

## ENGINEERING OR DOMINEERING? THE POLITICS OF WATER CONTROL IN MUTAMBARA IRRIGATION SCHEME, ZIMBABWE<sup>1</sup>

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### Abstract

*This article examines the role of local and non-local actors in water control in Mutambara Irrigation Scheme since the beginning of the scheme in 1912. It shows that deep-seated divisions within the community, which were ignored by outsiders coming to 'help', have resurfaced. Colonial state intervention, showing high-handedness and ignorance of the social reality, under the guise of bringing 'technical improvements' to this missionary-assisted local initiative, laid the foundation for a crisis in water management. The technical infrastructure has been poor throughout and has played its part in the crisis. The crisis became more apparent once the post-colonial state, in a spirit of democracy, withdrew from the scheme. A monetary donation intended to improve the physical infrastructure, provided the final push towards a full-blown crisis. The article argues that improvement in the performance of smallholder irrigation schemes lies not only in the technico-physical domain, but also in the socio-political one.*

MUTAMBARA IRRIGATION SCHEME in Chimanimani District, a gravity-fed scheme which started in 1912, is widely taken to be the oldest smallholder irrigation scheme in Zimbabwe. The scheme lies 75 kilometres south of Mutare, the provincial capital of Manicaland Province (see Figure 1).<sup>2</sup> With a size of 145 hectares and irrigated by 220 plottolders, it is the largest operational community scheme<sup>3</sup> in the country. Since its start, a number of changes

<sup>1</sup> I wish to thank my colleagues Mr Jens Andersson, Dr Pieter van der Zaag, and Mr Dumisani Magadela for making very useful comments on this paper.

<sup>2</sup> The names of the subdivisions or blocks of the scheme i.e. Guta, Gonzoni, Zomba and Maunzani are the names used by plottolders. This is in contrast to official reports that give conflicting block numbers. For example, Mutambara Irrigation map [Mutambara Irrigation (Melssetter District), Ministry of Agriculture (1963), Map Ref. No. M/10] and the feasibility study [Government of Zimbabwe, Ministry of Lands, Resettlement and Rural Development (1985) 'Feasibility Study: Mutambara Irrigation Scheme, Final Report'] referred to six blocks while Danby wrote that there were nine blocks. Individual blocks are designated letters of the alphabet [Agritex, Mutare, Danby, E. P. (nd) 'Mutambara Irrigation Scheme — Melssetter District'].

<sup>3</sup> Community scheme in this case refers to a scheme where the government is not in charge of management duties such as water distribution. The concept of 'community scheme', however, needs to be used with caution as it does not necessarily mean that the community as a unit manages the scheme. It may be that only a few members of the community monopolise water use and other aspects in the scheme as is the case in Mutambara. Although the government does not manage such a scheme, it nevertheless offers extension advice. Normally there is an extension worker (a certificate holder) at the scheme.



regarding water control<sup>4</sup> have taken place. These changes resulted from physical and social factors in the scheme and its immediate surroundings, as well as from factors emanating from beyond the boundaries of the scheme. Non-local influences came from the state in the colonial era, while donors played a significant role in changing the course of events in the scheme in the post-colonial phase.

This article examines the role of both local and non-local actors in water control from the beginning of the scheme in 1912 to the present. It attempts to show that the story of Mutambara has been one of intermittent struggles waged by various stakeholders in their bid to have a greater say in the way this important resource is used. It shows that deep-seated divisions within the community, which were ignored by outsiders coming to 'help', have resurfaced to haunt the scheme. The colonial state, displaying ignorance of the social reality and a high degree of high-handedness, appropriated a missionary-assisted local initiative under the guise of 'technical improvements' such as 'improving' the layout of canals and 'better' construction of furrows. Significantly, the technical infrastructure has been reported to be notoriously poor throughout and has played its part in the crisis. The colonial state intervention laid a foundation for a crisis in water management. The crisis is shown today by severe inequalities in water distribution and continued physical deterioration of the scheme through a lack of maintenance, which became more apparent once the post-colonial state, in the spirit of promoting democracy in smallholder irrigation, withdrew from the scheme.

