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Articles

Limits to intersectoral articulation, decentralization, and participation in the Chilean rural drinking water policy

Límites a la articulación, descentralización y participación en el agua potable rural chilena

Claudio Pareja-Pineda¹, ORCID: <https://orcid.org/0000-0001-6441-7217>

¹Centro de Estudios del Desarrollo Regional y las Políticas Públicas (CEDER), Universidad de Los Lagos, Los Lagos Region, Chile, cparejapineda@gmail.com

Corresponding author: Claudio Pareja-Pineda, cparejapineda@gmail.com

Abstract

Chile has managed to deliver safe drinking water widely in rural contexts through a co-production scheme. This form of operation works for more than 60 years and delivers water to more than 10 % of the population. However, the literature reports heterogeneity in the results in each territory. In this context, the country is implementing new legislation that institutionalizes this form of provision, generating new demands in the

State. Given this, the article analyzes whether the law advances in three aspects of the integrated management of rural drinking water. Based on a content analysis of the new law and its regulations, it concludes that there are advances in participation, intersectoral articulation and decentralization, but possible conflicts may emerge within the administration of the State, and in the link between it and organizations. Further, it concludes that it is important for rural drinking water policy to have greater coordination with other sectors and also to pay attention to current trends in the public administration literature regarding state management that advocate greater articulation, decentralization and participation.

Keywords: Integration, coproduction, community-led management.

Resumen

Chile ha logrado entregar agua potable de manera amplia y segura en contextos rurales a través de un esquema de coproducción. Esta forma de operación ha funcionado por más de 60 años y entrega agua a más del 10 % de la población. Sin embargo, la literatura reporta heterogeneidad en los resultados de cada territorio. En tal contexto, se está implementando una nueva legislación que institucionaliza dicha forma de provisión generando nuevas demandas en el Estado. Ante esto, el artículo analiza si la ley avanza en tres aspectos de la gestión integrada del agua potable rural. A partir de un análisis de contenido de la nueva ley y su reglamentación se concluye que existen avances en participación, articulación intersectorial y descentralización, pero se proyectan posibles conflictos al interior de la administración del Estado y en la vinculación de

éste con las organizaciones. Se concluye que es importante para la política pública de agua potable rural mayor coordinación con otros sectores y también mayor atención a las tendencias actuales en administración pública respecto de la gestión estatal que abogan por una mayor articulación, descentralización y participación.

Palabras clave: intersectorialidad, agua potable, APR, OCSAS, coproducción.

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Introduction

The Chilean case is inserted in a global context of co-production arrangements for rural drinking water. Such arrangements are present in different latitudes. For example, in other Latin American countries since the 60s (Dobbin & Sarathy, 2015; Domínguez-Serrano & Castillo-Pérez, 2018; Goodwin, 2019; Romano, Nelson-Nuñez, & LaVanchy, 2021) and in Asia (Hutchings, 2018). Usually in these arrangements, the State generates the initial investment and provides constant support, while community organizations are mandate to take care of the daily operations. In this scenario, it is important to study the States' work and how it promotes an adequate management of this vital element.

In Chile, the provision of drinking water in rural, peri-urban, and small-town territories is based on a joint venture where the State and community organizations play a key role. This form of delivery was born in the 60s from a state plan (DOH, 2005; Gobierno de Chile, 1964). The organizations contribute through their work in the management and maintenance of the collection and distribution systems for drinking water, while the State contributes with the installation of this infrastructure and continuous support. In addition, the communities, together with taking part in the organizations, contribute by paying a fee that seeks to recover at least the operating costs (Fuster & Donoso, 2018; Pareja-Pineda, Fuentes, & Arriagada, 2022; Villarroel, 2012). In 2018, more than 1 800 organizations distributed water to more than 1 700 000 inhabitants and investment in the sector reached 150 million dollars at the time (MOP, 2018).

Although there has been continuity of this program since the 60s, until 2017 there was no law for it. After an eight-years process, this way of service delivery has been institutionalized by enacting Law 20,998 (Hevia, 2017; BCN, 2017). The law changed how this program was administered, and crucial to our analysis, institutionalized some principles of integrated water management. Although the law was enacted in February 2017, it only came into force in November 2020 because an associated regulation had not been approved. Afterwards, the implementation of the law has been postponed by the COVID pandemic, estimating its full application only by 2025 (BCN, 2022).

The literature has found a series of challenges that arise during the development of this program. This article seeks to contribute by analyzing

whether these challenges have been addressed in the new legislation. Furthermore, the difficulties we elaborate on in the following paragraphs justify our decision to concentrate on the dimensions of articulation, decentralization, and participation. The literature concerning issues associated with the Chilean rural drinking water program can be categorized into three distinct groups. Firstly, there are those that focus on organizations. Secondly, there are those that center on the role of the State, specifically in the context of rural drinking water. Finally, the third group delves into the consequences that State-related problems, whether in water management or management in general, have on rural drinking water.

