

Understanding the Livelihood Objective in Catchment Management Plan (CMP)

BY

Dr S.S. Mailumo

**Deputy Provost, Federal College of Forestry Mechanization,
Afaka, Kaduna State**

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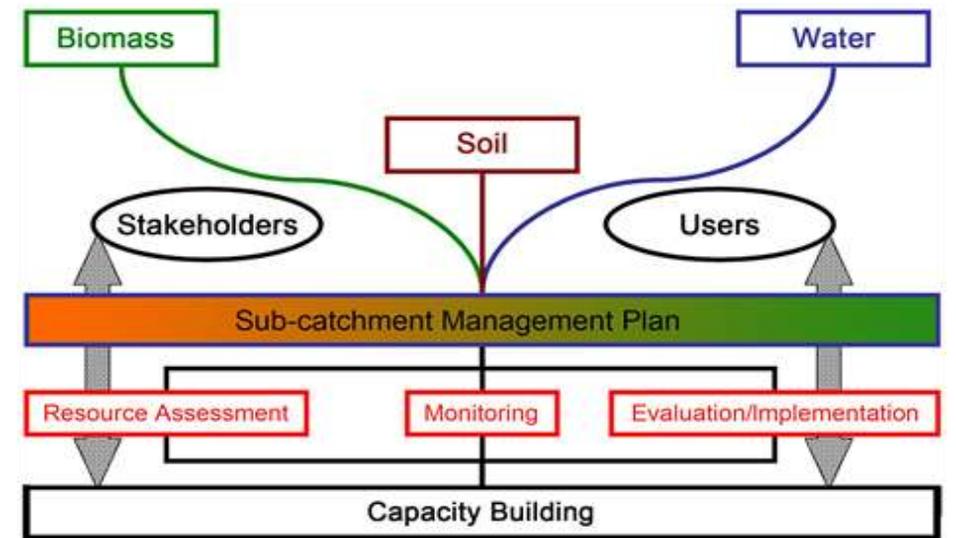
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1. What is a Catchment

- A catchment is defined as a discrete geographical unit with boundaries derived primarily from surface water considerations, comprising one or more hydrometric sub-catchments.
- Other authors also defined a catchment as the drainage area that contributes water towards a particular point along a channel network or a depression, based on the surface topography.
- The water is called runoff if it stays on the top of the land or groundwater flow if it soaks into the ground.

1.1 Catchment Management

- Management: In the context of CMP, management is the effective control of catchment resources and demand, ensuring protection of catchment uses.
- Catchment management is a subset of environmental planning which approaches sustainable resource management from a catchment perspective
- This is in contrast with a piece meal approach that artificially separates land management from water management.

