



No. 1

GPFS – AT WORK: SDC AND GENETICALLY MODIFIED CROPS

These messages have been prepared to up to date and complement SDC's Guidelines on Green Biotechnology (GBT) prepared in 2007.

Genetic engineering is a much disputed and rapidly evolving field of agricultural research. For its proponents genetic engineering holds the key for increased food and nutrition security, while its opponents warn that its impacts are harmful for the environment, biodiversity, human health and the livelihoods of poor smallholders.

Different meta-studies show that existing GM crops can have higher yields and provide some benefit to smallholders (Brookes and Barfoot, 2012; Carpenter, 2010; or Finger et al., 2011). It has to be noted that currently available GM crops focus on high to medium potential agricultural areas (with high inputs) and that no specific GM crops for marginal areas have been released. Knowing that the largest part of the poor people live in rural marginal areas, GM crops cannot yet be decisive in the fight against rural poverty and malnutrition. However, various GM crops under development specifically target such areas and therefore will better address the needs of poor smallholders.

SDC's core principles for its involvement in Green Biotechnology expressed in guidelines published in 2007 remain valid (see below). In 2013, SDC's Global Programme Food Security in collaboration with the network Agriculture and Food Security have reviewed the "state of the art" and have developed the following specific messages on GM crops:

1. **SDC supports agricultural technologies that benefit in priority poor smallholder producers.** SDC's core mandate is to reduce poverty in an economically, socially and environmentally sustainable way. Therefore, SDC support shall target smallholder producers that constitute 60 percent of the world's poor people, while preserving the natural resource base.
2. **SDC's support to agricultural research focuses on production systems in marginal areas.** Genetic engineering is only one of a large set of technologies that aim at improving crops. Other methods such as participatory plant breeding, conventional or new breeding methods such as marker assisted breeding remain valuable options to address the needs of marginal smallholders. Acknowledging that the genetic ago-biodiversity is key, sustainable intensification of smallholder agriculture can also be achieved by using agro-ecological approaches such as agro-forestry or conservation agriculture and has not to be limited to improved crop varieties.
3. **SDC respects Swiss legislation on research and use of GM crops as the minimum regulatory standard also for its support to partner countries.** The moratorium on "GMO-free agriculture" extended until the end of 2017 forbids the commercial use of GM plants and animals in Switzerland but allows research on them in controlled environments. SDC respects more restrictive regulations of partner countries.
4. **SDC supports non-discriminating intellectual property rights for seeds and transparent information for all,** as a means to foster a broadly used and accessible genetic diversity of crops.
5. **SDC does not engage in private public partnerships that primarily aim at developing GM crops.** SDC, however, can provide support to public agricultural research institutions in developing countries – including by increasing their capacities on genetic engineering – upon request from the partner country.
6. **SDC maintains an open and transparent dialogue with all Swiss stakeholders in the GM discussion.** It periodically reviews its position on new evidence.

This series is meant to give guidance and reflects the position of the GPFS.

Bern, January 2013

Contact:
gpfs@eda.admin.ch

SDC core principles for involvement in GBT

Food security: Contributing to food security is part of the SDC mandate. If GBT allows important advances in this regard, SDC can support its application. The international agricultural research system (CGIAR) remains the principle partner for strengthening knowledge, innovation and capacity building. Investments in GBT should form part of an integrated and comprehensive public agricultural research and development programme that gives priority to the poor.

Focus on smallholder farming systems, rural livelihoods, and gender: The livelihoods of smallholder farmers have to be safeguarded. SDC will pay due attention to the impact of the agronomic and trade consequences of GM crops on smallholder livelihoods.

National sovereignty: GM crops are only one of many approaches available to contribute to food security. SDC respects and defends developing countries' sovereignty in assessing the desirability of GM crops within the context of their own local needs and priorities. SDC enhances the ability of partner countries to take informed decisions (see definition below). This includes paying due attention to alternatives and the appraisal of opportunities, potential benefits and potential risks associated with the development and application of GBTs and the involvement of all important stakeholders.

Food aid: SDC respects the sovereignty of individual states and adheres to the policy of the WFP, namely that GM food aid is offered only if the recipient country has given its informed consent. SDC supports, whenever applicable, food aid contributions purchased locally or regionally to strengthen local production and markets. According to the principles of the Cartagena Protocol, it also supports recipient countries in their national biosafety capacity building, so as to enable them to test GMOs independently on a context-specific basis.

Non-exclusion: Access to plant genetic resources for local communities will be safe-guarded. Traditional knowledge, and specifically the role of women in managing biodiversity, will be taken into account. The benefits accruing from the conservation of plant genetic resources in local systems will be shared fairly and equitably. SDC insists on nondiscriminating intellectual property rights and transparent information for all.

Source: Box 4 in SDC Guidelines on Green Biotechnology (GBT), 2007

References

Brookes Graham and Peter Barfoot. The income and production effects of biotech crops globally 1996–2010. *GM Crops and Food: Biotechnology in Agriculture and the Food Chain* 3:4, 1-8; October/November/December 2012; © 2012 Landes Bioscience.

Carpenter JE, Peer-reviewed surveys indicate positive impact of commercialized GM crops. *Nature biotechnology* volume 28 number 4 APRIL 2010.
<http://www.nature.com/nbt/journal/v28/n4/pdf/nbt0410-319.pdf> or <http://www.ask-force.org/web/Benefits/Carpenter-Peer-Reviewed-Surveys-GM-crops-2010.pdf> Supporting information with full list of references: <http://www.nature.com/nbt/journal/v28/n4/extref/nbt0410-319-S1.pdf>

Finger, R.; El Benni, N.; Kaphengst, T.; Evans, C.; Herbert, S.; Lehmann, B.; Morse, S.; Stupak, N. 2011. A Meta Analysis on Farm-Level Costs and Benefits of GM Crops. *Sustainability* 2011, 3, 743-762.