

Introduction

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This collection of papers is the second publication that has come out of a research project on water rights in farmer managed irrigation systems (FMIS).¹ Some of these systems have been constructed more than hundreds of years ago, while others are of more recent date. Government involvement was never completely absent. Local landlords and tax collectors, who had received land grants and the permission to build irrigation systems from the local rulers in order to extract taxes and to expand the frontier, in fact built most of the older systems. At various stages in history, regulations related to irrigation changed.² But it was not until recently that interventions started to have a more profound impact both technically and from an organisational point of view. Many of these “farmer managed” irrigation systems have recently been or are in the process of being improved with the help of the government or foreign donor agencies. Such interventions invariably pose problems of redesigning the canal infrastructure and accustoming existing regulations and organisation. They also create new problems resulting from changes in rights and obligations related to water. But while a lot of studies have looked into the technical changes and problems in irrigation systems, little still is known about the processes of adjustment, accommodation and conflict management that is involved; about the transition from the old to the new organisational setting; and about the co-existence of older and newer forms of organisation, rights and obligations. In particular the co-existence of state regulation, of local regulations and of regulations made by the intervening agencies, captured under the term “legal pluralism”, has received little attention. Usually it is assumed that the introduction of new rules, whether made by state agencies or by donor organisations, leads to the disappearance of the old ones. In fact, this rarely is the case. More typically, (parts of) older and newer regulations co-exist side by side in an uneasy cohabitation, whether or not the old regulations are officially recognised.³

¹ The first publication contains the results of the first workshop held in Kathmandu in January 22-24, 1996. See R. Pradhan et al. 1997. Most of the research projects had been sponsored by the Ford Foundation.

² See Pradhan in this volume.

³ See Spiertz 1991 for the co-existence of older and newer regulations regarding *subak*, water management organisations in Bali.

The researchers contributing to this volume come from various disciplines, including law, agronomy and social sciences. Most of them work for various Nepali research organisations such as the Legal Research and Development Forum (FREEDEAL), the Mountain Research Management Group (MRMG), and the Institute of Agrarian and Animal Science in Rampur (IAAS). They share an interest in conflicts and the role of law in regulating irrigation water. Some of the older participants had done fieldwork before; for others it had been their first exposure to field research and legal anthropological research approaches. Research on these plural legal structures and their relations with the actual management and use of water in irrigation issues, in addition to the more usual techniques, requires the specific methodology that has been developed in legal anthropology. Most researchers had been trained in the anthropology of law with the assistance of Wageningen Agricultural University and Erasmus University, Rotterdam in the context of a legal anthropological research and training programme sponsored by the Ford Foundation. As part of their training the researchers reported the results of their fieldwork during a workshop held Kathmandu in March 1998, where draft papers were discussed with more experienced national and international researchers working in the field of water studies.⁴ Since then the draft papers have been extensively rewritten and the results are presented in this volume.⁵ For some authors it is the first publication on this topic, while others have published elsewhere on their research projects. However, all papers reflect “work in progress”. This introduction will discuss some of the major topics that came out of the papers presented at the workshop and the ensuing discussions.

Historical dimensions of water rights

Problems of irrigation management and water rights need to be seen within the context of, and as part of the development of the political economy of Nepal. From the early history of Nepal, in the feudal state as well as in the institutional developments after “democratisation”, there have always been direct political and economic linkages between small-scale localities and political and economic elites in the centre of the Kingdom. Starting with *birta* grants and tax collection, both political and economic linkages have become more complex, diversified, fragmented and contested. In particular, the earlier strong interwovenness of political and economic aspects within one relationship, between feudal lord and his dependants (i.e., the land tenure holders and tax collectors) have been dissolved, and now involve political and economic agents of different kinds. Further, there is an increasing influence of foreign and international actors, governmental and non-governmental agencies on Nepal’s policies and programmes, and an increasing presence of such donor-run projects in small localities. As a result, the international political and economic context directly impinges

⁴ It was also the occasion for FREEDEAL, the main organiser of the workshop, to present its work-in-progress report to the Ford Foundation and to communicate its findings to Nepalese irrigation experts.

⁵ For various reasons, four papers presented at the workshop could not be included in this volume.

on the ways in which irrigation systems are changed, new institutions are set up or old ones are transformed, and on the ways in which rights and obligations concerning water become redefined.