Although in general organizations tend to have satisfactory results, the organizations-focused research identifies as difficulties a perceived low fee-collection and a lack of management capacity in community organizations (Fuster & Donoso, 2018). A 40-organization review concluded on the importance of experience and having an adequate size for good service delivery (Molinos-Senante, Muñoz, & Chamorro, 2019). Another review, building on experts' opinion, agreed with the critical look regarding the management capacity, the low fees, and the lack of greater education among those who lead the organizations (Nelson-Nuñez, Walters, & Charpentier, 2019). However, the lack of systematic information (DIPRES, 2007; DIPRES, 2015) makes it difficult to accurately assess how generalizable are these opinions.

Research on rural drinking water programs with a focus on the State has consistently highlighted two key issues: normative ambiguity and the promotion of non-community forms of relationships. In a comprehensive

review of organizations affiliated with the Chilean rural drinking water program, it was concluded that these organizations operate within a substantive-economy framework, where the concept of exchange transcends mere commercial transactions, fostering strong solidarity relationships (Nicolas-Artero, 2016). Furthermore, it was argued that the State has actively sought to undermine these community-oriented tendencies in favor of promoting a more commercial, private enterprise-driven approach among these organizations (Nicolas-Artero, 2016). Drawing from a case study in northern Chile, it has been observed that the intervention of rural drinking water programs can sometimes lead to internal conflicts within local communities or between these communities and the State when services are not delivered correctly (Cantillana-Barañados, 2018). Additionally, concerns have been raised about the lack of coherence in State institutions when imposing requirements on these organizations. This has led to situations where one entity supervises constructions carried out by another and penalizes the organization for any failures in facility infrastructure (Pareja-Pineda *et al.*, 2022). The resulting regulatory ambiguity has also been identified as a contributing factor to the existence of various forms of access to drinking water services in rural areas (Nicolas-Artero, Blanco, Bopp, & Carrasco, 2022).

And third, the literature on the more general State role in water management and its effects on rural drinking water organizations, the literature shows centralism and a lack of articulation between uses and institutions due to the prominence of the market as a water management mechanism. A study in southern Chile concluded that water scarcity suffered by community organizations is explained, at least sometimes, by

the lack of coordination between institutions when making various investments or by the lack of coordination between local, regional, and national levels (Oppliger, Höhl, & Fragkou, 2019). In peri-urban areas of the national capital, it was also identified that the promotion, by the State, of upper classes' real estate interests, as well as a lack of planning in water use, generate archipelagos of services where the community organizations of the lower classes are those who receive the worst service or simply do not receive it (Lukas, Fragkou, & Vásquez, 2020).

It is useful to comment very briefly on Chilean water uses and the associated conflicts. According to State diagnoses, 74 % of water consumption corresponds to agriculture, followed by 14 % in industry (including mining and electricity generation), 11% in urban drinking water and finally 1 % in rural drinking water (CNID, 2016). This consumption must be complemented with the evapotranspirative demands of forestry and agriculture, as well as the passing consumption made for electricity generation and salmon farming (CNID, 2016). In this context, conflicts over water have increased in Chile (Castro *et al.*, 2010; CNID, 2016). These conflicts emerge around the overexploitation of water as result of urban expansion, mining and agriculture in the north of the country, while in the center and south they do so over revers intervention for hydroelectric generation (Bauer, 2015). In general, the water-management approach in the form of a water market has been unable to provide an effective solution to the problems that later become conflicts (Bauer, 2015; Castro *et al.*, 2010). All this deepens in a context of prolonged drought (CNID, 2016; Garreaud *et al.*, 2020; EMOL, 2020).

State problems can be summarized as a lack of integrated management. Specifically, there is a lack of greater citizen participation, intersectoral articulation within the State, and decentralization. This article advances in the analysis of the new legislation with the aim of concluding whether it incorporates these integrated management aspects, the intensity with which it does, and the consequences that the incorporated or missing aspects could have on the delivery of this vital service. Likewise, it aims to contribute not only from the water management literature, but also from public administration, generating cross-learning between one and the other.

To answer whether the legislation incorporates these aspects, as well as the possible consequences, we conducted a content analysis of Law 20,998 and its regulations. This analysis focuses on three aspects of integrated management: participation, articulation, and decentralization, which are defined and operationalized in the following section. In this way, for each objective proposed by the studied policy, the article identified whether progress is made in each of the three areas.

The results show new instances of participation, articulation, and decentralization the law generates. However, there are also possible conflicts with regional organizations and governments due to timid progress. Likewise, the lack of articulation and the focus on decentralization according to administrative boundaries can also generate problems in the face of increasingly scarcity.

The article is organized as follows. Next, participation, articulation and decentralization are defined for our context, this from the literature on water management and public administration. Subsequently, the

methodology is presented. The results continue, which are divided into three subsections. Then, a discussion of these results is presented. And finally, the last section concludes.

