



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Project title: Promoting sustainable bush-processing value chains in Namibia

Project ID Number: 170017

Area/Location/Countries: Africa, Namibia

RBM code: GC1 Creating Shared Prosperity GC11 Agri.
Thematic code: Busin. & Rural Dev.

Planned Start - finish date: 10.04.2017 - 31.12.2019

Duration: 2 Years - 9 Months

Government Co-ordinating agency & Executing agency/cooperating agency: Ministry of Industrialization, Trade and SME
UNIDO

Counterpart: Walvis Bay Corridor Group (WBCG);
Baobab Environmental and Social Governance (Pty) Ltd.;
Ministry of Agriculture, Water and Forestry of Namibia;
Meat Board of Namibia;
University of Namibia (UNAM);
Agricultural Bank of Namibia

Budget:

Brief description:

Bush encroachment is a serious problem in Namibia; it hampers agricultural productivity and therewith threatens the livelihood of the local population. Currently, 26-30 million hectares of Namibian rangeland are affected by high densities of Acacia bush that grows at the expense of grass. Bush encroachment occurs in many arid regions and is attributed to factors such as the suppression of veld fires, the absence of browsers, overgrazing and poor management of livestock. Furthermore, the land degradation in the form of bush encroachment reduces the carrying capacity for livestock.

Approved:

Signature:

**On behalf of
the Government of Namibia**

**On behalf of
UNIDO:**

Date:

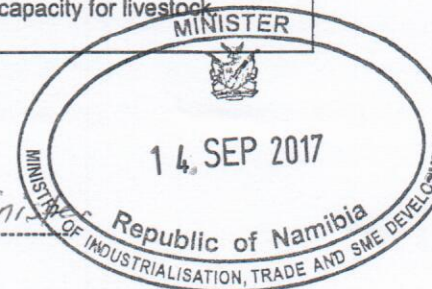
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31.7.2017

Name and title:

I. NGATIZERO

A. Furing DIRECTOR



CONTEXT

A1. Project Purpose

Global objective: To contribute to the improved national capacity for local value addition, jobs creation, income and exports generation, provision of arable land for agricultural activities, and to the food/feed security of Namibia through promoting sustainable, effective and productive consumption of biomass for production of competitive and market-oriented final goods.

Immediate objectives: Provide sustainable solutions for addressing the bush encroachment through feasibility and market intelligence, transfer of technologies and knowhow, and respective capacity building for development of bush-processing value chains.

A2. Baseline Scenario

The Republic of Namibia is a Southern African country highly dependent on its natural resource base: mining, agriculture, fishing, and wildlife-based tourism, more than 50% of Namibians are rural and rely directly on natural resources, outside of the formal sectors mentioned.

In 1990, Namibian society was marked by vast inequalities of income, wealth, and access to natural resources. In the past, natural resources were exploited with little consideration for the provision of future income. Since the late 1990s, the Government of Namibia has undertaken the construction of Natural Resource Accounts (NRA) as a step toward sustainable management of its resources.

The Namibian economy relies heavily on the climate sensitive natural resource based sectors of agriculture, fisheries, tourism and mining. The country suffers from inherent water deficit given evaporation (at max of 3000 mm/yr) far outweighs precipitation (at max of 750 mm/yr) while waste and pollution management is a growing concern. The country has an area of 824 418 sq. km (including a coastal desert of 1,570 km) and is one of the driest countries in sub-Saharan Africa. The terrain varies from coastal desert to semi-arid mountains and plateau, and the climate is largely arid to semi-arid. It is predicted that Namibia's hot and dry climatic conditions will intensify as a result of climate variability and change. Moreover the country is facing a major energy deficit due to sub-optimal domestic generation that requires importation of between 40-80% from South Africa.

The population of Namibia reached up to 2.403 million people in 2014, while the population density is 2.1 people per km² in 2016, which is considered low density. Despite registered strong economic growth of an average of 5% over the period of 2002 to 2016 the country faces substantial unemployment at an estimated of 20% in 2014 among females and 17.3% for males, with higher level of unemployment among youth (48.5% of 20-24 years old and 33.6% of the people aged 25-29 years old). It is expected that employment will become the main prioritization parameter when evaluating sector and project implementation opportunities. However, with the high growth rates and poverty reduction efforts, the level of poverty in the country has reduced by 40% between 1993/94 and 2009/10 with significant improvements in rural areas, due mainly to higher urban-rural migration rates. Even though the level of poverty is slowly reducing and the situation in rural areas is improving, a lot is still to be done regarding women and their empowerment. Women in Namibia have traditionally suffered discrimination and exclusion from full participation in the political, socio-economic and cultural life of the nation. The root cause for this gender inequality is Namibia's strong and historic patriarchal system coupled with negative cultural perceptions of gender roles. Some of the main issues cited are inequitable access to resources, the low participation of women at all levels of decision making and lack of women's socio-economic empowerment as some of the critical challenge.

About 80% of the rural population is engaged in agricultural activities as subsistence farmers. The share of agriculture in GDP is marginal with a percentage of 9% in 2009 and 6.1% in 2013 at current prices (including forestry, fishing and hunting), which reflects the low productivity in the sector and mainly driven by livestock production due to the arid climate. Real GDP has grown by 5.3% in 2014 up from 5.1 in 2013 due to robust construction and mining activities and as per estimated of EIU (2016) real GDP growth is forecasted to be at an average of 5.1% in 2016-18 reflecting the opening of new mines, expansion in manufacturing and recovery in the tourism sector.

Overall in 2012, primary industries accounted for 18.5% of GDP, secondary industries for 17.6% with tertiary industries accounting for 57% of GDP. Namibia exports mostly diamonds, uranium, lead, zinc, tin, silver, tungsten, food and animals on hoof, and manufactured products predominantly to South Africa (27% of total exports), the United Kingdom (17% of total exports), the USA, Angola, the Netherlands and Spain. Imports include food products, petroleum products and fuel, machinery and equipment and chemicals, mainly from South Africa (66% of total imports), followed by the Netherlands, the United Kingdom and China. Meat remains one of the major export products, and contributes to 76% of the overall agricultural output value.

Thereby, the equity ratio of Namibian food and feed is very low, leading to even higher importance of the need to increase the equity ratio in feed for the whole food production in Namibia.

Manufacturing sector

The manufacturing sector accounts for about 11% of GDP, with annual growths of 2.1% and 6.0% in 2008 and 2009 respectively. It consists predominantly of fisheries and meat. Meat processing registered a growth of 3.8% in 2009 compared to a decline of 8.4% in 2008. Other manufacturing activities include food, beverages, textiles, wood and wood products, paper and paper products, chemicals and chemical products, non-metallic products, machinery and equipment.

The government's diversification efforts are directed to textiles, the refining of zinc, and the creation of several diamond cutting and polishing operations in the country. The textile industry had benefitted from the AGOA regime so far, until the phasing-out of the Multi-Fibre Agreement (2006-2009), which led to more than 6000 job losses. Companies in other industrial sectors are also facing intense competition from South Africa and China (example of the dairy sector).

Agro-processing

The share of agriculture in GDP is marginal with a percentage of 9% in 2009 and 6.1% in 2013 at current prices (including forestry, fishing and hunting), which reflects the low productivity in the sector and mainly driven by livestock production due to the arid climate. Meat remains the major export product, and contributes to 76% of the overall agricultural output value, which makes it an attractive target for further support. The country is delimited due to animal diseases by the Veterinary Cordon Fence (VCF), excluding approximately 60% of the livestock (animals north of the VCF) from lucrative world markets. The livestock numbers increased till 1960 and have steadily declined since then. The evidence suggests that beef production per unit of land has not declined but that productivity is significantly lower than potential industry standards. Some researchers suggest that there may be a relationship between numbers of livestock and land degradation (bush encroachment) over the past years.

There are a number of ongoing export-oriented projects including preparation of the required preconditions such as investment into cold storages in the Walvis Bay Port area.

