The Battlefield of Water Rights: Rule Making Amidst Conflicting Normative Frameworks in the Ecuadorian Highlands

Rutgerd Boelens and Bernita Doornbos

Property relations in irrigation and water rights distribution have become central issues in current policy debates and rural development initiatives. Nevertheless, there is still a great lack of understanding about what water rights-in-practice are, how they function, and how they are created, consolidated, and transformed from abstract sociological categories into local procedures and in-the-field practices. Understanding users' rationality and local expressions of water rights in peasant and indigenous communities is of crucial importance if we want to comprehend their claim for water rights and perhaps support local empowerment processes in common property water control systems. This article explores irrigation development in the Ceeceles zone in Ecuador. It is based on action research that has pulled the researchers into an analysis of the peasants' struggle to acquire and define water rights and to achieve recognition for the legitimacy of their normative system authorizing those rights. The article analyzes how different interest groups have sought to defend and control rule making amidst conflicting normative frameworks. The research made clear that actual water rights are not simply defined in lawyers' offices and at engineers' design desks; they are negotiated and enforced in processes of social struggle. Moreover, water rights not only give access to water but also constitute power relations that define the control over decision making on water management. Water rights are dynamic, and even long-standing rights may be sacrificed to strengthen local autonomous organization.

Key words: water rights, irrigation, peasant and indigenous organizations, empowerment, legal pluralism, Andes, Ecuador

With growing water scarcity and conflicts in many regions of the world, water rights and property relations in irrigation have become pivotal and strategic issues in water legislation efforts, policy debates, and rural development programs. However, policy makers, intervening agencies, and rural development analysts typically consider water rights as uniform black boxes filled only with water that must be distributed, be it equitably, efficiently or both. For peasant and indigenous communities a water right has other components as well, which are created, reconfirmed, and recreated in location-specific historical processes within cultural and political contexts. There is an intimate relationship between water rights and power relationships surrounding and evolving within irrigation systems. When we want to analyze and search for ways to support local empowerment processes, it is crucial to understand how these norms are constructed and reproduced. Of the many conflicts over water in the recent history of the indigenous communities of Ceeceles in Chimborazo Province, Ecuador, we describe two, namely between local communities and the state irrigation agency and between two factions (participants and nonparticipants) that arose among the Ceeceles irrigator families after winning the first struggle. However, before focusing on this case of irrigation development and organizational strengthening, we briefly outline some conceptual tools to approach the social construction of irrigation and water rights in Andean community systems.

Irrigation, Power, and Legitimacy

Water represents power and potential in the Andean highlands. Paradoxically, this leads to intense confrontations but also to solid collaboration among societal groups. Water's
importance and worsening scarcity act to intensify conflicts for access to water and for control over water management. At the same time, water is also a means of empowering and mobilizing people and can be the driving force behind the formation of strong common property institutions, grounded in shared rules and collective rights. These irrigation management norms are the backbone of community systems in the Andes—a body of rights, obligations, and working rules for system operation and maintenance, shaping and being shaped by the users' organizational structure. They comprise normative systems that display enormous variety from one irrigation system to the next. Obviously, such normative systems, besides being embedded in locality-specific physical and ecological environments, are interwoven with the history of Andean society's cultural, political, economic, and technological foundations. These ingredients give rise to diverse power structures, within which peasant and indigenous irrigation systems are generated, reproduced, and transformed. Many studies have shown how this is a two-way relationship: irrigation systems set operating rules and distribute benefits and obligations which reflect society's existing power structures; simultaneously, irrigation systems' dynamics influence power relations and can either reproduce or transform prevailing societal relationships (cf. Bolin 1990; Gelles 1995, 1998; Mitchell and Guillet 1994; Pacari 1998; Van der Ploeg 1998).

This interaction between irrigation systems and power relationships leads to the generation and reconfirmation of working rules, which are expressed both in norms structuring stakeholders' social behavior and in the criteria and agreements guiding the development and functioning of irrigation infrastructure. Thus, society's norms structure the development of irrigation technology and, in turn, irrigation technology embodies societal norms that search to structure the social practice of irrigation and the distribution of the benefits generated. This last aspect tends to be troublesome, especially when users have not built the technology themselves and do not share the norms built in by its designers (Apollin et al. 1998; Mollinga 1998; Uphoff, Wickramasinghe, and Wijayaratna 1990).

Accessing Water Rights

Different Andean irrigation systems have different mechanisms for obtaining water rights. Each mechanism's enforcement depends on whether the users and their communities recognize the power and legitimacy of the authorities regulating these mechanisms. It is also common for the different authorities—governmental and peasant communities' leaders—to have diverging concepts regarding the legitimacy of existing mechanisms when put into practice in particular situations. Basically, we can distinguish among the following categories of mechanisms for accessing water rights in peasant systems (Boelens and Doornbos 1996:39-40; Hoogendam 1995:7):

1. A water-usage rights concession, granted by the state administration;

2. Historic and socioterritorial rights: entitlement to water for the inhabitants of the socioterritory to which the water source "belongs"—riparian rights (based on the possession of land with a water source or located along a stream) and prior appropriation rights (based on "first come" claims) are specific forms of this rights access mechanism;

3. Transfer of water rights from one rightholder to another through sale, inheritance, marriage, barter, or donation;

4. Acquisition of water rights by force: coercive expropriation of (mostly peasants' and indigenous peoples') water rights by power groups. Appropriated rights have not always received state backing, though often they have. It is very common, however, for them to become institutionalized and legitimized in local proceedings, within prevailing power structures; and

5. Users' investment of their own resources (e.g., labor, capital, goods, time and intellectual and ritual contributions) to build or rehabilitate irrigation facilities, thereby creating water rights.

