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The Case of Crans-Montana (Switzerland)

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Coordination Between Institutional Resource Regimes as a Condition for Sustainable Management of Alpine Touristic Resources

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Introduction

1 The sustainable management of the different kinds of resources (natural, cultural, infrastructural) of a territory constitutes a condition sine qua non for the sustainability of its social-economic development (Nahrath, Gerber 2014). This issue is especially critical in the case of fragile and/or marginalized territories such is the case in many mountainous areas. Mountain massifs in general, and the Alps in particular, indeed are territories characterized by resource systems which are both fragile, in terms of ecosystems, and subject to intensive, even blatantly destructive uses from activity sectors such as hydropower, transportation, tourism, agriculture, as well as industry and housing (Barros *et al.* 2015, Fort 2015). These pressures on Alpine resources are even more evident in the case of touristic spaces, which are subjected to impacts that are both intense and temporally variable, given the high seasonality of tourism (Briassoulis & van der Straaten 2000; Briassoulis 2002)[1].

2 The comprehension of the concrete use-modalities of Alpine territorial resources, as well as the identification of the institutional conditions for their sustainable management, constitutes both a scientific and practical objective, all the more relevant from the perspective of a sustainable territorial development for the Alpine regions. This article aims to contribute to an understanding of these phenomena, and toward this end we suggest applying the institutional resource regimes (IRR) analytical framework (Knoepfel

et al. 2007 ; Varone *et al.* 2008 ; Gerber *et al.* 2009) to a specific Alpine touristic area: the tourism resort of Crans-Montana in the Swiss canton of Valais. The goal of such an approach is to show the effects of institutional rules (public policies and property rights) —and their reappropriation by actors—on the (non)sustainability of the management of different Alpine resource systems.

3 We defend here five theses, which we will discuss by way of the example of touristic regions, here specifically Crans-Montana:

1. The concentration of many uses of alpine resources within touristic spaces has provoked strong competition between uses which has often led to the establishment of multiple state regulations coming equally from public law (public policies, constitutional law), private law (civil codes, codes of responsibility), or court jurisprudence. It is in the framework of what we propose calling institutional resource regimes (IRR) that actors—both public (communes, cantons) and private (hydroelectricity, tourism, real estate) or communitarian (irrigation or pasture consortages)—who exploit and manage these resources have developed strategies around the implementation of these formal rules. These strategies for activating or not activating these rules, or even circumventing or deflecting the formal rules of IRR, have been conceptualized in terms of localized regulatory arrangements (LRA) (Bréthaut 2013a, Bréthaut 2013b; Schweizer 2015)[2].
2. The analytical framework of institutional resource regimes (IRR) constitutes a pertinent theoretical and conceptual approach, both analytically as normatively, in that it permits analyzing and evaluating the coherence and performance (in terms of the management of Alpine resources) of existing regimes, as well as the regulatory arrangements established by public authorities and stakeholders regarding these resources. In fact, one of the main contributions of this analytical framework is in the analysis of the causal relations between institutional rules, strategies of actors during their implementation, and resource management sustainability.
3. The case of Crans-Montana is an excellent illustration of the causal links between tourism development, the creation of tourist resources (or of touristic uses of existing resources), the emergence of competition over resources and of resource scarcity, and finally, threats to their sustainable management. It equally allows showing how the risks of scarcity and the threats to the availability of touristic resources lead in certain cases to the emergence of innovative practices and arrangements, on the part of local actors, for regulating these competing uses, and this in the interstices of existing IRR.
4. The sustainable development of touristic Alpine spaces implies the development of coordinated management strategies for the whole of territorial resources (i.e., a "resource geopolitics of touristic regions"[3]) at the scale of the touristic "functional space" (Nahrath *et al.* 2009 ; Varone *et al.* 2013).
5. In all, this approach by way of IRR permits grasping the fundamentally *political* dimension of the processes creating and managing Alpine resources. In particular, it allows taking into account relations and strategies of power resulting from the redistributive stakes of such management, which most often consists of a limitation or reallocation of use rights—in other words, of the right to draw on the flow of economic benefits deriving from such uses (Bromley 1992)—in or among different groups of users of these resources.

