



### **PROGRAM FOR BIOSAFETY SYSTEMS**

A partnership program for biosafety capacity development

PBS, a program managed by the International Food Policy Research Institute (www.ifpri.org), supports partner countries in Africa and Asia in the responsible development and safe use of agricultural biotechnology. PBS effectively addresses biosafety through an integrated program of research, capacity development, and outreach. PBS is funded by the U.S. Agency for International Development (USAID).

# **BUILDING SUSTAINABLE BIOSAFETY EDUCATION CAPACITY**

## INTRODUCING THE PBS TRAINING OF TRAINERS PROGRAM

Catarina Cronquist (IFPRI), Cholani Weebadde (MSU) and Karim Maredia (MSU)

The Program for Biosafety Systems (PBS) maintains an active program of training and outreach activities to ensure that the people involved in biosafety decisionmaking can confidently and competently assess planned releases of genetically modified organisms (GMOs) and GM food products using the best available science. As a supplementary initiative of the PBS Education and Capacity Building component, the 2007 "Training of Trainers" (ToT) program teamed up with a number of PBS partners and collaborating institutions to work toward achieving sustainable biosafety education and training programs in partner countries.

#### Overview of the ToT program

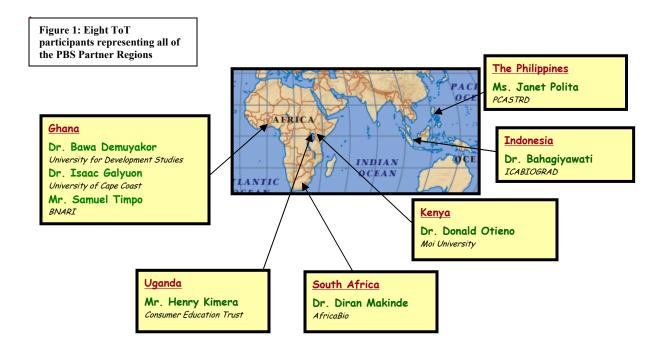
Eight professionals from PBS partner countries who demonstrated willingness and ability to develop and organize biosafety education activities in their own countries and subregions participated in the ToT program. The six-week long program at Michigan State University (MSU) helped educate, encourage, and empower the participants through hands-on experiences and in-depth practical training on biosafety issues. The participants were given both knowledge and tools to train academic and non-academic stakeholders on biosafety in their home countries. MSU led this PBS initiative and also engaged a wide range of experts from various PBS components.

## **Participants and their Action Plans**

PBS selected ToT participants based on their interest in teaching and on their outreach activities in biosafety and biotechnology. Participants represented all PBS partner regions: West Africa, East Africa, Southern Africa and Southeast Asia (see **Figure 1**). Each participant, or trainer, arrived with a draft "Action Plan" for their in-country curriculum development, which was subsequently revised at the conclusion of the program. The curriculum developed by the local trainers will be used to implement in-country training and educational programs targeting both academic (university students) and non-academic stakeholders (including policymakers, regulators, media, farmers, and consumer organizations). At the start of the program, participants were divided into two teams according to the stakeholders they wished to target: academic or non-academic. This allowed participants to more easily work together, exchange ideas, and learn from each other.

#### **Activities**

Given the varied backgrounds of the ToT participants, the six-week program began by focusing on the basics of biotechnology and providing practical hands-on experience on GM crop production in the laboratory. This way, the trainers would be able to work together from the same level of understanding. The second and third weeks focused on Environmental Biosafety and Food Safety, and participants interacted with more than 30 biosafety and food-safety specialists from academia, government agencies, industry, and the private sector. The trainers spent the fourth week working in teams to revise their initial Action Plan outlines and course curricula, and then spent the fifth week learning about educational technologies and innovative teaching methodologies at MSU's College of Education. During the last week of the program,



the participants visited laboratories and met scientists at both the Donald Danforth Plant Science Center and the Monsanto Company in St. Louis, Missouri; met with key personnel from the U.S. Regulatory agencies (USDA-APHIS, EPA, and FDA); and learned about effective communication skills while collecting resources on food biotechnology at the International Food Information Council (IFIC). The ToT program ended with participants presenting their Action Plans and curriculum outlines to key personnel at the USAID Head Office and to the PBS Program Director at IFPRI.

### Working towards a Sustainable Difference

Overall, the ToT program aims to institutionalize biosafety educational programs in PBS partner countries so that biosafety education and training can be offered on a continuous basis. The program has been a collaborative activity that has combined PBS biosafety resources with international expertise and resources to build in-country champions and local educational programs for academic and non-academic stakeholders. To ensure that the overall goal of institutionalizing biosafety educational programs in PBS partner countries is met, PBS will continue to work with the trainers and provide support for the implementation of their Action Plans.

The emphasis will be on building long-term relationships through 1) finalizing Action Plans, budgets, timelines and curriculum outlines; 2) developing institutional agreements between PBS and home-country institutions to formalize the relationships; 3) implementing Action Plans and offering educational programs in home countries that target both academic and non-academic stakeholders; 4) maintaining active linkages between ToT participants and PBS team members to share resources and expertise; and 5) helping to build a ToT resource network for continuous interactions through email, enewsletters, quarterly reports, and a ToT database.

The ToT teams and the training materials developed through this participatory approach will have far-reaching educational and capacity building impacts, thus ensuring that biosafety programs are sustained beyond the life of PBS.

**About the authors:** Ms. Catarina Cronquist is a Program Analyst for the Program for Biosafety Systems, IFPRI; Dr. Cholani Weebadde is an Assistant Professor at the Institute of International Agriculture, Michigan State University; and Dr. Karim Maredia is a Professor at the Institute of International Agriculture, Michigan State University.

Special thanks to Dr. José Falck-Zepeda (IFPRI); Dr. Rebecca Grumet (Michigan State University); Dr. Jim Hancock (Michigan State University); Dr. Hector Quemada (Calvin College); and other PBS colleagues who kindly took the time to share their expertise.

FOR MORE INFORMATION Please see the PBS website http://www.ifpri.org/pbs/pbs.asp

PBS publications are issued by individual partner institutions and undergo review procedures specific to each issuing institution. This publication has undergone at least one internal or external review prior to publication by IFPRI.

Copyright © 2007 IFPRI. All rights reserved. Sections of this material may be reproduced for nonprofit use without written permission but with acknowledgment to IFPRI. For further information: ifpri-copyright@cgiar.org.