Several papers in this collection deal with the historical and political dimension of water rights. Pradhan's study of the history of legislation on water and land comes to the fascinating conclusion that the developments in these two fields show almost a mirror image of each other. While land rights legislation developed from feudal notions of rights to individual rights to cultivated land, water rights have gone the reverse way. In the past it was possible for local lords to obtain individual rights to irrigation water from the kings, whereas rights to water have become more and more "communal", a development which culminated in the Water Resources Act of 1992 which declared all water to be owned by the state.

It is not only important to look at the historical dimension at the level of state legislation. Individual irrigation systems cannot be understood without understanding their history, if only because the first builders of an infrastructure have prior rights to its water. Bajracharya and Sodemba and Pradhan show this in the case studies on Ilam, Poudel and van der Schaaf on Rupakot. But as Adhikari and Pradhan discuss for Dang, and Khadka for Rajapur, the development of irrigation systems in the wider context of local and regional history are as important.⁶ People, whether farmers or functionaries, do not isolate irrigation from other social processes and relationships. Changes in the political structure or in the administration of villages may be as important for irrigation as changes in the irrigation infrastructure or organisation itself.

Studying the micro-history of individual systems shows in the first place the great variation in the connection between land, water and labour. Moreover, it shows that the political constellation within local communities as well as the national political situation may have important consequences for the distribution of rights to land and water (Sodemba and Pradhan, Adhikari and Pradhan). Water is so important in most regions that politicians tend to look at water disputes in times of elections as a way to enhance their voting constituency (Khadka and Upreti). During election campaigns, they are more likely to take an active interest in such disputes and try to come to an agreeable settlement, in the hope of securing the votes of the disputants. Political connections are remarkably short when it comes to water disputes, and this enhances people's opportunities of "forum shopping" for the most successful attempt to win their claims. And it equally makes "the forums", local and regional officials and politicians, shop for disputes in order to enhance their reputation (Poudel) or to gain votes (Khadka).⁷ As Khadka and Upreti demonstrate, it may depend on a visit of the King, or on the presence of a respected and influential religious leader, whether a water dispute is dealt with to the advantage of the weaker party in the dispute. The actual constellation of water rights, in the sense in which F. and K. von Benda-Beckmann speak of "concretised" rights, in any area thus depends to a large extent on the local as well as the national political situation. But it also depends on more incidental

⁶ See Yoder 1986, U. Pradhan 1987, 1990, Shukla et al. 1997.

⁷ See K. von Benda-Beckmann 1981.

occurrences and situations, which, together with the more structural characteristics and processes, constitute the specific local history of a system or area. Shifts in power at the national level therefore may well influence the power relationships within irrigation systems, especially when such changes affect and alter the relationships between the hydrological boundaries of irrigation systems or sub-systems and the political and administrative jurisdiction (Adhikari and Pradhan). Since rights to water usually have to be re-negotiated over time, political shifts have a great impact on actual water rights.⁸

Irrigators in their political contexts

Water rights establish legitimate economic interests in water and thus form an important economic resource. In the general literature, but also in many papers presented at the workshop and during the discussions, most attention is given to what in legal categories would fall under "private law water rights". Public rights over water management and especially rights to make and implement decisions on irrigation structure and the use of water have received much less consideration. This may well be influenced by certain traditions of writing about water rights as property rights, in which property rights are largely seen as rights (ownership, use rights, etc.) that in Europeanised legal systems fall under the broad category of "private" law. Pradhan, F. and K. von Benda-Beckmann, Adhikari and Pradhan show why the public and political aspects need more attention than they have received so far. Because water is such a crucial economic resource, public water rights, and decision making authority over the use and allocation of water, are usually important political resources in different arenas and at different levels of political and administrative organisation.

