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Making and Misconceiving Community in South Indian Tank Irrigation.[1]

1. Concepts of community

There is today a pervasive policy consensus in favour of the transfer of resources management from state to community. The rationale for such policy hardly needs to be rehearsed for the present readership (cf. Ostrom 1990).[2] The assumptions about community, resource management and the state which are involved, however, do invite reflection.

When we talk of 'community' we invoke various representations of social life. Classically, community has been part of an evolutionary theory of social change, providing the bounded, simple and inter-personal ground against which to figure 'modern' society, bureaucracy and its complex division of labour (i.e., T `nnies' society [*gesselschaft* vs *gemeinschaft*], Weber's bureaucracy, and Durkheim's division of labour [organic solidarity vs mechanical solidarity]).

But, while, in the West 'community' was part of theory of change, when projected onto the East 'community' became a theory of stasis. The image of the Indian 'village republic' derived, as Dewey argues, 'primarily from Victorian ideas about the past of Europe and an imperial idea that the Oriental present represented the European past.' (1972:?). The enduring village republic was *present* and timeless. It provided an explanation for the absence of change in India, and was, as Inden (1990) drawing on Said (1979) argues, part of an Orientalist denial of agency or history to a subjected people.

Within development discourse too, 'community' is a way of representing 'the other'. It provides an idiom of social differentiation. 'They' have community, 'we' (urban researchers or development professionals) do not. Within the modernisation paradigm,

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[2] For irrigation in India see, for example, Maloney & Raju 1994, Meinzen-Dick et. al., 1994, Sengupta 1991, 1993, Svendsen & Gulati 1994.

community is implicitly a metaphor for backwardness and low social status. For example, in a study of popular representations of community (village) and development in Nepal, Pigg shows how the polarity between the two (development [advanced]: village [backward]) provides an idiom for differentiating social and ethnic groups in the country.

But if in one sense community is, the *raw material* for development as a modernising project, from another perspective it is the valorised *goal* of development (Robertson 1984:141); it is the future as well as the past. In this sense community is a potential (group, co-operative arrangement etc.). Community is, as Cohen puts it 'an aspiration to common interest which is all too obviously missing in reality' (1989:?). Yet further, community may also be an idealised *counterpart* to the damaging forces of modern change and development. As one of Graham Clarke's Nepali informants pointed out, 'where there are funds from the government there is no community, and where there is community there are no funds from the government' (Clarke 1993). Indeed, more broadly, 'community' provides the locus for an ideological critique of the modernising strategies of the centralised state and the dominance of Western technical over indigenous perspectives.

As a policy concept, then, community involves a paradoxical combination of stasis and change, past and future. It is this ambiguity which makes the idea of community in development policy an important symbolic resource in *local* struggles over resources. Policy goals of community management not only serve to validate competing claims on resources, but also contribute to a re-negotiation of the social identities on which such claims rest. On the one hand, a newly bounded or bureaucratic notion of community may be an instrument of domination — a means to reassert privilege or to exclude more marginal groups from resource rights. For example, Li argues that new ideas of community and inheritance associated with commercial tree crops in Sulawesi served to exclude certain claims on property while legitimising others (1996); and in Tamil Nadu when new irrigation water user group institutions are controlled by kin or caste groups, a hierarchical notion of 'community' as founded upon unequal and privileged access to resources can be reasserted (Mosse 1997c).

On the other hand, the idea of 'community' itself often conveys normative expectations of equality, democracy and reciprocity in public transactions. Community is invoked as part of a strategy to re-designate rights in resources (to erode the dominant control of state or privileged groups). Especially when backed by supra-local agencies (NGOs, government programmes etc.) 'community' rhetoric can serve to support and validate action among non-dominant groups, or form part of more or less conscious strategies to undermine conventional exclusions and enhance access to commons resources. 'Community' in this sense is part of the 'day-to-day discourse and practice through which people [themselves] seek to gain or defend access to land, labour or other productive resources' (Li 1996:509).

While, as I will show below, ideas of community (in irrigation) are sociologically naïve and inaccurate in their assumptions of homogeneity, co-operation, autonomy from the state (etc.), and while the they divert attention away from some of the most significant social dynamics of resources 'management', this is not the [only] measure by which the notion of community is to be judged (Li 1996). In common property debates today,

'community' is, above all, a cultural idea actively evoked and manipulated in the legitimation of strategies of resource use at local and governmental levels.

The force of 'community' as a cultural idea comes from its place in policy discourse. I want now to show how contemporary policy on 'community management' within south Indian irrigation has its roots in the exigencies of colonial government, and how community 'tradition' was evoked to validate state irrigation strategies in 19th century Madras. The case not only illustrates the connection between power and forms of knowing 'the other' (Said 1979), but also shows that 'Orientalism...is not just a way of thinking ...[but] a way of conceptualising the landscape of the colonial world that makes it susceptible to certain kinds of *management'* (Breckenridge & van de Veer 1993:6, my emphasis).

