Citizen deliberation in the context of Uruguay’s first National Water Plan

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Abstract

As part of the formulation of the first National Water Plan (NWP) in Uruguay, a mini-public process called ‘Citizen Deliberation on Water (Deci Agua)’ was developed in 2016. While the draft of the plan was being discussed in the formal arenas of water governance (Basin Commissions and Regional Water Resources Councils), a University research team (led by the authors), in coordination with the national water authority, adapted the mechanism of consensus conferences in order to incorporate the citizens’ visions and to contribute to public understanding of the NWP challenges. This article analyses the main aspects of the developed participation strategy and discusses them regarding a set of quality criteria used to evaluate deliberative processes. Although the final version of the NWP (passed by decree in 2017) incorporated some of the contributions of the Citizen Panel, an in-depth analysis of the scope of the deliberative process of Deci Agua allows us to delve into some key aspects related to the quality of participation processes and the challenges. A mixed approach that combines stakeholder participation and lay citizens is novel and desirable in water governance since it increases the scope of participation, deepens the legitimacy of decision-making and improves the public debate.

Keywords: Consensus conference; Deliberative participation; Mini-public; River Basin Organizations; Water governance; Water management

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Highlights

- Deci Agua was a citizen deliberation process based on consensus conferences.
- A Citizen Panel contributed to the formulation of Uruguay’s first National Water Plan.
- The inclusion of the ethical dimension of water management was the main contribution.
- Mini-publics like Deci Agua collaborate with the public debate.
- Processes of citizen participation can complement stakeholder participation forums.

Introduction

This article aims at describing and analysing the implementation of Deci Agua – the Citizen Deliberation on Water, and its contribution to the formulation of the National Water Plan (NWP) in Uruguay, while discussing this process through a set of quality criteria used to evaluate deliberative processes such as political impact and legitimacy. In the next paragraphs, the deliberative governance frames and the context of the process are introduced.

Deliberative public participation in environmental contexts

Over the past two decades, the concept of public participation and the associated concepts of public involvement, deliberation or dialogue have become common in the literature on natural resource management (Armitage et al., 2007; Wilmsen et al., 2008). Dialogue and substantive interaction between different actors are crucial in any of these contexts.

The concept of deliberative participation is related to that of deliberative democracy and describes a broad theoretical and practical movement whose goals are to foster citizen engagement, collaborative problem solving and the direct involvement of diverse audiences in decision-making (Chambers, 2003). Deliberative democracy theory and, in general, the literature on public participation in environmental contexts converge in stimulating deliberative processes. However, such theory is almost absent in the literature on natural resources, although there are some exceptions (Dietz et al., 2003; Parkin & Mitchell, 2005; Tuler & Webler, 2006; Bäckstrand et al., 2010). For example, Parkin & Mitchell (2005) observed that in the natural resources literature, public participation is understood primarily as a procedure to improve decision-making and the emphasis is placed in the results. Deliberative democracy theory, on the other hand, focuses on deliberation itself: public participation is conceived as an opportunity for public debate, personal reflection and the stimulation of informed public opinion (Parkin & Mitchell, 2005). The study by Bäckstrand et al. (2010) suggests that the deliberative turn in environmental policy is oriented towards the legitimacy and effectiveness of the products or results, rather than the democratic procedure. Hence, citizen or stakeholder deliberation is frequently promoted as an instrument to achieve policy outcomes and not as an end in itself.

On the other hand, the limits of involvement with respect to environmental decision-making are not precise, so the involvement of any citizen, any member of the ‘general public’, in the process of discussion and decision-making on complex problems could be justified. In recent decades, small deliberative forums (mini-forums or mini-publics) have been designed and developed as democratic innovations. These usually involve a limited number of lay citizens (to encourage genuine deliberation) who meet...
for a limited period of time to deliberate on a particular issue and propose certain recommendations (Fung, 2003; Goodin & Dryzek, 2009; Warren, 2009). Unlike public hearings, mini-publics allow for the analysis of all dimensions of the subject in question and provide an informed and reflective opinion, unaffected by partisan or biased views, or by previously ingrained perspectives or particular material interests, contemplating the concerns of the citizenry (Dryzek & Tucker, 2008).

One of the mini-public formats that has been developed for more than two decades is consensus conferences. They were originated in Denmark in 1987 by the Danish Board on Technology, as a mechanism for participatory evaluation of technologies involving a panel of non-involved citizens that broadly represent the interests of the general public (Joss, 1998). The central objectives of consensus conferences are, on the one hand, to give lay citizens the opportunity to influence important decisions that affect their lives, both through the conference itself and through the impact of the process on public debate. On the other hand, they help to overcome the limitations of expert knowledge by drawing on local knowledge and the civic responsibilities of citizens (Kluver, 1995; Andersen & Jaeger, 1999).

Most of the consensus conferences held following this ‘Danish model’ share a series of characteristics: a citizen panel of 12–15 people (not directly involved with the subject) goes through a learning process, in which they are informed about the topic in question and interact more or less directly with scientists and stakeholders. The process generally involves lectures and the study of various documents on the main aspects and controversies of the matter, as well as a time of deliberation among citizens, and sometimes between them and the actors involved (Zurita, 2006). With all this information and knowledge, the citizen panel prepares a series of questions that its members consider should be addressed and identifies a panel of experts (which sometimes also include stakeholders) to answer them at a public conference. Finally, the members of the citizen panel deliberate among themselves and present their conclusions in a final document or report, which is presented publicly at a press conference. Consensus conferences have been held in several countries, generally with adaptations (Porsborg et al., 2007; Dryzek & Tucker, 2008; Lázaro et al., 2013).

