

IPM IL integrated pest management innovation lab success story

HEALTHIER FAMILIES, HIGHER INCOMES:

A women's farmer group in Nepal reaps the benefits of IPM

Improvements in irrigation and integrated pest management lead to higher vegetable crop yields for a 21-household village in Nepal.

SABITRI TIMILSINA WAS FINDING IT DIFFICULT to manage household expenses and educate her children from her seven-member family's sole income source: agriculture.

Timilsina lives in the 21-household village of Ranagaun, a tiny hamlet in Nepal's central Lalitpur district. Her family was in debt due to losses to their tomato, cabbage, and cucumber crops, and many of her neighbors were in the same predicament. Subsistence farming, done on an average of less than two-and-a-half acres in the village, was in decline. Crops failed in the unhealthy, dry soil, and incomes further decreased from the expense of transporting vegetables to market and the cost of chemical fertilizers and pesticides. And while the majority of women in the village were involved in agriculture, their exclusion from agricultural training and education meant that they were unaware of market opportunities and advanced growing techniques, missing out on income that could improve their families' livelihoods.



Farmers in Ranagaun with IPM IL team members.



Sabitri Timilsina holds a healthy cauliflower that was produced with IPM methods.

THE POWER OF WOMEN'S FARMER GROUPS

In 2008, Timilsina joined a new women's farmer group in the village, the Namuna Mahila Krishak Samuha. The group learned about drip irrigation, vegetable farming, and marketing from the collective efforts of the USAID-funded Smallholder Irrigation Market Initiative (SIMI), iDE-Nepal (an NGO), and Nepal's District Agriculture Development Office (DADO). But as vegetable farming increased in the newly irrigated land, so did insect pests, plant diseases, and weeds, which the women tried to combat with pesticides and inorganic fertilizers, increasing input costs and degrading soil quality.

Another USAID-funded program, the Integrated Pest Management Innovation Lab (IPM IL, formerly the Integrated Pest Management



A soap water trap attracts insects away from cucumbers.





Farmers in Ranagaun demonstrate a mulching technique.



A farmer plants a tomato seedling. IPM methods and irrigation (shown here through the green piping) have led to impressive results in vegetable crops.

All photos taken by *Bimala Rai Colavito*, *iDE-Nepal* volunteer. A version of this story by *iDE-Nepal* was previously published in 2012.

Collaborative Research Support Program or IPM CRSP), was already active in Nepal, focusing on sustainable and economical ways for smallholder farmers to manage pests and diseases in vegetable crops. In 2009, the program began working with the farmer group to lower vegetable production costs through environmentally-friendly solutions such as biofertilizers, biopesticides, bagging, mulching, and pheromone and soap-based insect traps.

HEALTHIER FAMILIES, HEALTHIER CHILDREN

For Timilsina and others in the group, these methods were revolutionary. By adopting the IPM tools and practices, the women increased the vegetable production and received higher prices at market.

On Timilsina’s small, one-third acre plot, the IPM techniques in her cucumber and cabbage crops led to a production benchmark for the group. Her cabbage earnings increased by over 50%, and her income from cucumber production increased by 250%. Her crops now have a longer growing period, have reduced damage from insects and plant diseases, and receive a higher market price. From these increased earnings, she was able to pay her debt, educate her children, and save for the future.

Timilsina sees hope in vegetable farming and marketing, in part due to the importance of IPM. “Mere hard work in agriculture isn’t enough for satisfactory production,” she says. “It should be supported by proper technology and management.” By using biopesticides, mulch, bagging, and traps, she has been able to manage red ants, white grubs, fruit flies and weeds, which were becoming more severe by the year. Since she no longer applies pesticides, the plants and fruits last longer, the produce is more marketable, and her family is eating healthier vegetables.

“It would have taken us ages of experience in agriculture to learn and adopt these technologies into the field and see high production,” says Timilsina. “But through IPM IL, we did it within one year.”

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