



Feed the Future Country Fact Sheet

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Innovation That's Making a Difference: Integrated Pest Management in South Asia



Marty McVey

Marty McVey learns more about the IPM Innovation Lab's work in tomato grafting with Rangaswamy Muniappan of Virginia Tech .

The Hon. Marty McVey is a member, appointed by the U.S. president, of USAID's [Board for International Food and Agricultural Development](#) (BIFAD).

The BIFAD advises and makes recommendations to the USAID Administrator on food security, development efforts, and implementation of the Foreign Assistance Act of 1961. It also monitors progress.

During his second trip in January with the [Feed the Future Innovation Lab: Collaborative Research on Integrated Pest Management](#) (formerly the Integrated Pest Management Collaborative Research Support Program), McVey visited food security projects in India, Bangladesh and Nepal. India is a strategic partner with Feed the Future, and Bangladesh and Nepal are Feed the Future focus countries.

We asked McVey a few questions about his visit and the exciting collaborations and progress he [observed](#).

First, tell us a little about your trip. Where did you go and why were you there?

I accompanied a team of Integrated Pest Management (IPM) Innovation Lab personnel from Virginia Tech, Penn State, and the Ohio State University to South Asia to review the activities of the IPM Innovation Lab in this part of the world. I attended workshops, regional planning meetings, toured facilities of private sector and NGO partners, and met with U.S. Ambassadors, USAID Mission directors, partner scientists, farmers, and members of farming cooperatives in India, Bangladesh, and Nepal.

The purpose of my trip was to see how Feed the Future's [goals](#) are being accomplished, particularly through the work of the IPM Innovation Lab with its many partners and programs in South Asia. What I learned was encouraging.

Who did you spend time with during the trip? How did you see various food security actors, particularly from

the research community, interacting and working together to achieve Feed the Future goals on the ground?

In Bangladesh, scientists from all three countries I visited, as well as representatives from USAID and [The World Vegetable Center](#), attended a regional planning meeting for the IPM Innovation Lab's Southeast Asia project. Interaction among scientists from the United States and host countries was lively and facilitated collaboration.

While visiting with the vice chancellor of Tamil Nadu Agricultural University in India and our partnering scientists at that institution, I observed their strong commitment to working with us to foster increased use of organic farming methods.

In India, scientists from Senegal, Kenya, Ghana, and Guatemala—supported by Feed the Future through the IPM Innovation Lab—attended a biocontrol workshop centered on the use of *Trichoderma* (a beneficial fungus used to attack fungi with deleterious effects) and *Pseudomonas* (a beneficial bacterium). Each of the scientists gave a presentation on the work they were doing in their home country. Through this kind of support, Feed the Future is exponentially expanding its impact and providing opportunities for scientists to learn new techniques. Those scientists then return home and share what they've learned, which translates to better in-country capacity.

The IPM Innovation Lab has also partnered with the Biocontrol Research Lab, a private company in India that produces biocontrol products to help farmers safely grow highly productive crops.

Through this partnership, farmers can learn about the benefits of using biocontrol methods to control pests and plant diseases and with the increased income they generate through these methods they are able to expand their use of such products. Companies find a viable niche in the economy. Everybody wins: Farmers increase their incomes without depleting or harming the soil and environment, companies are successful, and local communities have more and healthier produce to buy and consume. Public-private partnerships like this are helping to ensure that food security efforts in India are sustainable.

In each country I visited, the USAID Missions were pleased with the work of the IPM Innovation Lab and expressed that IPM Innovation Lab efforts are helping to achieve impact in advancing food security. In Bangladesh and Nepal, they are working to implement IPM packages (a set of techniques designed for a particular crop) in Feed the Future target regions.

What impact did you see the IPM Innovation Lab having? How was it making a difference?

In Nepal, pheromone trap technology introduced by the IPM Innovation Lab is helping coffee producers manage the white stem borer of coffee, a serious pest in the region. Classical biocontrol of the papaya mealybug, thanks to an [IPM Innovation Lab initiative](#), has restored production of papaya, mulberry, cassava, eggplant, and other crops to the pre-incidence level in southern India. And in Bangladesh, the IPM Innovation Lab helped successfully reverse the decline in eggplant production, a staple crop, by introducing eggplant grafting in 2004 to combat bacterial wilt. The farmers were very appreciative of this initiative.