**Water management and participation processes in the formulation of the National Water Plan in Uruguay**

The need for a paradigm shift in water management, from one based on prediction and control to another one that is integrated and adaptive, has existed in scientific and political discourse for several years now (Pahl-Wostl et al., 2011). Many countries (including Uruguay) have introduced changes in their legislation to adopt a more integrated management approach, taking the basins as the unit for management and the participation of multiple stakeholders as a requirement (as promoted by the Dublin Principles of 1992) (Pahl-Wostl et al., 2011; Trimble et al., 2021). The general trend in water governance has been to move from a hierarchical model, led by the State under a sectoral paradigm, to a more decentralised, integrated and participatory approach (Pahl-Wostl et al., 2012; Hordijk et al., 2014; Özerol et al., 2018). The literature on water governance has largely focused on basin commissions as organisations that are integrated by government entities, private users and civil society, among others (Mancilla García & Bodin, 2019).

In Uruguay, a water governance reform began in 2004, when society approved, with 64.7% of the votes, a constitutional reform of article 47 by a referendum. That reform meant the inclusion of: the State control of drinking water supply (i.e. only State organisations are in charge of public utilities...
for water and sanitation); participation of users and civil society in water planning, management and control; access to drinking water and sanitation as fundamental human rights\(^1\); and the priority use of water for human consumption, among others. This referendum had been promoted by the National Commission for the Defence of Water and Life (CNDAV), a non-governmental organisation formed in 2002 in response to State initiatives to privatise water supply (Harris & Roa-García, 2013). In 2005, the National Water and Sanitation Authority (DINASA, now DINAGUA, for their names in Spanish) was created within the Ministry of Housing, Land Planning and Environment (MVOTMA, for its name in Spanish)\(^2\). In 2009, the National Water Policy (Law No. 18.610) was enacted, institutionalising the ‘sustainable, integrated and participatory’ management of water resources in the country. In accordance with the provisions of this policy, two types of multi-stakeholder advisory bodies were created (chaired by DINAGUA): the Regional Water Resources Councils and the Basin and Aquifer Commissions (as of 2020 there were 3 and 13 of these bodies in the whole country, respectively). They are integrated by representatives of government institutions, users and civil society, and sometimes involve the participation of the academic sector within the third group of actors.

As established by the National Water Policy, between 2011 and 2015 DINAGUA (with contributions from other government institutions) worked on a draft for the NWP, a technical-political document composed of programmes and projects for the planning and management of water in Uruguay. It has three main objectives: water for human use, water for sustainable development, and water and its associated risks. DINAGUA publicly presented the draft of the plan in July 2016, opening a process in which they would collect comments and contributions from various audiences, until December of that year. At that time (July 2016), DINAGUA’s authorities consulted the authors of this article (who were starting a university-funded project on knowledge co-production involving Basin Commissions) about the possibility of organising a public consultation to collect input from the general public for the NWP. The Citizen Deliberation on Water (Deci Agua) (which took place during the second semester of 2016) involved the design, adaptation and development of a consensus conference to provide citizens’ views on the NWP draft. Deci Agua’s proposal, amidst the discussions on the NWP, marked the need and the possibility of going beyond institutionalised formal participation bodies (in this case the Basin Commissions and the Regional Councils) to also include and appeal to the input from citizens, as well as public understanding of issues related to water management.

At the same time, during that period (until December), DINAGUA organised meetings with the Regional Water Resources Councils and the Basin Commissions, as well as some Open Meetings in different parts of the country, to receive input for the NWP draft. The NWP was passed by Executive Decree 205/017 on 31 July 2017.

**Methods**

The analysis was based on the organising team’s observations and records in the design and development of Deci Agua, whether published or unpublished materials, and the comments of various actors who participated in the process: the director of DINAGUA, members of the Advisory Group and the

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\(^1\) Uruguay was the first country in the world to recognise the human rights to drinking water and sanitation in its Constitution.

\(^2\) In 2020, this Ministry (MVOTMA) was divided into the Ministry of the Environment (where the Water Directorate is) and the Ministry of Housing and Land Planning.
Citizen Panel (registered in interviews, surveys or in the work sessions, as well as their contributions to the dissemination and communication platform). These interviews and surveys are used illustratively to complement other sources of information.

Deci Agua: a consensus conference adapted to the discussion on the NWP

Deci Agua was not the first adaptation of a consensus conference in Uruguay. Previously, two processes known as ‘Juicios Ciudadanos’ (citizens’ judgments) were developed, the first on the use of nuclear power and the second on large-scale mining (Lázaro et al., 2013). Both were organised by a team from the Universidad de la República with the support of the University Fund to contribute to the Public Understanding of Topics of General Interest of the Sectorial Commission for Scientific Research (CSIC-UDELAR). Deci Agua was the first mini-public of the consensus conference style with an explicit relationship to political decision-making after a request for collaboration made by the State (DINAGUA) to the University. Its objective was to generate a process of citizen deliberation on the NWP draft as input and contribution for the plan’s final layout.

Given that the five-month deadline set for the NWP deliberation process was short, but mandatory, the consensus conference model was adapted to prioritise the exchange with the Citizen Panel. To achieve this, the public conference was suppressed and the work of the participating citizens was extended to three full weekends. In addition, emphasis was placed on the preparation of an initial material that introduced and assessed water issues in a broader context, and contextualised the future NWP in relation to the particularities of water management in the country and its main challenges.

A communication strategy is essential when it comes to deliberation in a mini-public so that the process is not only visible, but also enriches the general public discussion and thus contributes to the more systemic component of deliberation (Dryzek & Tucker, 2008). In this case, the designed strategy aimed at: (a) communication on the deliberative process of the Citizen Panel, (b) communication and dissemination of the NWP draft itself, and (c) promoting and multiplying reflection on the topic of water management and use and on the NWP (work was done specifically with educational institutions). The strategy was based on the design and daily maintenance of a web platform (www.deciagua.uy) with all the information generated by the process, the use of social networks and the making of weekly press releases.