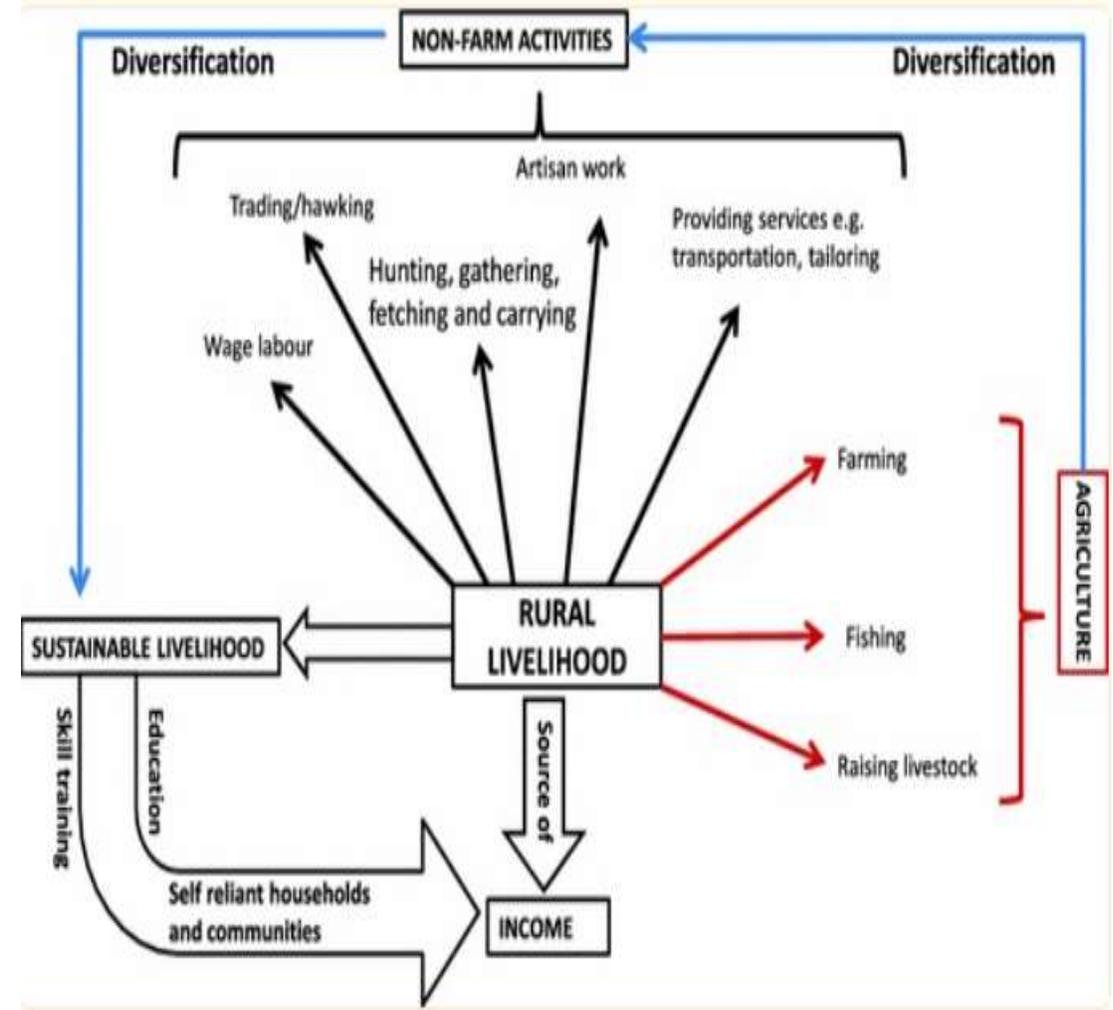


1.2 A Catchment Management Plan

- Catchment Management Plan (CMP) is a multifunctional approach to the management and protection of the aquatic environment.
- Catchment Management Plan could also be seen to refer to the process by which the problems and opportunities resulting from water-related catchment uses are assessed and action is proposed to optimise the overall future well-being of the water environment
- Thus, policies for the management of individual catchments are developed and implemented.
- A CMP provides a long-term strategy for sustainable development and utilization of water and related resource.
- CMP attempts to blend the objectives of environmental protection, sustainable agriculture, and natural resource management within catchments, together with the principles of ecologically sustainable development.
- Data is very important in developing a CMP

2. Definition of Livelihoods

- A Livelihood can be defined as the activities, the assets and the access that jointly determine the living gained by an individual or household.
- Specifically, when it comes to an individual, a livelihood is the ability of that individual to obtain the basic necessities in life, which are food, water, shelter and clothing.
- Therefore, all activities involved in finding food, searching for water, shelter, clothing and all necessities required for human survival at individual and household level are referred to as a livelihood.



2.1 Livelihood Determinants

- **Gender:** where a livelihood is determined by the gender of an individual.
- **Inherited;** where an individual takes up a livelihood that has been passed on in the family, for example cultivation, pastoralists, fisherman, shopkeeper, artisanal work, etc.
- **Spontaneous;** that are taken up due to desperate situations where what an individual does is in principle determined by social economic and ecological situation.
- **Education;** where qualifications/training determine which field of work an individual can exploit.