2. 'Community' and the management of irrigation commons: the history of an idea

In recent resource management debates, communities have come mostly to be defined in opposition to the state. A pervasive, post-'tragedy of the commons' policy assumption is that, if given unambiguous rights of access and use, communities will prove better managers of the natural resources upon which they depend than state bureaucracies which have been powerless to control resource degradation. This degradation is (not infrequently) viewed as a consequence of the 'dissolution of traditional institutional arrangements' for sustainable resource use (Bromley and Cernea 1989) which is itself understood as the negative consequence of assertions of (often colonial) state proprietary and use rights over the commons (e.g., Gadgil & Guha 1992).

These now commonplace associations are well illustrated by present day commentaries on south India tank irrigation systems. Tanks are widely viewed as systems in decline (silted, encroached, damaged etc.), and there are several reasons why tanks do not hold the commanding position which they held until recently in irrigated agriculture (e.g., the growth of individualised groundwater exploitation, diversified cropping patterns). However, most pervasive is the view that the present crisis facing tank systems is, as Vani puts it, that there has been 'an erosion of the autonomous functioning of village management systems' (1992), that a traditional system of village tank maintenance and management through specialist village committees, and voluntary labour (known as *kudimaramat*) has collapsed, and that traditional wisdom is dying (Agarwal & Narain 1997, Gadgil & Guha 1992, 1995).

Quite logically, the policy solution is to reconstitute community management regimes by transferring responsibilities from the state machinery to local farmers (e.g., IIMI & WUHEE 1994). Equally pervasive and deep rooted is the description of community-based programmes in the idiom of the recovery of lost tradition. Among other things this means re-establishing the internal order and autonomy of the bounded village domain, a reduction in the involvement of the state and the elimination of other external agents, whether other villagers competing for water, absentee landlords, revenue officers, contractors and middlemen and various forms of 'political interference'.

The current flood of interest in community institutions of irrigation management in Tamil Nadu (viz., workshops, conferences, and field programmes[3] on PIM or IMT[4]) is only paralleled by the great volume of material produced on the subject in the second half of the nineteenth century; a parallel which I believe has significance.

The Madras Public Works Commission of 1869-70, and successive commissions of enquiry during the remainder of the 19th century amassed a vast body of evidence to demonstrate the existence of autonomous village institutions of tank maintenance and communal labour, generally referred to as *kudimaramat*, 'villager repair or maintenance works'.

The discovery and documentation of *kudimaramat* - as an institution of customary irrigation maintenance from the 1870s, was prompted firstly by a growing perception (supported by reports from the districts) that a large proportion of tanks in many regions were in a state of disrepair, and that the burden of their repair could no longer be ignored by the government in favour of investment in the more productive larger irrigation works (cf. Mukundan 1988:12). Not only did the failure of minor irrigation systems represent a loss of revenue, but secondly, in the 1870s and 80s, it contributed to an environmental crisis which had played its part in generating famine on a massive scale. In the Commission reporting on Famine of 1877-8, which cost an estimated 1.35 million lives in Madras and Mysore, the colonial government also admitted for the first time its moral obligation to maintain minor irrigation. Government not only increased its sponsorship of tank repair, but also insisted on its overriding *right* to own and control local water resources in the public interest -- hence the origin of irrigation law in Madras. By this time also, the Ryotwari revenue settlement had turned irrigation commons into state property (cf. Sengupta 1985:7).

However, as the new centralised PWD both asserted proprietorial rights over, and moral responsibility for irrigation commons, it undermined the link with local authority which made the execution of this responsibility possible. This generated an insurmountable administrative and financial burden on the state as it faced the prospect of maintaining tens of thousands of tanks — a task which, as one 19th century British engineer commented, is 'at once too large in the aggregate, too small in detail - as well in fact [to] attempt to keep every hut in the country in repair'.[5]

It was precisely this problem that in the 1870s, lead the PWD to attempt to **re-**invent custom; or to create the sort of imperial 'village tradition' of which *kudimaramat*, is an exemplar. Handing over the responsibility of irrigation maintenance to village communities on the grounds that this was 'customary', promised a convenient solution. Indeed, the colonial government of the time needed 'traditional' autonomous village tank institutions for its public works administration, just as it needed 'traditional' village headmen for the organisation of its revenue system. Where these appeared no longer to

[3] e.g. CWR 1990, 1991, DRDA & PRADAN 1994, IMTI 1993a, Pundarikanthan & Jayasekhar 1995, Janakarajan 1989, 1991b, Malony & Raju 1994, MIDS 1983, Mukundan 1988, Sengupta 1991, 1993.
[4] Participatory Irrigation Management (PIM); Irrigation Management Transfer (or Turnover) (IMT).

[5] A statement made in 1868 by Maj. R.H.Sankey, then Chief Engineer in Mysore State, cited in Vani 1992:89.

exist they had to be re-invented. The term *kudimaramat* is itself a composite of the Tamil *kuti* - 'inhabitant', 'subject', and the Arabic *maramat* - 'repairs' . Before the 1869 PWD commission, the term is entirely absent from the records, and remains, even today, largely unknown in rural areas of Tamil Nadu.

