Project overview

The Gaza Urban and Peri-urban Agriculture (GUPA) project is funded by the Swiss Development Cooperation (SDC) and implemented by Oxfam and RUAF Foundation. The project aims to increase the income for women and men engaged in small-scale urban and peri-urban agriculture activities in the Gaza Strip. The project supports longer-term systemic market changes and the development of inclusive value chains (for small scale farmers and processors) by combining support intervention strategies in service provision, quality control, and Value Chain platform facilitation (outcome 1), training of beneficiaries and extensionists to sustain these interventions and contribute to more systemic changes in the areas of training/extension (outcome 2), and facilitating a more enabling policy and governance environment (through outcome 3).

TWO PHASES

Inception phase July 2013 - May 2014
Implementation phase July 2014 - June 2017

LEADING APPROACHES

Markets for the Poor (M4P)/ Market System Development (MSD)
Value Chain Development
Participatory Technology Development (PTD)
Policy Dialogue Facilitation

AGRICULTURAL VALUE CHAINS

Dairy/Fodder
Dates

2500 small-scale producers and processors
Training and extension institutes
Agricultural service and input suppliers
Institutional and governmental stakeholders
Consumers

COORDINATION TOOLS

Field Learning Schools
Local Value Chain Platforms
Gaza Urban and Peri-Urban Agriculture (GUPA) Platform
Advisory Committee
Activities update

The following (ongoing) activities have been implemented after June 2016 onwards

**Boosting the service supply markets to urban agriculture processing enterprises**

1. In cooperation with Paltrade, the program has facilitated a series of legal, managerial and marketing capacity building programs for 85 women processors in the palm dates sector. This has resulted in the launch of the first women shareholder company in the Gaza Strip, specialized in processing dates products from the surplus of fresh dates.
2. A partnership between a group of 25 women processors and the Al-Nakheel Association in Khan Younis city was established, resulting in the production 2.5 tons of date paste, with the women being full shareholders in profit distribution.
3. Co-funding of palm date processing tools and equipment for 85 women processors with the aim to improve their technical and economic performance.
4. Co-funding of solar based cold storage for three dairy processing units and co-funding of processing equipment for two of the processing units with the aim to improve technical efficiency and business expansion. Laboratory equipment has been installed in a 9 dairy units in order to obtain the Palestinian Standards certificate for quality and hygiene.
5. Oxfam, SDC and DANIDA funded programs cooperated in preaptations to launch the “buy local” campaign to increase public awareness on the benefits of supporting local products to increase economic return.
6. The project facilitated the distribution of 280 red palm weevil pheromone traps to date palm producers by the Ministry of Agriculture, to reduce and retain spread of this pest within the Gaza Strip.
7. The program has finalized three dairy PTD experiments on alternative green fodder varieties, including Rhodes, Berseem and Moringa. The program currently implements another eight dairy PTD experiments to identify new technologies that will improve milk yield and content.
8. Seven palm date PTD experiments were implemented to test new techniques and practices (as studied during a West Bank exchange visit). These experiments have resulted in an increased size and quality of the date fruit and decreased cost of production per palm tree.
9. A total of five dairy and three palm date Farmers Field Schools (FFS) have been established to demonstrate best practices to neighbouring farmers.

**Facilitating improved policy and governance frameworks for local urban agriculture market systems**

1. Oxfam and PNGO are co-chairing the GUPA platform. With support from RUAF, an action plan to advocates for policy change, regulation and enforcement by the MoNE and MoA to support and protect local production was put in place.
2. The GUPA platform facilitated a series of workshops with women rights activists and civil society actors to analyze the gaps in Palestinian labor law. As a result, the Women’s Affairs Center (WAC) has launched a lobby and advocacy campaign to enhance economic rights for women laborers working in the agriculture sector.
3. Re-activation of the Palestinian Society for Consumer Protection by supporting the preparation of a new institutional strategy and fundraising plan.
4. Coordination among key actors concerning the development of the palm date sector (fight against red palm weevil) and safety/ quality control at farm level. This includes the establishment of a new action plan by the Red Palm Weevil Cluster, represented by Oxfam, FAO, ICRC and the MoA.
5. Preparation of a factsheet on required governance for the protection of national dairy and date products in coordination with the Dairy and Palm Dates Value Chain platforms representing key market actors.

