30-day notice: Expanding climate-adaptive cold storage solutions for potato and onion seed value chains in Bangladesh
Date: 2 March 2026

Name of client	A R Malik Seeds (Pvt.) Ltd.
Website	https://malikseeds.com
Region	Asia
Country	Bangladesh
Sector	Agriculture
Signing date	30 days from publication at website
Total financing	€237,300 grant
Fund	Origination Facility "OF"

Who is our (prospective) client?

A R Malik Seeds Pvt. Ltd. is the fourth largest potato seed supplier in Bangladesh, serving approximately 1.25 million farmers annually through a nationwide distribution network. Founded in 1969, the company develops and distributes more than 100 vegetable and potato seed varieties, with a strategic focus on 'next generation' seeds that are more climate resilient, disease-resistant, and higher-yielding than traditional varieties.

The company's immediate priority is a €2.41 million investment in modern cold storage facilities for potato (primary focus) and onion seeds. This investment would increase potato storage capacity from 3,500 MT to 10,000 MT and onion storage capacity from 80 MT to 400 MT. Currently, A R Malik Seeds loses on average:

- 30% of potato seeds during storage
- Up to 60% of onion seeds during storage

These losses are driven by inadequate rented facilities not designed for Bangladesh's hot and humid climate. The lack of appropriate cold storage:

- Reduces availability of high-quality seed in the market,
- Caps the company's growth,
- Limits farmer access to climate-resilient varieties.

The proposed investment will reduce post-harvest seed losses, improve quality preservation, and unlock scale, enabling the company to expand farmer reach and improve resilience across climate-vulnerable regions of Bangladesh.

Figure 1: Seed Supply Chain of A R Malik Seeds

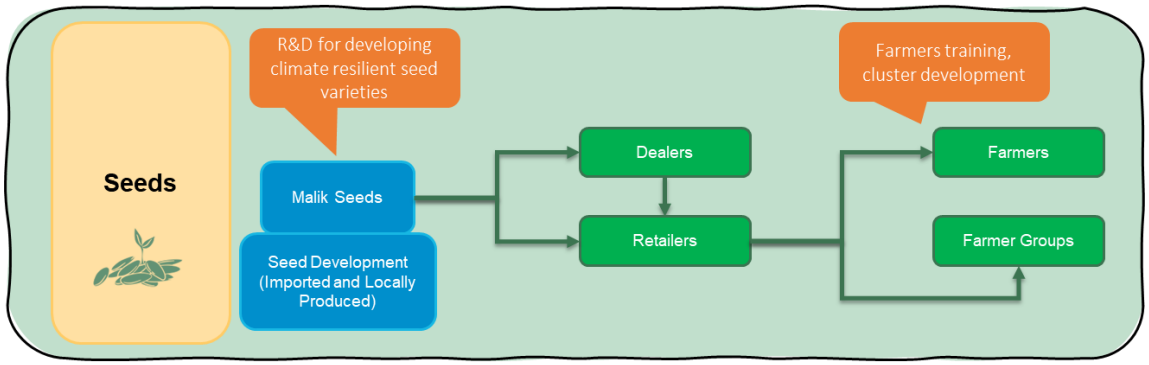
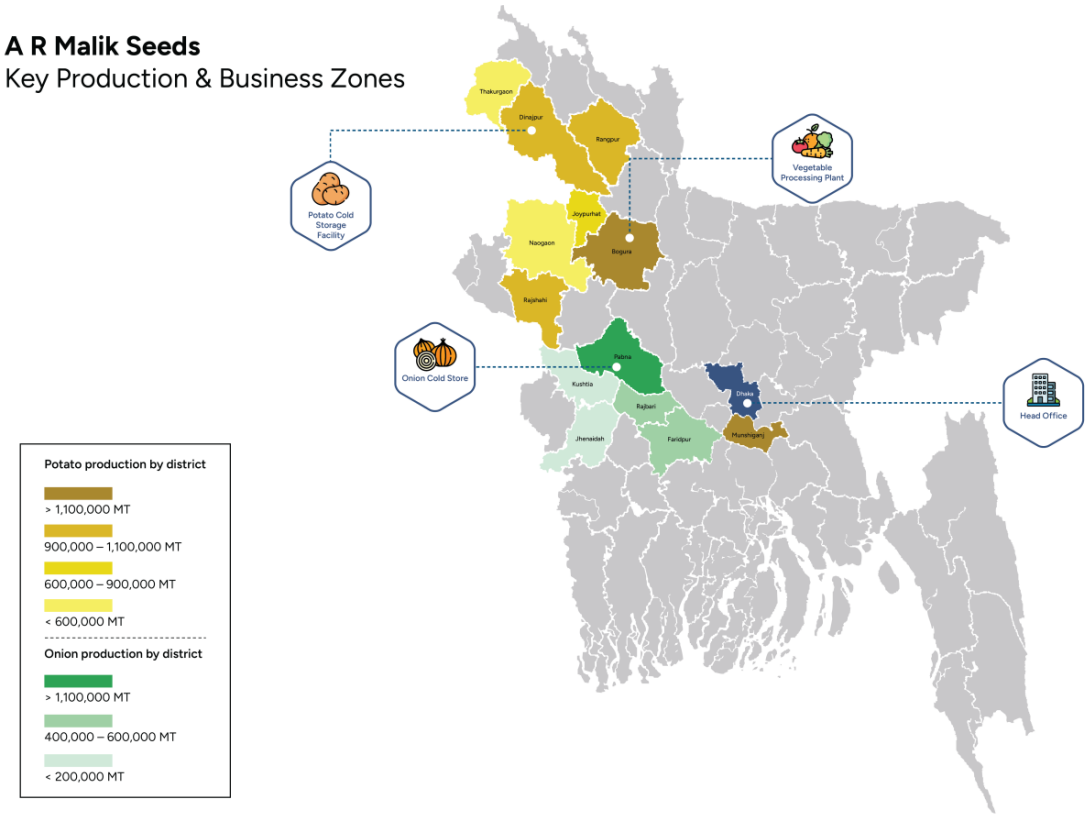


