# The Dynamics of Public Hearings for Environmental Licensing: The case of the São Paulo Ring Road

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#### 1 Introduction

In recent decades, a number of countries have instituted mechanisms for expanding participation in public hearings to support or even as an alternative to traditional mechanisms of political representation and decision making. Such experiences cover a wide range of questions, including the environmental agenda that also emerged at the fin-de-siècle. The normative dimensions of such experiments have generated extensive debate, reaching into the very heart of social theory, as can be verified by the repercussions from Habermas' work (e.g. Habermas 1984, 1995). However, less attention has been given to the empirical experience of initiatives which endeavour to establish principles for the democratisation of decisions. The purpose of this article is to contribute to this debate with an in-depth analysis of one of these participative experiences.

The Brazilian literature on the practices of participative consultation and deliberation in the environmental arena has drawn conclusions which are broadly similar to those that can be found in international literature (Alonso and Costa 2002a). However, empirical and sociological studies are scarce. Our objective in this article is to contribute to the understanding of the actual dynamics of mechanisms for broadening participation in environmental questions. Our analysis investigates the operation of an environmental governance mechanism in Brazil: the Public Hearing for Environmental Licensing (Apla). Aplas are nonformal forms of political incorporation, open meetings that seek to expand popular participation in the public discussion of undertakings with

potential environmental risk. We evaluate the effectiveness of this "environmental governance" institution as a mechanism for negotiation and deliberation among agents with a disparity of resources, its degree of influence over the results of the environmental licensing process and its capacity to include the interests and opinions of unorganised sectors of society, through a case study of the environmental licensing process for the *Rodoanel*, a ring-road around the São Paulo Metropolitan Area.

Our hypothesis is that, in Brazil, mechanisms for "deliberative democracy" applied to environmental questions have not been very successful in their objective of incorporating social groups usually excluded from traditional mechanisms of deliberation as relevant actors in the decision-making process. This is because such groups lack the economic, social and cognitive resources that would enable them to participate actively and influence decisions on environmental questions. As a consequence, Aplas tend to express the opinions of organised civil society more than those of the social groups that are directly affected.

# 2 Deliberative processes between theory and practice

The concept of deliberative democracy developed out of critiques of the representative system. In general, this approach starts from Habermas' (1984) analysis of free communication among rational subjects as a condition for democratic deliberation. According to this argument, the decision-making process in representative democracy is reduced to a simple aggregation of opinions, reflecting organised groups' interests. However, the point of

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departure is not the decision-making spaces themselves, but distortions in the decision-making procedures within these institutions. According to Habermas (1995), democracy, as a normative principle and as political practice, is not just defined by the type of procedure used for selecting leaders (political representation), the form of the decisionmaking process or the political and social control (accountability) of the elected leaders' actions. Democratic procedures, he argues, are substantively defined as a public forum open to the free and disinterested exercise of argument among citizens who are equally free, fully informed, and spontaneously involved in deliberation on questions that concern a certain political community. A more "radical" version of this proposal is Cohen and Sabel's (1997) model of deliberative democracy. They propose that the deliberative process be incorporated into the effective process of political decision making in an institutional arrangement which they call 'Directly Deliberative Polyarchy'.

Theories of deliberative democracy have been the target of much criticism. For example, Przeworski (1998) argues that it is false to suppose that every deliberative process always results in a better decision than one taken from aggregating individual votes. Deliberative processes only result in a change of the agents' positions when there is an asymmetry of information. Only in such cases is it reasonable to expect that someone might consider an opposite argument as superior to theirs. But in this case, the groups that are better informed, more qualified to argue and equipped with the most resources (like education and time) would be in a better position to "convince" others of the superiority of their arguments, even when these involve losses for them.

Recent empirical studies of deliberative processes in the environmental arena seem to confirm these criticisms. In a comparative study of 'deliberative inclusionary processes' (DIPs) in environmental questions, Holmes and Scoones (2000) mapped a large number of experiences during the 1980s and 1990s as well as a wide diversity of models and applied techniques. The authors observed differences among deliberative processes used in countries in the northern hemisphere and those in the south. In the first group, DIPs resulted from activism on the part of civil society against the ineffectiveness and illegitimacy of traditional mechanisms. In the second set, they were the

product of negotiations between local and international non-governmental organisations (NGOs) in the process of elaborating local public policies in order to include socially, politically and economically marginalised segments, where the emphasis on sustainable local development stresses "community empowerment" mechanisms.

