# AGMCP MEMORABILIA

BY ENOCK ASANTE OSEI (Mentee)

# INTRODUCTION

- NAME OF FELLOW: Enock Asante Osei

- (PREVIOUS) PORGRAMME(s) OF STUDY: MPhil Irrigation & Drainage Engineering (University for Development Studies, Tamale, Ghana), BSc. Agricultural Engineering (Kwame Nlkrumah University of Science and Technology, Kumasi, Ghana)

- RESEARCH INTEREST: Climate Change and Variability, Water-Energy-Food Nexus, Agrometeorology.

- ASPIRATION: To be an astute academic with the prowess to translate ideas into actions and workable solutions.

# FELLOWSHIP EXPERIENCE AND OUTPUT

- Joined as a fellow of the African Graduate Mentorship and Coaching Programme in December 2022.

- I was assigned to Professor Desalegn Yayeh Ayal my mentor, and our first link up was via WhatsApp call.

- Professor Ayal's research interests are climate change adaptation, mitigation and disaster risk management.

- The usually channel of communication has been e-mails.

# FELLOWSHIP EXPERIENCE AND OUTPUT

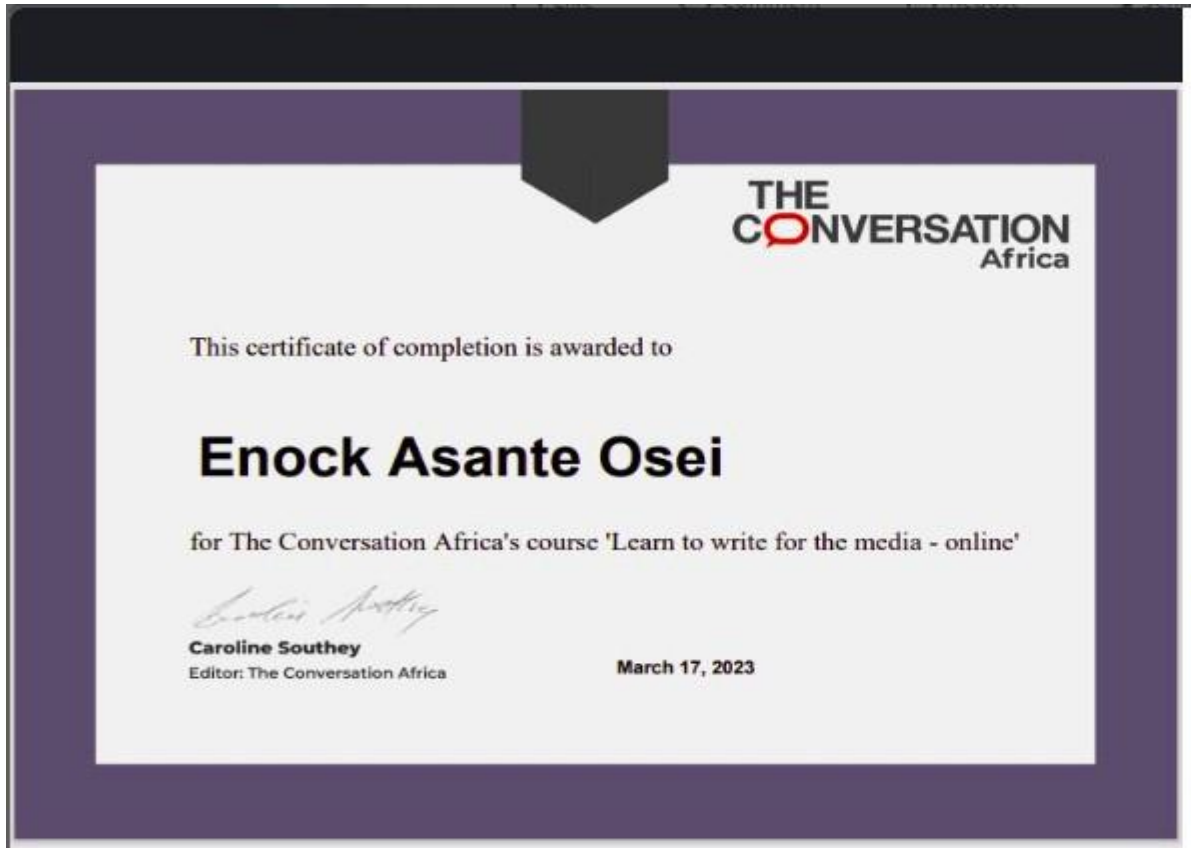
- During the fellowship year, I gained a lot of knowledge in the monthly as well as some publications on the WhatsApp page. They included but not limited to;
- Farming systems in Africa - African food systems & CAADP
- Short course on science-policy communication
- Grant proposal writing & research management
- Marriage relationship and work-life balance

