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Introduction

1 Participatory theories were initially regarded as a means of providing the most disadvantaged populations with sustainable means to secure their own economic, social and therefore political emancipation (Freire 1974, Chambers et al 1991, Chambers 2005). From the 1980s onwards, these theories became policies when they were included in the broader neo-liberal agenda of decentralisation and cost optimisation of infrastructure management (Cooke et al 2001). Irrigation management was one of the first sectors to integrate these reforms (Singh et al 2014). However, for many authors, the original emancipatory intention has been scaled down to only include technical procedures that have been reproduced in exactly the same way in different contexts, depoliticising these new commons (Mosse 2001).¹

2 Following the relative failure of centralised state irrigation management (Meinzen-Dick 2007), participatory irrigation management was built as a model that was supposed to lend itself to the multitude of irrigation systems throughout the world, that is the water user association (WUA). The decentralisation of irrigation system management by entrusting the responsibility to ‘local communities’² through participatory methods sought to establish associations among these ‘communities’, thus ensuring more inclusive economic development and the democratisation of resource management.

3 This model rapidly spread to all irrigation-related development programmes around the world (Aarnoudse et al 2018: 2). Though praised for its potential for economic
productivity and for the empowerment of irrigators (ibid, p5), the user association model rapidly came up against obstacles to meeting these goals (Senanayake et al 2015, Ghosh et al 2019). These obstacles have been discussed at length in academic and international development circles, leading to circumstantial adjustments such as the implementation of electoral rules, water taxes, irrigation schedules and the definition of the management responsibilities that fall to members (Mutambara et al 2016, Mukerji et al 2009).

4 The issue concerning the criteria for obtaining the status of member within the association is the focus of this article. Indeed, since the late 1980s, the question of who should be included or excluded from these user associations has been the subject of debate. For Ostrom (1992), the functioning of ‘local institutions’ is a question of finding a balance between too few and too many beneficiaries in order to respect the ultimate goals of this associative management, namely the sustainable management of a natural resource and the community’s socio-economic growth. Though the objectives have been understood and are praiseworthy, a complex question is left hanging in the balance: what criteria should govern the choice of members and, more importantly, who actually takes part in negotiating these criteria?

5 Different selection criteria exist around the world, all relating to the use and/or ownership of water and land. Irrigation legislation in countries such as Spain and Indonesia are relatively inclusive in the sense that they offer an opportunity for all water users to be part of an irrigation system, whether they be owners, sharecroppers, day labourers or fish farmers (Sagardoy et al 1986). In other countries, such as Albania or Colombia, the opportunity to take part is offered not to water users but to land users, thus excluding uses other than agriculture. Owners, sharecroppers and anyone holding land rights in the irrigated area of a canal can therefore be a member of the WUA (ibid). In Bulgaria, a sharecropper can only claim membership if they can legally prove that they have signed a contract with the owner for a period of more than three years (Hodgson 2003). Thus, numerous modalities exist, ranging from inclusive to exclusive participation. This is currently the situation in Nepal: though it is difficult to identify the rule clearly enshrined in the legislation, in practice, a consensus does seem to have been found (WRA 1992, Khanal 2003, Pradhan 2010).

6 It is interesting to study this particular element of WUAs in the Nepalese context because it illustrates a broader question: that is how do WUAs allow social inequalities to be reproduced and how do they forge new norms of citizen participation in the country? The participation it promotes has been negotiated by elites and does not include the most disadvantaged socio-economic categories in the decision-making process, particularly in the socio-historical context of land inequalities in Nepal (Sugden 2013). Today in Nepal, a landowner can be a member of a WUA without using water and, conversely, a tenant cultivating land can use water without being a member.

7 This article sheds light on how the WUA model contributes to the reproduction of social domination in Nepal in the form of patron-client relationships, based on evidence from 18 months of fieldwork conducted in both Kathmandu and in Sunsari district during the years 2014, 2017 and 2018. I first explore the relationship between social domination and participatory irrigation management in order to show how WUAs have been designed by landowners-patrons and, as such, may well contribute to the reproduction of the patron-client relationship in rural Nepal. I then illustrate this by detailing the socio-technical history of my case study, Nepal’s largest irrigation
system, the Sunsari Morang Irrigation System (SMIS). The last section of the article explores the socio-economic consequences of a WUA that excludes tenants, which are often clients within a patronage network. I conclude with the possibility of acknowledging this inherent political dimension of participatory management in order to contextually reform the elements constitutive of WUAs.

Social domination and water user associations in Nepal

Patronage as politics

In order to understand the social significance of WUA membership, that is to say who is included in and excluded from the management of irrigation canals, we first need to explore the socio-political context of WUAs in Nepal. In this country, social domination has been interpreted as a relationship between patrons and clients (Bista 1991, Stoler Miller 1992, Ramirez 2000, Gellner and Snellinger 2017). Silverman (1965: 176) defines patronage as an informal contract between people of unequal status and power, which imposes reciprocal obligations of a different nature for each individual. As such, the patron has greater economic, social and political capital and is therefore the gatekeeper of information, goods and services between higher authorities (gods or the state) and lower castes and classes, especially in a rural context where the latter are seen as his clients. Guha (2014) defines it as ‘the competitive acquisition of wealth and power through the maintenance of social hierarchy’, while Sugden (2014) describes it, in the context of the eastern Tarai, as ‘feodocapitalism’. In order to explain how patronage has survived the advent of liberal democracies, of a globalised market or of a social welfare state – and would even seem to thrive on it –, researchers have shown how patronage is much more than a feature of ascriptive societies. It is a fundamental power relation that exists across different societies in which it takes a more or less central role (Eisenstadt and Roniger 1984). When Piliavsky (2014) talks of patronage as politics in South Asia, she means that it is a power relation between individuals (and social groups) that infuses economic, social and cultural relations because it is the defining principle of social hierarchy but also of mobility in these societies. A detailed analysis of the history of patronage in Nepal and of its modernity (see Valadaud 2021) is beyond the scope of the present article which focuses in more depth on its impact on rural life in Nepal, especially on the setting up of a water user association within the largest irrigation system in Nepal.