The seriousness and urgency with which the Madras government addressed the problem of customary obligations and *kudimaramat* can be judged from its actions in the late nineteenth century. Firstly, major new programmes including the 'Tank Restoration Scheme' (begun in 1883 and continuing until very recently) were premised on villager maintenance of the majority of tanks 'according to the old custom of the country known as *kudi-maramat*' and the transfer of tanks to villagers for management.[6] Despite increasing reports of the collapse of *kudimaramat* - especially from the more precarious rainfed plains - the members of the 1901 Irrigation Commission were 'reluctant to admit that so valuable an institution is really dead and past restoration.'[7]

Secondly, being also aware that these customary obligations were rapidly disappearing, the government decided to halt the loss of so valuable a custom by force of law. The Commissioners on Public Works, Irrigation and Famine, and the Board of Revenue, were all convinced of the expediency of legislation 'to give permanence to existing organisations...[where the system of "Kudimaramat" is already in force] and of reviving it where it has fallen into desuetude'.[8] Indeed, more than anything else *kudimaramat* became a concept of legal obligation bound by the nineteenth century British judicial 'norm of universal applicability' (Price 1991: 117). Beginning with the Madras Compulsory Labour Act (1858) (known as the Kudimaramat Act) government took a series of steps to enforce community maintenance of tanks and customary labour by law. Not surprisingly the Act failed and several Kudimaramat Bills (1869, 1883) drafted to underwrite custom foundered because enforcement of the law depended upon the impossible task of proving in court that *kudimaramat* was customary practice in any particular village.

Despite the failure of legislation, the policy debate on *kudimaramat* custom had some profound effects in shaping discourse on 'community management' in south Indian irrigation. While evidence from the PWD Commissions was contradictory, the ascendancy of the centralised irrigation bureaucracy over the decentralised Revenue Administration enabled the dominance of a simplified and universalised *kudimaramat* model over more complex and regionally varied accounts. Indeed the kudimaramat of official policy existed independent of the record of reported practice, and was defined in the image of engineering standards of efficiency, and became incorporated into standard set of official village records.[9]

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[6] Report of the Indian Famine Commission, Part II 'Measures of Protection and Prevention'. Parliamentary Papers Vol. L11, 1880 (India Office Library).

[7] *Report of the Indian Irrigation Commission (1901-3)*, Part II, Provincial, p.112.

[8] Proceedings of the Board of Revenue No. 1,192, 6 May 1876.

[9] 'Bill for the Enforcement of Kudimaramat in the Presidency of Madras', Appendix E. Public Works Commission 1870 (Tamil Nadu State Archives).

I may summarise by saying that, as officially constituted, the policy idea of *kudimaramat* had three effects. Firstly, it fixed and rendered standard a highly diverse irrigation maintenance practice. In the bureaucratic imagination, complex and regionally integrated tank systems were *localised* and traditionalised in ways that made them amenable to administrative manipulation; secondly, *kudimaramat* discourse legitimised the government's demands on village labour as 'custom'; and thirdly, by codifying community obligations, it extended government control over tank resources, creating a new (legal) accountability of villagers to government (Vani 1992:55).

As must be obvious to many, the *kudimaramat* policy debate is, in fact, just another illustration of the way in which, as Stein, Ludden, Dirks and others have shown, 'traditional village India' was more generally constituted, localise, ordered and statistically recorded as the basis of nineteenth century colonial administration. It also illustrates the way in which the project of imperial government was disguised behind 'orientalist' facades.

The point of this digression into 19th century irrigation policy is that in its modes of thought and social theory, *kudimaramat* pre-figures contemporary assumptions about autonomous community resource management which add their own orientalist representations to persisting ideas of village 'tradition'.

Attempts to promote community involvement through the enforcement of custom by law were abandoned in the 20th century. Indeed, although several bills (1906, 1934-6) attempted to underpin waning community contributions, imagined tradition became more commonly institutionalised in the form of local organisations, first (from the 1920s) panchayats (Vani 1992), and more recently water users' associations (WUAs). While devolving management to the community these developments have begun to involve the state in ordering activities of tank irrigation, such as water distribution, hardly touched by Kudimaramat acts (ibid.). But, neither state nor local government have resources adequate to the task of carrying out tank maintenance and repairs which are now their legal responsibility. Both continue to attempt to transfer the costs to farmers through bureaucratically defined community obligation (justified in the idiom of *kudimaramat*) while retaining rights.

Given the wider policy environment of the mid-1990s, it is difficult to escape the conclusion that the contemporary state planning for minor irrigation *requires* village level solutions which are socially and financially self-supporting in the same way that the colonial Madras government needed autonomous village traditions for tank maintenance and repair. If *kudimaramat* 'custom' served to determine the limits of government obligations for a newly extended colonial state in the late nineteenth century, then 'irrigation management transfer' (institutionalised in WUAs) has a parallel significance today in allowing the 'rolling back' of a state bureaucracy weakened by performance deficiencies and fiscal crisis.