Using the case of Mutambara Irrigation Scheme, I argue that improved performance<sup>5</sup> of existing and future smallholder irrigation schemes in Zimbabwe lies not only in the technico-physical but also in the socio-political domain. I conclude that engineers, whose role in irrigation schemes cannot be over-emphasized, and who normally are beholden to 'technical' issues in their irrigation discourse, should also pay attention to the socio-political dimension of smallholder irrigation if well-performing and sustainable schemes are to be realised.

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<sup>4</sup> Water control in traditional irrigation engineering refers to the physical control of water in the water channels mediated through a variety of water regulating structures [see Plusquellec Herve, Charles Burt, and Hans W. Wolter (1994) 'Modern Water Control: Concepts, Issues and Applications' (Washington, D. C., World Bank Technical Paper Number 246, Irrigation and Drainage Series), among others]. In this article, water control refers to struggles that are waged in order to have power over how water is distributed [see Bolding, Alex, Peter, P. Mollinga, and Kees van Straaten (1995) 'Modules for modernisation: Colonial irrigation in India and the technological dimension of agrarian change' *Journal of Development Studies*, XXXI, (vi), 805-844].

<sup>5</sup> P. S. Rao notes that performance in irrigated agriculture is a very complex subject and that common indicators of performance deal with the water delivery system, agricultural production and economic benefits. Performance indicators normally take a quantitative dimension. In this article performance relates to water delivery and agricultural production. However, no quantitative data are used; rather performance refers to qualitative criteria used by farmers in the scheme, such as 'not enough water' [Rao, P. S. (1993) *Review of Irrigation Performance* (Colombo, International Irrigation Management Institute), 1].

## COLONIAL STATE INTERVENTION IN A LOCAL INITIATIVE

**Farmers take the initiative in constructing the scheme**

An account of the circumstances surrounding the opening up of Mutambara Irrigation Scheme is given by Roder:

... This was a year (1912) of severe famine ... The people near Mutambara Mission took inspiration and encouragement from the example before them and built new ditches to irrigate new gardens. The missionaries aided the efforts of the people by supplying wheat seed and sweet potato vines.<sup>6</sup>

Roder further notes that from 1912 to 1927 farmers enjoyed considerable autonomy in the scheme, without much interference from central government. Involvement of central government came in 1927 when Emery Alvord was appointed as an Agriculturalist for the Instruction of Natives. Alvord's priority from 1927 to 1935 was to provide schemes with technical assistance, with emphasis on 'improving' layout of sites and 'better' construction of furrows.<sup>7</sup> Alvord sought the cooperation of local people to realise his ambition of 'intellectualizing their agricultural practices, so filled with superstition, ignorance, witchcraft and worship of the unknown'.<sup>8</sup> As a result of his intervention, the main furrow that channels water from the Umvumvumu River was resited. Because Alvord saw the schemes as a form of famine relief, farmers were allowed to continue rain-fed farming.<sup>9</sup>

**Farmers lose control of the scheme**

The fortunes of the farmers *vis-à-vis* control of the scheme changed as a result of Alvord's visit to irrigation and soil conservation projects on Indian reservations in the United States in 1935. (At this point Alvord was considering giving up his job because he was being given a lower salary than his British counterparts on account of his being an American citizen). The visit to an irrigation project had a profound influence on him as he explains,

By the time we reached Flagstaff, Arizona, I had definitely decided to resign my job with the Rhodesian Government ... Then Destiny took a hand. Next day officials of the Indian Service took me to see one of their control of flood waters for irrigation projects ... When we arrived at the spot, the area was swarming with naked

<sup>6</sup>Roder, Wolf (1965) *The Sabi Valley Irrigation Projects* (Chicago, Department of Geography, Research Paper No. 99, University of Chicago), 95.

