Dairy Demonstration and Experimental Farm in Vietnam
MASHAV – Israel's Agency for International Development Cooperation is dedicated to providing developing countries with the best of Israel's experience in development and planning. As a country that transitioned from an underdeveloped state in the 1950s, to becoming a new member of the OECD in 2010 we feel that we can share with others our firsthand experience in development.

We are proud to be one of the oldest international development agencies in the world. Founded in late 1957, MASHAV is responsible for the design, coordination and implementation of the State of Israel's development cooperation programs. Since its inception, over 275,000 professionals from around the world have participated in MASHAV's professional activities. In its programs and philosophy, MASHAV adheres to the accepted international principles.

MASHAV's programs focus on technical assistance and are closely connected to implementation on the ground. Since its establishment, MASHAV has promoted the centrality of the individual, human resource enrichment and institutional capacity building in the development process – an approach which has attained global consensus.

MASHAV's activities focus primarily on areas in which Israel has a comparative advantage including agriculture and rural development; dry lands development; water resources management; microenterprise development; entrepreneurship; innovation and development; community development; medicine and public health; empowerment of women and education.

MASHAV's agricultural and rural development programming deals with the introduction of modern technologies and agro-technical methods designed to increase the levels, sustainability and quality of agricultural production to ensure food security. It also concentrates on introducing effective support systems to enhance the economic viability of agriculture in areas such as marketing, storage and transport, the supply of agricultural inputs, and upgrading the work of extension services.

MASHAV's approach to agricultural development is based on harnessing science, technology and extension and adapting it to the local needs and approach of development. Applied research, the introduction of innovative technologies and the promotion of agricultural crop intensification and diversification are key elements in attaining food security.

Within this framework, CINADCO – the Center for International Agricultural Development Cooperation within the Ministry of Agriculture and Rural Development – operates as MASHAV's professional affiliate for implementing Israel's cooperation program in Vietnam in the fields of dairy husbandry and rural development.

Although a modest player in the international assistance arena, MASHAV provides fast, flexible, hands-on, pragmatic, original and practical solutions to development challenges, thus becoming a significant contributor to sustainable development.
early 80% of Vietnam’s population is involved in agriculture. Most of the farmers are small-holders facing the need to overcome challenges of shortage of land and resources while practicing traditional farming and managing techniques.

Dairy cattle husbandry was introduced to Vietnam in the 1920’s, however it has not yet reached its full potential. Small-scaled dairy husbandry is presently being considered a new promising sector among Vietnamese farmers. Currently, most of Vietnam’s herd is situated in Ho Chi Minh City and the surrounding provinces (75%). Twenty percent of the cows are located in the northern part of Vietnam, and the rest can be found in middle land and in the central highland. Nowadays, dairy farming is mainly a family business (95% of the farms). Five percent of the farms are state-owned businesses or partnerships between private investors and the government.

Israel is considered a world-leader in automated animal-milking. Since Israel’s early days, the dairy industry has played an important role in the development of the country’s agricultural sector. Israeli innovators have developed advanced techniques of managing dairy farms and efficient milking practices, and Israeli farmers integrate the new ideas and technologies into their farming systems based on sharing cooperative principles which ensure that all farmers, big and small, have access to modern and to up-to-date know-how through Israel’s extension services.

Following Vietnam’s national interest in developing the dairy sector in the country, the local authorities requested Israeli cooperation in facilitating intensive and efficient milk production practices under the local existing conditions. Within this framework, it was agreed to establish a Dairy Demonstration and Experimental Farm (DDEF) in the vicinity of Ho Chi Minh City. The farm’s construction and the initial facilities were covered by Ho Chi Minh City’s Department of Agriculture and Rural Development.

The official inauguration of Israel and Vietnam’s Joint Dairy-Farm Demonstration Project took place on August 27, 2013 at the farm premises near Ho Chi Minh City in the presence of distinguished representatives from Ho Chi Minh People’s Committee; the local Department of Agriculture and Rural Development; as well as from Israel’s Embassy in Vietnam and MASHAV-CINADCO. During the ceremony, the two sides signed a five-year Memorandum of Understanding for extended cooperation in the field of dairy farming.
In order to reach high-milk production levels, the DDEF project in Vietnam includes a newly constructed state-of-the-art milking parlor as well as computerized recording systems; modern and intensive cooling systems; and veterinary care, including preventative treatments. All the machinery and equipment, as well as the computerized software, is Israeli made.

All professional activities are carried out under the guidance of the Department of Agriculture and Rural Development of Ho Chi Minh City and leading Israeli experts, operating in accordance to Israeli standards and professionally conducted by CINADCO. Focusing mainly in the transfer of knowledge and professional support CINADCO has been involved in many agricultural development projects and capacity-building activities around the world, which contribute to sustainable development, income generation, economic growth and the enhancement of people’s livelihoods.