In spite of the diversity in procedures, all deliberative processes try to attain one or more of four basic objectives: (1) production of information to subsidise the governmental decision-making process; (2) consulting interested parties on policies proposed by government agents; (3) monitoring and supervising policies implemented by the public power; (4) deciding which policies will be implemented by the public authorities or by NGOs or community organisations. It should be emphasised, however, that only the last of these objectives completely fulfils the requirements of deliberative democracy.

The practical operation of deliberative mechanisms is far from fulfilling the expectations implied by these objectives. On the issue of representativeness, all face the same basic dilemma: if it is not possible to guarantee that all potentially interested parties will participate, how should participants be selected? In practice, a selection method close to the representative system has prevailed, where individuals and associations representing the groups involved are invited to participate. This results in problems similar to those identified in traditional representative systems by proponents of deliberative democracy. Two criticisms have been levelled at this "induced participation". The first is that the creation of artificial conditions for participation and deliberation may ensure a more balanced representation of the different social segments, but it cannot prevent those higher up in the social hierarchy from controlling the deliberative process. The second concerns the lack of legitimacy of these processes when the participants do not clearly see the influence of their participation on governments' political and administrative decisions (Cornwall 2000). The degree of motivation in participating depends on the perception of the relevance of the deliberative process to the final decision (Holmes and Scoones 2000). Even when the selection of participants is representative, the motivation for participating varies between organised groups and "common citizens". While the former have defined

opinions, since they are professionally involved with the issues, the latter may have difficulties in building and presenting their arguments.

The third problem concerns the effectiveness of deliberative processes. Here, also, the evidence found in the literature indicates results that are the opposite of what would be expected from the theory. The most frequent problems refer to the control of the agenda by state representatives, which can both induce consensual results and hinder the discussion of unforeseen themes, leaving little room for substantive debate over contrasting arguments. As a result of this factor, processes can result either in formal consensus on very general themes or in open conflicts that usually demand arbitration by the government bureaucracy or even the courts.

Finally, the evidence suggests that these mechanisms may have a secondary influence on public policy outcomes. Here there is a paradox. In establishing processes to compensate for asymmetries in power and information, whether by selecting participants from among the excluded social groups or by creating mechanisms to bring these groups into the debate, these processes lose the legitimacy necessary for the conclusions of their deliberations to be binding. In practice, most of these experiments have been limited to accomplishing information-sharing and advisory objectives.

# 3 Dynamics of participation in environmental public hearings: the case of the Aplas on the Rodoanel

Since the 1980s, there has been an expansion of social participation in environmental decisionmaking processes in Brazil. The 1988 Constitution consolidated the legal and institutional framework for the decision-making process around environmental issues, establishing third-generation rights (including the right to a healthy environment), institutionalising mechanisms to punish environmental violations (the Public Interest Action and the Public Civil Action) and creating institutions to mediate conflicts (the Public Prosecutor's Office). In addition, the legal requirement to produce an environmental impact report (EIA-RIMA) was established, expanding public accountability in the case of processes involving possible environmental risks, along with provision for public hearings for environmental licensing (Aplas).

The objective of Aplas is to facilitate popular participation in the process of decision making on projects involving potential environmental risks. Aplas are defined by federal legislation in a generic way, as participatory and public spaces, intended to give transparency to the decision-making process. They are organised by the government agency responsible for granting environmental licenses for the purpose of discussing the environmental impact report (RIMA), produced by the agency responsible for the project. Aplas are intended to include a new set of actors in public discussion of environmental questions: the social groups facing environmental risks. The legislation guarantees to any civil association or group with a minimum membership of 50 citizens the right to demand an Apla to debate a RIMA. If they are to be effective in fulfilling their function of including the affected population, Aplas have to meet two key criteria: they should be both well publicised and easily accessible. The law gives considerable autonomy to the States (since Brazil is a federation) to establish local rules for Aplas, and this has generated a variety of formats.

Formally, Aplas have a merely informative character. However, any suggestions and criticism resulting from these meetings should be recorded in the minutes and taken into account in the decisions of the legal environmental organs. Nevertheless, legal provision for this does not by itself guarantee that participation will be effective, and still less that it will be democratic. Thus we chose to investigate participation in these hearings by focusing on their actual operation. In order to understand the dynamics of participation we selected a case which could potentially have been the focus of environmental conflicts: the Aplas held before the construction of the São Paulo Rodoanel.

