

Socio-economic aspects in the assessment of GMOs

Content

- Report: Socio-economic aspects in the assessment of GMOs
- Opt-out: Article 26b, 3(d): “socioeconomic impacts”

Report

- Title: Socio-economic aspects in the assessment of GMOs - options for action
- Conducted by Environment Agency Austria
- On behalf of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management
- Finished 2011
- http://www.umweltbundesamt.at/aktuell/publikationen/publikationssuche/publikationsdetail/?pub_id=1941

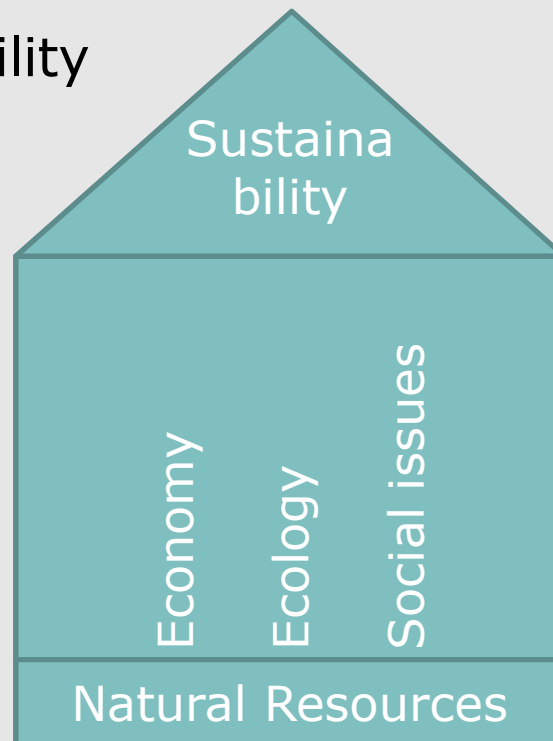
Aim of the report

- Provide input to discussions regarding socio-economic aspects of GMOs
- Analysis of experiences with socio-economic assessments
- Identification of important scientific issues
- Assessment of limitations and data

- Identification of socio-economic aspects of major relevance for Austria
 - Focusing on risks and potential negative effects of GMO cultivation
- Development of a catalogue of criteria

Catalogue of criteria

- Basis: sustainability



Catalogue of criteria

- Economic criteria
 - Profit (e.g. reduced yield, squeezing out of production of special products)
 - Prosperity (e.g. reduced employment possibilities)
 - Preservation of the environmental basis (e.g. negative effects on natural resources, ecosystem services)
 - Costs during the whole production chain (e.g. increased costs for coexistence, security & control, image loss)
 - Indirect costs (e.g. welfare system)
 - Tourists' expectations (e.g. loss of attractiveness, landscape changes)
 - Possibility to implement regional policy (e.g. GM-free regions)

Catalogue of criteria

- Social criteria
 - Quality of life (e.g. income, health)
 - Food availability (e.g. GM-free products)
 - Labelling regime (e.g. freedom of choice)
 - Accessibility of alternatives and dependency (e.g. costs for GM-free seed, licence costs)
 - Freedom of research (e.g. patents, patented seed)
 - Preservation of cultural heritage (e.g. traditional production, autonomy)
 - Social changes (e.g. social structure, increased conflicts, burden for future generations)

Catalogue of criteria

- Ecological criteria
 - Preservation of resources (e.g. natural resources, energy use)
 - Preservation of environmental quality (e.g. soil, water, air)
 - Preservation of biodiversity in cultivated areas (e.g. agro-biodiversity, seed diversity)
 - Preservation of uncultivated areas (e.g. protected areas, wild relatives)

Catalogue of criteria

■ Ethics

- Population`s values
- Solidarity and equality (e.g. regarding weaker groups)
- Intrinsic value of nature (e.g. species barriers)

■ Third countries

- Safety (legislation ensuring safety assessment)
- Social cohesion (e.g. distribution of burdens)
- Minorities` rights (e.g. indigenous people)

Socio-economic assessments 1

- Experiences
 - GMOs: limited regarding socio-economic assessment of GMOs except e.g. Norway, France
 - Chemicals: socio-economic analysis (>REACH)
 - Development schemes and projects: social impact assessment

- Important scientific issues
 - event vs. plant or trait specific impacts
 - Farm level vs. economic sectors vs. political units
 - Assumptions of economic models, data basis, methodology, parameters
 - Environmental, economic and socio-cultural conditions of country/region

Socio-economic assessments 2

- Limitations and data availability
 - Data for Europe are rare
 - Data quality is limited
 - Extrapolation of results is often not possible
 - High variations between crops, geographic conditions, years, farming systems, environmental conditions
 - Methods influence data quality and results (farmer`s interview, economic models)
 - Lack of comparable data

Open questions 1

- Scope
 - Should ethical issues be included?
 - Should the impacts on third countries be assessed?
- Definitions
 - How to define a society that may be influenced (region, country, EU)?
 - How can ethical & cultural values be defined?
- Baseline
 - Should conventional or organic agriculture serve as a baseline?
 - Which impacts are acceptable, desirable or avoidable?