Gilmartin (2014) notes that the core characteristic of patronage in South Asia is the ‘unequal reciprocal exchange’ between patrons and clients. He shows how patrons and clients are fundamentally but unequally interconnected in South Asian societies. For patronage is an exchange, yet an unspecified ‘generic exchange’ (Eisenstadt and Roniger 1984: 31). The allegiance that a client pledges to a patron, whether through a vote, work, debt, a share of crops, is reciprocated on an ad hoc basis. What is agreed upon is the exchange itself, not the quantity, quality or temporality of it. It is reciprocal, just as the return of a favour is the building block of trust between patron and client. In order to become and to remain a patron, an individual has to acknowledge the fact that they are part of a moral community where they are superior, but where their superiority is attributed via the constrained acknowledgement of the
clients who support them. And it is unequal because, even though an exchange takes place, the patron is the gatekeeper of the vital resources (goods, services, information etc) they distribute to their clients. They maintain this position, for it is their source of power and status over clients. Even though patronage has evolved with the numerous changes Nepali society has undergone over the past century, it is still the main driving force behind the reproduction of social domination in the country, especially in rural areas.

Since landowners are traditionally of higher castes, patronage relations are also agrarian relations. In Sunsari district, 36% of agricultural land is cultivated via sharecropping (NSCA 2013). Sugden (2014), who has studied the neighbouring district of Morang, considers that sharecroppers, as well as landless people, are disadvantaged by the ‘feudal contracts’ linking them to landowners: the latter keep half of the production and, generally speaking, do not contribute to the production costs. A patron is often a landowner and has clients working as tenants on their land. Clients provide the workforce and the votes, while patrons help with education, healthcare and administrative procedures. Sugden (2013) shows both how, far from being a recent trend in Nepal, ‘feudocapitalism’ in the rural Tarai survived the land reforms of the 1960s and how land capital was hidden and/or converted, ensuring the reproduction of traditional socio-economic dominance. Such inequalities are bound to affect the creation of WUAs.

Depoliticising irrigation management

In this context, I argue that participatory irrigation policies, led by international donors such as the Asian Development Bank or the World Bank, have imposed a neoliberal irrigation management framework and have thus contributed to reproducing a system of patronage. According to political scientist Emilie Hache, a neoliberal government ‘asks individuals to empower themselves’, and in her view ‘this reorganisation of the state involves a transfer of its traditional responsibilities...to individuals and private institutions (education, security, labor, etc.)’ (Hache 2007: 51). Natural resources could be added to this list. To create a WUA is indeed to give the responsibility – in theory – for the management of an irrigation system to the irrigators, to institutions that bring together users of the resource, which are not the state. Hache then refines her analysis by showing that ‘the conception of responsibility underlying neoliberal rationality is based on the postulate of an “independent self” inaccessible to the majority. ...It is also a self that is in theory detached from its historical and social conditions, and in practice discharged of its responsibilities vis-à-vis others and of the constraints of reproduction’ (ibid: 62). Giving responsibility for the management of an irrigation system as vast as the SMIS to the users presupposes their capacity to manage it and, furthermore, to manage it collectively. This has a lot to do with the critique of Ostrom’s commons as interpreted in development policies (Forsyth and Johnson 2014, Liebrand 2017). If one assumes the homogeneity of the ‘communities’ responsible for the creation and management of this ‘new’ common, one overlooks their sociohistorical reality, that is to say their inherent power relations and the diverse interests that run through them (Mosse 2003). For Hache, ‘such rationality presupposes not that individuals are responsible but that they can and should be responsible .... [and] does not take into account the fact that society is primarily based on relationships of dependency and that the behaviors in question depend on those
relationships’ (2007: 63). In an unequal, poor and rural context, such as the eastern Tarai, time, education and capital are material and social conditions for acquiring empowerment, which are within reach of most people. Hache then concludes: ‘In other words, this government by responsibilization results in a new sexual and social divide between individuals capable or incapable of responsible behaviour based on an amalgamation of moral responsibility with various individual abilities’ (ibid: 65). According to most radical critics (Bakker 2003, Jessop 2002, Harvey 2001), such a neoliberal framework, ignorant of pronounced power inequalities inherent to the social spaces in which it is deployed, can only leave local domination untouched. This can be seen in many ways when looking at the history of participatory irrigation management in Nepal.