**Strengthening the training and extension service delivery in selected urban agriculture sectors**

1. A training of trainer’s program was conducted for 76 undergraduate students from Al Azhar university and 41 agricultural extentionists (representing 8 different organizations and MoA) in Participatory Technology Development (PTD), Market System Development (MSD) and Market for the Poor (M4P) approaches.
2. The program facilitated an innovative farming practices training for 100 cow breeders, which enabled them to apply new feeding systems, resulting in an increase of milk quality and quantity.
3. A total of 60 date producers have been trained on new techniques for palm tree plant production, protection, harvesting and post harvesting, with the aim to increase the quality of fruit and yield per tree.
4. A total of 60 green fodder farmers received training on green fodder alternatives, the cultivation of new kinds of green fodder, green fodder production and protection (new techniques harvesting, irrigation, post harvesting, and fertilization).
Oxfam has contributed to the launch of a first women shareholder company for palm date products in Gaza. “Balah Palestine” was established on the 6th of October 2016 and is owned by Al Ahliya and 41 women processors. Al Ahliya and the female palm date processors recruited a lawyer to finalize the registration process of a “Limited Liability Company”.

The women, previously working as labour workers for a low seasonal wage, are now businesswomen who own 65% of the company. The company has started production of jam, molasses, processed dates and traditional bagels for the local market.

The palm date sector in the Gaza Strip represents 4% of gross domestic agricultural production and is essential for many different industries. The 250,000 palm trees throughout the Gaza Strip – on over 12,500 acres of land-, yield 15,000 to 20,000 tonnes of dates annually. The palm sector is a primary source of income for about 4,000 male and female farmers from low-income households.

Balah Palestine Company hired 68 women and 20 men labourers during the 2016 harvest season and processed 25 tonnes of produce, representing 12.5% of locally produced processed dates.

Islam Abu Shuaib, director of the date processing company “Balah Palestine”, said that working on the production of dates this year is very different from last. “This is because the work has been implemented by a company which empowers women to actively participate in the productive and managerial processes”.

According to Mr. Abu Shuaib, using the solar power cold storage system for the first time in this season helped to preserve surplus and reduce the amount of spoiled dates.

An additional group of 25 women processors in the city of Khan Younis have partnered with the new company. They now store their production of date paste in the solar powered cold storage and benefit from joint marketing opportunities.

Ms. Intisar Abu Mandeel, a member of the board of directors and one of the women supervisors, pointed out that date production this year is much more organized and efficient. The processors stored the superfluous ripe dates, after removing the kernels, in the refrigerator the company has recently obtained. They can then be used later during the manufacturing process. Storing the dates before they are ripe helps increase the production period. She recalled that in the previous harvesting techniques dates couldn't be preserved for more than a few days.

Abu Mandeel was able to obtain an Israeli permit to participate in an Oxfam organized exchange visit to the West Bank, visiting palm date farms, processing factories and women-led businesses in Jericho and Ramallah.

At present, QMS and a tailor-made training on quality, safety, packaging and labelling to obtain the PS certificate, issued by the Palestinian Standards Institute (PSI), is underway.
Developing feeding alternatives through green fodder production

The program, with support of RUAF, has introduced the concepts of Participatory Technology Development (PTD) and Farmers Field School (FFS) to the Gaza Strip. The trained PTD team consists of 16 agricultural extension staff and engineers who provide services to farmers. The involved institutions include the Ministry of Agriculture, Al Azhar University, UAWC, PARC, Al Khaleej dairy factory and Al Ahliya Association for Palms and Dates. After a series of three trainer’s trainings, various PTD experiments in the palm date and dairy sector have been established in private farms (field schools). The field schools are operating under the supervision and monitoring of the PTD team and will be managed in the future by the Al-Azhar University Faculty of Agriculture.

Farmer Field School (FFS): a newly used method to disseminate knowledge

The PTD methodology is based on participatory problem identification by farmers and related to farm management and high production costs. In the first stage of the PTD process, farmers presented and prioritized their problems in the field school and, jointly with a facilitator, explored new solutions and innovation methods. The program has involved 100 farmers, nearly 50% of all small and medium dairy farmers in the Gaza Strip. In addition to 60 green fodder farmers and 60 Palm date farmers.

The concept of PTD depends on continuous communication between the farmers and the extensionists, who coach the farmers in the field. Jointly with the facilitator, farmers seek for alternatives to the traditional practices commonly used. By testing the alternatives and evaluating them according to certain criteria, such as production level, product quality, ease of production, cost of production and profit margin, and the traditional practices can be replaced by tested alternatives and promoted in the FFS.

Testing high feeding cost alternatives

Most farmers in the Gaza Strip depend on ready-made cattle feed imported from Israel. This feed includes 18% protein and is expensive. To decrease costs, other farmers depend on cutting grass on the outskirts of their farms to feed their cattle. As the availability of this green fodder is limited, this limits the milk production.

On the basis of the Farmer Field School and Participatory Technology Development, the project with its partner (UAWC) implemented training programs and started FFSs for dairy cow breeders to learn new methods of low cost fodder production. By using new technology to produce local fodder instead of depending on imported fodder or concentrate mixtures milk production has increased in these farms.

