WILLINGNESS TO PAY – UNWILLINGNESS TO BE PAID

The politics of water pricing in canal irrigation in Andhra Pradesh, India

This paper discusses water taxation and tax collection issues in surface canal irrigation in Andhra Pradesh, India. It is recommended that farmers are involved in irrigation governance, including financial governance, to make canal irrigation financially viable.

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The politics of water pricing in canal irrigation in Andhra Pradesh, India

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Abstract

In canal irrigation systems in South India, the problem that not enough cost is recovered for Operation and Maintenance (O&M) has been ongoing for decades. The conventional problem analysis of water tax payment and O&M cost recovery in surface irrigation in South India focuses on the low level of payment, the waiving of water tax payment arrears by government, and irrigators’ willingness and capacity to pay. Policy initiatives to increase recovery to make surface irrigation more financially sustainable have generally adopted a ‘making the farmer pay’ approach. The case study suggests that willingness to pay among farmers is high when certain institutional conditions are fulfilled, but that the main problem seems to be the government’s ‘unwillingness to be paid (or collect)’ under such conditions. Introduction of new systems of water tax payment and collection involves a re-negotiation of the balance of power between government and irrigators in system governance and management. It is recommended that farmers are involved in irrigation governance, including financial governance, to make canal irrigation financially viable.

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Fact box

As early as the 1960s and 1970s it was observed that the rates charged to farmers and the collection were rather low (GOI/PC, 1965; GOI/MOIP, 1972; GOAP, 1982). But very little was done until the late 1980s and early 1990s. The water tax issue occupies a central position among the representatives of Water Users’ Associations (WUAs), because the water tax and O&M of the canal system is directly related. Farmer-irrigators themselves have started articulating the need for reform, as a response to increasing levels of dissatisfaction with, and decreasing presence and capacity of government irrigation managers. JalaSpandana, a farmer-irrigator organisation that unites State level farmer-irrigator organisations working on canal irrigation issues in South India, most prominently in the States of Tamil Nadu, Karnataka and Andhra Pradesh, started a process of reform from below, through organisations fully controlled by farmer-irrigators themselves, that is, not as NGOs with external, so-called expert, input (too long sentence.).
Background of water pricing politics

The sustainability of irrigation systems depends on the revenue generated from the irrigation projects, allowing proper operation and maintenance and other things. In India, the governments of the federal states have achieved very low collection rates of water tax and been very hesitant to raise the level of water taxes. In many states, these remained unchanged for decades, implying that canal water relatively became cheaper and cheaper. The poor collection and low level of water tax has become a major reason for deferred maintenance of the irrigation systems, causing most of the irrigation projects to perform below their full capacity. This has resulted in loss of crops due to lack of water in crucial irrigation periods, inducing conflict between farmers and between farmers and managers over distribution of limited water. Farmers are sometimes forced to spend equal or more than the water tax either directly or indirectly to get water for irrigation. Further, some farmers violating the crop pattern and engaged in unauthorised irrigation pay as much as double the water tax amount to get water to their lands. These payments include costs for canal guarding, lifting water with pumps, and making informal payments to canal managers for releasing water (Wade, 1982; Mollinga, 2003). This gives a clear indication that farmers are willing to pay provided they are assured of their share of water at the right time. In many parts of Andhra Pradesh and also in the study area (Kurnool-Cuddapah Canal, Rajolibanda Diversion System) there are a number of villages, where informal village development groups carry out informal taxation from traders and individual farmers for water management in canal irrigation. Thus apart from willing to pay, water users have also shown capacity to raise local funds for irrigation. The question is under which conditions this potential becomes practice, and what constrains that realisation.

At the international level, the neo-liberal development agenda for irrigation management reform of the 1990s focused on Irrigation Management Transfer (IMT) with emphasis on ‘financial autonomy’. It placed great confidence in the effectiveness of market and market-like mechanisms to improve water management. The main premise was that financial autonomy of irrigation agencies will lead to a more productive accountability relation between managers and water users, including the reduction of corruption (Merrey, 1996). The IMT approach advocated the introduction of water markets and tradable property rights in water. Although as early as 1989 the ‘fallacies’ of the neo-liberal argument for canal irrigation had been pointed out (Moore, 1989) this evidently had no great impact on the 1990s international irrigation reform discourse. However, Molle and Berkoff (2007) show that on a global scale there is very little empirical evidence for these theoretical propositions actually being realised in practice, at least in canal irrigation. This may be because prices/financial incentives are not necessarily the dominant mechanism at work to shape management practices and water use levels, and that levels of water prices/water rates in canal irrigation are often so low that even doubling or tripling them may not have much effect. Thus, the idea that increases in water charges lead to water use efficiency (Dinar and Subramanian, 1997; Saleth, 1998) is far from reality.