There are of course important differences. Firstly, unlike the situation in the colonial state, in the 1990s irrigation policy reform in Tamil Nadu is shaped by multiple institutions with different interests: international institutions (the World Bank and other

donors), NGOs, as well as the state bureaucracy and elected government. This adds significantly to the complexity of interests underlying constructions of community.

Secondly, the vesting of communities with clear rights and legal authority to manage tank resources are now widely accepted as correlates of successful local irrigation management. Thirdly, it is pointed out that community institutions need *support* from government in the form of funds, technical skills and training. Fourthly, new principles of democracy and equity are introduced. Water users' associations are expected to manage tank resources and distribute the benefits proportionately to all 'stake holders' - large and small farmers, tenants, landless labourers, women and members of different castes.

Despite these shifts, however, there are profound continuities in the bureaucratic rationale for promoting village institutions, and in the conception of village society and common property underlying these solutions. For one thing, as mentioned, among PWD officials 'tradition' is still a legitimising idiom, and 'new water users' associations are seen explicitly as a means to revive the customary obligations of *kudimaramat* (IMTI 1993b). Secondly, as with *kudimaramat,* the rhetoric of revival of tradition co-exists with attempts to impose 'superior' modern forms of organisation (roles, procedures, membership criteria, tasks, accountabilities and new ideas of procedural efficiency), to recast the social organisation of irrigation in generalisable, simplified, homogenised (and therefore more manageable) forms.

However, an overriding orientation to the bureaucratic needs of officials rather than farmers has often rendered farmers irrigation organisations managerially dependent and ineffective (cf. Ostrom 1992:11) or has, at worst, eroded rather than strengthened local collective action (e.g. Pandian 1990). Such problems, compounded by the state retention of rights to tank resources, are addressed in the latest trends in theorising irrigation institution development.

These do not conceived of farmer involvement in irrigation in terms of images of community tradition, values or social norms, but rather in terms of structures of incentives which determine the collective provision of rules for resource use and which motivate strategizing *individuals* to commit themselves to follow them (I refer to the work of Elinor Ostrom among others 1990, 1992, Tang 1992). This analysis of community management uses formal models derived from the theory of repeated games to demonstrate the individual economic rationality of co-operation and the possibility of co-operative equilibrium outcomes from competitive games and so challenges the orthodox assumptions about the unlikelihood of collective action (Ostrom et al. 1994, Sengupta 1991). In modelling the necessary socio-economic conditions for collective action, institutional analysis offers the kind of predictive and generalising theory of co-operation which development agencies require in order to generate predictable outcomes from planned inputs.

The rational choice school of collective action which focuses on the behaviour of the self-interested individual (*homo economicus*) has long stood in contrast to the school of thought which emphasises the force of tradition, social rights, value systems and the 'moral economy' (*homo sociologicus*) in accounting for co-operative action (e.g., Popkin vs. Scott 1976; Adam Smith vs. Durkheim, cf. discussion in Blair 1996, Elster

1989, Douglas 1986). But, despite deep rooted contrasts reflecting broader historical cleavages in the social sciences both schools of thought construct similar images of community in the analysis of common property resources, images which we find pre-figured in the 19th century colonial discourse on customary obligations and *kudimaramat*.

To put the point briefly and simply, firstly, these constructions of community in resource management emphasise autonomy from the state. Secondly, they provide models which are synchronic, ahistorical and do not deal with change. Thus, on the one hand, community traditions of irrigation do not appear as produced by changing social and political forces, they simply exist or are eroded and dissolved; they do not change or evolve, they *decay* (cf. Spencer 1990). On the other hand, rational choice models present local institutions as equilibrium outcomes of a structure of individual incentives. Thirdly, the images of community institutions of resource use are narrowly utilitarian and economistic in that they separate resource use from other aspects of social life in which it is embedded. Fourthly, planning models tend to homogenise collective action institutions, ignoring local and historical specificity.

My research on south Indian tank systems, suggests the need to go beyond these constructions of community and common property in several respects. Firstly, 'community' managed irrigation has to be understood as a product of a regionally specific interaction between the state and village (Mosse 1998b). Secondly resource use is defined by changing ideas of property, rights and entitlement. Thirdly, collective action is strongly shaped by structures of power and authority and their cultural construction rather than calculated payoffs (or tradition). This is not to suggest that resource use is other than rational, but that what constitutes a 'resource' is cultural specific. Thirdly, then irrigation 'resources' need not be understood narrowly in terms of water, production and economic interest and utility. Tank systems also involve symbolic resources. They are public institutions (like temples) which articulate social relations, status, prestige. Like south Indian temples, irrigation tanks provide nodes at which, through gifting and public action, economic capital and symbolic capital come to be inter-converted (cf., Bourdieu 1977:180). In short, my wider project (and there is no space to demonstrate this here) is to show the need conceptually to re-integrate water resources management into the wider set of exchanges and social relations involved in Tamil villages.

In the remainder of this paper I will signpost selective research issues and findings which arise from this agenda. Several of these have received fuller treatment elsewhere (Mosse 1995, 1997a, 1997b, 1997c, 1998a 1998b).

