

Climate & Water Smart Protected Cultivation in Egypt

Dutch Expertise for Sustainable Horticulture and Food Security in Egypt

Egypt's agricultural sector is the backbone of the economy, providing employment, food security and export opportunities. With fertile lands along the Nile, a rich agricultural tradition and large agricultural land reclamation in desert areas, Egypt is the largest agricultural producer in North Africa. To secure its future, with a population of 110 million and growing, Egypt's ambition is to make the transition to a future-proof agricultural sector. This entails more cultivation in greenhouses, updating irrigation methods, and strengthening its workforce by skills development. As a future-proof food system is a shared ambition between both countries, the Netherlands aims to partner with Egypt to accelerate this transition with the Climate and Water Smart Protected Cultivation in Egypt program.

Dutch Greenhouse Delta (DGD) coordinates the cluster of Dutch leading companies, knowledge partners and government.



Egypt – The Challenge

- Extreme climate with hot, arid conditions.
- Severe water scarcity: Agriculture accounts for over 80% of freshwater use.
- Rapid population growth increasing food demand.
- Dependence on traditional open-field cultivation with high water losses.
- National priorities include modernizing agriculture, increasing water efficiency, and achieving greater food security.



The Dutch Contribution

Goal: Support Egypt's agricultural transformation through advanced horticulture and efficient water management solutions.

Key Impact Areas:

- Controlled Environment Agriculture (CEA) – Greenhouse systems adapted to Egypt's climate.
- Water-Efficient Production – Precision irrigation, recirculation, and water reuse systems.
- Biological Crop Control – Sustainable pest and disease management.
- Smart Technologies – Climate control, automation, AI-driven crop monitoring.
- Capacity Building – Knowledge transfer, training, and demonstration projects.



Program Activities

- Branding & Promotion: Showcasing Dutch horticulture capabilities in Egypt.
- Market Access: Trade missions, matchmaking events, and stakeholder engagement.
- Knowledge Exchange (K2K): Training sessions and technical workshops.
- Economic Diplomacy: Leveraging government and institutional ties for strategic partnerships.



Why the Netherlands?

- Proven ability to grow more with less water.
- Integrated approach combining technology, services, and education.
- Leading expertise in sustainable horticulture.
- Strong track record in arid and semi-arid agricultural innovation.



Expected Outcomes

- Water savings of up to 90% compared to open-field cultivation.
- Increased local production of vegetables and fruits.
- Enhanced resilience of Egyptian agriculture to climate change.
- Stronger bilateral economic and knowledge partnerships.

