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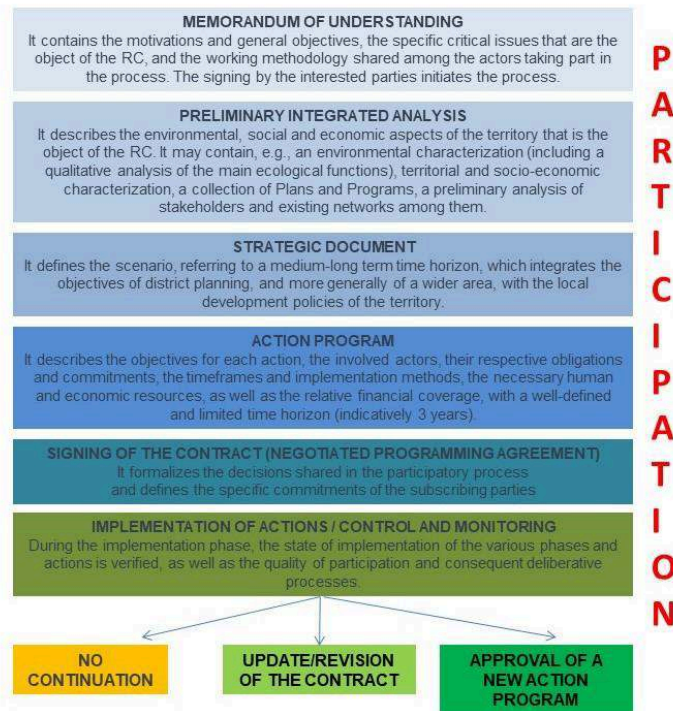
## Introduction

- 1 The paper explores the intricate relationship between water governance and participation, examining River Contracts (RCs) in the Friuli Venezia Giulia region of Northeast Italy as a means of investigating how participatory approaches can be more effectively applied to renew water body management.
- 2 Since the early 2000s, EU authorities have acknowledged the relevance of participation in water resources management, recognising that delegating the formulation of territorial and environmental policies to top-down mechanisms prevents stakeholders from developing a sense of collective responsibility, thereby undermining policy effectiveness (Bulkeley and Mol, 2003; Carr *et al.*, 2012; European Commission, 2001; Jordan, 1999; Newig and Fritsch, 2009). The Water Framework Directive is regarded as “one of the most potentially ground-breaking pieces of EU environmental legislation to date” (Carter and Howe, 2006, p. 217), representing a key pillar of the EU’s strategy for water management. One of its objectives was to establish a new European paradigm for water governance by adopting a bottom-up approach and emphasising inclusive decision-making processes in river basin governance (European Commission, 2003).
- 3 In line with this trajectory, RCs began to be disseminated across various European countries from the 2000s onwards, including Belgium (Scaduto, 2016; Rosillon, 2015), following their initial conceptualisation in France during the 1980s. In Italy, they have

been implemented since 2001 and were formally recognised in national environmental law in 2015. RCs in Italy are conceived as voluntary agreements among stakeholders for the management of water bodies, jointly developed by territorial actors through a series of stages (fig. 1): sharing and co-creation of knowledge; formulation of a long-term vision for the water body; and development of concrete Action Programs intended for short-term implementation. The parties adhering to the Contract commit to executing the envisaged actions by formally ratifying an Agreement (Brusarosco and Visentin, 2023). Participation is not a discrete stage within this pathway but rather a transversal approach that should enable the sharing of objectives, commitments, and responsibilities among stakeholders, and should not be regarded as a mere bureaucratic exercise (National RCs Board, Ministry of the Environment and ISPRA, 2015).

- 4 The direct objectives of RCs relate to environmental protection, mitigation and prevention of hydrogeological risk, ecosystem restoration, and local development based on waterscape enhancement. RCs should therefore be considered “not only as sectoral tools for water resource protection and management, but also as catalysts of a new culture of water” (Scaduto, 2016, p. 109).
- 5 This indirect objective of RCs is strongly linked to their implementation as a process rather than a mere juxtaposition of projects, and to the effective adoption of inclusive participatory mechanisms (Brusarosco and Visentin, 2023; Venturini and Visentin, 2024) that transcend the often rhetorical, ambiguous, and quantitative deployment of the term “participation” (Cooke and Kothari, 2001), thereby building a sense of shared responsibility in caring for the territory (Tronto, 2013).
- 6 Through ongoing action-research focused on RCs in Friuli Venezia Giulia, we are observing that participation is not a static concept but can evolve in both quantity and quality over time, following new trajectories. Considering participation diachronically enables understanding of how to steer and support a transition, allowing these new forms of governance to be more effective in placing water at the centre and disseminating a new water culture, thereby contributing to broader societal transformation.

Figure 1. Stages of the RC process, as codified in 2015 in the document “Basic definitions and qualitative requirements of River Contracts”.



Source: Translated from Brusarosco and Visentin (2023, p. 74).

