NAMIBIAN
AGRONOMIC BOARD

# GRAIN VALUE CHAIN DEVELOPMENT PROGRAMME

"One farmer, one center pivot grain irrigation scheme" ***Modalities***

2025-2030

# 01. BACKGROUND

Namibia's grain production is predominantly rain-fed and therefore highly susceptible to climatic variability, particularly recurring droughts. This dependence on dryland agriculture results in significant fluctuations in crop yields, especially for major rain-fed grain crops such as white maize and pearl millet. According to statistics from the Namibian Agronomic Board (NAB), approximately 50% of the country's white maize is produced under rain-fed conditions, while pearl millet is produced entirely under such systems, making these staple crops particularly vulnerable to the adverse impacts of drought.

Rain-fed white maize production is primarily concentrated in the Zambezi, Karst, and Central Production Zones, whereas rain-fed pearl millet cultivation occurs mainly in the Zambezi, Kavango, North Central, Karst, and Central Production Zones. Farmers operating in these regions face considerable challenges in adopting irrigation technologies due to the high costs associated with purchasing and installing irrigation systems, as well as the expenses of drilling boreholes to access water. Currently, the most prevalent form of irrigation used in grain production in Namibia is the center pivot system, predominantly employed by large-scale commercial maize and wheat farmers.

To address these challenges, the Grain Irrigation Support Initiative such as the ***"One Farmer, One Centre Pivot Grain Irrigation Scheme" implemented*** as part of the Grain Value Chain Development Programme (GVCDP) seeks to promote climate-resilient grain production. The 2 aims to provide a 50% subsidy toward the purchase of a centre pivot irrigation systems (solar-powered center pivots) for the production of white maize, pearl millet, and wheat, limited to a minimum of 2.5ha and maximum of **10 hectares** per beneficiary farmer.

Through this initiative, the government aims to enhance farmers' adaptive capacity to climate change, improve productivity through the adoption of efficient irrigation technologies, and ultimately increase household income among smallholder grain producers.

# 02. AIMD AND OBJECTIVES

This scheme aims to increase food security, boost farmers' income, and create a more viable and commercially focused crop subsector.

**The specific objectives of this scheme are to:**

a. Provision of a 50% subsidy for solar powered centre pivot for irrigation of summer grain crops i.e maize and pearl millet, and other crops outside summer, except permanent crops such as fruits.

b. Facilitate capacity building trainings and mentorship for participating farmers to ensure high productivity.

# 03. TARGETED GRAIN PRODUCERS

- This scheme targets new or existing grain farmers in all production zones, who are willing to invest in irrigated production, and targeting 300ha (30 farmers) per year or 1,200ha (120 farmers) over 4 years but limited to a minimum of 2.5ha and maximum of 10ha per beneficiary farmer, once off benefit.

- The scheme will deliver a 50% subsidy for purchasing of solar center pivot irrigation system by farmers, calculated on invoice value, inclusive of VAT, labour cost.

- This intervention will produce about 12,000 tons to 15 000 tons of maize by 2030, but lower volumes with wheat and pearl millet due to less tons per hectare that can be harvested.

# 04. SCHEME REQUIREMENTS

- Must be registered with the NAB as a producer.
- The applicant must be a Namibian citizen (Proof of Identification to be attached to the application).
- Proof of land ownership issued by the relevant authorities, headman, or traditional authority.
- Must have a reliable source of water for irrigation (borehole yield test results and qaulity), with the right size of water pump for the pivot.
- Must have a water permit from relevant authority in Namibia where applicable.
- Must be able to demonstrate the availability of funds to cover for production (loan approval letter, bank balance letter and sponsorship/grant letter).
- The field must be properly secured, to prevent crop damage.
- The farmer shall undertake to strictly produce (cultivate) grains (white maize and mahangu) during summer, and while outside summer the farmer will be allowed to produce other crops such as wheat, potatoes, onions, sweet potato, but no permanent crops such as fruits will be produced, unless as authorised by the NAB.
- A mutual bidding contract will be signed with the NAB and beneficiary for a period of five years to ensure that the center pivot is used for the intended purpose.