4 In the remainder of this article we will first describe the IRR analytical framework starting from activities (touristic). Second, we will describe the touristic area of Crans-Montana, focusing on the principal issues for touristic resource management (notably water, land, and real estate). Third, we will revisit the case in light of the five theses presented above, and we will discuss their relevance. Finally, we will draw the main

lessons of this discussion and list a several principles and practical recommendations for a more sustainable management of Alpine resources.

The "institutional resource regime" (IRR) analytical framework

5 The IRR framework is based on a concept of *resource* derived from a mixture of *economic* (institutional and territorial economy) and *ecological* approaches (taking into consideration ecosystem services) to sustainability, inscribed in a *relational* and *constructivist* perspective (Knoepfel *et al.* 2001 ; Nahrath, Gerber 2014). Inspired especially by the work of L. Kébir (2004, 2010), we define a resource (here Alpine or touristic) as a process of relating an "object" and an economic, cultural or ecological "system of production" which produces goods and (eco)services allowing the satisfaction of more or less vital needs of human beings or other living beings.

6 The Alpine territories in this way encompass numerous "*objects*"—both *material* (terrain, water-courses, glaciers, forests, infrastructure etc.) and *immaterial* (social and cultural practices, know-how, etc.)—which are transformed into resources by diverse *systems of production* (agriculture, tourism, hydroelectricity, etc.) producing both *material goods* (agricultural products, ski slopes, electricity, etc.) and *immaterial services* (recreation, well-being, sociability, esthetic pleasure, etc.), allowing the development and reproduction of certain human *activities* (lodging, movement, work, leisure, etc.) over a more or less long term.

7 The great majority of these uses of Alpine resources as goods and services (G+S) involve the removal or use of resource units (square feet of soil; cubic meters of water, wood or air; polluting emissions; noise; alterations to the landscape; destruction of flora or fauna, etc.) leading to competition between different user groups (local or external to the area).

8 This competition can be of three orders, and these may appear in combination:

1. *Homogenous single-resource competition*: concerns competition between users of one and the same good or service provided by a single resource, such as irrigation, the market for land and housing, timber extraction, hunting, potable water, etc.
2. *Heterogeneous single-resource competition*: concerns competition between different user groups pursuing different and rival uses of the same resource, such as drinking water versus artificial snow-making, the transfers of parcels of land between zones for building versus for agriculture, etc.
3. *Multi-resource competition (heterogeneous)*: concerns competition between different user groups where the uses of a good or service from a resource has negative effects on one or several other goods or services furnished by *other* resources (cf. figure 3, below), such as construction of housing projects, implying a need for drinking water, *versus* irrigation *versus* artificial snow-making *versus* protection of the landscape and biodiversity, etc.

9 As has been well described in the literature on the management of common-pool resources (Ostrom 1990, 1992), particularly in the thesis of the *tragedy of the commons* (Hardin 1968), the existence of competition between groups of users removing units of an extractable[4] resource brings a significant risk of overexploitation, the different groups of users developing more and more aggressive strategies for capture and removal of the resource, in accord with its perceived scarcity.