Within a given region, it is common to find several different mechanisms in force simultaneously, and they usually appear in many different ways. The last mechanism for acquiring rights—user investment—is often extremely important for peasant communities in the Andes. Coward (1986, 1990) correctly posits that creating irrigation infrastructure establishes property relationships among the system creators. By investing in the facilities, users create their "hydraulic property," a common ownership of the system, which is the factor bonding irrigators together and driving their collective action. This forms the basis to guarantee implementation of the different management tasks required by a user-managed system. The mechanism also guarantees peasant and indigenous communities, as collective bodies, that they will have effective control over the development and application of their own norms for managing their system. Furthermore the mechanism sheds light on the conditions for realizing and consolidating sustainability of irrigation systems (Vincent 1995). The latter have a firm interrelationship and coherence among three parallel processes: construction and rehabilitation of the infrastructure, creation and reconfirmation of the water rights, and setting up and strengthening of the organization. In other words, there's ongoing interdependence among the infrastructural system, the normative system, and the organizational system. Changes in one of them correspond—or ought to correspond—to changes in the others (Boelens 2000:67-68).

The Right to Establish Water Rights' Contents

Creating, consolidating, and transforming water rights are all part of the above dynamic power interplay. Basically, water rights are a relationship of power among subjects, more
than just a relationship between the subject “user” and the object “water.” In this relationship, some stakeholders obtain or have the right—authorized power—to act in such a way that it influences the rights of others. Obviously, in this social relationship the access to water, under certain conditions and according to established volumes, flow rates, and time scheduling, is a central issue. However, the great interest of various social sectors in controlling how water rights are defined and allocated cannot be explained just by their perceived need to have access to water and to the infrastructure that conveys it. More is at stake: holding water rights in common property systems often also grants the right to take part in decision making about system management rules and about the local definition of the precise contents of water rights. And at a third level, we see a dispute about the very legitimacy of normative systems and their authorities: who has the legitimate power to set norms and authorize claims in peasant and indigenous irrigation systems? In the Andes we find many forms of normative pluralism. Even within a single system, several normative systems usually coexist and interact, with their functions, uses and authorities often at loggerheads.

Normative Frameworks and the Interaction Among Them

At the national level, there is the state’s normative system, founded in a general, nationwide application, expressing the equality of all members of society in terms of rights and obligations, generally without any exceptions that would recognize the validity of different normative subsystems. Consequently, many user groups do not feel that such general laws recognize them, represent their cultural principles and understanding of water management, or acknowledge their needs, assets, or organizational forms. De la Cruz (1993:81) concludes that “the principle of equality before the Law is valid for the identical and profoundly unjust for the diverse.”

However, the ideology of official law does not simply materialize in practice in the way its authors had presumed (see Benda-Beckmann et al. 1998:61-64; Correas 1994:70-71). The way official rights are enforced, and their effectiveness, will vary according to situation and context. This is due to the ongoing interaction in which, on the one hand, officials responsible for enforcement interpret rights as they see them and “distort” them in practice, whereas, on the other hand, the supposed “receivers” are highly heterogeneous in their “acceptance” of official rights. Further, there is strong interaction among already existing local normative systems (e.g., state water resources law, religious and cultural laws, and customary irrigation rights) and the “laws” generated or imposed by multiple project interventions in irrigation, which often set their own criteria for irrigation management (Gelles 2000; Long and Van der Ploeg 1989). In the practice of Andean peasant and indigenous irrigation, we may find both norms or normative systems operating according to the law (sometimes the state itself institutionalizes special laws for specific sectors), others operating outside the law (normative systems without legal backing, neither accepted nor prohibited by the law), and others operating against the law, with their own rules that are illegal according to official legislation (Stavenhagen and Iturralde 1990; Wray 1993).

In Moore’s (1973:720) words, we can analyze the peasant irrigation system in the Andes as a “semi-autonomous social field,” surrounded by rules and forces emanating from the broader societal setting. This field “has rule-making capacities, and the means to induce or coerce compliance; but it is simultaneously set in a larger social matrix which can, and does, affect and invade it.” They are semiautonomous, not only because they can be affected by norms and forces in effect under other normative systems, such as the national legal framework, but also because stakeholders in the social field can mobilize these outside norms and forces, or threaten to do so, when negotiating or confronting other actors in the social field. However, they also have a certain degree of autonomy, because the legal or “outside” norms have a limited function and scope within the normative domain, and their own, nonlegal binding rights and obligations are often strong and quite important.

When the user families’ own system has not set all the rules required, or lacks authority to tap into other normative systems to obtain backing from outside the community, certain actors may turn to other normative systems. Especially when conflicts arise, stakeholders select strategically out of other sociological systems the norms, rules, and procedures that may legitimate and strengthen their particular claims (Benda-Beckmann et al. 1989). As we shall analyze in the case at hand, the possibilities for water users to “shop around” among other normative systems depend both on the power they are able to accumulate to sustain and legitimize their claims, and on the water user community’s overall acceptance of the legitimacy of the outside normative system in question.

The dynamics of the process of creating and reproducing water rights, the inherent struggle to legitimize the community’s own authority inwardly and outwardly, and, therefore, the tight linkage between the development of these community rights and changes in the power structure, imply that working on water rights can open up major opportunities for either consolidating and reinforcing the status quo or empowering alternative stakeholders (Menchú 1998; also see Boelens 1998, 2001; Doornbos 1996; McCoy and Jentoft 1998; Van der Ploeg 1998).

The next section analyzes these normative dynamics in the case of Cecelae, focusing on collective power not only as an instrument of domination (“power-over”), but also as a force for protest and advocacy, a source of resistance and creativity. The capacity to generate and innovate (“power-to”), organized collective action (“power-with”), and identification, identity, and self-esteem (“power-within”) are

The Process of Confrontation and Negotiation of Rights in the Gompue System, Cceles

The logic and rules of peasant rights in Andean irrigation practice are manifested, above all, when there is outside intervention in an existing irrigation system. The conflicts and problems that usually accompany the intervention highlight the existence of unrecognized normative systems. To illustrate the concepts analyzed above, we will outline the case of an intervention process in an Andean community system: the Gompue System, in the zone of Cceles, Licto parish, province of Chimbó, Ecuador. The indigenous families requested the support from the Ecuadorian NGO Central Ecuatoriana de Servicios Agrícolas (CESA) in their struggle to improve their water access and water control conditions.