# 05. IMPLEMENTATION MODALITIES

- A 50% subsidy on unit cost per hectare for irrigation system (solar powered center pivots) will be provided to grain farmers, over a period of 4 years (2026 - 2030), and each selected farmer will only benefit once.
- The farmer will be required get a quotation from approved suppliers and submit to the NAB for consideration.
- NAB will review the application, and either approve or reject the application, and the applicant will be notified accordingly in both situations.
- The NAB may conduct field assessment to ensure that the applicant has reliable source of clean and quality water for irrigation.
- If approved the beneficiary farmer will be required to pay their 50% portion to the supplier and submit the proof to the NAB before the subsidy portion is paid directly to the supplier.
- The NAB in partnership with the beneficiary will oversee the installation of the solar center pivot on the farm by the supplier or service provider.

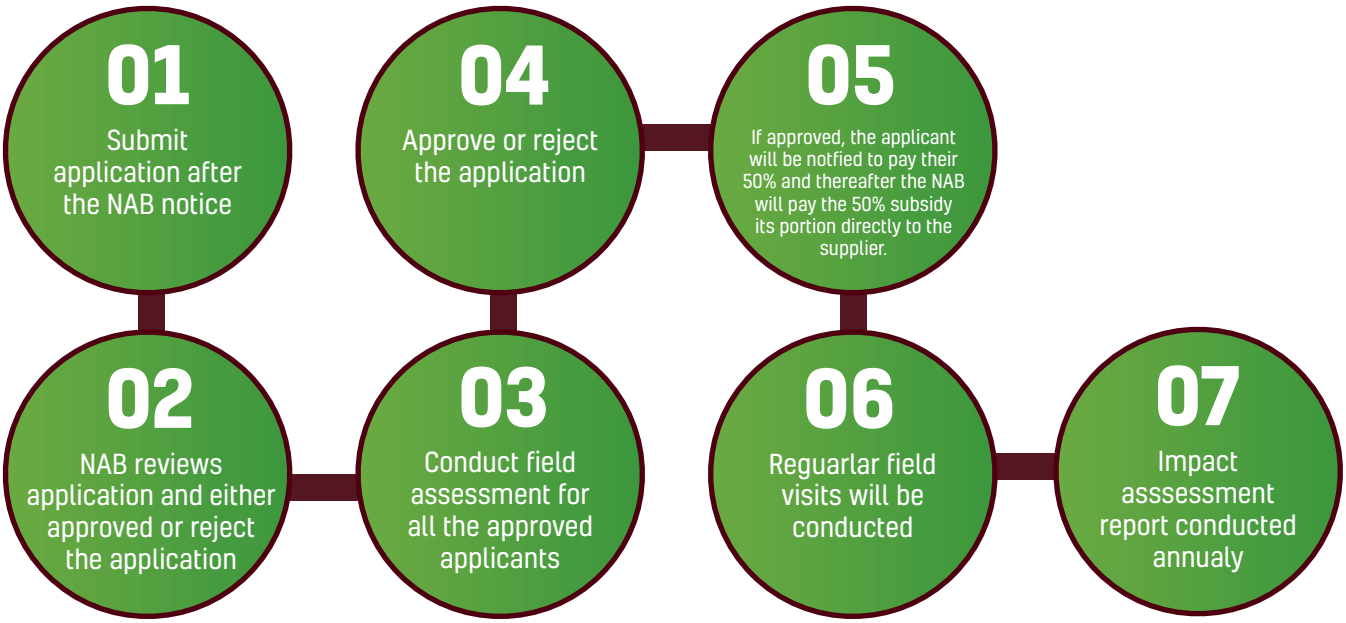


*Figure 1: Process flow for the irrigation support programme.*

# 06. FINANCIAL IMPLICATION

A 10ha solar center pivot cost approximately N$753,000 excl. VAT (solar center pivot, plus installation labour) and hence a 50% subsidy will be approximately N$ 376,500 per 10ha solar center pivot.

At maximum hectares, the cost per annum will be approximately N$11,295,000 per year for 30 farmers or N$ 45,180,000 in four (4) years for 120 farmers at maximum hectares of 10ha. This subsidy excludes transport from supplier to farm site and the submersible water pump and the main water line to the pivot

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