A Critical Assessment of Public Consultations on GMOs in the European Union

MARKO AHTEENSUU

Public Choice Research Centre University of Turku Assistentinkatu 7, 20014 Turku, Finland Email: mataah@utu.fi

HELENA SIIPI

Department of Philosophy University of Turku Assistentinkatu 7, 20014 Turku, Finland Email: helsii@utu.fi

ABSTRACT

The paper highlights shortcomings in the public consultation practices on the deliberate release and placing on the market of GMOs in the European Union and in one of its member countries, Finland. It is argued that current GMO consultation practices do not meet the aims and objectives on which their introduction is typically justified. Specifically, they do not serve democracy, increase consensus, enable better decisions to be made, or establish trust. We conclude that there is a clear need for the active development of the GMO consultation practices and for a further critical discussion on the ethical and socio-political foundation of public engagement.

KEYWORDS

Public engagement and consultation, GMOs, European Commission, Finnish Board for Gene Technology, deliberative democracy

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1. INTRODUCTION

The research on and commercial use of genetically modified organisms (GMOs), and especially those of genetically modified plants (GMPs), have raised discussions within the European Union (EU) and also world-wide.¹ Several citizen groups² as well as certain academics (e.g. Ho, 2002; Shiva, 2002) hold strong views opposing almost any use of GMPs outside laboratories. At the same time, some members of industry and scientific community are confident that wide commercial use of GMPs will provide substantial health and environmental benefits which should be actualised as soon as possible (e.g. Bailey, 2002; Borlaug, 2002; Miller, 2002; Pence, 2002; Trewevas, 2002, see also Kvakkestad, 2007). The evaluation of the risks and benefits of GMPs is a matter of an ongoing academic debate (see e.g. Ahteensuu, 2008).

Against this background, three particular points are of special interest. First, claims that it is (ethically) necessary to engage the public in societal decision-making concerning the environment, biotechnology and, above all, GMOs are common and made by many (e.g. Advisory Board on Biotechnology, Finland, 2003: 5; Jensen, 2006; Rask, 2003; Rydin, 2006; Sterckx and MacMillan, 2006; Webler et al., 2001). In fact, it is somewhat hard to find authors who oppose all the forms of public engagement – at least when the term 'public engagement' is understood widely to refer to many different forms of activities from informing the public to consensus seminars.

Second, requirements for engaging the public in decision-making concerning biotechnology and GMOs have been incorporated into several national environmental and biotechnology laws³ as well as into international agreements and declarations. Principle 10 of the so-called *Rio Declaration*, which was agreed upon in the United Nations Conference on Environment and Development (Rio de Janeiro, 1992), commits the parties (i.e. member states) to provide individuals with access to information and with opportunities to participate in decision-making processes, and also to facilitate and encourage public awareness and participation (UNCED, 1992: Principle 10; see also *Aarhus Convention*, 1998).⁴ The Biosafety Protocol (CPB, 2000), which deals specifically with modern biotechnology, includes clauses that oblige states to enable and promote public engagement.

Third, although public engagement has recently come to the fore in the academic debate on GMOs, much of the discussion has concentrated on topics other than its ethical and socio-political justification. Rather, ethical acceptability and the desirability of the current forms of public engagement are taken as self-evident in most academic literature, and thus are only

commented upon briefly, usually by stating one or two objectives of public engagement without further elaboration.⁵ According to Sue Weldon (2004: 10), even the lack of honesty about the real purposes of public engagement is not uncommon in this context. What makes the exiguity of ethical discussion especially noteworthy is that the current legislation on GMOs leaves much room for different interpretations as to how public engagement should be carried out in practice. Furthermore, legislation has strong connections to moral philosophy as ethical analyses can serve as a basis for changes in legislation and for new laws.

In what follows, we will analyse public consultation practices on the deliberate release and placing on the market of GMOs at the EU level and especially in Finland.⁶ Both practices form an instance of engaging the public in societal decision-making. Specifically, our aim is to assess the extent to which the current practices of public consultation fulfil the objectives set for public engagement in general and for GMO consultation in particular. We begin by reviewing theoretical literature on public engagement and policy documents regarding GMO consultation.⁷ This is followed by a description of the consultation practice in Finland and the EU. In the assessment section, the objectives set for public engagement and GMO consultation are analysed one by one in respect to what extent current consultation practices meet them.

2. THE OBJECTIVES OF PUBLIC ENGAGEMENT AND GMO CONSULTATION

Whilst acknowledging the lack of commonly agreed definition of the notion 'public engagement' (see e.g. Rowe and Frewer, 2005), we employ it as an umbrella term to cover a variety of different phrases – such as public involvement, public consultation, public communication, public participation, public deliberation, discursive participation, and citizen engagement – found in the relevant academic literature as well as in policy documents (e.g. *Aarhus Convention*, 1998; Delli Carpini et al., 2004; CPB, 2000; Rowe and Frewer, 2005; UNCED, 1992). Generally speaking, public engagement thus means 'the practice of consulting and involving members of the public in the agenda-setting, decision-making, and policy-forming activities of organisations or institutions responsible for policy development' (Rowe and Frewer, 2004: 512).