**WUA: a socially biased framework for irrigation management**

In the upper strata of the Nepalese legal process, decision-making power lies in the hands of officials at the Ministry and the Department of Irrigation (DoI). A former member of the Ministry of Irrigation told me in 2017: ‘We tried to introduce a law that would make DoI responsible for its goals, not in terms of how much budget is spent but of how much water is delivered over the years and of how much yields increase. But did you see it in Irrigation Regulation? No. They [the legal division of the Ministry] took it out’. Decision makers in Nepal, as in other countries, have internalised the power relations of the society in which they have been brought up. Thus, they produce laws that reflect not only their vision of society but also some of their caste’s and class’s interests. Liebrand’s (2017) analysis of the Nepalese DoI is, in this respect, revealing: he shows how social relations of power (gender norms) that pervade DoI officials affect the institution’s performance. Consisting mainly of members of traditionally dominant castes, the upper echelons of DoI reflect a historically dominant section of the Nepalese population, often landowners themselves (Liebrand 2014: 20). It comes as no surprise that the relationship of domination between landowners and tenant farmers, an ancestral relationship in Nepal (Regmi 1978, Jobert 1983, Sugden 2014), is not questioned through the design of participatory irrigation programmes. Irrigation projects can therefore be a way for these dominant social groups to strengthen their socio-economic position, thereby indirectly reaffirming traditional domination, taking advantage of the financial manna they represent or establishing their social status. An irrigation engineer from an upper caste can own land in the command area of irrigation systems, acting as absentee landlord, while seeking rent opportunities in the construction of infrastructures. Moreover, he can be seen as ‘[someone] who bring[s] development in the country’, therefore also becoming patrons (Stone 1989). Olivier de Sardan (1991, 2005), Ferguson (1990) and Mosse (2003, 2015) all explain how civil servants and ‘development practitioners’ have vested interests in seeing these forms of domination reproduced through changes in the legal and programmatic framework of international development institutions. In this regard, the inception of WUAs is very much politicised, if not political, and is visible in the legal framework used to create WUAs in the field.

12 Founding legal texts, such as the Water Resource Regulations (1992), the Irrigation Policy (1992) and the Irrigation Regulations (2000), describe the goals of a WUA, the rights and duties of WUA members and set out the conditions for membership, with no justification in relation to other membership models. Words such as landowner, tenant,
owner, land user and member are very seldom found in these documents, which suggests that this issue is not addressed in these texts. These terms are not used in association with a precise definition of the conditions for obtaining WUA member status. The word ‘membership’, however, is often associated with adjectives such as ‘automatic’. For instance: ‘When a WUA is constituted, water users in the area automatically become members’ (INPIM, 2001). But what does automatic mean? And what does ‘water users’ mean? Why this ‘automatic’ association between ‘WUA members’ and ‘water users’? This notion of water user does not seem to have a precise definition in Nepalese legislation on irrigation. There is thus a legal vacuum, a sort of grey area, in relation to this question. If it is typical of neo-liberal legislation (to create a legal framework for decentralised authorities), one may still wonder at the reasons behind this vacuum in the specific social context of Nepal’s WUAs. For in the vacuum, domination usually reproduces itself. The practical consequences of this legal vacuum are what I now turn to through a brief history of the Sunsari-Morang Irrigation System.

The Sunsari-Morang Irrigation System: a politicised history of irrigation management

State management

The second half of the twentieth century was an era of public building projects in Nepal, especially in the Tarai (see Aubriot and Bruslé, this issue). The Nepalese government, supported by international donors, renovated, built and managed large-scale technical irrigation infrastructures (Candau et al 2015). The SMIS is one of them. The construction of the SMIS’s main and secondary canals began in 1964. Subject to rapid deterioration, it underwent massive renovation and extensions from the 1980s until the very beginning of the twenty-first century, which were financed by the World Bank. Today the SMIS diverts water from the Koshi River through the Chatara main canal, running from west to east, and branches off towards the south and the Indian border into 20 secondary canals, a multitude of tertiary canals and of watercourses and a myriad of field channels (see fig 1). A rapid glance at the period of state management (1960s to 1990s) highlights a relationship between land and water rights dominated by local landowners.
During the construction of the secondary and tertiary canal network, between 1984 and 1996, engineers from Nepal’s Department of Irrigation were responsible for establishing water-sharing schedules, for opening and closing gates to distribute water to tertiary canals and for conveying water to the watercourses. ‘We would only have the responsibility of splitting water amongst ourselves, in the watercourse and field channels’ explained Rajesh Yadav, an elderly farmer. Since participation in collective work around the infrastructure was reduced to a minimum, that is to say the maintenance of watercourses and field channels, the right to access irrigation water was dissociated from participation in maintenance work and was based solely on land use. This management model thus implies a certain denial of the farmer’s role in irrigation management, whether for infrastructure maintenance, water sharing or decision-making.

Under state management, the quantity of water allocated via the secondary SMIS canal was calculated according to the ratio between flow rate and the surface area covered by each infrastructure subsection (Mishra, 2016). However, for Dipak Bandhari, a DoI engineer, large landowners still largely regulated the distribution of water at channel level: ‘The elite farmers, they were always better informed, and they always got water first somehow, even by mobilising all the village to dig the watercourses...!’ It would thus seem that, when the SMIS was built and managed at higher system levels (main and secondary canals) by engineers, large landowners were actively involved in the distribution of water at lower system levels, according to an order of priority based on landownership. Small landowners and their tenants were undoubtedly at a disadvantage compared to larger landowners and their tenants. While maintaining socio-historical land inequalities, state management separated access to water, at main...
and secondary levels, from maintenance and operation work which was handled by engineers. It shows how irrigation practices already reflected power relations.

**Participatory management in theory...**

17 In Nepal, the early 1990s marked a turning point in irrigation management. Faced with the need to reduce government spending, international donors backed a participatory irrigation reform by urging the Nepalese government to create a legal framework for the irrigation community: the water user association.

18 Between the 1990s and the 2000s, the Nepalese government imposed the existence of an WUA as a prerequisite for the renovation of secondary canals within the SMIS (Renault and Wahaj 2006). The aim was to create WUAs capable of handling the management of infrastructures from secondary canals to the channels. Nepal’s DoI was and still is responsible for managing the main canal, as well as for cleaning and big-budget repairs of the secondary canals. The division of labour thus makes the Nepali state the water distributor at higher-system levels but accentuates the role of farmers in negotiating water distribution schedules at lower-system levels, in maintaining and repairing damaged infrastructures and in raising funds for the latter.