First stage

The recruitment of the Citizen Panel members. Both in Deci Agua and in the two previous consensus conferences, the recruitment mechanism was through broadcasting and open calls. In the case of Deci Agua, to optimise the participation of individuals from different social backgrounds and perspectives, a telephone interview was conducted with a subgroup of the candidates, in order to better understand their interests and inclinations to also consider these variables in the search for diversity.

A group of 15 citizens was selected to form the Panel, seeking gender balance (eight men and seven women) and diversity in age (ranging from 26 to 73 years old), places of residence (different regions of the country, including rural and urban areas), occupations (teachers, private and public sector workers, undergraduates and retirees) and motivations to participate (e.g. from those passionate about participation itself to those highly interested in the water subject).
Formation of the Advisory Group. The Advisory Group is a group of recognised specialists and people related to the subject matter to be discussed, but independent of the organisation, which watches over the information process that nurtures the deliberation of the Citizen Panel. The aim is to guarantee that the information process is balanced in relation to the different visions and positions, and that it collaborates with a plural and unbiased treatment of the information. The group should reflect the theme’s complexity, diversity of perspectives and discrepancies. The advisory group must also include favourable or critical views in relation to the main controversies or challenges of the subject itself (Zurita, 2006).

Deci Agua’s Advisory Group was composed of 24 experts from different disciplines and stakeholders from different sectors (governmental, non-governmental and private). The group included journalists, academics (in the areas of engineering, law, environmental sciences, anthropology and chemistry), organised groups of civil society, such as the CNDAV, people linked to the technical–political decision-making processes and the union sector, representatives of the agricultural and industrial sectors. They were invited specifically to advise (on an honorary basis) the organising team on the subject, endorse and collaborate in the process of preparing initial information documents for the Citizen Panel, and to identify the relevant actors who could be contacted to answer questions from the panel.

Preparation of the Working Document. The Working Document was prepared by the organising team and reviewed by the Advisory Group. This methodological strategy was implemented in two previous consensus conferences developed in Uruguay and represents an effort to contextualise the subject (Lázaro et al., 2013). It is a document in which the subject to be discussed is set, its dimensions are agreed upon (environmental, socio-cultural, economic, and political and ethical), and the state of the art in the country, the main controversies and challenges, and the technical–political directions are placed under discussion. The information provided to the citizens in the process must faithfully represent the diversity of existing visions around the subject and communicate the uncertainties and assumptions of specialised knowledge (Chilvers & Kearnes, 2019).

This Working Document went through a series of iterations. First, its draft version generated by the organising team was sent to each member of the Advisory Group for review. Afterwards, edits were made, identifying the contributions, suggestions and objections of each advisor, and sent again for their consideration, not only with the consultation regarding the edition proposal, but also in relation to the present disagreements and the controversial aspects that emerged throughout the process. One of the relevant aspects sought in the Working Document was to explicitly include the controversies expressed within the Advisory Group (its members worked independently, on an individual basis, but they could read the contributions made by others).

Once the organising team incorporated the two rounds of reviews of the Advisory Group, the Working Document was sent to the Citizen Panel for their reading and analysis, prior to the first work session. In addition to reviewing the document, the advisers were in charge of answering the queries that the Citizen Panel could have and of commenting on the NWP. The considerations of the members of the Advisory Group regarding the NWP would be shared with DINAGUA and the citizens. The document was also addressed and delivered to the media, and to the general public, through the voice of key actors, and more generally through the web.

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3 Available at: http://www.deciagua.uy/wp-content/uploads/2016/10/Deci-Agua_Documento-de-Trabajo-VF-261016.pdf.
Second stage

Work sessions and facilitation. The deliberative process of the Citizen Panel of Deci Agua took place during three weekends between October and November 2016. Participants analysed documents (Deci Agua working documents, the NWP, laws and regulations, among others) and began a process of consultation, analysis and identification of the issues that required further study and knowledge. The process was facilitated by the organising team.

As stated by Bächtiger et al. (2014), the discussion phase in a mini-public deliberation is the heart of the process. When deliberation is organised, and sometimes when it is institutionalised, some people assume the role of organisers, moderators or facilitators. It is claimed that the participatory process should be conducted independently, unbiased and impartially (Nelkin & Pollak, 1979), so that organisers and facilitators are not only independent but are also perceived as such (Rowe & Frewer, 2000). Facilitators should recognise power differences, and invite less powerful groups to participate in the discussions, trying to avoid the possible bias resulting from more dominant participants, who tend to be male, white and with higher education levels, since power relations in mini-publics or other deliberative processes usually reproduce those that occur in society at a more general level (Sanders, 1997).

Preparation of the Citizen Panel’s final report. During the last weekend of the three, the Citizen Panel focused on writing the final report, collectively and in subgroups, including their comments, considerations and recommendations for the NWP and water management in Uruguay.

They titled their report ‘Citizens of water: an ethical and social look at the National Water Plan’⁴. It is a 14-page document that begins with a statement on why they consider themselves ‘citizens of water’, concluding that ‘We came to the Panel as citizens, we later became Citizens of Water’. Then, they introduce the topic by describing the journey and what they consider to be their specific contribution to the NWP: the social and ethical perspective. The report continues in five sections or focal points.