The extent to which the public is engaged can vary within a wide range: citizens may be considered passive recipients of information, their views can

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be actively sought, citizens may choose representatives who make decisions, or decisions can be made on the basis of two-way communication between decision-makers and citizens. Furthermore, involving the public can be implemented at different stages of decision-making, ranging from opening up a debate, framing the relevant questions and setting agendas to seeking an (*ex post facto*) acceptance for the policy choices made from the public.

GMO consultation represents a specific mechanism (or a technique) for implementing public engagement. In particular, the public is provided with the possibility to give comments on dossiers (i.e. applications) of a particular deliberate release or placing on the market of GMOs. Other mechanisms include, for example, consensus conferences, citizen juries, citizens' panels, community planning and focus groups (see e.g. Rowe and Frewer, 2005: 256–260).

Public engagement is presumed to ensure the realisation of the western values and to result in a number of positive outcomes (Mendelberg, 2002: 153–154). The most general argument for public engagement and consultation in the context of GMOs is that these practices serve *democracy*, i.e. the democratic ideals (see e.g. Beekman and Brom, 2007: 7; Harvey, 2006: 13; Pratchett, 1999: 616,628; Rydin, 2006: 2; Stirling, 2001; Weldon, 2004: 10). Serving democracy is commonly understood to mean that people are given opportunities to rule on issues belonging to the public sphere (Dahl, 2000: 36; Pratchett, 1999: 616).⁸

The minimum requirement for people's opportunities to rule is that citizens have a right to vote in competitive elections (Przeworski, 1999: 23; Setälä, 2003: 60). However, GMO consultation presupposes democracy in a wider sense that goes beyond simple preference aggregation and emphasises the role of public discussion in decision-making. This type of democracy is usually called deliberative (see Bohman, 1998; Chambers, 2003; Delli Carpini et al., 2004; Dryzek, 2000), and it follows the ideas of John Dewey (1954) and Jürgen Habermas (1996), for example. Deliberation is defined in general terms as 'debate and discussion aimed at producing reasonable, well-informed opinions in which participants are willing to revise preferences in light of discussion, new information, and claims made by fellow participants' (Chambers, 2003: 309).9 It includes both internal reflection and communicative interaction (Goodin and Niemeyer, 2003). According to John S. Dryzek (2000: 1-2), authentic deliberation can take place only if preferences are reflected upon in a non-coercive manner. In ideal cases of deliberative democracy, solutions are found by rational discussion and deliberation, and no voting is necessary at all (e.g. Setälä, 2003: 131–132). Deliberative democracy is often regarded as being only an expansion of (or

an improvement to) representative democracy, not its alternative or replacement (Chambers, 2003: 308; Delli Carpini et al., 2004).

The idea behind deliberative forms of democracy is that '[i]f it is appropriately empathetic, egalitarian, open-minded, and reason centered, deliberation is expected to produce a variety of positive democratic outcomes' (Mendelberg, 2002: 153–154). Thinking that deliberative practices are an important and actually the *morally right way* in which certain democratic decisions should be made is not uncommon (see Sterckx and Macmillan, 2006: 219). According to Benjamin Page (1996: 1), '[p]ublic deliberation is essential to democracy'. It is needed to ensure that decisions made reflect adequately the interests of different groups in a society.

In practice, some type of deliberation is present in all democratic processes, since decisions and possible voting are always preceded by discussion. It may, thus, be asked why the deliberative part of democratic process should be highlighted in the context of GMOs? Why does decision-making concerning them form a context in which special legislative and administrative procedures are needed to guarantee the deliberative process (in which citizens have opportunities to participate)? There are at least three reasons for this.

First, biotechnology and its practical applications including GMOs will most probably play a significant role in our society and bring about major changes in our lives in the near future. Mika Mannermaa predicts that

[b]iosciences, biotechnology, gene therapy, etc. are gaining more and more influence in research, technology, everyday life and societal development. Within a decennium it probably makes sense to speak of Biosocieties [...] in highly developed western world. (Mannermaa, 2003: 14)

Second, a considerable number of European citizens *believe* that this kind of change is happening. According to Eurobarometer 64.3, only 13% of the citizens thought that new gene and biotechnologies will have no effect on their lives over the next 20 years. Most of the rest anticipated that these technologies will either improve our way of life (52%) or make things worse (12%). Yet some 22% were uncertain as to whether new gene and biotechnologies will have an effect on their lives. (Gaskell et al., 2006: 10.)