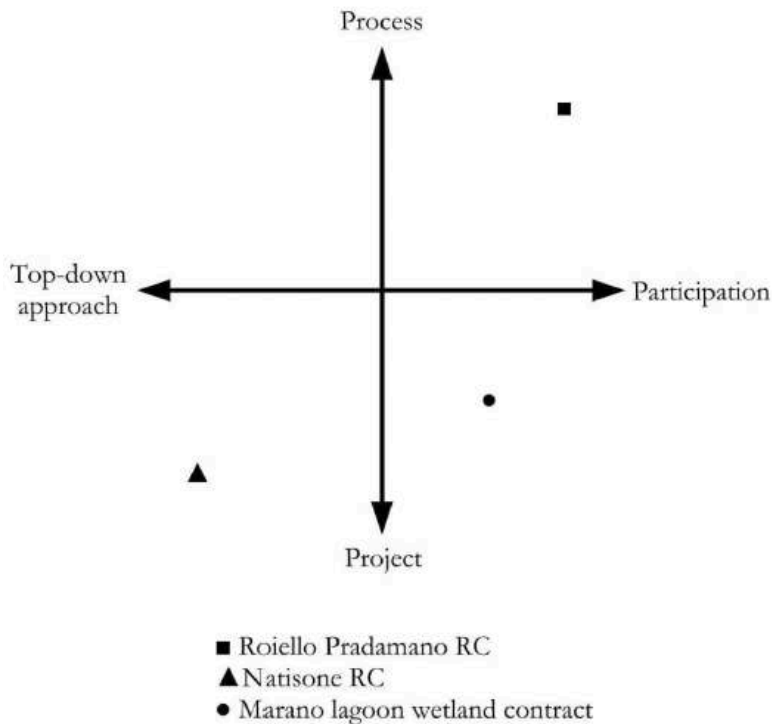
## Literature review

- 7 Parallel to the growing recognition of the importance of participation in water policies and regulations, there has been increasing scholarly attention to this theme across multiple disciplines. Critical scholarship has examined the often-rhetorical deployment of participatory approaches in environmental governance (Cooke and Kothari, 2001; Cornwall, 2008). Research has explored the challenges and opportunities of public participation in river basin management (Mostert, 2003; Warner, 2006), particularly in the context of implementing the EU Water Framework Directive (Kaika, 2003; Moss, 2004). Political ecology perspectives have contributed critical analyses of power relations, scalar politics, water justice, and the social and emotional production of waterscapes (Linton and Budds, 2014; Sultana, 2011, 2018; Swyngedouw, 2004; Zwarteveen and Boelens, 2014).
- 8 Adaptive governance and social learning frameworks have emphasised the processual nature of participation and the co-production of knowledge amongst diverse stakeholders (Pahl-Wostl *et al.*, 2007; Jacobi and De Souza, 2021). Complementing these perspectives, scholars have drawn on concepts of care (Tronto, 2013) to interrogate how participatory processes can foster collective responsibility and contribute to more equitable and sustainable water governance practises.
- 9 Carr *et al.*'s (2012) comprehensive review of participation evaluation in water resource management highlighted three approaches – process, intermediary outcome, and resource management evaluation – noting that whilst process evaluation dominates

scholarship, intermediary outcome evaluation better captures the tangible and intangible achievements of participatory processes and their contribution to improved water governance.

- 10 Although participatory water governance has received substantial theoretical attention, scholarly focus on RCs as specific participatory instruments has only recently emerged in Italian academic discourse, particularly in human geography<sup>1</sup>. The majority of contributions on this topic originate from the fields of architecture and urban planning. While critically examining issues of participation and governance, they predominantly describe and analyse specific cases of RCs (Calace *et al.*, 2023; Caruso, 2020; Cialdea and Cacucci, 2017; Cialdea and Pompei, 2021; Galassi *et al.*, 2020; Pisano and Lingua, 2021; Rossi, 2022; Taccone, 2019), often considering them in terms of projects (Altamore and De Leo, 2023; Caruso *et al.*, 2020; Cialdea and Pompei, 2018) rather than ongoing processes.
- 11 Regarding grey literature, the primary contribution related to participation in RC processes emanates from the National Observatory of River Contracts<sup>2</sup>. Between 2020 and 2023, it published four documents intended as operative guides for the development of RCs. The first document was specifically aimed at providing suitable tools and methods to promote and manage stakeholder involvement and participation in the processes (Bastiani *et al.*, 2020).
- 12 Within geographical literature, Petino (2024) has investigated the role of RCs in facilitating the conservation, valorisation, and transmission of cultural heritage. Albanese (2024) has highlighted a possible role for geography in the study of RCs, drawing on the conceptual categories of place, territory, and territorialisation. Other geographical works have adopted the lens of political ecology and water justice to critically examine RCs and their limitations as governance tools, investigating their conflict/consensus dynamics (Di Quarto, 2020), highlighting how RCs may reinforce existing power imbalances and marginalise local communities' interests whilst depoliticising environmental issues (Di Quarto and Venturini, 2025), and analysing their possible role as examples of grassroots mobilisation for the care of waterscapes (Brusarosco, 2025).
- 13 However, the primary reference for the present work is that of Venturini and Visentin (2024). Focusing on three case studies of RCs in Friuli Venezia Giulia, they examined whether RCs contribute to building a community-based "fluvial" sense of place. They synthesised their findings in a scheme (fig. 2) which positions RCs according to two variables: the adoption of a top-down or participatory approach, and their implementation as a territorial management project or as an actual participatory process. Furthermore, they proposed taking into account two additional variables – space and time – as "important aspects to consider and deserving of further investigation" (Venturini and Visentin, 2024, pp. 10-11). Responding to this invitation from the Authors, this work aims to investigate specifically the role of time in the evolution of Friuli Venezia Giulia RCs, in relation to the evolution of participation.