**Fig 2. Correspondence between the organisation of the infrastructure and of user groups**

19 These WUAs bring together farmers who own land in the area irrigated by the system. These groups are legally responsible for the maintenance and operation of the infrastructure (canals and gates) of the irrigation system from the secondary canal to the watercourses. An association is governed by a written constitution outlining the rights and duties of its members. The latter elect their leaders according to an indirect ballot system. The watercourse level is the only level at which all members get to vote. At secondary-canal level, only water user group (WUG) presidents vote for the Water Users’ Co-ordination Committee (WUCC) (see fig 2). The position of watercourse
The president is therefore important for building leadership at WUCC level. At this level, the association is also in charge of raising its own funds through a water tax in order to pay staff and to repair damaged infrastructures. Every landowner has to pay this annual tax, called the irrigation service fee (ISF), according to the size of their irrigated plot of land. This payment conditions the irrigator’s right to participate in decision-making, to vote and to stand for election. A member, often the WUG president, collects this fee once a year. In theory, therefore, these associations aim for greater inclusion of irrigators in the area concerned. However, as far as the SMIS is concerned, they specifically target landowners, not tenants.

... and in practice

This can be illustrated by exploring in particular the creation of the WUA of one of SMIS’s secondary channels, Sitaganj.

Fig 3. Map of Sitaganj infrastructures

A former engineer told me about the first negotiations with farmers along this canal. ‘There is always a politician in Kathmandu who knows about the specifics of the projects and who will tell the director of this or that programme to contact a local thulo manche [‘powerful man’]. And our [DoI] staff obey the politician’. This obedience observed in Nepal, as in India, derives from the fact that politicians have enough influence to ask for the transfer of government administrative staff (Kondos 1987, Gellner and Snellinger 2017). Thus, the first act of setting up WUAs already runs counter to participatory principles of inclusion and to the ‘bottom-up’ process because it follows vertical hierarchies of power. ‘When we come to the field, we usually invite
local powerful farmers. They have been forewarned by their *aphno manche* [trusted person] politicians and we, engineers, also expect this kind of meeting'.

It is with these people that the process of setting up WUAs was discussed. ‘They propose to find able farmers to form WUA committees at different levels of the infrastructure. The main members are chosen among and by the local elite. This is a normal thing in Nepal, even though it is not the spirit of participatory irrigation management’. Under these conditions, the creation of Sitaganj WUA’s executive committee could not even hope to adopt greater inclusive practices towards dominated farmers: tenants are simply not included in the general assembly.

This is reflected in the socio-economic profile of the farmers chosen as the first leaders of WUAs. Mahendra Yadav, a farmer downstream of Sitaganj, notes: ‘They [local powerful farmers contacted by DoI] looked for their *aphno manche* [trusted men] in the different villages and they made them presidents of WUAs under them [at watercourse level].’ One of these powerful farmers, Vishnu Yadav, told me the criteria for selecting ‘his’ presidents of WUG and WUCC in ‘his’ sector of Sitaganj. ‘When the DoI asked, I looked for people who had a lot of land in each part and also who could speak up and have time to move around the canal, to listen to problems and to collect people and money’. In other words, he chose landowners with sufficient land and financial and social capital. This trend has been repeated in all the Sitaganj WUAs of the three tertiary canals I surveyed (Valadaud 2021).

Thus, as early as 1996, Sitaganj WUAs were set up under the authority of the landowners. Accustomed to supervision by former administrative institutions, such as Village Development Committees (VDC), these elites readily established themselves as heads of these new centres of power (Manor 2004, Stone 1989), and all the more easily since the position was custom-made for them. It is worthwhile pointing out that local elites may be considered good leaders by villagers because they maintain good relations with government officials and, as such, have leverage over the latter mostly through political parties and caste relations. Patron-client relationships can have mutual benefits, however unequal they may be (Piliavsky 2014, Valadaud 2019, 2021). Nonetheless, opening WUA membership only to landowners is not only a case of technical and organisational optimisation: it is historically biased in the sense that it favours a reproduction of the pre-existing domination of patrons-landowners over clients-tenants within rural Nepalese society.

In the SMIS, the difference between written rules and practices regarding membership criteria is particularly revealing. In 2014, I collected and translated the constitutions of eight WUAs of SMIS secondary canals (that is the WUCC constituencies). According to these constitutions, the possibility for a tenant farmer to claim his place within the WUA does exist. This is a provision of the 1964 Land Act according to which a tenant farmer can become a landowner if he can provide proof of a series of documents such as a written land contract and a receipt for the harvest or for rent paid over several years. If the tenant farmer can produce all these papers, he can be a member of the WUA. However, this condition carries little weight in the agrarian context of Nepal. Among all the SMIS WUA members I met, I never encountered a tenant farmer. Indeed, landowners are very reluctant to provide evidence of landownership to their tenants. Their fears are twofold: first, losing land to the tenant; second, that this demand from the tenant to the government would expose cases of fraud in the owner’s land tax payments which, according to locals, happens quite often. Tenants, often landless and
less educated, have no knowledge of this provision (Shrestha et al 2021) and landowners are reluctant to provide them with the invoices. Therefore, despite the actual existence of a rule, it is the lack of paperwork that prevents tenants from obtaining WUA membership because they have few means of putting pressure on landowners. This example illustrates how the participatory framework is used to the advantage of traditionally dominant socio-economic groups in the rurality of Sunsari district.