Figure 2: Bangladesh potato and onion production areas and A R Malik Seeds company footprint (source: SNV, data from Bangladesh Bureau of Statistics (BBS) 2021-22).



Why do we fund this project?

Bangladesh's northwest region (where A R Malik Seeds primarily operates, see Figure 2) is drought-prone, flood-prone, and highly climate vulnerable (see Figure 3). Smallholder farmers in these areas depend heavily on rain-fed agriculture and have limited adaptive capacity.

A R Malik Seeds came to the attention of SNV through the Embassy of the Kingdom of the Netherlands in Bangladesh. Following the company's participation in a Seed Fair in the Netherlands, the Embassy facilitated an introduction to SNV and the DFCD Origination Facility. Subsequent discussions confirmed strong alignment between the company's climate-resilient seed portfolio, its planned cold storage investment, and DFCD's mandate to support adaptation-focused, private-sector solutions in vulnerable landscapes.

At the same time:

- Approximately 80% of potato seed supply comes from informal, farmer-saved seed systems, where productivity and resilience traits deteriorate over time.
- Women represent approximately 58% of the agricultural workforce, yet face barriers to land ownership, finance, training, and market participation.

Climate stress, combined with weak post-harvest infrastructure, leads to:

- Yield instability
- Higher production risks
- Price volatility (e.g., recent spikes in onion and potato prices following extreme weather events)
- Reduced food security

A R Malik Seeds addresses these challenges by supplying certified, climate-resilient seed varieties with:

- Up to 50% higher yields
- Reduced fungicide and pesticide requirements (up to 60–77% reduction)
- Improved drought, salinity, and disease tolerance
- Improved farmer income (up to 183% higher net income per acre compared to traditional varieties; see Annex 6)

However, the company's ability to scale this impact is constrained by inadequate cold storage infrastructure.

By investing in climate-adaptive seed storage:

- Seed quality and genetic integrity are preserved
- Waste is reduced
- Farmer access to resilient varieties increases
- Supply stability improves during climate shocks

This aligns strongly with:

- Bangladesh National Adaptation Plan
- NDC commitments

- Delta Plan 2100
- DFCD objectives on climate-resilient land use and food security