Figure 2. Scheme for the RC analysis.



Source: Venturini and Visentin, 2024, p. 11.

## Methodology

- 14 The investigation conducted by Venturini and Visentin (2024, p. 4) took place between late 2019 and 2021, during an embryonic stage in the development of RCs in Friuli Venezia Giulia. They employed an ethnographic approach, drawing upon primary and secondary sources of data pertaining to the three RCs in the region that were at a more advanced stage at that time.
- 15 This initial research enabled the scholars to initiate dialogue with both representatives of RCs and the regional authorities responsible for promoting RC processes<sup>3</sup>. Consequently, since late 2021, the research group at the University of Udine has been officially commissioned by the Friuli Venezia Giulia Autonomous Region to undertake an action-research project aimed at coordinating the Regional River Contracts Board, providing support to existing and emerging RCs, identifying critical issues and needs in order to offer training and technical advice, and organising awareness-raising and communication activities to disseminate information about the tool (Brusarosco, 2024).
- 16 The role of researchers documented in the literature has predominantly concerned collaboration in specific phases or the facilitation of participatory activities within individual RCs. In contrast, our engagement has operated at a supra-local scale, addressing different territories and actors transversally to support and guide them in understanding the potential and limitations of the instrument. We have deliberately chosen to maintain an external position in relation to the Contracts, refraining from intervening in the organisation of activities (with the exception of collaboration in

informational and awareness-raising events), in the direct facilitation of RC processes, and in the elaboration of contents, and not formally subscribing to any RC. This *super partes* position has enabled us to establish relationships of trust and proximity with diverse stakeholders – representatives of the regional authority, municipalities, reclamation consortia, and associations – based on clarity regarding our role, thus contributing to building a collaborative, informal, and non-conflictual dialogue climate with and amongst stakeholders (Carr *et al.*, 2012).

- 17 Furthermore, our objective as researchers was not to promote the tool and formal participation within it uncritically. Rather, we sought to convey new paradigms of human-water relationships derived from water studies scholarship, drawing on both political ecology and humanistic geography perspectives. This involved recognising rivers as hybrids between nature and culture, placing “water at the centre” as a challenge to anthropocentrism, and moving beyond top-down approaches to water governance towards frameworks based on co-governance and stewardship (Visentin, 2024). Simultaneously, our position has afforded us the opportunity to directly observe the development and temporal evolution of RCs with markedly different characteristics, both developing the conceptual frameworks further and reflecting on our interventions to refine them, following reflexive methodologies in action-research (Gregory *et al.*, 2009).
- 18 To verify claims linking observed improvements to our interventions, we triangulated multiple qualitative data sources: participant observation, informal conversations, shadowing, and document analysis. This approach aligns with Carr *et al.*'s (2012) emphasis on the importance of evaluating participatory methods not only through process indicators but also by paying attention to intermediary outcomes “that may not have been the original or ultimate aim from a participation program, project or process” (Carr *et al.*, 2012, p. 6).