This is especially important with respect to the multiple uses and inter-sectoral allocation of water. The same source of water may be used for different purposes, for irrigation, hydroelectricity, navigation, domestic uses and so on. And there are often conflicts over which use is to receive priority. It is probably to reduce such conflicts that the Water Resources Act of 1992 has laid down the priority order of use of water from the same water source. Inter-sectoral use and conflicts over multiple uses of water need more study especially given the increasing competition for water.⁹ There is some evidence that when there is conflict over water use from a common water source, irrigation may receive priority over domestic use. This may be because, as Bajracharya shows, men control public decision-making and consider irrigation more important than domestic water use. Fetching water for domestic use is considered women's task. Sometimes, however, as Upreti shows, both men and women may give priority to domestic water use, especially for drinking purposes, over irrigation and use numerous strategies to gain access to the water source used for irrigation. Small hill irrigation systems are used only for irrigation but large ones, especially in the

⁸ See K. von Benda-Beckmann, Spiertz and F. von Benda-Beckmann 1997.

⁹ See Dixit 1997.

plains, are often also used as sources of drinking water for humans and domestic animals, for bathing and washing clothes, and in some places for fishing. Non-irrigation uses of water from irrigation canals and the rights involved, have hardly been studied and are not given official recognition by irrigation officials and functionaries. At local, regional, national and international levels, decisions over the use of water set the framework for the ways in which water is and has to be used and such decisions are usually dominated by the more powerful economic and political interest groups.

Also within the irrigation context proper, the public aspects of water rights are at least as important as the more private elements of water rights. Water rights are a source of power; they establish positions of authority, of heads of households over other members, of members of water users associations over non-members, of landlords over sharecroppers and tenants, etc. Functionaries of the Department of Irrigation exercise the water rights of the state; a village water distributor (*panipale*) exercises the right to control water distribution; VDC chairmen exercise the right of jurisdiction over water related conflicts, if formulated as law and order problems, etc. (Khadka). Donor agencies involved in the rehabilitation of irrigation systems also have positions of power which they use to influence the existing structure of water rights.¹⁰ They are not neutral engineers. While exercising authority derived from the state, they change the structure of authority and water rights in the system under rehabilitation by means of their financial and technical resources. Moreover, the changes they impose on the irrigation infrastructure through the construction of new intakes and canals affect the existing structure of water rights and frequently lead to conflicts over their readjustments.¹¹ Often these water rights carry with them public obligations, e.g., for the members of a water users association to participate in maintenance and repair activities, for a *panipale* to make sure people do not steal water out of turn, for a VDC chairman and other quasi-judicial bodies to settle water disputes, for a DOI officer to take provide materials for repair that are beyond the means of farmers in case of floods. All these institutions, at the different levels of economic and political organisation, are part of the landscape that makes up the private and public aspects of water rights.¹² They form the legal and institutional contexts in which rights, obligations and decision making authority are situated that constrain and enable management and use of water. In irrigation studies, there often is a tendency to look at those institutions that have been explicitly set up for irrigation in isolation. However, several studies indicate that we should take a broader perspective and include other institutions in the analysis of water management and water conflicts. As Khadka shows, water disputes often do not stand in isolation but are in complex ways connected to other disputes, related to water or to other issues, in which a wide range of institutions may be involved.¹³ How individuals position themselves in a water dispute depends on how they stand in other disputes as well. This calls all the more for an integrated approach

¹⁰ See Pradhan, Haq and Pradhan 1997.

¹¹ See Shukla et al. 1997, K. von Benda-Beckmann, J. Spiertz and F. von Benda-Beckmann 1997.

¹² See F. von Benda-Beckmann, K. von Benda-Beckmann and J. Spiertz 1997.

¹³ See also Pradhan and Pradhan 1996, 2000.

to the study of water conflicts and disputes. While all empirical studies presented in this book focus explicitly on individual actors, they do so by looking at this context and at the structures in which these actors operate, and at their relationships and networks.

The land-water-labour nexus and social differentiation

One of the most important relationships is that between land, water and labour. While there is no direct and fixed relationship between rights to land, labour and water, it has become clear that there always are important connections and that water rights cannot be fully understood without looking at rights to land and labour. Because both water rights and labour are closely associated with land rights, rights to land inevitably affect any change in labour arrangements and water rights, or in infrastructure. And since land is very unevenly distributed among ethnic groups, class, caste and gender, water rights and the fruits of labour are also unevenly distributed. The land-water-labour nexus therefore is crucial for understanding processes of unequal access to water and exploitation of labour.

