The Center for Foreign Trade & International Cooperation (CFTIC)
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The Center for Foreign Trade and International Cooperation of the Israel Ministry of Agriculture and Rural Development (MARD) is responsible for developing and promoting bilateral and multilateral trade and cooperation with governments, international organizations, and other stakeholders in the agricultural sector. The Center’s activities build on Israel’s expertise and leadership in agricultural innovation and are guided by the goals of the UN’s 2030 Agenda for Sustainable Development.

Our unique human capital includes experts from the MARD professional units and institutions including the Extension Service, National Veterinary Services, Agricultural Research Organization – Volcani Center, Plant Protection and Inspection Service, and other related professional departments.

The CFTIC works primarily through the framework of government-to-government (G2G) agreements, as well as collaborations with international organizations, professional institutes, and relevant NGOs. It facilitates business-to-business (B2B) activities to expand the outreach of Israeli technologies and innovations.

Collaborative efforts focus on designing and implementing agricultural projects that support the integration of relevant Israeli agricultural expertise and innovation to deliver competitive, resource efficient, sustainable, and resilient outcomes in the agricultural sector. It promotes B2B activities that complement and support government-led initiatives.

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1 WHAT WE DO

Harnessing the power of Israeli innovation and technologies for sustainable agriculture and rural development

- Technology transfer
- Share Israel’s development experience
- Support PPP initiatives
- Focus on human and institutional capacity building
- Support the integration of Israeli agricultural technology and inputs
Building on Israel’s experience

Israel’s agricultural sector is characterized by intensive production spurred by the need to overcome a scarcity of natural resources. The high standard of development in the sector can be attributed to close cooperation and interaction between scientists, extension services, growers, and agro-industries. These four pillars stand together to transform agriculture in Israel into an industry that is globally recognized for its innovation, resource efficiency and productivity, and climate adaptation leadership in a country where more than half of the land is classified as desert.

Innovation is at the core of Israel’s agricultural development and success. The power of Israeli innovation and technology is harnessed through the introduction of new or existing products, technologies, processes, skills, business models, and the establishment of institutions, the Ministry’s projects and initiatives. Innovation facilitates effectiveness and competitiveness, contributes to climate resilience to shocks or environmental degradation, and drives sustainable practices, increases food security and nutritional profile, and supports economic development and the transition to sustainable natural resource management.

Opportunities with CFTIC

IMPROVED PRODUCTION IN DIVERSE CONDITIONS

IMPROVED SOLUTIONS FOR CURRENT CONDITIONS

R&D-BASED SOLUTIONS

“BETA SITES” FOR VARIOUS CLIMATES AND STRESS CONDITIONS

AGRICULTURE-RELATED CRISIS MANAGEMENT

Designing and implementing integrated emergency management across government and with relevant stakeholders; managing emergency stocks and supplies
Pioneers in sustainable water management

The agricultural sector accounts for roughly 70% of global freshwater withdrawals (FAO, 2019). Extensive reliance on and use of water makes the agricultural sector a major contributor to global water scarcity. Despite positive trends of decreased water withdrawals over the past few decades, water scarcity remains an acute global threat. It is further exacerbated by global population growth, changing lifestyles, and consumer choices and preferences.

Improving inefficient management, infrastructure and water use practices, building institutional and human capacities, and transitioning to smart technologies can significantly improve all aspects of water resources and conservation. Better water management also contributes to climate resilience and the preservation of ecosystem services.

Israel is characterized by semi-arid conditions, a short, four-month rainy season, high temperatures and evaporation during the dry season. According to the OECD, Israel is the world leader in water technology and recycling and in developing new sources of water. Israel has experienced constant growth regarding agriculture’s share of recycled and desalinated water of total water use, and the sector’s share of freshwater consumption continues to decline, by 35% in 2015 (OECD, 2017). Israel’s water stress indicator, high due to geo-climatic constraints and arable land conditions, has also declined substantially over the last two decades. Nevertheless, the stress indicator still remains almost five times higher than the OECD average. Vigilance and incentivizing further innovation are necessary to continue a positive trend of productivity, growth, and competitiveness in international agricultural markets.
Catalyzing climate adaptation

The climate crisis is one of the biggest threats to the global economy and to human wellbeing. It is already taking its toll and has severely affected our ecosystems, impacting agriculture, livelihoods, and food security. Food systems are especially vulnerable to natural disasters. Extreme weather events are affecting our food systems, putting pressures on our ability to grow crops, raise animals, and earn the living we have previously enjoyed. One way to tackle the negative effects on food security is further research into agricultural production and innovations.

Growers, the animal husbandry industry, and rural communities are using agricultural innovations to prepare for and adapt to the effects of climate change.