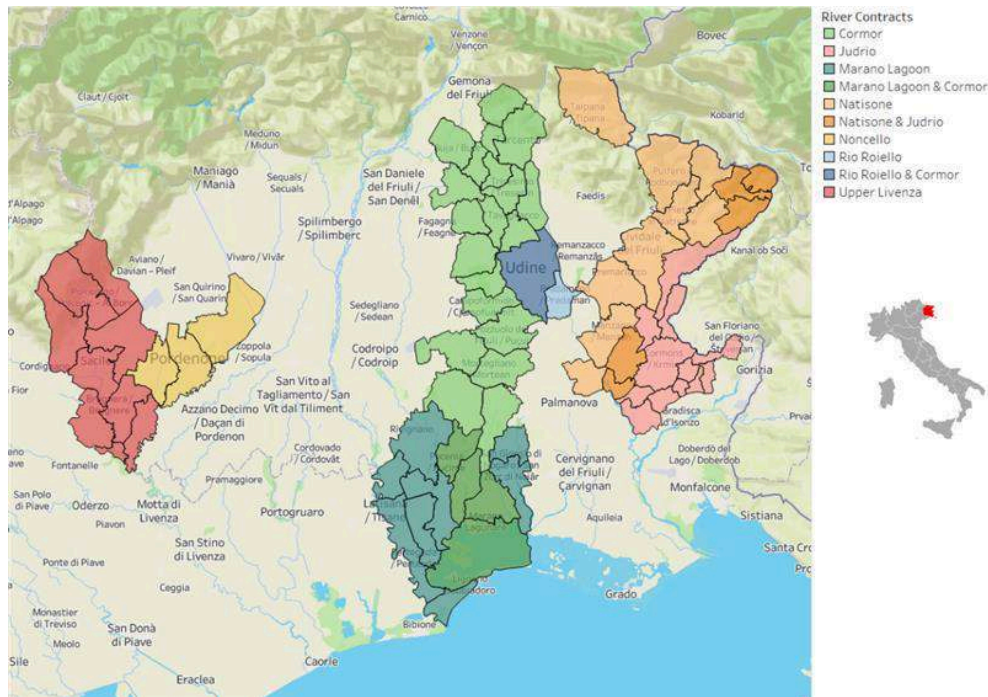
## Context

- 19 RCs were first introduced in Friuli Venezia Giulia with the Regional Law No. 11 of April 29, 2015. Afterward, with the Resolution No. 1448 of July 28, 2016, the Region adhered to the “River Contracts National Charter”<sup>4</sup>, sharing its principles and contents and committing to disseminate it, and adopted the “Definitions and Basic Quality Requirements of River Contracts”<sup>5</sup> document as a methodological and guiding reference.
- 20 In practice, a first experience had already been launched two years before the enactment of the law, for the Natisone River. The idea to develop a RC for this water body was proposed by the Associazione Parco del Natisone (Natisone Park Association), principally with the aim of establishing a cross-border nature park between Italy and Slovenia (Venturini and Visentin, 2024, pp. 7-8). The memorandum of understanding (MoU) – which officially initiates the process according to regional legislation – was signed in February 2017.
- 21 From the enactment of the regional law to the end of 2021, five additional RCs were launched through the signing of MoUs: for the Rio Roiello (June 2017), the Cormor River (May 2019), the Marano Lagoon (September 2020), the Judrio River (September 2020), and the Upper Livenza River (December 2021) (Brusarosco and Visentin, 2023).

- 22 At this stage, the RC tool began to diffuse at the regional level. The launched pathways, however, developed autonomously, as there was a lack of opportunities for the exchange of experiences and networking. The regional authority played a limited role, essentially confining itself to supporting spontaneously emerging processes. Despite civil society's important role in promoting RCs, participation remained limited in both quantity and quality, especially in terms of accountability, legitimacy, and power (Carr *et al.*, 2012, p. 5).
- 23 Except in a few cases, the number of stakeholders involved, apart from municipalities and the promoting associations, remained limited, as did citizen engagement and awareness of the ongoing processes. It must be highlighted that widespread discourse on participation in Italy only began recently, lagging significantly behind other countries. Consequently, a habit of citizen participation is lacking, and institutions remain wary of participatory practices. In the most favourable cases, institutions still tend to interpret participatory practices as merely information sharing or consultation exercises, rather than fuller knowledge and power sharing in decision-making. When misused, participation serves to legitimise pre-determined institutional choices, thereby becoming a vehicle for institutions to reinforce their power (Banini and Picone, 2018). Moreover, at this early stage of RC introduction, many municipal governments were joining the process without fully comprehending it, motivated more by political expediency than genuine conviction. They tended to consider "RCs as just a water management project, and not as a territorial pact where the river is the subject – and not the object – of the process" (Venturini and Visentin, 2024, p. 10).
- 24 The action-research implemented since early 2022 has addressed these critical issues through several activities: four meetings of the Regional RCs Board; the launch of a Thematic Community (TC) on Friuli Venezia Giulia RCs, a community of practice conceived as a training and networking initiative engaging representatives from various components of the Contracts for the formulation of proposals to be presented during Regional Board meetings; the continuous monitoring of ongoing processes and the provision of support regarding specific issues (e.g., methodological guidance on document development, structuring of educational programmes); support for stakeholders interested in initiating new processes; and the organisation of and participation in communication and dissemination activities.
- 25 The TC and the tailored guidance provided to stakeholders aimed to improve knowledge and deeper understanding of the RC tool as a process, encompassing both its strengths and weaknesses (Brusarosco, 2025). Training also addressed the meaning, value, and modalities of participation, not through theoretical instruction, but through practical example, employing participatory methods in the training itself, such as the world café approach. Furthermore, the TC has provided networking opportunities for RC representatives, fostering the exchange of experiences, knowledge sharing, and the co-creation of common proposals and requests addressed to regional authorities (Brusarosco, 2024, 2025). Communication and dissemination activities were aimed to raise awareness amongst citizens, focusing not only on RCs but also on broader water issues, coherently with our goal to render RCs effective as "catalysts of a new culture of water" and to convey new paradigms of human-water relationships.
- 26 This has resulted in the tool attracting increasing interest at the regional level. By the end of 2025, five RCs have reached signature and are in the action implementation stage, including the Noncello RC, officially launched in November 2023. For the Judrio

RC, the signature of the final agreement is scheduled for spring-summer 2026. More significantly, in recent months, new actors (as an eco-museum and a natural park authority) and territories have begun engaging with the tool: in October 2024, a MoU for the Isonzo RC was signed, and at least three additional processes are expected to be officially launched in the coming months, for the Torre, Ledra, and Resia rivers.

Figure 3. Analysed RCs in Friuli Venezia Giulia.