Third, the changes which new technologies are likely to cause concern issues that many people conceive as fundamental to their life styles, specifically those of food and healthcare (see e.g. Mannermaa, 2003: 16). Now, democracy presupposes that people should have especially good possibilities for participation on matters that (will) have a great influence on their lives (Rydin, 2006: 2), that they believe to have a great influence on their lives

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(whatever the truth), or that concern their fundamental values and are thus central to their lives. Provided this, people should have possibilities to affect matters concerning GMOs – at least as long as the ideals of democracy are accepted.

Besides serving democracy, less general objectives have been set for public engagement and GMO consultation. Most of them are not distinct from democracy (see e.g. Cooke, 2000; Dryzek, 2000: 173–174) but rather may be considered essential constituents of a democratic system. Nevertheless, these objectives have also been presented as independent reasons for engaging citizens in GMO decision-making.

First, it has been presented that public engagement and GMO consultation aim at informing and educating the public. When lay people are involved in the decision-making processes, they can be (better) informed and enlightened on important developments and choices made in their society (Mendelberg, 2002: 153; Rask, 2003; Rydin, 2006: 4; Weldon, 2004: 14). Page (1996: 1) states that public deliberation ensures that 'the public's policy preferences (...) are informed, enlightened, and authentic'. More specifically, GMO consultation practices are considered to provide decision-makers with an opportunity to inform the public, especially interested citizens, on what is happening in the field of gene technology (Advisory Board on Biotechnology, 2003: 9; Department of Environment, Food and Rural Affairs, 2003). As a result, citizens can become familiar with the technical knowledge on the issue (e.g. with the risks involved) and learn to understand why experts consider the research or a practical application (un)acceptable. This may lessen anxiety and misguided fears based upon the lack of knowledge concerning GMOs.

Second, public engagement and GMO consultation are often taken to aim at *consensus*. In other words, public deliberation is considered desirable because it is thought to increase consensus within a society, and it is justified by referring to the greater agreement and conflict-solving thus reached (e.g. Dryzek and Niemeyer, 2006). According to Inkinen and Similä (2006), '[i]mplementing participatory processes can be expensive, time-consuming and bureaucratically onerous but can improve policy implementation, lessen conflict and increase the acceptability of decisions'. Mendelberg (2002: 153) argues that, as a result of public engagement, citizens are not only more knowledgeable but also better equipped 'to resolve deep conflict'. Jensen (2006: 269) similarly calls for public engagement in the risk management of (GM) food production 'as a means of resolving the moral disagreements underlying (...) conflicts'.¹⁰ Setting consensus as an aim of GMO consultation presupposes that consensus is desirable. Critical voices are, however,

in many situations important as they may make decision-makers aware of moral defects in the current state of affairs. Nevertheless, consensus is *prima facie* desirable when (or if) no social changes are morally needed. Consensus then lessens the anxiety experienced by individuals as well as the likelihood of violent conflicts.

Third, public engagement and GMO consultation have been considered to aim at *better decisions and understanding* of the issues in question. Lay people bring in their own life experiences and worldviews, and facilitate the decision-making by offering new insights and points of view (e.g. Lezaun and Soneryd, 2007: 279). Sterckx and Macmillan (2006: 219) suggest that 'people who are not 'experts' have valuable knowledge to contribute, and that decisions are likely to be better if that knowledge is used'. '[T]he public (...) possess knowledge, which is different from the knowledge of experts and politicians' (OECOD, 2001: 4; see also Levitt, 2006). Specifically, it is considered that GMO consultation provides decision-makers with an opportunity to collect expert knowledge as well as experiences from many fields of life and from different points of view. Some of these views may concern values and the interpretation of the implications of different values (Advisory Board on Biotechnology, 2003: 9).

Fourth, public engagement and GMO consultation are also stated to aim at enhancing trust. According to this line of thought, the public should have possibilities to participate in research and governance of new biotechnologies, because it increases lay people's trust in scientists and decision-makers (e.g. Mendelberg, 2002: 153-154). Indeed, establishing trust is commonly considered one of the central objectives of engaging the public in biotechnology decision-making. It is 'not because society will necessarily be more accepting of a particular development as a result, nor because the public will necessarily be more scientifically educated; by virtue, rather, of greater public confidence and mutual trust established' (Nature, 2000). Sterckx and Macmillan (2006: 219) state in the same strain that 'people will be more trusting if they think decision-makers have listened'. Trust is valuable because public mistrust is harmful for citizens and society in general. Mistrust increases the anxiety experienced by lay people. It may also hinder the work of scientists and public authorities. Thus, since public engagement is presumed to increase trust, it is prima facie morally desirable (e.g. Stirling, 2001). Furthermore, the establishment of trust is not just an objective of public engagement in general. It has also been presented as one of the objectives of GMO consultation. According to the Finnish Advisory Board on Biotechnology, consulting the public on GMO issues is highly important for maintaining and increasing citizens' trust in the use of gene technology

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and GM products, and in the procedures of gene technology acceptance and regulation (Advisory Board on Biotechnology, 2003: 5).

