## CHAPTER 5 CONCLUSIONS AND SUGGESTIONS

## 5.1 Conclusions

- Shea Nut tree vegetation cover in Kapelebyong District is rapidly declining due to charcoal production, farming, and house construction in a few areas. The results showed that there was declining cover of the Shea Nut trees from 2002-2022 as well as negative predicted change between 2022 and 2032. Wetlands, burnt vegetation, grasslands and built up areas also experienced negative changes. This study also revealed that farmland areas covered the largest land cover in Kapelebyong District at the expense of wetlands and grasslands.
- 2. Income, high urban demand and unemployment are the main drivers of charcoal production in Kapelebyong District. The study revealed that due to population explosion in the country, there has been a sharp rise in the demand for charcoal for cooking purposes making charcoal very expensive and as such the rural dwellers engage in it in order to obtain income for earn a living.
- 3. Losses and deteoration of the Shea Nut vegetation cover will most likely increase in magnitude given the ever increasing population, unemployment and demand for charcoal. The results show that by 2032, the coverage of the Shea Nut tree will have reduced to about 713 hectares (7.3%) from 1277 hectares (10.6%) of 2022.
- 4. Implementable mechanisms for sustainable charcoal production are important in regulating the rate at which the Shea Nut tree is utilized. The study concluded that the major strategies ought to be implemented include the major strategies included Income generating activities, Licensing charcoal burners, Alternative energy, replacing cut shea nut trees, law enforcement, sensitization, increase charges, electrification, monitoring of charcoal burning activities, use of energy saving/efficient stoves, and implementation of environment awareness programs

## 5.2 Suggestions

- There is need to use alternative energy especially use of electricity and solar to substitute the lucrative booming disastrous charcoal burning business and this would reduce cutting. This can also be achieved through rural electrification and complete supply of electricity of high voltage in most of the urban areas.
- 2. The local communities need to be provided with other alternative income generating activities that will help uplift their economic status. This includes small scale businesses, commercial agriculture, hands-on skills, savings Sacco projects through funding initiatives from government and other NGOs.
- 3. Sensitization programs are very key in ensuring that the local communities are availed with relevant information about the value of the shea nut tree and the dangers of over cutting them for charcoal production. This can be done through implementing advisory services aiming at providing the status of the shea nut tree and how its degradation will affect the communities and future generation.
- 4. Government through environment management authorities like NEMA, NFA, MoWE need to strengthen the implementation of the laws that govern use utilization of the Shea Nut trees and other environmental ecosystems. These authorities should implement tree and forest act, Ministerial directive, Judiciary restrictions, Police enforcements, NEMA acts, forest regulation 2016, Monitoring of charcoal burning activities and increasing charges on the people engaged in charcoal production activities.