The project has also assigned a specialized engineer to provide extension visits to farmers to follow up on the implementation of new feeding systems as well as adding new feeding mixtures to feeds, including Soya, fenugreek and yeast.

The results of project supported green fodder PTD experiments, such as Berseem, showed that this crop has become a more productive crop in the Gaza Strip and serve as a source of green fodder for dairy animals with less consuming for irrigation water by using sprinklers instead of surface irrigation system.

Also, the project supported Rhodes green fodder PTD and the results showed that this crop has become a more productive crop. However, the experiment showed that this crop need a substantial amount of irrigation water, which is both scarce and expensive, make this crop an economically unfeasible alternative for dairy farmers.

This was not the case with the fodder tree, Moringa, which was newly introduced and tested. While it needs a certain amount of irrigation water, it was found to have very high yield of biomass per dunum. The high productivity and its palatability for animals makes Moringa an interesting crop for dairy farmers. In successive PTD experiments the effect of Moringa on milk yield is currently being tested.

The following graph describes the measured increase in milk production (in litres) for a group of dairy farmers who received different interventions. The training/coaching led to a change in feeding practices by the farmers and a noticeable increase in daily production of milk.

![Results of milk production per cow (litre/day)](image-url)
Effects of blockade on exchanging knowledge

“Spotlight on the dairy and dates exchange visits”

Cows under blockade: restrictions keep dairy industry in the dark ages

For Mustafa, a cow breeder in northern Gaza, leaving the 360 square kilometre strip does not only mean freedom, it’s the key to a better business and a better life for his entire family. But for Mustafa and the 1.88 million Palestinians living in Gaza, leaving is almost impossible.

“In Gaza, we are in a prison, there is no way to move out,” he said.

The illegal blockade on Gaza, imposed by Israel, severely restricts the movement of people and goods and has stagnated business and industry. For the livestock and dairy sector, it forces farmers like Mustafa to use old practices and old equipment and causes huge losses in productivity.

“More than 50 small and large scale cow breeders rely on me for technical advice, I want to learn new solutions and transfer it for them,” Mustafa says.

“The blockade is not just restricting import and export of goods, it also restricts the movement of ideas,” said Dr Naser Au Foul, Dean of Agriculture at Al Az Hur University in Gaza.

Dr Abu Foul was one of the key organizers of a delegation of 40 farmers and producers from the Gaza dairy industry who were set to visit the West Bank and learn from the thriving dairy sector on the other side of the 60-kilometre wall. The five-day trip, facilitated by Oxfam, was critical for growers and industry experts to share knowledge with their peers and bridge the enormous skills gap.

However, on three occasions the critical trip has been cancelled. Israeli authorities have continually delayed the issue of permits required for the delegation to leave Gaza. No reason was provided for the delay.

“It was a significant trip for our industries. The sector is invaluable to the Gaza economy and plays a major role in food security,” Dr Abu Foul said.

While the dairy industry in Gaza has steadily declined, business is booming in the rest of the Occupied Palestinian Territory.

“The average milk production per cow in Gaza is 18-20 liters per day. In the West Bank, if the cow production is less than 27 liters per day it will be sold. It just won’t cover costs. If we can transfer this knowledge from the West Bank to our farmers in Gaza we can double productivity,” he said.

The delegation planned to travel to Hebron, Jericho, Ramallah and Jefleck to learn from their industry peers, gaining knowledge on everything from better livestock practices to safer production techniques.

“The blockade is standing between learning and us,” said Mohammed, who owns a dairy and food processing business in southern Gaza.

“Local companies can cover only 10-12% of the market in Gaza, the rest has to be imported. Our vision is to supply all of the Gaza market and even export. But how can we ensure the development of our production if we are not able to travel and gain this knowledge?”

“The methods we use are from 150 years ago. We need to be able to reach the world. Seeing the work in the West Bank was the first step, but even this is more difficult than we imagined.”
Fact and Figures Dates and Dairy sectors

Dairy Value Chain

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<td>Ministry of Agriculture</td>
<td>Total fresh milk production in Gaza /per day</td>
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<td>Number of dairy cattle in the Gaza Strip</td>
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<td>Price/ fresh milk at farm level (NIS/litre)</td>
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Palm Dates Value Chain

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<td>MoA and Oxfam-GUPA project</td>
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<td>Price per 1kg of fresh date for local market ILS at farm level</td>
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<td>Price per KG of export ILS at farm level</td>
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Improvement on economic feasibility per tree using PTD techniques

This document was developed under the “Facilitating Development of Urban and Peri-urban Agriculture in Gaza Strip for the Local Market” project, funded by the Swiss Agency for Development and Cooperation (SDC) and implemented by Oxfam and RUAF Foundation.

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