2.1 Some of the activities that fall under rural livelihoods include (cont)

- Agriculture (Cultivation, farming);
- Animal herding including livestock farming;
- Hunting and gathering
- Wage labour
- Trading and hawking
- Artisan work, for example, weaving and carving;
- Providing services in transport and other available services;
- Fetching and carrying;
- Bakery;
- Basket weaving



2.2 Importance of Livelihoods

- **Basic needs:** Livelihood is crucial for meeting basic needs and ensuring survival. Without a source of income or means of sustenance, individuals and communities may struggle to access food, water, healthcare, and other necessities.
- **Economic stability:** Livelihood is also important for achieving economic stability. A stable livelihood allows individuals and communities to plan for the future, save money, and invest in education or training to improve their prospects for the long-term.
- **Social connections:** Livelihood can also foster social connections within communities. For example, work can provide opportunities for collaboration, cooperation, and networking with others, which can lead to greater social capital and community resilience.
- **Dignity and self-worth:** Livelihood is important for fostering a sense of dignity and self-worth among individuals. Being able to provide for oneself and one's family can boost self-esteem and provide a sense of purpose and meaning in life.

3. Sustainable Livelihood

- In simple term, sustainable livelihood refers to benefitting from a livelihood activity in perpetuity
- The sustainable livelihood approach offers a holistic and integrative approach with the capacity to analyse and understand the complexity of rural development.
- The five assets in sustainable livelihood are *human capital, physical capital, social capital, financial capital and natural capital*.
- These assets play an important role in survival strategies both in rural and urban livelihoods.

3.1 Catchment Management and Livelihoods

- It is therefore very clear that there is an intrinsic relationship between catchment and livelihoods.
- For the sustenance of any economic activity by humans, there is an urgent need to manage the natural resources of **land and water** for the common good of humanity.



4. Objectives of Data Collection in CMP

The broad objective of data collection in CMP study is to collect first-hand information from those who earn their livelihoods from the catchments.

Data collected and the subsequent interaction and training is to assist in developing an integrated Catchment Management Plan.

The specific objectives of the interaction include to:

- sensitize households in the catchments on the causes of environmental degradation, sustainable ways of utilizing the environment and the relationship between poverty and environmental degradation.
- sensitize households in the catchments on how to sustainably maintain their CIGs for enhanced livelihoods and entrepreneurship development in line with PDOs.
- liaise with the vulnerable households in the catchment and develop an implementable CMP that will ultimately alleviate poverty and enhance livelihoods.

5. Methodology

- The methodology for conducting the assessment on livelihoods objective of CMP will involve *Data Collection* and *Sensitization or Interaction* with the residents of the catchments.



5.1 Data Collection

Qualitative Methods

- *Key informant interviews*
- *Focus group discussions (FGD)*
- *Government officials*
- Finally, the consultant(s) employs documentary data and secondary literature such as journals, books, government reports, unpublished reports and the internet

Quantitative Method

- A questionnaire should be developed to capture information on the indicators of interest (*The questionnaire should be administered through mobile devices equipped with the Open Data Kit (ODK) software*).

5.4 Basic questionnaire information

The questionnaire should seek information on:

- Socioeconomic characteristics of Households
- Agricultural activities of Households
- Households assets
- Agricultural and non agricultural income
- Household expenditure
- Livelihoods diversification
- Environmental degradation & management
- Any other info penciled in the ToR



Data Collection (cont)