The adoption of *Trichoderma* and *Pseudomonas* in vegetable farming in India is extensive. In Bangladesh, *Trichoderma* is produced with compost and distributed to farmers. The adoption of culture to attract and kill the melon fly on bitter melon farms in Bangladesh is also very popular. The popularization of *Trichoderma* throughout the tropical world is spectacular and should be continued as it makes such a difference in the lives of smallholder farmers.

From your [tweets](#), it looks like you spent some time with smallholder farmers. How was the IPM Innovation Lab working with them, particularly women farmers? What did the farmers have to say?

There are many success stories coming out of these countries regarding integrated pest management (IPM) thanks to the involvement of the IPM Innovation Lab. The farmers themselves are perhaps the most inspiring.

One of the biggest stories for me was my colleague's account of a visit to a village near Kathmandu, Nepal. In this small village, women have been so successful at using IPM techniques that they are able to buy clothes for their children, pay for more schooling for them, and even build houses with the extra income they generate.

At another farmers' cooperative, I learned that while it only has 27 members, 500 people benefit from the work of the organization. A woman sits at the head of this group. The members of this organization are able to make small loans to other members, allowing them to buy materials for building greenhouses, drip irrigation systems, sticky traps, or pheromones. All of this is allowing women farmers to sustainably grow more and healthier produce.

At a coffee plantation in Nepal I heard this story repeated: “Ninety percent of the beans that we grow are of better quality since we started using IPM techniques,” one woman said. And I learned from our collaborating partner in Nepal, iDE, that it focuses on working with women because they’re more reliable and committed than the men, and they are also better savers.

What encouraged you most about this trip, the projects you saw, and the people you met?

I was most inspired by the difference that Feed the Future, through the IPM Innovation Lab, is making in the lives of women farmers. I saw this with the women agricultural students and farmers who I met at the Sri Avinashilingam Krishi Vigyan Kendra University in India and with the women farmers who I met in Nepal.



Women farmers see firsthand how using biocontrol methods produces vegetables and crops that are safer and of better quality. They are using the extra income to improve the lives of their families. And they are forming organizations to extend the benefits to one another through loans. They’re also extending benefits beyond their organizations by working with other women’s cooperatives.

During my visit to the women’s agricultural university, I spoke to a large group of several hundred women farmers. It was encouraging to see these young women take a positive step for their own future and that of their communities by investing in themselves and in the future of agriculture through higher education. The university is set up such that it not only trains women in agriculture, but it also encourages small businesses by training students in activities such as fabric production and handcrafts.

What key messages will you take back to the BIFAD on the value/success of the IPM Innovation Lab?

Overall, the progress toward Feed the Future’s goals was encouraging.

South-South collaboration is strong and yielding results. The biocontrol workshop at Tamil Nadu Agricultural University was an example of this. By providing training to promising young scientists in other developing countries, the program is extending the benefits of IPM methods.

The research and practitioner community is flexible, responding to new challenges as they arise. Policy-makers sometimes lag behind. As scientists learn of new invasive pests and diseases, they are quick to adapt, figuring out new solutions to challenges on the ground. Government officials often lag behind in understanding the importance of acting quickly and red tape can slow effective techniques.

Women are making strides. Where women are allowed or encouraged to have agency in their lives, they are making a huge difference.

While adopting new strategies is risky for subsistence farmers, once they see results they become evangelists. To the subsistence farmer, new practices are suspect: If you are just barely getting by, why try something that may remove even that tiny profit altogether? And yet, from my visits to farming villages and through meeting with farmer collectives and speaking with farmers themselves, I learned that once a farmer sees (often through demonstration plots) that these new methods can work, they become enthusiastic advocates.

Public-private partnerships are promising. Public-private partnerships across the countries we serve through the IPM Innovation Lab were inspiring, with strong partners in every country that are helping create self-sustaining programs.

Change is incremental, but nonetheless effective. While we don't always get a dramatic splash for our investments dollars in the developing world, it is money well spent. The smile on the face of a woman who has built a house using money she earned from IPM methods is invaluable. The pride of the young women embarking on higher level agricultural studies was inspiring. The enthusiasm of our scientist partners from developing countries attending the biocontrol workshop was gratifying as well. Often, as I mentioned above, it can be difficult to persuade a farmer to adopt new methods. But once we do, and are successful, word of mouth spreads to other farmers and villages and extends across a region. Over time, this has a huge impact.

[Follow McVey on Twitter](#) for more on his trip and future updates. McVey will brief the public on his trip at the BIFAD board of directors meeting this Friday, March 15. Check out the **[webcast](#)** on Friday. We'll also **[post](#)** the meeting minutes later on the USAID website.

[View more photos from McVey's trip.](#)