Entrusting SMIS management to government engineers prevented irrigators from taking part in the infrastructure's maintenance and operation. And transferring this responsibility to the WUA has allowed only the most powerful irrigators to play a part in the management, as this has restricted 'membership' to landownership. As such, in terms of membership, the WUA overlooks land criteria and favours tenancy-related criteria. As membership equates with landownership, SMIS WUAs seem to be geared towards reproducing patron-client relations and do not challenge traditional social domination in rural areas. In the third part of the article, I show how this type of membership leads to at least reproducing and, at worst, intensifying social domination in Nepal.

Land tenure inequalities and exclusive water user associations

Tenants and plots: social and agricultural ties

An argument some irrigation engineers use in favour of membership based on landownership is the ease with which a tenant can swap the land they till for other land, which makes them less likely to invest time and effort in the maintenance of canals and in the life of the WUA. Since a tenant farmer does not pay property tax and his source of income can vary, he would not be tied year after year to one or several specific plots of land. And therefore, every year, he could easily choose another plot, and even another landowner. But this is seriously questioned, of course, when one looks at the structure of the social fabric in which irrigators evolve. The literature, as well as testimonies from the field, portrays a more restrictive land situation for tenant farmers beyond the mere need to feed themselves. Tenants in the rural Tarai are often involved in agrarian client-patron relationships of domination at several levels, which link them to plots of land of specific landowners who are in fact more than just their owners, often also their creditors.

Sanjay Chaudary, a tenant farmer downstream from Sitaganj, explained the reasons why he has not changed plots for more than 20 years: 'It’s near my home. You can see it from here, just past the forest there. I know people who have to travel many kilometres in the morning and at night to get to the land they cultivate. It’s difficult at irrigation time: you have to stay there at night to see if no one is taking your water. So it’s better to have fields close to your home.' The geographical position of plots of land therefore matters hugely to tenant farmers. And this position is not only calculated in relation to the distance from their home. Proximity to an urban centre for purchasing seeds or fertilizers, for example, is also a primary concern. For Ashish Lal Chaudary, a tenant farmer south of Sitaganj, the position of the plot within the canal system is also very important. He told me: 'It’s better to have your land close to a canal, and in the north
[of the system]. There will be fewer people between you and the water!’. Farmers also pay keen attention to the difference in height between the canal and their land. Due to sand deposits carried along by the Koshi (see also Candau, this issue), some plots have gradually become higher, making gravity irrigation more difficult. Farmers are also alert to the quality of the soil, preferring for example a slightly clayey soil that retains water and thus facilitates the cultivation of rice. All these criteria mean that not all plots are of equal value. For Shiv Lal Mehata, a large landowner south of Sitaganj, ‘a tenant will not choose any land. And if he is happy with it, he’ll stay for a long time working my land’. Due to the above-mentioned criteria, tenant farmers are tied to certain plots, which makes them less likely to leave.

In order to understand WUAs in Nepal, we also need to take a close look at the relationship between landowners and tenant farmers, which amounts to more than a simple economic relationship. Rajesh Musahar, a Dalit tenant farmer in the Sitaganj irrigated area, asserts: ‘I have been working Ganesh Palit’s [large landowner and member of the Sitaganj WUCC] land for ten years now... I cannot go against him: he helped my son to get into a school in Itahari [the nearest big city]’. Paying (financial but also social) debts by working the land is an ancestral social practice in Nepal (Galey, 1980, Jobert 1983, Sugden 2013), and the Tarai, given its history of land grabbing, is no exception. In Nepal, land contracts such as adhiya (sharecropping) and teka (contract farming) are renewed every year in a more or less formal way. They bind the tenant to a landowner in time and in space.

We have seen how these multiple relationships between landowners and tenant farmers are regarded as ‘unequal reciprocity’. It involves both a dimension of domination but also of trust and sometimes friendship, interweaving a complex set of interrelationships. Joti Lal Chaudary, a Tharu landowner and active member of a political party, explained that ‘if I want to win an election, and if I am doing good work for the canal and the farmers, I can call on them [my tenants] to vote for me. For example, I have two or three people working my land. I have rented it out to them for many years. And they always vote according to what I tell them. [...] Because they think I’m a good person based on my work on the canal’. In Chaudary’s account, land, the irrigation infrastructure and politics are all intertwined in a single narrative, showing how tenants are bound to landowners in many ways.

These technical, geographical and social elements show that a tenant farmer is often strongly attached to the plot he rents and tills through the ties he has with the landowner. Changing plots of land is much more expensive or much less desirable than the arguments for an exclusive version of WUA membership suggest. Of the 20 tenant farmers I met during my fieldwork in Sitaganj, 15 of them have been cultivating the same plot of land for more than 10 years, and the other 5 for several generations (Valadaud 2021). This would therefore justify the participation of these farmers in WUAs, with no risk of them defecting or losing interest, at least no more than with a landowner, especially if the latter is absent.

Absentee landowners and the irrigation fee

Generally speaking, rural Nepal is experiencing a demographic exodus towards cities and abroad (Bruslé 2013), which is attested to among all classes and castes. Here, I am particularly interested in an older migratory movement, that of socio-economic elites.
In Nepal, there is a historical propensity for wealthy landowners to live far from the village and their land, preferably in urban centres. For Devesh Datt, landowner in Sitaganj and manager of a construction company, who has rented out all his land: ‘It is the best life, you know: I get rent from my farmers, they get food, and I can stay in the city’.

Some have only their residence there, but others have full-time jobs in other economic sectors. Surendra Yadav, a clerk in Itahari, gives his reasons for moving away from rural to urban life: ‘There is no future in farming. It gets more expensive and more complicated. So I rent out or sell my land. And I invest here in the city for my family’.

