

FAO-CIDA Partnership

From responding to shocks to building resilience

WEST BANK AND GAZA STRIP



Canadian International
Development Agency

Agence canadienne de
développement international

Canada



Context

In the West Bank and Gaza Strip (WBGS), recurrent conflict and restrictions over natural resources, markets and services are depriving families of their basic needs for survival and placing their ability to cope under severe strain. Food security and livelihoods have been directly impacted by controls on the movement of people and goods; impediments to construction and infrastructure investment; confiscation of land and natural resources; and the direct destruction of homes, crops, livestock assets and infrastructure. Unable to produce food or earn income, many are becoming dependent on external aid.

Small-scale farmers, herders and fishers in the WBGS are among the hardest hit populations, despite the potential of agriculture to reduce reliance on imported food, minimize vulnerability to international price hikes and increase economic access to food by enhancing employment and income. The loss of Palestinian land, limited access to markets, destruction of key agricultural assets (including water resources), and the separation of farmers from their fields and fishers from the sea continue to sever the rural poor from their livelihood.

Dual purpose response

To mitigate the impact of the crisis, the Food and Agriculture Organization of the United Nations (FAO) helps families maximize and safeguard the use of their remaining assets and resources, and expand their livelihood opportunities. Assisting farmers to replenish their asset base and improve their agricultural practices not only increases household food production and income, but also their chances of retaining access to their land.

A key aim is to optimize the use of natural resources – with a particular focus on water scarcity – to mitigate the impact of natural hazards, increase resilience to shocks and preserve productive capacity for future generations. FAO works closely with communities, with emphasis on stimulating the potential of the WBGS' youth to build a vibrant productive civil society, and on actively empowering women as agents of development in their homes and communities.



FAO-CIDA partnership

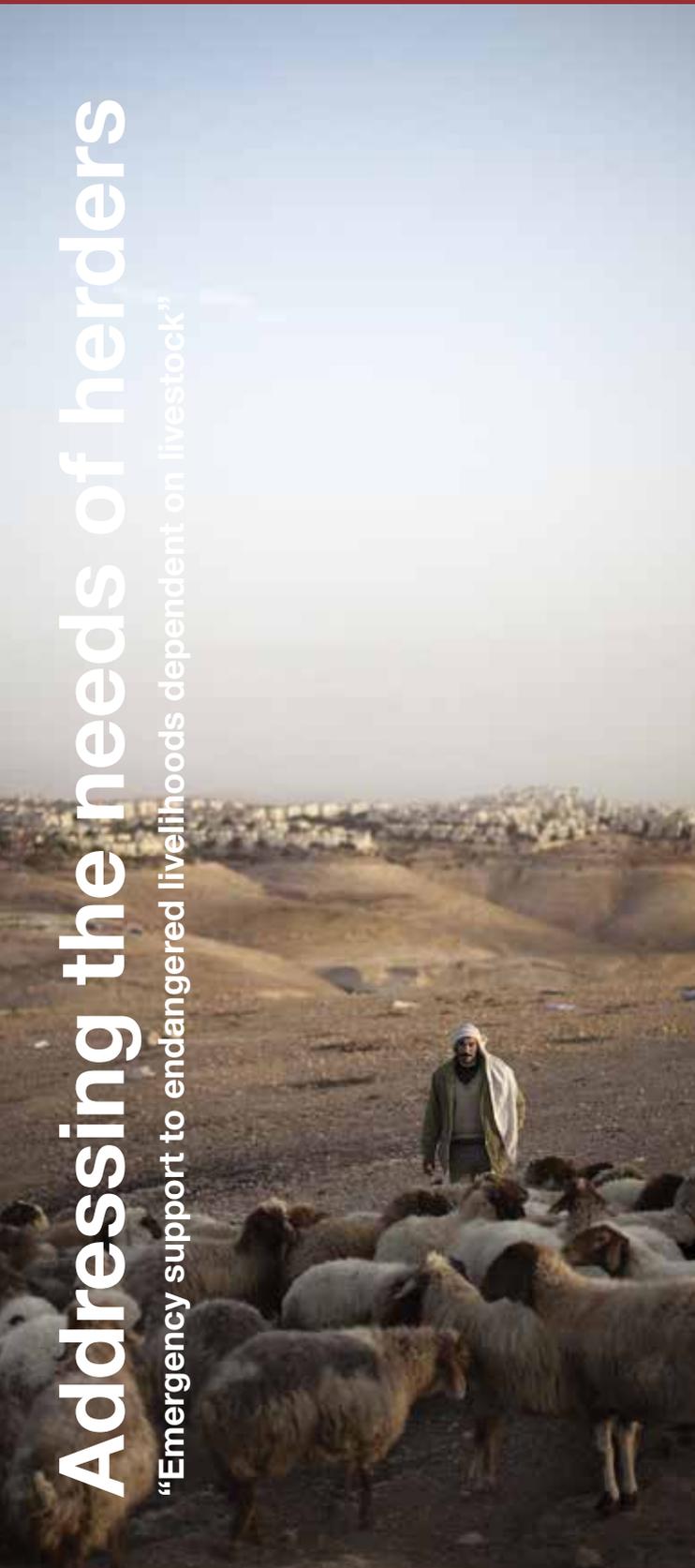
Since 2008, the Canadian International Development Agency (CIDA) has been FAO's most dedicated resource partner in helping communities in the WBGs build a more food secure future. The programme addresses major challenges that prevent Palestinian families from producing enough food and income to meet their basic needs. As of early 2012, total contributions from CIDA amounted to over USD 19.7 million.