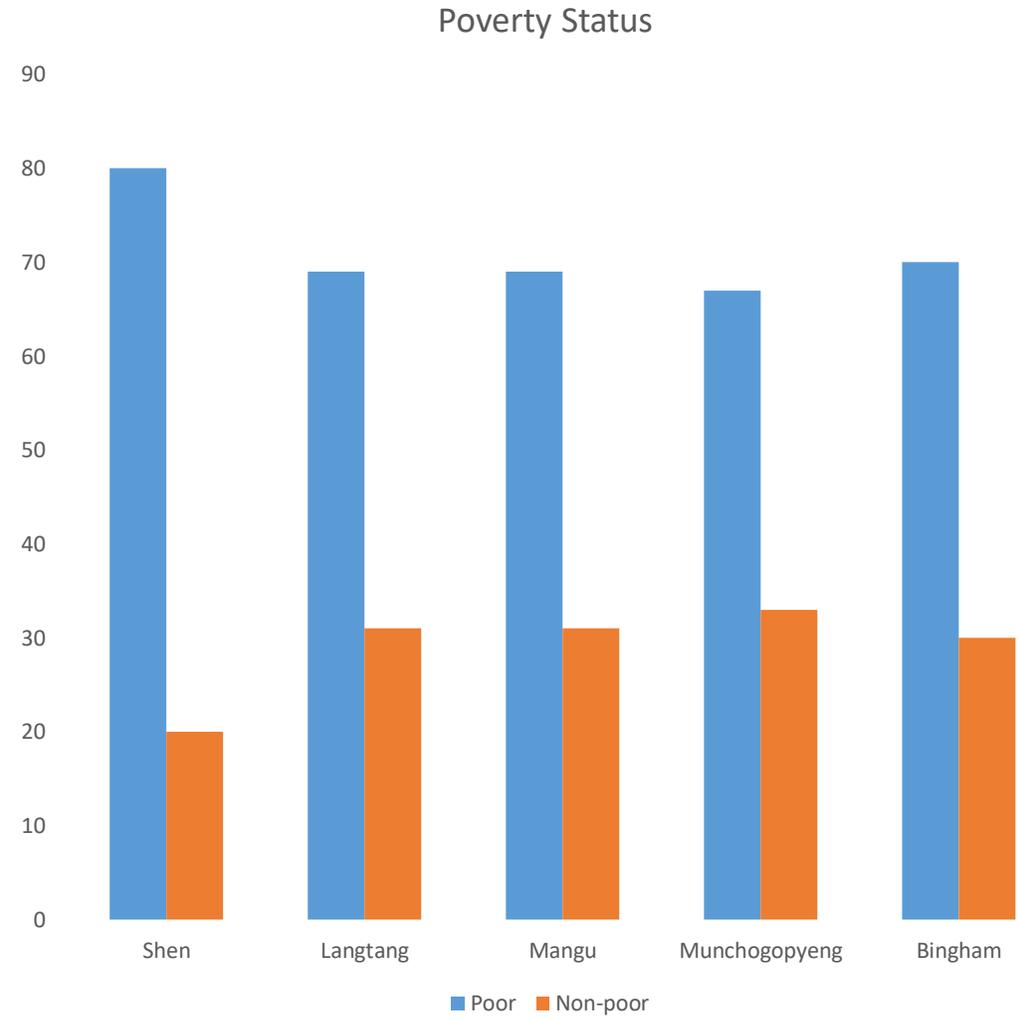
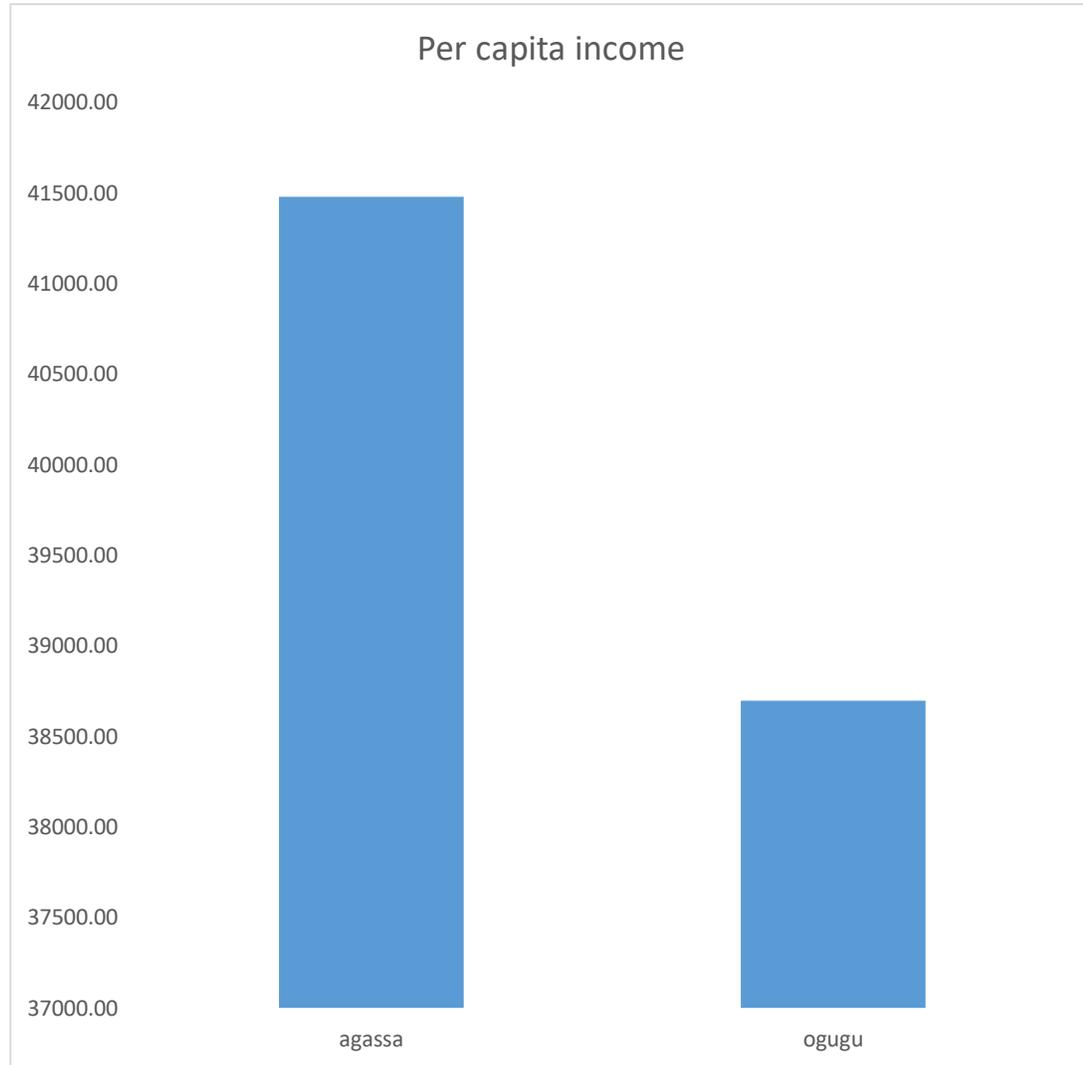
5.2 Data collection process