Generally speaking, only those who have land in the command area of an irrigation system can obtain rights to water.¹⁴ These are in the first place landowners, but they are not the only ones. Sharecroppers and tenants exercise water rights, though their rights are derived from the landowner. Tenants and sharecroppers have access to land, i.e., rights to cultivate land for a specific period and under specified conditions. Tenants and sharecroppers who acquire rights to cultivate land also acquire rights to irrigation water tied to the land; they cannot be denied rights to the water either by their landlords or by other irrigators. They are expected to contribute their labour for repair and maintenance of the irrigation system as representatives of their landlords, though the ultimate responsibility towards the other users lies with the landlords. The labour they put into maintenance and repair is ascribed to their landlords, i.e., the landlord maintains his water right by means of the labour provided by his tenant or sharecropper, who in turn also maintain their – derived – rights vis-à-vis their landlords as well as the other irrigators by the same labour.¹⁵

The most basic social unit in which land and water rights of individuals are embedded is the household. In fact, most studies on irrigation take the household as a point of departure but talk basically about the head of the household. Households are important groups that cooperate in irrigation activities, but the individual members

¹⁴ There have been attempts to provide for the possibility to acquire water rights independent from having land rights in the command area in Andhi Kholā. The idea was that a water market would develop in which landless peasants could sell their water shares and thus get the opportunity to buy cheap upland for which they could use the remaining water shares. In practice, however, no water market has emerged and the water rights earned with construction work have remained unproductive. Personal communication Shuku Pun and Jacobijn van Etten.

¹⁵ The labour part of the land-water-labour nexus has been touched upon in many papers but it needs further elaboration.

do so from different positions within the household and in other social relationships with people outside the household. The various papers in this volume show that there is considerable internal differentiation both within households and among households. Besides the adult male family heads, there are other household members who have different capabilities, different needs, and a different outlook and priorities from the male head. The studies by Bajracharya, van der Schaaf and Pun which focus on women also show that women do not have the same rights to water as men have (Zwarteveen 1997, F. and K. von Benda-Beckmann in this volume). This has to do with the fact that water rights are usually closely associated with rights to land and with the fact that rights are established and maintained by investing in irrigation infrastructure either with money or with labour. Thus, given the fact that labour is an important factor in establishing and maintaining water rights, the gendered nature of labour and more public water-related tasks becomes part of the stratifying land-water-labour nexus. As Bajracharya explains, women in general lack those elements of water rights that have to do with the public arena, such as the right to participate in decisions concerning operation, management and repair of the system, and in decisions on multiple uses of water.¹⁶

This not only pertains to the ways in which different members of a household acquire rights to land and water but also to the activities required to maintain these rights, i.e., participation in the operation, maintenance and repair of the irrigation system. The labour provided by members of a household is attributed to the household and helps maintain water rights of the household which has rights to the land, whether as owner and/or sharecropper or tenant. All household members profit from a well-kept and well-functioning irrigation system, because it allows for higher yields. However, it is not self-evident that all household members profit equally from the higher yields, because distribution of the benefits is usually unequal. In general, heads of households, owners, and men benefit more from higher yields than other household members, in particular women. The labour done for the operation and maintenance of irrigation systems is usually attributed to the head of that household: It is he who maintains his water rights. For young male household members of landowners, who expect to start their own households at a later stage after partition of the family land, their maintenance labour guarantees that they will have the necessary water rights in the future when they own their own land. In other words, they build up their own rights for the future. But the other members of a household will only profit temporarily, as long they are members of the household. Women forfeit these rights upon marriage. In principle they inherit neither land nor water rights.¹⁷

The situation for bonded labourers, *kamaiya*, in cases of rehabilitation or enlargement of irrigation systems is ambivalent. As Durga K.C. suggests for Rajapur,¹⁸

¹⁶ See also K. von Benda-Beckmann et al. 1997.

¹⁷ A woman who reaches the age of 35 unmarried, or who has no brothers, has a right to inherit family land from her father. This happens only in extremely rare cases. Upon marriage, she has to return the property to her brothers or other male relatives.

¹⁸ Personal communication.

improvement of an irrigation system means that maintenance and repair work decreases, while there are more opportunities for agricultural work and yields in general increase. All in all, more bonded labourers may be hired, or at least less may be dismissed and they get more from the fields they are allowed to cultivate for their own consumption. But more agricultural work does not necessarily mean that more people are hired. Improvement of irrigation may in fact mean that they have to work harder, because there are more periods of active agricultural work, without a rise in income. More research is needed to look into the changes in contracts of bonded labourers.