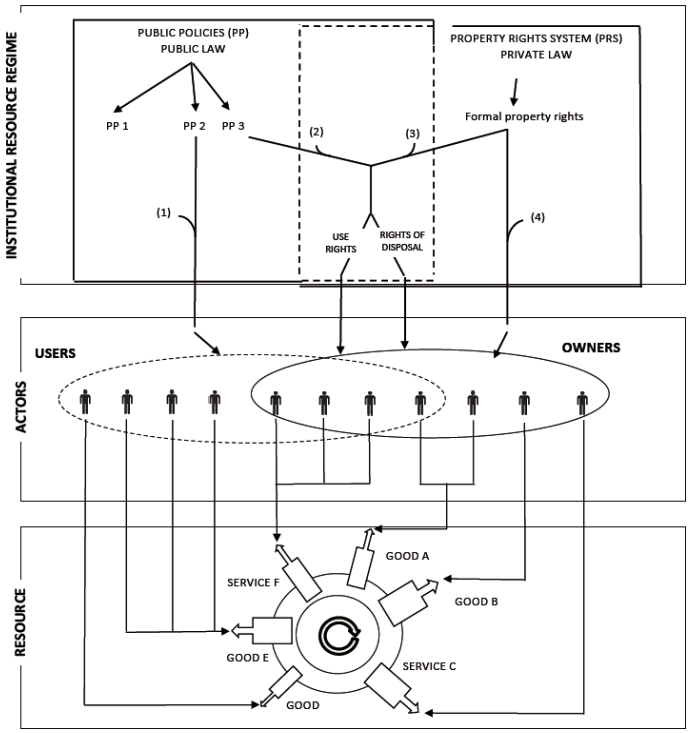
10 One can in this way distinguish three broad categories of rules, which historically have been developed for regulating such resource systems:

- bodies of rules developed, beginning in the Middle Ages, within the frame of *self-organized common-pool resource institutions* (Ostrom 1990), such as, in the Alpine regions, *consortages* (associations of co-owners or users), *bourgeoisies* (in Switzerland, holders of rights of communal citizenship), guilds and brotherhoods, often of quite long standing, predating the establishment of modern states, their policies and their civil codes (common property law);
- the formalization of property rights in the framework of the civil code and court jurisprudence, with the creation of nation states (18^{th} -19^{th} centuries) (private law);
- the limitation of use rights of entitled parties and of land owners, as well as the obligations to protect (natural) resources, by way of the progressive establishment, from the end of the 19^{th} century, of *public policies for exploitation and then for protection* of these resources (public law).

11 From the 19^{th} century, as modern states were institutionalized and regimes of public and private law gained sway, common property regimes were integrated, and often dissolved (Aubin and Nahrath 2015). The result is that, today, the attribution and regulation of most use rights derive from either (1) the holding of formal property (in the form of a title), or (2) measures contained in public policies, or, most frequently, (3) a *combination* of the two, public policies limiting the scope of proprietary use rights.

12 It is precisely of this double foundation of use rights, resulting from the combination of provisions from private and public law, that the analytical framework of institutional resource regimes seeks to give account (cf. figure 1).

Figure 1: the analytical framework of institutional resource regimes (IRR)



Source : Gerber *et al.* 2009.

This analytical framework allows showing supposed causal relations between (1) the constituent rules of IRR (upper box), the use behaviors of actors (owners and users) (central box), and the nature of uses and removals, as well as the state of the resource (lower box).

13 More precisely, the IRR analytical framework allows piecing together the ensemble of regulations within public law (public policies) and private law (civil code, code of obligations, contracts, concessions, surface rights, easements, etc.) having a role in defining the use rights and dispositions[5] of owners and users of the resource. It also allows evaluating the coherence[6] of the regime, as well as its extent[7] and capacity to regulate different uses and competition between uses.

14 The IRR framework also allows distinguishing four distinct regulatory modes for a resource (arrows (1), (2), (3), (4) in figure 1) : (1) regulation by way of public policies without effects on the content of property rights; (2) regulation by way of public policies with a substantial impact on the value and content of property rights; (3) regulation by redefining the institution of property rights (principally through a modification of the civil code); (4) the redefinition of the distributional structure of property rights (e.g. nationalization or privatization).

15 The IRR analytical framework is based on the following two fundamental hypotheses:

16 1. To the extent that the sustainable management of a resource implies, in most cases, a more or less restrictive limitation on its use, one of its immediate consequences is an increased scarcity of available resource units, and therefore a risk of growing competition between different categories of users. As such, a sustainable management of resources implies important stakes in the redistribution of use rights between rival users.

17 2. The redistributive capacity of a regime, and thus its ability to regulate, reconcile and reduce competition between uses and rival groups of users, depends essentially on its degree of coherence and its extent. In this way, the more coherent and extensive a regime is, the more it will have important redistributive powers, and the greater chance that it will allow sustainable management of the resource.