In 2014, crop farming subsector increased to 1.2% thanks to good climatic conditions rainfall and better management of natural disasters, for which as well some project opportunities are in place. It is to be noted that Namibia still needs to import more than 50% of food requirements, especially from South Africa and Zambia, which offers significant local implementation opportunities, e.g. the development of milling facilities, poultry, and other afro-food activities. Other products such as grapes, millet/mahangu and horticultural products are being developed in the South of Namibia.

According to FAO (2016), Namibia's agriculture sector is constrained by a number of challenges, such as:

- Limited human and institutional capacity;
- Updating policy and turning it into practice;
- Lack of coordination on food and nutrition security issues;
- Weak access to agricultural data by policy makers and farmers;
- Low crop productivity;
- Livestock health issues;
- Inadequate land use plans;
- Inadequate capacity in land valuation;
- Constraints in post-settlement support services to farmers on re-settled land;
- Constraints in sustainable forestry management;
- Constraints in sustainable water resources management;
- Weak capacity in processing, marketing and applying quality/safety standards for crop, horticulture and livestock products;

- Vulnerability to threats and crises;
- Gender inequalities in the agriculture sector.

Fisheries and Meat

Namibian fisheries sector has been thriving since the mid-1990's providing a significant amount of revenue to the Government, increasing from 4% of the GDP in 1991 to 7.8% in 2003. Fishing accounted for about 4.2% of GDP (at current prices) in 2009 and 3.1% in 2013, and is heavily influenced by weather conditions, energy prices, and the exchange rate. The real value added by fisheries sector declined by 5.3% in 2008, followed by a further decline of 14.1% in 2009. Most Namibian's fish are exported to Spain, and efforts are under way to explore new export markets in Asia.

Namibia is one of a handful of countries that are able to export red meat to the EU. Hence, the country is keen to extend their markets to other developed economies, and has been negotiating access of its red meat into the USA markets. The negotiations have been very positive, but the final inspection and testing of the red meat is an issue that still needs to be resolved to the satisfaction of the USA authorities. Fish and meat exports are subject to many and tight food safety standards in all the major target markets, i.e. the EU, USA and South Africa. These exports, and not only the products themselves but also the boats, landing sites, farms, and processing and slaughtering facilities, have to be inspected, tested and certified as complying with the relevant food safety standards.

Bush encroachment

Namibia's farmers are subject to severe pressure from environmental conditions as well as from changing economic conditions. The extremely dry and erratic climate makes farming a difficult and risky business. Rangeland degradation is a major concern with implications not only for the profitability of individual farmers, but also for related issues like land reform and long-term drought policy. There is general agreement that some forms of land degradation are occurring, most notably bush encroachment in the north, but little systematic information has been collected to quantify this problem. Bush encroachment hampers agricultural productivity and therewith threatens the livelihood of many Namibians. Today, 26-30 million hectares of Namibian rangeland are affected by high densities of bush that grows at the expense of grass.

Bush encroachment (i.e. an increase in density of woody plants often unpalatable to domestic livestock) is a serious problem in many savannas and threatens the livelihood of many pastoralists. Bush encroachment occurs in many arid regions where fuel loads are insufficient for fires to be an important causal factor. In arid savannas, this patchiness is driven both by rainfall that is highly variable in space and time and by inter-tree competition. Within the paradigm of patch-dynamic savannas, bush encroachment is part of a cyclical succession between open savanna and woody dominance. The conversion from a patch of open savanna to a bush- encroached area is initiated by the spatial and temporal overlap of several (localized) rainfall events sufficient for Acacia germination and establishment. With time, growth and self-thinning will transform the bush- encroached area into a mature Acacia stand and eventually into open savanna again. Patchiness is sustained due to the local rarity (and patchiness) of rainfall sufficient for germination of woody plants as well as by plant-soil interactions. Bush encroachment is largely confined to commercial farming areas and is attributed to factors such as the suppression of veld fires, the absence of browsers, overgrazing and poor management of livestock. It seems likely that land degradation in the form of bush encroachment has at least to a small extent been an influence in the reduction of cattle numbers.

According to the results of the pilot projects carried out under the Support to De-bushing Project, while bush encroachment constitutes an immense challenge, it also provides significant opportunities. Through the concurrent response to bush encroachment (i.e. bush control through selective harvesting) and utilization of the biomass, agricultural productivity can be restored, strengthening the drought resilience of farmers and promising an emergence of value chains based on Namibian encroacher bush (Acacia). The consideration of Acacia as a feed ingredient would require further research about the possibilities to increase the feed value, analyze potential mixtures with other raw materials (other plant origin raw materials, branch current of food industry) and potential enzyme treatment of Acacia branches.

There is a clear need and willingness to develop a solution from Acacia to enhance the feed equity ratio in cattle production in Namibia. Based on preliminary research, the following opportunities for utilization of the bush as a raw material could be considered:

- Utilizing of Acacia as raw material of feed (feed value): According to analysis of Acacia samples Acacia branches have appropriate level of feed value, with the following indicators:
 - moisture 6,4 %
 - dry material 93,6 %
 - raw fiber 21,1 (+- 6,3) g / 100 g
 - raw fat 3,0 (+- 0,3) g / 100 g
 - raw protein 13,2 (+- 1,3) g / 100 g
 - ash 5,2 (+- 0,8) g / 100 g
- Other qualities of Acacia in feed production and using it for other purposes: The possibilities for the use of Acacia in different parts according to further usage as a feed material through harvesting at the longer period allowing prevention of poisoning the stumps. In this approach, since Acacia is a hard wood for harvesting, involvement of heavy machinery would be required, which allows harvesting older plants with separation of its utilization for feed and energy production purposes.
- Energy production: The modification of wood-chippers (a machine used for reducing wood into smaller woodchips) makes it possible to use thicker parts of Acacia in production of charcoal. This opportunity for use of Acacia as a potential raw material for energy production is considered in cooperation.
- Additional product opportunities for food industry use: the production of Arabic gum and/or similar products as a thickening agent from some species of Acacia have already been assessed, but that would require further testing and especially investigation of market opportunities in the region for the food industry purposes.

Regional and international economic integration

With its small domestic market, Namibia's economic development depends heavily on regional economic integration. The country's membership to both the Southern Africa Development Community (SADC) and the Southern African Customs Union (SACU) with South Africa, Botswana, Lesotho and Swaziland are intended to facilitate the process of integration. SACU is also currently negotiating a Free Trade Agreement with the United States, the European Free Trade Association (EFTA) and the Southern Common Market (MERCOSUR).

About 80% of total imports come from or through South Africa, which absorbs only 30% of exports. This suggests to carefully reviewing within the framework of Namibia's industrial development program the existing connections with South Africa including their known intentions to avoid potential competition and to support economic and industrial complementarities.

Walvis Bay Spatial Development Initiative

The Walvis Bay Spatial Development Initiative (WBSDI) is a regional development initiative which is a part of the Trans-Africa Coast-to-Coast development initiative that connects Walvis Bay to the Mozambican capital of Maputo. This Initiative is a joint effort of the Governments of Namibia and South Africa aimed at promoting further development and the implementation of investment projects based on better utilization of the road infrastructure and the port of Walvis Bay. It is meant to provide significant contributions to Namibia's industrialization program. Substantial investments in the Walvis Bay Port facilities underline the importance of this initiative with its impact on Namibia's overall industrialization program.

In view of the ongoing Bilateral Agreement on Economic Cooperation between MITSD and the Department of Trade and Industry (the DTI) of South Africa as well as the co-operative trilateral work programme for Angola, Namibia and South Africa (ANSA) focusing on Spatial Development Initiatives (SDIs), the Development Bank of Southern Africa (DBSA) and the Walvis Bay Corridor Group (WBCG) entered into an agreement on 25 July 2012, in respect of "Technical Assistance for the Namibia Component of the ANSA SDI's".