3. GMO CONSULTATION IN PRACTICE

In the European Union, Directive 2001/18/EC, which is concerned with the deliberate release into the environment of GMOs, states that

Member States shall (...) consult the public and, where appropriate, groups on the proposed deliberate release. In doing so, Member States shall lay down arrangements for this consultation, including a reasonable time-period, in order to give the public or groups the opportunity to express an opinion. (2001/18/EC: Article 9)

Concretely, public consultation takes place in two different ways. When an application (i.e. notification) is made in order to release GMOs for market purposes – i.e. for the purposes of using a GMP in food or for cultivating it, for example – the consultation is carried out by the European Commission. The consultation which concerns non-market purposes is organised by the single member state in which the release is proposed to take place. In practice, national consultations are about scientific field trials on GMPs.

In Finland, the directive is put into practice by the reformed Gene Technology Act (GTA, 2004/847: 36b §). Although the total number of field trials on GMPs in Finland is over twenty, there have been only two of them during the practice of public consultation – one with potato (Jokioinen) and another with birch (Punkaharju) (Board for Gene Technology 2007b). Both field trials gave rise to a lively public debate; and both of them were destroyed by activists. According to the Board website, two field trials will begin in 2009. They have already passed the process of public consultation and no comments regarding them were given. The responsible authority (i.e. the Competent Authority, CA) on consultation concerning the deliberate releases of GMOs for non-market purposes is the Finnish Board for Gene Technology (GTA, 2004/847: 36b §). It publishes information about the planned field trials in the Official Journal (Virallinen lehti) of Finland and on the Board's internet pages.¹¹ All files, except the ones which contain business secrets, are open to the public. They can be seen on the website of the Board as well as in the library of Ministry of Social Affairs and Health. Copies of the files are also available on request. Furthermore, the applicant of a field trial may organise public meetings or inform the public on their planned field trial in other ways. The public has 60 days available for giv-

ing their comments. The comments should be provided in written form and be sent to the Board by post or email (Board for Gene Technology, 2007a; Salovuori, 2007).

The Board for Gene Technology considers the comments received when deciding upon the (un)acceptability of a planned field trial. At least to date, the commentators (i.e. citizen groups which have provided comments) are listed on the decision forms, but the comments given are not specified (see Board for Gene Technology, 2005) and cannot be found on the Board's internet pages. However, the effects the comments had on the final decisions are briefly explained in the decision forms.

When a notification is made to release GMOs for market purposes, the European Commission organises the public consultation. The information on dossiers can be found on internet pages that are managed by the Joint Research Centre and the European Commission.¹² The information provided to the public includes a 'summary notification information format' (SNIF) and an assessment report. Commenting consists of two 30 days periods on one of which the public can comment on a part of a SNIF and on the other in which they can comment on the assessment report. Comments can be submitted online as well as in standard written format (Joint Research Centre and European Commission, 2007; Department for Environment, Food and Rural Affairs, 2003: 2). The comments received are visible on the website, but they are neither commented upon nor answered. Moreover, the comments are neither listed nor mentioned in the final decisions in any way (Joint Research Centre and European Commission, 2007).

4. DO THE PRACTICES OF GMO CONSULTATION MEET ITS OBJECTIVES?

As is seen above, several objectives have been presented for public engagement and GMO consultation. They have been stated to serve democracy, inform and educate the public, increase consensus within a society, enable better decisions to be made, and establish trust in decision-makers and experts.¹³,¹⁴ However, as the following analysis reveals, current GMO consultation practices do not satisfactorily meet these aims.

4.1. Democracy

When posing the question of how well current GMO consultation practices serve democracy, the following practical and theoretical concerns arise.

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First, democracy can take place only if people know about their possibility to participate and thus to influence the societal decision-making. Conversely, if citizens are unaware of the consultation practices and if the information concerning them is relatively difficult to reach, the minimum requirements of democracy have not been met. According to our judgement, (at least in Finland) the latter seems to hold – especially with respect to the consultation practice concerning market purposes. Information about it is both scarce and not easily found. The Finnish Board for Gene Technology (2007a) informs the public on its website that the consultations on deliberate releases on market purposes are carried out by the European Commission. A link to the website managed by the Joint Research Centre and the European Commission is also provided. However, the information on the practice of consultation given on that website is exiguous and is only available in English. All the public is told about the consultation process is that '[t]he public may make comments on the Part C SNIFs and on the assessment reports to the Commission within 30 days and the Commission shall immediately forward the comments to the competent authorities' (Joint Research Centre and European Commission, 2007). However, once one has familiarised her/himself with the consultation practice, information on different particular consultations is easy to obtain. An e-mail posting list on the matter can be joined. What we are critical about is lay people's possibility to become aware of the consultation practice as such. Moreover, even if people were cognizant of their possibilities to comment, it may be impossible in practice. Citizens without English language skills, for example, can neither understand the relevant information (about the consultation practice in general and about particular consultations in particular) nor write comments in English.¹⁵

The issue is a bit less problematic in regard to the Finnish national consultation practice. Information about this process as well as that about the planned field trials is quite easily available from the website of the Finnish Board for Gene Technology – and it is in Finnish.¹⁶ Moreover, the consultation practice is clearly and quite thoroughly explained. Becoming aware of the consultation practice may still be somewhat improbable, especially if one is unaware of the existence of the Board, of the existence of consultation practices in general, and/or of the role of the Board in particular GMO consultations. In practice, lay persons cannot be expected to have such knowledge.