18 In the same way, the *sustainability of an activity mobilizing several resources* will depend not only on the coherence and extent of different resource regimes, but also on these regimes being made coherent and consistent with relation to each other (cf. figure 3, below).

19 And if one widens the scale of analysis further, the *sustainability of a territorial system* will depend on making the different resource regimes applied to the ensemble of activities present within a functional territory coherent (following the sense of Nahrath *et al.* 2009 and Varone *et al.* 2013). A given strategy for bringing several resource regimes for a single territory into a coherent ensemble reflects what we suggest calling a "resource geopolitics."

Crans-Montana: a laboratory for analyzing the management of Alpine resources[8]

20 Crans-Montana presents an interesting laboratory for analyzing modes of resource management within a mountainous touristic area. Many studies have approached this case, concentrating on hydrologic questions (Finger *et al.* 2013), the operative ways of managing water resources (Bonriposi 2013, Clivaz & Reynard 2008, Reynard 2000), questions of resort governance of the resort (Clivaz 2006) and water networks (Bréthaut 2013a, Bréthaut 2013b), and social-political questions (Schneider 2015, Schneider et Homewood 2013). The case offers interesting features for analyzing homogeneous and heterogeneous competition for Alpine resources, particularly water resources, within the touristic area.

21 The first distinctive feature refers back to the geographic setting of the resort, which is located in central Valais, a particularly dry area. Although at the heart of the Alps, the area is marked by significant periods of drought, which led to the building of many irrigation canals to move water from source regions to areas under cultivation (Nahrath *et al.* 2011). Second, the resort is characterized by significant institutional fragmentation, since it was developed over the land of six communes[9] (fig. 2). As such, the management of urban water depends on six water services and six communal owners of their corresponding surface water[10]. Third, Crans-Montana has one of the largest visitor capacities of the country (44,000 tourist beds) and thus experiences large fluctuations in its resident population (6,000 permanent residents versus 40,000 inhabitants during peak visitation. The final feature is the highly unequal division of touristic resources within the zone. The communes least endowed with water have the greatest lodging capacities, and the communes most endowed with water have the least tourism infrastructure (Bréthaut 2013a). As a result, there are many transfers of water between the communes, often based on informal agreements, marking a division of labor: while peripheral communes (Icogne and Mollens) contribute to the provision of water (water and biodiversity resources), other communes (Lens and Randogne) have built significant infrastructure for transferring water, while lodging for tourists (land and real estate resources) depends mainly on three communes: Chermignon, Montana, and Randogne.

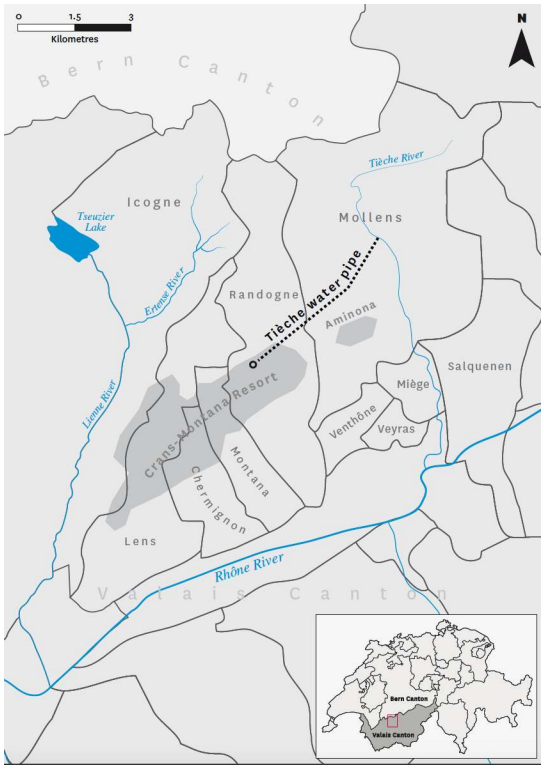
22 The combination of these different elements leads us to observe that what can be called a "*resource geopolitics*", where actors negotiate in order to guarantee the supply of goods and services necessary for their activities. These negotiations are in large measure characterized by informal arrangements (Bréthaut 2013b), often established in a bilateral fashion between communes, allowing the construction of a custom-made system, suiting the particularities of the functional space of the resort (Varone *et al.* 2013).