The participation, articulation, and decentralization dimensions of integrated management

This research decided to focus on three key components that arise from the concept of Integrated Water Resources Management (IWRM). Which we understand as "a process that promotes the coordinated management and development of water, land and related resources, in order to maximize the resulting social and economic well-being in an equitable manner, without compromising the sustainability of ecosystems" (GWP, 2023). Further, the research focus on a particular use: drinking water in rural sectors.

IWRM has been widely promoted and debated within the water sector, although it has also been subject to strong criticism (Grigg, 2008; Kauffer & Mejia, 2020; Varis, Enckell, & Keskinen, 2014). Among the criticisms are the opinions about its vagueness or technical focus (Grigg, 2014). Also, the little consideration to context (Varis *et al.*, 2014), which would translate into implementation problems (Lukat, Schoderer, & Salvador, 2022). In this last respect, it is argued that international schemes such as IWRM reinforce already-existing power relations, leaving local communities' opinions, ways of life and worldviews relegated (Hommes *et al.*, 2020). Even in the face of criticism, IWRM has managed to position itself internationally as a reference idea (Bilalova *et al.*, 2023)

and it is understood, at least, as a useful sensitivity to take into account (Swatuk & Qader, 2023). With the above considerations in mind, we use this concept as a sufficiently complex starting point to observe the possible consequences of the public policy on water management we wish to analyze. Next, we detail this complexity from the three key dimensions of interest.

The first relevant dimension is participation. Although IWRM is a polysemic concept, it always includes the participation of all the involved actors (Grigg, 2008). Here we make explicit this involves all people using water in one way or another, so the relationship of IWRM with "participation" is direct. In recent years several participatory initiatives have been implemented in Latin America with the aim of giving promoting citizens' influence in water management (Ochoa-Valer, 2022). The public-administration literature also shows us that States increasingly promote participatory processes for public policies (Díaz, 2017). From this literature, we understand participation as "the process through which citizens, who do not hold public positions or functions, seek to share to some degree the decisions on matters that affect them with government actors and influence them" (Díaz, 2017, p. 343).

Díaz continues emphasizing that "participation" involves a series of nuances about the form and substance of a participatory instance (Díaz, 2017). We can argue that there are two interrelated moments in any participatory instance: the participatory act and the consequences of this act. The participatory moment and its subsequent consequences in State management coincide, respectively, with what Baiocchi and Ganuza (2014) call the two faces of participation: the one of communication and

the one of empowerment. The first face or moment has to do with who attends, how inclusive participation is, and how democratic decision-making is, which has also been called the "extension" of participation (Díaz, 2017, p. 361).

The second face of participation, the one of empowerment, has to do with the practical consequences, namely how the instance "connects deliberative forums with government action" (Baiocchi and Ganuza, 2014, p. 37). In this sense, the authors continue, the first relevant point is to what extent those participating can decide the rules of their involvement, and the second what is this participation channel predominance for the administration, in the sense of being the only place of contact between the State and citizens. The third point is what is the scope and importance of the discussed aspects. Finally, a fourth point is what is the concrete citizens' influence on the issues discussed. The last three points have also been called the "intensity of participation" and "the consequences of participation" as defined by Díaz (2017, pp. 361-362).

Having defined the first aspect of IWRM relevant to our analysis, we identify intersectoral articulation as the second one. Following Grigg (2008), to deliver IWRM, coordination between the different uses of water, their corresponding sectors of public policy and the different units of government must be achieved. Lanna and Dorfman (1993) refer to this aspect as sectoral-uses and inter-institutional management, while Kauffer and Mejia (2020) speak of institutional coordination. For their part, Varis *et al.* (2014) call this aspect, the horizontal dimension of IWRM. It is important to mention that, when talking of sectors' coordination, IWRM also includes private actors, however, this is not our focus. The idea of

integrating the diverse water uses, such as drinking water or agricultural; their corresponding policy sectors, e.g., health and agriculture; and the various government units involved, say the Ministry of Health and the Ministry of Agriculture, takes us back to the literature of public administration to further specify this aspect.

On articulation Brugué (2010) indicates that, to give a response according to the complexity of the problems, different departments must coordinate and discuss between themselves. In reviewing the experiences of intersectoriality appearing since the 2000s in Latin America, Cunill (2014) discusses how the beginning of multidimensionality and integrality perspective in the understanding of social problems has led to the implementation of intersectoriality from the State. Both authors argue that a necessary first step towards these new ways of managing public policies is the articulation between different departments; articulation where the parties communicate, coordinate and/or collaborate (Brugué, 2010; Cunill, 2014). Keeping this in mind, we understand articulation in this research as collaborative relationships between government entities belonging to different sectors or agencies to jointly address a particular public and problem.

