A BIOTECNOLOGIA NA ESFERA PÚBLICA
DESENVOLVIMENTO DE PROCESSOS PARTICIPATIVOS NA AGRICULTURA

BIOTECHNOLOGY IN THE PUBLIC SPHERE
PARTICIPATORY DEVELOPMENT PROCESS IN AGRICULTURE

ISBN

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ABSTRACT

This work focuses the involvement of citizens working within agriculture, agronomic R&D and rural environment on issues of agricultural innovations, taking as a case– study the 'biotechnology in agriculture', **known as agribiotechnology or green biotechnology, that includes genetically modified organisms ('GMO') or transgenics. Their agricultural uses create disagreement among their proponents and opponents, both including several actors. By the fact that to its inherent techno-scientific complexity there are socio-politic economical implications to be added, this issue has been the subject of studies revealing the existence of several ways of media coverage and of regulation mechanisms that go along with different public perceptions patterns. This complexity web may have influenced agricultural sector policies that evidenced greater support to organic agriculture, at national and European levels**. The perseverance, for long than one decade, of polarisation about this issue, that has mobilized, among other actors, some scientists, associated to the fact **that different risk and benefits perceptions exist concerning various applications, not only in different countries and cultures, but also among individuals within a given country, and among these individuals in different moments and contexts**, **indicate that their approach merely in scientific terms and that excludes existing preoccupations will tend to perpetuate the polarisation and stagnation.**

Following European Commission recognition of how important are both research communication and scientist contacts with society (CE, 2004, COM 250 final), this research presupposes that citizens are actors with whom it's possible to share relevant arguments about this issue and that minimally informed citizens are able to articulate ideas about social implications of agricultural biotechnology.

Perception analysis of enrolled actors in this issue allows conflict areas identification that may require particular attention in the delineation of more based public policies. For that, in this research, through participatory methodologies, it has been possible to analyse perceptions of enrolled stakeholders and reach results that concerning 'Information and Communication' topics, highlighted 'weakness of the public clarifying information situation existing in Portugal about GMO issues' and the 'necessity to vitalize rural extension', and concerning 'Mediation between Science and Politics', highlighted concerns by the 'politician's inefficiency to update their knowledge about these issues'. **From the concerns mapping obtained it can be emphasized concerns expressing 'unfair share of benefits and risks', 'prevalence of economic criteria over cautious approaches' and 'an eventual value loss of agricultural product chains/goods that possess traditional features (e.g.: viticultural) in case these genetic modification technologies were incorporated in them'.**

The involvement on this issue of young students from agricultural professional schools in an educational pilot project, and of farmers, scientists and other actors related with agricultural sector in focus groups participatory processes allows the information to be shared and a clarification of their preoccupations, of potential utility to the definition of arising lines of R&D and policies on this issue, namely when at the national level there isn't a clear strategy to biotechnology in agriculture, being these citizen involvement initiatives a contribution to develop social capital in these context.
(pp. vii-viii)

…4.1.1. POLITICAL ARENA

"We need general discussion in which all European society must join. (...) This is a task for scientists to politicians and many other actors in new and complex global context. 'Desama (1998) In the European Union the construction of policies for biotechnology is to national and European levels so, Bauer, M. & Gaskell, G. (2002, p6) report that the vast network of agents and national interests is added to a network level set of different Member States (including the European Commission, the Council of Europe and the European Parliament), it is possible to find processes building policies more 'technocratic' type or more 'participatory'. Europe, 90s legal for regulating GMOs (Appendix 5), sat in the box directives - "Using Confined", 90/219/EEC (use in laboratory environment) and "Liberation Deliberate", 90/220/EEC (use in the environment) - subsequently revised, altered and withdrawn respectively by Dir 98/81/EC of the Council and by Dir 2001/18/EC the European Parliament and of the Council **7** and transposed into national law by DL 2/2001 (4 January-case Dir. 98/81/EC) and DL 72/2003 (10 April-case Dir 2001/18/EC). In 2004 the legislative framework has, at Community level, the Regulation (EC) n. ° 65/2004 of the Commission (14 January) that defines the system development and assignment of unique identifiers for GMOs and nationally, Decree No. 7/2004 (17 April) approving the Cartagena Protocol on Biosafety to the Biológica**8** the Diversity Convention, and DL 164/2004 (July 3) establishing the rules for implementing Council Regulation (EC) No 1830/2003 and adds the DL 72/2003 of Transitional measures for adventitious / technically unavoidable presence of GMOs.