The response has helped thousands of families to restore their livelihoods and build resilience to shocks, such as:

- Impediments to land access and livelihood investment. Impediments to access land (buffer zone and high-risk areas in the Gaza Strip) or to invest in farm-enterprise development (Area C) have resulted in many farmers losing a significant part of their income and their purchasing power.
- Inadequate rainfall in 2010/11. By November 2010, the West Bank had received only 25 percent of the rainfall needed for a productive planting season. This led to 60 percent less land cultivated with barley and wheat – an important source of food for families and feed for animals.
- Soaring fodder prices. Following the global cereal production deficit in the northern hemisphere, the price of fodder in the WBGs increased significantly in October 2010, from USD 250 to USD 390 per tonne, leaving vulnerable herders with no capacity to purchase adequate quantities of inputs to secure optimal livestock production.
- Declining profitability of herding livelihoods. In Area C, herders face high production costs. Lack of access to water networks entails spending four times more on tankered water and reduced grazing areas. This has been compounded by the demolition of rainwater harvesting cisterns and animal sheds. In the Gaza Strip, the closure regime leads to unreliable supply and prohibitive prices. Altogether, herders are engaged in unsustainable coping strategies that negatively affect animal productivity.

Addressing the needs of herders

“Emergency support to endangered livelihoods dependent on livestock”



From responding to shocks...

CIDA funds in 2011 responded to the time-critical needs of herders unable to feed their animals due to lack of fodder and natural grazing sources.

Averting unsustainable coping strategies:

Providing over 2 200 tonnes of fodder, the project assisted 2 358 families to maintain their herds and a positive balance between household expenditure and income. Timely action ensured that families were able to preserve their livelihood assets and exit a vicious cycle of low milk production, reduced lambing and thus lower incomes.

Rebuilding seed stock:

Beyond distributing fodder to meet immediate needs, 900 hectares of land were planted with quality barley and vetch seeds that can perform well in drought conditions. This has helped secure feed for 2012 and boost herders' recovery from the 2010/11 dry spell, the consequent reduction in feed production and soaring fodder costs.