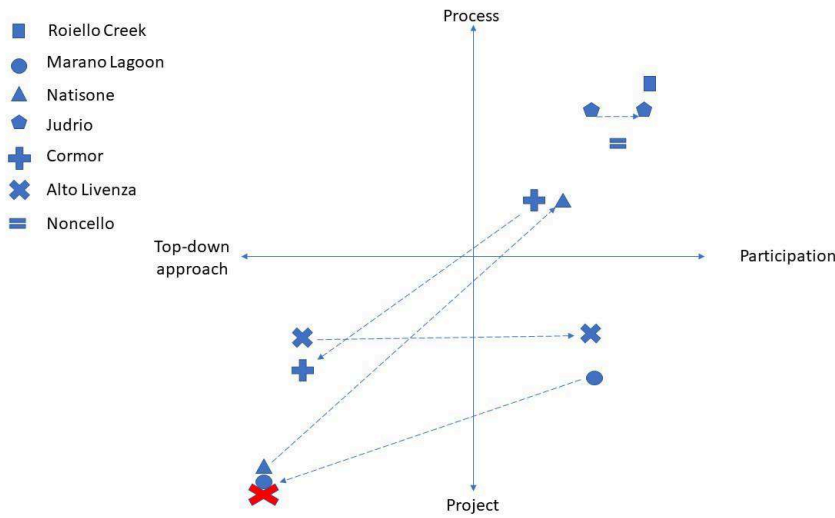


Source: Pietro Liberi, University of Udine, developed with Tableau based on Mapbox.

## Case studies analysis

- 27 Applying the analytical scheme proposed by Venturini and Visentin (2024) to the current situation of Friuli Venezia Giulia RCs, we can investigate the evolution of processes in terms of participation and the conceptualisation of the tool as process rather than project (fig. 4). Table 1 presents a comparison of the main characteristics of the RCs considered in the analysis.

Figure 4. RCs in Friuli Venezia Giulia analysis.



Source: Elaboration of the Author.

Table 1. Main characteristics of the RCs analysed: A comparative overview.

RC	Signature MoU/Signature Agreement - Start	Signatories MoU	Signatories Agreement	Participation methods	Outcomes
Rio Roiello	2021/2022 - Implementation 1 Action program	5: Region FVG, 1 recreational association, 2 municipalities, 1 association	6: Region FVG, 1 recreational association, 2 municipalities, 2 associations	A working, demand-driven group with stakeholders, surveys, public works, citizen advice and activities with schools. Knowledge co-production, participatory analysis, public events	Effective contribution to river restoration according to Curran et al.'s (2017) criteria, through co-management and a final decision-making process. Institutionalisation and development. At the end RC, signed in the region, it coincided with local projects and procedures
Natissone	2017/2022 Implementation 1 Action program	18: Region FVG, 1 Basin Authority, 9 municipalities, 1 association, 1 university	31: Region FVG, 1 municipality, 2 water utilities, 3 associations, 9 social business associations (representing crafts industry, agriculture and commerce), 1 private firm	Participatory SPPOC analysis, participatory mapping, advisory activities with schools	Initially managed as a project with limited citizens' participation and a top-down approach. High levels of conflict arose from divergent individual objectives and low financial clarity regarding the RC's meaning. At the end RC, initiated in the region, it coincided with local projects and procedures
Marano Lagoon	2007/2021 - Continuity in a standard	18: Region FVG, 1 local waterworks network, 13 municipalities, 2 regional agencies, 1 association, 1 cooperative movement, 1 university	1	Online meetings	The community-organised initiatives, closely related to the project itself, combined with implementation during the Covid-19 pandemic, prevented collapse. Development of the RC as a participatory process.
Cormor	2019/2022 - Starting to start implementation 1 Action program	58: Region FVG, 20 municipalities, 1 recreational association, 1 association	28: Region FVG, 25 municipalities, 1 recreational association, 1 association	Meetings, workshops, interviews, surveys, participatory planning carried out in 2017 by the associations involved visitors	It involved an extensive network, resulting in a reduction of conflicts, significantly institutionalized participation regarding water (27 public bodies, only one association), including citizens' involvement in the management
Uppole Livenza	2021/2022 Implementation 1 Action program	5: Region FVG, 9 municipalities, 1 regional agency, 30 associations, 2 economic business associations (agriculture), 2 private firms	26: Region FVG, 9 municipalities, 2 water utilities, 1 social business association (agriculture), 2 private firms	Meetings, workshops	The process began as a top-down initiative, subsequently progressing to include numerous stakeholders who participated in several roles in governance decisions
Judrio	2007/ongoing	21: Region FVG, 1 Basin Authority, 11 municipalities, 1 recreational association, 1 association	Not shared yet	Local community network activities by the associations (meetings, courses and artistic events)	It involves an extensive network, resulting in a reduction of conflicts. However, it benefits from a local leadership (beyond the level of institutions) and the local institutions' commitment to the initiative, which are contributing to a positive public engagement result
Noncello	2022/2022 Implementation 1 Action program	28: Region FVG, 1 Basin Authority, 5 municipalities, 1 recreational association, 1 regional agency, 1 association, 3 water utilities, 1 school, 3 private firms, 1 social business association (agriculture), 1 government (agriculture & industry), 3 professional associations	36: Region FVG, 1 Basin Authority, 3 municipalities, 1 recreational association, 1 regional agency, 1 local health authority, 1 association, 3 water utilities, 2 schools, 1 private firm, 2 social business associations (agriculture & industry), 4 professional associations	Participatory SPPOC analysis, business planning workshops	The process commenced as a top-down initiative and proceeded step by step, with an increasing level of citizen participation. The approach that enabled us to raise in short the number and diversity of stakeholders.

Source: Elaboration of the Author.