The authors participated in this process of action research and irrigation development from 1992 to 1997. Working with CESA, they assisted both this NGO and the Cceles families in developing several technical and organizational alternatives for the new irrigation system and its integration with the existing system. The methods used during the action research consisted of a combination of academic research and interactive, action-reflection methods. Specific historic data were gathered through interviews with key persons in the Cceles area, such as the community presidents, secretaries, treasurers, the eldest community members, and the heir of the local landlord. More general historic data were collected through literature review. Participant observation, informal and semistructured interviews with most irrigator families, meetings with representatives of all local factions, irrigation analysis, and agroecological evaluations provided information about the existing irrigation system and the communities' production and livelihood strategies. Additional local data on legal and statistical issues were collected in the national and provincial offices of the state agency then responsible for irrigation development—Instituto Nacional Ecuatoriano de Recursos Hídricos (INERH)—and interviews were held with agency personnel and CESA.

To elaborate alternative water control proposals and discuss these with and among the Cceles communities, excursions were organized to other irrigation systems in the country, and exchange meetings were held with water user organizations in places with similar dilemmas. Sessions among Cceles representatives and irrigation authorities of neighboring communities in the Licto area strengthened the exchange of local farmers' solutions, helped to define the embeddedness and connection of the Cceles irrigation system in the context of the wider organization and irrigation area, and provided institutional support for "solving the Cceles question." Alternative proposals were elaborated by CESA and Cceles leaders, assisted by the authors. These were discussed in collective field meetings in which all families participated. Use of portable scale-models, audiovisuals, community drawings, and collective analysis techniques supported the action-reflection and negotiation process, whereby the consequences of each alternative were discussed and decisions were negotiated among the stakeholders. The background and results of this process are discussed in the following sections.

The Normative Framework of the Gompue System

For peasant families in Cceles, having irrigation water means the difference between a single, dryland crop of maize, with beans or peas, barley and wheat, and the possibility of growing additional vegetables, fruits, and alfalfa for livestock the year-round. Irrigation offers peasant families security for production and subsistence and doubles or triples their annual production. It also makes it possible to diversify crops and livestock activities. Peasant families in the Cceles area have water for their plots thanks to the old Gompue ditch, which carries water to a zone located at 2,950 to 2,800 meters above sea level. All communities in Cceles are made up of indigenous people. As often happens in the Andes, they have had hard-fought confrontations over the years with the mestizo (nonindigenous) hacienda owners, and this has deeply influenced the current distribution of water and land rights.

The four-kilometer earthen ditch brings water from the Gompue River using a simple, stone-brush intake. The ditch dates back some 120 or 130 years. The infrastructure was built using labor provided by indigenous people bound to the hacienda (huasiypungueros). Starting some 30 years ago, the indigenous people gained access to land and water from the irrigation system by purchasing land for which irrigation had been scheduled. As time passed, inheritance and sale of plots in the irrigation area have scattered land and water property rights among indigenous peasant families belonging to eight different communities. At present, the system consists of a large group of very small plots totaling about 50 hectares under irrigation. The nominal flow of 35 liters per second usually fluctuates between 10 to 40 liters.

The Gompue system is a common property system—officially labeled as private—handled by the communities themselves (Bromley and Cernea 1989; Ostrom 1990). There are interactions with the state irrigation agency. For example, the state has allocated water rights to the system as a whole, a group concession. In practice, however, users refer to their water rights as ancestral rights because of the labor invested by their grandparents and the lengthy history of social relations with the ex-hacienda they were bound to: although in former days the water was not their formal property, they did consider it as such. They also base their claims on the consideration of the societerritorial right: part of the river's water "belongs to the inhabitants of Cceles" because the river crosses through their territory.
Even though the indigenous households had acquired formal and informal rights, irrigation water supply is not secure, and they must constantly defend it from claims made by other parties to prevent the state from allocating the water to other communities upriver. After disputes over water with the hacienda owners, Ceeceles has had to keep fighting with neighboring communities to maintain the rights they attained. This struggle has taken place both within the state’s normative framework and in dealing with other communities on the basis of their own local defense rules.

Water rights in Ceeceles are family-based and grounded in the common property of the system and the water source (Benda-Beckmann et al. 1998; Bromley 1992; Bruns and Meinzen-Dick 2000; Doornbos 1996). According to local communities’ decisions, the contents of a water right entail the right to share in using water, the right to use the irrigation infrastructure, and the right to take part in assemblies, speaking and voting in system-management decision making. Water rights, and therefore voting rights, also make holders eligible for election to administrative positions (cf. Boelens and Zwarteveen 2001; Schlageter and Ostrom 1992; Yoder and Martin 1998). Local rules establish that rights can be inherited, sold, and exchanged (only) within the users’ group, provided this is approved by the users’ organization. Users’ obligations, to ensure system continuity, are to pay their dues, attend assemblies, be eligible and perform as leaders—which is a right and an obligation—and, above all, take part in community mINGAs. The mINGa system provides labor to maintain and repair the canals and simultaneously is the fundamental mechanism for recreating and consolidating water rights. The irrigators’ organization enforces these obligations through social control and by levying fines for failure to participate; for the irrigators’ organization this is the way to ensure continued access to water.