The Rodoanel is a large (137 km) orbital road circling the metropolitan perimeters of Greater São Paulo. It was launched by the public authorities in the mid-1990s, with the objective of connecting the ten biggest highways that link the metropolitan area with the rest of the country, improving the traffic flow in the state of São Paulo and reducing congestion in the urban areas of Greater São Paulo. There is still no final definition of the complete route. The project was divided into four large sections, with immediate priority being given to the western section. The western section project potentially affected both the natural environment and resident populations (including the removal of around 2,000

families). The São Paulo state government was responsible for the Rodoanel project, through Dersa, the technical department in charge of proposing the route, removing the affected families and contracting the construction firms to build the road, as well as organising the Aplas.

# 3.1 Profile of potential participants in the Rodoanel Aplas

In order to establish whether the Aplas are effective in broadening social participation in processes of environmental deliberation, we approached this case with two questions. First, did the social groups directly affected by the Rodoanel (west section) have the material and cognitive resources to enable them to participate in Aplas? Second, is the institutional design of Aplas permeable to the participation of the lower social strata? In order to answer the first question, we investigated the profile of the population directly affected by the Rodoanel. The second question was addressed through an analysis of the internal dynamics of the Rodoanel Aplas and an evaluation of participation as it actually took place in the public hearings.

Our starting-point was therefore the potential participants' socio-economic profile. The profile of the social groups affected is important to understand the Aplas' dynamics because differences in income and education levels strongly condition the individual capabilities required in mobilisation processes. We used a survey<sup>2</sup> to build up a socio-economic profile of the affected social groups, as well as profiling their values and opinions about the Rodoanel and about the participatory process itself. We discovered that the social groups affected by the Rodoanel, who would potentially participate in Aplas, were on average lowincome families, living in self-constructed housing; 53.2 per cent did not have a formal job and 63.3 per cent had primary education only.

In addition to socio-economic conditions, people's reasons for engaging in the participatory process may be associated with their willingness to participate in community and associative activities and their knowledge of mechanisms of participation. Political culture theoreticians (e.g. Putnam 1996) believe that a set of values ("civic culture") leads to the success of participatory practices and institutions. We tested for this empirically by asking people about their motivation to participate in community and associative activities. We found a high level of potential

participation: 80 per cent said they would participate in activities to solve a local problem.

In addition to values, the mobilisation of social groups in environmental risk areas requires the deployment of cognitive resources to build up and express their opinions. The effective participation of these social groups in Aplas would depend on their capacity to classify a dimension of social reality as "environmental". Hence participation in the Rodoanel Aplas would require perception of environmental risks as well as a willingness to participate ("civic culture") and knowledge of Aplas. Although inhabitants of the areas affected by the Rodoanel identified environmental problems that affected them directly, especially forms of pollution, most of them (77.6 per cent) considered the environmental quality of their neighbourhood to be fair or good. Thus, the affected groups did not construct a perception of the Rodoanel either as causing an "environmental problem" or as negatively affecting their living conditions, which would have been motives to mobilise and to participate in public hearings. Another cognitive resource is the level of information about environmental problems, campaigns and institutions. Only 10 per cent of interviewees claimed knowledge of environmental issues, but 93.5 per cent of them had heard about the Rodoanel (although 22.8 per cent of them had an incorrect understanding of what it was). The crucial cognitive resource, awareness of the mechanism of participation, was lacking: 96 per cent had never heard about Aplas. Amongst the remaining 4 per cent, 46.6 per cent defined them as a way to transmit information while about a third stated that Aplas were a deliberative institution. A further 16 per cent stated that they had no faith at all in Aplas' efficacy. As we can see from this, affected groups lacked both a perception of the Rodoanel's environmental risks and the cognitive resources that would have enabled their participation in the Aplas.