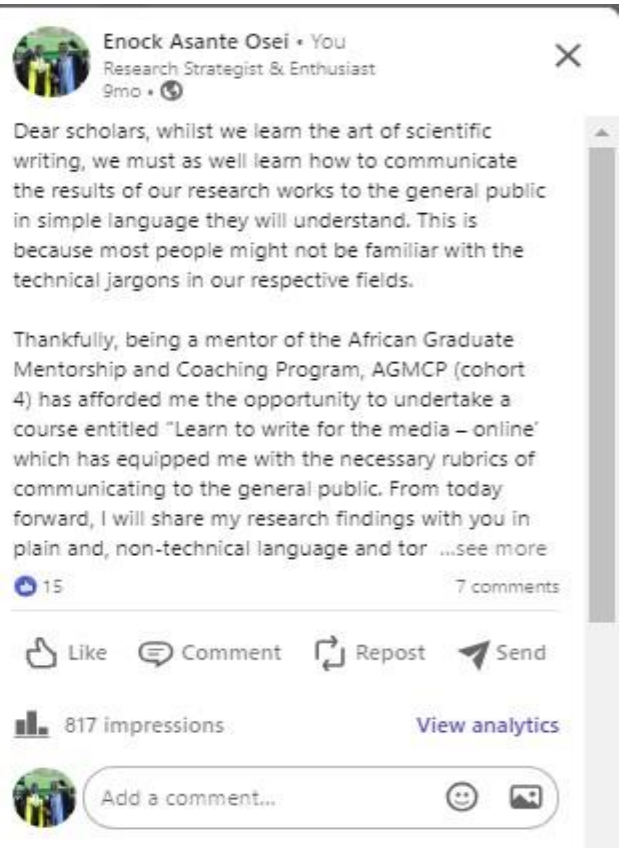
# Impactful Fellowship Year Programs

| Month | Webinars/Short Courses/ Conferences |
|---|---|
| January | Inception & goal-setting |
| February | Farming systems in Africa - African food systems & CAADP |
| March | Short course on science-policy communication |
| | Short course on Resilience Index Measurement and Analysis |
| May | Circularity Africa Conference |
| June | Grant proposal writing & research management |
| July | Scientific publications |
| August | Data analytics (qualitative & quantitative analysis) |
| October | Grant proposal writing |
| November | Marriage relationship and work-life balance |

# ACCOMPLISHMENT

- I obtained a certificate for The Conversation Africa's Course 'Learn to write for the media-online'.



# ACCOMPLISMENT 2/2

- Abstract Accepted for the Circularity Africa Conference, and published in the book of abstracts.

Africa Graduate Mentorship and Coaching Programme (AGMCP)

Climate variability and change has greatly impacted most sectors such as the agricultural sector, particularly in sub-Saharan Africa where most crops are produced under rainfed conditions by smallholder farmers. Unlike cash and high-value crops, for most staple food crops coupled with small scale of production, farmers do not consider the need to invest in irrigated agriculture which has been proven to be cost-intensive. To this end, farmers schedule their planting calendar to meet the rains. The impact of climate variability and change necessitates a review of time-honored planting period for most staple food crops in Ghana to realize high yield even under rainfed conditions. Based on indigenous knowledge-based weather forecasting, farmers in Ghana have specific months in the year they plant the various food crops. However, farmers sometimes miss the timings of the rains, leading to crop failure and many times low yield. The objectives this study will be to determine: the crop water requirement of (selected) food crops in Ghana; the planting months and production hotspots for the various crops; suitable months in the year to plant each crop in relation to the Crop's Water Requirement for the entire growing period. This research is necessary to ascertain which months in the year have lower irrigation water requirement and where water savings can be made for staple food crops in Ghana. A long term (1989 – 2021) climatic data (minimum and maximum temperatures, humidity, wind speed, and sunshine hours) and rainfall data for the production hotspots for the selected staple food crops will be sourced the Ghana Meteorological Agency and compared with Climwat (version 2.0) FAO data for consistency checks. Soil and plant data will be sourced from literature. FAO CROPWAT 8.0 model will be used for estimation of crop water requirement of the various staples that will be selected. Crop water requirements for most staple crops are not met due to climate variability and usage of old planting schedules by farmers.

**Keywords**: Climate change, Food Crops, Planting Period, Crop Water Requirement

# Challenges

- 1. Work schedules usually conflicting some monthly webinars.

- 2. Internet connectivity was a major issue.

# APPRECIATION

- I achieved my aim for applying for AGMCP as I was able to connect with others.
- I am glad to be a part of this wonderful fellowship (AGMCP Cohort 4)
- I would like to say thank you to the management of AGMCP for their contribution to my career life.
- Last but not least, a very big thank you goes to my mentor for his time and input in the person I aspire to become.

## Contact Information


- Name: Enock Asante Osei
- Email: enockos2098@uds.edu.gh
- Telephone: (+233) 542768276
- ORCID: https://orcid.org/0000-0002-5526-2863
- Google Scholar: Enock Asante Osei