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Disputed or Shared Territory? The Italian Experience of River Contract: New Relationship between River and its Region

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This paper presents the River Contract, a tool for participated planning and for the elaboration and implementation of water resources management. The river basin is the territorial area of reference, a region which outstrips administrative boundaries. This territorial governance mode requires dialogue at two levels: firstly, at an institutional level, among Municipalities, Provinces and Regions; secondly, at a sector level, because the interests at stake are various and sometimes conflicting.
Italian experiences struggle to find their identity and show many limitations, above all a substantial difficulty for participants thinking at a basin scale and trying to overcome administrative and sector divisions. A cultural change is needed in order to boost a new territorial vision.

Introduction: River contract

The Water Framework Directive, sanctioned by the European Parliament and of the Council, sets a framework for the implementation of integrated policies for water resources management[1]. It identifies the river basin as a territorial area of reference and imposes informing actions about the choices made by local government. It also wishes for the start of processes for citizens' consultation and active participation.

The River Contract (RC) is an agreement that allows to adopt a set of regulations in which criteria of public utility, economic return, social value and environmental sustainability equally take part in the search for effective solutions for the river basin's recovery (World Water Forum, which took place in Aja in 2000). Born in France in the early Eighties (the first RC, by La Thur, was signed in 1983[2]), it is a tool specific for fluvial areas' recovery. It develops a path that leads to the definition of a contract and whose fundamental elements are (*Circulaire du Ministre de l'Environnement et du Cadre de Vie, 5 février 1981*):

sharing a clear objective;

signing an agreement among citizens, municipalities and industrialists, based on such a shared objective;

finding sponsors who are available to provide the necessary resources to reach the set objective.

In 1992 the Law about water establishes SDAGE (*Schéma Directeur d'Aménagement et de Gestion des Eaux*, French for: Inspiring Scheme for Water Planning and Management) and SAGE (*Schémas d'Aménagement et de Gestion des Eaux*, French for: Scheme for Water Planning and Management). The former is a document of technical and financial planning that sets up general goals for the water governance of each basin. The latter is a local version of SDAGE and defines goals and criteria for the use of this resource at sub-basin level. It provides directions for a balanced management of water in order to preserve the aquatic ecosystem and wet areas, reaching quality and quantity parameters of the water resource. It also gives indications for the improvement of water as an economic resource too, with the aim of conciliating its different uses and activities. The River Contract became a mean to apply SAGE (Dorati, Guerra, 2011, pp. 167-168).

The river basin as territorial area of reference for policies of water resources management: in favour and against

The concept of hydrographic basin has evolved during the course of history and it has been associated to different lines of thought and co-opted by power groups in order to strengthen the legitimacy of their actions and claims. Nowadays, in the field of integrated management of water resources, the river basin is considered as a place for interaction between man and environment, from an ecosystemic perspective that puts human beings within a wide and complex environmental system. Therefore, the notion of hydrographic basin acquires a political, ideological and operational value (Molle, 2006). Water, which in the past used to be meant as a physical body to capture, divert, store and deliver at specific locations and times, now becomes also a habitat.

According to Vieillard-Coffre (2001), territory management at a river basin scale seems to be the most rational option from an ecological point of view. This is both because it's an easily identifiable area, thanks to the delimitation of the river and its tributaries, and because it follows the natural order, i.e. that of water draining, when it comes to facing problems connected to soil protection and hydrology. Indeed, Affeltranger and Lasserre (2003) say, regarding river basin, the consequences of upstream interventions on surface and underground flows inevitably affect downstream. This is true both for environmentally harmful actions (such as excessive withdrawals, polluting drains, bank or dam building) and for actions protecting the water resource (for example the creation of wastewater treatment plants or the demarcation of protected areas).