It is important to note that there can be distinct types of articulation, depending on its focus and intensity. Regarding the focus, or object, to be articulated, Cunill (2014) name three possibilities. First, articulation during the creation or planning of a policy. Second, during its execution or administration. In other words, during the practices, the exchange of information and the responsibility of policy administration. And third, the articulation in the structure, that is, the creation of supra

or intersectoral organizational formats. In turn, each of these three foci can be categorized into lower or higher intensity. Less intensity would be basic mechanisms and forms of coordination. While higher intensity would be complex ways reflected by structural changes in processes and organizations (Cunill, 2014).

Finally, for an effective IWRM, the third relevant dimension is the coordination of multiple organizational and geographical levels (Grigg, 2008). In other words, we refer to the vertical dimension of the IWRM (Varis *et al.*, 2014). This brings us directly to the concept of decentralization (Brugué, 2010), emphasizing the geographical scale of application of a public policy (Cunill, 2014). On this vein, a policy may be the responsibility of either the national, regional, or local government (Falleti, 2014), or even of an intermediate entity, such as the "Health Care Regions" in Brazil (Galilea-Ocón & Letelier-Saavedra, 2013), or the "Local Education Services" in Chile (Sanfuentes & Garretón, 2019). Responsibility may lie in the areas of resources, management and/or political definitions. In other words, there can be fiscal, administrative, or political decentralization (Falleti, 2014), respectively. In short, we understand decentralization as a process that "transfer responsibilities, resources or authority from higher to lower levels of government" (Falleti, 2014, p. 320).

With this theoretical review, in addition to precisely defining the three dimensions that interest us for the analysis, we sought to pay attention to the relationship of IWRM with the literature on public administration. In this sense, we have advanced in this direction by considering the three concepts: participation, articulation, and

decentralization in particular terms from water management and, at the same time, in general terms from public administration. A similar exercise has been carried out to discuss the integrative effort in water management as a result of the advances health policies have had in this regard (Varis *et al.*, 2014). Now, we turn to detail the methodology of this research.

Materials and methods

From a deductive perspective, this article performs a content analysis (Bryman, 2012) of Law 20.998 (BCN, 2017) and its associated regulations (BCN, 2020). The article seeks to detail and analyze the characteristics and instances where "articulation", "decentralization" and "participation" appear in the legislation.

This research has the hypothesis that the new legislation, although it responds to some heartfelt organizations' aspirations (Hevia, 2017; Pareja & FENAPRU, 2018), fails to address difficulties associated with water as a complex element, and it does not incorporate intense innovations in State management.

This research followed three steps to answer the question that motivates it. First, the objectives of the policy itself were identified, this to analyze the policy within its own scope and not from theory-driven objectives. To find these objectives, we reviewed the policy and, based on what was expressly indicated by it, we identified the purposes it pursued. This brought procedure created a first organization of the information with categories created for each identified objective.

Second, we identified the legislation's articles where the three concepts appear. This is the main task associated with the research question and corresponds to finding the instances that would be reflecting either inter-institutional articulation, decentralization or participation as defined in the theoretical introduction. As an intermediate step, each concept was operationalized as follows:

- There is an instance of **articulation** when the executing entity of the policy must inform or coordinate its work with a different state entity to achieve the declared purposes. This entity may be an administrative body or elected authorities.
- There is an instance of **decentralization** when the public policy hands over to some subnational office or authority an informing, coordinating or decision-making role.
- Finally, the instances of **participation** correspond to spaces of information, coordination, or decision-making in which those who belong to the community organizations can attend.

This generated a second organization of the information through categories created by each of these concepts.

Third, once we identified where each concept appears, we sought to detail it according to the relevant subaspects as presented in the theoretical introduction. In this way, it is possible to give complexity to each concept and to analyze the possible effects of each of them in sufficient depth. Specifically, we detailed each concept as follows:

- For articulation, we sought to find which public-policy stage refers to: design, administration, or organizational structure. In addition,

it was identified whether the articulation was of low or high intensity.

- For decentralization, instances were categorized as involving one or more of the following three policy domains: administrative, financial, or political (Falleti, 2014, pp. 320-321).
- Finally, for participation, we detailed the communicational side: who can participate and the ease of doing so. Further, we comment on the empowerment side: how salience is the participation instance, the impact those who participate have and the possibilities to define for themselves the rules of participation.

AtlasTi was used to carried out the analysis to facilitate the identification by allowing to encode the studied texts. Figure 1 shows the distinct categories and subcategories with which the information was organized. In the following sections we use "art." to indicate an article of the law and "reg. art." for an article of its regulation.