The Ceeceles-Gompuene irrigation organization currently numbers some 235 irrigator families coming from different communities. It is remarkable that, to operate the system, the Ceeceños have not appointed anyone to oversee the canal or monitor the proper, agreed upon, distribution of the water. This is even more surprising when we look at the fact that in this system, although water is very scarce during the dry season, the scheduled turns are put into practice punctually and generally without any squabbles. Each irrigator supervises the canal individually, and water is distributed on the basis of social control among irrigating neighbors. Each water user is a “time-keeper.” In irrigation practice, the organization has no specific “water judges”: if any disagreements or quarrels occasionally arise, they are resolved at collective meetings, where the community leaders handle conflicts and facilitate solutions. These are indicators of the strength and autonomy that the Ceeceles organization has: it is known as a collective group that not only enforces compliance by each member, but has also earned respect from all surrounding communities. These neighboring communities call the Ceeceles people los bravos—the tough ones. And the orderly, well-disciplined distribution in Ceeceles by no means reflects practices in neighboring systems, be they governmental or farmer-managed.

In Ceeceles, water is distributed by a rotation schedule indicating the time allotted to each user to irrigate. During their turn users get the whole flow, every two weeks. Irrigation is round the clock, by day and by night. The rule of thumb distributes water proportionally to the right holders’ landholding, although this has undergone many changes over time. Because families usually have a number of small, scattered plots, and because of the limited size of their holdings, some families would receive a turn of only a few minutes. To avoid such unmanageably short turns, the minimum time allotment is five minutes—the five-minute turn is very common in the Ceeceles small-farmer zone.

Dynamize or Dynamite—the Struggle for “New Water”

According to the Ceeceños, the Gompuene system’s main problem is water shortage. A second problem users directly mention is the two-week irrigation interval: too long between waterings to be able to change the current cropping pattern to include more vegetables or intensify current production. The continuation of the current flow rate is also unsure, since the communities upriver may some day succeed in getting some of the water allocated to them. To increase the old ditch’s flow rate for the existing 50-hectare irrigation area, and also to irrigate some 150 hectares of unirrigated land in Ceeceles above the Gompuene canal, the Ceeceles peasant communities have been pressuring for inclusion, additionally, in another system, the Licto-Guaraguallá irrigation project. With a secondary canal from that system, they could complement their current supply (see Figure 1).

The Guaraguallá project, originally a state system, has a long history. Planning was initiated by the national agency, INERHI, in the 1970s; the final designs were made in Quito in 1989, with little knowledge of the local communities. The planners and designers had made no attempt to include community norms or rationality in the design; they ignored community boundaries, intercommunity organizations, and peasant families’ customs and knowledge. They never discussed, negotiated, or defined the project’s basic criteria with the future users, such as rights and obligations, criteria for access to the system, organizational structures, and technical designs (cf. Boelens 2001; Hunt 1989).

The Ceeceles sector was an example of how zones were arbitrarily included or excluded from the irrigation project area. Despite strong socioeconomic, geographical, and organizational arguments and historical commitments, the state agency excluded this zone after conducting the feasibility studies, but without any clear discussion with the peasant families, who were dumbfounded. When, in 1990, the sector turned out not to have been included in the original design, the people of Ceeceles began their struggle to gain access to the Guaraguallá water. At the background of the confrontation
was a clear distinction between two different ways of normative reasoning. As one Ceceles peasant put it: "It doesn't matter if they say the government gives water rights—we have water rights!"

The dynamics of rural communities often do not fit with the rigidity of outside professionals' organizational and technological designs. On their own initiative, and to pressure for inclusion in the project, in 1992 Ceceles began building nine kilometers of platform for a secondary canal. A local leader explained: "If they won't give us access to the water, we'll go get it!" Projects often refer to these processes as acts of sabotage perpetrated by the Andean peasants, supposedly caused by villagers "underdevelopment and lack of education." Aside from pressuring by building the canal platform, Ceceles threatened tougher measures, leaving the decision up to the government: "You dynamize the system, or
we dynamite it!” And, in fact, Ceeceles leaders had already selected the strategic elements of the system that could be modified, such as the inverted siphons that would take water outside the parish.

To build the platform, they hired their own surveyor to lay out the course, and, for over a year, the future beneficiaries worked in mingas, digging the platform under extremely difficult conditions and with no assurance they would be included. During this time, participants in the new Ceeceles canal work had formed their user organization within the community organizational structures and with leadership in charge of obtaining access to the Guarguallá water. The organization grew as work progressed and made its own rules about work input and future water rights.

Not only was labor invested—people also put in cash, attended meetings, made their intellectual contributions, and took personal risks. This was based on one of the most important norms at that time: until the water starts to arrive, labor input must be equally invested by each future user, regardless of land area. In the words of a community leader: “In the main struggle, we all work together as equals.” However, another rule was that beneficiaries would receive water according to their land holdings. Equal contributions were to assure equal decision-making rights, so, according to one of the commoners, no larger landowner could ever say: “I put in more labor, so I have more say in management.”

The people of Ceeceles received support from CESA, which had been involved in implementing the Guarguallá system since 1990. The intercommunity peasant and indigenous organization of Licto (Corporación de Organizaciones Campesinas de Licto [CODOCAL]) also defended the interests of all communities in the parish territory of Licto. In 1994, the efforts of the Ceeceles-Guarguallá users’ organization, backed by CODOCAL, CESA, and the funding agency (Agencia Suiza Para el Desarrollo y la Cooperación [COSUDE]), bore fruit. Their zone was included in allocation and distribution of Guarguallá system water. The state irrigation agency was finally convinced by the power arguments of the Ceeceles communities described above, the pressure of the institutions supporting Ceeceles’ claim, and the agency’s tacit recognition that it would not have the means, capacities, and local presence to enforce decisions considered unfair by the communities in question. This shows how, in irrigation development practice, water rights and distribution rules are often formulated not just through prescribed legal and technical designs, but on the run and during a process of confrontation, as different groups or institutions with conflicting interests vie with each other. Rule making and right accessing depend on the resources, capacities, and alliances that each interest group can mobilize.