However, defining the hydrographic basin as the ideal spatial scale of management means imposing a model which doesn't necessarily fit all the situations present on the territory and which, above all, can't be accepted by all the political and economical powers of the basin. Any decision regarding water represents a spatial

1 Directive 2000/60/EC, http://ec.europa.eu/environment/water/water-framework/index_en.html.

2 For more informations : http://gesteau.eaufrance.fr/.

dimension: it's ecological when it concerns respect for the ecosystems, territorial for infrastructure building and socio-political with regards to nature and the location of different categories of users. Therefore, water resources management at basin level implies a precise choice in terms of territorial management (Affeltranger, Lasserre, 2003).
Blomquist (2008) is among the authors who most oppose the alleged ecological and territorial unity of the river basin, because in a basin there are:

- different kinds of water resources: there is the river, which defines the basin, and its tributaries; there are groundwater aquifers, wetlands, springs, lakes, vernal pools and glaciers. Whatever modes are established for a sustainable management of the basin's water resources, it's necessary to consider the physical complexity of such resources;
- administrative borders which don't correspond to the water resources' natural borders;
- very different communities, with different behaviours, rules and demands that are dictated by their socio-economic and cultural features and by their geographical location (some communities are upstream, others are downstream; some draw water from ground deposits, others are adjacent to wetlands; some others are physically and economically linked to coastal areas.

The concept of hydrographic basin as a territory unit due to the existing natural water network is criticized also by Massarutto (1999) and Moss (2003). They emphasize how, ever since ancient times (let's think of aqueducts and artificial canals built by the ancient Romans) man intervention has changed the hydrological shape by moving great masses of water thousands of kilometres away from its spring and by connecting realities which usually haven't got any element in common (other than from the point of view of territory governance).
Furthermore, water resource integrated management at a basin scale implies various problems, as it appears to be quite complex. As a matter of fact, there are no actors or elements that can be excepted a priori. On the contrary, this kind of management supports a holistic approach to the river territory governance, which Moss (2003) illustrates as: water resources management (water quality, water regulation), territory management (control of soil's degradation and use), ecological management (biodiversity preservation) and human activity management (socio-economic advantages).
As they aim at numerous goals, integrated policies for water resources management inevitably operate in several fields, "touching" many interests (Masarutto, 2008).
Therefore, it seems more appropriate to identify the territories (i.e. those portions of one basin, or of two or more basins together) that are most interested by the problem at issue each time, which means creating organizations or ad hoc agreements for each objective, rather than only one pact at basin scale (Blomquist, 2008).

River Contracts in Italy

In 2003 the General Management for Water Resources and Public Utility Services of Lombardy Region decided to start a process for the signing of the "River Contract for the reclamation and the improvement of River Olona's basin". It is a highly urbanized and industrialized area where anthropic pressure has produced severe changes in the ecological condition of the river, both from a morphological point of view (with relevant repercussions on hydrogeological events) and for the quality of water. Subsequently other River Contracts were started for the following rivers: Seveso, Lambro, Mincio, Adda, Mella and Oglio[3]. The River Contract is aimed at: (i) coordinating public intervention by the several institutional levels; (ii) rationalizing and integrating public resources; (iii) stimulating and boosting private investments. It is a pact among Region, Provinces and local communities, which aims at finding development objectives, sectors and fields of intervention, implementation timing, available resources and adherence modes for possible private subjects.

3 Regional Law n.2 of the year 2003 establishes the Outline Agreement for Territorial Development (AQST, *Accordo Quadro di Sviluppo Territoriale*) as one of the tools for negotiated planning. The river contract is here shaped as an AQST, at a scale of hydrographic basin or sub-basin. See Lombardy Region's website on River Contracts: http://www.contrattidifiume.it/

The goal is the reclamation of the river basin.
The second Italian region to adopt River Contracts was Piedmont Region, which in 2007 started taking them into consideration as a possible way to implement the Water Protection Plan (PTA, *Piano di Tutela delle Acque*). They are thus seen as tools for negotiated planning, which promote "integrated management modes at hydrographic basin and sub-basin level, pursue protection and improvement of water resources and related environments, along with safeguard from flood risk" (PTA, article 10). On an experimental basis, the public Body initially supported four River Contracts: Sangone, Orba, Agogna and Belbo. As in the case of Lombardy's River Contracts, Piedmont Region kept the role of prime mover of the RCs but, in accordance with the principle of vertical subsidiarity, it assigned the process management to the Provincial Authorities of reference, as they are the most suitable subject for the involvement of the local realities existing on the territory[4].
The Region's aim is to progressively extend the contract tool to all 34 hydrographic areas identified in the PTA, independently of specific problems (PTA, Rudellat, 2008; Governa, 2010).
During the last years about 40 RCs have developed all over the national territory, but they all have their own specificities concerning related regulations[5]. The only shared document, (which anyway has no legal value), is the National Chart of River Contracts, which presents a participated course of action with seven steps in order to reach the signing of the river contract, but it fails to state the architecture of the process, its timing, its modes of action and its funding. This is all devolved to the competences and skills of the involved administrations. Only three elements are considered to be essential for the implementation of RCs: feasibility, processuality and flexibility[6].
In general, River Contract is an Italian advanced experimentation of an integrated approach regarding water resource management and it can include hydraulic, natural, ecological, social and economic aspects. Its point of reference is the river basin as a territorial, ecological and hydrological unit (Calori, 2008).

