

## Background Information Document (BID)

### Environmental Assessment for the proposed *Opuntia ficus-indica* Irrigation Project, Farm Namseb No. 24, Hardap Region, Namibia

#### Purpose of the BID

LM Environmental Consulting is appointed by Gusinde Von Wietersheim Successors Trust to undertake an Environmental Assessment (*Scoping, Impact Assessment and Environmental Management Plan*) for the proposed Project.

The **Scoping** Process determines the extent of and approach to the detailed assessment; Scoping Report is defined as “*a document prepared by the proponent to present the case for the assessment of an activity as part of the initial assessment process*” (Government of the Republic of Namibia (GRN), 2012).

**Environmental Assessment** is the “*process of identifying, predicting and evaluating the effects of proposed activities on the environment. It should include information about the risks and consequences of activities, possible alternatives, and steps which can be taken to mitigate (minimize or off-set) any negative impacts. It should also discuss steps to increase positive impacts and to promote compliance with the principles of environmental management*” (Ministry of Environment and Tourism (MET), 2008).

An **Environmental Management Plan** is a “*key document that should consist of the set of measures to be taken during implementation and operation to eliminate, offset, or reduce adverse environmental impacts to acceptable levels. Also included in the plan are the actions needed to implement them*” (Directorate of Environmental Affairs (DEA) (now Environmental Affairs and Forestry (DEAF)), 2008).

**Environment** is defined as the “*surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation*” (International Organization for Standardization (ISO), 2004).

As part of the Environmental Assessment Process, a **Public Consultation Process** is being carried out. The purpose of Public Participation or Consultation is to provide stakeholders, including the public, an opportunity to participate in the Environmental Assessment Process, in order to ensure that the intended development initiatives consider broad-based concerns. It further improves governance in that the intended development must consider a wide range of issues, e.g. the need to conserve the natural environment and the need to maintain a functioning ecology.

The purpose of the BID is thus to: i) provide stakeholders, including the public, with more information regarding the Project; and ii) give stakeholders, including the public, an opportunity to register as Interested and/or Affected Parties (I&APs) and comment on, or raise any issues and/or concerns related to the Project.

#### Background

The Gusinde Von Wietersheim Successors Trust, in association with Nopal Corp. in Portugal, is proposing to plant 500 hectares (ha) of *Opuntia ficus-indica*.

According to Government Notice (GN) No. 29 (Government Gazette of the Republic of Namibia, No. 4878, 06 February 2012) the following activities may not be undertaken without an Environmental Clearance Certificate (ECC):

**ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES** The construction of facilities for - (a) the generation of electricity; (b) the transmission and supply of electricity  
**WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES 2.3**  
The import, processing, use and recycling, temporary storage, transit or export of waste.

**AGRICULTURE AND AQUACULTURE ACTIVITIES** 7.5 Pest control. 7.8 The introduction of alien species into local ecosystems.

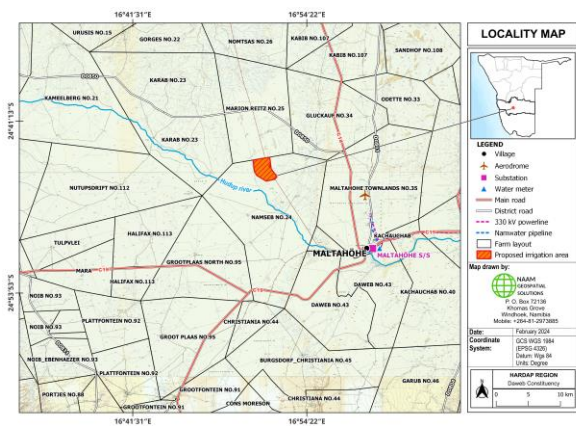
**WATER RESOURCE DEVELOPMENTS** 8.1 The abstraction of ground or surface water for industrial or commercial purposes. 8.7 Irrigation schemes for agriculture excluding domestic irrigation.

**HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE** 9.1 The manufacturing, storage, handling or processing of a hazardous substance defined in the Hazardous Substances Ordinance, 1974.

In line with the Commencement of the Environmental Management Act (EMA), 2007 (Act No. 7 of 2007) (06 February 2012; GN No. 28), the Listed Activities that may not be undertaken without an ECC (GN No. 29), and the Environmental Impact Assessment (EIA) Regulations (GN No. 30) (GRN, 2012), an application for an ECC was thus submitted to the Executive Director, **Ministry of Agriculture, Water and Land Reform** (MAWLR; Competent Authority), and the Environmental Commissioner, **Ministry of Environment, Forestry and Tourism** (MEFT).

