

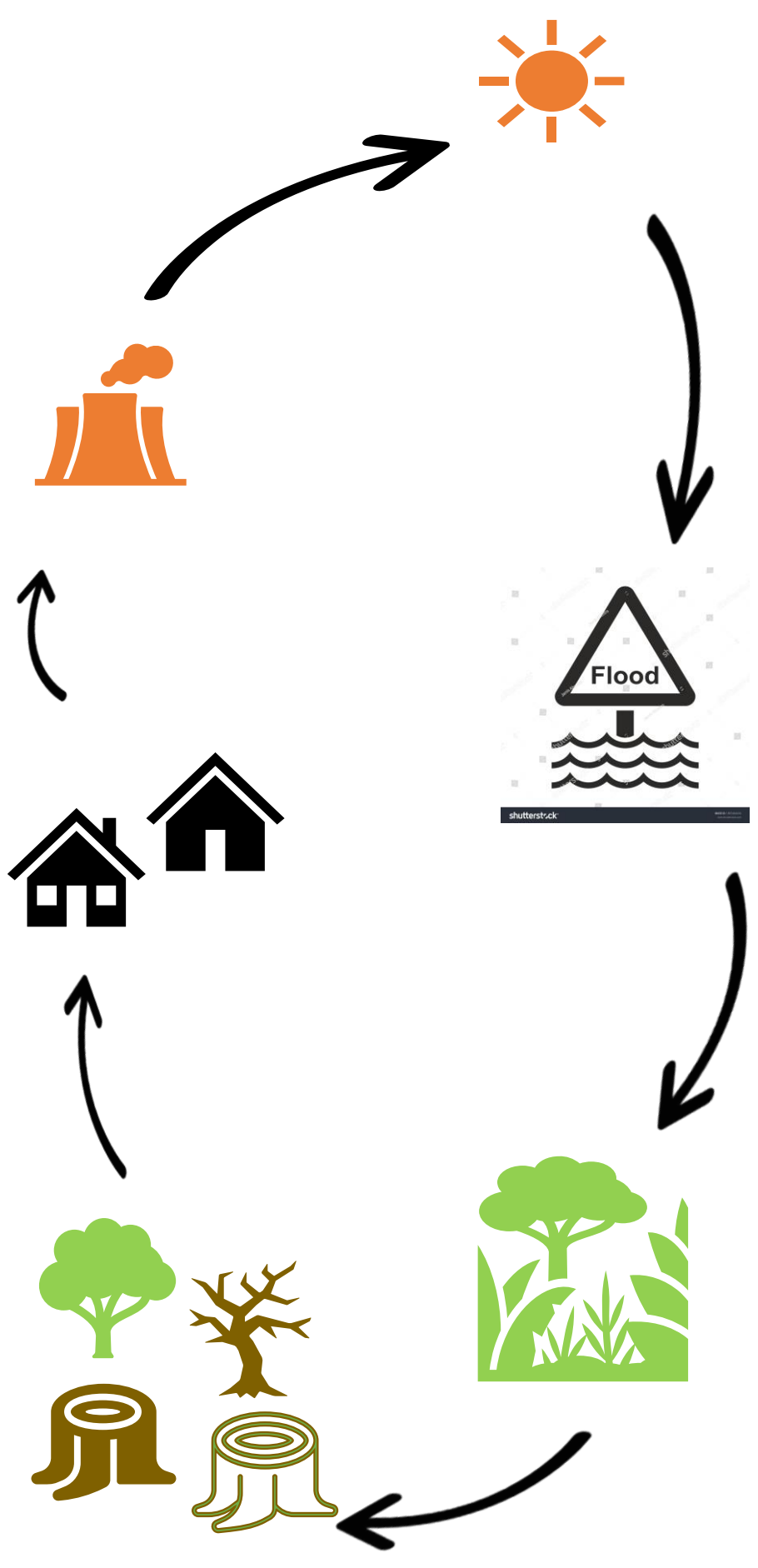


RURAL FARMERS IN INDIGENOUS TREE SPECIES REFORESTATION: A PARTICIPATORY APPROACH FOR ADAPTATION MEASURES TO CLIMATE CHANGE IN UGANDA