The river basin in Italian River Contracts

In France *contrats de rivière* (river contracts) claim a thirty-year tradition, which is today converted into a circular of the year 2004 that defines terms and objectives of the participated process. Procedures are clearly defined. The Italian reality, even though inspired by the French one, is very different actually. Although in their intentions it looks like the promoting authorities agree in conceiving the RC as a governance tool for water management at a basin scale, they differ in the implementation modes (Bobbio, Saroglia, 2008).
The first Italian experiences seem to confirm Blomquist's theories (2008), as each river contract is a separate occurrence, determined by the involved subjects and territory, which hardly ever tallies with the whole basin. RCs that are an exception to this are those which elaborate and implement shared territorial policies, often thanks to the reduced size of the basin, such as in the case of the communities crossed by the Farva stream. This kind of RCs may be due to institutional reasons (for example all the Municipalities within a protected area, such as for the Alcantara stream) or to "historical" reasons (as in the case of the Sangone stream, whose RC's Municipalities have started several projects for the recovery of fluvial areas since 1999).
A River Contract project usually develops from a specific problem and it involves the territory that is directly affected by it. Some examples are the river Panaro's RC (which aims at the reclamation of an area where there used to be an ammunition factory) and the RC of the Orba, a Piedmont stream whose ecological corridor has long been intended to be restored where it lacks, and protected where it already exists. In these cases the basin is not taken into consideration as a whole, but only a part of it is, the most polluted one, or simply the

4 See Piedmont Region's website on Rcs: http://www.regione.piemonte.it/acqua/contratti.htm#cardine
5 Except for 2000/60/CE, which in Italy was absorbed by Law n.152 in 2006, even though there is no explicit reference to River Contracts.
6 Feasibility has to be both financial (it must be known how much the foreseen interventions will cost and who and with what timing will fund them) and economic (i.e. it has to include the costs for the implementation of every single action and activity, estimating its yearly amount, and the collective and social benefits).

part that is included in some project which local institutions alone cannot develop.
Therefore, the hydrographic basin in Italy is not a reference unit for territorial policies. In RC elaboration, subjects are called to build what we can define as "a river community" within the basin. However, the hydrographic basin has no boundary acknowledged by the population, it's often a largely unknown territory (or, at least, it's not the territory they are used to think of), it's fragmented in the collective imagination. For example, inhabitants recognize the town, or the district, as a local unit, while firms look at networks and markets of different sectors, according to their attractiveness for production and exchange; finally, local politicians do not take the river basin into consideration because it has no elective legitimacy (Governa, Toldo, 2011). The only legitimacy of such a territory rests on the existence of the river. In socio-economic and spatial planning, economic reasons have prevailed, relegating the destiny of rivers and hydrographic basins to a sum of sector actions which are economic, productive, agricultural, urban, etc.
It is more of a cultural matter than a prescriptive one. The river basin is not considered by representatives (and by the offices in charge of the elaboration of plans and projects) as the territorial unit of reference. A change of course is possible only if a change of policies occurs.
From this point of view, two interesting examples are the Ofanto's and the Bormida's River Contracts.
The Bormida is a river that flows mainly across Piedmont, but it rises in Liguria. As far as environmental issues are concerned, its valley shows major degradation of the environment, mainly caused by drainings from ACNA, a chemical plant located in Cengio (Savona Province, Liguria) and closed in 1999. Piedmont Region (which allocated € 250,000) has promoted the Bormida River Contract with the aim of involving also the Ligurian institutions at local, provincial and regional level[7]. The process started in 2010 and the Contract is expected to be signed by the end of 2012. Liguria Region didn't participate to the process, but Savona Province did, though they haven't declared whether they will sign the contract or not.
The Ofanto, on the other hand, is a river that crosses three regions in Southern Italy: it rises in the Irpinia plateau, in Campania Region, crosses Basilicata Region and finally flows into the Adriatic Sea in Barletta Province, Apulia Region (Dellisanti, 2009). The project of a River Pact[8] was conceived in 2007, with the establishment of the "River Ofanto"[9] protected area, whose borders fall within the Apulian part of the basin. This area generates many tensions between farmers and authorities because of the restrictions introduced with the park's founding. During the following year there were meetings and negotiations from which two needs emerged: the first one is to reduce the area of the park by 38%[10], while the second one is to include in it the whole river. This is because the Ofanto's pollution is due both to its tributaries' water and to the several catchments in the stretch of the river that flows across Campania and Basilicata regions[11]. In April 2009 the Pact was presented[12], with the aim of experimenting a territorial development model according to the bioregional approach, which is based on a superordinate environmental system constituted by the interregional hydrographic basin. It is the first (and so far the only) interregional River Contract in Italy.