Wholesale introduction of ‘water markets’ was not tried in Indian canal irrigation, and neither was full-scale IMT. Reconfiguring the relationship between irrigators and the government service provider more as a contractual relation did enter Indian irrigation policy. Experiments with volumetric water delivery and payment to WUAs were conducted in Maharashtra and other places in the 1980s. Through these experiments the idea of self-management of irrigation systems by farmer-irrigators as Participatory Irrigation Management (PIM) became established in
India. PIM stopped short of the ‘management transfer’ concept of IMT and of self-governance. Government continued to be strongly involved in management, and no governance powers were shared with or transferred to water users. In some states increases of water tax and reshaping of collection practices have been part of PIM, particularly since the start of irrigation reform in Andhra Pradesh in 1996-97 (documented by Mollinga, Doraiswamy and Engbersen, 2004: Raju et al., 2006) under the Andhra Pradesh Farmer Management of Irrigation Systems Act (APFMIS Act). This Act served as a legal example followed by many other states. This reform aimed to establish a three-tier farmer management/governance system of canal irrigation, with Water Users Associations (WUAs) at the local level, Distributary Committees (DCs) at the secondary canal level, and Project Committees (PCs) at the project (whole system) level.

**Water tax system in Andhra Pradesh: formal procedures**

**Water tax legislation**

In Andhra Pradesh water tax collected for the water supplied for irrigation purpose is levied depending on the category of the irrigation project, area irrigated and on the basis of crop per acre per season. There are five crop types: first or single wet crop, second & third wet crop, first irrigated dry crop, second & third irrigated dry crop, and aquaculture (levied per year); and two categories of water tax: permanent irrigation sources, and irrigation sources for at least 4 months. Water tax is based on the 1988 Water Tax Act and 1990 Water Tax Rules, and Act amendments through Act 13 of 1997. The revised water tax is directly linked to the O&M cost of the system (Peter, 2001). The State has set up a water tax review committee to look into O&M (Operation and Maintenance) cost and water charges levied by the government periodically.

**Water Tax Demand and Collection**

According to the official procedure the water tax demand raising (estimation) or ‘crop booking’ is undertaken through joint inspection called *Ajmoish* carried out by the village secretary of the Revenue Department, representatives of the Irrigation Department and the WUA. The joint survey of the area extent and the crop grown is to be carried out by visiting individual irrigators in the command area.

‘Crop booking’ starts from the second month of the crop season, which in this area normally starts in June/July. The policy contains specified formats for preparing the demand list and conducting *Ajmoish*, as well as provision for reconciliation of the demand list, so that farmers seeking correction in demand can give representation to the Mandal (sub-district) Revenue Officer (MRO), the government administrator in-charge of sub-district tax collection. Mandal level demand statements are sent to higher authorities for correction and compilation. The resulting demand statement is returned to the MRO, who has powers to re-correct and finalise the statement. Section 17 of APFMIS Act 1997 clearly states the role of WUAs in assisting the Revenue Department in preparation of demand and collection of water taxes.

The tax is collected by the Revenue Department, which is under the control of the District Collector. The village secretary, and since February 2007 village revenue officers, are authorised to collect water tax. A receipt is issued on receipt of tax. In the recent rearrangement of Panchayat Raj Institutions to decentralise governance, local village government secretaries were separated from the Revenue Department.

**Water tax level**

In 1996, the Government of Andhra Pradesh revised water tax from Rs 60 to Rs 200 per acre for wet/paddy crop as part of the
irrigation reform process. Water Tax apportionment to WUAs/Re-plough mechanism

Re-ploughed water tax is an important financial resource of WUAs. The water tax is collected by the village secretary and remitted to the MRO office. The MRO in turn has to apportion the money to the Irrigation and Command Area Development (I&CAD) Department, WUAs, Distributary Committees, the Project Committees (extant since 2009) and the Gram Panchayat (village council), with stipulated percentages for each. The amount of money ‘re-ploughed’ is based on the water tax collected in respective WUAs. The WUAs have to get their due share from the Pay and Accounts Office, a separate department.