Climate change adaptation

- Efficient use of irrigation water
- Increased water availability by using treated wastewater
- Seed varieties suitable to hotter and drier conditions
- Preserving soil fertility and organic amendments
- Soil conservation and minimizing soil erosion
- Agro-technical measures and infrastructure designed to eliminate some effects of extreme climate
- Heat stress abatement strategies for livestock and poultry production
- Grazing management to minimize forest fire risks
- R&D designing and facilitating intensive agriculture

Advanced Agricultural Engineering for Reduced Manual Labor

- Autonomous Spraying Robot
- Robotic arm to identify and trim branches
- Pomegranate aril separator
- Pest & Insect vacuum pump

Designing and facilitating intensive agriculture

WEED CONTROL, IRRIGATION & FERTIGATION

STATUS // R&D
Emerging Technology

REMOTE SENSING
STATUS // Active
In commercial use
WORKING TOGETHER
Our approach

APPLY FOR COOPERATION

- Professional analysis of alternatives/Feasibility assessment
- Government support ("umbrella") of B2B projects with the participation of Israeli companies
- A framework agreement between governments to provide G2G umbrella for the project
- G2G development project
- Approval and/or framework agreement between the parties, including budgetary requirements, financing, etc.

- TOR agreement to identify mutual expectations
- Nomination of team/expert to implement the task (professional requirements, terminology, experience, etc.)
- Creation of a professional baseline with the proposed team/experts
- Preparation of logistics, data collection, and relevant materials, meetings with stakeholders, etc.
- Task performed by the team
- Summary and conclusions
- Report preparation and presentation

REPORT APPROVAL

Submission to the stakeholders for discussion and evaluation of possible future cooperative programs
Technological pioneers

The Center for Foreign Trade and International Cooperation recognizes that technology plays a complex role in the development process. On the one hand, it can directly enhance human capabilities; technological innovation is a means to human development due to its impact on economic growth through the productivity gains it generates. On the other hand, there are high acquisition costs associated with these technologies, and the need to provide infrastructure as well as develop skills and local capacities to support their assimilation.

To overcome this challenge, our development process is based on a “bottom-up” approach that incorporates practical field-level activities with the integration of Israeli technologies, knowledge, and experience, while the implementation phase relies on the active participation and responsibility of the local professionals and partners (counterparts).

Introducing applied scientific knowledge into agricultural practices

Knowledge sharing and capacity building: These are essential to successful long-term outcomes. We support the process of adopting new know-how and technologies and innovative applied R&D through our collaborative knowledge exchange programs.

Design and implementation of a whole system approach: Specializing in agricultural and agri-rural development as process experts, we provide support and assist in bridging gaps in knowledge by establishing a knowledge transfer system between research, agricultural extension services, industry, and the grower.

Multi-stakeholder and multi-actor approach

Israel’s experience in developing its agricultural sector as well as many of the Ministry and the Center’s global collaborations clearly show that establishing an institution-based linkage between different stakeholders is the key to progress and successful outcomes. In addition, decision makers from the government and the private sector should both be active partners in the process.

Focus on the needs of both grower and consumer

FOCUS ON THE GROWER’S NEEDS
- High crop yield and quality
- Plant protection
- Value chain management, e.g., storage and transport
- Producing under resource pressures
- Meeting regulatory requirements in export markets

FOCUS ON THE CONSUMER’S NEEDS
- Nutritionally enriched food
- Taste and aroma
- Reasonable food prices
- Year-round availability
- Environmental practices

Building an efficient multi-stakeholder engagement entails:

- Developing applied scientific research for agricultural practice
- Facilitating projects with the private sector
- Designing science-based policy support schemes
- Facilitating effective technological adoption
- Curating formal and informal learning pathways
- Catalyzing technology transfer and implementation
- Employing a systems thinking approach to policy design
Private-public partnerships (PPPs)

The Center supports private-public partnerships (PPP) that bring to the table the Israeli private sector’s state of the art agricultural technology and inputs with knowledge-based and technological activities including research and development, technical expertise, and training services.

Training and capacity-building activities

The Center develops and conducts training activities in collaboration with state-level officials and practitioners, non-governmental organizations, with the emphasis on agricultural and rural institutions involved in knowledge transfer and capacity building of agricultural and technical services to the rural populations.

The aim is to formulate joint activities carried out in situ and/or in Israel, including professional training and capacity building visits to Israel.

Leaders in knowledge and technology transfer

- **IN SITU**
  - Development and implementation of agricultural projects
  - Design and implementation of demonstration farms and knowledge transfer centers (Centers of Excellence)
  - Demand driven and custom on-site training
  - Exploratory and consultancy missions
  - Diversity of human and institutional capacity-building activities
  - Providing specific training for the integration of Israeli agricultural expertise, technology, and inputs

- **IN ISRAEL**
  - Training and capacity building
    - Short-term courses
    - Online training
    - Specialized short-term international R&D training programs
  - Professional delegations and special activities
  - Innovation, design, uptake, and diffusion: Creating an innovation-driven process and environment which can successfully generate locally relevant solutions and ensure successful innovation uptake and dissemination
  - Technology transfer
  - Project design
  - Management system design
  - Institutional set-up
  - Introduction of management schemes