The growing disinterest of these absentee landowners (Sugden et al 2012) in agricultural affairs has direct and indirect consequences on the inequalities of access to water within the SMIS WUA. Landowners who stay in the villages often complain about these absentee landlords. As Sanjay Lal Chaudary told me: ‘They go to the city and never come back, except to get the rent. How can we reach them for help with the WUA? Our arm is not long enough’.

This irrigator from Sitaganj expresses WUA members’ difficulty in getting absentee landlords involved in the life of the WUA and, in particular, in collecting ISF, which usually amounts to a few hundred rupees per year. It is always a complicated task because it entails going from house to house to collect money from often-recalcitrant landowning farmers. According to former ISF collector Suresh Yadav: ‘There is no profit in being an ISF collector. I did it for three years and I had to fight with so many farmers. One says water’s not coming, the other says I will pay tomorrow, brother... But they never pay. And we cannot force them. There’s no law!’

This lack of legitimacy in the collection of ISF is one of the causes – long recognised in the literature – of the failure of some WUAs (Senanayake et al 2015), because many farmers still regard former public irrigation infrastructures as a government responsibility. In Nepal, the problem is particularly accentuated by the absence of any national legislation to force a farmer to pay for his right to access water. With no legal leverage, ISF collectors are powerless when face to face with farmers and do not bother to seek out landowners living in urban centres. ‘If we cannot catch them [absentee landowners], we talk to the tenants’, commented Suresh Yadav.

Even though a tenant is not expected to pay, ISF collectors ask them by default. Most of the time, tenants of course refuse to pay in place of their landowners. Chabur Lal Chaudary, a Sitaganj tenant farmer: ‘I have many things to pay for already: seeds, fertiliser, sometimes workers and my rent! I cannot spend more money! I have a family to feed!’ Indeed, tenant farmers are often those who have to bear all the agricultural costs, especially when landowners no longer live in the village (Sugden 2014). For Manpur Mehata, the reasons go deeper: ‘Why should I pay? Water in the canal does not come on a reliable basis... And even if I do pay, I cannot become a member of the WUA...’

He adds: ‘I tried to go to a general assembly once. I sat there among all the farmers and then raised my voice. But a farmer stopped me, shouting “this one is a tenant!” and they threw me out!’ In a context where landowners are absent, the restrictive membership rule is counterproductive in terms of raising WUA-own funds: it amputates an important income that could be provided by tenant farmers keen to see water reach the fields they cultivate and which constitute their means of subsistence. Shiv Lal Mehata, WUA president of a downstream tertiary canal, deplores this fact: ‘What can I tell them? There is no law to force landowners, and tenants laugh at me...’
when I ask them. So, we do not have enough money to fix the canal when it breaks. But what can I do? This is a rules and regulations problem! You tell them [engineers].

Engineers, like farmers, readily acknowledge that the deterioration of the infrastructure and the resulting inequality in access to water are due to these problems of collecting the water tax, which is linked to the membership issue. This has further consequences.

This deterioration of canals accentuates the inequality of tenants’ access to water. Though the same efforts are made every year to maintain the state of the canals, the latter provide less and less access to water as the years go by due to their gradual state of disrepair. This is particularly true in the dry season when the actual irrigated area is much smaller than during the monsoon, during which there is frequent rainfall and the Koshi is full. Joti Lal Chaudary, president of a watercourse in the middle of Sitaganj explains: ‘I gather together all the farmers along my watercourse two times a year to clean our watercourse... Tenants as well. It is hard to gather them all: I have to provide tobacco, snacks and sometimes cash. But how can I do that if water, after such hard work, doesn’t come? They all shout at me then. But is it my fault?’.

When Joti Lal Chaudary points out that all farmers criticise him, he does not distinguish between WUA member landowners who can criticise the management by voting or taking part in general assemblies and tenant farmers who are denied these rights and yet carry out maintenance work to ensure the water supply. Inequality is therefore not only of an economic nature but is also evident in the relationship between rights and duties with respect to water access. Though tenants have put in the same amount of work, they are excluded from discussions and decision-making. With no access to institutions, they cannot vote, cannot stand for election and therefore cannot hope to influence individually or collectively the management of the irrigation system. The situation is unfair: a tenant farmer contributing to the maintenance of the infrastructure is excluded from institutional life and therefore from decision-making regarding the future of the infrastructure that is the basis of his income, yet an absent landowner can influence the way the system is managed. This therefore constitutes a source of discouragement and disinterest in the canals and motivates a search for alternative irrigation solutions such as the proactive alteration of canals.

Fig 4a and 4b. Unauthorised intakes mostly affecting downstream tenants

The reproduction of hydrosocial dominations: water user association membership...
added by farmers after the construction of the canals, mostly without the authorisation of the DoI or the WUA, multiplied rapidly during the political troubles (civil war 1996–2006). They both facilitate access to water for farmers upstream and impose extremely unequal access to water for farmers downstream (Valadaud et al 2019). These intakes draw water directly from the Sitaganj canal or secondary canals to irrigate land which is supposed to be supplied by watercourses (fig 5). They often override rotation systems, are opened during the night and therefore effectively steal a portion of the water that is meant for farmers downstream. Though this situation affects both tenants and landowners, the relative impact is greater on small landowners and their tenants (especially those who have land downstream) because the former wield less power in the WUA to prevent these unauthorised alterations.

Fig 5. Description of the impact of an unauthorised intake on water distribution

This link between irrigation management and social domination is very visible when one looks at the many unauthorised water intakes installed by farmers along Sitaganj’s canals. Farmers downstream, such as Prakash Yadav, point out rather eloquently that ‘nobody will ever take these unplanned pipes out: all the thulo manche of the WUA, they also have pipes’.