The Government of Namibia has determined that it will pursue this integration through identified economic development corridors, defined as Spatial Development Initiatives or SDIs and has mandated the Walvis Bay Corridor Group (WBCG) to accelerate economic and industrial development along what have traditionally been transport corridors. The overarching program goal is development of the spatial economies of the

identified growth nodes and corridors to achieve economic growth in a manner, which is institutionally and environmentally sustainable and socially beneficial. It is to maximize social and economic benefits to local corridor based firms and households and thereby also the national economy. Following the “Growth at Home” strategy to implement the Industrial Policy, the MITSD commissioned several sector growth studies for various industries to explore the viability of value chains or components of a particular value chain in Southern Africa.

As a part of the regional Walvis Bay Spatial Development Initiative, UNIDO and WBCG joined their expertise to support the development of Walvis Bay Corridor through the formation of national expertise and supporting conducive institutional and physical infrastructure and appropriate services to local productive and employment generation activities to grow and expand on an inclusive and sustainable basis. The jointly developed Project “WBCG-UNIDO Cooperation Framework for the Development of the Walvis Bay Corridor” is aimed to contribute to the efforts of the Government of Namibia in developing the Walvis Bay Corridor. The WBCG-UNIDO project will, in particular, develop road-maps for concrete private sector development projects to be selected according to a specifically customized/shaped prioritization schedule reflecting Namibia’s key industrialization goals. It will also propose recommendations and concrete tools for stimulating improvement of institutional environment and conditions necessary to materialize these opportunities.

The project has received strong support and commitment for collaboration by the Government of Namibia for its further implementation.

In the framework of the consultations with potential donors of the project, UNIDO and Development Partners identified concrete value chains aimed to contribute to the sustainable development promotion in Namibia within the original initiative of the Walvis Bay Corridor Group and UNIDO. Hence, the proposed Project “Promoting Sustainable Bush-Processing Value Chains in Namibia” is meant to provide significant contributions to the joint Walvis Bay Corridor initiative, in particular, via stimulating agglomerated productive, value-added and employment generation activities based on bush value chains along the Walvis Bay Corridor.

A3. Main Target Groups

- National technical expertise and business support institutions;
- Involved Ministries and government agencies;

- technicians and manufacturers;
- local farmers and traders;
- transporters and processors;
- suppliers;
- skilled and semi-skilled workers;
- rural utility companies;
- providers of technology and rural finance.

Indirect beneficiaries of the project will include but will not be limited to: Final consumers as they will have improved and sustainable access to high quality products meeting their demand and requirements.

A4. Stakeholders

Origin of the request

WBCG-UNIDO Cooperation Framework for the Development of the Walvis Bay Corridor

In the framework of the Country Programme Formulation mission of UNIDO to Namibia that was undertaken on 4-8 May 2015, the UNIDO delegation conducted a bilateral meeting with the representatives of Walvis Bay Corridor Group on 5 May 2015 in Windhoek, Namibia. The main purpose of the meeting was to discuss possible cooperation perspectives and modalities aimed to contribute to the sustainable development of the Walvis Bay Corridor. As a result of the discussion and subsequent communications (including the official technical assistance request of the WBCG to UNIDO), and the following Preparatory Assistance Mission of the UNIDO Delegation to Namibia on 15-19 February 2016, WBCG and UNIDO agreed to jointly develop and implement a technical cooperation project that aims to, in particular, stimulate accelerated economic and industrial development of agglomerated productive, value-added and employment generation activities and value chains along the Walvis Bay Corridor. Following the consultations in Namibia, UNIDO has prepared Project Document “WBCG-UNIDO Cooperation Framework for the Development of the Walvis Bay Corridor”, which was approved by national counterpart on 11 August 2016.

Joint Finland-UNIDO Initiative on Promoting Sustainable Bush-Processing Value Chains in Namibia

During the above mission of the UNIDO Delegation to Namibia on 15-19 February 2016, extensive consultations were held with potential partners and Donors for the proposed Project “WBCG-UNIDO Cooperation Framework for the Development of the Walvis Bay Corridor” and related sub-initiatives, among which the project initiative “Promoting Sustainable Bush-Processing Value Chains in Namibia”. During the meeting at the Finnish Embassy in Windhoek, this latter project initiative has received strong interest and potential support by the Government of Finland. Also, the proposed project was presented to the representatives of the Government of Finland during the UNIDO's participation at the Food Business Summit held between 14-15 June 2016 in Seinäjoki, Finland.

The initial discussions and the development of a Concept Note for the project initiative were followed up by a series of technical consultations with the potential technical partners in Namibia as well as with the potential providers of relevant knowledge, technologies and know-how in the Donor country.

As a result, the Government of Finland expressed its willingness to support the proposed project and suggested potential funding through utilization of the remaining funds of the Finnish contribution to the UNIDO Food Security Fund and the UNIDO Trade Trust Fund.

A5. Synergy

The project is contributing to the implementation of the goals and targets set by the Government of Namibia in the national Vision 2030 and the Fourth National Development Plan (NDP4) 2012-2017. Furthermore, it is also in line with the key national development strategies and regional development priorities of the Walvis Bay Corridor programme with focus on development of industrial income and employment generating activities, as well as economic zones, Public Private Partnerships (PPP) and facilitation of international partnerships and B2B linkages.

Synergies and complementarity to be established between the proposed project the other projects/programmes implemented by national/regional/international development partners/agencies in Namibia.

Searching for synergies with sectorial strategy and considered as a complementary tool for implementing national policy for sustainable development, the project will seek eventually to incorporate the ISID momentum into the national policies and ensure sustainability of the results achieved by the project implementation.

B. UNIDO APPROACH

B1. Rationale

The reason for technical assistance

Since decades, UNIDO has been implementing technical assistance projects worldwide, including more than 50 projects implemented so far in Namibia, focusing mainly in the areas of trade capacity building, youth entrepreneurship and agro-industrial activities. Through its extensive experience in the agro-sector, UNIDO has proven its competences in implementing Food Security assistance programs and its high level expertise will benefit the country of Namibia in the frame of the proposed project. UNIDO will provide technical assistance to Namibia to develop productive agribusiness by the enhancement of agro-value chains, promotion of investment and capacity building. UNIDO's technical support will strengthen the productivity of Namibia's agro-industry through specific activities such as advice on techno-economic development options, capability building at institutional and industry levels, and support to agro-industries.

Supporting sustainable food supply to the rapidly growing population requires more and higher quality agricultural commodities. Therefore, the component on agribusiness and agro-industries will contribute to the Government's objectives to improve the country's food security and sustainable industrial development by supporting agro industries.

To achieve its objectives UNIDO has identified the following strategic goals:

- Food self sufficiency
- Increase of the rural income
- Creation of job opportunities
- Sustainable industrial development

UNIDO's assistance, in line with its Inclusive and Sustainable Industrial Development (ISID) Approach, will help the farmers to increase the products diversification through technology transfer, better infrastructure facilities and trainings on management methods. The better quality of the production will foster access to new markets for the farmers, hence boost their income and increase the exports of the country.

B2. Comparative Advantage

Over the years, UNIDO has developed, tested and refined a set of tools that it uses to support its programmes for the promotion of the agro-industrial sector. Such tools are "Agro-value chain analysis and development", "How to Start Manufacturing Industries," "Methodological Guide: Restructuring, Upgrading, and Industrial Competitiveness," "Principles for Promoting Clusters and Networks of SMEs," and "Export Consortia Tool to Increase SME Exports," all of which address both technical and business subjects specific to the sector.

The UNIDO module on marketing intelligence, technology transfer and adoption, development and modernization of competitive and sustainable agro industrial value chains encompasses a holistic package of technical services including a wide range of value-chain development, productivity and competitiveness improving tools provided to enterprises and their networks in the context of spatial development, local, regional and international trade and economic integration. Besides direct assistance to identification of markets, appropriate technological solutions and industrial value chains modernization, the approach is also aimed at forming a national technical expertise and business support infrastructure for delivering these services for a wider business community and consolidating related economic data and its dissemination. This contributes to ensuring the continuous support to manufacturing enterprises and hence to the long-term sustainability of the private sector development momentum.