The situation with regard to their political resources was even less favourable. According to Political Process theory (Tilly et al. 1997), social groups with previous enrolment in associations and public activities place more faith in the possibility of modifying processes through debate in the public sphere and in taking part in participatory institutions and mobilisation processes in order to do so. In this sense, pre-existing associative networks are resources that facilitate participation. We found that while most of the groups affected by the

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Table 1: Internal organisation of public hearings for environmental licensing (Aplas) in São **Paulo State** 

Presentation of	position	s Statements by the pu	ıblic	Replies	Closing	
Speaker	Time	Speaker	Time	Speaker	Time	Speaker
Company	15 min	Non-environmental NGOs	60 min	Company	10 min	Environment Secretary or Representative
EIA/RIMA Team	30 min	Floor		EIA/RIMA Team	10 min	
Environmental NGOs	30 min	Members of Consema (State Environment Council) Govt. Representatives Mayors/State Secretari		Environmental NGOs	10 min	

Source: Consema Resolution 50/1992

Rodoanel engaged in community activities (74.4 per cent), just 12.1 per cent were part of associative networks and formal associations. The effectiveness of past participation also creates incentives for further participation; the more successful groups have been in having their demands met, the more confident they will be in their capacity to influence processes in debate in the public sphere. The majority of interviewees had never presented demands to any institution; of those who had, 64.7 per cent had not seen their problems solved. What is more, when asked who should solve an environmental problem that affected them, the majority indicated a public authority. Despite the fact that it has not been satisfactorily addressing their claims, they still trust in the state rather than in self-organisation as the channel to solve problems (only 6.5 per cent said they would actively engage in problem-solving activities).

We can conclude from this review of the profile of affected social groups that they lacked both a clear perception of environmental problems and the necessary mobilisation resources. They did not know about or have access to means of expressing opinions and raising complaints, whether through state channels or through associative forms. What is more, they had few incentives to participate in institutional life, since when they had done so in the past they had reaped few results. As might have been expected given these elements, only 5.4 per cent of the groups affected by the Rodoanel participated in the Aplas, which discussed the project's environmental and social impacts.

# 3.2 Dynamics of participation in the Rodoanel public hearings

Before analysing the dynamics of the participation inside the Rodoanel Aplas, it is important first to examine the way in which Aplas are formally organised in the state of São Paulo. The objective of the public hearing is given as being to inform and to discuss with the population the possible impacts of certain activities or projects, as well as to receive suggestions. According to legal requirements, the Aplas must be held in the municipality or area directly affected by the project under discussion, in a place that is easily accessible. Although the event is public and open, government authorities (state governor, senators, state and federal deputies, mayors, state secretaries and city councillors of the affected municipalities), members of environmental committees, public prosecutors and civil society representatives (from environmental and nonenvironmental NGOs and the media) are specifically invited to attend. The hearings are formally organised as set out in Table 1.

A total of 920 people came to the three public hearings held for the licensing of the western section

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Table 2. Distribution of participants in riododirer Apias by categories	Table 2: Distribution of	participants in	Rodoanel Apl	las by categories
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Categories of participants	Apla 1		Apla 2		Apla 3	
	n	(%)	n	(%)	n	(%)
Officials	180	57.5	69	42.6	64	45.7
State Public Prosecutor	1	0.3	0	0	1	0.7
Municipal Representatives	14	4.5	6	3.7	3	2.1
State Representatives	2	0.6	0	0	0	0
Municipal Executive	50	16	29	17.9	16	11.4
State Executive	105	33.5	32	19.8	41	29.3
Others	8	2.6	2	1.2	3	2.1
Civil Society	133	42.5	93	57.4	76	54.3
Environmental Association Member	9	2.9	4	2.5	18	12.9
Non-environmental Association Member	15	4.8	13	8	10	7.1
Business Association Member	27	8.6	15	9.3	9	6.4
Scientists, technical specialists and other professionals	43	13.7	37	22.8	35	25
Local Residents	22	7	21	13	3	2.1
Others	17	5.4	3	1.9	1	0.7
Total*	313	100	162	100	140	100

<sup>\*</sup> The total numbers refer to valid data. Percentage numbers may not add up exactly, due to rounding. Due to the impossibility of identifying certain participants, information was discarded for 153, 105 and 47 participants of each Apla, respectively.

Source: Data set of Environmental Conflicts Area - Cebrap, 2002

of the Rodoanel; considering the huge number of citizens affected by the project, a very limited number. These Aplas took place in the two largest cities affected by the project, São Paulo (site of two Aplas attended by 466 and 267 people respectively) and Osasco (site of the last Apla, attended by 187 people). However, the meeting locations were far from the homes of the directly affected population in those municipalities, and four of the six affected municipalities had no public hearing at all. The Aplas were held at night, beginning at 7.00pm and ending at about midnight, discouraging those who had to start work early in the morning from staying until the end. In addition, despite the fact that the law requires Apla announcements to be published in popular newspapers, we found them only in the official gazette.