1. Participation and citizen involvement

The Citizen Panel started from the diagnosis of some problems of the Basin Commissions that imply challenges, such as the lack of follow-up of the inclusion of the commissions’ work in decisions later made by DINAGUA, the lack of stability in the participating members and the low frequency of meetings. Afterwards, they made 18 proposals or suggestions to ‘establish and strengthen the functioning of the Basin Commissions and to promote citizen involvement by facilitating their commitment through the generation of mechanisms and channels that bring them closer to the areas of decision-making’.

2. Education and culture: educating for a water culture

Several measures are proposed to incorporate cultural aspects into water management, such as enhancing work with educational institutions from a citizen approach and generating public debates on specific topics that contribute to the ‘setting up of a water citizenship’.

⁴ Available at: http://www.deciagua.uy/wp-content/uploads/2016/12/Informe-Panel-Ciudadano-de-Deci-Agua.pdf.
3. Water quality

The Citizen Panel proposed, among other measures, more frequent quality monitoring with the participation of citizens, specifically in relation to the level of agrochemicals. They indicated the absence of the human health dimension in the NWP and proposed its incorporation on the basis of research in this regard.

4. Payment for water use

Based on the analysis of the user pays concept and implications, the Citizen Panel proposed to follow an Ethical Guide to set a differentiated pricing system for water use (based on some documents and criteria discussed in the deliberation process and after the idea of ‘transcending the economic perspective in order to introduce the ethical look into water management’). Based on the criteria of the New Water Culture Foundation\(^5\), the inclusion of the following dimensions was suggested: Water for Life (basic quotas guaranteed for free for the survival of humanity and living beings in general); Water Citizenship (second level of priority linked to domestic water and sanitation services, considering different levels of pay for use); Water Economy (water for economic and productive activities in a third level of priority) and Water Crime (water uses that can be considered non-legitimate for their impacts, such as fracking).

In its report, the Panel also suggested using the income obtained from the levy to strengthen the Basin Commissions, as well as for the protection and conservation of water resources, their control and monitoring, and for scientific research (e.g. by creating a fund to support research on these issues).

5. Controversial aspects

In this section, the citizens presented some claims that were not contemplated by the NWP but that emerged from various actors (mainly academic and social), such as the amendments to the Irrigation Law and the discussion on the different underlying development models in the country. In this regard, they proposed, among other things, adherence to the precautionary principle (e.g. O’Riordan & Jordan, 1995) and the development of discussion and deliberation processes on these issues, which should be as broad and diverse as possible (not limited to governmental spheres).

Third stage

Citizens presented their report at a public event at the Faculty of Social Sciences (UDELAR) on December 1st 2016. The director of DINAGUA and the Research Viceprovost of the University commented on the work and contributions of the Panel. They emphasised the quality of the work and the relevance of the process to the NWP and highlighted the novelty of a citizens’ deliberative process.

\(^5\) The Foundation is made up of researchers from Spain and Portugal who, since 2006, have formed a group to monitor the process of implementing the European Water Framework Directive through a Water Policy Observatory (OPPA, for its name in Spanish). The Working Paper raised the ethical dimension of water by suggesting some of the proposals that are handled as a guide.
to inform a National Plan in Uruguay. The Research Viceprovost thanked the Panel for its ‘generosity and courage’ and the director of DINAGUA for the ‘effort and dedication’. Citizens also received questions from the attending public.

Between December 2016 and March 2017, DINAGUA processed contributions to the NWP received from different areas and through different mechanisms. The final version of the Plan was presented on March 22nd, World Water Day. On July 31st 2017, the NWP was passed by a decree of the Executive Power (Decree 205/017).6

Impact of Deci Agua

The way in which the Deci Agua process was established (i.e. requested by the water regulatory body) made the incorporation of the Citizen Panel’s contributions into the NWP more promising than the previous consensus conferences, which were not requested by a governmental authority. Also, as DINAGUA’s final product was a document (a National Plan), it was feasible to assess Deci Agua’s contributions to it.

One of the fundamental pillars of water use, as identified in Deci Agua, is the ethical dimension. This is one of the main contributions of the Deci Agua process to the NWP. In its draft version, the NWP did not consider the ethical principle around water, which did emerge very strongly from the beginning in Deci Agua, not only conceptually but also on the basis of international discussions, from the analysis of UNESCO’s proposals, or the Water Ethics Network.7 Moreover, the Citizen Panel focused its contribution to the NWP on the ethical principle as a structuring approach. This contribution was framed within the ethical and social aspects, in relation to the rights, duties and responsibilities of citizens (Deci Agua, 2016a). In chapter six of the NWP on Water Uses and its Impacts, it is stated ‘in this regard, it is necessary to analyse the issue of water in its sociocultural, environmental and economic extents, to which the ethical aspect is added, incorporated in the discussions of the Citizen Panel as a complementary and cross-cutting approach that provides relevant concepts for the use of water’ (MVOTMA, 2017, p. 110). In addition, it refers to the role of ethics in the operational and conceptual provision of different perspectives to examine concepts, rights, duties, consequences or outcomes (Deci Agua, 2016b, 2017). Based on the Deci Agua process (including the Working Document itself) and other contributions, in that same chapter of the NWP, a series of principles are included, such as the principle of human dignity and the right to water, water as a common good, inter-generational justice, transparency and universal access to information, participation and citizen engagement, the role of ethics in defining priorities of use, taking into consideration the use of ‘water for life’, the use of ‘water for citizens’, the use of ‘water for the economy’ and the use of ‘water as a crime’ (MVOTMA, 2017).

The NWP projects linked to the Water for Human Use include, in the final version, the issue of human health. This was taken into account based on the concern of the Citizen Panel about the absence of a human health perspective and the non-existent role of the corresponding ministry in the draft version of the plan.

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6 Available at: http://www.mvotma.gub.uy/politica-nacional-de-aguas/plan-nacional-de-aguas.