- *Training of enumerators*
- *Fieldwork Plan*
- *Data Management and Quality Assurance*

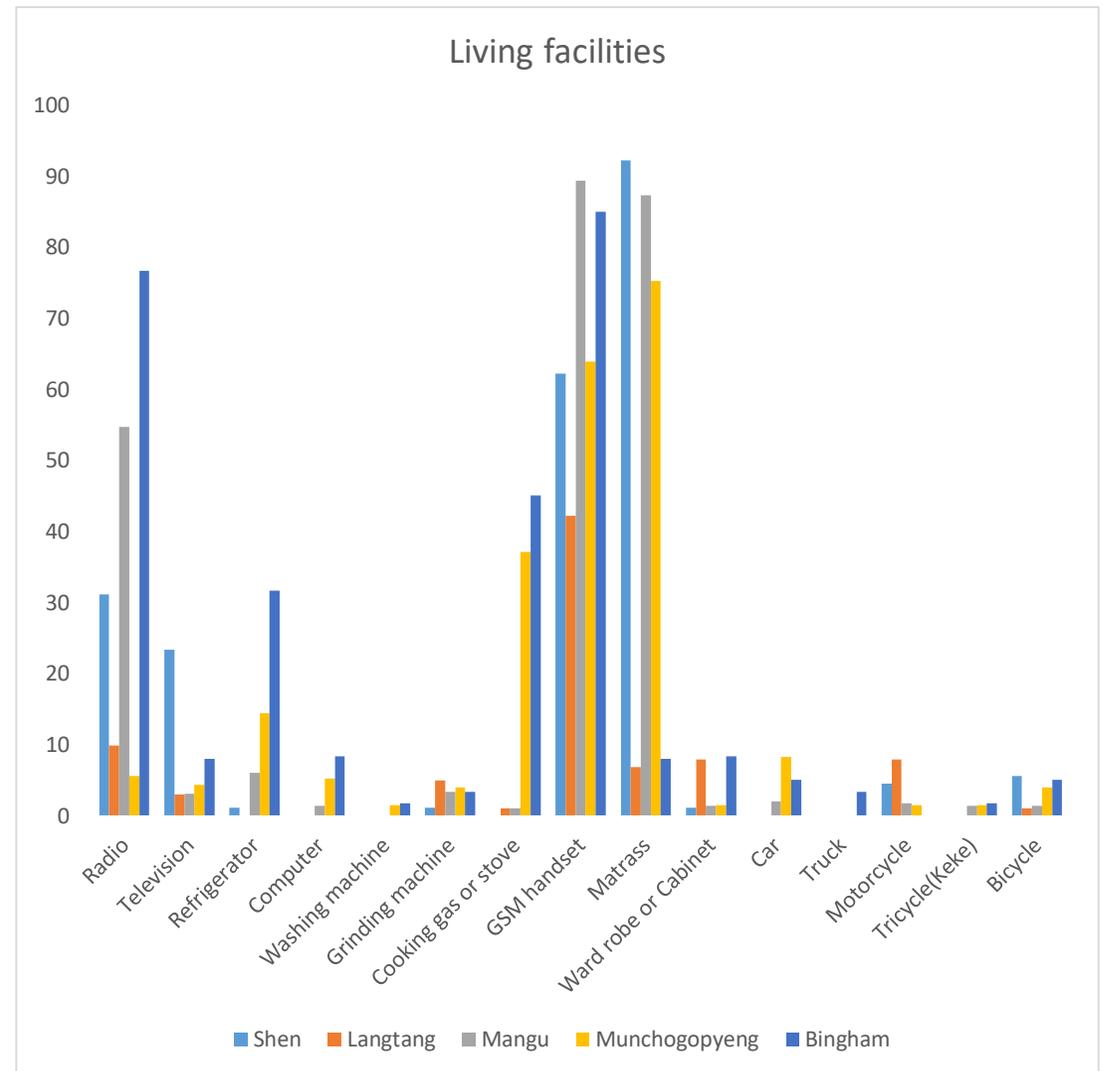
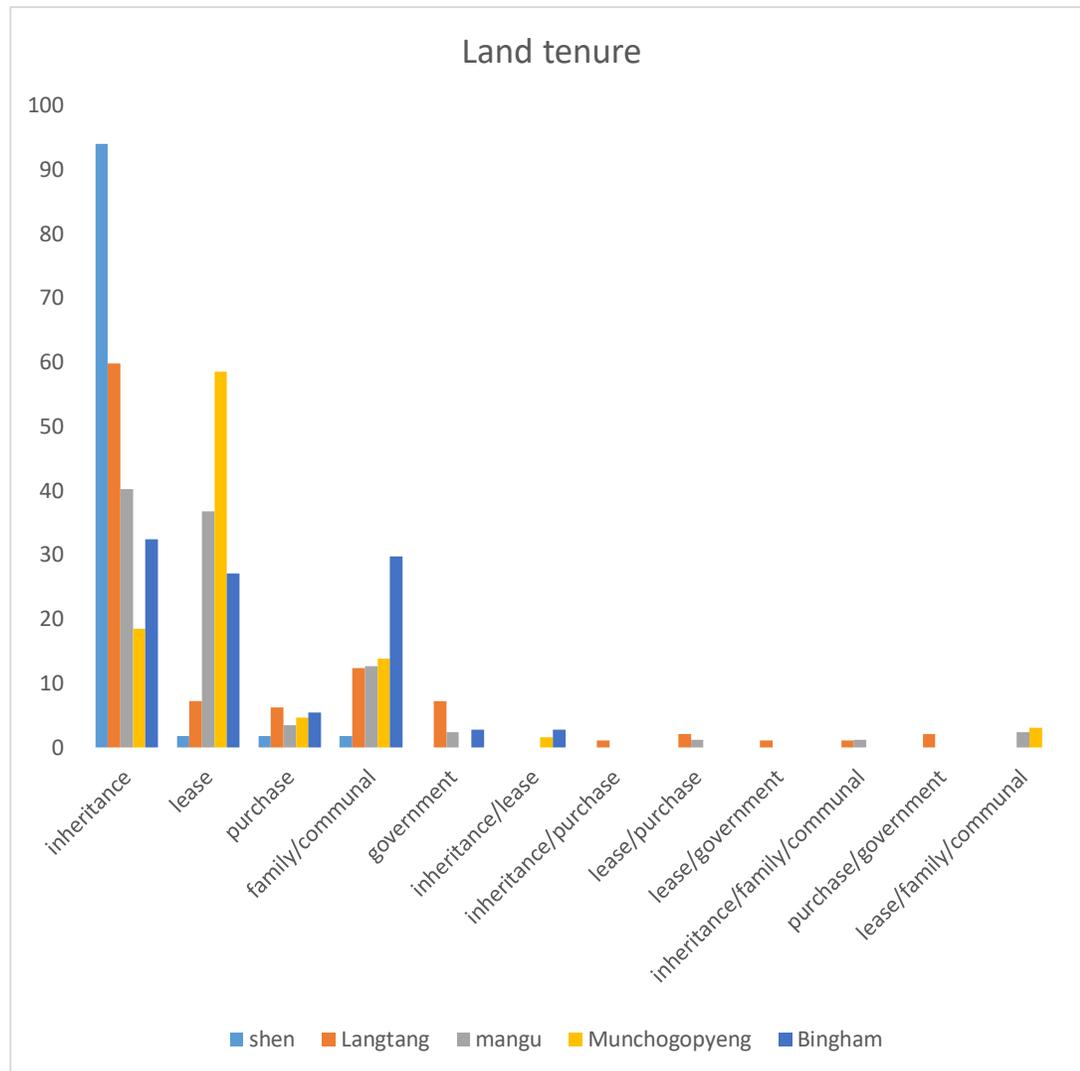
5.3 Data Analysis