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1. Introduction



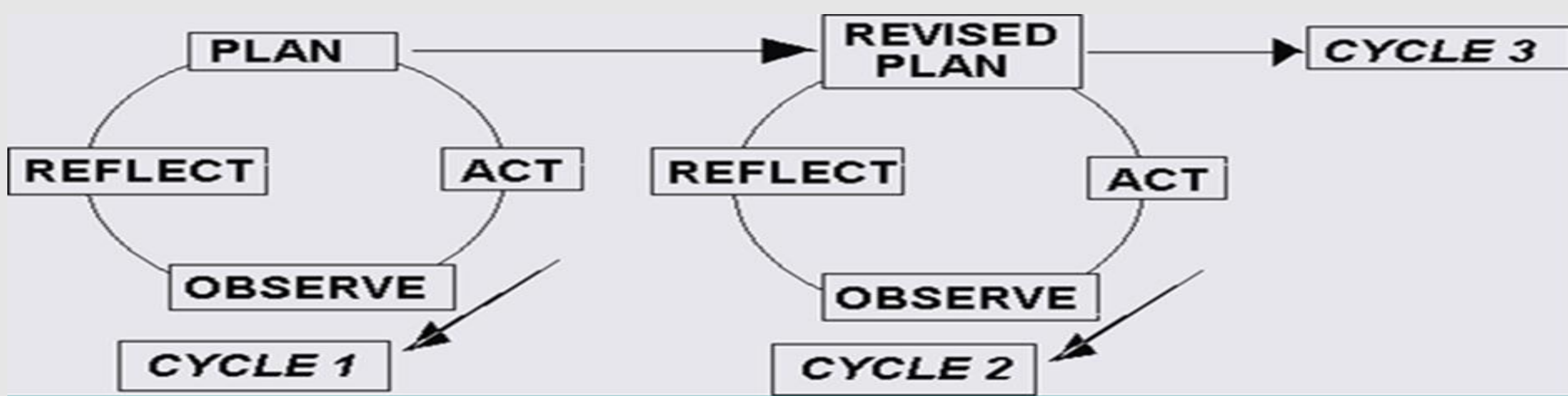
- The effects of climate change have been felt in many countries regarding long dry spells, floods, and drought.
- Climate change is understood in terms of changing rain seasons in rural communities of tropical Uganda.
- Human activities such as deforestation have increased the effects of climate change (Sale, and Agbideye, 2011).
- Deforestation is mainly for:
 - human settlement
 - Industrialisation
 - Income generation (through the sale of timber and charcoal).

