WFP promotes hydroponic gardening for improved school meals

With climate change effects increasingly undermining agricultural productivity, WFP has continued to explore innovative ways to promote the production and consumption of vegetables in schools and communities. Hydroponics technology — a soilless cultivation technique that uses up to 90 percent less water and 75 percent less space than traditional agriculture and grows crops faster — is one of the solutions WFP promotes.

To ensure schoolchildren receive diverse school meals, WFP is supporting the Ministry of Education to establish 71 hydroponic gardens in schools in drought-prone areas, with 47 already functional.

Now, schoolchildren are bringing their newly acquired knowledge home and growing fresh and nutritious produce for their families using local solutions.

“When WFP first came to my school, I thought 'wow, these people are amazing'. I never thought you could grow plants without soil. I said I must try to do this at home. I knew I could do it. I started trying to replicate it, until finally I built my own greenhouse,” says 16-year-old Daniel Chansa from Kitwe, one of the 26,000 school children benefiting from the established hydroponic gardens.
### Crisis response
Provided food and nutrition support to crisis-affected populations

- **1 Refugee settlement covered**
- **6 COVID-19-impacted districts covered**

### Key achievements

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban people impacted by COVID-19</td>
<td>211,020 people received food assistance</td>
</tr>
<tr>
<td>Refugees and asylum seekers</td>
<td>17,054 refugees received cash assistance</td>
</tr>
<tr>
<td>Refugees and asylum seekers</td>
<td>1,073 refugees received food assistance</td>
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<tr>
<td>Refugees</td>
<td>28.8% of the refugees experienced food shortages (compared to 56.6% in 2020)</td>
</tr>
<tr>
<td>Refugees</td>
<td>96.6% of the refugees frequently consuming diverse diet (compared to 88.5% in 2020)</td>
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</tbody>
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### Nutrition support
Provided technical support to Government institutions and the private sector for the reduction of malnutrition and the scale up of high-impact nutrition interventions

- **18,000** pregnant and lactating women and adolescents received nutrition messages
- **59,734** school children reached with nutrition education and school gardening activities
- **131** local organisations benefited from the SUN Business Network services
- **29%** of children 6-23 months consumed a diverse diet (compared to 19% in 2020)

### Smallholder farmer support
Enhanced smallholder farmers’ resilience against climatic shocks, and improved their access to markets and financial and aggregation services

- **100,000** smallholders received 201,000 hermetic storage bags, enabling them to safely store their grain; among them, **42,684** received farm inputs including climate-resilient seed. The inputs, distributed via commodity vouchers, amounted to **USD 2.3 million**.
- **16,000** smallholder farmers sold nearly **19,000 mt** of food crops valued at **USD 4.6 million** through WFP-supported aggregation network.
- **50,000** smallholders supported to start saving part of their incomes
- **16,000** smallholder farmers sold nearly **19,000 mt** of food crops valued at **USD 4.6 million** through WFP-supported aggregation network.
- **83.8%** smallholder households frequently consuming diverse diets compared to **17%** in 2020.
- **62%** targeted smallholders reported increased production of nutritious crops under the early drought-recovery support.
- **14.4%** smallholders reported post-harvest losses compared to **37.7%** in 2020.

### Social protection
Provided technical assistance to strengthen national capacities and systems for social protection programmes and disaster preparedness

- **Supported the Ministry of Education to rollout a Food Tracking System in 120 schools to enhance accountability**
- **Supported the establishment of 47 hydroponic gardens (with 24 finalised in 2021) to improve and diversify meals for 26,000 school children**
- **Trained government staff in 17 districts on decentralized procurement to enhance school feeding**
- **Installed 120 rain gauges in 14 districts to strengthen early warning systems**

### Service provision
Provided on demand logistics and technical advisory support

- Provided services to the United Nations Population Fund for storage and handling of **149,893** non-food items at a cost of **USD 24,652**
- Undertook a logistics capacity assessment to ascertain WFP’s emergency preparedness