3. The social organisation and symbolic function of tank systems in southern Tamil Nadu.

In the gently sloping plains districts of south eastern Tamil Nadu (Sivagangai and Ramnathapuram) heavy runoff from monsoonal rainfall is captured and stored in some 10,000 intensely inter-connected reservoirs. Even now these provide virtually the only source of irrigation in this area. My research has focused on 85 of the 2000 tanks falling within one minor river basin (See Maps 1, 2 and 3).These tanks were developed as part of a state system now characterised by regional historians as 'segmentary' or

decentralised (Stein 1980, Ludden 1995, Dirks 1987, Price 1996). A critical part was played by Maravar caste warrior chiefs who carved out political domains for themselves and gained legitimacy from superior political overlords by extending irrigation systems.

Looking at these systems as a whole, the first point to stress is that they depart from *both* the idea of the centralised hydraulic state *and* its popular opposite, the self-governing village republic. Rather, irrigation was operated by a particular articulation of state and village which organised agricultural production and the redistribution of grain as a public activity linked to the state (e.g., through patronage, land gift and revenue systems). This system involved links between caste, kinship and political office, and a pattern of political rewards for investment which ensured the circulation of resources back into local tank systems in various ways (Mosse 1998b).

The second point is that the fate of these systems under colonial government cannot be understood simply as the erosion of traditional community arrangements for sustainable resource use by a centralising and proprietorial state. It was not the village traditions, but rather the wider political system and its 'circuits of investment and social reproduction' (Stein 1985) in which tanks were embedded that British rule transformed by its new institutions of property and law (Mosse 1998b). In fact, in Ramnad and Sivagangai, tank systems were most affected by the internal contradictions generated as former rulers (who became Zamindars in the 19th century) continued to pursue pre-colonial modes of kingly rule based on patronage, gift and redistribution, while their political authority was progressively undermined by the colonial state (ibid). Land and water resources were treated as political assets to rule (to gift, grant or lease land and tanks to kin, political supporters, creditors, or religious institutions) rather than as natural resources to manage. In short, tank irrigation systems declined because the fragile political system in which they were embedded was disrupted, not because village institutions declined.

Thirdly, these tank systems were (and are) highly interconnected over extensive catchments. Indeed, the ideology of autonomous village systems (rooted in the exigencies of colonial administration) continues to divert attention away from supra-local social and hydrological linkages involved in tank systems. A study of inter-village relations in the operation of Sivagangai tank systems, for example, highlights important ties of kinship and caste as well as hydrology which shape patterns of conflict, co-operation and the trade of water at times of shortage or surplus across the watershed (Mosse 1997b:15-20).

Turning now to the village or individual tank level, tank irrigation in this region involves the storage, distribution and rationing of water at times of shortage, mechanisms for agreeing distribution and conflict resolution — although the extent of institutionalised co-operation varies considerably among the 86 tanks included in a rapid survey of practices. Village tank management institutions deserve brief comment in view of some common assumptions concerning them. Firstly, as elsewhere in Tamil Nadu, water distribution systems are often firmly underpinned by caste-based authority and involve social exclusions and forms of dominance which challenge assumptions about equitable traditions of village co-operation.

In recent theorising, institutions of resource use have more commonly been described as sets of 'rules in use' (Ostrom 1990) than in terms of village traditions. Now, in these irrigation systems rules and conventions are indeed agreed (e.g., rules of rationing, rules giving priority to irrigating wet-land rice over cash crops). What these rules describe, however, are publicly accepted norms or official codes which, it should be noted, often 'encode' the interests of some better than others (men than women, upper caste wetland owners over lower caste dryland or 'tail-end' cultivators). But contrary to appearances, rules are by no means invariably followed. Influential farmers, individually or in combination, conspire to deviate from the rules, but at the same time have the capital of authority (and the necessary social skills) to 'put themselves in the right' and regularise their action such that it appears to conform to the rule (cf. Bourdieu 1977). The social capital (in Bourdieu's sense) necessary to achieve this 'officializing' is, of course, unevenly distributed. Poorer, lower caste and women farmers are less able to validate private interests in terms of publicly endorsed rules.

Rules, then, do not order collective behaviour in any straightforward way. Rules are often invoked publicly as part of a discourse of legitimation to justify individual interests (cf. Elster 1989). The capacity to 'operationalise rights by rules' is linked to power and social position (Li 1996:509-10). To view tank irrigation as 'rule governed' would be to reify the rule, falsely to attribute motivating power to it and to overlook the different interests and strategies which it conceals (Mosse 1997a).

Rule-based approaches to conceptualising collective action are further problematic when rule conformity is accepted as the principle indicator of local institutional success. For one thing, because of the existence of complex 'secondary strategies' officializing practice in terms of the rule, 'rule compliance' is often self-fulfilling among resource users. Farmers only irrigate irrigable land just as they only marry marriageable cousins. Secondly, when separate from independent measures of such as equity or productivity, there is a danger that the measure of success of policy models (e.g., irrigation management transfer) may be self-fulfilling, validated by their own prescriptions (Palmer-Jones 1995). There is enough evidence from 'traditional' tank systems alone, that cohesive institutions can result in inefficient and inequitable area and productivity outcomes (Rajivan 1991:221) to suggest that this is more than a philosophical problem.

