RUFORUM

Capacity Building in Agriculture

Enhancing Community Adaptation through Climate Resilient Agriculture: Encroacher bushes value chains initiative in Otjozondjupa Region, Namibia

Project ID: RU/MCF/CARP+/2019/01

Project Principal Investigator

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DAEN Of the Faculty of Agriculture and Natural Resources

Overall Project coordination

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Faculty of Agriculture and Natural Resources
Department Of Animal Science
MSc Animal Nutrition.

Project partners

1.Ministry of Agriculture, Water and Forestry (MAWF)
2.FARM4TRADE
3.Namibia Biomass Industry Group (N-BiG)
4.Debushing Advisory Service (DAS)
5.MAWF-GIZ Bush Control and Biomass Utilisation (BCBU) Project
6.Namibia green Gold Processing (NGGP)

Community Action Research Programme Plus (CARP+)

Enhancing Community Adaptation through Climate Resilient Agriculture: Encroacher bushes value chains initiative in Otjozondjupa Region, Namibia

Result area

The expected output is the validation of methods and production economics, and possibly business models, to use encroacher bushes in the following value chains:

1. Feed production
2. Mushroom production
3. Fencing poles production
4. Charcoal and biochar production
5. Economic analysis of the alternative uses of bush

Summary

With Namibia being the driest country in sub-Saharan Africa, recurrent droughts pose severe challenges to local farmers. Since extensive farming is predominant in Namibia, livestock depends on rangelands for feeding. These feed resources are worsened by bush encroachment. Around 45 million hectares of agricultural land is affected by bush encroachment in Namibia. Although several attempts have been done to address the problem, valuable research that analyses and supports the entire value chain with a special focus on communities and sustainable production is still missing. The University of Namibia aims to coagulate the different efforts in the country under a scientific umbrella that can reliably create value for the agricultural sector working towards reducing gender inequality and poverty through sustainable production. The CARP+ project will investigate the potential economic and environmental value chains through which the encroacher bushes can be utilised by the smallholder farmers. The research activities will generate information on the use and economic viability of using different plant fractions of the encroacher bushes into marketable products and by-products. In addition, the project is expected to build capacity among both men and women in rural Namibia and TVET students, in addition to the training of undergraduate and postgraduate students.

Specifically, the project aims to:

1. To explore sustainable utilization and potential value addition of encroacher bushes and develop product prototypes.
2. To evaluate the effect of feeding encroacher bush silage on animal productivity, growth performance and quality of animal-based products,
3. Develop a value chain using post-harvest materials from encroacher bushes as growth substrate for oyster mushroom productionwith the farmers (mainly women),
4. To support and strengthen multi-stakeholder engagement within the community, TVET institution and stakeholders in the animal feed industry, through training on the encroacher bush value chains,
5. Develop and support bush feed and mushroom incubation hubs for the communities,
6. Execute cost benefit analysis of various uses of the encroacher bush along its value chain;
7. Capacitate TVET institutions and communities through training.

Project Duration
48 months (August 2019- July 2023)

Funding
RUFORUM

Total project budget
US$300,000.00

Target group(s)
Livestock farmers, Women & Youths
TVETs, NGOs, students and researchers

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General Activitie

A1: Establish farmers participation in project activities from inception
A2: Assess harvesting methods of encroacher bush and formulate different feeds and products and value chains {Year 1-3}
A2.1: Incubation hubs of farmers for capacity building and mentorship including training of trainers
A3: Determine the nutritional quality of the bush based feeds and mushroom production {Year 1-3}
A3.1: Product development and determination of nutritional quality
A4: Evaluate consumer preference of the mushroom {Year 2-3}
A4.1: Process different products based on mushroom
A5: Integrate the academic and the TVET for improved networking, teamwork and implementation of the project by university and TVET students
A6: Project Management