7 For more information, see http://waterethics.org/the-water-ethics-charter/, queried on 20 April 2020.
Given these additions to the NWP, the impact of the Citizen Panel report is tangible and substantive. Moreover, as stated by the director of DINAGUA, its contributions meant a change in the conceptual basis, which was missing in the draft version of the plan:

‘[Deci Agua] generated a new vision of water, and introduced a more complex perspective on water: water as a human right, water as an economic good, water in terms of access, the criminal use of water, economic instruments for water management through the levy that is not new but is addressed in a novel way.’

The emphasis on the ethical guidance for the use and payment for water use was highlighted by other actors of Deci Agua, such as some members of the Advisory Group, who considered this as ‘the foundation of the NWP’.

Nevertheless, in some of the discussion meetings on the NWP during Basin Commissions, Regional Councils and Open Meetings organised by DINAGUA, academic and civil society sectors expressed concerns about the ‘authority’ and ‘hierarchy’ that the NWP will have, in relation to the articulation with other issues and plans in the country, and its ‘power in decision-making’. Some of these voices called for the NWP to not only provide guidance but also have regulatory elements and define binding aspects that commit the different actors and institutions. Furthermore, in an interview after the process with the director of DINAGUA, he pointed out that: ‘the NWP is a guide, a reference’ and acknowledged that ‘we do not have a traceability of how and when it is taken into account’ and that ‘the wide dissemination of the NWP is a way to go’.

Discussion: extent and challenges of the Deci Agua process

On Deci Agua’s political impact

The deliberative participation of citizens normally excluded from the decision-making process can contribute to a more comprehensive understanding and analysis of the issues, constituting valuable inputs for public debate. In what follows, the citizens’ main contributions in our case study are discussed.

The contribution of Deci Agua’s Citizen Panel was substantial and enriched the NWP (beyond its political impact). Taking the recommendations of the Citizen Panel report, its contents can be analysed from, at least, two interconnected points of view: (a) the framework and conceptual basis, and (b) the concrete proposals linked to water management improvement. It can be pointed out that the recommendations of the Citizen Panel contributed to improving the setting and conceptual theoretical framework of the NWP, incorporating the most contextual, social and ethical perspectives of water management (Freitelson, 2012; Groenfeldt & Schmidt, 2013). Some works have also highlighted in their reports, from citizen panels, the incorporation of aspects related to risks, uncertainties, political uses, ethical dilemmas or economic conditioning of scientific research and technological development, and aspects related to critical approaches such as of the Science Technology Society studies (Einsiedel & Eastlick, 2000; Secko et al., 2009; Lázaro et al., 2013).

The relevance of some concrete proposals of the Deci Agua Citizen Panel could also be evaluated, such as its recommendations to improve participation in the Basin Commissions. In particular, the
Citizen Panel proposed, for example, to generate spaces for citizen debate related to the Basin Commissions. This would broaden and enrich the debate at a systemic level, that is, starting from the articulation of the various deliberative dynamics (Dryzek, 2010; Mansbridge et al., 2012; Parkinson & Mansbridge, 2012) and would also prevent possible flaws in the processes of exclusive participation of those involved (Kahane et al., 2013). It has been argued that this type of public deliberation process for mini-publics can counteract the effects of reasoning framed by particular motivations (Calvert & Warren, 2014).

One of the most frequent concerns about participatory methods, in general, relates to their low impact on public policies, since they are often used to legitimise decisions or attempted consultations (Fiorino, 1990). This results in public scepticism and lack of confidence in the motivation of those who promote them.

The NWP includes a series of aspects of the Deci Agua process and particularly various proposals made by the Citizen Panel. Possibly the most notorious is the substantive inclusion of conceptual elements such as the ethical framework, not only as a conceptual framework, but also in its concrete proposals as the specific guide to consider the payment for water use, which includes the crime category for activities such as fracking. However, most concrete proposals aimed at improving the quality of public participation in water management were not incorporated.

The sceptical or even negative assessment of the impact of the process by several of the participating actors is not so much linked to the non-inclusion of proposals or recommendations mentioned by the Citizen Panel (or by other actors in the NWP discussion process), but rather mostly within the scope of the NWP itself (considered by those actors as doubtful or limited).

Moreover, in the discussion on the impact of deliberative processes, the consideration of the ‘obligation’ to consider them or not is at stake. In the specific case of a mini-public, it is quite evident that it is one more input, coming from new voices and from a process of articulation of visions and approaches, which should not be considered mandatory (Hendriks, 2005). In the case of the Basin Commissions, this is a current discussion in Uruguay. In several meetings of Regional Councils and Basin Commissions, as well as in Open Meetings, the need for a qualitative change in the advisory nature of Basin Commissions and the need for a binding character were raised from civil society. The arguments for this request refer to regulatory aspects that make participation sustainable. A recent study has investigated this aspect with actors from two Basin Commissions in Uruguay and found a more moderate tone in the claim that participation should be binding. There is a need for government institutions to more consistently adopt proposals arising from these participation bodies (Giordano et al., 2020).