Project Results

- ✓ Fodder distribution:
45 000 animals belonging to 2 358 families adequately fed for 50 days (2 213 tonnes of fodder distributed).
- ✓ Drought-tolerant seed distribution:
900 hectares planted with drought-tolerant seed varieties, mainly barley and vetch, benefiting 643 herding families.

Did You Know...?

- In times of prolonged dry spells, many herders are forced to sell their animals to secure cash in order to provide feed and water for the most productive animals, or must cut significantly on food rations.
- Only an estimated 6% of wheat bran requirement is satisfied by domestic wheat production.
- Collection of rainwater is a vital, cost-effective way to increase access to water. However, the capital investment is far too high for vulnerable herders (around USD 2 000). With average water cisterns (100 m³ storage capacity) and based on the high price of tankered water in remote areas during peak season (up to USD 16/m³), it takes no more than one or two seasons to fully recover the initial investment.

The project also focused on immediate actions that would make communities and livelihoods stronger in the longer term, from addressing water scarcity to improving the animal gene pool for more productive livestock.

Sustainable response to water scarcity:

CIDA funds enabled the repair of 81 rainwater harvesting cisterns to provide water for the animals of 243 herding families that were otherwise unable to afford this money- and livelihood-saving investment.

Making every drop count:

Ten grey wastewater treatment units (GWWTUs) were constructed at household level (nine units) and community level (one unit). This allows for recycling up to 5 m³ and 0.5 m³ of water per day, respectively, and is providing supplementary irrigation for up to 30 hectares of reestablished rangeland or 1 hectare of home gardens.

Increasing domestic fodder availability:

One hundred hectares of land were planted with drought-tolerant shrubs. This will not only increase the availability and diversity of animal feed at community level, but also contribute to rehabilitating rangeland for years to come, as part of FAO's strategy on natural resource management.

- Domestic production of barley accounts for a small fraction of the annual feed/fodder requirement (11 000 out of 165 000 tonnes) of the estimated 750 000 small ruminants in the West Bank.
- When properly built, rainwater collection cisterns can easily operate for ten years with no major rehabilitation. This means immense savings for poor families unable to access water networks and forced to spend four times more on tankered water.
- Artificial insemination has allowed for performance and progeny testing and the estimation of breeding values of bulls. This allows for discarding less valuable animals and giving farmers choice in the breeding policy for their herds.

Promoting herders' livelihood adaptation:

In light of the increasing vulnerability of herders who rely only on small ruminant production, an important focus was to pilot income diversification through home gardening. A total of 80 families in the West Bank received training and established gardens, providing an additional source of income and nutrition.

Gaining from genetic improvements:

The project reintroduced the artificial insemination of cattle in the Gaza Strip. While the immediate result was the impregnation of 1 200 cows (Gaza Strip) and 180 sheep (West Bank), the real benefit of using artificial insemination is that it gives all farmers the possibility of gaining from genetic improvements created elsewhere. Through training and procuring related equipment, the project took the first step towards rolling-out a livestock selection programme.

Strengthening incomes through value addition:

Project funds allowed for the upgrade of a milking facility in the West Bank. This is enabling 73 families to add value to their dairy production and increase their income.

Project Results

- ✓ Cistern rehabilitation:
81 rainwater harvesting cisterns under rehabilitation, enabling 243 herding families to provide water to their animals.
- ✓ Grey wastewater treatment units:
1 community-level unit in the West Bank and 9 household-level units in the Gaza Strip.
- ✓ Rangeland rehabilitation:
100 hectares of various drought-tolerant shrubs planted.
- ✓ Home gardens:
80 units established in the West Bank.
- ✓ Artificial insemination:
180 sheep impregnated in the West Bank and 1 200 cows in the Gaza Strip, plus training to 60 MoA staff members, university students and herders.
- ✓ Veterinary kits:
200 kits distributed to trained herders.
- ✓ Milking facility:
1 milking unit upgraded, benefiting 73 families.

