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Nigeria Agriculture Policy Activity

May 2022

NAPA Highlight 16

STATE THREE (3): USAID NAPA FUNDED SOIL TESTING AND SOIL PRODUCTIVITY INDEX RATING AND DIGITALIZED MAPS IN NIGERIA.

Owing to the distinct agroclimatic zones across the country, Nigeria, soils vary along these zones. The need to test soils to improve and maintain soil health, preserve biodiversity, ensure increased food production with, effective utilization of inorganic fertilizer to curb GHGs emissions which will invariably impact on climate change cannot be over emphasized.

The pilot study on soil testing and soil productivity index ratings of small holder farmers (to generate digitalized soil maps as a management tool in the country) began with Benue and Kebbi states. The third state Ebonyi, one of the eight focal states under the Nigerian Agricultural Policy Project (NAPP) and the Nigerian Agricultural Policy Activity (NAPA) was our next port of call.



Initial consultations with the farmers and the ADP leader for the LGA in focus

The pilot study team comprised of faculty and graduate students of Ebonyi State University Abakaliki, Joseph Sarwuan Tarka University Makurdi and ADPs personnel of the 13 Local Government Areas (LGAs). We visited 10 farmer fields in each of the 3 council wards of the 13 LGAs in the state. Although for two LGAs (due to the distance) we visited only two council wards as against the 3 council wards defined in the study. To ensure we met gender requirements, we had female graduate students on the team. The students and ADP personnel were guided to build their capacity for taking soil samples practically in the field for the different soil parameters under investigation. The sampling of soils from the farmer fields lasted for 10 days.

Ebonyi State is located in the transitional agroclimatic zone between the Southern Guinea Savannah and the Rain Forests. The agroclimatic conditions in the state have a significant impact on soils. Observations in the field showed differences within a field with large variations in pH values as the latitude decreased.



A student, digging through hard pans at lower depths during soil sampling and teaching the students ways to collect samples through the various depths specified

Our day usually began with team members meeting with the ADP personnel in charge of the LGAs. These personnel would have assembled the farmers of the local government area prior to our visit. The team was divided into two groups and because we were also working with the team for the climate study, the division allowed us to have the enumerators in the field to conduct the interviews while we took the farmer fields' soil samples.

The farmers were all excited that their fields would be tested with expectations that the outputs will be put into use to improve their yields. On the field interacting with the various farmers, we listened to their concerns and proffered solutions as much as we could. The trainees were taught how to create perimeter/within field bunds (high ridges) to segment their farm fields to channel excess water as well as to help with better micromanagement. Mulching was also emphasized since farmers did not need to look far, for the relevant materials as they do in the north where vegetation is scarce.



Teaching the farmers and some ADP staff how to make perimeter/within bund

On 29 April 2022, a one-day training and interaction session took place. Preliminary findings were presented to stakeholders drawn from the state's Ministry of Agriculture, Ministry of Environment, the Academia, Nigeria Agricultural Insurance Commission (NAIC), ADPs and the Media. The

Commissioner of Agriculture and Natural Resources Ebonyi State Chief (Dr.) Moses Ogodoali Nomeh spoke on the value addition this soil testing exercise would bring to farmers' productivity and the environment. He further thanked the organizers and sponsors USAID, NAPA for finding his state worthy of support. He pledged good use of the outputs of the project.

Soil samples are being prepared for a deeper probe in the laboratory, in order to create the soil nutrient and soil productivity index rating digitalized maps.



Presenting Preliminary findings from the field at the one-day workshop in Abakaliki

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