Deliberation, both in mini-publics and in multi-stakeholder arrangements, to debate public affairs and to issue resolutions (such as the Basin Commissions), involves a particular communicative exchange. Those who participate have been selected for it or have some form of institutional authorisation, and their exchange must promote the expression of interests, arguments and preferences regarding the resolution of the problems being addressed. In general, the character of both deliberative processes is advisory, unlike the deliberation that occurs in parliamentary spheres or in State regulatory bodies in which those who participate have some type of electoral authorisation so that decision-making is binding (which later becomes compulsory) (Monsiváis Carrillo, 2014). However, if the inputs of the non-binding deliberative processes are not taken into account, the processes themselves deteriorate and participation languishes, deteriorating their democratic component. The State should explain its arguments to include or exclude the recommendations given by participants and ensure transparency in decision-making.
About the quality criteria of the deliberation

One of the key components of integrated water resource management is the involvement of local users in the conservation and administration of the resource. Hordijk et al. (2014) emphasises that the Basin Commissions must be platforms in which the divergences of visions and values can be debated and the different forms of knowledge can be integrated. Thus, an institutional arrangement that allows and strengthens the sharing of responsibilities and competences is required. In this sense, the type of participation that is promoted and the degree of shared responsibility that is stimulated from the methodologies used for management are also key. Giving particular attention to the quality criteria of a deliberative process, as well as its evaluation, is essential to optimise work in these multi-stakeholder areas.

In the process of discussing the NWP, various aspects of the functioning of the Basin Commissions emerged, which allow us to argue that some of these criteria have not been met. Although there is some diversity in the specific composition of the Basin Commissions of the country, and in the number of participants (e.g. from 17 members in Tacuarembó River to more than 50 in the Santa Lucía River – in both cases taking into consideration the representatives of the government, civil society and water users), some of the considerations that were made in various discussion instances (and that were contemplated in the proposals of the Citizen Panel) are related to aspects covered in this article:

1. The inclusion of contributions from the Basin Commissions is not clear in the NWP draft, being for some of the social actors a Plan that only has the technical perspective.
2. In some Basin Commissions, certain sectors are not represented, and they should be present, if inclusion of all relevant actors is expected.
3. The functioning of the Basin Commissions is also a reason for criticism due to lack of monitoring and accountability for their contributions, lack of stability in the participants (rotation of institutional representatives), low frequency of meetings and predominance of some voices (technical–political in some commissions).

In scenarios where those involved in a specific subject (stakeholders) are engaged in deliberative participation, such as the Basin Commissions, it is crucial to consider, as the quality markers of the process, the external inclusion (that all voices relevant to the treatment of issues are represented) and internal inclusion (that all participants have the same possibility of making contributions and being heard) through the figure of a facilitator, in the best of cases (as it happens in mini-publics) (Wittmer et al., 2006). In general, it is the government institution in charge that acts as a moderator of the dialogue in the meetings of these participatory bodies in Uruguay. Based on a review of several water management cases at the global level, the availability and involvement of skilled facilitators have been considered a precondition for successful engagement in water allocation (Doré et al., 2011; Susskind, 2013).

It is interesting to note that at the regional level, it has been suggested that despite developing a transition process from water governance to a more participatory model, there are challenges related to the inclusion of voices and power inequities (Hordijk et al., 2014; Van den Brandeler et al., 2014; Mancilla García & Bodin, 2019). For example, it is still found that most of the decisions are made outside these new decentralised multi-stakeholder bodies (Van den Brandeler et al., 2014). Water governance reforms (e.g. constitutional changes incorporating human rights to water access and banning privatisation of water services) were analysed in Latin America by Harris & Roa-García (2013), who argued that
there are multiple challenges for implementing these reforms in practice. In Uruguay, for example, this is the case of the constitutional mandate referring to ‘participation of users and civil society in all instances of water planning, management and control’ (one of the principles of the National Water Policy, N°18.610, Article 8), which social organisations keep demanding to this day.

Conclusions

Water management and governance in Uruguay, as it happens in other countries from the region, has been under transition towards a more integrated and participatory model, in which users and civil society organisations together with government members form management advisory arenas (such as the Basin Commissions). A mixed approach that combines stakeholder participation and lay citizens is novel in water governance and, as suggested in this article, it is desirable since it increases the scope of participation, deepens the legitimacy of decision-making and improves the public debate. It is from the work of the panel and its citizen gaze, for example, that there is a reconceptualisation of the NWP towards a perspective that includes ethics in water management.

Aligned with the evidence found in the literature, this study shows that mini-publics, such as consensus conferences and their adaptations like Deci Agua, can collaborate with the public debate on environmental issues. And they can do it, as Deci Agua shows, not only by providing original inputs (new visions, conceptual frameworks and the interconnection between different understandings), but also by generating ‘deliberative ferments’ for the entire system. A mini-public process in a deliberative system that carefully contemplates the dialogue and exchange of arguments and rationales could enhance the public understanding of controversies, or complex issues. Furthermore, they play a relevant role for democracies. Deci Agua introduced novel ‘problematising’ aspects, like the ethical guide for water use and management, exposed and articulated some of the main emerging controversies, which were shared through the diffusion of the internal debates, the mini-colloquium, and the exchange between the panelists and the advisory group (on topics such as the Irrigation Law, the use of agrochemicals and the scope of participation in basin commissions). It is in this sense that we refer to deliberative ferments.

Special attention must be paid to quality criteria and to the evaluation of any of the deliberative processes around a subject (reinforcing the legitimacy of the processes), as well as addressing the challenges that arise in perceiving their legitimacy. In the case discussed here, it is clear that Deci Agua’s perceived legitimacy was linked (and often confused) with the different possible levels of impact of its contributions (towards the NWP and from the NWP itself). The greatest challenge in this regard, both for the mini-public process and for the Basin Commissions, is the sincere commitment to work in these deliberative areas, which implies, in addition to taking care of quality criteria, paying attention to their proposals and demanding accountability for them. The short amount of time available for the entire Deci Agua process and the lack of early involvement threatened its legitimacy. This may reflect, among other issues, the incipient government stimulus to deliberative involvement and limited knowledge about its implications, as well as a prevalence of centralised decision-making. It should be noted that although the draft version of the NWP presented in mid-2016 by DINAGUA was the starting point for Deci Agua, for DINAGUA it was already an intermediate stage and draft result, which included a broad process of mostly technical exchanges.

