Genetically modified organisms GMOs: deliberate release into the environment (repeal. Directive 90/220/EEC)

1998/0072(COD) - 15/04/2011 - Follow-up document

The Commission presents its report on socio-economic implications of GMO cultivation on the basis of Member States contributions, as requested by the Conclusions of the Environment Council of December 2008. Through questionnaires, Member States were invited to report ex post on the socio-economic impact of GMOs cultivated in their territory, and also assess ex ante the possible socio-economic implications of future cultivation of GMOs.

Analysis of the answers: the Commission identified the following main elements:

- understanding of the meaning and scope of the socio-economic dimension of GMO cultivation varies widely among the Member States and stakeholders. The questionnaire helped to frame thinking, but several participants regretted that the terms, indicators and baseline for comparison (conventional and/or organic sectors) were not sufficiently defined;
- many contributions appeared to be raw catalogues of the wide diversity of opinions on GMO cultivation at national level, without further filtering or analysis by Member States on the ground of relevance or quality before being forwarded to the Commission. It was therefore difficult, and often impossible to pinpoint clear positions or trends at national or European levels;
- in general, the contributions seemed to reflect polarised opinions built upon a limited fact-based background on the specific European context, and influenced by the initial positive or negative perception of contributors on Bt and HT crops cultivation in Europe and worldwide. The core of the discussion concerns the co-existence between the GM and conventional/organic approaches all along the seed-to-shelves chain (control of GM adventitious presence in neighbouring fields, constraints of GM/non-GM products segregation along the feed/food chain, consumer's choice), impact on biodiversity, modification of farming practices and marketability of products, with a wide range of different views on almost all these matters;
- answers covered all the items raised in the questionnaire, though comments largely focused on the social and economic impacts of GMO cultivation at the initial stages of the seed-to-shelves chain (i. e. seed production, cultivation, apiculture, and livestock breeding);

The scientific literature and studies referred to by contributors were mostly focused on economic impacts of GMO cultivation on the in-farm level. **Member States' national studies show the following results**:

(i)Bt maize yields would increase in regions infested with corn-borers. For instance, Estonia mentioned a study performed by the (JRC)

showing that, for some pest-infested Spanish provinces, Bt maize growers experienced higher average yields than conventional farmers

over a period of 3 years (up to 11.8% in the province of Zaragoza) as well as increased gross margin.

(ii)Romania reported that HT soybean cultivated on the Romanian territory until 2007 generated yield gains of an average of 31%.

(iii) certain contributions included detailed suggestions on whether and how to analyse socio-economic factors and address them in the management of GMO cultivation in Europe. Several Member States also made reference to the legislation and experience of NO on consideration of socioeconomic elements in the authorisation of GMOs.

(iv)many contributions underlined that, if carried out in the future, the evaluations of socio-economic factors should also consider ethics, and take into account other European policies (internal market, Common Agriculture Policy, environment protection), as well as the legal opportunities and constraints at international levels.

The report goes on to discuss the Commission's review of knowledge of the socio-economic dimensions of cultivation of GMOs in Europe and worldwide, through different channels, including European an international research programs and scientific publications. It notes that economic analyses have provided a good picture on economic impacts at farmer level world-wide, but less on social impacts.

Next steps: the contributions provided by Member States have been helpful in clarifying where statistically relevant data on socio-economic impacts of GMO cultivation in Europe are already available (mainly economic impacts on farming). Otherwise, facts and statistics pertinent to the European context are missing to support the views expressed by the respondents. Therefore the contributions highlight that, for the time being, the present or future socio-economic impacts of GMO cultivation in Europe, across the food chain and the society as a whole, are often not analysed in an objective manner.

The Commission considers that it would be inappropriate to perform a more targeted analysis of the peculiar items developed in the individual contributions provided by the Member States. Nevertheless, it believes that discussions on this sensitive topic should be deepened, to move from polarised perceptions to more tangible and objective results. Therefore the Commission suggests grouping the primary highlights of this consultation together with other initiatives on socio-economics impacts of GMOs (e.g. research projects under the 6th Framework Research Programme and, when relevant, findings in third countries), and initiating an advanced reflection at

European level, with sound scientific basis, aiming at:

- defining a robust set of factors to properly capture the actual ex ante and ex post socio-economic consequences of the cultivation of GMOs, from seed production to consumers across the EU. A methodological framework should be built-up to define precise socio-economic indicators to be monitored in the long run, and the appropriate rules for data collection. The pool of consulted parties should embrace all the regulatory and economic actors of the "seed-to-shelves" chain, as well as the wider society;
- exploring different approaches to make use of the increased understanding of these multi-dimensional socio-economic factors in the management of GMO cultivation in the EU. Member States' expertise and that of stakeholders should be taken into consideration.