Aminona: the effects of a new politics of tourism development

23 Among the six communes of Crans-Montana, Mollens, situated at the eastern extreme of the resort, is an excellent illustration of the regulatory stakes in a configuration of competition for goods and services coming from different resources.

24 The Tièche river flows over this territory, and the ownership of its water is divided among different water rights. These rights pertain to communes within the resort (Mollens, Randogne) but also to some communes downstream from the area (fig 2). In this context, the commune of Randogne built a conduit in the 1920s crossing the territory of Mollens. This infrastructure allows the commune of Randogne to carry its water rights to its territory, but also allows the commune of Mollens to transfer, if necessary, the water it is entitled to to the other communes, this free of charge within the framework of informal agreements seeking a well-functioning shared touristic system.

Figure 2: the functional area of the Crans-Montana resort



SOURCE : NAHRATH, BRÉTHAUT.

THE TIÈCHE, OWING TO THE CONDUIT, IS THE SECOND PRINCIPAL SOURCE OF WATER FOR RANDOGNE, A HIGHLY TOURISTIC COMMUNE. THE RIVER THUS PLAYS A SIGNIFICANT ROLE DURING PEAKS IN CONSUMPTION AND THIS FOR THE ENTIRE CRANS-MONTANA RESORT. FURTHERMORE, BASED ON INFORMAL AGREEMENTS, RANDOGNE BENEFITS FROM WATER SURPLUSES NOT BEING DEVELOPED BY MOLLENS FOR ITS OWN SUPPLY.

25 Beyond its importance to the water supply for the resort, Mollens is also in a significant position for the future development of Crans-Montana. The commune holds the greatest reserve of construction zones within the area. As present, just a small part of the commune's territory has been dedicated to touristic activity, as the Aminona resort, built *ex nihilo* during the 1970s and comprising three lodging towers, the only survivors from an original project which envisioned 21 buildings.

26 Until now, the local geopolitical equilibrium has been maintained thanks to intercommunal cooperation, the strength of which has depended in large part on its *flexibility* as well as *informality*. Mollens' strategy however is oriented toward increased tourism development within its territory. This development will in the end require increasing the water supply of the commune through the development of new sources. But it also brings into question the exchanges and sales of water carried out from its territory, based in part on informal arrangements. Since 2008, the commune has been the theater of several large-scale tourism projects destined to further develop the building zone of Aminona. These initiatives have witnessed the bankruptcy of certain promoters, and the filing of an appeal by three environmental groups. The latter have argued that the area includes dry meadows forming part of the Federal Inventory of Landscapes and Natural Monuments of National Importance, that the building permit application file linked to the project had been split into several separate procedures, and that the

projected construction zone did not conform to the Federal Law on Spatial Planning —for being clearly too large and poorly situated. Despite these appeals, decisions by the Federal Court in 2012 and 2014 have opened the way for beginning construction, and in 2013 the *Aminona Luxury Resort and Village* project found new financing. As of now, the project comprises an area of 70,000 m^2, including the construction of 15 hotel buildings (building permits issued), 40 individual chalets (building permits now granted for 27 chalets), five new towers of from 10 to 13 stories, and a public space (authorization in process). It will bring substantially increased pressure on various resources, but water resources especially, within the touristic space.