Open questions 2

- Data quality and quantity
 - Which spatial & temporal scale should be assessed?
 - Which criteria and indicators should be assessed?
 - Which data need to be generated
 - Which scientific methods are suitable and are to be applied?
 - Who will collect socio-economic data and conduct relevant studies?
 - How can ethical & cultural values be quantified?
 - Which data should be assessed on the European level and which data are specific to certain regions and countries?

“Opt-Out”

- Directive (EU) 2015/412 of the European Parliament and of the Council of 11 March 2015 amending Directive 2001/18/EC as regards the possibility for the Member States to restrict or prohibit the cultivation of genetically modified organisms (GMOs) in their territory
- measures to restrict or prohibit the cultivation in all or part of the Member States territory

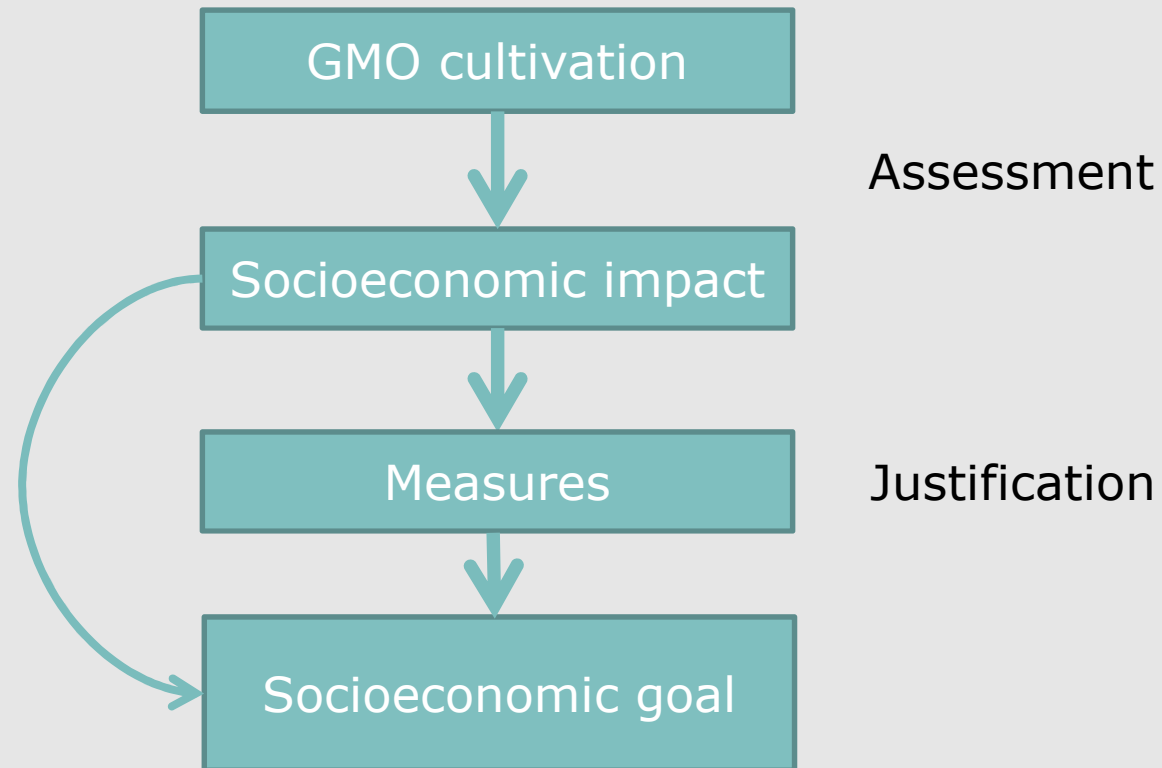
“Opt-Out”

- Provided that such measures are:
 - In conformity with Union law
 - Reasoned
 - Proportional
 - Non-discriminatory
- And are based on compelling grounds such as those related to:
 - Environmental policy objectives
 - Town and country planning
 - Land use
 - **Socioeconomic impacts**
 - Avoidance of GMO presence in other products without prejudice to Article 26a
 - Agricultural policy objectives
 - Public policy

“Opt-Out”

- “[...] Those grounds may be related to high cost, impracticability or impossibility of implementing coexistence measures due to specific geographical conditions, such as small islands or mountain zones, or the need to avoid GMO presence in other products such as specific or particular products [...]” (recital 15)

“Opt-Out”



Relevant issues

- Socioeconomic goals on the national level, incl. scope, baseline
- Respective criteria
- Data incl. models (e.g. on expected coexistence costs)
- Assessment possibilities (*ex-ante* evaluation)
- Justification: detail degree

Contact & Information

Anita Greiter

01-31304/3516

anita.greiter@umweltbundesamt.at

Umweltbundesamt
www.umweltbundesamt.at

How to maintain GMO-free agriculture in Europe
Budapest ■ 17.04.2015