The Clash Between the Old Irrigation System and the Newly Introduced One

Although Ceeceles was organized to work on the platform and fight for inclusion in the project, internal divisions arose among users of the old ditch regarding the newly acquired water. The problem that the Ceeceles-Guarguallá organization faced in building the platform was that not all old-system users were interested in taking part in the Guarguallá project. Only 30 out of a total of 235 families using the Gompuene water did not take part, but this still posed a stumbling-block for integrating the two systems.

Nonparticipants had various reasons for staying out of the Ceeceles-Guarguallá organization. Several had only very small irrigated plots and owned no dry land above the Gompuene canal. Obviously, they would reap very little benefit from investing their labor, especially since labor input was independent of land area (everyone had to put in the same amount of labor). Some lacked confidence that the new water would ever arrive: “How many times have they fooled us before? This Guarguallá canal is another hoax!” There were also cases of too few family members to work over an absence of heirs who could benefit from the new water rights in the future. In other cases, irrigators were simply satisfied with the amount of water they received from the Gompuene system.

Those who did take part in building the new canal were quite skeptical of such arguments. Challenging these excuses, they accused the holdouts of being “free-riders” who were not pulling their own weight. “Later on, they will be wanting to join up, without having ever got their hands dirty. They are loafing while we fight for our rights and sweat in the mingas!” They were referring to the possibility of joining the organization at any future date, by paying an entry fee. Participants were also afraid that, in the future, heirs of nonparticipants might forget the history of how the rights were created and claim their rights to water from both sources, although their parents and grandparents had refused to contribute.

Since not all holders of rights to Gompuene water took part in the struggle for the new water, future distribution of water from both sources would be troublesome. Irrigators living in the same community would have to be differentiated in terms of their water rights: a majority entitled to both sources (Gompuene and Guarguallá) and a minority entitled to only one source (Gompuene). A crucial question arose: should the two flows be mixed or not? Mixing would increase the Gompuene canal’s flow, and it would also give extra water to nonparticipants. Or should long-standing rights and access be respected, by building two separate systems in a single irrigation zone, even irrigating the same plots, with ditches running parallel for many kilometers, separate scheduling, different flow rates, and different administrations and obligations?

Technical solutions and distribution principles in peasant communities are not general or standard but are produced in response to different social relationships and contexts. In Andean irrigation, some ditches do, in fact, run parallel to each other for kilometer after kilometer; others carry two flows, mixed together and later separated; and in others the different flows have been permanently mixed. Each of these

VOL. 60, NO. 4, WINTER 2001
technical solutions has its own normative logic, based on whichever principles are considered most important, the prevailing power structures, and negotiation processes in the respective community system. Therefore, the NGO that, along with the users, was to be the future supporter, coresponsible for irrigation development, agreed with the users' organization to conduct specific interactive research, prior to intervening in construction efforts. The main objective was to find out about different normative systems and proposals and about existing water user practices and interests. Then, on that basis, CESG, in a collective effort with the user groups, would seek alternatives for future distribution of the Guampue and Guarguallá systems' water.

The research revealed that a "simple" dichotomy between new canal participants and nonparticipants oversimplified the zone's diversity of interests and groups. Diversity of interests between (and within) households resulted in preferences, normative proposals, and different strategies for implementing the new system and distributing the future water. However, the various visions and positions gradually polarized, resulting in a dichotomy between participants and nonparticipants. Diverging opinions became increasingly deep-seated around three interconnected issues:

1. To combine the new water with current flow or not? The new water organization's leadership favored combining, but the nonparticipants were resoundingly opposed, arguing it would distort their current rights since they were not going to join. Aware of that, to combine the two flows, all users would have to take part in the organization, the leaders tried to get everyone to join. The reason is obvious: otherwise, if nonparticipants shared in water distribution once the two flows were combined, they should have specific changes in their schedules (shorter turns, for example) since their rights are constrained. This would greatly complicate and confuse distribution and user-managed administration. It would also lead to a serious problem whenever, in the future, the flow from the Guampue canal ran dry: heirs of nonparticipants could insist on continuing to use the combined water, as they had been doing all their lives.

2. To create two overlapping distribution systems—have two irrigators' organizations in a single irrigation zone—or to build an integrated system? Nonparticipants favored the two superimposed systems to ensure their original rights. By contrast, the new water families and their leaders wanted a single distribution system, with a single administration. They also reasoned that two diverging types of water rights in one system would create two kinds of land: that with both sources of water and that with access only to the previous source. The leaders pointed out that, even with parallel field ditches, it would be impossible to prevent nonparticipants from using both sources of water in Ceeles' complex and scattered pattern of land tenure because water from both sources would be running along their fields simultaneously.

3. When the new water arrived, should existing rights be respected or should water rights be allocated according to new distribution norms? This issue concerns all rightholders, whether they participated in the new canal or not, since all 235 families have existing rights in the original canal's irrigation area. The leaders proposed that the new water would entail a new beginning, calling for clearness and transparency, and that everyone should give up their previous rights to distribute the total flow according to plot area.

From Conflicts to Negotiation About Rights

On the basis of user groups' different interests and proposals, a total of nine technically and organizationally viable alternatives were identified. Each sought to respect minority groups' arguments and concepts regarding equitable distribution of rights and obligations. However, during discussions about alternatives, the majority feared that division into separate systems would severely weaken their capacity for collective defense and survival. They opted for a single, undivided irrigators' organization to manage a system in which the flows would be combined and then distributed according to a single distribution system. To have a strong, united, sustainable organization, they needed clear rights and obligations, that could be enforced only within a single organization. For this reason, the new water organization's participants left the door half-open for nonparticipants to join.