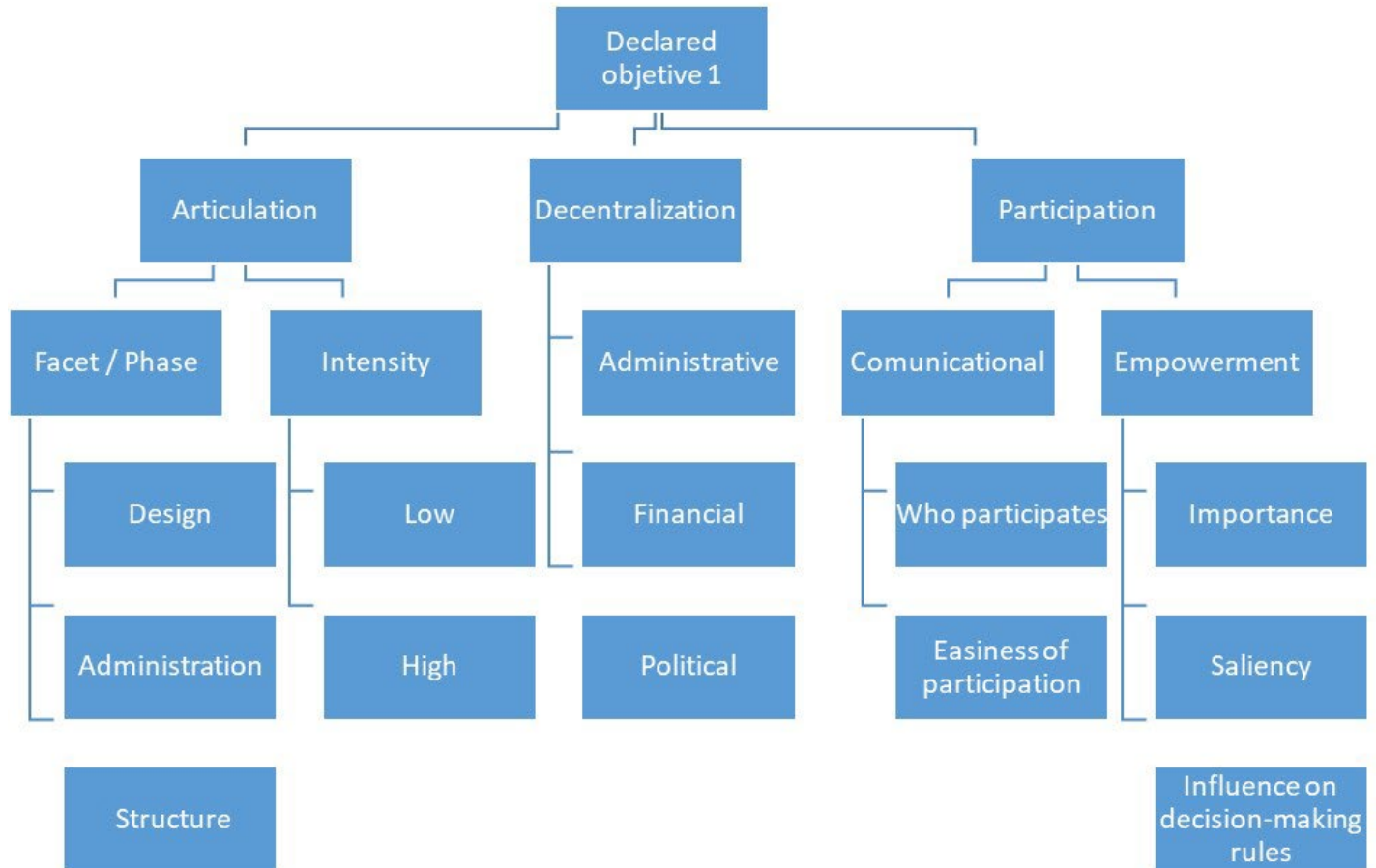


Figure 1. Summary of categories used in the analysis for each objective analyzed in the policy.

Results

Overview of Chile's rural drinking water policy

The methodology indicated that the first thing was to analyze which were the objectives the policy itself declared to pursue. The policy is defined explicitly as that of "investment, technical and financial assistance, community planning, supervision and promotion for the organization of the operators directors of rural water and sanitation services" (art. 65). However, after completely reviewing the documents, it can be concluded that among the stated objectives, the two most discussed in the law and the regulation correspond to technical assistance and investment. To these must be added the unstated objective of regulating the functioning of organizations, which takes most of the law. The other objectives are discussed in general terms as "the functions", without presenting further details. Taking this into account, this section is divided into three parts. This first subsection presents the results in general terms which includes changes that affect all objectives or that affect non-detailed objectives, reserving the next subsection for the results associated with the technical assistance objective. Subsequently, the third subsection presents the results for the investment goal.

As a general view, it is important to note the law increases the importance of rural drinking water within the State and considers regional decentralization. Specifically, first it creates a Subdirectorate of Rural Sanitary Services (art. 72), hereinafter "Subdirectorate", administratively elevating the previously *program* to the level of Subdirectorate (Hevia, 2017). Further, it creates a Regional Subdirectorate in each region (art.

72). In the same vein, supervision is carried out by the regional offices of two complementary entities: the Health Authority and the Sanitary Services Superintendence (art. 85). As it will be detailed below, regions also have an explicit role regarding technical assistance and investment.