In fact, in the tank systems studies here, the crux of the system at village level is not a set of rules, but rather a social relationship of service between farmers and hereditary Pallar caste 'water turners' (*nirppaccis*) who alone have the delegated responsibility of distributing water to fields according to their judgement of field-specific crop conditions. The water turner role is part of a socially inferior (untouchable caste) public office (*kutumpan*) whose status derived from its position within the older pre-colonial caste-based agrarian order. This role involves various material and symbolic transactions (prestations, ritual actions, obligations) which express the subordination of the Pallar water turners particularly in relation to the Maravar village head (*ampalar*) on whose authority the tank operations rest.

Much more could be said about the complex social and ritual systems operating tanks at village level, but the key point is that, while at one level these tanks are irrigation structures delivering water, at another they are (and have long been) public institutions

expressing a social order of dominance, subordination and caste rank. This is not only the case in Sivagangai and Ramnad but also in other parts of Tamil Nadu, although the idiom in which irrigation tanks and institutions of public order express relations of caste and authority varies regionally.[10]

Where they are embedded in authoritarian caste structures, community management systems have been disrupted by dispute and conflicts in which the identity and status of low castes and the meaning of 'community' itself is contested. For example, Pallar *nirppaccis* have withdrawn or re-negotiated their services when members of their caste challenge conventional social exclusions or lay claim to caste-based privileges and honours, for example, at temple festivals (Mosse 1997b:30-32).

Not only water, but also other tank resources such as fish and trees are managed in culturally distinctive ways. In many tanks (where not auctioned to individuals) fish catches are apportioned into regulated 'shares' (*kur*) publicly distributed to households in ways which acknowledge status through privileged shares. Certain tree usufructs are treated in similar fashion. However, tank foreshore trees are usually auctioned to generate 'village funds.' With the recent harvest of 1980s SIDA-funded Social Forestry plantations the amounts of money involved are substantial. What is significant is that common funds generated from tank resources are hardly ever used for irrigation maintenance — for desilting, clearing channels, repairing bunds and sluices as 'community management models' expect. In the majority of cases (73 per cent of tanks surveyed) income from all sources is expended on temples — on construction, repair, inauguration or the celebration of festivals (Mosse 1997b:33-5).

They key point is, as I have noted elsewhere, that 'public funds (and tank resources more generally) in these villages are not primarily managed in ways which maximise utility and ensure accountability, but rather in ways which minimise social conflict and serve to enhance the prestige and credibility of existing leadership (i.e., as religious donors). Indeed public funds are not *managed* at all (rarely are they placed in banks with accessible accounts) but rapidly *expended* on a narrow range of culturally acceptable public goods - foremost among which is the temple. As Tamil political leaders at all levels have long understood, while conferring honour and public esteem on its donors, the temple demands generosity, but not accountability' (Mosse 1997a).

The study of these irrigation systems then suggests that common property resources management (1) is not a village affair isolated from the state, (2) cannot be reduce to consensual tradition or a system of rules, and (3) cannot be isolated from its cultural context and viewed as a distinctive kind of economic activity subject to generalised laws. In Tamil tank systems *common* property carries distinctive meanings and

[10] In the northern districts characterised historically by landholding collectivities (termed *mirasi* by the British), rights and obligations in tank water (as in temples) are expressed in terms of privileged shares (*pankus*) (CWR 1990; Sivakumar & Sivakumar 1996; Mosse 1997c). In areas such as Pudukkottai where resource control was grounded in the clan institutions of the ruling Kallar caste, rights to tank water and temple honours are articulated in the idiom of ranked lineages (*karai*) (Krishnan & Mohanraja 1995:225, cf. Dirks 1987:210-212). In Ramnad and Sivagangai, common property is circumscribed by hierarchical relations of service, the model for which is provided by the Maravar headman (*ampalar*) and the Pallar *kutumpan*. The point here is not only that resource entitlements are defined by social position (e.g., by caste and kin) but also that publicly managed resources (and the institutions involved) provide idioms of political relations and social standing (Spencer 1990:100-1).

culturally defined ideas of the public domain, public service and public action. The village public (*ur potu*) is a domain of authority, rank and contest, and resources management is therefore eminently political action. Because they symbolise political relations, tank resources (shares in water, fish or trees, and the use of common funds) generate conflicts way out of proportion to their economic value.' This is also a markedly gendered domain which excludes women, involves rules which fail to 'encode' their distinctive interests (whether in relation to cropping
or competing domestic demands on tank water) and marginalizes their involvement in resource management.

Once re-inserted into their proper context it becomes clear that the economic benefits of co-operation are far from the sole, and may not be a sufficient, basis for maintaining the social institutions which produce co-operation. The village public realm — pace Wade — is not just about getting things done (1988:196).[11] Alternatively put, indigenous management of tank resources does not strictly separate the community management of natural resources from the community management of social relations.