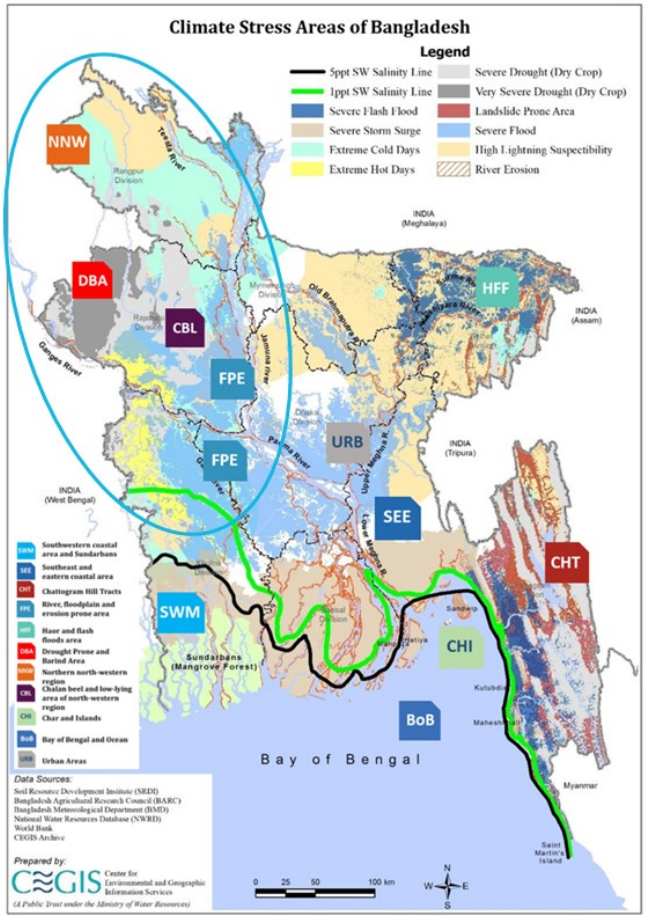


Figure 3: Climate stress areas of Bangladesh. Source: Bangladesh National Adaptation Plan, 2023.

What is the intended funding objective (type of activity)?

The DFCD Origination Facility (OF) will de-risk a €2.41m debt investment proposal in modern, climate-adaptive cold storage facilities for potato and onion seeds.

The OF will support:

- Technical feasibility assessments,
- Business restructuring and corporate consolidation,
- Supply chain strengthening,
- Environmental and social risk management,
- Gender Equality and Social Inclusion (GESI) integration.

By strengthening Malik Seeds' operational systems, governance structure, and environmental and social safeguards, the OF will prepare the company to secure external investment and sustainably scale its storage and distribution capacity.

The grant will be used for undertaking

The DFCD Origination Facility aims to support A R Malik Seeds in de-risking its operations by implementing the following key milestones.

1. Strengthening Seed Distribution Channels: Enhances logistics and marketing to ensure better demand and reduce unsold inventory.
2. Improving Seed Sourcing: Diversifies sourcing options and strengthens supplier relationships to guarantee quality and stability in seed potato supply.
3. Market Development for Onions: Explores new opportunities to improve revenue streams from onion.
4. Efficiency in Cold Storage: Pilot and improve performance of existing cold storage solutions to extend product shelf life and minimize post-harvest losses.

Together, these milestones form a strategic framework that promotes sustainability and profitability, and significantly enhances the company's investability.

What are the expected impacts of the company?

The proposed investment is classified as Rio Marker 2 for climate adaptation (*as defined by the OECD DAC Rio Markers*). By expanding cold storage capacity and reducing post-harvest seed loss, the project is expected to:

- Serve 65,000 additional farmers
- Bring 82,095 hectares under climate-resilient management
- Increase yields by up to 50%
- Increase farmer net income by up to 183% per acre (see Annex 6)
- Create 160 direct and 1,200 indirect jobs
- Improve food availability and price stability in domestic markets

The pathway of impact is:
Improved storage → reduced seed loss → increased availability of certified climate-resilient seeds → higher adoption by farmers → improved yields and income → strengthened climate resilience and food security.

Environmental and social rationale

The project is categorized as IFC Category B due to moderate, manageable environmental and social risks.

Key risks include:

- Pesticide misuse
- Occupational health and safety risks
- Energy consumption in cold storage
- Gender inequity in value chain participation
- Child labour risks in informal farming contexts

During the Origination phase, the project will:

- Develop and institutionalize a centralized ESMS aligned with IFC Performance Standards,
- Conduct OHS risk assessments,
- Promote Integrated Pest Management (IPM),
- Assess potential solar integration for cold storage energy efficiency,
- Develop and implement a GESI Action Plan.

Women currently represent approximately:

- 30% of farm-level participation
- 60% of post-harvest activities
- 5% of trading/marketing roles

Malik Seeds aims to increase women's participation to 40–45%, including leadership roles such as lead/demo farmers.

By strengthening storage infrastructure and governance systems, the project supports climate-resilient land use, reduced agrochemical intensity, improved livelihoods for smallholder and marginalized farmers, and greater gender inclusion in agricultural value chains.

[1] https://www.tbsnews.net/environment/climate-change/how-climate-change-drives-your-grocery-bill-1194566
[2] https://www.tbsnews.net/agriculture/cyclone-impacts-now-felt-winter-crops-market-766998