Nepal

Integrated Pest Management Innovation Lab country profile

Map courtesy CIA World Factbook

Population: 30.9 M
GDP per capita: $1,500
Feed the Future country? Yes
Involvement in this country since: 2004

Challenges:

- Pesticide overuse
- Value chain issues
- Loss of biodiversity
- Chemical pesticide overuse

Related project name: Regional IPM Research and Education for South Asia

Project overview: IPM Innovation Lab work in Nepal builds on previous investment by extending and replicating participatory work, and strengthening the network of linkages in IPM knowledge and expertise all across the country. Research activities include surveys on pests and beneficial insects in priority crops. On-farm field experiments focus on pest management components; assessment of socioeconomic constraints to the adoption of IPM; development and testing of IPM packages; transfer of results and recommendations; and assessment of social, economic, and gender impacts.

Accomplishments:

1. **Developed IPM packages for high-value vegetable crops:** By applying an IPM package consisting of compost (farm yard manure), pheromone traps, and other technologies, farmers increased the yields of bitter gourd, cucumber, cauliflower, and coffee.
2. **Reduced the use of toxic pesticides:** The combined effect of bio-fertilizers and bio-pesticides has allowed farmers to apply chemical pesticides less frequently on Nepalese IPM fields.
3. **Participated in long-term training and workshops:** Nepalese scientists had the opportunity to travel for training and workshops on IPM techniques like grafting, pheromone trapping, invasive species, and beneficial fungus development and application.
4. **Transferred IPM technology:** With the help of partnering organizations, this project reaches thousands of farmers, stimulating small business development for IPM inputs such as biopesticides.
5. **Conducted international workshops:** In collaboration with local industries, international workshops on *Trichoderma* and biopesticides were conducted.


A Nepalese women's farmer group (left) greets IPM researchers, and (right) USAID administrator Rajiv Shah pays a visit to the IPM Innovation Lab site in Nepal.

Developing a suite of techniques to make the farmer's job easier

In Nepal, IPM packages — a suite of techniques tailored to a specific crop — for cauliflower, cucumber, bitter gourd, eggplant, tomato, and coffee have been developed. These packages include a variety of recommendations, including biofertilizer treatments for seed and seedbeds, grafting on disease-resistant rootstocks, amended composts, solarization, mulching, pheromone and soap water traps, and biopesticides. The pest problems that have been identified and addressed include the following: fruit fly in cucurbits, tomato fruit worm, tobacco caterpillar, brinjal shoot and fruit borer, coffee white stem borer, clubroot of cruciferous crops, root-knot nematode, white fly, diamondback moth, potato tuber moth, white grubs, and bacterial wilt. IPM packages developed for vegetable crops in the Lalitpur and Pokhara districts will be transferred to Banke and Surkhet.

IPM researchers played a large part in disseminating a technique whereby eggplant and wild tomato plants are grafted onto bacterial wilt-resistant rootstocks. This technique has been adopted by several farmers and nurseries. Additionally, a local company called Agricare has started to produce the beneficial fungus Trichoderma and supply it to farmers in Nepal.

Relevant website

http://www.oired.vt.edu/ipmcrsp/our-work/projects/south-asia/

Local Implementers

IDE
National Agricultural Research Council
Department of Agriculture
Center for Environmental and Agricultural Policy Research, Extension and Development
Himalayan College of Agricultural Sciences and Technology

Regions/provinces

Rupandehi, Pokhara, Lalitpur, Kaski, Illam, Palpa, Sharma, Surkhet, Banke, Narasingdi

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