

# AEM 301 Lecture 16

Implementation of a research project

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# Assumptions

- You have completed the research proposal
- Ready to embark on the research
- There is clarity on the time frame
- Resources (Money) is available
- Geographical location is finalized
- All systems go
- Ready for take off
- Have established the the goal

# 3 hypothetical sites

Lets use three scenarios

- 1 Stationed at LARMAT faculty of Agriculture
2. The student is back at home County of origin with a defined research topic
3. The student is based in Nanyuki on one of the ranches investigating best bee keeping technology

# 1. Communication

- Irrespective of the location, communicate with the right persons on when you will start the work
- Take time to prepare what you will need for 2-3 months
- Interrogate your work plan to ensure there are no logistical encumbrances
- If you are going out of Nairobi make sure you have collected the right tools, material e.g. GPS thermometers, note Book etc

## 2. Prepare a desk study

- All to Know the infrastructure of the labs, field, the ranch or the beach on the lake you will be studying
- Upon arrival introduce yourself to the head of the ranch, or beach manager or chief of whoever is in charge
- Go down to know the technical staff who are critical for your research
- Map out your specific project domain

### 3. Kabete based student

## Focus on Laboratory and greenhouse experiments

- Revisit your laboratory methods to ensure the reagents, manual etc are available
- Check whether items of equipment, glassware, pots are free or to be purchased
- Ask for green house space, transport to move items, permission to use specialized expensive equipment, irrigation facilities, office space, Establish source of soil, animals, seeds etc.

# Kabete based student cont

- Regularly consult your supervisor
- Cultivate cordial relationships with technical staff
- Be prepared to observe and record your experiments in the lab and green house at odd times. When labs are closed make sure you can have access
- Process your samples for analysis as appropriate

## 4. Lake Victoria Lwanda Kobiero

### Focus on Fish and beach management

- Administer the questionnaire section on beach management and fish availability including decline of species
- Observe the state of hygiene in the area and record statistical data on trade, income population of people, transport of fish to major towns
- Record and discuss challenges of small fishers;
- Ask what value your research is adding



# Lake Victoria Luanda Kobiero contd

- Take landed fish sample for analysis on Pb, Cadmium Hg, etc
- Take water sample for onward analysis at Labs in Nairobi
- Investigate indigenous knowledge how the area has changed over time and which fish species have disappeared;
- Liaise with Siaya County Government esp those in charge of fisheries etc

## 5. Nanyuki Ranch student Focus on bee keeping

- Establish contact with bee ccop
- Document how the farmer has managed his bee hives over the years
- Determine whether he is using the latest design of bee hives
- Record honey collection and processing facilities
- Volunteer to assist the rancher on odd jobs as time allows

# Nanyuki based student

- If accommodated at the ranch practice good behavior
- Take photos as much as possible
- Get information on weather records for past and present
- Talk to local people on your topic and related areas
- Keep a daily diary and detailed note book

# Students out of Nairobi

- Identify a local supervisor or expert/technologist
- Obtain as much data from the county based institutions, NGOs
- Interact with other players, researchers in the neighborhood;
- Maintain regular contact with your supervisor
- When you come across obstacles seek for amicable solutions

# Students out of Nairobi

- As your project comes to an end thank your host
- Hand in all borrowed material and leave your site better than you found it
- Pack any specimens or materials for analysis in Nairobi as best as possible;
- Inform LARMAT technologist that you will bring samples from the field

# For all students

- The data and information you have collected are most valuable asset of your research;
- As you conduct further analysis make sure the data is in a safe custody
- Embark on report writing as soon as possible
- If data is missing from certain sample do not cook the data
- Consult with a biometrician as you analyze your data

# Conclusion on Research project implementation

- Be in charge and remain on the ground all the time;
- In case you must delegate to subordinate staff, provide clear instructions and still supervise
- Recall research ethics
- Remember to share the final results and conclusion with the hosts/stakeholders who supported you
- If you were sponsored ensure that respective institutions are acknowledged

# Conclusion on Research project implementation

- Report your results at a seminar with class
- Take action on comments and observations
- Revise the report and discuss with your supervisor;
- Submit the report preferably three week before final semester examinations;
- The report should present results in tables, graphs, histograms, pie chart etc;
- Good photography convey powerful messages



# Finally

- Prepare your report in a publishable journal format and submit to Dr Anne Karuma.
- The Journal article piece will bear your name as first author and the supervisor as the second author;
- These Journal like pieces are posted in LARMAT website;
- This gives you immediate visibility that you implemented a research project

# Sample Abstract of student Project

- See 3<sup>rd</sup> Years Student from Colorado State University in collaboration with LARMAT Range Management

# Sample of Budget template

# Work Plan Template