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Regional Cooperation for Ensuring Access and Capacity Building

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Biotechnology Policies in Pakistan

Presented by:

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Biotechnology Policies in Pakistan

WWF Position statement on GMOs

WWF will:

- Alert governments, aid agencies, industry and public to both good and bad practices as it impacts on WWF’s mission to protect and enhance the environment and sustainable livelihoods.
Support moratoria on the use & release of GMOs in crops until there is wide consensus that research on ecological impact has been completed & evaluated, and risk identified to being acceptably low;

Support calls for eco-labeling to promote consumer awareness and informed decision-taking
Biotechnology Policies in Pakistan

Agencies involved in the promotion of Biotechnology:

- **NIBGE** (National Institute of Biotechnology & Genetic Engineering)
- **NIAB** (Nuclear Institute of Agriculture Biology)
- **CABB** (Centre of Agricultural Biochemistry and Biotechnology, UAF)
- **NARC** (National Agriculture Research Centre)
Continued……

- **CEMB** (Centre of Excellence in Molecular Biology, Punjab University, Lahore.)
- **CMG** (Centre for Molecular Genetics, University of Karachi)
- **NIFA** (National Institute for Food & Agriculture)
- **Monsanto**
- **Syngenta**
Biotechnology Policies in Pakistan

Present Status of Biotechnology in Pakistan:
• In the stage of Establishment
• Collecting data for this science
• Draft of biosafety guidelines prepared by

NATIONAL BIOSAFETY COMMITTEE (NBC)
The Ministry of Environment
Local government and rural development
Government of Pakistan
NIBGE claims to have established

- BT cotton as insect resistant
- Some lines of cotton as virus resistant

CEMB claims to have established

- A genetically modified variety of RICE.
- Synthetic seed for some vegetables

But none of these ready to get in the field
Biotechnology Policies in Pakistan

• News Clip of “DAWN” on March 05, 2004. (Friday)

MIRPURKHAS: Warning against sowing of banned crop

By Our Correspondent

MIRPURKHAS, March 4: The executive district officer (agriculture) has cautioned farmers not to sow the officially-banned BT cotton that is already being sown in some parts of Mirpurkhas and Sanghar districts.

According to a press release issued here on Wednesday, EDO Shaukat Ali Rahimoon said the government had banned the sowing of the genetically modified cotton despite some controversial articles appearing in the print media on the benefits of the BT and other varieties.
The EDO said scientists of the National Institute of Bio-Technology and Genetic Engineering as well as the National Institute of Agriculture opposed the sowing of the variety until it was approved by the government after enforcement of national safety guidelines and release of local seed varieties.

Mr Rahimoon warned the farming community that they should not sow the BT cotton until the lifting of the official ban as it would be a violation of the Cotton Control Act.

BT cotton - genetically modified through induction of bacterium (bacillus thuringensis) that is resistant to boll worms but susceptible to other pests - has the potential to give rise to a new plant disease that could damage the whole cotton crop in the province.
Biotechnology Policies in Pakistan

Potential Benefits to communities:
- Rise in yield ceilings
- Reduction in excessive pesticide usages
- Increase in nutrient value of basic foods
- Drought resistant varieties for less favored soils
- Salinity and lack of soil nutrient
- Better fatty acid profile
- Better digestibility for livestock
- Pest and virus resistance
- Salt tolerance
- Aluminum and manganese tolerance
Biotechnology Policies in Pakistan

The Risks to the Communities:

1. Environmental Risks

- Transformed organisms could displace existing species and change the ecosystem.
- Gene flow among plants could transfer the novel gene into related species, leading to "super weeds".
- The novel gene could have unintended harmful effects on non-target species.
2. Socio-economic Risks:

- Countries exporting agricultural commodities but having week technological potential will be affected more adversely.

- Countries importing food and having week technological potential will face food insecurity in the long term competitive pressure brought by GM crops.
Continued…….

3. Health Risks:

- Allergenicity
- Gene Transfer
- Out crossing
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THANK YOU