28 The Rio Roiello RC represents one of three cases analysed by Venturini and Visentin (2024, pp. 5-7) and was the first River Contract to be signed in Friuli Venezia Giulia in November 2022. The signatories are currently implementing the Action Program. This RC has proven to be “an example of how to go beyond the dichotomy of top-down versus grassroots approaches” (*ibid.*), having been conceived as a participatory process

from its inception. From the earliest stages, the actors involved worked towards the effective co-creation of the pathway, engaging not only the formal signatories but also 26 additional local stakeholders (including private firms, schools, parishes, the University of Udine, professional associations, and others). Given its effectiveness, the Rio Roiello RC has functioned as an exemplar for subsequent processes. Even during the implementation phase, cooperation among the signatories remains robust and proactive, characterised by clearly defined roles and responsibilities alongside shared decision-making grounded in mutual trust and dialogue.

- 29 A second case analysed by Venturini and Visentin (2024, pp. 7-8) is the Natisone RC, which represented the first attempt to implement this instrument in the region, not without difficulties and weaknesses. The key challenges identified by the Authors were that the RC had been pursued through a top-down approach that excluded local communities, and that the Natisone River was treated as an object of a project (or collection of projects) rather than as the subject of a process. Furthermore, delays in implementing successive stages led to progressive disengagement among stakeholders. Nevertheless, through the efforts of a new assembly chairperson (appointed in June 2021), the process was reactivated in a more effective and participatory manner. Whilst the MoU was initially signed by only 13 parties, the final agreement secured 31 signatories, representing a significant increase in both the quantity and diversity of participants. Although the quality of participation remains suboptimal (with a persistent tendency to interpret participation as information sharing and consultation rather than as shared decision-making), the process has nonetheless evolved towards a more effective participatory approach. Notably, the earlier approach whereby “this particular RC treats its fundamental task as conducting business about the river, but not with the river” (Venturini and Visentin, 2024, p. 8) appears to have been transcended. Whilst the actions implemented thus far are predominantly infrastructural, they relate principally to the first strategic axis of the program, devoted to the protection of water and riparian environments, and have been accompanied by information and awareness-raising initiatives for citizens, particularly concerning river safety and cleanliness.
- 30 The third case analysed concerns the Marano Lagoon wetland contract, which represents a distinctive case within the region as the only one linked to a project funded by a European program. Whilst this secured economic support for activities, it also necessitated adherence to strict timelines, rendering the pathway considerably more accelerated than those previously initiated. In less than a year, it culminated in the development of an Action Program, which was partially signed in summer 2021. Participatory activities conducted predominantly online (due to the COVID-19 pandemic), a highly compressed timeframe, and an increasingly top-down approach resulted in substantial weaknesses within the Contract, as noted by Venturini and Visentin (2024, pp. 8-9). Following initial signatures by some stakeholders, activities progressively decelerated to a complete halt, and the Contract currently remains at a standstill.
- 31 The Cormor RC, by contrast, has followed a relatively protracted development pathway. Launched with the MoU in 2019 through the initiative of the Associazione Valle del Cormor (Cormor Valley Association), it reached formal agreement in 2024. The process proved complex, involving 25 municipalities with markedly different characteristics (municipalities of various sizes, along the entire length of the river). Whilst this might

suggest a quantitatively participatory process from a territorial perspective, the qualitative dimension reveals significant limitations. The process engaged almost exclusively municipal authorities. The proposing association progressively assumed a diminishing role, and local civil society actors were minimally involved. The integrated analysis, which ideally represents a moment of co-creation and knowledge sharing, was conducted through four webinars on specific topics. Although this approach was innovative compared to traditional written documentation, it discouraged broader participation by primarily engaging technical and institutional figures. Furthermore, amongst the numerous municipalities involved, some participated in training and networking activities organized by the University of Udine – thereby enhancing their understanding of RCs – whilst others appear to remain inadequately aware of the significance of this water governance instrument. Consequently, and given the complexity of coordinating such a large number of local authorities, implementation of the Action Program has yet to commence following the agreement's signature.

- 32 The Upper Livenza RC was launched in 2021 on the initiative of Sacile Municipality and signed in July 2024. Although the process was promoted by a local authority without associational involvement in leadership, and managed by technicians (thus adopting a top-down approach), it evolved over time towards a more participatory model. The number and diversity of stakeholders increased substantially during the process, with a growing number of MoU signatories. As with the Natisone RC, the quality of participation appears to lag behind the quantity, with some civil society stakeholders reporting a perception of incomplete involvement in decision-making processes due to power imbalances. Furthermore, the RC appears to have focused more on aggregating river-related projects than on developing a process of river co-governance, whilst awareness-raising and public engagement activities remain limited.
- 33 The Judrio RC is currently ongoing, with the signature of the agreement planned in spring-summer 2026. The MoU was officially signed in 2020, although its preparation commenced in 2017 through the initiative of the Judrio Association, with effective collaboration from the Land Reclamation Consortium Venezia Giulia. The process involves 17 municipalities, which partially accounts for its relatively slow progression. However, the Judrio Association (at times in collaboration with the Consortium and engaging scholars from the University of Udine) is conducting extensive territorial animation work, organizing numerous initiatives to enhance knowledge of the Judrio River in its various historical and environmental dimensions, employing art as a form of communication and awareness-raising. Furthermore, the Association has collaborated with the Regional and National RC Boards in organizing an event dedicated to the role of women in water management, and hosted the 4<sup>th</sup> meeting of the Regional Board on 13 November 2024. Thus, although the RC process itself is not necessarily becoming more participatory in its governance, the instrument is being leveraged to position the river at the centre of local community identity and responsibility, and to promote widely a new culture of water.
- 34 Finally, the Noncello RC, launched in November 2023 on the initiative of Pordenone Municipality, has proceeded smoothly with a considerable level of participation from diverse stakeholders, reaching signature in October 2025. The process has benefited from experiences acquired through other RCs, and the instrument appears to have been immediately understood in its significance, characterized by a procedural, participatory approach and strong municipal leadership capable of sharing the

decision-making process and committed to disseminating knowledge of the RC amongst citizens. Unlike other RCs, it demonstrated enhanced capacity to engage the local business community.

