

# ENVIRONMENTAL AND HUMAN HEALTH ASSESSMENT OF THE AERIAL SPRAY PROGRAM FOR COCA AND POPPY CONTROL IN COLOMBIA

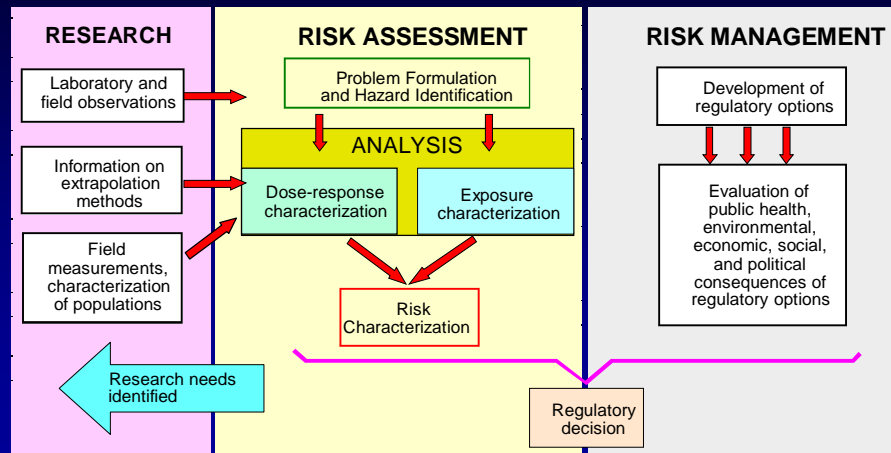
Keith Solomon

University of Guelph, Guelph, ON, Canada  
N1G 2W1

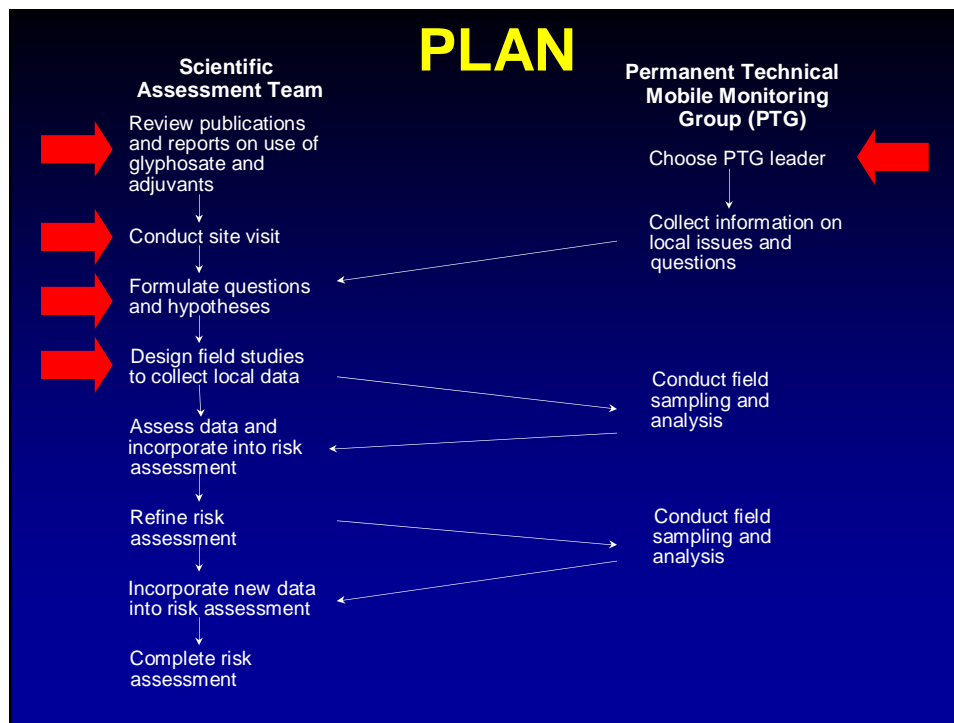
## PANEL

- Dr. Keith R Solomon
  - University of Guelph, Canada
- Dr. Arturo Anadón
  - Universidad Complutense de Madrid, Spain
- Dr. Antonio Luiz Cerdeira
  - EMBRAPA, Brazil
- Dr. Jon Marshall
  - Marshall Agroecology Limited, UK
- Dr. Luz-Helena Sanin
  - University of Toronto, Canada

# APPROACH



# PLAN



## PRODUCTS

- State of the science review of the human and environmental risks of the use of glyphosate and formulants in Colombia
  - Report to OAS
  - Useful to countries other than Colombia
  - Publication in peer-reviewed literature
- Tier-1 review of other substances used in the production of cocaine and heroin

## SITE VISIT

- February 2004
- Several Panel members
- Very helpful in understanding the extent of the issue and the logistics of data collection.













## GLYPHOSATE REVIEW

- Review of literature ongoing
- Data collection studies in planning stage
  - Exposure of bystanders to glyphosate
  - Effects on humans (epidemiology)
  - Environmental toxicity of the spray mixture
  - Impact of coca and poppy production on the Colombian ecosystem
  - Long term effects of glyphosate use
  - Extent of spray drift in the field
  - Glyphosate residues in the environment: soils
  - Glyphosate residues in the environment: surface waters

## TIER 1 ASSESSMENT OF OTHER SUBSTANCES

- Data collection complete, report in final review
- Use of these substances in cocaine and heroin production
- Total of 66 substances
  - Pesticides and industrial chemicals
  - Human and environmental fate and effects
  - Regulatory standards
- Intent
  - Tier-1 guidance for prioritization and further review



**THANK YOU**