2. The Problem



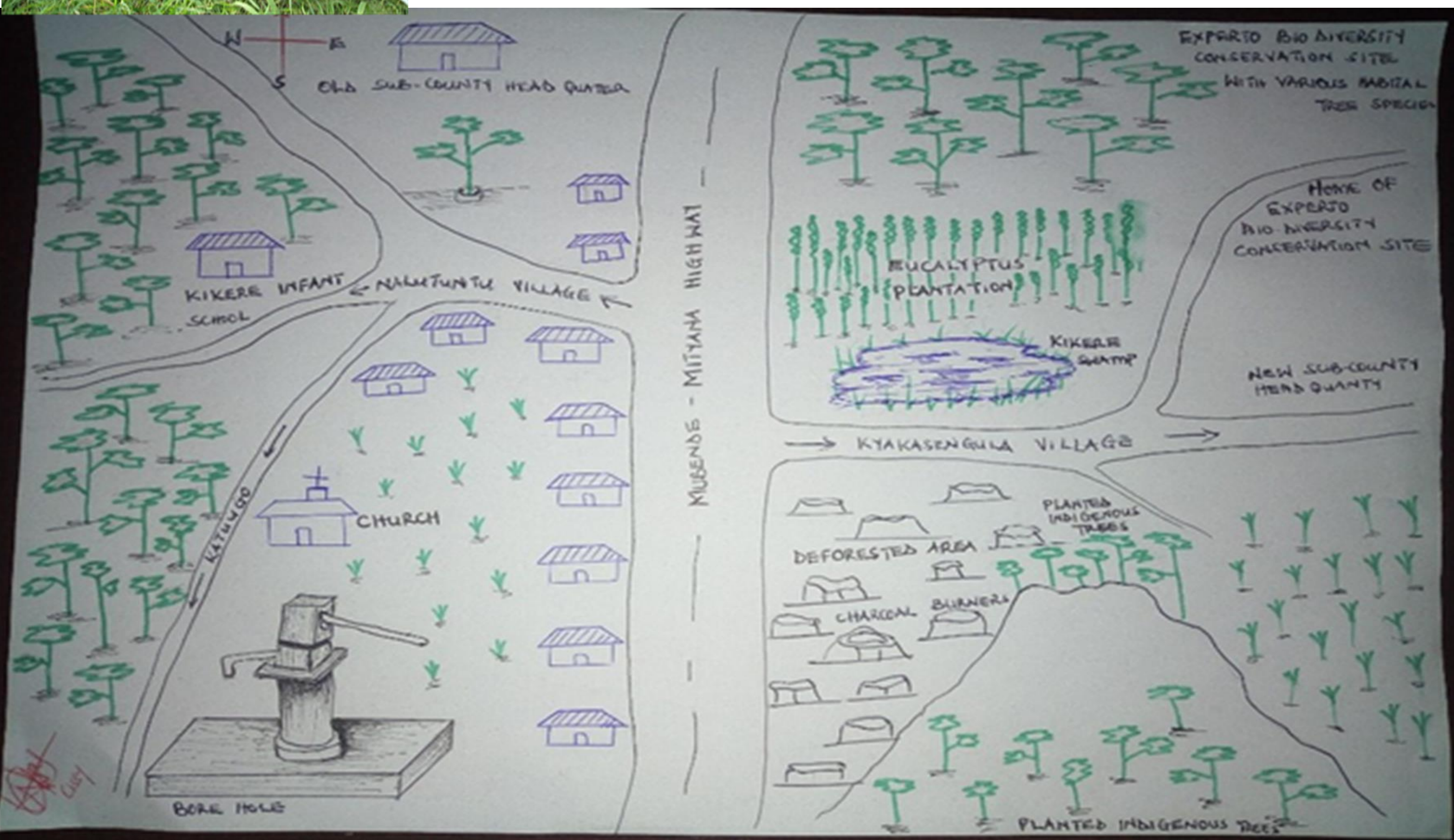
- Forests are home to 90% of terrestrial biodiversity and a feeding ground for some marine life, but most forests have been cut down (Pillay et al., 2022).
- For instance, Uganda has lost 15% of the primary forests that have been felled for industrialisation and human settlement between 2002 and 2022 (Global Forest Watch 2022).
- This implies a change in the rainfall pattern.
- The changing rain season prompted action research in central Uganda's Nalutuntu Sub-county Kassanda District.

3. Methodology (Carr, and Kemmis, 2003)



3.1. Cycle One: November 2017-June 2018

- Activities conducted included
 - A transect walk
 - Asset Mapping (refer to the map below)
 - An Environmental Awareness Month
 - Reawakening Indigenous knowledge
 - Cultural exhibition
 - Cultural music dance and drama on environmental protection.
 - Planting the first 1,500 tree seedlings on each farmer's land.