4. Making community through 'water user associations'

Clearly there are operational implications from this discussion for any policy of irrigation management transfer and the promotion of water users' associations. These institutions are often viewed as financially self-supporting corporate organisations which, if given unambiguous rights, will be able equitably, democratically and sustainably to manage tank resources – water, fish and trees, and enhance community involvement in system maintenance.

At the outset, it should be emphasised that this policy initiative involves a new process and new social arrangements based upon different principles of social organisation. The strong tendency to read across from indigenous resource

[11] Arguably the strongest argument for an economic-functional interpretation of water management institutions is that this explains the pattern of variation in institutionalised collective action. Wade's influential study (1988) described a systematic variation in 'co-operative institutions' across a catchment, demonstrating the close correlation between collective action and the economic factors of risk and scarcity. Elsewhere, I have discussed the results of my own study of variation in institutions of collective action (e.g., the existence of paid Pallar caste 'water turners', agreements on water rationing and system maintenance, inter-village agreements on water sharing or sale). Like Wade, I found a striking contrast in the social organisation of irrigation in the upper and lower parts of a catchment. However, my evidence reverses Wade's findings in that I found stronger institutions in the upper catchment sandy soil villages and weaker ones in the lower catchment black cotton soil villages. The difference can be explained in terms of the greater importance of variation in *demand* for water in this tank system (porous vs. water retentive soils) rather than *supply* (head or tail end of the distributory) in the case of Wade's study. What I found more significant, however, was that the pattern of variation I investigated had as much to do with distinctive local histories (settlement, revenue, land tenure and caste history) as with ecological variables and individual economic incentives. Historical and ecological conditions in one region produced a continuity of authoritative control over wet land rice production and public institutions of resource use (caste-based service roles etc.), while in another these were gradually eroded in the 19th century and replaced by more diffuse private networks of patronage, alliance and personal obligation. Interestingly I found that this socio-ecological distinction corresponded to an indigenous socio-ecological distinction which defined eco-types and associated behavioural propensities. This emic classification of regions/institutions amounted to an indigenous theory of collective action, which, in contrast to Wade's, conspicuously does not separate out ecological-economic from social-symbolic aspects of common property systems (or apply an institutional analysis only to the former) (see Mosse 1997a 1997b).

management systems to new ones needs to be tempered. Firstly, the indigenous tank systems I have described do *not* involve *corporate* organisations, village councils and the like. Despite Wade's insistence on the pervasive and unrecognised existence of functionally focused village councils managing resources in south India, I found these to be extremely rare (only 2 out of 86 tanks had any recognisable tank association). Irrigation water is managed effectively without corporate organisations. Indeed the transaction costs of corporate organisation are high and the benefits uncertain. This is precisely why villagers avoid the accumulation of public funds which demand planning and accountability and instead expend funds on temples. Plans to introduce new, socially costly forms of organisation need careful thought.

Secondly, effective water allocation and rationing does not necessarily imply interest in the management of a wider range of tank resources or in system maintenance. Indeed, villagers conspicuously avoided investment in tanks as common productive resources. While the controlling influence of the state has some part to play here in weakening motivation for investment, it is also the case that moral claims on commons resources (e.g., for expenditure on temples, and other culturally defined public goods) is high, and this heavily penalises collective investments for production and militates against collective entrepreneurial activity (Platteau n.d.).[12] In may cases, 'management transfer' policy involves socially *innovative* understandings of commons resources and management, as well as new skills, procedures, and institutions (and resources to support this); rather than, as so often supposed, a regeneration of traditional management regimes.

Thirdly, programmes of water users' associations development are often based on the assumption that collective action arises from the association of free and independent 'appropriators' bound by consensus rules. This differs markedly from indigenous tank management where membership of institutions and rights in resources have to do with the social identity, position and status of actors, and where publicly accepted norms and their use often serve to exclude poorer, low caste, female or tail-end farmers.

Fourthly, there is an assumption that water users' institutions are going to be narrowly functional bodies sustained solely by the benefits of better water supply. This is unlikely. Indeed, field research and 'process documentary' evidence on the formation and functioning of water users associations in Tamil Nadu suggest that these become important political institutions, especially given their role in dealing with tank resources and linkage to external authority and material and political resources (Mosse 1997c). An example will illustrate the point.

In the Tamil Nadu village of Nallaneri (a pseudonym), the recently formed tank association provided a major vehicle for both factional conflict and low caste social mobility, as images of community were contested and redefined. In this instance upper caste Mudaliar and low caste Harijan members of the village evoked and manipulated

[12] A subsidiary but increasingly important issue here is the conflict between a 'community' of users and the wider village 'public'. As new public institutions such as the local government panchayats gain greater rights over tank resources, these may well come into conflict with those of the 'sub-group' of water *users* (unless the users have clear social, political (and numerical) dominance and so control of the panchayats).

