



Success Story: Improving the Income of Small Growers by Introducing Modern Technology



Sonia Castillo transplanting bell pepper



Bell pepper in development.



Bell pepper at harvest.

Photos: Fintrac Inc.

Sonia Lorena Castillo is a farmer of Canton Olomega, El Carmen, in the southeastern province of La Union. She has traditionally dedicated her time to small-scale production of vegetables, taking advantage of a water source on her property which she uses for furrow irrigation.

When Sonia started working with USAID's Agricultural Diversification Program, she had been cultivating watermelons and green beans. Her watermelon production (0.35 hectares) was seasonal while her green bean crop (0.18 hectares) was planted four times a year. Sonia did not have a modern irrigation system in place, nor did she adequately cultivate her land, limiting her tilling to just one pass of the plow. Moreover, she had problems with flooding during the rainy season, due to overflow of the ditch that passed through her land. For lack of knowledge, she did not use good cultivation techniques or fertilizing regimes; consequently, she experienced low productivity on her farm as well as poor fruit quality.

With the assistance of ADP, Sonia implemented the following measures:

- Improvement of the direction of the ditch which overflowed;
- Preparation of the soil and subsoil, by plowing and passing three times with the harrow, both before and after creating raised beds;
- Elaboration of a planting schedule for the year and a commitment to following this plan.

In September 2006, Sonia installed 0.70 hectares of drip irrigation on land in which she planted 0.35 hectares of bell pepper and 0.35 hectares of squash. The success of these crops motivated Sonia to use her own resources to install another 0.70 hectares of drip irrigation, and thus increase her overall production.

The gross income Sonia has generated through the horticultural production has increased substantially, from \$3,750 annually before her time with USAID-ADP, to \$11,149 over a period of 5 months of intensive production under drip irrigation. In following the established crop plan, Sonia has already planted 0.35 hectares of squash and 0.18 hectares of cucumber.

It is especially noteworthy to obtain these results in La Union, the province with the worst climatic conditions, and a latecomer in the horticultural production area – one where USAID-ADP has had difficulty finding interested growers. Sonia commented, "We have become a source of employment in the zone, where there are not many other options besides low skilled labor in animal production." It is already evident that before beginning production with USAID-ADP assistance she was employing the equivalent of 46 work days on 0.5 hectares each year, but with the first established crops have used 166 work days for production on 0.7 hectares.