Developing agro-value chains in some of the energy intensive industries requires a comprehensive analysis of the value chain to understand overall trends of industrial reorganization and identify leverage points for policy and technical interventions. Furthermore, thorough analysis of the current structure provides interlinkages between actors of the value chain that is also important to identify how entry barriers are created and how gain and risks are distributed. Thus, the evaluation of flow of goods through various stages enables detection of problems and identification of opportunities for improvement. UNIDO's systematic approach to value chain analysis and promotion focuses on the relevance of agro-value chains for pro-poor growth while bearing in mind pragmatic economic parameters to ensure their sustainable development. The Organization's aim is to focus on those areas which lead to improvements in value chain performance in terms of:

- increasing the quantity and improving the regularity and continuity of production;
- improving the quality and safety of products;
- reducing the time needed to reach the customer;
- minimizing transactional costs;
- improving the capacity of chain actors to follow and assimilate technology and market developments.

To achieve these objectives, UNIDO's approach entails the following stages:

- selecting and prioritizing value chains for promotion;
- mapping value chains to obtain a clear understanding of the sequence of activities and the key actors and relationships involved in the value chain;
- analyzing the value chain technological capacities;
- analyzing the value chain economic performance and competitiveness;
- formulating an upgrading strategy for the selected value chain;
- implementing the upgrading strategy, monitoring and impact assessment.

In its Projects, UNIDO focuses on solutions to promote selected agro-value chains. Specific interventions capitalize on the Organization's wide range of programmes and services in order to provide the many-sided assistance required to improve the performance of targeted value chains.

Support services targeting promoting productive value chains and their competitiveness require a thorough understanding of the opportunities and constraints found in different sectors of the economy. Sound economic data and information is an essential element of the decision-making process for political and business leaders, in devising development strategies at the sub-regional and national levels. Such economic information requires systematization and thorough assessment of the potential for competitiveness on the domestic, regional and international markets against immediate developmental or product supply needs of beneficiary countries.

The findings and results of the the marketing intelligence (sectorial) and feasibility studies will be presented to the national counterparts, project partners and other stakeholders during a validation workshop that will be organized and held as a part of the Project's Inception Phase.

During the Project's Main Phase and on the basis of findings of the marketing intelligence (sectorial) and feasibility studies on a range of identified priority products and relevant technological solutions, (and with the approval to be received during the validation workshop with respective possible improvements and recommendations), the proposed technical assistance will transfer the selected know how and technologies for further testing and adaptation with the final aim of production of respective goods. While implementing these activities, the project will also reinforce capacities of national technical, business and technical support institutions in serving these priority sectors and niches.

The proposed project will be also focusing on building further the technological and managerial capabilities of those engaged in the production as well as the usage of the inputs. The project helps to implement comprehensive measures with the focus on productivity, and industrial performance and quality, which will enable the production of effective and environment friendly products, which, thereby, would not only contribute to increase industrial production but also to safeguard human health and environment.

It should be noted that the project focuses on some environmentally fragile areas and areas with scarce natural resources as well as special habitat species which will require close attention. These conservation areas and particularly those with rare or endangered wild life also constitute a potential for tourism and therefore provides employment to the local communities and become an income generation source. Accordingly, the key feature of the proposed technical assistance is its three-step implementation, including an Inception Phase and Main Phase of the Project, which is built up in a comprehensive manner:

1. The Project's Inception Phase will first conduct the market intelligence and detailed technical and economic feasibility study outlining the country's resources and local/regional/international market needs and identifying appropriate agro-industrial knowhow and technologies for manufacturing of products based on the bush for feed and other potential uses. The results and findings of both studies will be then presented during the validation workshop with participation of the national counterparts, partner agencies, and other stakeholders.
2. As part of the Project's Main Phase and based on the results of the market intelligence and technical feasibility study, in particular, identified industrial knowhow and technologies adaptable to the environment of Namibia, the project will conduct field testing, adaptation and demonstration of agro-industrial technological processes for development of bush-processing value chains and leading to product sectors such as cattle feed, charcoal, biomass for energy purposes, and provision of arable land.

For instance, the identified industrial technologies, such as the modular system of feed factory (FaMix), will be modified and adapted to suit to Namibian raw materials, specially acacia so that the result will be useful and long lasting feed for cattle. The production system will allow farmers produce feed during a rain season (when acacia releases more leaves) and thus enable them to increase the number of cattle, resulting in better equity ratio in food and feed in Namibia. The benefits of using the modular type feed mill are improved handling in transportation, better hygienic quality of feed and possibility to serve several farms at the same time. Furthermore, the project is expected to facilitate of know-how and technologies for development and customization of harvesting and chipping machinery with an appropriate size and construction of the chips so that the best possible raw material (Acacia) for feed mill can be collected and produced.

3. Through the third component, UNIDO will review of existing relevant legal and regulatory frameworks and strengthen managerial and technical capacities as well as transfer agro-industrial knowhow to the key national counterparts, including representatives of related stakeholder

institutions, associations, technicians, manufacturers, local farmers, skilled and semi-skilled workers, entrepreneurs.

In particular, through review and analysis of existing relevant legal and regulatory frameworks in Namibia, the project will address possible barriers for sustainable development of bush/Acacia based products and related sectors, as well as in identifying most efficient and adapted to the Namibian conditions machines, equipment and processes for collecting bush/Acacia as a raw material for the manufacturing of selected product. UNIDO will conduct trainings on identification (feasibility and market intelligence), development, operating and maintaining the machinery among participating communities as part of the project. Trainings will provide both male and female skilled employees able to operate and maintain the machinery that will be demonstrated and disseminated among participating communities as part of the project. Through transfer of technology and capacity building of national expertise on the installation, use, maintenance, and production processes, the project will contribute to the inclusiveness and sustainability of the results to be achieved, as well as facilitating creation of employment opportunities in focus and related industries.

B4. Sustainability Strategy

Synergies and complementarity to be established between the proposed project the other projects/programmes implemented by national/regional/international development partners/agencies in Namibia

Searching for synergies with sectorial strategy and considered as a complementary tool for implementing national policy for sustainable development, the project will seek eventually to incorporate the ISID momentum into the national policies and ensure sustainability of the results achieved by the project implementation.

B5. Gender Mainstreaming Strategy

Namibia developed and adopted its first National Gender Policy (NGP) in 1997. This aimed at closing the gaps created by the socio-economic, political and cultural inequalities that existed previously in Namibian society. In 2010, a review of the 1997 policy was conducted and the Government introduced a National Gender Policy (2010-2020). The policy seeks to create an enabling environment for sectors to mainstream gender in line with the National Development Plans (NDPs).

Not only being a specific case for Namibia, in agricultural settings, women are often not visible, while they do a large part of the activities. It is well-documented that women-owned rural businesses tend to face many more constraints and receive far fewer services and support than those owned by men.

However, women's economic empowerment and access to markets and services is considered, by the Government of Namibia, as essential for sustainable economic development as poverty reduction.

The UNIDO approach is complementary to the National Gender Policy implemented in the country; which aims at establishing a framework for gender-responsiveness and at adopting gender mainstreaming approaches as a core value and practice in social transformation. On the other hand, the UNIDO Gender Policy targets gender equality and women's economic empowerment not only from the perspective of realizing women's rights but also to move towards smart economies.

The project foresees to collect information on beneficiaries in a sex-disaggregated manner, for instance regarding male/female participation at training, male/female staff at involved institutions.

An expert/consultant covering gender mainstreaming tasks is expected to be recruited for the project implementation, and it will be also assured that the national team is sensitized on the topic. Also, the said expertise will be in charge of analyzing the situation and collecting missing data on women and their empowerment, firstly in the in the country in general and, secondly, along the implementation of the project, assuring that women will be included in each relevant activity.