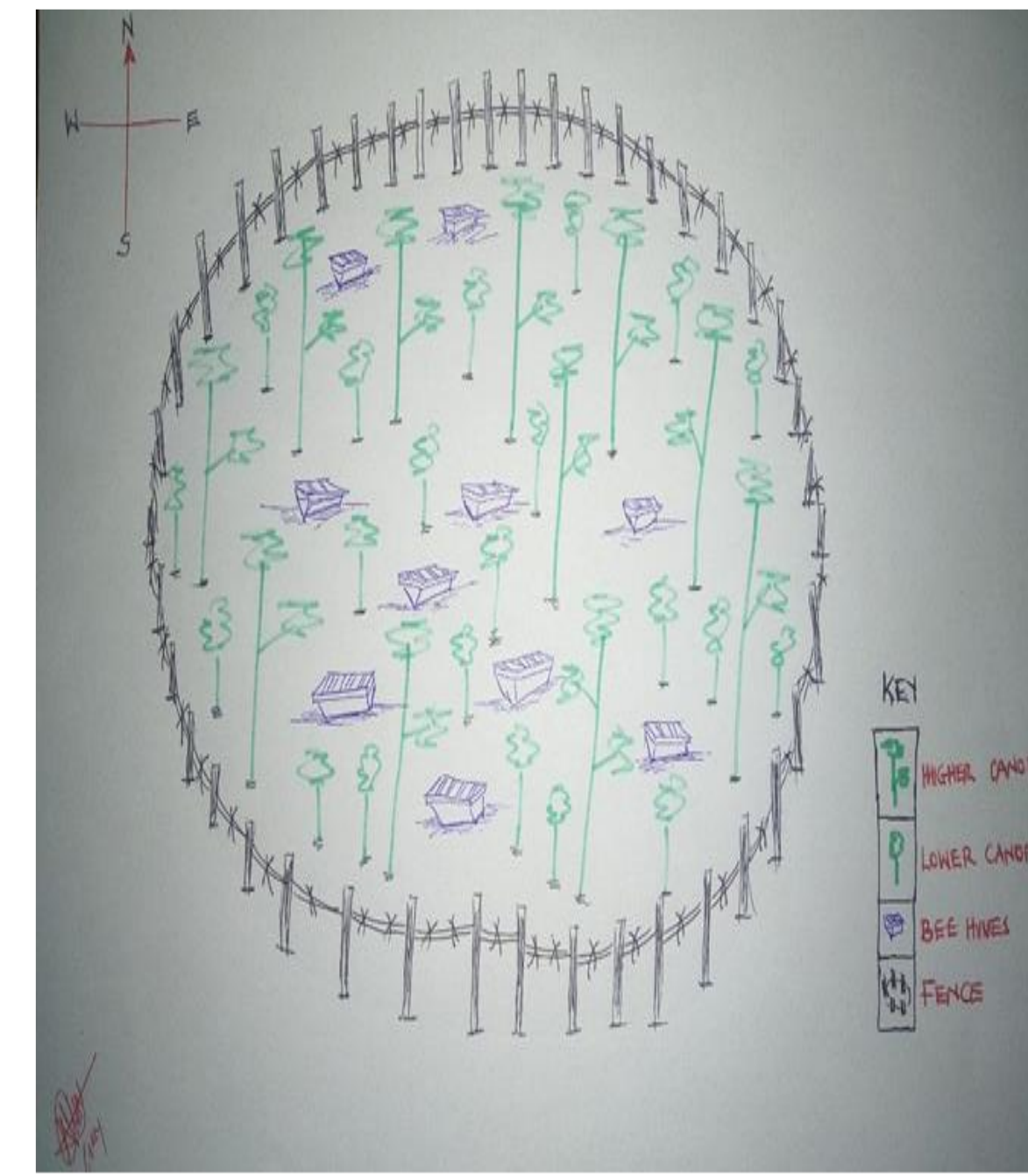


3.2. Cycle Two: September 2018-May 2019

- Activities conducted included:
 - Training on environment and biodiversity conservation measures
 - Nurserybed for tree seedlings
 - Planting and caring for 1500 tree seedlings,
 - Evaluation meetings



3.3 Cycle Three



- In cycle three, mainly habitat creation of indigenous tree species, 2000 trees were planted.
- So far 800 trees survived of
 - Red stinkwood (*Prunus Africana*),
 - Bark cloth tree (*Ficus natalensis*),
 - Red-hot poker (*Erythrina abyssinica*),
 - Woman's Tongue or Siris Tree (*Albizia Lebbeck*),
 - East African Greenheart (*Warburgia Ugandensis*),
 - Umbrella Tree (*Maesopsis Gemini*),
 - Muvule (*Milicia excelsa*),
 - Albizia spp (Nongo),
 - Entada abyssinica A.Rich. (Mwolola),
 - Albizia coriaria Welw. ex Oliv. (Mugavu) (Tabuti, J.R., 2012).
 - The same trees were planted on each participating farmer's land in the first and second cycles.

4. Results

- Cycle One**
 - All activities were successful.
 - Of the 1500 tree seedlings planted, 550 trees survived.
 - 80 participants were involved both men and women including children.
- Cycle Two**
 - The training was successful.
 - Gradually chemical spraying was reduced, and the use of animal manure became evident to date.
 - Of the 1500 tree seedlings planted, 529 survived.
 - The number of participants reduced to 50 community members both men and women.
- Cycle Three**
 - Creation of a 1-acre habitat of various indigenous tree species forest.
 - Of the 2000 tree seedlings planted, 800 still stand.
 - The participants who concluded the cycle were 45 men and women.

5. Reflection

- Knowledge is culturally embedded.
- A hub of knowledge exists among the community elders as wisdom specialists.
- Grassroot communities understand their situation, they only need reawakening to harness the locally available resources and transform their communities.
- Sustainable co-existence of biodiversity and human beings must be promoted for ecosystem health.

6. Conclusion

- In promoting ecological stewardship, we need to unite efforts to create equitable and sustainable management of natural resources, harness menacing hazards and create viable and resilient adaptation measures to climate change.
- Besides, we can live in harmony with other living and non-living organisms in the ecosystem if we are mindful of our actions.

References

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