The project is accompanied by a long-term Israeli expert resident in Vietnam who, in cooperation with the local team, is responsible for the development and implementation of work methods suitable to the existing local conditions, as well as for the transfer of modern management of intensive feeding and milking practices, which result in high-quality milk production. To ensure sustainability, a professional team comprised of local agronomists and veterinarians participates in professional training activities carried out both in Israel and in Vietnam.
About the Project

**The Herd**

The herd is comprised of 120 pure Holstein Frisian milking cows and 96 heifers. Pregnant heifers will be used for the build-up of the herd and the general dairy farm project, gradually calving to ensure milk production all year around.

**Insemination and Veterinary Care**

Both services are an integrative part of the implementation, operation and management of the project. For insemination, the Vietnamese side will rely on high-grade Israeli source of semen in order to be used for herd genetic development and for the project at large. The Israeli side will be in charge of the sending short-term consulting experts to Vietnam to offer advanced training in the field of veterinary care.

**Professional Cooperation**

Israeli standards, specifications and practices will be applied to the overall development, operation and day-to-day professional management of the dairy demonstration farm. This will be achieved by combining the expertise of the on-site Israeli dairy expert with the recommendations of Israeli dairy experts in the relevant areas, assigned to professionally support the implementation of the project.

The overall management of the project is coordinated by the Department of Agriculture and Rural Development of Ho Chi Minh City together with the Embassy of Israel in Vietnam and the experts assigned to the project.

**Location**

The DDEF was established in the vicinity of Ho Chi Minh City. The actual project site comprises an area of about 10 hectares allotted by the Vietnamese local authorities for the development of the dairy project.

**The main goals of the DDEF project, as agreed between the parties, are:**

- To assist and support modern and intensive dairy farming in Vietnam
- To operate and adapt overall dairy farm activities and practices to the specific conditions prevailing in Vietnam at large
- To serve as a “Center of Excellence” combining demonstration, technologies and training to enhance the modern and intensive dairy farming in the country
The main goal of the Israel-Vietnam joint dairy project is to raise milk production in dairy farms in Vietnam from 5,000 liters per cow to 8,000 liters per cow. In order to achieve this goal, a number of key-areas will be addressed:

- **Veterinary**
  There is a significant difference in intensive farming veterinarian requirements between dairy farming with high milk production and with low milk production. When the cow’s milk production is high, it is exposed to higher health problems as compared to a low-yield cow, especially regarding metabolic diseases before and after calving. Therefore, there is a need to adopt work habits and procedures that will enable the farmer to manage high milk yields, as well as a need to develop extensive professional experience in the field of veterinary.

- **Feeding**
  In the next coming years several crop varieties, which are suitable to South Vietnam, will be adopted enabling farmers to attain a larger nutritional value than the one attained from the crops common in the region. Since identifying suitable crops takes time, in the next coming years at the feeding center, the farm will gain experience in the planning of rations; finding solution to existing feeding sources; tackling machinery malfunction; and in inventory and economic management.

  Effective financial management of daily dairy farming activities, including feeding and appropriate cow-nourishing knowhow, is the key to achieve improved milk yields, and ensure heifers’ growth and economic sustainability of the dairy farm.
Genetic Potential

The growth cycle of heifers – from calf to fully grown milking cow – is at least two years. The growth of heifers in intensive management systems is divided into several stages. Every stage poses different health risks and feed involves separate rations, hence the importance of mastering all practical steps to bring the heifer to reach its full genetic potential. The purpose of the Israel-Vietnam joint dairy project is to accompany all stages of the heifers’ growth cycle during the next coming years.

Milk Quality

To improve the quality of milk in the region, there is a need to establish an organized system between the different dairy milk factories. The project also requires performing monthly testing for checking the quality of the milk and preventing the spread of diseases.

Biologic Safety and Quality Control

Ensuring the herd’s health is imperative to achieve high yield milk production. Several diseases result in preventing the cows from fulfilling their genetic potential. In order to achieve these goals, the farm has built a program of vaccinations, pest control, health treatments and culling of animals. Internationally accepted standards have been implemented to ensure production of high quality milk and as well as a protocols-system for operating the farm and the feeding center. A quality control testing in professional labs has also been initiated.
MASHAV
Israel’s Agency for International Development Cooperation
http://mashav.mfa.gov.il
mashav@haigud.org.il
Tel. 972-2-5303220
Fax. 972-2-5303727

Embassy of Israel
Hanoi, Vietnam
http://embassies.gov.il/HANOI
info@hanoi.mfa.gov.il
Tel. 844-3843-3140
Fax. 844-3843-5760