

## Helvetas: Position paper on Biotechnology and Genetic Engineering in Agriculture – a Summary

Helvetas is contributing actively to the improvement of living conditions of economic and socially disadvantaged people in Asia, Africa and Latin America (Helvetas Statutes: Article defining purpose). "Sustainable management of natural resources" is one of four sectors in which Helvetas is active. At present, there are about 70 projects in the rural and forestry sector working under five principles. One of these is "Protecting the environment". Accordingly, Helvetas tries to "achieve a balance between people's needs and protection of the environment and nature. Interaction between its own activities and the environment is being analysed in all phases of projects and programmes, and a check kept on effects" (translated from "Strategie für die Auslandsarbeit", Helvetas 2002).

With regard to the sector "Sustainable Management of Natural Resources (NRM)", Helvetas' first priority is to secure food supplies for the growing world population, and its second priority is income generation for rural populations. The strategy of this sector expresses Helvetas' policy concerning biotechnology and genetic engineering as follows:

*"Helvetas observes the private sector efforts in this regard in a cautious and critical-active way. No technology transfer to the partner countries should take place as long as the risks of new technologies are not yet clarified and institutionalised, and transparent and independent control systems are still missing. That means, Helvetas does not categorically refuse their application but applies a control standard higher than for common production forms, risks of which can objectively be assessed in a better way. This is especially valid for inventions in the field of genetic engineering."*

The controversial debate taking place on the benefits and risks of **biotechnology and genetic engineering** has prompted Helvetas to clarify its position on this issue in more detail in a position paper.

**Biotechnology** is a collective term for technologies and methods in the use of biological material or biological processes. Both alcoholic fermentation as well as **genetic engineering** belong in this category. The latter is a term used for all techniques which are used to alter or reconstruct genetic information of a cell or an organism.

The following eight points summarise Helvetas' position on biotechnology and genetic engineering in agriculture.

1. **Differentiated assessment:** Helvetas recognises that there are today numerous biotechnological processes used in the food industry and agriculture. They can be catalogued in a continuum, from "simple and well-known" to "complex and new". Under discussion here are, on the one hand, modern uses such as biotechnological methods in plant cultivation (e.g. cell and cell tissue culture), biotechnological reproduction techniques in animal husbandry, biotechnology methods with genetic "markers", and on the other hand, genetic modification of micro-organisms, plants or animals. Each of these biotechnological applications needs a **differentiated assessment of the advantages and risks** with regard to the aims and strategies of Helvetas. According to Helvetas' principle of partnership, the decision to apply biotechnology is in the hands of its partners in their own societies and countries. However, Helvetas regards it as its task to inform its partners with a **critical assessment of the advantages and risks of biotechnological methods**. For this purpose, Helvetas has created a simple, qualitative instrument for the assessment of biotechnological methods in the context of development projects and programmes.
2. **Purposeful application of selected biotechnological methods in Helvetas projects:** Even though biotechnical and genetic research is mainly in the hands of private industry in the industrial countries, there are numerous uses in countries of the South. Certain biotechnological processes are already in use and promoted today in Helvetas projects (cell and tissue culture for

disease-resistant seed, artificial insemination in animal breeding). Further applications, e.g. "marker assisted breeding", which offers a quicker advance in plant breeding in particular for disadvantages areas (e.g. higher drought tolerance for cereals), are supported by Helvetas.

3. **Including partners' point of view in the debate:** Helvetas takes part in the public debate on benefits and risks of biotechnology and genetic engineering, and related topics (patenting, rights of ownership, etc.). Helvetas sees it as its task to put on the table the **views and concerns of its partner countries** in the South and East. This means that Helvetas must continue to build up knowledge within its organisation, and thus create the means of forming an opinion on this subject.
4. **Against genetic modification of plants and animals:** Helvetas is of the opinion that with the **present state of knowledge** the genetic modification of plants and animals involves risks, which outweigh any potential benefits. The risks include among others the introduction of allergens into the food chain and the uncontrolled dissemination of recombined genetic information into the environment (which could, for example, lead to uncontrolled pesticide resistance on the part of weeds). Helvetas is therefore **against the genetic modification of plants and animals. Helvetas objects to the dissemination of genetically modified plants and animals.**
5. **Against the patenting of living organisms:** Genetic modification of living organisms calls for high investment costs, which the "life science industry", mainly established in the North, tries to cover by patenting their innovations. For this reason, Helvetas is actively **against the patenting of living organisms and genome sequences.** Patents restrict the privileges of farmers in the further use and exchange of seed and thus the danger increases of farmers becoming dependant on multinational seed producers and also of a reduction of species variety.
6. **Against the restriction of natural reproduction or propagation capacities.** Helvetas is also actively against biotechnological measures, which restrict the natural reproduction or propagation capacities of living organisms. Such "Gene Use Restriction Technologies" (GURTs) rob farming families in both the North and South of the ability to produce and use further their own seed.
7. **Against the theft of genetic information:** Genetic research and development (as well as traditional breeding) draws from the natural gene reservoir, which to a great extent is to be found in the countries of the South. Helvetas condemns "biopiracy", that is, the unauthorised use of genetic material. Helvetas asserts the rights of the population of the place of origin of valuable genetic information to participate appropriately in any profits accruing from the use of such information.
8. **Against the substitution of foodstuffs which are traditionally produced in the South:** Certain biotechnical methods enable the food industry (mostly in the hands of the industrial North) to produce ingredients for foodstuffs industrially that traditionally and naturally are produced by farming families in the South (e.g. vanilla from a bioreactor). Helvetas is against such substitutions, and supports countries of the South in finding a market for their natural products.