The studies from this book do not provide an unambiguous picture of the role of caste. Examples from van der Schaaf, Poudel and Adhikari and Pradhan suggest that caste does have a stratifying impact on land and irrigation water rights though its impact is less clear than it is for drinking water. In general, caste has played an important factor in the political structure of Nepal, to which land and irrigation water rights are intimately related. People from higher castes tend to have better access to higher political authorities. They find it generally easier to obtain rights as newcomers, and find it easier to protect their own rights and more often infringe on the rights of others without being sanctioned. However, as caste is so much related to both ethnicity and to religion, further research is needed to understand its role in social and economic stratification and in land and water rights in particular.

All this points to the conclusion that water rights cannot be studied without studying land rights. And it is crucial to understand how labour is organised and who has command over the labour of individuals, whether male heads of households, junior men, female heads of households, wives of household heads, daughters-in-law, sons or daughters, sharecroppers, tenants, or bonded labourers. The differences in rights to water are a reflection of social stratification. This forces one to take social differentiation into consideration. The different water rights are not evenly distributed among all potential "beneficiaries" within a command area, nor do the various members of a household have the same rights to irrigation water. Gender, caste and class are powerful social differentials that underlie and legitimate unequal access to water.

Gender and rights to water

When gender issues in irrigation are discussed,¹⁹ the topic that stands out is the position of female headed households. Given the increasing frequency of households that are permanently or temporarily headed by women due to male (labour) migration, this is very important, and it also fully fits in the general perspective of studying households as the basic unit. However, it is only part of the overall gender problem. Women as wives, as daughters, as daughters-in-law, as mothers and mothers-in-law, as widows, all have different positions within a household, within the family and within the

¹⁹ One of the outcomes of the earlier research projects discussed in Pradhan et al. 1997 was that we needed to look more closely at some of the major factors in social stratification. As a result, this volume contains a number of studies on gender differentiation.

wider set of social relationships they stand in. Gender appears to be particularly difficult to come to grips with in irrigation, because the potential problems are not immediately evident.

In Nepal most people, including irrigating farmers, say that irrigation is a male activity. However, "irrigation" then is conceived as a limited set of activities within the wider context of irrigated agriculture. The discussions usually centre on the maintenance of the head works and primary canals. One of the reasons is probably that irrigation and water management in public discourse are considered communal activities that involve communal rights from which individual rights are being derived.²⁰ Besides, public discussions usually focus on larger irrigation systems, where the head works, intake and main canals are relatively far away from the fields and settlements. Repair and maintenance require absence from home for a considerable period of time, which would conflict with the caring and household tasks of women (Pun). However, irrigation activities include much more than maintenance and repair of the main infrastructure. That women usually do not participate in repairing and maintaining the head works and primary canals obscures the fact that women do take part in irrigation. In many parts of Nepal, women take an active part in irrigation. They irrigate their family plots, especially upland, but sometimes, though not always, also rice-land, and they also clean and maintain tertiary and field canals. Several papers report that women have more difficulties implementing the water rights of their household in the absence of an adult male, than men have.²¹

We have mentioned that, because water rights are closely associated with rights to land and maintained by investing in irrigation management either with money or with labour, and because land rights are mostly acquired through inheritance, women have less, and lesser rights to use water than men. But perhaps equally important is their inferior role in decision making processes regarding irrigation. Though in many parts of Nepal women at least have indirect influence on decisions regarding the choice of crops and the time of planting and harvesting, decisions about the allocation of water and the organisation of irrigation are very much a man's domain. All papers in this volume report that women do not participate in these decision making processes. The main reason seems to be that decisions are not made at the household level, but in public arenas such as the meetings of the water users association, or the more informal meetings of water users. This means that the public part of water rights, i.e., the right to participate in decisions concerning operation, maintenance and repair, belongs virtually exclusively to men.

At the level of legal regulation, there have been certain changes that give women more authority in such institutions. If a water users association wishes to be registered, regulations require that at least two women be registered as members. However, in practice this does not mean that female heads of household can now exercise the

²⁰ For a more theoretical discussion of gender and water rights, see F. and K. von Benda-Beckmann in this volume.