Regarding coordination with other State entities, one-way exchanges of information are declared from various ministries to the Subdirectorate for the policy formulation (art. 65), for supervision (art. 87) and for tariffs setting (art. 58). The regulation is somewhat more specific on articulation for supervision, indicating that supervisory entities must coordinate with each other to share information (reg. art. 123), and explaining the necessary coordination in the case of service extension into urban areas (reg. art. 26). For technical assistance and investment, additional information relationships are prescribed with various ministries, municipalities, and regional governments, as detailed in the following subsections.

Now, to finish this overview, regarding participation, there are two aspects that restrict it. One is the tariff-setting process which no longer each organization does autonomously, but passes to the Sanitary Services Superintendence (art. 57). The organizations, if they want to influence in the process, must make a presentation based on specific technical background for the Superintendence to consider (reg. art. 70). The second aspect is that organizations must apply for a license to operate (art. 20), which they can lose in case of sustained malfunction (art. 18, art. 30, art. 35). It is worth mentioning that this requirement did not exist before the law.

Progress and limits within technical assistance

The policy operationalizes the objective of technical assistance through the design and implementation of a "training program for technical, organizational and other skills" (Article 66). The program scope is detailed in the regulation indicating that the topics include: "community and association management, ... administration and management, ... and legislation" (reg. art. 102). Thus, to analyze the opportunities for participation, articulation, and decentralization within the objective of technical assistance, the training program will be analyzed.

The training program is created at the national level by the Sub-Directorate (art. 66, reg. art. 101), approved by the National Advisory Council (art. 66, reg. art. 101) and then implemented at the regional level by the Regional Sub-Directorates (art. 72). Although the program is created at the national level, the regulations and the law stipulate that the Regional Sub-Directorates, in coordination with their Regional Advisory Councils, must propose contents to be considered in the national plan (art. 68, reg. art. 102). How the training budget will be defined is not detailed in either the law or the regulations.

In the process of creating the plan there are spaces for decentralization, participation, and articulation. To observe these spaces, it is necessary to dwell on the Advisory Councils' attributions and composition. Various representatives of the State and organizations participate in the Advisory Councils, whether National or Regional. In the National there are eight representatives of different ministries, plus one from the municipalities, and nine from the community organizations. In

the Regional Councils there are eight of the respective regional ministerial secretariats, plus one from the municipalities and up to six from the organizations (art. 68). The eight ministries involved are: the Ministry of Public Works (where the policy resides), the Ministry of Finance, the Ministry of Economy, Development and Tourism, the Ministry of Health, the Ministry of Housing and Urbanism, the Ministry of Social Development, the Ministry of the Environment and the Ministry of the Interior and Public Security.

In this way, the Advisory Councils emerge as a simultaneous space of participation and articulation. In addition, the regional deployment of these Councils makes them a space for decentralization. It is worth noting that the law considers that, if any public entity wishes to promote or assist in rural drinking water, it must inform the Advisory Council (art. 81).

Representation of community organizations in the Advisory Councils is preferably through their existing regional associations or national federations, although the election system has several peculiarities according to articles 80 and 83 of the regulations. First, the election is made on a list format, which can be submitted by provincial, regional, or national associations, or by non-affiliated organizations that manage to coordinate in more than one region for this submission. Second, non-member organizations should always be included in an association's list, and the amount to be included will depend on the representation percentage of the association's organizations at the national level. Third, although the election is made by majority vote through the D'Hondt method, care is taken that there is diversity in the size of systems,

ensuring a greater number of representatives for the smallest and ensuring a number of representatives for non-associated organizations.

Although it is not explicit presented as a space for decentralization either in the law or in the regulations, the execution of the training program can be considered as such. In this regard, the law and regulations indicate that the State can contract training with duly registered private individuals (art. 73, reg. art. 119). It is relevant to highlight this aspect because, currently, the training can only be executed by the sanitary concessionaires that resulted from the privatization of the National Service of Sanitary Works (SENDOS in Spanish) during the 90s. In fact, the law takes care of repealing this restriction in a transitory article (art. trans. 9), allowing the entry of more private actors. The corresponding third-party registry is administered according to standard guidelines at the national level of the Ministry of Public Works (reg. art. 119).

Progress and limits within the investment goal

After detailing an overview of the policy and the particular objective of technical assistance, we analyze in this subsection the second objective most discussed in the texts: that of investment. The investment component of the policy refers to "investment to promote, create and install new rural health services" (art. 77) and is materialized in the projects selected to obtain state financing through the Subdirectorate's annual investment plan. Therefore, to analyze this component, we focus on the process to select projects.