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7 Dir 2001/18/EC of the European Parliament and of the Council , 12.03.2001 , OJ L 106, 04/17/2001 , p1 .
8 Portugal ratified the Protocol through the publication of Decree No. 7/ 2004 (17 April) adopting the Cartagena Protocol on Biosafety to the Convention on Biological Diversity . The EC approved the Decision 2002/628/EC of the Council (25 June); www.biodiv.org / world / parties.asp
(pp. 77-78)

In a retrospective analysis of politics and European debate on biotechnology, Torgensen et al. (2002 : p61) report that the phase started in 1996 was characterized by be a phase of renewed challenge , in which agriculture stimulated

the sensitivities national . In fact , these social concerns society is , according to Jorge (2000 : p15) , ' wanting to put concrete individuals , researchers and within the laboratory , a series of questions and limitations of ethical kind , religious, ecological, even political . " **In the political arena , Hottois (1999 : p66) states that ' some Experiments show that the policy decisions on biotechnology can overcome criticism and opposition by society but cannot solve the social conflict** ', foreseeing it as intended to persist in dynamic contexts complex between various stakeholders and challenges in terms of trust and communication between political and scientific authorities and the public that they intend to serve. In fact , as admitted Todt (2004 : P143) , the context of the regulation of technology is subject to change considering how crucial to them underlying social conflicts and increasing awareness among citizens of uncertainty compared to modern technologies , such as genetic engineering . **The author highlighted a project that allowed us to observe these changes in Spain, 1997-1999, revealing that the Spanish regulatory system, despite the lack of participation public in making regulatory decisions, was not opaque to concerns issued by non-governmental organizations (NGOs), which were included but not clearly expressed in risk assessments, and focused in particular the question of progressive abandonment and disposal of GMOs with the resistant marker genes antibiotics**, which incidentally was an amendment to Dir 2001/18/EC states: 'for GMOs placed ulamercado this elimination should seÿÿ.Lectuada to 31 December 2004 and those who are released for R & D limit is December 31, 2008 (§ 2 º art.4) '(Fernandes, 2002: p5).
(pp. 78-79)

The environmental nature of plant biotechnology , first with promises of phytoremediation , but on the other , with the risk of contamination of non-GM crops , enables the emergence of environmental crises that Lidskog & Sundqvist (2002 : p77) refer as ' increasingly diffuse (difficult to delimit in space and time) ' assuming importance to preserve the ' natural capital ' through measures sustainability, which according Politylo & Veeman (2003) require a reflection on the roles of the state in governance , so that " policies such as the ' standard minimum security '(SMS - " safe minimum standards '), **one variant of the principle precaution are implemented where significant uncertainties persist about impacts environmental resource use , or where irreversible effects are likely , due to a critical natural capital '. But the use of this principle , or its variants , is discussed (Foster , et al 2000 : P979 ; Wolt & Peterson , 2000 : . P42) as part of the 'conflict Transatlantic' (Kogan , 2005 : p21) on regulatory and economic topics, the instead of 'transatlantic dialogue' on aspects of R&D** (EC , 2005b : p40). in several societies , to a greater or lesser participation of citizens in the development of current biotechnology policies may depend on several factors , such as once happened address the problem of achieving an effective democratic control of decisions technological innovations, one after Ravetz (1971 : P362 - 6) ' is locked by many difficulties : the combination of objectives contrary, bureaucratic measures, and different ideologies of the various groups involved. (...) The complete solution of this deep political problem is a task for the coming decades (...) ».
(p. 79)

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