- *Descriptive Statistics*
- *Correlation Analysis*
- *Regression Analysis*

5.4 Data Analysis (sample of results)



5.4 Data Analysis (sample of results)



6. Sensitization / Interaction with Residents of Catchment

- After successfully collecting data from the benefitting communities, the consultant(s) return to the communities after some weeks.
- This time around, the aim is to interact and sensitize them on issues of environmental degradation, sustainable livelihoods and sustainable agriculture, climate change, formation of community interest groups (CiGs), formulation of by-laws to guide their activities and relationships.



6. Sensitization / Interaction with Residents of Catchment



6. Sensitization / Interaction with Residents of Catchment



Sensitization/interactive sessions

6.1 Sustainable agriculture

- Sustainable agriculture provides potential solutions to enable agricultural systems to contribute to food production, mitigate climate change and other factors of environmental degradation.
- In order for agriculture to be truly sustainable, it must incorporate the following principles:
 - Provide food, fodder and raw materials.
 - Farm practices must be ecologically sustainable, promote biodiversity and natural resource management.
 - Sustain the economic viability of farm operations

6.2 Advantages of sustainable agriculture

- Reducing water runoff;
- Water conservation;
- Naturally maintaining soil fertility by recycling nutrients on farm;
- Enhancing carbon sequestration by soils and perennial vegetation;
- Promoting energy efficiency of farming operations;
- Decreasing emissions of air pollutants and greenhouse gases;
- Creating habitats for pollinators and beneficial insects;
- Ensuring welfare of farm animals but also providing space for the respectful coexistence with native wildlife;

6.3 Advantages of sustainable agriculture

- Food diversity is also much greater from sustainable farms, as they often cultivate local varieties in highly diversified farming systems.
- Sustainable farming provides economic opportunities to rural communities and supports socio economic development of rural areas.
- Sustainable farming helps to strengthen ecosystem resilience.

6.4 CIG group formation and training

- Catering
- Hair Dressing
- Horticulture
- Waste Management Livestock Farming
- Retail Store/Trading
- Crop Farming
- Horticulture
- Tailoring
- Masonry
- Carpentry
- Auto Mechanic
- Food/grain processing
- Weaving and sewing
- Poultry Farming
- Cassava Farming and Processing

6.5 Formulation of by-laws

- The use of law in the management of the catchment is strongly advocated. In its broadest sense rules, regulations and taboos as a tool to conserve and protect communal resources, has been used from time-immemorial
- By-laws, therefore, have a major role and place in determining the direction of the management of the environment and natural resources in view of the problems of the principle legislation, especially at the level of local communities.