The selection process of investment projects begins with the request for financing made by the interested organization. This request is made through a pre-established form submitted to the Regional Subdirectorate (reg. art. 121) using a rather simple format that only involves information already held by each organization. Then, the respective Regional Subdirectorate analyze the application admissibility against previously established regional eligibility criteria (reg. art. 121). If the application is declared admissible, it will be evaluated according to national guidelines of the Ministry of Social Development (art. 80). Finally, each regional government will decide which projects will be selected or prioritized based on the available budget, the list of eligible projects and their respective evaluation (art. 80, reg. art. 121).

To complement the above description of how the decision to invest is made, it is important to present two considerations about the level of the regional governments' involvement. First, the regional eligibility criteria are proposed by the Regional Subdirectorate to the respective Regional Government for approval (art. 79). Second, the total funds available for this policy are given by the national budget, while the amount for each region is allocated by a national polynomial created for these purposes. According to article 120 of the regulation, this polynomial has a component that privileges regions where there is more concentration of population and in greater poverty, both aspects related to new systems. In addition, the polynomial has a second component that privileges regions where there are a greater number of systems and connections, aspects related to already installed systems and their maintenance. Both visions, privileging new systems and privileging old systems, are weighed

equally. Finally, the polynomial considers the number of projects, associated with new or old systems, evaluated favorably in the region.

To finish analyzing the investment component, we show the policy considers the possibility of other state departments wishing to invest in rural drinking water. In this sense, in addition to the regular channel just detailed, the law and the regulation explain what to do if other state entities wish to finance projects associated with rural drinking water. For this it indicates that the entities must comply with the above procedure (art. 80). In this sense, the Subdirectorate functions as a one-stop shop (art. 81, reg. art. 117), covering the initiatives of municipalities, regional governments, or other ministerial departments, which must seek prior technical approval from the Subdirectorate to execute their projects.

Discussion

This research sought to analyze whether the new policy for rural drinking water in Chile incorporated aspects of integrated management, focusing on three areas: citizen participation, inter-institutional articulation, and decentralization. As discussed below, it is possible that, although some problems are solved, key situations are not addressed, remaining as possible sources of conflict. Thus, the results sign certain possibilities of participation, articulation and decentralization are. However, they correspond to low-intensity efforts that are not equally reflected in all the declared objectives. The changes identified in the different areas are summarized in Table 1.

Table 1. Summary of findings.

Aspect of the policy	Articulation	Decentralization	Participation
General framework	Low intensity joint planning It is not observed in the execution or in the structure	Administrative: regional teams are strengthened	Empowerment: Rules of participation regarding tariffs can no longer be defined autonomously and objecting to the state proposal is complex
Supervisory objective	Low intensity joint planning between supervisory entities Possibilities for low-intensity joint execution are visualized only in serious cases of non-compliance It is not observed in the structure.	Administrative: Regional teams execute	Empowerment: Organizations do not decide participation rules regarding supervision and licenses to operate, and the latter are revocable
Technical Assistance Objective: Training Plan Creation	Low intensity planning and structural changes (creation of advisory councils) It is not observed in the execution	Administrative: regional office suggests contents and could execute with locally contracted third parties	Communication: Rules of participation do not pose entry barriers Empowerment: Participants do not decide participation rules nor are existing organizations privileged, but created instance is the only formal channel

Aspect of the policy	Articulation	Decentralization	Participation
Investment Objective: Investment Plan Creation	Low intensity execution, because to prioritize projects a standardized method that applies all ministries is used It is not observed in planning or structural changes.	Politics: regional government receives new powers, but subject to rules established at the national level	Communication: Rules of participation do not pose entry barriers Empowerment: Participants do not decide participation rules and instance created is not the only formal channel to obtain financial resources

Regarding coordination between state entities, the documents do not allow us to conclude that state management will be improved or that water scarcity will be addressed. On the former, the improvements brought by coordination may not emerge to reduce management times or share relevant information because it would be of a "low integration" type. Specifically, there is only an exchange of information regarding a common public between the audit bodies. In this sense, there is no coordination where joint evaluation and monitoring of these organizations is made. In the same way, the approval of the training program takes place in a rather technical entity, the Advisory Council, where there are no shared responsibilities among the state departments nor is the current organizational structures altered (Cunill, 2014, pp. 21-25).

On the latter, the lack of coordination to address water scarcity, this policy may clash with others. As discussed in the introduction, the

literature on Chile indicates that agricultural, forestry and mining consumption are crucial, but both ministries —Agriculture that includes Forestry and Mining— are not formally involved in the rural drinking water policy. The fact that the Ministry of the Environment is present may help in this direction, but it seems insufficient.

Regarding decentralization, progress made may not sufficiently address the greater power desires subnational spaces may have. On the one hand, the policy is delegating only to the regional level leaving aside the local level. On the other hand, this process would be only of an "administrative" type with some "political" shades. Administrative means that regions can define aspects in the implementation of the policy, such as the eligibility criteria for investment projects, and are also in charge of monitoring. Also, when the Subdirectorate is created, the regional teams are strengthened because they will have larger teams.