The effort and scope of the design of the NWP can be eroded by the lack of definition and adjustments in its implementation and governance, which goes beyond the water authority and which
requires clear positions on certain issues with divergent interests, such as irrigation in the agricultural sector. Many questions remain unanswered regarding which principles and actors will order and give structure to the implementation of the NWP in those dimensions that threaten the priority of water for human use, as stated at the Constitution of the Republic.

Undoubtedly, the University must make its specialists related to water management available, not only through their specialised knowledge, but also to collaborate in the argumentation and reasoning in processes of public understanding which is indeed a key challenge. The ‘non-expert’ opinion of citizens in deliberative processes can bring up new points of view and enable the articulation of disciplinary contributions, knowledge and visions.

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Conflict of interest

None declared.

Data availability statement

All relevant data are included in the paper.

References

Andersen, I. E. & Jaeger, B. (1999). Scenario workshops and consensus conferences: towards more democratic decision-making. *Science and Public Policy* 26(5), 331–340.

Armitage, D., Berkes, F. & Doubleday, N. (2007). *Adaptive Co-Management: Collaboration, Learning and Multi-Level Governance*. University of British Columbia, Vancouver.

Bächtiger, A., Setälä, M. & Grönlund, K. (2014). Towards a new era of deliberative mini-publics. In: *Deliberative Mini-Publics. Involving Citizens in the Democratic Process*. Grönlund, K., Bächtiger, A. & Setälä, M. (eds). ECPR Press, Colchester.

Bäckstrand, K., Khan, J., Kronsell, A. & Lovbrand, E. (2010). Environmental politics after the deliberative turn. In *Environmental Politics and Deliberative Democracy: Examining the Promises of new Modes of Governance*. Bäckstrand, K., Kahn, J., Kronsell, A. & Lövbrand, E. (eds). Edward Elgar Publishing, Massachusetts.

Calvert, A. & Warren, M. (2014). Deliberative democracy and framing effects: why frames are a problem and how deliberative mini-publics might overcome them. In: *Deliberative Mini-Publics*. Grönlund, K., Bächtiger, A. & Setälä, M. (eds). ECPR Press, Colchester.
Chambers, S. (2003). Deliberative democratic theory. *Annual Reviews* 6, 307–326.

Chivers, J. & Kearnes, M. (2019). Remaking Participation in Science and Democracy. *Science, Technology and Human Values, I*, 1-34.

Deci Agua (2016a). *Ciudadanos del agua: Una mirada ética y social al Plan Nacional de Aguas (Water Citizens: An Ethical and Social Perspectives on the National Water Plan)*. Deci Agua.

Deci Agua (2016b). *Deliberación Ciudadana sobre el Agua. Documento de Trabajo. (Citizen Deliberation on Water. Working Paper)*. Deci Agua.

Deci Agua (2017). *Síntesis de aportes a la propuesta de Plan Nacional de Aguas (PNA) durante su etapa de discusión (agosto a diciembre de 2016). (Synthesis of the Contributions to the National Water Plan During its Discussion Phase) (August to December 2016)*. Deci Agua.

Dietz, T., Ostrom, E. & Stern, P. C. (2003). *The struggle to govern the commons. Science* 302, 1907–1912.

Doré, T., Makowski, D., Malézieux, E., Munier-Jolain, N. G., Tchamitchian, M. & Tittonell, P. (2011). Facing up to the paradigm of ecological intensification in agronomy: revisiting methods, concepts and knowledge. *European Journal of Agronomy* 34(4), 197–210.

Dryzek, J. S. (2010). *Foundations and Frontiers of Deliberative Governance*. Oxford University Press, Oxford.

Dryzek, J. S. & Tucker, A. (2008). Deliberative innovation to different effect: consensus conferences in Denmark, France, and the United States. *Public Administration Review* 68(5), 864–876.

Einsiedel, E. F. & Eastlick, D. L. (2000). Consensus conferences as deliberative democracy. *Science Communication* 21(4), 323–343.

Fiorino, D. (1990). Citizen participation and environmental risk: a survey of institutional mechanisms. *Science, Technology and Human Values* 15, 226–243.

Freitelson, E. (2012). What is water? A normative perspective. *Water Policy* 14, 52–64.

Fung, A. (2003). Survey article: recipes for public spheres: eight institutional design choices and their consequences. *Journal of Political Philosophy* 11(3), 338–367.

Giordano, G., Dias Tadeu, N. & Trimble, M. (2020). *Análisis de la gobernanza y aprendizajes de las crisis en las Cuencas de Laguna del Sauce (Maldonado) y Laguna del Cisne (Canelones), Uruguay. Informe Técnico en el marco del Proyecto GovernAgua (SGP-HW 056). (Analysis of governance and learnings from the crises at the Laguna del Sauce and Laguna del Cisne basins, Uruguay. Technical Report in the context of the GovernAgua Project). Instituto SARAS*.

Goodin, R. E. & Dryzek, J. S. (2009). Deliberative impacts: the macro-political uptake of mini-publics. *Politics and Society* 37(2), 219–244.

Groenfeldt, D. & Schmidt, J. (2013). *Ethics and water governance. Ecology and Society* 18(1), 14.

Harris, L. M. & Roa-García, M. C. (2013). Recent waves of water governance: constitutional reform and resistance to neoliberalization in Latin America (1990–2012). *Geoforum* 45(1), 20–30.

Hendriks, C. M. (2005). Consensus conference and planning cells: lay citizens deliberation. In *The Deliberative Democracy Handbook: Strategies for Effective Civic Engagement in the 21st Century*. Gastil, J. & Levine, P. (eds). Jossey-Bass, San Francisco.