These problems can, of course, be solved fairly easily – albeit not without incurring extra costs – by increased communication through different media channels and by clarifying the information within the current channels employed. The critical question can, then, be stated as follows: what

informing practices are sufficient for a genuine democracy (in this context) and for the real opportunity to express one's views? Insufficient and inadequate informing leads to a situation in which citizens do not, in practice, have the possibility to participate. On the other hand, ethics also sets 'upper limits' for informing, because too aggressive informing may be considered an invasion of privacy. Moreover, the costs of providing information form practical as well as ethical obstacles since the use of public funds always raises moral questions. Demanding that each citizen should be individually and actively informed about her/his participation possibilities on the GMOmatter is not sensible.

Second, democracy implies that citizens have a possibility to affect decision-making in practice. In other words, it is an integral part of democracy that citizens can influence decisions made. Thus, the way and extent to which citizens' comments can affect final decisions largely determines how well the consultation practices fulfil the ideals of democracy. Interestingly, the Finnish Board for Gene Technology explicitly states that only comments which provide new information concerning the scientific risk assessment of a planned field trial are relevant and can affect the final decisions (Salovuori, 2007; Board for Gene Technology, 2005, 2007a). This policy is also clearly visible in decisions, and it is in accordance with the recommendation which the Finnish National Advisory Board on Biotechnology (2003: 13) has put forward concerning the public consultation. The Commission, in its turn, does not provide any information about the kinds of comments that can affect final decisions.

Provided that only comments that bring in new information about risk assessment can influence decisions made and that scientific risk analysis is a highly developed institutionalised practice only understandable after a considerable amount of training, it is reasonable to ask whether current GMO consultation practices present a quasi-democracy – an illusion of democracy. This problem arises at least with respect to the national consultation practice in Finland, where the restriction regarding effective comments (i.e. comments which can have an effect on final decisions) is explicitly stated. Nevertheless, since the whole (un)acceptance process of GMOs (as well as all legislation concerning them) heavily relies on scientific risk assessment, it is sensible to assume that the restriction is the same in the Commission's consultation practice. Citizens are just not informed that this is the case.

The claim about the impossibility of making effective comments is further confirmed by the fact that even a person (or a group of citizens) with the relevant skills for conducting risk assessments is unable to carry them out because the information available is insufficient for doing that. In con-

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sultations carried out by the Commission, only the SNIFs and assessment reports are open to the public. The raw data necessary for risk assessment are not public (nor accessible to the decision-makers).¹⁷ Thus, the effective comments are, in practice, limited to the ones which concern the absence of certain general fields of risk assessment or the possible relevance of the latest scientific results on GMOs. However, even these types of comments is thus highly limited, if not totally absent in practice, and it is unlikely that it corresponds to the real worries presented by citizens.¹⁸ In sum, current GMO consultation practices do not fulfil the basic requirement of democracy – that of having a genuine possibility to influence decisions. Rather, they only give an impression of such a possibility.

Furthermore – at least from the ethical perspective – it is unclear why comments that do not concern scientific risk assessment should be irrelevant in respect to final decisions. Robert Streiffer and Thomas Hedemann (2005) as well as Jan Deckers (2005), for example, have argued for the view that, in a democracy, intrinsic concerns (roughly, concerns other than risks¹⁹) related to GMOs should be taken into account.²⁰ This is, of course, a broad theme that is not restricted to the consultation practices but concerns the whole legislation and acceptance process of GMOs in the EU.

Third, democracy presupposes not only the possibility to influence decision-making but, in many contexts, also transparency in regard to how one's activities (have) influence(d) decisions. In voting situations, for example, it should be transparent as to whether some voters have more votes to give than do the others, or whether proportional representation is in use. Accordingly, the extent to which citizens are informed whether and how their comments have influenced the final decision is important in the context of GMO consultation. As mentioned above, in the Commission's consultation practice, the comments submitted are listed on the consultation website. Nevertheless, the decision files do not include a listing of the comments or any information on the degree and way of their influence on the final decisions; nor is this information available from any other source. In consequence, the Commission's practice fails to meet the requirements of democracy in this respect as well. The Finnish national consultation practice seems to fare slightly better. Comments submitted are not made public, but their contributors (i.e. non-governmental organisations, NGOs) are listed on the decision forms and the influence the comments had (or did not have) on the final decision is briefly mentioned. In practice, however, this merely amounts to a statement that the public consultation did not bring in new information on risk assessment.

