

Nigeria Agriculture Policy Activity

September 2021

NAPA Highlights #7

WELLBEING OF THE SOIL, PLANTS, HUMANS AND THE PLANET:

Bridging the Gap in the Nigerian Farmer/Extension Worker Ratio.

I was a USAID Feed the Future Nigerian Agricultural Policy Project (NAPP) visiting scholar to Michigan State University (MSU) USA in 2018. This singular experience has impacted me and countless others beyond words. I was under the tutelage of my MSU adviser, Prof. Sieglinde Snapp, who exposed me to concepts of sustainable intensification (SI). The concept seeks to increase food security amidst dwindling land resources with minimal effects on the environment. We explored ecosystem services, synergies, trade off(s) looking at holistic ways of problem solving. Her works, from those on doubled-up legumes and the novel “mother-baby” trials to those on soil nitrogen, phosphorus, and carbon pathways, all geared towards improving soil fertility had a lasting impression on me. Reviewing my Ph.D. research work on soil loss in Nigeria and its antecedent effect on agricultural productivity (for most crops in the Sub-Saharan Africa SSA, yields were still below global averages) we knew we had to work on ways to improve productivity given projection of population increases.

NAPP has been instrumental in broadening my scope of research from plot/field scale to state/region scale while establishing connections with policy development in research institutions and government organizations. It has thus, built my capacity in writing policy briefs, translating research findings into simpler reports and indigenous languages, for ease of use by smallholder farmers (SHFs) and other stakeholders within the agricultural landscape. Invariably, boosting productivity and economic livelihoods of SHFs and communities at large.

My training had a ripple effect on 1) Professors and lecturers in Nigerian Universities of Agriculture and other Nigerian universities, 2) personnel of Monitoring and Evaluation departments of State Ministries of Agriculture and Rural Development (SMOARD) across Feed the Future focused states and value chains, 3) University students, 4) farm and research assistants, 5) small holder famers and 6) communities. The motto of “Train One to Train Others” found fulfillment in a significant number of lives.

The soils of Nigeria are varied in type and characteristics. Generalized fertilizer recommendations have left yields well below global averages. We need to do things differently to achieve our desired goal of increasing agricultural productivity sustainably. One such way is through soil testing and soil productivity index (PI) rating maps. This will serve as a management tool in the hands of farmers, land users and agricultural extension agents.

The proposed soil tests across the six (6) geo-political zones of Nigeria, will follow the model used for Benue State where Students of the Faculty of Agriculture at 400 level (during their Industrial attachment) will be trained and assisted in soil sampling, testing and the documentation process. These students will gain practical knowledge of good agronomy skills that can be passed on to the others. The farmers and farmer groups will be purposefully selected along the lines of crop production of the test crop and soil susceptibility to erosion.

Healthy soils are the foundations of the food system and allies for food security and nutrition. Over 95% of food produced are directly or indirectly grown on soils

while still serving to mitigate climate change by maintaining or increasing its carbon content. Using the results of soil testing will help us increase the quantity and quality of food produced in Nigeria.

Expected outcome/Deliverables

1. A soil nutrient database that can be easily accessed
2. Geo referenced soil productivity index rating map
3. Maps to be a tool for site – specific fertility management and planning
4. Publications

Impact/Target

Ten local government areas (LGAs) in each of the six states selected from the six geo-political zones of Nigeria¹ i.e., 180/210 council wards of 60/70 LGAs corresponding to 1,800/ 2,100 farmers/farmer groups following any scenario. It is expected that a total of 5,400/6,300 samples will be collected and processed to empower men, women, youth, and cooperative societies as well as cluster farmers with a tool to plan, set, and surpass yield goals.

The number of 400 Level students across the universities of agriculture within these zones will vary, However, if we use 1,000, the number of students trained at the Federal University of Agriculture Makurdi, Nigeria, we get the estimate of 6,000 or 7000 students with 2,100 farmers, totaling 8,100/9,100

persons for this phase. These trained students will belong to a database transitioning to be government agricultural extension agents thus bridging the gap in the current farmer/extension worker ratio, pegged at 10,000:1 by the National Bureau of Statistics (NBS).

Summary of People Directly Impacted

Phase I = 3 Council wards 3 LGAs, 270 samples

Phase II = 3 Council wards 7 LGAs, 600 samples

Phase III = 3 Council wards 60/70 LGAs, 5,400 or 6,300 samples

Grand total of number of persons that will be impacted directly = 8,100/9,100 and countless numbers of those impacted indirectly.

Notes

- A Gnat chart/Budget will be prepared for how activities will be carried out when we decide on the states.
- Decision on where soil samples will be analyzed so we can meet deadlines and I can do follow up visits. Facilitating the model so PI values are calculated on time.

By Dr. (Mrs.) Blessing Agada

¹ The same approach could be applied to focus on USAID Focus states

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