ideals of community in pursuit of separate strategies of social change. Mudaliars sought to found the new water users' association' on an old system of privileged 'shares' (*pankus*, see note 14) in the tank clearly indicative of their caste power and social dominance. Harijans, perceiving this intent behind the new 'public service' roles and institutions, challenged their own restricted participation, withdrew their support and labour, or bargained for new privileges and rights of access to resources. For Harijans, 'community management' of irrigation implied (but concealed) social hierarchy and compromised an ability to negotiate social position newly acquired in other areas of life (e.g., in relation to agricultural labour and service relations). But 'community management' was also an ideal supported by external sources of power (NGOs and the tank project staff) which could support Harijan resistance to exclusion, and support their strategies of social mobility, new access to resources or the protection of exiting usufruct rights (see Mosse 1997). [13]

The project staff worked to develop the water users 'society' as a basis for the programme strategy of promoting farmer control of community resources. But, despite it practical benefits (potentially profitable contracts for the PWD, efficient water distribution etc.), neither caste viewed the new tank society as a self-evident public good, or seriously considered it as a basis for achieving equitable access to common resources. Indeed, the society's function in water management was separate (and often subordinate) to its wider social and symbolic significance as a 'public' institution expressing social relations of caste and as a vehicle for political leadership and power.

What is clear is that this programme, like other programmes promoting new water users' associations in Tamil Nadu, had to 'interact with already contested domains of power and meaning' (Li 1996: 515). Interventions occurred where an existing authority was breaking down[14] and where new democratic arrangements were sought. External agencies promoting new forms of association, commanding new resources and based upon principles of democracy or equity often can shift a local balance of power and precipitate social challenges to existing authority or support the political strategies of subordinate (often low caste) groups (Mosse 1995, 1996). Alternatively, where they nestle into existing structures of authority, new associations provide additional means to validate and enforce (or reassert) privileged access to resources.

These contrasting social outcomes may also be different moments in the life-cycle of a single water users' association: at one moment a marginalised threat to local power, at another a means to reproduce existing caste (and gender) hierarchies, and still later the means to introduce new forms of accountability and leadership and new forms of resource management. For example, while initially controlled by dominant Mudaliars, the Nallaneri tank 'society' gradually put into place procedures and participatory conventions (new membership criteria, a system of office bearers, by-laws and record keeping systems, mediated public meetings and caste-representative committees etc.) which institutionalised ideals of community co-operation in ways that made the society

[13] Of course, the other external 'stakeholders' such as local contractors or junior government staff strongly resist 'community management' initiatives, since their material interests are directly affected.

[14] Indigenous water management systems have often failed to adapts to changes in wet land ownership, or cropping (hence demands for water), and have become anachronistic, resented and much challenged remnants of an earlier distribution of village power.

increasingly ineffective as an instrument of traditional leadership, while allowing alternative leaders to emerge. In other words, while the water users' association was a vehicle for articulating existing caste conflicts, it also altered the terms of public engagement, creating an alternative 'village public' with new meanings which (over 5-6 years and with external support) gained some ascendancy.

In the case of Nallaneri (as elsewhere) the making of a new community of resource users was a tortuous and conflict ridden process of social re-arrangement during which the 'society' proved far more able to mobilise funds for extensive litigation (*inter alia*, over rights to leadership) than for tank repairs. Indeed, arguably, successful modern co-operative institutions far from being an expression of enduring institutions of village self-government, are a sign of (and depend upon) the decline and erosion of indigenous forms of collective action. But the dominating discourses of past tradition (*kutimaramat*) and present co-operative equilibria, distract attention from the newness and complexity of institutional innovation and the social insights which are required (and which are often the daily experience of village community workers). What 'participatory irrigation management' policies need then is not generally applicable models underpinned by economic theory, but methods for decentralised learning and institutional planning (Mosse et al 1998).

Equally certain is that institutions of collective action are anything but spontaneous. They depend upon the long term interventions of *outsiders* involved in processes of mobilisation, training and negotiation. While community institutions of resource management continue to be represented and theorised as spontaneous and self-supporting, they are in reality introduced and sustained by substantial external resources and authority (Government, NGOs). Uncritical use of the idea of village tradition or village autonomy in policy debate on 'irrigation management transfer' or 'turnover' is mistaken and potentially damaging to the interests of farmers themselves. This is especially so where new management and financial demands (promoted to deal with state financial crisis in irrigation) are legitimised in terms of enduring village custom.

My intention here, however, is not to challenge the management transfer policies in themselves, but to indicate the inadequacy or the dominant models and representation of community which these currently invoke. As with *kudimaramat* tradition, contemporary modelling of community irrigation institutions strips irrigation of its social and political content, simplifies our understanding of the social organisation of irrigation by imposing a narrow definition of economic interest to the exclusion of precisely those political and symbolic elements which are of importance in the practical matter of institutional development. This may make rural society appear more manageable and amenable to state and internationally driven policy shifts towards resource management transfer. But the risk is that contemporary policy constructions of 'community' rest on no more solid ground that 19th century idea of village custom and *kudimaramat*.

To conclude where I began, 'community' is not simply a sociologically inadequate construct, it is ideological, embedded in institutions and their interests, but increasingly also able to play a part in the local negotiation of resource use. It is no more possible to abandon the concept of community than that of development (Agarwal 1997).

However, it is possible to better to engage with the multiple and subtle roles it plays as a cultural construct in mediating resource use.

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