



Biosafety Capacity Building in China: Promoting and exchanging expertise, establishing a course of studies, raising awareness

A Sino-German cooperation project

Project data

Project title:	Biosafety Capacity Building in China: Data Management, Promoting Expertise and Awareness Raising
Duration:	6 years
Project progress	The first phase of the project began in September 2003. In view of its successful implementation, a second phase was approved in order to consolidate the work carried out and develop new initiatives and activities with regard to biosafety management.

Since the entry into force of the Cartagena Protocol on Biosafety in September 2003, a considerable need has arisen for consultancy on how to implement the Protocol's provisions at national level. This applies particularly to the People's Republic of China, where research in and application of genetically modified organisms (GMOs) is far advanced compared to other countries around the world.

The Chinese Ministry of Agriculture (MoA) had received 1525 applications for the release of GMO lines from 192 national or international biotechnology companies and institutions by the end of 2006. These lines come from 41 species of crop plant, including rice, maize, soya and cotton. The plants have received genetically modified properties such as resistance to herbicides or to certain species of insect. On the basis of risk analyses performed by the national biosafety committee for the application of GMOs in agriculture, the MoA has until now approved 456 lines for trials in closed systems, 211 lines for field trials on plots smaller than 2 ha and 181 lines for trial cultivation on plots of 2-10 ha.

The genetically modified crop most frequently cultivated is Bt-cotton. By the end of 2006, 424 safety certificates had been issued for the commercial cultivation of various Bt-cotton varieties. These safety certificates are granted if, following trial cultivation, commercial cultivation is approved. Other genetically modified crops have also been developed in China, such as tomatoes and papayas, but have not been planted for large scale though they have been issued safety certificates for commercial cultivation.

Although to this day China does not export GMOs or their products, it is the largest importer worldwide of soya, with a volume of 30 million tonnes, most of which is genetically modified.

The Chinese government is currently initiating a comprehensive biotechnology programme in order to approve more genetically modified plants and farm animals for commercialisation. This will involve investment anticipated to amount to 1.4 billion US dollars, limited initially to the next 5 to 10 years. This programme will also involve funding for safety research and environmental monitoring.



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On behalf of

This is necessary indeed. Due to the numerous even uncontrolled releases of GMO into the environment the risks of dissemination and mixing of genetically modified plants with traditional or local varieties are difficult to assess and may cause ecological and socio-economic harm.

This is why China, a mega-diverse country and centre of origin of many crop species, is attaching great importance to the issues surrounding biosafety. In 2001 the Chinese State Council issued an ordinance on safety management for GMOs in agriculture, followed by an array of implementing directives and technical standards. In order to be able to continue to participate in international negotiations on biological safety, China ratified the Biosafety Protocol in 2005. Moreover, China initiated a process designed to formulate new biosafety legislation that is not yet concluded. The Sino-German project builds capacity for biological safety by addressing specific target groups such as administration, students and consumers.

The biosafety capacity building project is an individual measure within the framework of GTZ's programme "Implementing the Biodiversity Convention". It supports the work of the Nanjing Institute for Environmental Sciences (NIES), which conducts biosafety research on behalf of the Ministry of Environmental Protection (formerly State Environmental Protection Administration SEPA).

A number of further institutions are involved in project implementation. These include the Central University for Nationalities (Beijing), the Institute of Resource and Environmental Protection for Minority Areas (Beijing), the China Agricultural Biotechnology Society, Renmin University of China (Beijing), a branch of Ecology and Nature Conservation, the Chinese Society for Environmental Sciences and the Third World Network.

Project activities

In the first phase, activities concentrated on three fields: data and information management; fostering expertise for scientists, officials and politicians; and awareness-raising and lobbying. The project compiled a comprehensive databank on GMO research and release activities, and developed an approach for civil society involvement in policymaking relating to biological safety.

Biodiversity and the Biodiversity Convention

The term »biological diversity«, or »biodiversity« for short, encompasses the diversity of life on Earth, ranging from genetic diversity and diversity of species to the diversity of ecosystems. The Convention on Biological Diversity (CBD) adopted in Rio de Janeiro in 1992 comprises three elements: the conservation of biological diversity, its sustainable use and the equitable sharing of benefits arising from such use. In the meantime, 190 Parties have joined the Convention. By signing the Convention, Germany has agreed not only to conserve biodiversity on its own territory but also to support developing countries in implementing necessary measures.

In a second phase, project activities concentrate on the following tasks beside consolidating the outcomes already achieved:

- Building upon two successful international workshops carried out during the 1st phase, a permanent international biosafety forum is being established. This forum will provide a platform for discussing the possible adverse effects of GMOs upon the environment, human health, socio-economic aspects, education and trade, and for regularly exchanging experience and lessons learnt among coun-

tries and institutions. A further international workshop is scheduled for September 2008.

- Development of a pilot biosafety course at the College of Life and Environmental Science of the Central University for Nationalities in Beijing. A course has been developed and tested with 45 students in 2007 and 50 students and 19 graduates in 2008. This course is now run annually and is to be transferred to further universities.

- The role and influence of civil society in the national biosafety legislation process are growing. This development is to be promoted in the second phase of the project through two activities: On the one hand, the national legislative process is to be influenced by implementing the mechanism for public participation in biosafety-relevant decisions developed during the 1st phase. On the other hand, the awareness of consumers is to be studied and enhanced; this activity, too, can build upon the work carried out in the 1st phase.

Project addresses:

Nanjing Institute of Environmental Science
Ministry of Environmental Protection (MoEP) of China
8 Jiang-wang-miao St., Nanjing 210042, China
Tel: (86) 139 1017 6361 (mobile); (86 25) 8528 7131
Fax: (86 10) 6893 1632; (86 25) 8541 1611
Contact: Professor Xue Dayuan (PhD)
Email: xuedayuan@hotmail.com

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Dag-Hammarskjöld-Weg 1-5
65760 Eschborn
T 06196 79 - 0
T 06196 79 - 1115
E info@gtz.de
I www.gtz.de

Authors:
Xue Dayuan
Alexandra Müller

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For further information:
Deutsche Gesellschaft für Technische
Zusammenarbeit (GTZ) GmbH
Programme »Implementing the Biodiversity Convention«
Contact: Alexandra Müller, Dr Konrad Uebelhör

T 06196 79-7403, -1362
F 06196 79-80-7403, -1362
E alexandra.mueller@gtz.de, konrad.uebelhoer@gtz.de
I www.gtz.de/biodiversity