Water tax practices in Andhra Pradesh

The study

This study is based on field experience during a participatory training programme carried out by JalaSpandana in three major irrigation projects in the upstream part of the Krishna Basin in Andhra Pradesh. The training programme was financially supported by I&CAD from 2005 to 2007. (Doraiswamy, Mollinga and Gondhalekar, 2009). As part of this programme, JalaSpandana facilitated a series of training sessions with sufficient time for detailed discussions on water tax and the O&M issue. Furthermore, under the project ‘Farmers Network for Water Sector Reform in South India’ (FNWSR), supported by the International Network for Participatory Irrigation Management (INPIM) Washington D.C., JalaSpandana had earlier facilitated the formation of an informal project level WUAs federation in one of these three irrigation systems. The informal committee at project level comprised of the presidents of WUAs. This meant that some degree of project-level organisation of water users existed.

Findings

Demand estimation: Despite the clear procedure laid down to estimate the demand and arrange the collection of water tax jointly by the different government departments, in practice estimation of demand through the survey work on the irrigated crop area from the field is carried out separately by the authorities of the Revenue and Irrigation Departments. This separated approach results in wide variation in the demand estimated, due to lack of coordination and disagreement on the current area under irrigation and crops to be considered for demand calculation. The provision in the policy for reconciliation of the demand lists with participation of farmers is very rarely used.

Water tax collection: Water tax collection is very low in almost all irrigation projects and there is lack of incentive for WUA representatives to participate in collection. Further, whatever amount is collected is not timely remitted by the concerned government agency - the Mandal Revenue Office. Water tax is not regularly apportioned to WUAs, as the policy stipulates it should, in these projects. The procedure adopted by the Revenue Department for re-ploughing of water tax to WUAs is lengthy and cumbersome with undue delay at every level. The situation causes WUAs to be unable to carry out O&M of the canal system. This leads to disinterest for PIM.

An effort at improvement: In response to such experience, I&CAD and JalaSpandana prepared a Memorandum of Understanding (MOU) towards water tax collection that would be signed between representatives of WUAs and the I&CAD Department, using a participatory approach in facilitation, consultation and collective drafting. As per the MOU, the WUAs shall be responsible for collecting water tax, retain their share and remit the share of departments and other institutions accordingly. The WUAs will be given a rebate of 5% for timely remittance. At present most of the WUAs have sent their copy of the resolution to the office of the Commissioner, I&CAD, Hyderabad, urging the department to bring
amendments to the APFMIS Act and Water Tax Act to transfer the collection responsibility to WUAs. Also, I&CAD made an attempt to pursue the matter with the Finance Department to ensure re-ploughing of water tax collected to respective WUAs as per apportionment. The Finance Department, Government of Andhra Pradesh issued a Memo dated 22-08-2005 facilitating the apportionment of the collections to WUAs. Nevertheless, the MOU could not be carried forward due to hesitations within the government apparatus argued as a lack of ‘enabling atmosphere’, including installation of measuring devices at all levels of canal structures for volumetric supply.

In addition, a frequently asked question by I&CAD staff in terms of transferring the power of water tax collection is the apprehension about the accountability of representatives of WUAs and the transparency in utilising the water tax amount. All in all, there was, apparently, insufficient support within the government apparatus to implement the transfer of collection responsibility, despite some formal decisions taken in this direction.

**Analysis**

As regards water tax estimation, payment, collection and ‘re-ploughing’ to water user organisations the study has identified the following general situation to prevail.

**Cooperation:** The study shows that the Revenue and Irrigation Departments battle for authority over water resources. The lack of cooperation between these two departments results in differences in tax demand raised. Further, there is lack of cooperation between the two departments and WUAs. Although the APFMIS Act 1997 emphasises the role of WUAs in assisting the Revenue Department in the preparation of demand and collection of water rates, WUAs express that they are not informed about the date and time of the survey of ‘crop booking’. WUA representatives state that there is no actual field visit carried out by the Irrigation Department and the Revenue Department. WUAs have no staff either exclusively appointed by WUAs or deputed by the I&CAD Department, or financial resources to engage people, for carrying out their own surveys.