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4.2. Informing and Educating the Public

Does GMO consultation meet the aim of informing and educating the public? On the one hand, it is relatively difficult to find information regarding the consultation practice and particular consultations organised by the Commission. For a lay person without any basic knowledge of the system, it may be a very hard task to acquaint him/herself with the information in practice – not least because it is only provided in English. Moreover, it is written in scientific jargon, which, in practice, eliminates some people from the consultation practice altogether. Although the information on the Finnish national consultation practice is more extensive and provided in Finnish, information about particular consultations can only be understood if one possesses specific scientific knowledge about the GMOs. Thus, the consultation practice does not work as a general tool (or a medium) for informing the masses about GMOs.

On the other hand, GMO consultation practices provide a valuable information service for citizens who already have the basic knowledge on the issue and who actively follow the discussion on GMOs. For them, the system provides specific knowledge about planned field trials and about the placing on the market of GM products. In sum, although consultation is not a sufficient tool for informing the public (and is not meant to be such), it fulfils some functions of transparency well.

Informing and educating the public cannot be the sole reason for current GMO consultation practices, however. If it were, asking for comments would be pointless. Why should the public give comments, if the sole objective were to educate and inform them? No doubt, the possibility of providing comments may raise interest on the issue, but then the comment-giving would be misleading. Requesting comments presupposes that the comments can also influence final decisions.

4.3. Consensus-Seeking

Consensus may take place in two different ways. First, both parties – the public and the decision-makers and experts – might, as a result of a consultation, change their views to be more compatible with each other. To date, however, this seems to be only a theoretical possibility in the context of GMO consultation. Second, lay people may change their views to conform with those of decision-makers and experts.²¹ If this is regarded as the main objective of GMO consultation practices, then they are merely a method by which citizens' views are moulded into a certain direction – to become more compatible with the views already adopted by the decision-makers

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and experts (see e.g. Harvey, 2006). Indeed, it is often presumed that informing the public results in an agreement with the views of the experts and decision-makers. In other words, it is thought that when people learn more about biotechnologies, they will also accept them to a greater extent (see Moroso, 2006: 15; European Federation of Biotechnology, 2003: 3; Marris et al., 2001: 76; Durant and Legge, 2005: 183). In this sense, the objective is closely related to the aim of educating the public.

Still, does the possibility to provide comments result in a greater acceptance of GMOs in practice? Generally speaking, when citizens participate in decision-making, they may admittedly be more prone to accept the final decisions reached because they have instituted changes that make the decisions more acceptable for themselves. However, as noted earlier, it is questionable whether GMO consultation provides the public with a genuine possibility to 'institute changes'. Thus, greater acceptability and consensus are unlikely to arise from the current consultation practices. It may still be argued that when the people have been heard and not excluded, they can presumably appreciate the legitimacy of decisions made even if they continue to dislike the decisions *per se*.

Moreover, the view that the consultation practices lead to a greater consensus *because* they culminate in a better understanding of the issues related to the GMOs can be questioned. The critical presumption that controversies concerning GMOs are based upon the lack of knowledge and misguided fears (of citizens) is far too simplistic.²² Empirical studies have shown that more information about biotechnologies does not always result in a greater agreement about their (moral) acceptability. In fact, information on biotechnology may even lead to increased criticism (see e.g. Paula and Birrer, 2006: 261; European Federation of Biotechnology, 2003: 4; Durant and Legge, 2005: 181,195).

4.4. Better Decisions

It is useful to distinguish between two ways in which public deliberation may advance the decision-making process. On the one hand, engaging the public might enable decision-makers to find correct answers to the factual questions related to new biotechnologies. Risks and benefits, for example, may be better evaluated through public participation. On the other hand, engaging the public in the development and use of new biotechnologies might result in better answers to the non-factual questions (such as the bioethical and socio-ethical ones). Supposing that these answers are followed in prac-

tice, public participation leads to morally better decisions in biotechnology regulation and policymaking (e.g. Marris et al., 2001: 93).

Again, it should be borne in mind that only comments related to scientific risk assessment are taken into consideration in current GMO consultation practices. Thus, although the objective of making better decisions may be met in principle, it has had no relevance in practice to date. An obvious problem is that the risk assessment data is not public.²³ Nevertheless, at its best, public consultation could point out failures in a particular risk assessment, offer fresh points of view and pose new, relevant questions. The current consultation practices notwithstanding, the opinions and comments of lay people might have the most value not in risk assessment phase itself, but in the phase prior to that. Specifically, deliberation might provide useful information in order to frame the risk assessment in new ways.²⁴

4.5. Trust-Establishing

In general, it should be noted that if trust is merely regarded as an instrument for scientists and public authorities to work in peace, the argument from trust may also be employed to justify activities that lead to misplaced trust. And, misplaced trust, i.e. trust in persons who are not trustworthy, is not morally desirable. It is not ethically desirable for people to trust public authorities if they do not act in a trustworthy manner. Thus, the argument from trust is acceptable only if restricted to establishing trust in trustworthy actors. However, even with this proviso, the argument can be criticised on empirical grounds. As Onora O'Neill has pointed out,

reported public trust in science and even in medicine has faltered despite its successes, despite increased efforts to respect persons and their rights, despite stronger regulation to protect the environment and despite the fact that environmental concerns are taken far more seriously than they were a few years ago (O'Neill, 2002: 11).