Instead of local affected groups forming the majority, representatives of political authorities comprised 57.5 per cent, 42.6 per cent, and 45.7 per cent respectively of those present at each Apla.

Two subcategories prevailed: members of the municipal and state executive branches (Table 2). While civil society associations accounted for 42.5 per cent, 57.4 per cent, and 54.3 per cent of those present in each Apla, local residents' associations accounted for only 4.8 per cent, 8 per cent and 7.1 per cent respectively, while the participation of individual residents was 7 per cent and 13 per cent in the first two Aplas and just 2.1 per cent in the last one. Environmentalists accounted for 2.9 per cent and 2.5 per cent of those present at the first two Aplas, but their participation reached 12.9 per cent at the last one, demonstrating the progressive construction of an environmental debate around the Rodoanel project.

When we consider not only presence, but active participation in Aplas as a speaker, numbers are even lower. Of the 920 persons present at the three events, only 58 spoke out, around 6 per cent of the total. Members of civil associations (most of them from non-environmental social movements) took The Dynamics of Public Hearings for Environmental Licensing: The São Paulo Ring Road

Table 3: Distribution of	speeches by	participants	in Rodoanel Ap	olas
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Categories of participants	nterventions in the 3 Aplas	(%)
Officials	25	35.2
State Public Prosecutor	1	1.4
Municipal Representatives	4	5.6
Municipal Executive	5	7
State Executive	13	18.3
Others	2	2.8
Civil Society	46	64.7
Environmental Association's Member	10	14.1
Non-environmental Association's Member	13	18.3
Entrepreneur Association's Member	1	1.4
Scientists, Technicians and other Liberal Profession	nals 16	22.5
Local Residents	2	2.8
Others	4	5.6
Total*	71	100

<sup>\*</sup> Percentage numbers may not add up exactly, due to rounding. Source: Data set of Environmental Conflicts Area – Cebrap, 2002

the majority of the time available for discussion during the three Rodoanel Aplas (Table 3). The Aplas' objective of ensuring local residents' participation was not achieved, as they made only two speeches. Although there was civil society participation in the discussion, it was balanced by the number of speeches made by government officials and bureaucrats in charge of the project, which accounted for 35 per cent of the total.

These data show us that the Aplas did not function as a channel for local residents' views. However, even with the very small number of residents present it might have been possible for them to express disagreements and to discuss the advantages and problems which the Rodoanel project represented for them. This did not happen. During the Aplas, the general tone of the speeches was favourable to the project. Pro-Rodoanel actors, i.e. businesspeople, members of the state bureaucracy, municipal executives and representatives, presented technical statements in favour of the project, such as its impact on improving transportation conditions and local economic development. While this was fully to be expected, it is striking that even the affected social groups (local residents and members of neighbourhood associations) did not criticise

the project. In general, their speeches focused on requesting an explanation for the displacements and ascertaining what compensation they would receive. Only the members of environmental and other social movements argued against the project, but they focused on technical objections in defence of environmental preservation.

We can conclude that from the point of view of their internal dynamics the Aplas did not function as "deliberative arenas". They did not fulfil the criteria of publicity and accessibility. Their location and schedule limited the participation of the affected groups, which could be seen as part of a government strategy to prevent large-scale popular participation. Our contention is that the institutional design and formal organisation of the Aplas represented a significant constraint on the involvement of social groups with lower educational levels, including the fact that while the authorities and organised civil society had a guaranteed space to communicate their opinions during the course of the meeting, affected social groups had only a short time for individual statements at the end of the Apla to present their opinions. Given their format and the profile of the participants, we can describe the Rodoanel Aplas as functioning as a channel for

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information from the authorities to the local residents and civil society associations. The participatory process itself did not generate any significant changes in the original project, and the Aplas did not serve as for a for gathering information and suggestions from local residents which could have helped to improve the project. Nothing discussed in the Aplas was included in the technical report that accompanied the subsequent granting of pre-license approval for the western section of the Rodoanel.