²¹ See Bajracharya, van der Schaaf, F. and K. von Benda-Beckmann. See also Zwarteveen and Neupane 1996, Meinzen-Dick and Zwarteveen 1998: 179.

public part of their water rights. Instead, high status, literate women are usually appointed in order to fulfil the legal requirement (van der Schaaf). Moreover, even if women become members of a water users association that does not yet mean that they become members of its committee where the major decisions are likely to be taken. In short, women have lesser land and water rights in their own name; they share in the land and water rights of the men in their households. They exercise their rights in a more indirect way. Their rights are strongest where they pertain and can be exercised at the household level. The more public aspects of water rights are by far the weakest and are often altogether absent. Moreover, women's opportunities to exercise their rights are seriously constrained by cultural and ideological perceptions. As Bajracharya and Pun suggest, the fact that women do not participate in maintenance and repair of the head works has more to do with ideological notions of what women are capable of doing than with their actual physical strength. It is not considered appropriate that women attend public meetings and even less to speak up there. Women are not supposed to irrigate at night, because "a good" woman would not do so (van der Schaaf). Hindu religion with its strong normative guidelines concerning gender differences is a reservoir of ideas that influence actions and/or that can be invoked to justify actions quite contrary to laws of the state and probably also to some of the more profound interpretations of religious learning itself.

The significance of legal pluralism

The papers presented here all demonstrate the importance of studying water rights and water conflicts from a perspective of legal pluralism. Not in order to choose between the various legal orders, and not because one legal system is inherently better, more effective, or more equitable than the other. On the contrary, the papers all point more at the weaknesses of the various sets of legal norms, be they customary or state law. The papers also point at the diversity among the various customary legal systems related to water. This suggests that much more systematic comparison of customary legal systems is needed, rather than focusing exclusively on the usual opposition between state law and customary law. For instance, customary legal systems differ in the extent to which women may have rights to land and may inherit land. This must have consequences for their ability to acquire rights to water. Also, ethnic groups were incorporated into the kingdoms and in the Kingdom of Nepal in different ways and at different times. This means that customary legal systems were in various ways and to various extents affected by the law of the centralising states. Given the importance of land and water as a means to bind local rulers to the kings, rights to land and water have been differently defined in different regions, as the examples from Dang, Ilam and Rajapur suggest.

The use of the word "customary law" in the context of Nepal is not without problems. For "custom" and "customary law" are usually associated with local tradition, sets of rules having their own basis of legitimacy in generally accepted social practice, distinct and different from the rules of the state with their own legitimacy. Irrigation

systems, however, often have been constructed on the basis of a grant from the king or another feudal lord, and in the historical development of many irrigation systems the local "farmer managed" irrigation systems were based on rules that regulated the relationship between feudal lords and their fiefs. They had more to do with the feudal state or state formation, than with local relationships *per se*.

In what sense, then, can the rules of the feudal system be called customary law? In trying to answer this question, two points shall be made. One is that the feudal system was part of the customary legal situation, though this situation was undergoing much change. Customs were being renegotiated not only among local people in local communities, but also within the larger political framework of the evolving feudal state. Indeed, up till the mid 19th century there was no clear distinction between state law and customs. The first codified law which was valid throughout the Kingdom of Nepal was promulgated only in 1854 AD (Pradhan), and it largely recorded and officially validated rules in use, often referred to as "customary practices". Customary in the first place thus denoted rules and practices of older historical origin rather than indicating a particular non-state legitimation of such rules and rights. This only gradually changed when the state organisation and state legal regulation increasingly were differentiated from the older political organisation, new rule making and administrative institutions emerged which created new national and local spheres, new forms of self-regulation in these spheres and new linkages between these spheres.