B6. Environmental and Social Assessment

The Government of Namibia enacted the Environmental Management Act (Act 7 of 2007) with the objective

to prevent and mitigate the significant effects of activities on the environment by ensuring that:

- significant effects of activities on the environment are considered in time and carefully;
- there are opportunities for timeous participation of interested and affected parties throughout the assessment process;
- the findings of an assessment are taken into account before any decision is made in respect of activities.

Thus, as per the national regulations, before starting any operations that might likely cause a significant effect on the environment, an Environmental Impact Assessment (EIA) must be undertaken. As such, the UNIDO Project will conduct the EIA, including scoping, investigation, and submission of the report for respective national authorities for review and consideration for approval for implementation of the project activities that might likely cause a significant effect on the environment.

C. THE PROJECT

C1. Project Logical Framework

	Intervention logic	Objectively verifiable indicators	Sources of verification	Assumptions
Development goal/impact	Improved local value addition, jobs creation, income and exports generation, provision of arable land for agricultural activities, and to the food/feed security of Namibia.	# of jobs created % of arable land cultivated % of increase in feed production	Registered contracts at the Namibian statistic office Certificates of land registration at the Ministry of Agriculture More availability of animal feed	
Outcome(s)/immediate objective(s)	Processing plants are provided with manufacturing technology solutions for sustainable use and effective productive consumption of bush/Acacia resources in Namibia	# processing plants adopting new manufacturing solutions tons of materials saved # of new eco-efficient products # Manufacturing technology solutions identified and tested	Commercial performance reports Environmental impact reports Enterprise annual reports	Project funding is timely and sufficient National counterpart institutions and experts are cooperating among each other and with the UNIDO project The country has a stable social and political environment
Outputs (results)	Market intelligence study outlining the country's resources and local/regional/international market needs for manufacturing of products based on the bush/Acacia for feed and food production, coal and other potential uses	1 report / technical publication prepared/ distributed 1 Marketing positioning report for selected bush by-products	Data (Market SWOT Analysis) at the Statistic Office	Data are available to be analyzed Report on the formal market situation available

Activities	<ul style="list-style-type: none"> - Conduct on-site assessment and select local materials such as the potential use of bush/ Acacia for production of agro-industrial products such as feed, coal, other by-products to convert into value added final goods. - Complete needs assessment and identify local/regional/international market needs in terms of feed, coal, other selected products identified - Conduct research for the regionally and internationally available advanced knowhow, machinery and equipment for manufacturing of selected derivative products based on identified needs, environmental impact assessment (EIA), energy and resource efficiency, and collected samples of applicable raw materials - Build a road map for further development of the relevant priority industrial sectors identifying the bottlenecks, constraints and opportunities (SWOT) affecting the productivity and supply of the sectors and define appropriate interventions areas. - Based on results of Activity 1.4, support 			
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	the organization of the validation workshop for the proposed road map			
Outputs (results)	Detailed technical and economic feasibility study identifying appropriate agro-industrial knowhow for feed and food production, coal and other potential uses are drafted	# of products and/or value chains assessed/developed/ tested/Technologies identified, transferred, adapted # of reports / technical publications prepared/ distributed/Field test results report for each technology/ machinery	2 Comprehensive study/ reports	Data on the selected value chain are available The sites of the project development benefit of a stable social environment
Activities	<ul style="list-style-type: none"> - Identify various instruments and machines available locally for manufacturing of selected products based on bush/Acacia and assess the possibility using them in the project - Identify most efficient and adapted to the Namibian conditions machines, equipment and processes for collecting bush/Acacia as a raw material for the 			

	<p>manufacturing of selected products</p> <ul style="list-style-type: none"> - Identify suitability of identified knowhow and technology for the development of products based on bush/Acacia under this project - Conduct Environmental Impact Assessment (EIA) in accordance with the national regulations and evaluation of the sustainability of the proposed selection of local materials for production of agro-industrial products such as feed, coal, other by-products and its impact on the flora and fauna of the local environment - Conduct validation workshop engaging a broad range of key stakeholders in a discussion process of the vision, directions and actions and advice for the road map build as part of Activity 1.4 			
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Outputs (results)	Transfer of knowhow and technologies to national beneficiaries for manufacturing of products based on the bush/Acacia	# workshops on manufacturing technologies # of reports / technical publications prepared/ distributed/Field test results report	List of participants at the workshops (including sex disaggregated data) Technical report registered by each manufacturing plant	Beneficiaries show interest in the organized workshops National project coordinator assist in the drafting of the technical reports
Activities	<ul style="list-style-type: none"> - Procure the identified equipment for further testing and adapt acquired technological processes for (collection and) manufacturing of products based on the bush/Acacia - Test the facilitated technologies and manufactured products in the laboratory and field to verify (i) their various properties as per the technical requirements/stand ards; (ii) their replicability against different agricultural conditions and landscapes in selected regions of Namibia for, inter alia, demonstration purposes 			
Outputs (results)	Field testing and adaptation of equipment to demonstrate the agro industrial technological processes for manufacturing of products	# tests on the equipment # manufacturing plant taking part to the testing process	Customer Satisfaction Surveys Field test reports	Manufacturing plants are willing to test the equipment The delivery and instalment of the equipment is done timely and effectively
Activities	<ul style="list-style-type: none"> - Provide support to 			

	<p>beneficiaries for installation and adaption of the procured equipment to the local conditions and requirements as stipulated in the national regulatory frameworks</p> <ul style="list-style-type: none"> - Test the facilitated technologies and manufactured products in the laboratory and field to verify parameters required for the cost- effective and sustainable business models - Identify local networking partners for the dissemination of technology at the field level and its documentation 			
Outputs (results)	Capacity building for sustainable use and adaptation of the acquired know how and technologies within existing technical support institution facilitated	<p># of end-users / beneficiaries trained (including sex disaggregated data)</p> <p># of trade/business/ partnership agreements/ platforms establ.</p>	<p>Training material</p> <p>List of participants (including sex disaggregated data)</p> <p>Certified people in each manufacturing plant (including sex disaggregated data)</p>	<p>National counterpart institutions and experts are cooperating among each other and with the UNIDO project</p> <p>Beneficiaries are willing to take the training</p> <p>Knowledge management sustainability, absorption of capacity within the institutions impacted by the project.</p>
Activities	<ul style="list-style-type: none"> - Strengthen/establish a national capacity for technology demonstration and training of the local 			

	<p>expertise (technicians, manufacturers, local farmers, skilled and semi-skilled workers, entrepreneurs, etc.) for learning and adoption of identified and developed bush (collecting and) processing technologies. The training and demonstration capacity will be strengthened/ established within the premises of an existing vocational training institution, sectorial association or local municipality administration to be identified during the feasibility study phase of the project in close consultations with local authorities of Namibia</p> <p>- Build international partnerships and business linkages (B2B) of the national capacity for technology demonstration and training, involved Namibian producers and other concerned local private and</p>			
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	public stakeholders with similar centers, as well as public and private stakeholders of the reference/partner country(ies); and promote inter-institutional and business networking			
Outputs (results)	Capacity building and transfer of agro-industrial knowhow and technology to local farmers and manufacturers through the training of national expertise development, operating and maintaining the machinery.	# of trainers / facilitators trained/Experts trained (including sex disaggregated data) # of participatory workshops/ demonstration events conducted/Technology information awareness to end users (including sex disaggregated data)	Training reports List of participants to the training (including sex disaggregated data)	National counterpart institutions and experts are cooperating among each other and with the UNIDO project Farmers are willing to attend the workshop/training Knowledge management sustainability, absorption of capacity within the institutions/processing plants impacted by the project.
Activities	<ul style="list-style-type: none"> - Review existing relevant legal and regulatory frameworks in country and regional context to address possible gaps and barriers for sustainable development of bush/Acacia based products and related sectors - Identify, select and train local technicians, manufacturers, local farmers, skilled and semi-skilled workers, entrepreneurs, and 			