The sustainable management of tourism resources in Crans-Montana: return to the five theses

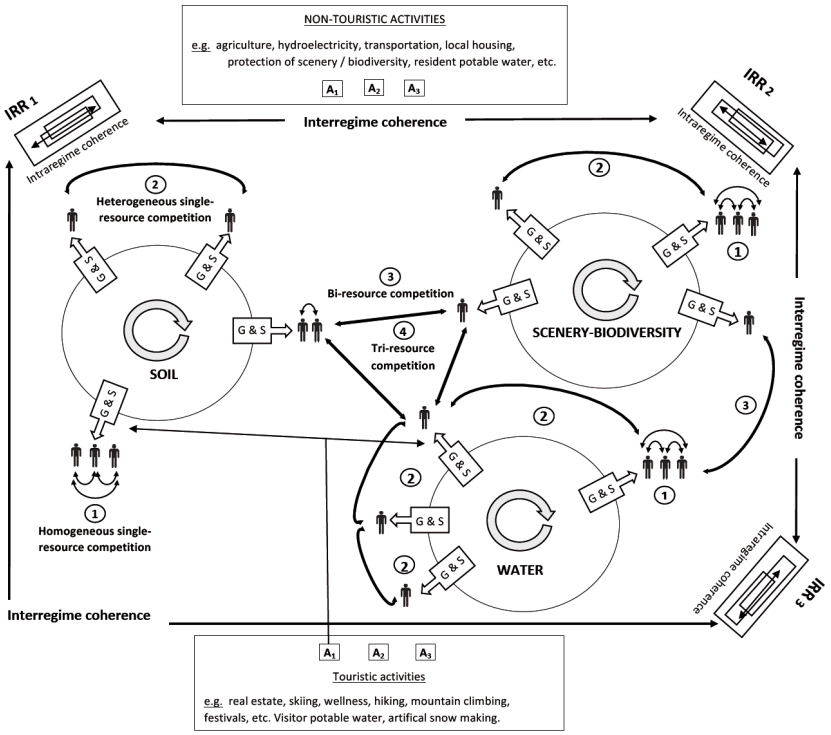
27 The case of the Crans-Montana resort, as well as the more specific case of the tourism project being led in Mollens, supports in our view the five theses presented in the introduction of this article:

28 *First*, the case of Mollens demonstrates well the relations of interdependence and competition for uses of soil, water, biodiversity and scenic resources (heterogeneous multi-resource competition, cf. figure 3, below)[11]. The development of the properties in the construction zone as part of a tourism project depends on the availability of water in the commune of Mollens, a resource which for now is delivered in part for free to the other communes of the resort—following informal arrangements. The completion of the project risks reducing the flow of the Tièche that would be available for nurturing the dry prairies figuring in the Federal Inventory of Landscapes and Natural Monuments of National Importance.

29 In so doing, it also points to the central role of the management of these resources, which engages as much *formal institutional rules of public law* (territorial development polices, water policies, policies regarding conservation of nature and the landscape) as *private law* (land ownership rights, water rights, the absence of property rights over biodiversity and the landscape), and the courts (the 2012 and 2014 decisions of the Federal Court regarding the approval of construction permits for the tourism project).

30 The approach in terms of IRR allows, *secondly*, identifying the problematic effects for territorial resource management of a lack of coordination, or even incoherence, *between* regimes regulating different resources, or between formal regimes and informal arrangements (cf. figure 3 below). In this way the development of the touristic project of the *Aminona Luxury Resort*—which is itself largely the result of the incoherence in the management regime for the resource land (excessive size of the construction zone)—greatly risks destabilizing the relatively fragile equilibrium established in the context of informal arrangements concerning the sharing of water. In fact, with the granting of building permits being conditioned on a guarantee of a water supply for the tourism complex, the commune of Mollens will be forced, eventually, to direct toward the later a substantial part of the water now being transferred to the other communes of the resort within the framework of these arrangements.

Figure 3: Uses and use competition for territorial resources within a touristic area (from the example of the Crans-Montana resort)