However, when no consensus was reached, the Ceeles-Guarguallá participants turned to their heavier artillery: they threatened to not only deny nonparticipants access to the new water, but also to cut them off from the old Guampue water. Some even mentioned taking away nonparticipants' land altogether. They reasoned that, being the overwhelming majority of Guampue users, they could deny access to the minority, despite the minority's water rights.

Unsatisfied, nonparticipants turned to the state agency's offices to find out whether it would be legal to combine the flows or—if worse came to worst—to deny them access to the water.

Using official laws to obtain formal recognition is a major strategic element of peasant customary law. In this zone, where the state's normative framework had a limited influence on irrigation, many official laws are enforced or advocated only when people feel they are in a position to pressure for certain legal rights. For this, they should not only be aware of these rights, but also be organized and powerful enough to reach and mobilize the state's coercive power to get their own way. Ceeles nonparticipants were not powerful enough to stand up to the majority or to mobilize official/legal support against the majority. Participants were not flustered by attempts to muster state institutions' support. As one Ceeles leader put it: "If they declare war, if they take us to court, who cares? No lawyer would be party to such a lawsuit confronting this community in its own home base and, anyway, how are they going to keep us from denying them the water in actual practice?"

Cowed by the majority's strength, nonparticipants looked for a way out. Joining the Ceeles-Guarguallá organization was one of the few viable possibilities to maintain their water rights. But at what cost? Many felt the membership fee...
was too high, especially for those who owned little land. The Ceeceles-Guaraguallá leadership was quite interested in admitting nonparticipants into the organization, but under what conditions could this be done? The entry fee reflected investment in labor, fees and organizational inputs from each one of the participants. Reducing entry costs for new members would mean they would not only join "without getting their hands dirty," but also that members who had participated would lose trust in the organization. One user explained this common feeling: "How could my contributions be worth less than a fee paid by these people who never helped work?"

After many conflicts, meetings, and discussions, community members negotiated a final solution in the General Assembly: the 30 families would join the combined system and pay a discounted entry fee according to the amount of land each family owned. It was agreed there would be only one united organization with a single distribution system. The flows would be mixed in the main canal, and the enhanced flow would be divided into two equal parts for distribution to two zones of equal area within the system "to make things clearer." This distribution replaced previous rights with the new rights. To obtain the new water, all would work equally to have equal rights to speak and vote. However, each family would receive water according to its landholdings because "there are no big landowners among us." Additionally, to improve production possibilities, they decided to shorten the irrigation interval from every two weeks to a weekly rotation schedule.

Conclusions

Water Rights and Subsistence Strategies

The great importance of local normative systems in the Andes, in combination with the undervaluing and oppression they have suffered for centuries from official authorities and state law, have often led to uncritical, dogma-ridden analysis of the contents of peasant and indigenous law. This happens both in certain visions of customary law—as a still life of ancestral customs, fixed traditions, and absolute historical rights—and in the currents idealizing the harmony of Andean life and community systems. Such analyses of customary law neglect its internal contradictions. As the case of Ceeceles shows, however, a local definition of equitable rights does not refer to a harmonious concept, or to peasant and indigenous dogmas, but to a dynamic political construct that reflects the divergent economic, institutional, and cultural objectives and the power of the societal groups involved. Stakeholders contest and negotiate the rules in the day-to-day encounters and arenas where the development of their irrigation system takes place. For peasant and indigenous water users, this dynamic process takes tradition and customs not as determining factors but as important sources of contemporary norms and current rights.

Obviously, this conflict-ridden development of rules does not deny that there are certain fundamental, shared interests among stakeholder families in Andean irrigation systems. Because of the adverse, harsh conditions they face in the highlands, individual households are aware that their survival must be guaranteed through the reproduction of their collective system: a forced, intensive, and often daily collaboration among user families. This collective contractual reciprocity, grounded in particular livelihood strategies, often forms the backbone of Andean community irrigation systems and plays a key role in the production and reconfirmation of the rules and rights. The case of Ceeceles shows how irrigation norms rooted in community rationality must guarantee collective action to sustain the irrigation system. Each member's rights and obligations are derived from collective rights and duties. Moreover, in many peasant communities, as in Ceeceles, a family's water rights depend not only on performing its obligations within the irrigation system but also on performing other collective tasks established by the community. This fact roots these rights in the other components of the community's normative system.

Organizational Unity and Legitimate Authority

For many years, the people of Ceeceles have fought for recognition of their access to water and management decision power, through the mechanisms of creating rights through user investment and recognition of socioterritorial rights rather than depending on state concession. After winning this pitched battle, Ceeceles found itself divided by internal contradictions: between the need to guarantee future sustainability through a single community system (the position defended by the leadership and a majority of the families) and the advocates of the normative system that had operated previously in the zone, the nonparticipants. The Ceeceles-Guaraguallá participants proposed respect for the norms of the indigenous community's majority and even suggested that the rest could be stripped of their water and land rights. By contrast, nonparticipants demanded respect for ancestral water access rights. So, the two groups appealed to different normative systems to obtain recognition of their rights. Participants reasoned that, being the majority, they had the power to change existing rights and formulate new principles. As a defense mechanism, nonparticipants attempted to get official legal backing and tried to legitimize their claims by appealing to state institutions. Paradoxically, the nonparticipants appealed both to official rights and to their ancestral rights—two normative systems that are often in conflict or simply refuse to recognize each other. As the nonparticipants "shopped around" in this state normative system, they showed that the oft-mentioned contrast between official and ancestral rights is not always a valid or exclusive basis for analyzing normative contradictions.

The outcome of negotiation about integrating the two systems was for all to join in the combined system, making it possible to mix the flows and irrigate according to a distribution system based on a single body of water rights. The strong
stance taken by the leadership and the participant majority, overriding the minority opinion, showed that they felt the most important issue was to defend and reinforce their autonomy. They placed respect for different normative sub-systems, rooted in different justifiable claims, as secondary to the importance of organizational unity and transparency, which could be attained only by a single water management system. These principles—autonomy, unity, and transparency—were the grounds for their core reasoning.