	<p>their associations and staff of local agencies and other stakeholders on the (collection and) manufacturing of products based on bush/ Acacia as identified in the Output 1 of this Project</p> <p>- Contribute to a national/regional technology information base of new and emerging technologies for production of end products based on bush/Acacia with required technical knowhow, technology providers, researchers and companies, with the potential further sustainable industrial growth with the support of local agencies, technology database and local entrepreneurs</p>			
Outputs (results)	Monitoring and evaluation	<p># of Project Advisory Group held</p> <p>1 mid-term review endorsed</p> <p>1 Final evaluation</p> <p>2 project progress reports</p>	Progress reports and evaluation reports are available to be share to the stakeholders and UNIDO	<p>Counterparts are cooperating</p> <p>Project activities are finalized in a timely manner</p>

Timeline of activities

Outputs								Year 1												Year 2												Year 3														
		1	2	3	4	5	6	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12			
	INCEPTION PHASE	INCEPTION PHASE						MAIN PHASE																																						
1.1	Conduct on-site assessment and select local materials such as the potential use of bush/Acacia for production of agro-industrial products such as feed, coal, other by-products to convert into value added final goods.																																													
1.2	Complete needs assessment and identify local/regional/international market needs in terms of feed, coal, other selected products identified.																																													
1.3	Conduct research for the regionally and internationally available advanced knowhow, machinery and equipment for manufacturing of selected derivative products based on identified needs, environmental impact assessment (EIA), energy and resource efficiency, and collected samples of applicable raw materials.																																													
1.4	Build a road map for further development of the relevant priority industrial sectors identifying the bottlenecks, constraints and opportunities (SWOT) affecting the productivity and supply of the sectors and define appropriate interventions areas.																																													
1.5	Based on results of Activity 1.4, support the organization of the validation workshop for the proposed road map.																																													
2.1	Identify various instruments and machines available locally for manufacturing of selected products based on bush/Acacia and assess the possibility using them in the project																																													
2.2	Identify most efficient and adapted to the Namibian conditions machines, equipment and processes for collecting bush/Acacia as a raw material for the manufacturing of selected products.																																													
2.3	Identify suitability of identified knowhow and technology for the development of products based on bush/Acacia under this project.																																													
2.4	Conduct Environmental Impact Assessment (EIA) in accordance with the national regulations and evaluation of the sustainability of the proposed selection of local materials for production of agro-industrial products such as feed, coal, other by-products and its impact on the flora and fauna of the local environment.																																													
2.5	Conduct validation workshop engaging a broad range of key stakeholders in a discussion process of the vision, directions and actions and advice for the road map build as part of Activity 1.4.																																													
Outputs																																														
		1	2	3	4	5	6	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12			
	MAIN PHASE																																													
3.1	Procure the identified equipment for further testing and adapt acquired technological processes for (collection and) manufacturing of products based on the bush/Acacia.																																													
3.2	Test the facilitated technologies and manufactured products in the laboratory and field to verify (i) their various properties as per the technical requirements/standards; (ii) their replicability against different agricultural conditions and landscapes in selected regions of Namibia for, inter alia,																																													

Outputs								Year 1												Year 2												Year 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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C2. Risks & Mitigation measures

Result	Assumptions & Risks				
Project element	Risk Description	Risk Type	Risk Level	Assumptions	Mitigation Measures
Sustainable Bush Value Chains (Project)	Operational risks may include: <ul style="list-style-type: none"> • (Co-)funding of the project implementation is not available, or not sufficient. In such case expected outputs will not be fully achieved or will be subject to delays; • National counterparts do not actively collaborate with the project throughout its different stages. 	Project Management	Low	Lack of awareness of the importance of the project among the stakeholders, not familiar with the positive outcomes of the ramifications the project can have on the economy of the country on the long term.	As part of the project's communication strategy, extensive awareness-raising activities will be conducted, thus, allowing Government agencies and end beneficiaries to become aware of the benefits, opportunities, and long-term impact. This will also make the project more nationally and regionally visible.
Sustainable Bush Value Chains (Project)	Potential risks to achieving the project objectives relate to both internal and external political, economic, geopolitical and security factors that may affect the project implementation or partly divert the attention of policy- and decision-makers from the industrial and agro-industrial sector development issues	Impact and Sustainability	Low	Political changes, staff turnover and slowdown of economic growth in the beneficiary country and/or in the target priority markets may affect the implementation of the project and its expected impact.	The project will engage in continuous monitoring of the internal and external political, economic and geopolitical factors, as well as overall security situation through regular communication with local authorities, UN field office, and the international organizations' offices on the ground. Changes or events that may affect the project will be discussed internally and potential amendments proposed.

C3. Institutional Arrangements and Coordination Mechanism

Management: A Project Advisory Group will advise the project implementation team, including the International Experts (including CTA, Team Leader) and the National Project Coordinator on the overall coordination and management of the project implementation. It will, inter alia, provide overall monitoring and ensure the follow-up of the project implementation activities, endorse beneficiary selection criteria, facilitate and promote synergies with national programmes and those of international development partners, and carry out respective project promotion and resource mobilization activities. The Project Advisory Group shall also serve as an effective platform for ensuring the incorporation of ISID into national policies and development goals.

The Project Advisory Group will also serve as a public-private dialogue platform enabling enhanced cooperation and contributing to increased role and involvement of private sector in the country's endeavors towards inclusive and sustainable industrial development. Inclusion of qualified women in the Advisory Group will be encouraged and monitored.

The Project Advisory Group meetings will be held on a regular basis, at least twice a year with participation of the Advisory Group Members, Secretariat of the Advisory Group and observers.

The overall technical management and coordination of the project implementation will be ensured by a team of male and female project experts composed of the CTA, International Expert, Team Leader, international experts and national staff headed by the National Project Coordinator under the technical guidance and supervision from the UNIDO Project Manager(s).

Ministry of Industrialization, Trade and SME Development (MITSMED): The Ministry is the government entity responsible for industrialization, enterprise and SME development and, the accompanying monitoring and evaluation of progress and performance. Hence, the Ministry will chair the Project Advisory Group and lead the approval of annual work plans and, oversight on project monitoring and evaluation.

Ministry of Agriculture, Water and Forestry (MAWF): The Ministry is the government entity responsible for protection, management and development of forest and related plant resources and, the devolution of such responsibilities and rights to local stakeholders. The Ministry will compliment MITSMED as the technical authority on forest and related resources and will ensure that the project deliver on national development targets and, involve all relevant stakeholders, particularly registered and emerging community forests.

Walvis Bay Corridor Group (WBCG): The mandate of the Group emanating from tripartite Spatial Development Initiative (SDI) between Angola, Namibia and South Africa (ANSA), is to accelerate economic and industrial development along what have traditionally been transport corridors. The overarching program goal is development of the spatial economies of the identified growth nodes and corridors to achieve economic growth in a manner, which is institutionally and environmentally sustainable and socially beneficial. The Group's role in the project would thus be to ensure synergies between the project and the SDI and, to advise on potential logistically viable locations for enterprise development such that it contributes toward the goals of the SDI.

Meat Board of Namibia: Facilitates the export of livestock, meat and processed meat products to importing countries. All major stakeholders of the Namibian meat industry are represented on the Board. The Board thus have a vested interest in the sustainability and growth of the farming sector for secure supply of meat for export. Given the Board's knowledge of the farming sector and the potential that can be unlocked in the bush-encroached Northern Communal Areas (NCA), the Board will advise on stakeholder mobilization and engagement, and viable locations for intensive de-bushing, feed production, feedlotting and abattoirs for meat processing.