7 Interview to Elena Porro, Environment Department, Piedmont Region, 24 July, 2012. For further information on Bormida's RC: http://www.contrattofiumebormida.it/

8 In this case the River Contract is called "Pact".

9 Regional Law n. 37, 14 December 2007.

10 "Spariscono 10mila ettari" ("Ofanto, cuts to the park. 10thousand hectares vanish")in *Corriere del Mezzogiorno*, 24 October 2008.

11 See article "Ma la riduzione del perimetro del Parco dell'Ofanto ci soddisfa solo in parte"("We're only partially satisfied by the reduction of the park's size"), *La Gazzetta del Mezzogiorno*, 7 November 2008

12 The results of the seminar are published in the paper *Manifesto di Melfi per il Patto Val d'Ofanto. Dalla frammentazione alla integrazione, il Mezzogiorno che cresce (Melfi manifesto for the Ofanto Valley Pact. From fragmentation to integration: the growing South of Italy)*, available also on the website

Conclusions: towards a basin-scale approach

In order to overcome this crux and to achieve a territorial project that can integrate environmental and anthropic values, Magnaghi suggests to adopt a:

"bioregional vision that would help planning imagination to redefine the issue of growth as a matter of exploration and measure of the relationship between human settlements and environment within the region, in order to set up principles of bio economy, orienting settlement principles towards the territorial ecosystem' self-reproducibility" (2011a, p.37).

Magnaghi (2011b, p. 256) draws on Rebb's concept of bioregionalism, intended as the form of decentralized human organization - that seeking to maintain the integrity of biological processes, the formations of life and the specific geographical formations of bioregion - helps the material and spiritual development of human communities live there.

The river and its territory show, for their own nature, a physical-environmental type of coherence (specifically, a hydrographic one) which allows to overcome a merely political-administrative idea. In fact, water is a fundamental element both for the development of ecosystems and for the growth of anthropic societies. Therefore, the crucial issue lies in the ability to recognize, and to make others know, the bioregion whose development is to be planned.

The river contract aims at fluvial reclamation at a basin scale, by means of integrated policies which are devised through participated processes that allow for the exchange of knowledge. So it can boost the development of a social and cultural awareness that is different from the concept of bioregion in its environmental, territorial and landscape aspects (Magnaghi, 2011b). However:

"experiences started to this day show the need for a profound action of cultural reorientation at the level of technical experts and political decision-makers, before adopting and simply spreading the "frame" of a working model such as that of River Contracts, even in their "original" and most peculiar formulation. Simply the proposition of a mechanism – even a contractual one – is not enough on its own to modify and reorientate consolidated disciplinary practices which are not able to bear on the causes for degradation and which contribute to creating it in many ways." (Calori, 2008, p.I).

In all likelihood, more clarity about working method, timing, financing and, especially, prescriptive acknowledgement of the RC could facilitate not only its circulation, but also the cultural change that is necessary for politicians, representatives and citizens to consider it a territorial scale of reference (different from the administrative one) for territorial policies.

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