Another farmer, Mukesh Mehata, agreed that ‘they care only about the canal as long as their land and their aphno manche’ [trusted men’s] land have water. After that, we can all go to hell!’. Field observations corroborate his remarks: these unauthorised pipes are tolerated to satisfy certain irrigators who, in exchange, back the ‘reselection’ of WUA leaders. The inequality of access to irrigation water is not only built into the framework of the Nepalese WUA but is also a result of the deeply political nature of participatory irrigation management in Nepal.
While it can be in the tenants’ interest to contribute to the proper management of the irrigation system, as demonstrated above, this is not necessarily the case for landowners. Legally restricting membership to landowners reinforces the politicised reality of the WUA. The exodus of some landowners and the exclusion of tenants and landless workers reduce the total number of candidates and voters, allowing the remaining local socio-economic elites to secure the position of WUA president. For instance, all members of the Sitaganj WUC are elderly men, large landowners and members of dominant political parties, such as the Nepali Communist Party or the Nepali Congress (Valadaud 2021).

These local elites are able to use their pre-existing financial and social capital to take control of water distribution and budget allocation, the WUA’s main prerogatives. Gaining access to decision-making positions in these institutions not only guarantees control over significant financial resources through DoI and donor funding, but also strengthens the status of patron because it helps to maintain a network of clients in and around the WUA. It is therefore easy to understand how restrictive membership facilitates the transformation of the WUA into a political institution. Indeed, the WUA goes beyond simple water management: it is a place traversed by competing interests and used as a piece on a larger political chessboard, sometimes to the detriment of the irrigation infrastructure and irrigators. This can be illustrated through three examples from my fieldwork.

In the context of Nepal’s vibrant party politics, social elites in control of the WUA can exempt irrigators from ISF in exchange for voting for a given candidate in local or national elections (Valadaud 2021). Thus, the irrigation system is also regarded and used as a means of maintaining or increasing political control over people. Some farmers, such as Ram Prasad Yadav, are eloquent about it: ‘if you have the WUA, you make mayors around the canal!’

This link between WUAs and politics exists at all levels. An irrigator on an upstream tertiary canal, Narayan Chaudary, told me: ‘Mahendra Yadav and Devesh Datt, they are presidents of WUG but they have very little land and do not live around here, but in big cities. How can they know what happens in the canal, how can they know about the lives of farmers?’ A number of WUG presidents are in fact absentee landowners. In order to have the right to stand as candidate within the institution, landowners have to possess a minimum surface area within the SMIS command area and this is very small: five kattha (or 1,693 m²). This leads to afno manche [trusted men] being appointed to the post of watercourse president in WUGs to which they have no ties (either socially or with regard to landownership) in order to ensure the re-election of secondary canal presidents. A few years ago, for example, Mahendra Yadav bought the minimum area of land necessary to be candidate within the Sitaganj canal WUA (Valadaud 2021). When confronted with this fact, he made no secret of it and put forwards reasons for his selection: ‘Farmers cannot make things happen in the canal. You need a long arm and money to make things move with DoI. That’s why people with power get selected. One of my siblings is a contractor and I know the Sitaganj branch president very well’.

However, since then, he has spent most of his time in the nearby large city teaching at a school and is seldom seen around the canal because he does not cultivate his land.
It is therefore understandable why landowners, and more specifically economic and social elites, do not necessarily care whether the irrigation system is properly maintained and whether it is accessible to all irrigators. According to engineer Dipak Bhandari, ‘this type of president, they do not have the interest of the canal at heart, they use it for personal gain’. Their main goal is to remain at the head of the WUA in order to benefit from the economic, social and political advantages it offers. To regard the landowner as an individual who has no other interest than the agricultural productivity of their land and who becomes involved in the WUA purely out of interest for the common good is to idealise the socio-economic reality of rural Nepal. Personal and political interests combine with economic interests, which can – but do not necessarily – stem from an interest in running an irrigation system fairly and efficiently. In practice, the land tenure requirement for joining the WUA allows powerful individuals to invest in the political and social capital that the WUA represents. It allows local elites to use access to irrigation as part of a larger game of power and, in doing so, weakens the democratic intent of WUAs. This requirement bars entry to those who need irrigation water the most, that is tenant farmers. As a result, the best way for tenants to access water – because they cannot plead their case within the WUA – is to keep on good terms with a powerful landowner, thus reproducing patronage relations.

**Conclusion**

In Nepal, WUAs that are integrated into local patron-client networks, tend to attest to the fact that tenants are clients and landowners are patrons. A discussion about how land tenure and WUA membership interact within an irrigation system such as the SMIS allows us to show how social relations of power may be maintained through decentralised and participatory irrigation management. For Meinzen-Dick (2007), this trend, found in several regions of the world, derives from the way the WUA is envisioned in its conceptual dimension. The model, a product of both a neoliberal interpretation of the theory of the commons and the participatory approach, is purposefully constructed as generalisable and apolitical in the sense that it ignores the existence of social relations of power that could affect the way WUA rules are designed. The membership rule is a perfect example of this phenomenon. In Nepal, it is rarely conceived according to local socio-economic and political inequalities, but is rather thought of and implemented by the socio-economic elites.