Baobab Environmental and Social Governance (Pty) Ltd.: A wholly-owned Namibian entity with an interest in sustainable nature- and community-based enterprise (SME) development. As the private sector partner, Baobab ESG will support the executing agency in order to achieve the specific outputs. Particularly, in the generation and application of data for enterprise feasibility analysis, business development planning and, engaging private sector partners for value chain formulation.

University of Namibia (UNAM): The Department of Animal Science in the Faculty of Agriculture and Natural Resources has been actively involved in research about the nutritional composition and suitability of Acacia/ bush material as livestock feed. The Department will continue its role in research and development, in collaboration with a Finnish counterpart university, to compliment the technical and financial feasibility.

Agricultural Bank of Namibia ("Agribank"): Promotes agriculture or activities related to agriculture by lending money (a) to persons, which money is to be used in connection with agriculture or activities related to

agriculture; and (b) to financial intermediaries, who or which in turn lend money to persons for the purposes contemplated in paragraph (a). Hence, the bank may lend money to persons and intermediaries for intensive de-bushing and processing of bush material, thereby serving as potential catalyst to stimulate enterprise development. In supporting the activities of the executing agency, the bank will familiarize with tailored financing products related to the agribusiness development and creating shared prosperity.

D. BUDGET ITEMS

D1. Counterpart inputs

According to initial consultations between the UNIDO and the representatives of the Government of Finland, Finland is ready to fund the proposed project by utilizing the remaining funds of the Finnish contribution to the UNIDO Food Security Fund and the UNIDO Trade Trust Fund.

If deemed needed, the parties will jointly explore additional funding opportunities and will conduct coordinated fund-raising activities in order to complete/reach full funding of the programmed project activities.

It is also envisaged to receive in-kind support from the national counterparts and main stakeholders in forms of dedicated staff, project office and venues for training and expert meeting activities, as well as industrial and agricultural sites for testing and adaptation of the transferred technologies and machinery.

The Government and the participating institutions and enterprises will make available to UNIDO and international and national staff recruited by UNIDO all relevant studies, documents, information and data that are required for the successful implementation of the project.

D2. UNIDO Inputs

For the procurement of equipment and machines, as considered appropriate with this UNIDO project, the project will seek to benefit from the equipment/machines, which are compatible with specification and requirements of the tender; however, geographical limitation will be applied for procurement exercises to this project.

Following operational closure of this project, ownership of the project assets including equipment will be transferred to the most appropriate national (or local) counterpart organization in order to ensure sustainability of the results achieved.

E. BUDGET

Overall budget

Phase I funded from TII and Food security funds of Finland

Phase II to be financed by Finland and Baobab Environmental and Social Governance (Pty) Ltd.

Budget line	Total EUR	2017	2018	2019
1100 Internat. Cons/Staff	485,000	140,000	175,000	170,000
1500 Local Travel	57,500	20,000	20,000	17,500
1600 Staff Travel	55,000	20,000	20,000	15,000
1700 Nat. Consult./ Staff	246,912	50,000	107,456	89,456
2100 Contractual Services	60,500	10,000	35,000	15,500
3000 Train/Fellowsh/Study	127,000	0	63,500	63,500
4500 Equipment	707,000	5,000	639,500	62,500
5100 Other Direct Costs	31,000	5,000	13,000	13,000
SC-Support Costs				
Total	1,769,912	250,000	1,073,456	446,456

Budget divided per outputs:

Responsibility: Mr. F. Alimdjano

<u>Output 1:</u> Market intelligence study outlining the country's resources and local/regional/international market needs for (collection and) manufacturing of products based on the bush/Acacia for feed and food production, coal and other potential uses.		Total (Euro)
11	International Project Coordinator	70000
15	local travel	10000
16	Staff Mission	10000
17	National experts	25000
21	Subcontracting	5000
30	Training Workshops	
45	Equipment	2500
51	Miscellaneous	2500
	Sub Total (Euro)	125000

Responsibility: Mr. B. El Khatib

<u>Output 2:</u> Detailed technical and economic feasibility study identifying appropriate agro-industrial knowhow and technologies for (collection and) manufacturing of products based on the bush/Acacia for feed and food production, coal and other potential uses.		Total (Euro)
11	International Project Coordinator	70000
15	local travel	10000
16	Staff Mission	10000
17	National experts	25000
21	Subcontracting	5000
30	Training Workshops	
45	Equipment	2500

51	Miscellaneous	2500
	Sub Total (Euro)	125000

Responsibility: Mr. F. Alimdjanov

<u>Output 3:</u> Transfer of knowhow and technologies to national beneficiaries for manufacturing of products based on the bush/Acacia.		Total (Euro)
11	International Project Coordinator	70000
15	local travel	5000
16	Staff Mission	0
17	National experts	40000
21	Subcontracting	12500
30	Training Workshops	13500
45	Equipment	338500
51	Miscellaneous	3000
	Sub Total (Euro)	482500

Responsibility: Mr. B. El Khatib

<u>Output 4:</u> Field testing and adaptation of equipment to demonstrate the agro industrial technological processes for (collection and) manufacturing of products based on bush as to ensure that any technologies transferred as part of the project will be appropriate for the end users.		Total (Euro)
11	International Project Coordinator	70000
15	local travel	5000
16	Staff Mission	0
17	National experts	40000
21	Subcontracting	12500
30	Training Workshops	13500
45	Equipment	338500
51	Miscellaneous	3000
	Sub Total (Euro)	482500

Responsibility: Mr. F. Alimdjanov

<u>Output 5:</u> Enhanced national capacities for sustainable use and adaptation of the acquired know how and technologies within existing technical support institution facilitated		Total (Euro)
11	International Project Coordinator	94000
15	local travel	11250
16	Staff Mission	17500
17	National experts	55956
21	Subcontracting	12750
30	Training Workshops	50000
45	Equipment	12500
51	Miscellaneous	8500
	Sub Total (Euro)	262456

Responsibility: Mr. B. El Khatib

<u>Output 6:</u> Capacity building and transfer of agro-industrial knowhow and technology to local farmers and manufacturers through the training of national expertise (including representatives of related stakeholder institutions, associations, technicians, manufacturers, local farmers, skilled and semi-skilled workers, entrepreneurs, etc.) on identification (feasibility and market intelligence), development, operating and maintaining the machinery that will be demonstrated and disseminated among participating communities as part of the project.		Total (Euro)
11	International Project Coordinator	94000
15	local travel	11250
16	Staff Mission	17500
17	National experts	55956
21	Subcontracting	12750
30	Training Workshops	50000
45	Equipment	12500
51	Miscellaneous	8500
	Sub Total (Euro)	262456

Output Z: Evaluation		Total (Euro)
11	International Project Coordinator	17000
15	local travel	5000
16	Staff Mission	
17	National experts	5000
30	Training Workshops	
45	Equipment	
51	Miscellaneous	3000
	Sub Total (Euro)	30000

F. MONITORING, REPORTING AND EVALUATION

Monitoring: Monitoring activities will be carried out on the basis of the periodic reports prepared by the National Project Coordinator, the reports of the international experts, and based on the evidence collected during the visits carried out by the UNIDO Project Manager(s). The monitoring will be carried out taking into account the indicators listed in the Logical Framework Analysis. In addition, a mid-term review, in conformity with evaluation policy and guidelines, will be carried out as the project has a budget of more than 2.000.000 Euros. The mid-term review will also provide a base to monitor the progress towards outcomes and outputs and in case, to provide flexibility for revision to reflect the programmes targets and challenges to ensure that the project requirements and goals are met.

A detailed baseline will be developed following the inception of the project implementation. In addition to monitoring the quantitative results, the national experts will prepare a short qualitative Project Progress Report every year using the standard UNIDO template, which will be used as input for reporting to the Project Donor.

Reporting will be also including the analysis on disaggregated data by sex and age; data collected during the implementation of the project by a gender/HR ad hoc consultant which will be in charge of analyzing the situation and following up the integration and inclusion of women and youth in relevant activities throughout the value chain.