In sum, establishing possibilities for public involvement combined with increased sensitivity to the views and rights of the public do not necessarily result in greater trust. Public engagement may even lead to greater mistrust.

Now, do current consultation practices meet the objective of trust? Much depends upon the way in which the comments made by citizens influence final decisions and how this information is made available. Three questions are relevant here: (i) How do the comments influence final decisions? (ii) How is the influence of the comments informed to the citizens? (iii) How well-

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grounded are the reasons stated for the (lack of) influence and (ir)relevance of the comments on final decisions? As noted above, the Commission does not clarify whether the comments of the public have influenced the final decisions. Since it is, in practice, impossible for the public to form comments that would affect GMO decision-making, it is sensible to presume that the given comments have been ineffective. The Finnish CA explains this briefly and also in few words mentions the reasons for the ineffectiveness of the comments. However, citizens are not given reasons (except that that the law says so) why comments which are not related to scientific risk assessment are considered irrelevant. Hence, our concern is that current consultation practices may result in further erosion of citizens' trust if the people discover that their efforts to be informed, to provide feedback and to participate actively are ignored or have no impact at all on the final decisions made (see also Levitt, 2006). This is also the case if people just feel that their efforts to participate are ignored – whatever the truth.

5. DISCUSSION

The main aim of this paper was to address and reveal shortcomings and problems in the public consultation practices on the deliberate release and placing on the market of GMOs in the EU. Specifically, we have argued that current GMO consultation practices do not meet the aims on which their introduction has typically been justified. They do not serve democracy, increase consensus, enable better decisions to be made, or establish trust. They seem, however, to a certain extent, to contribute to informing and educating the public. But, as argued above, this should not be seen as the sole objective of GMO consultation. Of course, no one supposes that GMO consultation should be the only method of satisfying these aims. The problem is, however, that the current consultation practices do not contribute to fulfilling these objectives (with the exception of informing the public) at all. They may even work against the objectives.

We stress that we are not proposing that GMO consultation should be abandoned altogether. The practices should, nevertheless, be developed in order to better meet the challenges indicated. The most crucial changes needed are not those that could be carried out by the national CAs; rather, more fundamental legislative changes at the EU level are required.²⁵ Moreover, other practices that complement public consultation practices should be developed and implemented.²⁶

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The above assessment also highlighted more general concerns and open questions. First, the general aim of public engagement is unclear or at least there are several suggested objectives. It is unclear whether the need for public engagement follows from the ideals of democracy or from citizen rights, or whether it has some extrinsic end to serve, such as trust-establishment or consensus-seeking (see e.g. Harvey, 2006; Mendelberg, 2002: 262–264; Siipi, 2008).²⁷ This hinders the evaluation of the practices introduced as well as their actual development. Second, discussion is needed concerning what the ideals of democracy imply in practice. For example, what kind of informing is ethically sound and sufficient for democracy to take place in the context of GMOs? Should the authorities actively seek to inform citizens and encourage participation or merely offer a possibility for the citizens to express their views and opinions?

We conclude by emphasising the need for further critical discussion – both public and scientific – on the ethical and socio-political foundation of public engagement and on how well the present practices correspond to this foundation.²⁸ In this respect, our considerations are in line with those of Delli Carpini and his colleagues (2004: 336) when they state that although public deliberation often results in positive outcomes, 'deliberation, under less optimal circumstances, can be ineffective at best and counterproductive at worst' (see also Mendelberg, 2002).

NOTES

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² In Finland, for example, Maanystävät (Friends of the Earth, Finland), 2007; Greenpeace Finland, 2007; Greenpeace International, 2002; Kansalaisten bioturvayhdistys (People's Biosafety Association in Finland), 2007.

³ For example, in GTA, 2004/847, 36b §, Finland.

⁴The *Aarhus Convention* (1998) aims at ensuring that the public right to participation as well as access to information is incorporated into environmental policymaking at the national level. It contains three broad themes: (i) public access to information covering public authorities' obligation to respond to public requests for information and other obligations related to providing environmental information, such as collection, updating, public dissemination, etc.; (ii) setting out the minimum requirements for public engagement in various categories of environmental decision-making; and (iii) public access to justice on environmental matters.