Addressing the needs of farmers

“Mitigation of household food insecurity through backyard food production activities targeting vulnerable women and youth”



From rebuilding productive capacity...

A second CIDA project implemented in 2011 is helping families to continue or establish backyard food production in order to improve levels of food security and their ability to generate extra income.

Rebuilding purchasing power:

Through the project, 1 294 families received animal or beehive packages that have allowed them to rapidly resume productive activities, requiring almost no land and no significant investment beyond the initial capital provided by the project. After few months, a beneficiary of the ewes distribution has already multiplied his/her capital by two, equivalent to some USD 1 000.

Increasing income and access to nutrient-rich food:

Similarly, 625 farming families were able to resume vegetable production activities through the development of home gardens. One cycle of vegetable production can generate up to USD 600.

Project Results

- ✓ **Animal distribution:**
1 028 pregnant ewes distributed to 514 families;
270 chicken units, 360 rabbit units and
150 beehives distributed to 780 families.
- ✓ **Home gardens:**
Drip irrigation network equipment, seeds,
seedlings and organic fertilizer provided to
625 families.

Did You Know...?

- Women play a substantial role in agriculture throughout the WBGS, whether through planting seeds and tending gardens, collecting water or harvesting crops. As traditional caregivers of families, women also process home grown foods for future consumption, or for sale in local markets as an additional income source.
- Youth empowerment is a effective way to assist vulnerable households in order to increase income, food security, and supply of nutritious foodstuffs. If introduced to good agricultural and life practices and entrepreneurial skills, young people can contribute toward economic and social development. Around 36% of 20-24 year olds are without work (30% in the West Bank, and 49% in the Gaza Strip).

The project also focused on making livelihoods more sustainable in light of water scarcity, and on supporting the increased engagement of women and youth in agriculture.

Improving water use:

The construction of water cisterns and GWWTUs is providing supplementary irrigation for 158 families in both the West Bank and the Gaza Strip that have been trained in water management. Improved water harvesting and retention, and better water use efficiency in irrigation are crucial to increasing production and dealing with irregularity in rainfall patterns.

Empowering women:

Over 200 women – from 19 women’s associations – received training on dairy processing and marketing from FAO, the Ministry of Agriculture and local associations. With increased capacity and improved market linkages, the associations are now better placed to stimulate and support women’s employment. Over the years, workshops in good agricultural techniques and innovation, marketing and product quality have led the associations to improve quality standards for their products, which has made it easier for them to be sold more successfully in local markets.

Focus on future generations:

FAO continued to cooperate with the Ministry of Education and Higher Education to promote the expansion of Junior Farmer Field and Life Schools, which may lead to the inclusion of agricultural activities in the national curriculum.

Around 700 girls and boys from 22 schools were engaged in a school-year-long programme. Pre- and post-programme evaluations have evidenced the benefits on youth’s self-esteem, entrepreneurial and agricultural skills, and overall potential to become healthy and positive young adults. Participants stated they developed new skills, expressed interest in continuing the programme and/or pursuing agricultural education, and performed well in end-of-year exams.



- The rate of women’s participation in the labour market in the WBGS is just 15.2 percent – one of the lowest in the Middle East and the world. 62% of women outside the labour market are young (between 15 and 34 in age) – most married with no children.
- The Palestinian society is a society of young people: about 46 percent of the population is under 15 years old. It is anticipated that 0.5 million young people will be entering the labour market in the next few years.
- Restoring access to irrigation can have an enormous impact on production: irrigation can generate 130% higher yields than rainfed farming. Currently, irrigation is practiced on only 11% of agricultural land.

Project Results

- ✓ Water cisterns:
123 family-based units constructed in the West Bank.
- ✓ GWWTUs:
35 units built in the West Bank.
- ✓ Training:
19 women’s associations.
- ✓ Junior Farmer Field and Life School activities:
700 students (350 boys and 350 girls) from 22 schools.

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