This brings us to the second and more intriguing point. The research shows clearly that everywhere local communities at different stages in history appropriated state regulations and rights, such as rights to irrigation systems. What were considered external rules from distant rulers, over time became internal rules of the community and were incorporated into the existing body of regulations. When new state regulations were made, people started to consider the older organisation structure and the rules and regulations as belonging to and based in the local community, rather than something forced upon them from outside. This means that the opposition between customary law and state law becomes even more blurred. Increasingly it is not so much the historical origin that counts, but rather the fact that people perceive regulations as belonging to them and based on local authority structures, rather than on external legitimate authority. Their "local laws" often are hybrid legal forms that combine elements of state law and customary legal rules and principles (F. and K. von Benda-Beckmann and Spiertz 1997). Nepal is by no means unique. Studies on the history of land developments in Mexico (Nuyten 1997), the Philippines (Wiber 1991) and Indonesia (F. and K. von Benda-Beckmann and Brouwer 1995, Spiertz 1991) show that this often is the case in long processes of state formation. What at one time was strongly resisted as undue external influence by a state authority may at a later stage evolve into an internal institution that deserves scrupulous defence against external intervention.

The question that remains is what are precisely the mechanisms and the conditions under which this appropriation takes place? This is not just of historical importance but an important issue in contemporary Nepal where many locally managed systems

are rehabilitated. While the extent and duration of the control of the system by the external agencies may be limited, and the systems themselves still be referred to as “farmer managed”, the projects introduce new rules about water allocation and operation and maintenance of the systems. What happens in these transitional phases? Do we have to do with similar processes of intervention and appropriation? Can we draw lessons from the historical examples? Projects, policy makers and legislators usually devote little attention to the problems of transition and assume that from the moment of introduction the new situation starts and is taken for granted. The time frame of transition is an important field for further study.

Religious law is another intriguing element of legal pluralism in Nepal. During the workshop it was felt that religious norms related to water in general and more specifically irrigation needed more attention. In the past, the Hindu theory of the king as the “lord” of the land and other natural resources provided a strong legitimation for the kings to claim authority over land and water and to exploit both land and water by levying taxes and for endowing trusted followers with land grants (Pradhan). Moreover, Hindu regulations still put limitations on the freedom for women or ‘untouchable’ castes in many ways and in general legitimate caste differences. The question of purity of water and the exclusion of “untouchable” castes from water sources of the pure castes is a well-known problem. But as the case discussed by Upreti show, religious norms concerning free access to drinking water may also be invoked to overcome the exclusionary character of ownership of land and drinking water sources. Religion thus creates its own equalities and inequalities in access and rights to drinking and irrigation water. Moreover, in ideology and practice, religion based caste differences are used to legitimate economic inequality and exploitation and non-conformity to legal regulation that on paper at least aims to declare caste and ethnic differences irrelevant in law and public life. Another area where religion and religious rules may be important is the *guthis*, religious, charitable trusts. Most *guthis* were established with land grants. As such they are important actors in the field of land management and probably also in irrigation. It is not so easy for ordinary farmers to go against the interests of the leaders of such charitable trusts, whose authority is religiously strengthened. The question is whether these regulations are regarded as belonging to a distinct legal sub-system, Hindu law, or whether they have become part of local law or local customs, as they are usually referred to, or both? It requires further research to understand the precise modes of inclusion and exclusion legitimated by religious laws. The issue is all the more interesting, since religious regulations have not been integrated into customary laws equally in the various ethnic groups in Nepal.

Harmony and conflict

The call for more insight into the socio-economic and legal complexities of existing organisations of farmer managed irrigation systems should not be taken to mean that older organisations are inherently good, equitable, or efficient. The studies presented

here provide no reason to idealise tradition. Tradition in many respects has been the foundation of exploitative arrangements, as the studies in particular of bonded labour and gender relations indicate. Tradition may be respected but at the same time questioned because it sanctions unfair water rights relationships. Sodemba and Pradhan quote a farmer in Ilam who complained, "We are greatly troubled by tradition." The Nepalese history of water and irrigation shows that irrigation has always been intimately related to elites and political authority. As Pradhan argues, the rulers considered it their prerogative to extend the right to construct an irrigation system to their followers. Irrigation was a means to reward local elites for collecting taxes. Many of the so-called "farmer managed systems" have been built by local leaders who received the right from their feudal ruler. It was not meant to accrue to ordinary people from the beginning. And it is only a relatively recent development that water is considered to belong to the nation as a whole and that water should be equitably – or evenly – accessible for all citizens. This new policy has changed the discourse on irrigation considerably.

