



## PROGRAM FOR BIOSAFETY SYSTEMS

A partnership program for biosafety capacity development

### Risk Assessment Research

#### *Building Local Research Capacity to Support National Biosafety Systems*

The Program for Biosafety Systems (PBS) collaborates with local and international partners to support countries in Africa and Asia in the responsible development and safe use of agricultural biotechnology. A critical aspect of building effective biosafety regimes is creating a solid base of knowledge within countries that can support the passage of biosafety legislation, the establishment of regulations, and the design and implementation of ongoing risk assessment research. PBS's competitive grants program, the Biotechnology and Biodiversity Interface (BBI), has supported research in developing countries on the potential impact of agricultural biotechnology on biodiversity outside of agriculture, i.e. 'wild biodiversity.'

The BBI program required that each research project include a developing country scientist as a principal investigator, and a substantial part of the research be conducted in one or more developing countries. BBI selected 11 projects between 2004 and 2006. Research is ongoing, and findings will be published as they become available. All projects are outlined briefly below.

Country/Region	Focus	Objectives	Year
Burkina Faso, Ethiopia, & Kenya	Bt cowpea	Assess diversity and genetic structure of wild cowpea and the nature of its predators.	2005
Ethiopia, Kenya, & Tanzania	Genetically Modified (GM) Rice	Investigate gene flow from crop to wild rice, fitness of hybrid progeny, and genetic diversity of wild rice.	2005
Ethiopia, Niger, & South Africa	GM Sorghum	Determine potential for co-occurrence of wild and GM sorghum, and study potential for occurrence as weeds.	2006
Kenya and Mali	GM sorghum	Identify and characterize wild sorghum populations and impacts of crop-to-wild gene flow.	2004
Kenya, Tanzania, & Uganda	Bt cotton	Evaluate the potential for and consequences of gene flow to wild cotton, and impact on arthropod diversity.	2006
India	Bt Eggplant	Study pest susceptibility to Bt protein and genetic diversity using DNA fingerprinting, and parasitoids and alternate hosts.	2004
India and Indonesia	Stacked-gene Bt crucifers	Test effect of stacked Bt genes on delaying resistance development to Bt in a diamondback moth model system; study the impacts on target and non-target arthropods.	2004
Philippines	Bt corn	Study the direct and long-term secondary ecological effects on non-target beneficial arthropods.	2004
Philippines	Bt corn	Monitor Asian Corn Borer resistance and the impact of pollen dispersal on non-target lepidoptera.	2005
Philippines	Herbicide-tolerant (Ht) corn	Use an ecosystems approach to assess impact on wild biodiversity.	2005
Vietnam	Bt rice	Examine the impacts on the lepidopteran food web structure and stability in wild rice.	2006

### FOR MORE INFORMATION

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For more detailed information on BBI projects: [www.ifpri.org/pbs/pdf/bbiprojects.pdf](http://www.ifpri.org/pbs/pdf/bbiprojects.pdf)