

# NAMIBIA

**PROMOTING SUSTAINABLE  
BUSH-PROCESSING VALUE  
CHAINS IN NAMIBIA**

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**TAKING YOU AND YOUR  
INDUSTRY TO THE  
NEXT LEVEL**



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



MINISTRY FOR FOREIGN  
AFFAIRS OF FINLAND



**ISID** INCLUSIVE AND  
SUSTAINABLE  
INDUSTRIAL  
DEVELOPMENT





## AT A GLANCE:



### BUSH ENCROACHMENT A

Bush encroachment remains a major agricultural problem in Namibia, covering about 45 million hectares of the country's savannas, or around a third of the country's land area, reducing livestock productivity significantly.

### B DE-BUSHING ACTIVITIES

The project aims to the reduction of invasive bush species, in a selective thinning process rather than clearing, while creating employment through economic value chains including production of animal fodder.



### VALUE ADDED PRODUCTS D

The project aims at sustainable utilization of invasive bushes for the production of final goods with a higher value added, jobs and export creation potential.

### C RESTORATION OF SAVANNAS

The project will help to improve the carrying capacity, sustain the natural biodiversity and aesthetics, restore the groundwater recharge, reducing the vulnerability to droughts.



SUSTAINABLE DEVELOPMENT GOALS: SDG9. INDUSTRY, INNOVATION AND INFRASTRUCTURE; SDG15. LIFE ON LAND



# CONTEXT AND OBJECTIVES

## CHALLENGES AND OPPORTUNITIES...

GOAL: Reduction of invasive bush species while creating employment through economic value chains, including production of animal fodder

### CONTEXT

In Namibia, the vast majority of the population is engaged in agricultural production as subsistence farmers, yet due to low productivity levels, only half of the country's food demand can be met through these activities, while the other half is met through imports.

Since Namibia is one of the driest countries in sub-Saharan Africa, concerns about issues related to water management and shortages, waste generation and pollution are growing. In addition, the agricultural activities are threatened by bush encroachment, a form of land degradation that can be found worldwide, but much more frequently in arid and semiarid rangelands. This phenomenon describes the occurrence of high densities of woody species –particularly the Acacia bush and Sicklebush– that grow at the expense of grass and herbs, thereby reducing the carrying capacity for livestock and hampering other agricultural activities.

While bush encroachment constitutes an immense challenge, it also provides opportunities: by utilizing biomass, agricultural productivity becomes storable, thereby strengthening the drought resilience of farmers.

### OBJECTIVES AND OUTCOMES

The project aims at strengthening important sources of food and income through stimulating utilization of invasive bush species, e.g. in the animal feed, charcoal and food industry as well as in energy production sectors.

Direct outcomes of the project encompass the identification and testing of appropriate collection and manufacturing technology solutions, which can further be used in Namibia for the effective and productive consumption of bush resources. In addition, the design of a processing plant to convert Acacia and other raw materials into high-value livestock feed, coal, chips, Arabic gum and other selected products is envisaged.

Hence, the sustainable utilization of invasive bushes like Acacia helps to mitigate bush encroachment as a form of land degradation. Through these measures, higher levels of agricultural productivity can be achieved, resulting in a better supply of food, increased resilience of farmers to droughts and reduced poverty, especially in rural communities. The improved provision of arable land for agricultural activities would result in enhanced capacities for local job creation and income and exports generation.



# THREE STEPS STRATEGY

TO ENSURE A SUCCESSFUL IMPLEMENTATION...

1

## MARKET INTELLIGENCE

### DETAILED TECHNICAL AND ECONOMIC FEASIBILITY STUDY

Firstly, within a market intelligence study, the needs of the local, regional and international markets will be assessed against the country's resources and capacities. The detailed technical and economic feasibility study will reveal the agro-industrial know-how and technologies needed for the manufacturing of Acacia bush-based products.

While the study will focus on the identification of appropriate technologies for products such as fodder, coal, biomass and Arabic gum, it will be unbiased towards other potential uses.

2

## TECHNOLOGY TRANSFER

### FIELD TESTING, ADAPTATION AND DEMONSTRATION

The following phase of the project is dedicated to the procurement and testing of the equipment, bringing the findings of the study to life. Transfer of knowhow and technologies to national beneficiaries for manufacturing of products will take place. The testing in the field and adaptation of equipment will ensure that the technology that is being transferred as part of the project is appropriate for the end users.

This period of testing is essential to ensure attainment of the project goals, since important lessons learnt can be drawn and implemented at this stage of the project.

3

## CAPACITY BUILDING

### ENHANCING AGRO-INDUSTRIAL KNOW- HOW FOR SUSTAINABILITY

Capacity building activities and trainings will ensure that the equipment for collecting and treating the invasive bushes is used properly and efficiently. The procured equipment will be demonstrated and later disseminated among participating communities as part of the project. Trainings of the national experts will encompass a feasibility study, market intelligence, operation and maintenance of the machinery.

Once beneficiaries take ownership of the processing of the Acacia bushes, the positive impact of this project will fully unfold and ensures its sustainability.

**DONOR:** Ministry of Foreign Affairs of Finland

**GOVERNMENT COORDINATING AGENCY:**  
Ministry of Industrialization, Trade and SME Development

**NATIONAL COUNTERPARTS:** Walvis Bay Corridor Group,  
Ministry of Agriculture, Water and Forestry of Namibia,  
University of Namibia, Namibian Meat Board

**POTENTIAL NATIONAL FUNDING PARTNER:** Baobab  
Environmental and Social Governance (Pty) Ltd.

## RESULTS/IMPACT

IN HARMONY WITH NATURAL PROCESSES...

UNIDO's technical assistance aims at stimulating productive, value-added and employment generation activities based on bush value chains, which contribute to the sustainable development of the Walvis Bay Corridor

### DIRECT EFFECTS WILL COVER:



#### FARMING AND PRODUCTIVITY

The reduced land degradation paves the way for enhanced agricultural activities, which are the major source of food supply for the local population. By diminishing invasive bushes, higher volumes of water will be available for crops which will improve yield.



#### SUSTAINABLE USE OF LAND

The proposed land use is in harmony with natural processes. No chemicals will be used to destroy the invasive bushes, but rather their utilization will follow the natural cycle of growth and harvest, taking into account the local climate and rainy seasons.



#### RENEWABLE FODDER

During each rainy season, when acacia releases more leaves, bushes will be allowed to grow constantly, and will be cut afterwards to be stored as fodder for dry periods. Thus, the project promotes using the bushes as renewable fodder; hence cattle will receive locally grown, natural food.



#### JOB CREATION

Technological know-how, hands-on skills and ready-to-use business models facilitated by the project will provide better opportunities for sustainable jobs creation among women and men in Namibia.



#### ENHANCED EXPERTISE

Through various technical trainings, the project will enhance human and institutional capacities of related stakeholder institutions, associations, technicians, manufacturers, local farmers, skilled and semi-skilled workers, and entrepreneurs.

### INDIRECT EFFECTS WILL COVER:



#### SUSTAINABILITY

Sustainable management of water resources and forestry

#### LAND USE PLANNING

Generation and use of knowledge for integrated land use planning

#### GENDER MAINSTREAMING

Increased gender equality in the agriculture sector

#### GOOD GOVERNANCE

Putting policy and turning it into practice



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