# 3.3 The political process beyond the Aplas

The dynamics of the Rodoanel Aplas can be explained by various factors. One is the behaviour of the actors themselves. The massive presence of members of the public administration and the state executive gave an official character to the hearings, while the strategies employed by proponents of the Rodoanel had a demobilising effect and hindered the emergence of conflicts that could have arisen at the Aplas under other circumstances. The limited access to resources on the part of the affected groups on the one hand, and the absence of the construction of a coherent "environmental objection" on the other, inhibited more active participation by two groups of actors with reasons for opposing the project: the affected groups facing removal and the environmental movement.

In addition, the government agency Dersa adopted strategies which "emptied" the Aplas of their status as the key arena. The environmental impact study was technically very sound, and an effective mass advertising campaign for the Rodoanel was conducted to sway public opinion (Alonso and Costa 2002b). But the most important factor was Dersa's initiative of multiplying the project's negotiation arenas, according to the target public in each area. Dersa avoided direct negotiations with the social groups facing removal and created an alternative instrument to the public hearings, "prehearings", as a forum for direct dialogue with organised local elites.4 At the same time as Dersa was insisting on negotiating the removal of families affected by the project on a case-by-case basis, the agency ensured that, unlike the Aplas, the prehearings functioned as an effective forum for negotiating and legitimising the project. In these for aunofficial commitments were made, resulting in small modifications to the original plan that incorporated demands for facilitating access to cities and neighbourhoods as well as local urban

improvements. From this process emerged the final version of the project, which is currently being implemented. As a political strategy, the pre-hearings were highly effective because they disarmed potential opposition and facilitated the process of environmental licensing. They were crucial as much for producing public legitimisation of the project as they were in avoiding a possible mobilisation of the local elites on behalf of the affected social groups. By holding pre-hearings, Dersa thus effectively emptied the Aplas of their political importance.

In synthesis, the dynamics of the Rodoanel Aplas can be explained not only by their institutional format and the performance of the agents within it, but also by the government's strategy of promoting prior negotiations with pre-organised elites. In this sense, the Aplas were not a venue for open confrontation or for negotiations among equals with consensual results. They became basically ceremonial arenas in which participation was ritualised.

### 4 Conclusions

We can conclude from this study of the dynamics of the Aplas that in the case of the Rodoanel they were not able to ensure effective participation by ordinary citizens in the environmental licensing process of a large-scale project. The Aplas functioned as a venue for publicising technical information and legitimising political decision making that was basically confined to government offices. In this sense, they fulfilled a pedagogical, informative and advisory function and it is significant that the public discussion forum imposed limits on the excessive use of technical arguments, requiring the establishment of a minimum level of dialogue using clear and accessible language. Nevertheless, even if formal requirements were to be improved and followed strictly, we would not expect massive and active participation on the part of affected citizens. First, because the socio-educational profile of most citizens means that they feel unable to discuss public issues as equals with formal authorities. Second, because the dynamics of political life suggest that most people would prefer to delegate power to the authorities in charge to act on their behalf rather than becoming politically active, even if sometimes the results do not meet their expectations. This is the way the representative system works.

Finally, the balance of experiences with deliberative processes (Cornwall 2000; Holmes and Scoones 2000) confirms our findings. Most

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institutional designs of deliberative mechanisms face common difficulties in practice. There is a selection bias favouring the more organised groups among participants and there are also socio-economic and cognitive asymmetries, which are hard to avoid. Hence, two opposite tendencies emerge. On the one hand, authorities try to induce consensus through seeking to control the agenda. On the other, their conflict-resolution strategy is a very traditional one: arbitration through public (bureaucratic or judiciary) authorities instead of "argumentative consensus". We can also add that the low legitimacy of these mechanisms contributes to limiting their influence on environmental public policies.

Despite the fact that formal requirements were largely followed, the Aplas did not result in a consensus incorporating all positions in the debate. In general, our findings suggest that deliberative and participation mechanisms are affected by asymmetries in socio-economic power and organisational and cognitive resources as well as in agenda power. In short, they have the same problems that deliberative democracy's theoreticians have been associating with "traditional" representative mechanisms.

#### **Notes**

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- 2. The survey was undertaken from 7-12 July 2000, involving 445 residents around the western section of the Rodoanel.
- 3. The total population directly affected by the western section of the Rodoanel was estimated at 1,818,363 inhabitants, living in six municipalities.
- 4. These informal meetings were held to showcase the project to organised society, especially to authorities like city councillors, deputies, mayors and local leaders, such as members of residents' and trade associations.
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