It is particularly interesting to reflect on the question of WUA membership because it highlights an upcoming fundamental change in irrigation management. In the corridors of the DoI in Kathmandu, one hears more and more market-related acronyms, such as PPP (Private Public Partnerships) or BD (Boards of Directors). These are meant to provide a clearer definition of water rights and WUA membership (Budds, 2009). Such an approach, however, repeats the falsely apolitical logic that produced the previous membership model. Mollinga (2016) believes that defining water rights will not solve a WUA’s problems. First, because it is difficult to fully control water and its users given the liquid nature of this natural element. The proliferation of illegal water intakes in Sitagonj is one example among many others. Second, because, as Stephen Collier (2011) demonstrates in the context of post-Soviet heating infrastructure management reforms, there is strong resistance from state-built infrastructures to
transit to a market-management mode. Third, these rights to irrigation water cannot exist in a social vacuum: the uses of the same water are diverse, they compete with each other and are not for irrigation alone. Creating undifferentiated water rights will, in practice, create market-based competition between the rich and the poor, and between those who are dominated and those who dominate. On this market, actors with the capacity to understand and to manage technical infrastructures will necessarily impose their domination. Defining water rights means giving power to those who are able to understand and to appropriate the conditions defining these rights on the ground.

So where should we look for a solution? For Meinzein-Dick (2007), the solution does not lie in abandoning participatory irrigation management but in rearranging its components in an openly political direction: that is to say one that considers social power relations and seeks to address socio-economic domination through irrigation management. What does this mean with regard to the question of membership and water rights within SMIS? Mollinga (2016) argues that the solution most likely to enact this emancipatory dimension is the dissociation between water rights and land tenure. I would go even further by arguing for dissociation between landownership and the acquisition of membership. The creation of a right of access (instead of a right of ownership) based on participation in an agricultural activity and/or the maintenance of irrigation infrastructures would make it possible to change hydrosocial power relations. If the objective is precisely to enable the poorest farmers to influence their own living conditions through irrigation management, these two dissociations would allow for greater inclusion and thus perhaps the creation of interest groups that do not necessarily respond to local social structures but revolve around transversal interests centred on irrigation issues.

Of course, simply implementing a reform of the right of access to the SMIS WUAs would probably not be enough to overturn the social relations of power within these associations. This effort to ‘repoliticise’ the WUA framework should be combined with reforms of the different institutional elements of these WUAs, such as more direct election procedures applicable to management committees or a more socially attentive selection of farmers invited to DoI training sessions (Khanal 2003). These efforts must necessarily go through a conceptualisation and programming phase in the offices of the organisations responsible for the deployment of WUAs on SMIS territory. Such efforts should not be aimed at erasing patron-client relationships because they are deeply embedded in Nepal’s social fabric. Instead, acknowledging these power relations in the design of WUAs should aim at tipping these reciprocal yet unequal relations in favour of clients-tenants.

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NOTES

1. This notion of ‘depoliticising’ is used in the sense of rendering the nature of debates on inequalities and domination technical and therefore closed to an inclusive discussion. Conversely, ‘politicising’ is used in the sense of making these debates a matter of public decision-making.

2. A very controversial term (Agrawal and Gibson 2001) that I use with caution in this article because it often implies a simplistic homogenous and apolitical view of ‘local people’.

3. I discuss the patron-client relationship more broadly in other works (Valadaud 2021, Valadaud et al 2019).

4. Societies where social status and hierarchical position are hereditary.

5. Rajendra Adhikari, interview, 3 June 2017.

6. Rajesh Yadav, interview, 17 October 2018. Yadav is of an upper Madheshi caste. Madheshis are caste people from the plains.


8. The fee varies from one WUA to another. In 2018, in Sitaganj, it amounted to NPR 200 per ha per year.


14. Sanjay Chaudary, interview, 1 October 2018. Chaudary is a Tharu name. Tharu people are long-term inhabitants of the plains in Nepal. Since the 1950s they have been deprived of the land they traditionally tilled by migrants from the hills, and now many
Tharu people tend to be tenants in the eastern Tarai, where upper castes from the hills and upper Madheshi castes own the land.

21. Sanjay Lal Chaudary, interview, 1 October 2018. The Nepali term used in this sentence is ‘pahūcnu’. While it can be translated literally as ‘arm’ in English, Gellner and Snellinger (2017) translate it more accurately as ‘source-force’, and more explicitly as ‘reach’.
22. Suresh Yadav, interview, 1 January 2018.
23. Suresh Yadav, interview, 1 January 2018.

ABSTRACTS

This article sets out to contribute to the debate on the criteria for selecting members of water user associations (WUAs) for large irrigation systems in the Nepalese Tarai. From a socio-historical approach, I explore irrigation policies through the prism of intertwined scientific paradigms and social power relations specific to the Nepalese context. I show how WUA membership has been dissociated from water use and linked to land tenure. An explanation of this historical process highlights the socio-economic consequences on rural communities dependent on surface irrigation and provides a critique of the WUA model, while suggesting a way of reorienting this participatory model towards further inclusion.

Cet article contribue au débat sur les critères de sélection des membres des Associations d’usagers de l’eau (AUE) des grands systèmes d’irrigation du Téraï népalais. Par le biais d’une approche socio-historique, j’explore les politiques d’irrigation sous le prisme de l’imbrication des
paradigms scientifiques et des relations de pouvoir propres au contexte népalais. Je montre comment l’adhésion aux AUE s’est dissociée de l’utilisation de l’eau pour être associée à la propriété foncière. L’explication de ce processus historique met en évidence les conséquences socio-économiques sur les communautés rurales dépendantes de l’irrigation de surface gravitaire, et permet d’esquisser une critique du modèle AUE tout en suggérant une manière de repenser ce modèle participatif vers plus d’inclusion.

INDEX

Keywords: water user association, membership, landowner, tenant, legal vacuum
Mots-clés: association d’usagers d’eau, adhésion, propriétaire terrien, vide légal, métayer

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