## Discussion

- 35 In their work, Venturini and Visentin (2024) invited further investigation of time as a variable for the analysis of RCs. They conceived it in terms of process duration, thus in some way as an internal variable potentially affecting the success of the pathways. They stated that an adequate amount of time dedicated to developing the stages and reaching signature of the agreement is a necessary, but not sufficient, condition for a meaningful RC, and that excessively protracted processes can lead to RC failure. As already highlighted, however, the Authors developed this conception by analysing cases of RCs in a still embryonic phase of the tool's diffusion in Friuli Venezia Giulia.
- 36 Returning to examine the cases after four years, and expanding the investigation to encompass all RCs initiated in the interim, we observe that the situation is more nuanced. In the case of the Marano Lagoon wetland contract, the very short timeframe for process development affected its implementation, leading to its failure, not only in “creating a sense of place among communities, stakeholders and citizens” (Venturini and Visentin, 2024, p. 9), but also in achieving the managerial objectives. This outcome confirms that the effectiveness of RCs as tools for participatory water body management is closely linked to their implementation as processes rather than projects, and to genuine territorial engagement. Conversely, the first RCs launched – the Natisone and Rio Roiello RCs – have had considerably longer development durations. However, this has not necessarily compromised them or led to definitive disaffection. Certainly, these processes were affected by their status as “pioneers” of a new approach to water body governance. Yet the time has not been “wasted”; rather, it has been employed to better understand the process and to build knowledge, awareness, and trust, thereby establishing fundamental elements for effective participation (Carr *et al.*, 2012). The RCs launched more recently appear more effective in balancing their duration: they benefit from the support activities implemented by scholars at the University of Udine from their inception, and they can draw upon the experience of the “pioneers” through networking and knowledge sharing.
- 37 In the present analysis, however, the role of time has been conceived as an external variable that can impact – in some cases – the quality of the process, orienting it towards a more participatory, processual approach. Since RCs in Friuli Venezia Giulia have only recently begun implementing their first Action Programs, it is not yet possible to evaluate their long-term outcomes, either in terms of improved governance and water body management or in achieving the direct objectives of environmental protection, mitigation and prevention of hydrogeological risk, ecosystem restoration, and local development. Furthermore, as RCs are conceived as long-term, iterative processes, participatory processes cannot be evaluated definitively. From our observations, it is evident that participation can evolve (or devolve) over time, precisely because RCs constitute processes of social learning (Jacobi and De Souza, 2021).
- 38 Beyond process evaluation, our observation from within the evolution of RCs has enabled us to identify important intermediary outcomes (Carr *et al.*, 2012). These are

linked not only – and not primarily – to the mere achievement of agreement signatures, but to the construction of social capital. As confirmed by feedback collected from involved stakeholders, these outcomes have been facilitated by scholarly intervention, which has promoted greater interaction amongst the various actors involved (both within individual RCs and between different RCs), developing relationships of trust and thus fostering dialogue and a growth of knowledge and awareness regarding the instrument. The effectiveness of this support is also attributable to a geographical approach. Whilst space is a variable immediately interpretable as “geographical”, time also plays a crucial role in territorial processes. In the investigated case, it is the time spent raising awareness, training actors, and building wider knowledge on the appropriate means of implementing the process that has contributed to transforming the field of action of the processes, reorienting them towards new trajectories of participatory water governance based on new paradigms of human-nature relations.

- 39 The observation of RC processes also leads us to highlight the role of individuals. Even though the stakeholders involved are officially collective bodies (municipalities, associations, land reclamation consortia, etc.), those who actually participate in the activities are individual representatives of these bodies. The success or failure of RC processes is often strongly linked to the commitment of these individuals, to their willingness to accept and apply suggestions, their ability to capitalise on networking opportunities, and their disposition to engage in training. Moreover, amongst the intermediary outcomes observed, a particularly significant one has been the shift in approach to water bodies demonstrated by some of these key individuals. We have noted changes in their language, attitudes, and practices that move in the direction we envisaged, conveying new paradigms of human-water relationships (Linton and Budds, 2014; Zwarteveen and Boelens, 2014), challenging an anthropocentric approach that regards rivers solely as resources to be exploited for human use (Swyngedouw, 2004), and recognising their agency. This approach is gaining increasing relevance, including through awareness-raising and public information initiatives linked to RCs.