Farmer managed systems are not necessarily more equitable or efficient than state managed systems. There is at least ground for scepticism to such claims. While the efficiency of irrigation systems has been studied quite extensively, the question to what extent they contribute to equity is still under-researched (but see Boelens and Dávila 1998). If it is true that most old systems were constructed by elites - who exploited the labour of ordinary farmers and slaves - and with the explicit understanding that this was a reward for paid feudal services, to what extent is it possible to call these systems equitable? And do the same elites still have prerogatives, and if not, how have they changed? Many studies show that there are fundamental conflicts in irrigation systems, between the old builders and newcomers, between landowners and landless peasants and (bonded) labourers, between people from different castes and ethnic groups, and between the rich and the poor. Such unequal relationships do not necessarily mean that the operation of the system may not be relatively harmonious and efficient. Indeed it may well be that they are relatively efficient because of class, caste and gender differentiation. In other words, we have to look at conflict and harmony at different levels. A well functioning irrigation system may be highly inequitable. The fundamental conflicts may remain largely implicit and dormant, while there are relatively few overt disputes (see Poudel).

On the other hand, we should regard state legislation and policies with the same amount of scepticism and ask to what extent they really bring more equitable relationships in irrigation and water rights. In order to make a realistic evaluation we need to learn far more about the role of the state in legislation and implementation. Reviewing the law-making process, it turned out to be quite difficult to lay hands on draft legislation. This suggests that for ordinary people it is virtually impossible to participate effectively in public debates about legal reform and to have an effective influence on legislation on a subject that is of crucial importance to them. Regarding the implementation of legislation and public policies it is also crucial to understand the ways in which the lowest level of state administration operates.

Outlook

One implication that can be drawn from the workshop papers and discussion is that we need a better understanding of the various positions people hold within households, within an irrigation system and within the wider social and political contexts in which irrigation takes place. Distinctions between head of household (male and female) and other household members, between men and women, and the ways these categories crosscut distinctions of class and caste. Van der Schaaf's account of the lives and experiences of women in Rupakot are an indication of the miserable lives women, and especially those whose husbands have migrated or died, live within the households of their in-laws or their own house. It is also a reminder of how much, or better how little, importance rights may have compared with familial relations of authority and dependence based on age and gender, and how legal standards (whatever their source and legitimation) can be neglected and abused by those – mainly men – in more powerful social positions. However, especially the tradition in policy literature of mainly focusing on “households” as “the beneficiaries” of intervention prevents us from getting deeper insights into the household internal dynamics. The same also holds true for the relationship between different socio-economic categories of rural people, as the analysis of the differences between landowners and landless peasants and of the role of bonded labourers in irrigation shows (Pun and Khadka in this volume). Also these relations should be seen in connection with ethnic and caste differences. Most bonded labourers in the Terai are Tharus, while the large landowners are predominantly higher caste hill people.

This not only has important methodological implications for further research; it also has practical implications for rehabilitation projects. If rights to water and the fruits of irrigation infrastructure are unevenly distributed not only among households but also within households, the usual way of looking at water rights implicitly or explicitly from the perspective of households becomes problematic. Further research needs to be done on social stratification within and between households and irrigation. In a more practical sense, this suggests that any intervention related to irrigation that does not explicitly deal with social differentiation, will have a bias towards land owners and towards those in command of labour, and will in all likelihood exacerbate social differences based on class, caste and gender rather than improving the situation of the poor (van Koppen 1998a, b 1999). This would be quite contrary to the stated objectives of intervention projects. For with the increasing influence of European and Anglo-American donor agencies, a counter-ideology has been brought into the country that stresses the equality of persons independent from their racial, ethnic, gender or caste status. It also stresses communality and the common goods character of water which contrasts sharply with the often aggressive particularistic economic motivations of rural people (but see Sodemba and Pradhan). While these ideas have been promoted, and often were imposed, by foreigners without receiving enthusiasm on the side of the majority of the Nepalese – richer as well as poorer – they have now been incorporated into the constitution of Nepal and are shared by a small yet growing

number of Nepali citizens. These ideals and ideological ideas are also imported into small-scale local settings in which donors plan, finance and execute development projects - and where they regularly become involved in ideological battles with the establishment. However, without addressing and changing the underlying unequal relations to land, water and decision making authority these battles will not be won.

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