Reporting: The National Project Coordinator will present a report to UNIDO and the Project Advisory Group every three months on the activities realized during the implementation of the project work plan. The report will also cover the benefits and impacts achieved from the implementation of these activities. In addition, the report will include evidence to demonstrate the progress made in the achievement of the indicators enlisted in the Logical Framework Analysis.

Evaluation: The UNIDO Project Manager(s) will review the baseline and follow-up data and suggest revisions to be taken into account by the Project Advisory Group. At the end of the project, the Advisory Board and the Donor will visit and meet with representatives of the target beneficiaries to review the project's overall impact and prepare an evaluation report. This should be circulated sufficiently in advance to allow technical clearance by UNIDO and be followed by a terminal review meeting involving the national counterpart, the Project Donor and UNIDO upon completion of all other project activities. The project will be subject to an independent terminal evaluation in line with the UNIDO Evaluation Policy.

G. PRIOR OBLIGATIONS AND PREREQUISITES

n/a

H. LEGAL CONTEXT

The Legal Context for UNIDO operations within the country is linked to the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government of the Republic Namibia, signed on 22 March 1990.

ANNEXES

- JD International Expert



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE FOR PERSONNEL UNDER INDIVIDUAL SERVICE AGREEMENT (ISA)

Title:	International Expert on Feed/Food Products Development and Technologies
Main Duty Station and Location:	Home based and missions to Namibia
Mission/s to:	Namibia
Start of Contract (EOD):	
End of Contract (COB):	
Number of Working Days:	

ORGANIZATIONAL CONTEXT

UNIDO is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability. The mandate of the UNIDO is to promote and accelerate sustainable industrial development in developing countries and economies in transition. With this mandate, the Organization carries out two core functions: as a global forum, it generates and disseminates industry-related knowledge; as a technical cooperation agency, it provides technical support, policy advice and implements project. UNIDO's vision is a world where economic development is sustainable and economic progress is equitable.

The Programme Development and Technical Cooperation (PTC) of UNIDO is responsible for providing technical cooperation services on technological and economic issues in the following areas covered by five departments: Department of Partnerships and Results Monitoring (PRM); Department of Agri-Business Development (AGR); Department of Trade, Investment and Innovation (TII); Department of Energy (ENE) and Department of Environment (ENV).

PROJECT CONTEXT

The project "Promoting Sustainable Bush-Processing Value Chains in Namibia" is aimed to be step toward sustainable management of resources in Namibia, stimulate sustainable industrial development and value addition. In the framework of the national Vision 2030 and the Fourth National Development Plan (NDP4) 2012-2017, the project will contribute to the country's economic and ecological well-being, stimulate environmental protection and the transfer to food-secured and eco-friendly nation.

In particular, the Project is aimed to provide sustainable solutions for addressing the bush encroachment through feasibility and market intelligence, transfer of technologies and knowhow, and respective capacity building for development of bush-processing value chains.

The Project's inception phase will include the following outputs:

- Market intelligence study outlining the country's resources and local/regional/international market needs for (collection and) manufacturing of products based on the bush/Acacia for feed and food production, coal and other potential uses.
- Detailed technical and economic feasibility study identifying appropriate agro-industrial knowhow and technologies for (collection and) manufacturing of products based on the bush/Acacia for feed and food production, coal and other potential uses.

The International Expert on Feed/Food Products Development and Technologies will work under direct supervision of the UNIDO Project Managers at the UNIDO HQ (Vienna) and in close collaboration with the UNIDO experts and the national counterparts. His/her duties shall be performed in accordance with applicable rules and regulations of UNIDO and this Job Description.

MAIN DUTIES	Concrete/ measurable Outputs to be achieved	Expected duration	Location
1. In team with the Project Manager, develop a draft concept based on desktop research and other available resources to convert locally available bush resources into value added agro-industrial products such as animal feed, charcoal and other by-products.	Inputs for onsite assessment and selection of local materials are provided	Through-out the assignment	Home based
2. Contribute to the development of a road map for further development of the identified product opportunities. The road map is expected to include relevant priority industrial sectors identifying the bottlenecks, constraints and opportunities which affect the project, its productivity and feasibility and will define appropriate interventions areas. Appropriate machinery and process equipment will be defined on a preliminary basis and first laboratory tests with defined test specimens.	Contributions provided and road map developed		Home based
3. Based on the final draft concept and the road map prepared, coordinate identification of various instruments and machines available locally for manufacturing of selected products based on bush/Acacia and assess the possibility using them in the project.	Assessment report including the identification of required machinery and equipment under consideration of local contribution possibilities.		Home based
4. Verify the assumptions of draft project proposal through the following activities: (a) by performing specimen laboratory tests (nutrition content for animal feed applications); (b) by selection and specification of appropriate machinery.	Machinery and equipment identified, assumptions verified, inputs provided		Home based
5. Provide inputs and advice in terms of identification of the most efficient machines and equipment that can be potentially adapted to the Namibian conditions for the processes of collection of bush/Acacia as a raw material for the manufacturing of selected products.			
6. Develop a preliminary feasibility model, including the review of market absorption capacities and based on the raw materials available in Namibia.	Preliminary feasibility as basis for further project approval		Home based

MAIN DUTIES	Concrete/ measurable Outputs to be achieved	Expected duration	Location
7. Collect information from the manufacturers of the machinery and technologies, from other research institutes and from further contributors about the following topics: (a) information about the machinery and technologies proposed for Namibian conditions; (b) regarding the required Environmental Impact Assessment (EIA) of the proposed selection of local materials for production of agro-industrial products such as feed, coal, other by-products and its impact on the flora and fauna of the local environment.	Information collected and EIA conducted		Home based and travel to Namibia
8. Evaluate the need for raw material tests to identify the applicability of the selected bush processing equipment.	Applicability of the selected bush processing equipment identified		Home based and travel to Namibia
9. Coordinate the organization of this validation workshop engaging a broad range of key stakeholders in a discussion process of the vision, directions and actions and advice for the road map, R&D institutions, other relevant stakeholders in the workshop.	Workshop conducted, presentation delivered		Home based and travel to Namibia
10. Present the findings of the evaluation of the needs for raw materials tests for elaboration of next step of UNIDO Project.			
11.Prepare reports after each field mission including the activities carried out, the achievements, analysis of lessons learned and recommendations. The reports should be prepared in accordance with the reporting system established by UNIDO and sent to UNIDO by e-mail	Reports as per the UNIDO format developed and submitted to the UNIDO Project Managers		Home based
12.Prepare a final/terminal report at the end of the contract/inception phase comprising all relevant information compiled from the interim reports, conclusions and recommendations	Report as per the UNIDO format developed and submitted to the UNIDO Project Managers		Home based

REQUIRED COMPETENCIES

Core values:

1. Integrity
2. Professionalism
3. Respect for diversity

Core competencies:

1. Results orientation and accountability
2. Planning and organizing
3. Communication and trust

4. Team orientation
5. Client orientation
6. Organizational development and innovation

Managerial competencies:

1. Strategy and direction
2. Managing people and performance
3. Judgement and decision making
4. Conflict resolution

MINIMUM ORGANIZATIONAL REQUIREMENTS

Education: Advanced university degree in economics, management, business administration, industrial engineering, material technology or other relevant discipline. A first level university degree in combination with relevant experience may be accepted in lieu of an advanced degree.

Technical and Functional Experience:

A minimum of 15 years professional experience in industrial/economic development, of which 5+ years in the field of private sector development initiatives. Experience with UNIDO, World Bank or any other international development organizations would be an asset. Good analytical (information and data) and writing skills.

Exposure to the specific designing needs, conditions and problems of developing countries and economies in transition; knowledge and application of the UNIDO methodology for upgrading, export consortia and partnerships are of asset.

Demonstrated experience in capacity building, advising senior level private and public sector executives; exposure to the needs, conditions and problems of public and private sectors in developing countries.

Languages: Fluency in written and spoken English are required.