The politics aspect of decentralization is observed in that regional governments can decide which projects will be financed, but with one caveat. Although it is explicit that regional governments will decide on the projects, they must follow the previously agreed criteria with the respective Regional Undersecretariat and according to the evaluation that other entities carry out, losing autonomy. Note that there is no "fiscal" decentralization since the regional available resources continue to be decided according to national criteria. Further it is possible to anticipate a tension between national and regional governments if the demand for investments exceed what the central government is willing to deliver. The heterogeneity between regions with respect to the interest in decentralization (Delamaza, Díaz, Montecinos, & Pareja, 2022) makes it

necessary to further study whether this tension emerges or not, and under what conditions.

From a different point-of-view a possible problem with decentralization emerges because this process respects the political-administrative limits, even if these are not consistent with the natural or drinking water. This is relevant because considering that watercourses do not necessarily coincide with political divisions, it is possible that the proposed regional decentralization will not be useful in every context. Further, in some localities water delivery is also made beyond a particular region or municipality (Pareja-Pineda, 2023). The policy does not incorporate these complexities.

Continuing with the third area of integrated management that interests us, participation, the law advances in the field of communication, by establishing few barriers to entry, but also with some qualifications. On the positive side, it is easy for organizations to participate in the Advisory Councils and to channel their investment requirements through the Subdirectorate. On the negative side, issues such as the selection of who will carry out the training or greater involvement in the Subdirectorate functioning are beyond the organizations' possibilities. Likewise, concrete involvement with the training plan is mediated by its implementation, and this aspect is not addressed in the regulations. Something similar happens regarding investments, organizations only participate as applicants, without any involvement in, for example, the process to define the evaluation criteria for new projects.

Finally, on the empowerment of community organizations through participation instances, we can see that the new law increases it, but

leaves several gaps. In general terms, the autonomy of organizations is strongly diminished by having to stick to an externally calculated tariff and to a licensing process where they have no greater opinion. In this sense, participation is diminished because seen as a public policy, in crucial aspects of execution, such as the money to be collected and the requirements to operate, people no longer have an opinion.

On the other hand, the way those Council participants are elected indicates that organizations have no major say in the second-order conversation about how the Council should be organized. An example of this is the fact that a representative of non-associated systems should always be incorporated. On this vein, in the Brazilian general water management, processes of "practical authority" where new entities manage to have the capacities to solve problems and the recognition to influence were relevant (Abers & Keck, 2013). It will remain for future study to see whether the Advisory Councils achieve this practical authority and extend their influence beyond what has been proposed so far by the regulations.

The Advisory Councils do achieve the goal of making transparent the points of contact between the State and the organizations regarding what type of training will be carried out. Also, the Subdirectorate turn into a single point of contact to request investments for rural drinking water purposes. However, due to water scarcity, participation in the training plan or even in the investment plan may not be enough. In this sense, water management can become very contentious in some territories (Panez-Pinto, Faúndez-Vergara, & Mansilla-Quiñones, 2017), overflowing these two plans.

In the light of this discussion, it is possible to conclude that rural health services policy is moving in the right direction by promoting and institutionalizing a state administration with greater articulation, decentralization, and citizen participation. However, progress is superficial. Since this analysis was based on the revision of the policy design, in the future it will be relevant to analyze whether there are processes within the State that manage, through implementation, to overcome the identified problematic aspects.

Conclusions

This research studied the content of the Chilean rural drinking water policy to contribute to the integrated management of this particular water-use in other latitudes where the service is delivered through similar co-production schemes. It was possible to discuss that progress has been made in three areas: citizen participation, intersectoral articulation between state institutions and decentralization. However, we also identified critical points that States must keep in mind to avoid conflicts or to improve their management.

The approach used in this research fruitful took antecedents from the integrated water management and rural drinking water literatures together with perspectives from public administration. In this sense, a key recommendation for studies on rural drinking water policies is to be able to reconcile the views associated with the materiality that this policy touches -water- and the general ones from public administration. With

the above, in this article we manage to incorporate diverse learnings for the identification of advances and future critical knots.

Specifically for Chile, it is possible to argue that the State's ability to listen to organizations and subnational levels will be crucial. We hope that the demands for greater participation and decentralization that surely will emerge once the law is fully implemented will be seen as a way to ensure long-term success of the policy. Given the importance of this service, the State and organizations have managed to deliver this vital element for more than 60 years and were able to reach agreements during the conception and discussion of Law 20,998. It is expected that the new conditions will only deepen this constructive relationship and that the organizations' capacity to influence will increase.

It is possible to conclude that the success of rural drinking water policies with citizen participation does not only depend on local organizations and their internal way of functioning for water delivery. In this sense, not only the difficulties faced by organizations matter, but it is also important to analyze how the State is generating or not new forms of work that are in line with the changes of recent years in public administration in general, and with changes in water management in particular.

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