SOURCE: NAHRATH, BRÉTHAUT

ANALYSIS OF THE STAKES IN TERRITORIAL RESOURCE MANAGEMENT, STARTING WITH ACTIVITIES (TOURISTIC AND NON-TOURISTIC), ALLOWS LISTING AND QUANTIFYING IN THE FIELD DIFFERENT TYPES OF RESOURCE COMPETITION: HOMOGENEOUS (1), HETEROGENEOUS (2), AND INTER-RESOURCE (3 AND 4). ANALYSIS THROUGH IRR THEN ALLOWS BOTH EVALUATING THE EXTENT AND COHERENCE OF RESOURCE REGIMES IN ISOLATION AS WELL AS THE DEGREE OF (NON)COORDINATION BETWEEN THE DIFFERENT REGIMES. THESE PARALLEL ASSESSMENTS ALLOW THE IDENTIFICATION OF: THE PRINCIPAL INSTITUTIONAL FACTORS RESPONSIBLE FOR THE (NON)SUSTAINABLE MANAGEMENT OF THE RESOURCES; REGULATORY GAPS (INFORMAL ARRANGEMENTS (LRA) LIKELY HAVING A PROMINENT ROLE); AND FINALLY, NEEDS FOR GREATER COORDINATION BETWEEN RIVAL USES OF RESOURCES, WITHIN AN OPTIC OF THE INTEGRAL MANAGEMENT OF THE WHOLE OF TERRITORIAL RESOURCES WITHIN THE FUNCTIONAL TOURISTIC SPACE (A "RESOURCE GEOPOLITICS").

31 *Third,* the case of Crans-Montana shows the significance of informal arrangements put in place and developed in the shadow of the formal regulations of institutional resource regimes. In this way, for example, gaps in the water regime, combined with the regime for communal (at times communitarian) ownership of water resources, explain the importance of such informal arrangements between actors which allow for rapid action, helping maintain equilibria in a tourism space where consumption is dynamic and highly variable across time. Informal arrangements thus construct a kind of custom regulation complementing existing, formal resource regimes. In so doing, the system demonstrates a flexibility and a significant capacity to adapt which constitutes the principal mark of its efficacy. However, as the Mollens case shows, these arrangements can be strained by strategies to intensify tourism development, when these change the equilibria between the actors having originally elaborated those arrangements.

Table 1: the repertoire of the whole of informal arrangements for water sharing between the water networks of the communes of the Crans-Montana resort

	Icogne	Lens	Chermignon	Montana	Randogne	Mollens
Icogne		I->L		I->M		
Lens				L->M		
Chermignon				C->M		
Montana					R->M	
Randogne						M->R
Mollens						

SOURCE : BRÉTHAUT 2013A: 189.

The arrows indicate the direction in which informal water exchanges flow. As such, the table also reveals the strong tendency of this geopolitics of water within the functional tourist space, in that the central (touristic) communes are heavy consumers and are dependent on the peripheral (less touristic) communes for their water supply. The development and subsequent resource demands of the Aminona Luxury Resort, however, will likely force modifications to these informal arrangements.

32 *Fourth*, from the perspective of the sustainable development of touristic areas in the Alps, the case of the tourist complex project points to, at the very least implicitly, the need for a "regional" strategy of resource management grounded in an explicit coordination of the different institutional regimes for strategic resources (fig. 3) as well as of the informal arrangements which accompany their implementation, and this at the scale of the functional space of the resort. The implementation of such a strategy of "resource geopolitics" depends on two principal conditions. On the one hand, it concerns apprehending and monitoring the ensemble of different removals of the distinct resources and, on the other hand, coordinating—that is to say also redistributing—the use rights, not only between groups of users of the same resource (competition of the types 1 and 2 in figure 3), but also between groups of users having competing uses of different resources (competition of the types 3 and 4 in figure 3).

33 *Fifth*, the case of Crans-Montana allows measuring the redistributive—and therefore political—character of the stakes in sustainable management of resources in a touristic space. One finds confirmation of this in the various conflicts accompanying the development of the tourist complex, with environmental-protection organizations attacking the project for reasons of the landscape, using legal arguments taken from the new federal ordinance limiting second homes (scenic resources), the federal ordinance protecting air quality (air resources), or the controls regarding the minimal flows of watercourses and the protection of dry meadows (water resources and biodiversity). This generation of conflict, and judicialization of the management of Alpine touristic resources (the granting of construction permits for the *Aminona Luxury Resort* arose from a Federal Court decisions), shows the acute need for an anticipatory strategy of "resource geopolitics" at the scale of the functional touristic space.