### Project Location

The proposed irrigation Project will be located on Farm Namseb No. 24, around 17 km north-west of Maltahöhe.



### Project Description

An electrical fence will be constructed around the entire Project area (630 ha).

It is proposed to plant 500 ha of *Opuntia ficus-indica*; 10,000 plants will be planted per ha: 40 rows per ha with 250 plants per row.

*Opuntia ficus-indica* cladodes will be obtained from the existing Nopal Corp. farm in Portugal,

shipped in containers to Walvis Bay, and then transported via truck to the site.

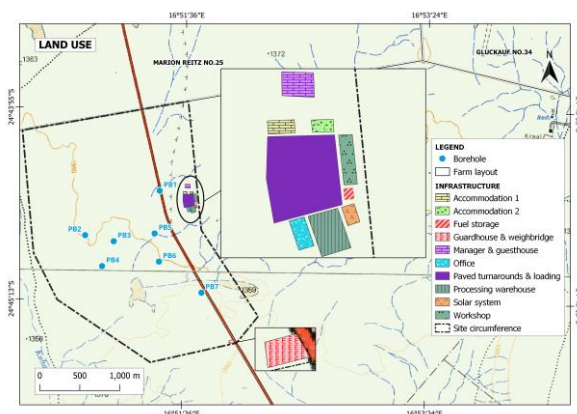
Each plant requires at least 48 litres of water per annum and it is proposed to make use of drip irrigation. The water will be obtained from six solar-powered boreholes (depth of less than 100 metres (m)). The daily water requirement is estimated at 660 cubic metres per day (m<sup>3</sup>/day) or 110 m<sup>3</sup>/day from each of the six boreholes. The annual water requirement (for 500 ha) is estimated at 240,000 m<sup>3</sup>.

It is proposed to use organic fertilizer (e.g. dung from local sheep and goats), as well as bio-stimulants (e.g. kelp extract and wood vinegar). NPK+MgO fertilizer in liquid form may be applied through the dripper system, as or when required.

Pest management (pesticides, and including herbicides (weed management) and insecticides (for e.g. Cochineal *Dactylopius* spp. and Cactus moth *Cactoblastis cactorum*)) may be needed. It is proposed to use organic spot treatment with e.g. neem oil, or wood vinegar (vs pesticides); the following insecticides may be used: carbaryl, deltamethrin and methidathion, as well as tralomethrin (pesticide).

The fruit will be harvested for (local) consumption. The cladodes will be used as animal feed (sold wet to local farmers especially during times of drought / dried whole or chopped and sold to animal feed companies / processed on site and made into pellets and fodder blocks which can be sold directly to farmers or to agricultural wholesalers). Both the fruit and cladodes will be harvested using manual labour.

It is foreseen that the following infrastructure will be needed: i) office; ii) processing warehouse (possibly two) (and including cold storage facilities); iii) solar system; iv) workshop; v) fuel storage; vi) paved turnaround and loading; vii) weighbridge; viii) guardhouse; ix) manager and guest houses; and x) two accommodation units.



Best practices for the management of *Opuntia ficus-indica* in order to minimise spread (or other potential negative impacts on the environment), will be implemented. A hydrogeological specialist study will also be carried out as part of the Environmental Assessment.

### Employment

It is anticipated that around 20 persons will be employed during the initial set-up phase of the proposed Project. During maintenance, approximately 20 persons will be employed, and another 50 persons during periods of harvesting.

### Future Involvement

If you would like to remain involved in this process, please register as an I&AP and submit any comments and/or concerns in writing by **20 March 2024**.

Note that the *Draft* Environmental Assessment Report will be made available to registered I&APs for review around **April/May 2023**. Comments received will be incorporated and a Final Environmental Assessment Report will then be submitted to the Executive Director, Ministry of Agriculture, Water and Land Reform (MAWLR), and the Office of the Environmental Commissioner, Ministry of Environment, Forestry and Tourism (MEFT) for review and decision-making.

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### References

Directorate of Environmental Affairs (DEA). 2008. *Draft Procedures and Guidelines for Environmental Impact Assessment (EIA) and Environmental Management Plans (EMP)*. Directorate of Environmental Affairs, Ministry of Environment and Tourism, Windhoek.

Government of the Republic of Namibia (GRN). 2012. Ministry of Environment and Tourism. Government Notice No. 28. *Commencement of the Environmental Management Act, 2007*. Government Notice No. 29. *List of activities that may not be undertaken without Environmental Clearance Certificate: Environmental Management Act, 2007*. Government Notice No. 30. *Environmental Impact Assessment Regulations: Environmental Management Act, 2007*. Government Gazette of the Republic of Namibia. No. 4878. 6 February 2012.

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