



Conditional cash assistance to build resilience against water scarcity in the West Bank

Creating employment opportunities and enhancing adaptive capacities to recurrent drought within protracted crises

→ **Context** The West Bank is an arid or semi-arid land characterized by low precipitation with a large proportion of rainfall rapidly lost as surface runoff. While natural shocks like drought pose challenges to the already fragile water network, the protracted conflict in the region causes further difficulties by restricting access to available water resources. As a result, many farmers are unable to take full advantage of their agricultural lands. FAO has been supporting families dependent on agriculture in the West Bank by ensuring access to water resources and consequently building more resilient livelihoods.

→ **Challenge** Drought-like conditions and chronic water shortages, threaten the livelihoods of thousands of poor farming families. The vast majority of small and medium-scale farmers in the West Bank lack financial resources to invest in their traditional livelihoods, but would benefit from improved access to water storage infrastructure (e.g. cisterns). Through this practice, FAO aimed to protect and improve the livelihoods of poor rural families by sustainably improving the availability and management of water for agriculture and domestic purposes while also creating jobs and enhancing income-generating opportunities.

→ **Methodological approach** FAO supported the construction of cisterns through conditional cash transfers and a step by step approach. Beneficiary households were required to contribute to the construction, either directly or hiring skilled workers from the same vulnerable communities, thereby creating jobs within the targeted communities:

- Following the initial announcement of the project in the target community through the municipality, local media and religious institutions, community members submitted applications for support to the Ministry of Agriculture or a local NGO.
- Data collected through this process were used to select beneficiaries and to create baseline survey report of existing economic and food security levels.
- Once beneficiaries were selected, the cistern work site was verified and each beneficiary signed an agreement committing to build a cistern in return for a cash transfer.
- Two work stages were put in place: 1) cleaning or excavation as required by the site, followed by an engineer-led site inspection; 2) Construction or rehabilitation of cisterns, followed by plastering by indirect beneficiaries (skilled workers hired by the beneficiaries).
- Payments were disbursed in two phases to ensure completion of all work to the required standard and to enable technical verification before the issuance of work certificate.
- Beneficiaries were trained in cistern maintenance and repair and received technical support on agricultural good practices.



Cistern building

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Key facts

Location → Initially the West Bank governorates of Jenin and Hebron, then replicated in all governorates

Multi stakeholders → Palestinian Ministry of Agriculture and local NGO partners

Donor → Initially European Union, then Canada and Japan

Target Group → Poor and vulnerable rural families (small- and medium-scale farmers and herders) who rely completely or partially on agriculture and livestock production for their own food security and livelihoods.

Gender → FAO identified access to water as a critical issue for households in West Bank, affecting women in particular. As a result of the project, participating families have benefited by having more secure and affordable access to water from rainwater harvesting. Water availability for domestic use has relieved women's work burden, and the cisterns have enabled the establishment of backyard gardens, creating opportunities for women to generate income from vegetable sales, and to improve family nutrition by diversifying the diets.



How does conditional cash assistance contribute to increasing farmers' resilience? This practice addresses the need for a comprehensive response to water scarcity and diminished local food production stemming from declining access to water in the West Bank over the last decade. When household water cisterns are used, a buffer of water storage capacity is created, allowing households to buy water in greater quantities and at cheaper prices and improving their capacity to respond to natural and man-made shocks. Under this practice, farmers' resilience is strengthened by addressing three main issues: limited access to water resources and poor resource management; erratic rainfall; and lack of financial resources and capital investment.

→ **Impacts** In the first year of implementation (2011), 500 beneficiary households gained access to a sustainable water source and storage area. As a result, each beneficiary family saved roughly USD 200 every month (USD 2 400 annually) on water costs through rainwater harvesting. Whereas the beneficiaries of the cash transfers were mostly men, women benefited by having more secure and affordable access to water from rainwater harvesting – both for domestic use as well as establishing backyard gardens. According to a project survey, 80 percent of the work done in the gardens was performed by women, to grow vegetables for sale and for home consumption to diversify the family diet. Indirect impacts included the economic stimulus resulting from the purchase of related supplies and services from local contractors and suppliers.

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→ **Sustainability** The cisterns are highly durable and, if maintained properly, are expected to have a lifespan of roughly 50 years. Annual maintenance requirements are limited, as each cistern only requires cleaning once a year followed by minor additional plastering when needed. Repair costs are low (roughly USD 20–30 per year). From an economic point of view, for every USD 1 invested in household cistern construction, at least USD 15.6 worth of water is saved. The total cost of this investment is recovered in 3.2 years. Savings on annual water costs reach a net average of USD 1 300, freeing a significant amount of capital to meet other household needs.

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→ **Replicability** Building on the experience gained in the initial project, this good practice has been replicated across the West Bank under four projects (2012-2016) funded by Canada and Japan. More than three thousand beneficiaries have been able to restore or establish their productive assets. This practice can be replicated in areas with similar environmental conditions. The usefulness of rainwater harvesting and cisterns depends on the frequency as well as on the ability of the household to buy large amounts of water at one time in order to save money. While this good practice is not a reliable source of water in times of drought, it could still sustain household savings by reducing the cost of water purchased from tanks.

This practice has been replicated across the West Bank to sustain household savings by reducing the cost of water and allowing household to meet other needs.

Testimonial

Mrs Shadia Tarman (28 Nuba, Hebron governorate) heads her household and used the resulting water from her cistern to increase her income through home gardening:

We never had a regular supply of water, sometimes we would go a week or more without it. We are not connected to a water network, so we had to buy water from tanker trucks at a high price. Since we built the cistern, things have improved, it helps us meet our needs all year around through summer and winter. Now we can plant what we need in our garden.

→ More information

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On resilience good practices:

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