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⁵ Interestingly, engaging the public – in all its forms – is not always desirable. As pointed out in a report by the Organisation for Economic Co-Operation and Development (OECOD, 2001: 6), 'some governments might involve the public so as to defer difficult decisions through extended discussions and debate; to stave off protests and deflect criticism by launching consultation without any real intention to incorporate the results; and to respond to international peer pressure by introducing 'cosmetic' measures to improve the interface with citizens without fundamental changes in traditional policy-making processes'. Obviously, these represent morally unacceptable forms of public engagement.

⁶ Finland is a member of the EU.

⁷ These aims can be regarded as ethical justifications of or as political rationale for public engagement and consultation. The main argument that current GMO consultation practices do not fulfil the objectives is valid for both interpretations.

⁸ That decisions concerning GMPs belong to this sphere is, of course, an implicit presupposition behind the argument.

⁹ As argued by Manuel Arias-Maldonado (2007), in contrast to a belief which is held by certain theorists (such as Tim Hayward) and can be found in some green political movements, deliberation does not necessarily lead to ecological decisions.

¹⁰ It should be noted that even when a genuine consensus cannot be reached (i.e. in the case of fundamental diversity of values), engaging the public might result in the recognition/resolution of disagreements and thus contribute to the legitimacy of decisions made.

¹¹ http://www.geenitekniikanlautakunta.fi/kuuleminen.html.

¹² http://gmoinfo.jrc.it/.

¹³ Interestingly, these objectives closely correspond to the ones that James J. Glass identified already in the 1970s. According to him, five objectives of citizen participation are representational input, education, information exchange, supplemental decision-making, and support building (Glass, 1979; see also Rosener, 1975).

¹⁴ It should be emphasised that we do not claim that the objectives of GMO consultation fully equate with the general aims of public engagement. Nevertheless, since public consultations are an instance of public engagement, their aims and objectives are partially convergent. The consultation practices cannot and are not meant to sufficiently fulfil all the aims of public engagement alone. Yet, they should promote or at least be compatible with those general aims.

¹⁵ Admittedly, Your Voice in Europe website includes some brief Finnish translations concerning public consultations (http://ec.europa.eu/yourvoice/). However, English language ability and patience is needed when one familiarises her/himself with the web pages.

¹⁶ However, this information is only provided in Finnish, which may form a considerable obstacle for citizens without skills in Finnish. This is noteworthy since, although the majority of Finns do speak Finnish as their native language, Swedish is also an official language of Finland. Moreover, there is a small Sami speaking

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minority, and although the number of non-native Finns is small, it is growing. (Virtual Finland, 2007.)

¹⁷ The case of national consultations is a bit different as scientific field trials are often carried out to assess environmental risks.

¹⁸ This is acknowledged in a report of Finnish Advisory Board on Biotechnology (2003: 13). It states that comments that do not affect the decisions are still valuable because they provide the decision-makers with useful information on citizens' opinions. Nevertheless, this does not solve the original problem, that is, the lack of a genuine possibility to affect the decision-making.

¹⁹ More specifically, 'intrinsic concerns' refer to those worries which are not related to the actual (known) or possible (presumed) consequences of an action.

²⁰ For similar views, see also Beekman and Brom, 2007: 4,6; Sterckx and Macmillan, 2006; Myskja, 2006.

²¹ In theory, consensus might also be reached in a third way, i.e. by a process in which public authorities and experts change their views towards those held by laypeople. However, in the context of GMO consultation this does not happen in practice, at least not so far.

²² A simplistic 'deficit-model' approach attributes the cause of a disagreement between the public and decision-makers and scientists to the lack of knowledge and ignorance of the first-mentioned (see e.g. Sturgis and Allum, 2004).

²³ This may change in the future, however. There is a pressure (by citizens' organisations) at the Union level to make all the data public.

²⁴ As emphasised by an anonymous referee, scientific assessment of risks includes several choices at different levels (e.g. related to data collecting and acceptance), and the line between scientific part and normative/political judgements is less clear than GMO consultation seems to presuppose.

²⁵ As noted, there are technical/practical difficulties (e.g. part of the information provided is only available in English) as well as fundamental issues (e.g. how to provide citizens with genuine possibilities to affect final decisions?) to be solved.

²⁶ To some extent, of course, this has already taken place. The forums include, for example, consensus conferences arranged in different European countries (e.g. in Denmark and Austria) and the GM Nation? debate in the UK (see GM Nation?, 2003).

²⁷Despite the confusion surrounding the ethical and socio-political foundation of public engagement, there is general agreement on what constitutes good public engagement. This includes the requirement that public engagement should be (i) upstream, that is, it should take place at an early stage before research or technological applications are underway; (ii) it should have an open-ended agenda rather than being managed by experts and decision-makers; (iii) it should include a deliberative element and genuine possibilities to influence final decisions made (e.g. Levitt, 2006).

²⁸ This is not to claim that no discussion, or valuable analyses, on this exists (see e.g. Rowe et al., 2005; Rowe and Frewer, 2004).

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