

# GMO ERA Project

## Tools to Support Environmental Risk Assessment of Transgenic Crops

Tuesday, May 13 Lunchtime Side Event  
Food will be available

13:15-14:45, Salon Haber in the Maritim Hotel

### Program

Dr. Manoela Pessoa de Miranda, CBD Secretariat  
Dr. David A. Andow, U of Minnesota  
Dr. Pham Van Toan, MARD  
Ms. Hoàng Thi Thanh Nhàn, MSc, MONRE  
Dr. Julia S. Guivant, Federal U of Santa Catarina  
Dr. Eliana M. G. Fontes, Embrapa

Welcome address  
Introduction  
Tools in the Vietnam book  
UNEP-GEF project and GMO ERA Project  
PFOA in Brazil  
ERA Expert Teaching Teams in Brazil

Embrapa - Brazilian Agricultural Research Organization  
MARD - Vietnam Ministry of Agriculture and Rural Development  
MONRE - Vietnam Ministry of Natural Resources and the Environment



Attendees of this side event from developing countries  
will receive a **free copy** of the book:

**Environmental Risk Assessment of Genetically  
Modified Organisms, Volume 4: Challenges and  
Opportunities with Bt Cotton in Vietnam.**

[www.gmoera.umn.edu](http://www.gmoera.umn.edu)

## PROBLEM FORMULATION AND OPTIONS ASSESSMENT HANDBOOK

A guide to the PFOA process and how to integrate it into environmental risk assessment (ERA) of genetically modified organisms (GMOs)



BY KRISTEN C. NELSON AND MICHAEL J. BANKER

A publication of the GMO ERA Project

## GMO ERA Project publications

### Problem Formulation and Options Assessment Handbook

A guide to the PFOA process and how to integrate it into environmental risk assessment (ERA) of genetically modified organisms (GMOs)  
by Kristen C. Nelson and Michael J. Banker

The Problem Formulation and Options Assessment (PFOA) provides a framework for identifying the crucial societal needs that could be satisfied by introducing a GM crop into an agricultural system, and comparing the GM crop to other possible alternatives for meeting that critical societal need. PFOA considers the values at risk and the potential adverse effects from the GM crop. To this end, a PFOA relies upon being transparent, inclusive of all appropriate stakeholders, and rationally informed by the best available science.

The purpose of the PFOA Handbook is to:

- Introduce and explain the theory and practice of PFOA.
- Provide guidance about the integration of a PFOA into a country's environmental risk assessment procedures for GMOs.
- Examine considerations, techniques, and resources that can assist in designing, implementing and conducting a country-specific PFOA.

Download the PFOA Handbook as a pdf  
for free from our website!

### Environmental Risk Assessment of Genetically Modified Organisms, Volume 4: Challenges and Opportunities with Bt Cotton in Vietnam

Edited by D.A. Andow, A. Hilbeck and Nguyễn Văn Tuất

This volume in the series is part of a larger effort in Vietnam to increase investment in studying the environmental risks of transgenic plants, managing transgenic products safely, and building modern labs to assess their safety. Vietnam plans to introduce GM crops, such as Bt cotton, to benefit agricultural development in the country. This book is the first scientific effort to synthesize information relevant to environmental risk assessment of GM crops in Vietnam, taking Bt cotton as an example. It can be used as a technical manual to enable Vietnamese scientists to evaluate the potential environmental impacts of Bt cotton varieties prior to commercialization, and, with some modification, provides guidance for environmental risk assessment of any transgenic crop.

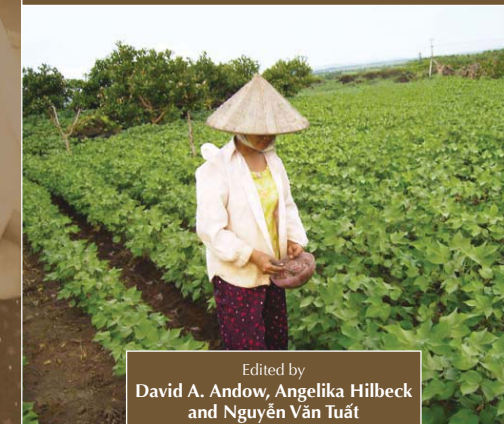
**How to order:** Go to [www.cabi.org](http://www.cabi.org),  
click on Bookshop and then on New Titles.

Side event attendees from developing countries  
are invited to sign up to receive a **free copy** at  
[www.gmoera.umn.edu/mop4](http://www.gmoera.umn.edu/mop4) (supplies limited)

### Environmental Risk Assessment of Genetically Modified Organisms

Volume 4

Challenges and Opportunities with Bt Cotton in Vietnam



Edited by  
David A. Andow, Angelika Hilbeck  
and Nguyễn Văn Tuất  
SERIES EDITORS  
ANNE R. KAPUSCINSKI AND PETER J. SCHEI





# GMO ERA Project

---

## **International Project on GMO Environmental Risk Assessment Methodologies**

The GMO ERA Project is a pioneering initiative driven by public sector scientists, most of whom have strong expertise in environmental science, as well as biotechnology and socioeconomics. The project has identified and developed scientific methodologies and teaching tools that can be used for environmental risk assessment (ERA) and management of transgenic plants, in accordance with the Cartagena Protocol on Biosafety and other international agreements. In Brazil, the project is coordinated by Dr. Deise Capalbo and Dr. Eliana Fontes.

### **Contact:**

Dr. David Andow, Project coordinator  
University of Minnesota  
219 Hodson Hall, 1980 Folwell Ave.  
St. Paul, Minnesota 55108, USA  
Tel: +1-612-624-5323  
Fax: +1-612-625-5299

[gmoera@umn.edu](mailto:gmoera@umn.edu)