**Government procedures:** Cumbersome and time-consuming procedures cause lag in tax collection. The water charges review committee has stated that the collection of water charges by the Revenue Department needs improvement. This study found that in WUAs under one particular Mandal, the water tax collection was more than 90%. This was attributed to the WUA’s participation in the collection process. However, WUAs are tired of the present system and are losing interest in participating in collection. The informal project level WUAs federation representatives have expressed willingness to take over the responsibility of water tax collection, with government support in terms of power delegation to enable a) action against those not paying the tax to WUAs, and b) evaluation of tax waivers. Further, they advocate that the WUAs would retain their share of tax and remit only the government share in order to avoid lengthy and cumbersome government procedures. Cumbersome procedures are increasing the workload of village secretaries as well as Revenue Department officials. The latter are overloaded with work in addition to spending much time on protocol works like visits by various elected representatives, development officers, and elections and vote counting.

**Political will and law enforcement:** I&CAD has attempted to simplify the process of assessment of water tax demand and collection by redefining the roles of the Revenue and Irrigation Department. The Irrigation Department realised the discrepancies in the procedures in preparing water tax demand and issued GO No. 96 empowering the Executive Engineer of the I&CAD Department and Managing Committee of WUAs to prepare the demand list. However,
the government did not exhibit political will to
devolve its authority over water tax collection,
thus retaining the powers under the Revenue
Department.

Lack of good progress in collection of water
tax is also due to lack of enforcement of
existing procedures by higher authorities. This
can be attributed to political factors, i.e. the
government do not want to strictly carry out
collection because of vote bank considerations.
In the old system of collection the Karnams
(local level revenue authority) had full
authority and carried out collection. The non
payers were searched for their property and
there are instances that the non payers name
was publicly announced in the village, which
caused severe social hardship and compelled
the farmer to pay the water tax. Further
examples are the selling of cattle that
belonged to such non paying farmers to
recover the tax. Without wishing to return to
these pre-democratic institutions and
practices, mechanisms for strict enforcement
are needed to bring about proper collection.
Some WUAs opine that the government has to
issue orders that oblige the Revenue and
Irrigation Departments for the system to
function properly. Though such a 'law and
order' perspective on irrigation management
have has around in debates on irrigation
reform since the 1960s, it has not been able
to achieve much in practice.

**Incentives:** With the current method of and
complications in the water tax system, there is
no incentive for WUAs to participate in demand
raising, nor sustaining initiatives taken in self-
collection of water tax. Further, the water
charges review committee observed that the
O&M expenditure per acre is well below the
water charges levied by the government.

**Interpretation**

The lack of success of the WUAs’ attempt to
convince the Revenue Department to accept
their self-designed collection approach that
was described above, can be interpreted in
different ways. It can be regarded as a
technical matter of policy implementation, with
lack of success resulting from the absence of
volumetric supply devices and other practical
reasons. It can also be interpreted as follows.

The apprehensions of the government over the
accountability and transparency in utilisation of
water tax are prone to the interpretation that
the government is unwilling to lose control
over the people in the constituency. The
elected representatives and the bureaucracy,
in other words the agencies of the
government, have direct control over the
constituency that binds the people,
bureaucracy and elected representatives. This
control is exercised through discretionary
power of elected members of parliament over
transfers of government officials as well as
their significant role in decision making on
resource distribution in the constituency (for
instance, implementation of government
projects and programmes), and through the
mechanisms that constitute ‘vote banks’. The
system of binding farmers is a channel that
helps the elected representatives to exhibit
populist measures like tax waiver, loan waiver,
free power supply and agriculture subsidies.

Further, historically, the revenue system
functioned as the main tool to exert authority
over the people, dating back to the princely
states and the colonial regime. This history is
quite evident even from the way the people
address the revenue officers, especially the
District Collectors, as ‘lord’, locally called Dora.
Any devolution of power is thus likely to be
resisted strongly by the Revenue Department.

Another commonly reported viewpoint by
farmers with regard to reluctance of the
government to devolve power on water tax is
that the officials of the Revenue Department
do not want to lose the monetary gains which
otherwise they get through under-quoting the irrigated area, not fully reporting the violation and unauthorised irrigation (see Wade, 1982, for a general discussion). There are ample cases across the State in terms of area irrigated which show that the irrigated area figures of the representatives of WUAs are far exceeding those of the Revenue Department.