## Conclusions

- 40 RCs – as they are applied in Friuli Venezia Giulia – represent only one of the possible instruments for participatory management of water bodies, which can give concrete expression at the local level to the intentions established in national and supranational strategies and policies, such as those of the European Union (European Commission, 2003; Kaika, 2003). The cases presented suggest that, beyond the direct results of the processes and the level of participation with which they are conducted, over time these instruments can contribute to transforming the ways in which human communities interface with their hydraulic landscapes (Linton, 2010), at the very least by beginning to reintroduce these issues into public debate, detaching them from purely technical and administrative management (Boelens *et al.*, 2016).
- 41 The diachronic analysis of RCs in Friuli Venezia Giulia demonstrates that time operates as both an internal and external variable in determining the success of participatory water governance processes. Whilst adequate duration is necessary for meaningful participation, the quality of time spent – in terms of capacity building, networking, and knowledge co-creation – proves more significant than mere chronological extension (Pahl-Wostl *et al.*, 2007). The action-research approach adopted has shown that

structured, geographically informed support can effectively reorient RC trajectories towards more participatory, process-oriented approaches, fostering the development of social capital and promoting a cultural shift in human-water relationships.

- 42 However, the strong dependence on individual commitment, whilst demonstrating the transformative potential of dedicated actors, also reveals a structural vulnerability that requires attention. Building effective and resilient participatory frameworks demands extending ownership beyond key individuals to broader institutional and community networks. This highlights the importance of continued investment in training, awareness-raising, and networking activities that can sustain participatory momentum across changes in leadership and political cycles.
- 43 Ultimately, the Friuli Venezia Giulia experience suggests that RCs' most significant contribution may lie not in their immediate management outcomes, but in their capacity to serve as vehicles for social learning and cultural transformation, gradually repositioning water at the centre of territorial governance and community care (Tronto, 2013; Sultana, 2018). In this sense, the involvement of scholars in the guidance of participatory processes can serve as leverage to translate academic reflections related to water bodies – such as river subjectivity and agency (Linton, 2010), co-governance and co-learning (Pahl-Wostl *et al.*, 2007), rivers as hydrosocial territories (Swyngedouw, 2004; Boelens *et al.*, 2016), into concrete territorial practices. As these processes mature, continued monitoring and adaptive support will be essential to realise their full potential as catalysts for a new water culture, recovering the central role of water bodies.

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## NOTES

1. Whilst the RC tool has been adopted by different EU and non-EU countries over the past 25 years, it exhibits “different regulatory frameworks of reference, objectives, contents and implementation procedures” across various national contexts (Scaduto, 2016, p. 49). For this reason, only literature in Italian and English relating to Italian RCs has been considered, commencing from 2016 when RCs were formally recognised in Italian law and common guidelines for their implementation were issued, thereby rendering processes more comparable.
2. The National River Contracts Observatory is a body established in 2018 as part of the CREIAMO PA Project, funded by the National Governance and Institutional Capacity Operational Programme 2014-2020, with the aim of monitoring, coordinating, and harmonising RC processes in Italy.
3. According to the Regional Resolution No. 1448 of July 28, 2016, the responsibilities fall under the purview of the Regional Councilor for Environment and Energy.
4. The National Charter of RCs was issued by the National RCs Board, the Piedmont Region, the Lombardy Region and the Po River Basin Authority in 2010. It outlines the objectives, a general frame of the methodology, and the guiding principles of the process: horizontal and vertical subsidiarity, participatory local development, and sustainability.
5. The document, which codifies the stages of the process, was issued by Ministry of the Environment, the Italian Institute for Environmental Protection and Research and the National RCs Board in 2015.

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## ABSTRACTS

This paper investigates the evolution over time of River Contracts (RCs) processes in the Friuli Venezia Giulia region of North-East Italy. RCs are voluntary agreements among stakeholders for the participatory management of water bodies. The analysis builds on previous work by

Venturini and Visentin (2024), identifying RCs' positioning based on their adoption of top-down vs. participatory approaches and implementation as projects vs. processes.

Extending this framework, the role of time is examined as a variable impacting RCs' trajectories. Support activities implemented by the geographers of the University of Udine are reported as key drivers for the evolution towards more participatory, process-oriented approaches, but the research also highlights the importance of individual commitment in steering this positive evolution, which place water at the center of territorial governance.

Cette étude examine l'évolution dans le temps des processus des Contrats de Rivière (CR) dans la région Friuli Venezia Giulia, au nord-est de l'Italie. Les CR sont des accords volontaires pour une gestion participative des cours d'eau. L'analyse s'appuie sur les travaux antérieurs de Venturini et Visentin (2024), identifiant le positionnement des CR en fonction de leur adoption d'approches *top-down* vs. participatives et de leur mise en œuvre en tant que projets vs. processus.

En étendant ce cadre, le rôle du temps est examiné comme une variable impactant les trajectoires des CR. Les activités de soutien mises en œuvre par les géographes de l'Université d'Udine sont présentées comme des moteurs clés de l'évolution vers des approches plus participatives et orientées processus, mais la recherche souligne également l'importance de l'engagement individuel pour orienter cette évolution positive, qui place l'eau au centre de la gouvernance territoriale.

## INDEX

**Mots-clés:** gouvernance de l'eau, participation, Contrats de rivière, gestion des masses d'eau, Italie, Frioul-Vénétie julienne

**Keywords:** water governance, participation, River Contracts, water bodies' management, Italy, Friuli Venezia Giulia

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