Hordijk, M., Sara, L. M. & Sutherland, C. (2014). Resilience, transition or transformation? A comparative analysis of changing water governance systems in four southern cities. *Environment & Urbanization* 26(1), 130–146.

Joss, S. (1998). Danish consensus conferences as a model of participatory technology assessment: an impact study of consensus conferences on Danish Parliament and Danish public debate. *Science and Public Policy* 25(1), 2–22.

Kahane, D., Loptson, K., Herriman, J. & Hardy, M. (2013). Stakeholder and citizen roles in public deliberation. *Journal of Public Deliberation* 9(2), 2.

Kluever, L. (1995). Consensus conferences in the Danish Board of Technology. In *Public Participation in Science: The Role of Consensus Conferences in Europe*. Joss, S. & Durant, J. (eds). Science Museum, London.

Lázaro, M., Trimble, M., Umpierrez, A., Vasquez, A. & Pereira, G. (2013). *Juicios Ciudadanos en Uruguay: dos experiencias de participación pública deliberativa en ciencia y tecnología. Montevideo. (Consensus Conference in Uruguay: two Experiences of Deliberative Public Participation in Science and Technology)*. Universidad de la República.

Mancilla García, M. & Bodin, Ó. (2019). Participatory water basin councils in Peru and Brazil: expert discourses as means and barriers to inclusion. *Global Environmental Change* 55, 139–148.

Mansbridge, J., Bohman, J., Chambers, S., Christiano, T., Fung, A., Parkinson, J., Thompson, D. F. & Warren, M. (2012). A systemic approach to deliberative democracy. In: *Deliberative Systems: Deliberative Democracy at the Large Scale*, pp. 1–26 Mansbridge, J. & Parkinson, J. (eds). Cambridge University Press, Cambridge.
Monsiváis Carrillo, A. (2014). La deliberación como mecanismo de control democrático: precisiones analíticas y cuestiones emergentes (Deliberation as a mechanism of democratic control: analytical precisions and emerging issues). *Revista Mexicana de Sociología* 76(3), 471–499.

MVOTMA (2017). *Plan Nacional de Aguas*. MVOTMA.

Nelkin, D. & Pollak, M. (1979). Public participation in technology decisions. *Technology Review* 81, 55–64.

O’Riordan, T. & Jordan, A. (1995). The precautionary principle in contemporary environmental politics. *Environmental Values* 4, 191–212.

Özerol, G., Vinke-de Kruijf, J., Brisbois, M. C., Casiano Flores, C., Deekshit, P., Girard, C., Knieper, C., Mirnezami, J., Ortega-Reig, M., Ranjan, P., Schröder, N. J. S. & Schröter, B. (2018). Comparative studies of water governance: a systematic review. *Ecology and Society* 23(4), 24–34.

Pahl-Wostl, C., Jeffrey, P., Isendahl, I. & Brugnach, M. (2011). Maturing the new water management paradigm: progressing from aspiration to practice. *Water Resource Manage* 25, 837–856.

Pahl-Wostl, C., Lebel, L., Knieper, C. & Nikitina, E. (2012). From applying panaceas to mastering complexity: toward adaptive water governance in river basins. *Environmental Science & Policy* 23, 24–34.

Parkin, J. & Mitchell, R. E. (2005). Public participation as public debate: a deliberative turn in natural resource management. *Society and Natural Resources* 18, 529–540.

Parkinson, J. & Mansbridge, J. (Eds.). (2012). *Deliberative Systems: Deliberative Democracy at the Large Scale*. Cambridge University Press, Cambridge.

Porsborg, A., Lassen, J. & Sandoe, P. (2007). Democracy at its best? The consensus conference in a cross-national perspective. *Journal of Agricultural and Environmental Ethics* 20, 13–35.

Rowe, G. & Frewer, L. (2000). Public participation methods: a framework for evaluation. *Science, Technology and Human Values* 25(1), 3–29.

Sanders, L. (1997). Against deliberation. *Political Theory* 25, 347–376.

Secko, D. M., Preto, N., Niemeyer, S. & Burgess, M. M. (2009). Informed consent in biobank research: a deliberative approach to the debate. *Social Science and Medicine* 68(4), 781–789.

Susskind, L. (2013). Water and democracy: new roles for civil society in water governance. *International Journal of Water Resources Development* 29(4), 666–677.

Trimble, M., Jacobi, P., Olivier, T., Pascual, M., Zurbriggen, C., Garrido, L. & Mazzeo, N. (2021). Reconfiguring water governance for resilient social-ecological systems in South America. In: *Water Resilience: Management and Governance in Times of Change*. Baird, J. & Plummer, R. (eds). Springer, Cham.

Tuler, S. & Webler, T. (2006). Introduction: recent research in public participation: a focus on learning. *Human Ecology Review* 13(2), 148–149.

Van den Brandeler, F., Hordijk, M., Von Schönfeid, K. & Sydenstricker-Neto, J. (2014). Decentralization, participation and deliberation in water governance: a case study of the implications for Guarulhos, Brazil. *Environment and Urbanization* 26(2), 489–504.

Warren, M. E. (2009). Governance-driven democratization. *Critical Policy Studies* 3(1), 3–13.

Wilmesen, C., Elmendorf, W., Fisher, L., Ross, J., Sararthy, B. & Wells, G. (2008). *Partnerships for Empowerment: Participatory Research for Community-Based Natural Resource Management*. Earthscan, London.

Wittmer, H., Rauschmayer, F. & Klauer, B. (2006). How to select instruments for the resolution of environmental conflicts? *Land Use Policy* 23, 1–9.

Zurita, L. (2006). Consensus conference method in environmental issues: relevance and strength. *Land Use Policy* 23, 18–25.

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