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**PRRI submission on Academic Institutions and Organizations Involved in Biosafety Education and Training, 16-18 April 2007; Kuala Lumpur, Malaysia**

Adequate biosafety education is important for the effective implementation of national and regional biosafety regulation and the Cartagena Protocol on Biosafety, and can facilitate research in biotechnology by contributing to informed decision making in a timely manner.

Conversely, inadequate biosafety training will hinder the implementation of biosafety regulation and the Protocol and will hinder research in biotechnology to reach its goals of strengthening the sustainable production of food, feed and fibre, to address water shortage, to improve health care and environmental protection.

PRRI therefore believes that in designing biosafety training programs, the following principles should be followed:

1. Biosafety training programs need to be tailored toward their target groups; one size fits all training programs are not meaningful. It is of prime importance to reach the participants early so that they will be enabled to knowledgeably access scientific literature in order to make their own biosafety assessments and decisions according to their national needs, in concordance with local legislation.
2. Biosafety training of non-scientists needs to start with an adequate introduction to modern biotechnology for better understanding by participants of the scientific methodology, applications, goals and achievements and up to date global statistics. Only with that background can people make well informed risk-benefit analyses.
3. Biosafety training needs to be conducted by experts with substantial experience in the fields that are the subject of the training.
4. Biosafety training should aim to contribute to informed decision making in a timely manner by competent authorities.
5. Biosafety courses
  - a. need to be at sufficiently rigorous academic and scientific levels and not become 'certificate factories',
  - b. Should be balanced, and not used as campaigns against or in favour of modern biotechnology and its applications.



6. With regard to risk assessment, biosafety training should clarify that:
  - a. Risk Assessment should make use of the most up to date, peer-reviewed science; i.e. based on scientific reasoning, verifiable and replicable data.
  - b. There is already a wealth of relevant knowledge and experience available in existing areas such as plant breeding; plant breeders should be part of the faculty of courses that deal with crop plants.
  - c. Risk assessment is comparative - i.e. any risks identified in the risk assessment have to be compared with the risks of presently used practices with the non modified recipient organism that would be replaced;
  - d. Only information clearly needed for risk assessment should be requested from the applicants
  - e. The precautionary approach does not mean 'zero risk', and should be replaced by the familiarity approach when there is sufficient experience to do so;
  - f. Risk Assessment of GMOs is not a new and unexplored field, it has been conducted tens of thousands of times by experts all over the world. During the last decades, over a billion acres have been planted with genetically modified crops by millions of farmers and many thousands of field trials have been carried out, without one single verifiable report of adverse effects to either human health or biodiversity. This does not mean that LMOs are inherently safe, but it does show that the methodology of risk assessment has been effective.