Conclusion

34 This article has allowed illustrating, from a specific empirical case, the relevance and validity of five arguments regarding what is at stake in the sustainable management of Alpine touristic resources.

35 More specifically, it allowed showing that the development of touristic activities has impacts on diverse resources (soil, water, scenery, biodiversity, air, etc.), and that these

activities often enter into conflict with certain other uses (including non-touristic) of these same resources. Such conflicts are likely to hinder sustainable management. For this reason, the long-term maintenance of such tourist uses strongly depends on standing regulations (formal and informal) for the different resources affected by touristic activities.

36 Understanding the stakes tied to the management of resources in an Alpine touristic area implies: (1) a systematic analysis of the uses and rivalries over use that arise around strategic resources (i.e. both the most essential and the most threatened), (2) an analysis of the degree of coherence (or incoherence) of the different regimes (formal) and arrangements (informal) regulating these different resources (figure 1), and (3) an analysis of the level of coordination between these different resource regimes in the (touristic) functional space (figure 3).

37 In this regard, the development of a true strategy of regional "resource geopolitics" probably implies the establishment of (new) more or less formalized institutional structures, such as: intercommunal associations, fully institutionalised (touristic) agglomerations; common-pool resource institutions, informal inter-resource arrangements, or even the merging of communes. These new structures in charge of this resource geopolitics, however, will have to vigilant if they intend to establish their legitimacy over the long term, to avoid the trap, frequent in sustainability strategies, of the "club effect", consisting of the constitution of regimes for which (internal) sustainability is achieved to the detriment of the sustainability of the surrounding spaces (external) (Nahrath *et al.* 2012).

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NOTES

1. This even while the good condition of these resources, assuring scenic quality, is a necessary condition for these same tourist activities.
2. The ensemble of these notions and concepts are presented in greater detail in the following section.
3. This notion of "resource geopolitics", applied at a regional level, does not to our knowledge refer to a clearly identifiable body of scientific literature. Here we invoke the term in an essentially intuitive and suggestive way, relying however on the related concept of "functional space", elaborated more explicitly.
4. By *extractability*, we mean a form of removal of a good or service by a user implying the impossibility of other users to simultaneously use the same good or service.
5. By disposal rights, we mean the ensemble of rules defining the ability of owners to transfer (give, sell, etc.) or engage (rent, pawn, mortgage) their formal property titles.
6. The analytical framework distinguishes three types of coherence: (a) the coherence of public policies (especially between policies of exploitation and policies of protection), (b) the coherence of the system of property rights (a clear definition of property rights, corresponding to the reality of the available resource units and (c) the coherence between public policies and the system of property rights (target groups of public policies are effectively holders of use rights and the capacity of public policies to effectively regulate (in particular, to limit or redistribute) rival/concurrent use rights over one or several goods and services in full drawn from of one or several resources).
7. By *extent* of the regime, we mean the number of goods and services taken from the resource which are effectively regulated, be it by public policies, property rights, or a combination of the two.
8. For a more complete description of this case study, see Bréthaut & Nahrath 2011; Bréthaut 2013a, Bréthaut 2013b.
9. These were the communes of Icogne, Lens, Chermignon, Montana, Randogne, and Mollens, which however will merge on January 1, 2017.
10. In the canton of Valais, unlike most other Swiss cantons, the communes are considered the owners of surface water.
11. For a more in-depth description of these rivalries, see Bréthaut 2013a.

ABSTRACTS

This article, drawing on the analytical approach of institutional resource regimes (IRR), offers an original analysis of the challenges of resource management in an Alpine touristic space (Crans-Montana in Switzerland). Particularly, it shows how an approach in terms of IRR allows identifying the institutional and political conditions for sustainable management, not only for touristic activities as such, but also for a territorial system of resources as a whole. Based on this analysis, the article advocates the development of a "resource geopolitics" strategy capable of coordinating the different resource regimes at the scale of the functional space of the tourist resort.

INDEX

Keywords: institutional resource regime, touristic space, resource geopolitics, Switzerland

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