The case of Ceeceles shows how users groups face off, negotiate, and achieve agreement for three basic purposes:

1. To acquire and defend their rights to access water and use the necessary infrastructure;
2. To defend their rights to take part in collective decision-making about system management and the defining of water rights’ contents; and
3. To achieve internal and external recognition of their normative system’s legitimate authority to make rules and authorize claims.

We see in Ceeceles that the struggle to create and defend water rights cannot be summarized as a simple dichotomy between peasant and indigenous norms versus state law, or local equity versus outside injustice. Nevertheless, most peasant families are clearly eager to defend their autonomy and collective interests by standing up to internal schisms and the introduction of hostile elements of nonlocal normative systems.

Technological Change and Local Empowerment

Changing irrigation technology or, as in Ceeceles, the introduction of a new source of water within an existing system, creates a new situation in which existing rights will be redefined or reconfirmed. Technological interventions alter the property relationships that underpin community functioning. Therefore, it is common to find that interventions have negative impacts on the performance of existing systems, and they may weaken or destroy collective action by damaging or confusing the local normative system. However, this same rationality also offers advisory institutions the opportunity to support local organizations in their efforts to change and balance property rights. They can mediate and even provide support in local battles for water rights, so powerless local groups and organizations can gain access to water, to decision-making power over management issues, and to legitimizing their authority. This challenge, to support the local empowerment process, necessarily means shedding light on latent or emerging conflicts and contradictions embodied in the present or future configuration of water rights. Conflicts generally play a major role in forming and strengthening local organizations and normative systems. Action-research with Ceeceles users did not attempt to avoid conflicts, but to identify those conflicts, understand them, and help handle them so that local institutions could become stronger. Support agencies must understand local negotiation processes, help create negotiation platforms, and learn how to negotiate, making explicit their own criteria and interests, so the process can become more transparent.

There is a major challenge for support agencies regarding the need to back the legitimacy of peasants’ irrigation rights. However, it consists of a set of contemporary norms which is permanently adapting. Therefore, it is undesirable to attempt to institutionalize the explicit contents of peasant law in national legislation, where such contents would lose their identity and their proactive capacity for renewal. They make sense only in the particular context within which they are created. So, to strengthen local normative systems in peasant irrigation, it is not necessary to back or legitimize specific rules, but rather to enhance the authority to make such rules, involving all stakeholders. Rather than stress individual water rights allocation, priority must be given to collective concessions in the Andes, while giving particular attention and support to the least powerful groups. This legal backing can reinforce local creation and reconfirmation of adequate, strong normative systems.

Resistance and Creativity

Local normative systems often feature strong resistance to changes that would reduce their autonomy. Ceeceles shows that this is not a resistance to change in itself. On the contrary, their challenge was not conserving their own existing irrigation norms to maintain their autonomy, but just the other way round—they were changing their own irrigation norms to maintain their autonomy. They had to dynamize and adapt their existing rights, even though this might force them into lawsuits initiated by their neighbors. They also rigorously discarded some of their long-standing rights to make a place for an innovated bundle of rights. Of course, some basic norms were kept, especially the norm of organizational unity. Ceeceles’ people knew their customary law had to be dynamic and innovative to respond to new challenges and guarantees sustainable, self-respecting coexistence in the future. They created new rights rather than just conserving old ones.

In this document we have analyzed the process of normative change in Ceeceles irrigation development, considering water rights as a societal relationship among social actors, comprising part of a power structure and also constituting a power relationship in its own right. So, Ceeceles’ struggle for water is simultaneously a struggle for power. However, this local empowerment process is much more than just a striving for power-over, to increase their control over water resources and over the behavior and actions of the different actors involved in irrigation management. It also involves power-to, power-with, and power-within.

The process of generating water rights in Ceeceles refers to creative capacity (power-to), combining three basic elements: users’ creation of water rights and their specific contents; recreation of an adequate organization to handle the
new system; and creation of infrastructure able to materialize each family’s rights.

Power-with is clearly shown through prioritization of the unity principle in Cecceles. They fought for a single irrigation system, a single organization and a single body of rights and obligations linking all irrigator families. Collective action is grounded in contractual reciprocity and hydraulic property that join the people of Cecceles and link each family’s rights to the body of collective rights. At the same time, unity, autonomy, and collective rights, taken together, laid the groundwork for their battle to legitimize their normative system both in-house and outwardly.

Their vying for access to water, their building and defense of their own normative system, and their creation of an irrigation system interwoven with the local sociocultural, political, and physical conditions of Cecceles have not resulted in just a technological system that, by means of a functional organization, brings water to their fields. More than anything, this process has led to the social construction of a complex technological and normative system, in interaction with a particular context, grounded in the specific norms and capacities of its creators and based on collective power. This local empowerment process of adaptation and diversification dovetails local resistance with creative advocacy, and has developed Cecceles’ hydraulic identity, their power-within.

Resisting to be able to create—and creating to be able to resist—the Cecceles families are proud to hear that their neighbors call them the “tough ones,” those who are not afraid of anyone.

Notes

1A water right gives the rightholder authorization to subtract water from a particular source and to make use of legally or locally established privileges associated with the water right (such as use of infrastructure and participation in management decision making), provided that the obligations associated with the water right are fulfilled. Most often the right is specified in terms of quantity (volume or flow rate), spatial location and/or time (and sometimes quality), but in Andean community systems various other specifications may combine to make up local, particular definitions of a water right (See Boelens and Dávila 1998; Gerbrandy and Hoogendam 1998; for the Cecceles case, see section 2 and 3). When analyzing water rights it is useful to conceptually distinguish—apart from questions of authority and legitimacy—between its contents (different types of control and access rights, attached obligations and sanctions; see for example Schlager and Ostrom 1992; Zwarevenen and Meinen-Dick 2001), its dimensions (technical and operational, organizational, and sociological dimensions), and conditions of concretization (reference rights, activated rights, materialized rights; see Benda-Beckmann and Benda-Beckmann 2000; Boelens and Zwarevenen 2001), and the different system to which these rights correspond (e.g., river basin, main irrigation system, tertiary block, family or field level; see e.g. Bruns and Meinen-Dick 2000).