7. Priority actions for enhancing existing livelihoods activities

- a) Agricultural extension services
- b) Capacity building
- c) Special intervention funds and grants
- d) Technical support
 - Book keeping and accounting practices;
 - Business plan preparation;
 - Financial management and projections; and
 - Banking operations.
- e) Access to credit or loans
- f) Improving market access for existing livelihood activities
- g) Monitoring and mentoring program

8. Recommended priorities for livelihood options/menu

The major priority areas for new site specific livelihood options may include the following;

- Adoption of improved agro forestry practices such as; agrisilvicultural (e.g. alley cropping, boundary markings, etc.), silvopastoral (range/pasture lands, shelter belts etc.) and agrosylvopastoral (home gardens/stead) systems particularly at degraded sites. *This will serve as buffers to mitigate the expansion of gully erosion sites, thereby reducing loss of farmlands and other livelihood activities to the agents of denudation.*
- Planting of economic trees such as; mango, moringa, quava, plantain, banana, citrus, etc., that will provide alternative economic value, e.g. food, fodder, etc. particularly at degraded sites.

8. Recommended priorities for livelihood options/menu (cont)

- Promotion of livelihood options that have socio-cultural acceptance in the catchment areas.
- Promotion of livelihood activities whose inputs/resources are localized to ensure lower production costs and sustainability in resource utilization.

9. Criteria/Eligibility conditions for livelihood support

The criteria or eligibility conditions for livelihood entitlement or support will include the following;

- The extremely poor and vulnerable households whose livelihoods must have been affected by the prevalence of gully erosion.
- Those whose lands have been depleted by erosion within the catchments.
- Female headed households (widows, single parents) within the catchments.
- Teenage mothers still living with their parents under very hard economic conditions.
- Orphans

9. Criteria/Eligibility conditions for livelihood support (cont)

- Unemployed skilled household heads with technical capacity and requisite experience in viable livelihood activities.
- Unemployed skilled youths, especially women with technical capacity and requisite experience in viable livelihood activities that also have no access to productive assets.
- Household heads with disabilities or physical conditions.

10. Livelihoods development plan for catchment management

At the end of the study, a livelihood development plan is expected to be produce.

- The plan is to be developed in consultation and agreement with the beneficiaries of the catchments.
- Firstly, the Catchment Management Stakeholders are identified

The plan should provide details on:

- Key Project Activities
- Target
- Timeline
- Expected Output
- Responsibility
- Monitoring Indicator

10 Sample of a CMP

S/N	Key Project Activities	Target	Timeline	Expected Output	Responsibility	Monitoring Indicator
1.	Training of Weaving and Sewing CIG	All members that indicated interest in weaving and sewing	June 2020 – December 2020	Production of beautiful traditional attire.	SPMU, Fongo, Consultant	.Number trained .improvement in income .Operating bank account
2.	Training of Horticulture CIG	All members that indicated interest in hair dressing.	June 2020 – December 2020	Raising of plants in nurseries and silvicultural practices in growing seedlings to trees	SPMU, Ministry of Environment, Fongo, Consultant, Community.	.Number trained .improvement in income .Operating bank account
3	Training of Waste Management CIG	All members that indicated interest in hair dressing	June 2020 – December 2020	Converting waste to wealth.	SPMU, Fongo, Consultant, Ministry of Environment	.Number trained .improvement in income .Operating bank account
4.	Training of Poultry farming CIG	All members that indicated interest in hair dressing	June 2020 – December 2020	Production of poultly birds for egg or meat	SPMU, Ministry of Environment, Fongo, Consultant, Community..	.Number trained .improvement in income .Operating bank account

11. Conclusion

- Livelihoods are an important part of human existence.
- In order for a population to survive there is need for livelihoods that would sustain and support their households.
- Most of rural livelihoods activities are carried out in catchments
- There is therefore a need to sensitize and capacitate catchment communities on how to sustain their means of livelihoods.

**Thank you for
your Attention**