This suggests the following interpretation. The basic trade-off between government and irrigators in irrigation reform is that of devolution of control vs. farmers’ ‘willingness to pay’ for O&M. This study confirms that willingness to pay among farmers is high when certain institutional conditions are fulfilled. However, when farmers offer to pay the water tax fully, the government may be ‘unwilling to be paid’ when farmers demand that they collect the payments themselves. The unwillingness of government agencies to accept payment and collection schemes proposed by farmers that include an element of self-governance by farmers, shows that the real issue is ‘control’ rather than ‘cost recovery’ as such.

**Moves forward**

The understanding that in canal irrigation main system management is crucial has existed for decades (Wade and Chambers, 1980). The main canal system is the level at which canal irrigation system governance happens, as it is the level where water is allocated, and where rules are made for this (release schedules). The importance of the main system is also acknowledged in Andhra Pradesh reform. However, farmer self-governance is still far despite general long-term movement in the direction of larger farmer self-management in canal irrigation systems at lower system levels. Despite the Andhra Pradesh reform being the strongest effort ever in India to establish irrigator-controlled management of irrigation systems with the Irrigation Department in a new role of ‘service provider’, it took a decade for the Government of Andhra Pradesh to establish PCs. In the PCs self-governance would be located, as the APFMIS Act intends that allocation of water and decision making on O&M works at system level takes place there, with the I&CAD department in the role of ‘service provider’. Without the PC as the third tier of elected water user bodies, the activities of WUAs and DCs remain self-management activities, because they are overseen (governed) by the irrigation agency in control of the main canal system. With the delay in PC establishment till 2009, the government demonstrated its reluctance to lose authority over main system management.

In 2008, the government announced election dates to PCs and subsequently again postponed the elections. This prompted water users to file a case against the government postponement move in the High Court of Andhra Pradesh. While the case was going on, the government decided to conduct elections to PCs resulting in 21 out of 23 PCs in major irrigation projects and 60 out of 60 in medium irrigation projects, being established in the State. There may thus be slow movement in the direction of a role of farmers in canal irrigation governance.

A further recent development is that in October 2008, the I&CAD issued Government Order (GO) No. 170 stating that the apportionment percentage is revised from 75% to 95% to the different tiers of water user organisations and the remaining 5% to Gram Panchayats (village councils). With this it is decided to apportion the government share in water tax collected to the WUAs towards administration and water management. The impact of GO 170 is yet to be seen in the field.
Policy recommendation: from participatory management to farmer governance

Based on our research we suggest that the route to go is to pursue the path of stronger involvement of farmers in irrigation governance, beyond farmer involvement in irrigation management.

The case studies, and the authors’ field experience more generally, suggest that irrigation farmers are willing and capable to manage and to pay taxes in exchange for governance power. What remains to be accomplished is a move towards whole-hearted irrigation governance transfer on the government side – the willingness to be paid under power-sharing conditions.

The recently established Project Committees may be a step in this direction, provided they receive adequate mandates and support. Realising the potential of farmer irrigation governance through PCs will require continued farmer advocacy, as well as different kinds of support, by government, researchers and NGOs.

One element of such support is recommended to be the facilitation of interaction of the informal union of project committees meeting in District and State capitals to discuss several issues, including the water tax issue. Advocacy and support is needed till PCs have become full-fledged and self-dependent organisations. It is only then that the bargain between control and cost-recovery can be sustainably struck in a new way.
References


GOI/PC (Programme Evaluation Organisation) (1965), Evaluation of major irrigation projects - some case studies


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About STRIVER
STRIVER: Strategy and methodology for improved IWRM - An integrated interdisciplinary assessment in four twinning river basins is a three year EC funded project 2006-2009 under the 6th framework programme (FP6) coordinated jointly by Bioforsk and NIVA. The point of departure for STRIVER is the lack of clear methodologies and problems in operationalisation of Integrated Water Resource Management (IWRM) as pointed out by both the scientific and management communities. 13 partners from 9 countries participate as contractual partners in addition to an external advisory board.

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Front-cover photo: Farmers during a strike (bandh) in Karatagi, a town in the Tungabhadra Left Bank Canal irrigation system, to press the government to postpone the closure of the canal to allow an additional irrigation of the standing rice crop. Photo: R. Doraiswamy

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