ekeleme said working with SON and other regulatory agencies would bring benefits to farmers.

He explained that weeds were major constraints to cassava, as they undermine the yield and productivity of the root crop.

"In cassava field where weeds are not properly managed, yield reduction of between 50-80 percent is observed. For instance, if you don't weed spear grass (*Imperata cylindrica*), you stand to lose 80 percent of your cassava," he said.

While expressing concern over the prevalence of obsolete herbicides in the Nigerian market, Prof Ekeleme said the team was carrying out herbicides residue analysis of some herbicides and would request SON's collaboration in that area.

Other agencies which the IITA Cassava Weed Management Project is partnering with include: the National Agency for Food and Drug Administration and Control (NAFDAC), and National Environmental Standards Regulatory Enforcement Agency (NESREA).

## IITA-CWMP and Bayer organize training on application techniques and safe use of pesticides



From the archive: A practical demonstration session

The Cassava Weed Management Project being led by IITA is organizing training on the application techniques and safe use of pesticides for field technicians/workers, farmers, research associates, agripreneurs, and other interested participants.

The training which will take place at the Vigna Room of the International Institute of Tropical Agriculture, Ibadan, Nigeria will draw resource persons from Bayer

Crop Science, and will focus on equipment calibration, herbicide calculation, herbicide application on small and large plots, safety precautions in handling, mixing, storage, transportation, disposal of used containers, managing spills, equipment maintenance, weed control rating of individual and total weed spectrum, crop injury rating, and regulatory issues.

Participants are expected to have basic understanding of application techniques, use of herbicides and pesticides as there will be theory and practical sessions during the training to ensure that at the end participants will learn better techniques for pesticide application, know safer ways of handling and applying pesticides, while becoming more knowledgeable on pesticides and the usage.

The training will take place on 27 – 28 April 2015 and attracts a fee of \$300 or equivalent in Naira, CFA or Euro. This covers group lunch, coffee/tea break, course materials and certificate of attendance to be issued at the end of the training workshop.

The deadline for registration is 20 April. Late registration /cash payment on arrival will attract additional \$100 and all participants are expected to arrive by Sunday, 26th April. Participants will be responsible for their accommodation and

dinner for the duration of the training. All participants interested in IITA guest house or other hotels around IITA should please contact [e.ibe@cgiar.org](mailto:e.ibe@cgiar.org) three weeks before the start date.

### Steering Committee meets 4-5 May 2015

The Steering Committee of the CWMP will meet in Ibadan for the second time to review the progress made by the project and also advise on areas that would bring greater benefits to the project. The Steering Committee meeting will be chaired by the Executive Director of the National Root Crops Research Institute (NRCRI), Umudike, Dr J. C. Okonkwo.

### Cassava Weed Management Project Partners