2In Ecuador, the Water Law and its Regulations contain very detailed, rigid stipulations that often do not correspond with the reality of peasant irrigation and leave little room for particular practices and perceptions (see, for example, Apollin, Nuñez, and Ruf 1998; Pacari 1998. For Peru see Gelles 1998, 2000).

3This process has been gradual, as intermittent migration to the cities has provided them with somewhat more economic power, although they have never been able to rise above the basic subsistence level.

4Maintaining their roots in their home communities, the irrigator families of the Gompuepe system gradually set up their own Cecceles-Gompuepe irrigation organization, a common property institution supported by the eight communities.

5The communities upriver apply for water for irrigation or drinking water supply, which is a top priority for allocation under Ecuadorian law. The Cecceles zone is located along the lower part of the Gompuepe microbasin, and although the Gompuepe River sometimes runs completely dry, there are no fewer than 70 allocations to communities upriver. The shortage of water during the dry season bears no relation to the flow rates allocated to these communities, and, as a consequence, water is not only too scarce to meet the needs of the area’s indigenous communities but it has also been overallocated by the state agency, thus fueling the intercommunity wrangling.

6A minga is a day of work (without pay) for the common interest, attended by the members of a community or, in this case, of an irrigators’ organization.

7The dues are very low because most investment is in labor. Therefore, as is customary in Andean peasant systems, no emergency fund has been created: any calamities will be addressed immediately by mingas or ad hoc dues. All such expenses, mingas, fines, fees, and agreements are recorded in the book of minutes. Furthermore, in the Gompuepe system, the irrigators’ formal norms make obligations proportional to water rights: the number of minga workers or hired replacements who must take part depends on the number of irrigation hours the family has. However, in practice each user sends one worker to the regular cleaning and maintenance mingas, regardless of water rights.

8This fee for latecomers was the cash value of meeting attendance, plus dues and the cost of mingas held up to the date of entry. Even so, Cecceles farmers generally felt that their sacrifices, sufferings, and personal risks could not be expressed financially. Ultimately, they felt that such entry of new members could not be considered as equal to the efforts of those who had taken part from the outset: “Money is only money! Do they think they are more important than we are, or are they afraid to share in our sufferings?”

9In the case of Cecceles it became clear that the definition of this collective-control right involves shared decision-making about: operating rules, system obligations and sanctions; criteria for becoming a rightholder; exclusion and inclusion of specific stakeholders; transfer of rights to third parties; and modifying the set-up of the irrigation system. For related findings in other cases see e.g. Apollin et al. 1998; Benda-Beckmann, Benda-Beckman, and Spiertz 1998; Bruns and Meinen-Dick 2000; Gerbrandy and Hoogendam 1998; Schlager and Ostrom 1992; Yoder and Martin 1998.

10Customary rights are receiving increased recognition in the legislation of Andean countries (see, for example, the contributions to IUAES-CIFLLP 2000). Although the formalization and legalization of specific local water management rules and rights may do more harm than good (Boelens and Doornbos 1996; Bruns and Meinen-Dick 2000; Gelles 2000), the legal backing of local normative systems, their authority, and their legitimacy may be an important step in strengthening peasant and indigenous water-management practices. Obviously, legal backing does not guarantee the implementation of corresponding policies, nor does actual implementation necessarily lead to locally accepted normative systems (See Benda-Beckmann et al. 1989; Long and Van der Ploeg 1989; Ostrom 1990).
References Cited

Apollin, Frédéric, Pablo Núñez, and Thierry Ruf

Benda-Beckmann, Franz von, Ab van Eldijk, Joep Spiertz, and Fiete Huber

Benda-Beckmann, Franz von, Keeseb von Benda-Beckmann, and Joep Spiertz

Benda-Beckmann, Franz von, and Keeseb von Benda-Beckmann

Boelens, Rutgerd


Boelens, Rutgerd, and Gloria Dávila, eds.

Boelens, Rutgerd, and Bernita Doornbos

Boelens, Rutgerd, and Margaert Zwarteveen

Bolin, Inge

Bromley, Daniel W., and Michael M. Corena

Bromley, Daniel W., ed.

Bruns, Brian R., and Ruth S. Meinzen-Dick, eds.

Correas, Oscar

Coward, E.Walter


De la Cruz, Rodrigo

Doornbos, Bernita Z.

Gelles, Paul H.


Gerbrandy, Gerben, and Paul Hoogendam

Guillet, David

Hoogendam, Paul

Hunt, Robert C.

International Union of Anthropological and Ethnological Sciences and Commission on Folk Law and Legal Pluralism (IUAECS-CFLPP)
Long, Norman, and Jan Douwe van der Ploeg

McCay, Bonnie J., and Swen Jentoft

Menchi, Rigoberta

Mitchell, William P., and David Guillet, eds.

Moffat, L., Y. Geadah, and R. Stuart

Mollinga, Peter

Moore, Sally F.

Ostrom, Elinor

Pacari, Nina

Remmers, Gaston

Schlager, Ellinor, and Elinor Ostrom

Stavenhagen, Rodolfo, and Diego Iturralde, eds.

van der Ploeg, Jan Douwe

van der Ploeg, Jan Douwe, and Ann Long, eds.

Uphoff, Norman, M.L. Wickramasinghe, and C.M. Wijayaratna

Vincent, Linden

Wade, Robert

Wray, Alberto

Yoder, Robert, and Edward Martin

Zwartveen, Margreet, and Ruth Meinzen-Dick