<sup>7</sup>Rukuni, M. (1988) 'The evolution of smallholder irrigation policy in Zimbabwe: 1928-1986' *Irrigation and Drainage Systems*, II, 202.

<sup>8</sup>Alvord, E. D. (1950) 'The Gospel of the Plough or a Guided Destiny?' (Harare, National Archives of Zimbabwe, unpubl.), 25.

<sup>9</sup>Roder, *The Sabi Valley Irrigation Projects*, 104-110.

Indians, stripped to their loin clothes, fishing driftwood out of the mud, while some were levelling off the high spots which the water had missed. Their tanned, bronze skins were exactly the same colour as the Bantu people of Rhodesia. I was struck by nostalgia and vividly reminded of my black people in Africa. If those Indians had wool on their heads instead of spright black hair I could have sworn that I was back in the arid Sabi Valley. As soon as we got back to Flagstaff I told Benice [his wife] and the children that I had changed my mind. We were going back.<sup>10</sup>

This attitude shaped the development of smallholder irrigation schemes in the colonial era by virtue of Alvord's influential position. In this era a development mentality prevailed according to which 'inferior' farmers (then they were called natives) were patronisingly told what was good for them. In fact coercion was part of the equation. Roder<sup>11</sup> convincingly shows that the development of irrigation projects, such as Mutambara, which Alvord championed, were a means of implementing the Land Apportionment Act which divided the land between Whites and Blacks. However, the political motives were couched in technical terms:

... there is no properly constructed weir at the Umvumvumu river and there is no head-gate at the out-take. This furrow was dug privately by a group of Natives with little or no outside help and survey methods used in the establishment of the line of furrow were very crude. In fact, no instruments were used. They told me that they did it with their eyes and head... In connection with any survey made I would suggest that the main furrow be put right; that lands for irrigation be properly laid out with lateral furrows on gradient; that 'plots' for irrigation be assigned to Natives and that irrigation be prohibited on lands outside the area laid off into irrigation plots. If this policy is decided on I could arrange to do this job during the coming dry season in connection with supervision of work on projects in the Sabi Valley. The development of the proposed irrigation scheme on the Umvumvumu river in the Sabi valley will probably relieve the congestion in this area to some extent.<sup>12</sup>

The policy was apparently 'decided on' because Alvord, using his official title of Agriculturalist, Department of Natives, about a year later wrote a letter dated 16 February 1937 to the Chief Native Commissioner informing him that work on the project was begun by the Soil Conservation Officer, Mr Mackenzie, under his direction. He also revealed that it was financed by a Native Reserves Trust Fund given for the purpose of 'taking over this furrow from private owners, putting it right and redistributing plots to people under Chief Mutambara'.

<sup>10</sup> Alvord, 'The Gospel of the Plough or a Guided Destiny?', 40.

<sup>11</sup> Roder, *The Sabi Valley Irrigation Projects*, 104-117.

<sup>12</sup> National Archives of Zimbabwe (NAZ), SP160/IP, Agriculturalist, Department of Natives, to the Chief Native Commissioner, 25 Jan. 1936.

A number of 'improvements' were made. The main furrow was re-constructed, a headgate was installed, 'proper' lateral furrows were dug and division gates made for 'proper' distribution of the water, 'complete' works, consisting of contour ridges and storm water drains, were placed to contain erosion and the land was divided into plots.<sup>13</sup> This was made possible by a grant in aid from Native Reserve Trust funds to cover the cost of the materials and by natives who 'worked without pay' according to Alvord.<sup>14</sup> In the same letter, Alvord indicated that all was not well in the project as he denied responsibility for the erosion that was apparently bad by stating that 'my Department has had nothing to do with this furrow since 1936'.

In fact the furrow was never 'put right', contrary to Alvord's assertion. From 1936 to 1974 when the scheme closed down, a year which also marked the end of the role of the colonial state, the technical infrastructure was a subject of concern. In fact the poor infrastructure contributed to the close-down of the scheme. Two reports made in the post-colonial era both found the technical infrastructure to be poor.<sup>15</sup> One of these gave views about the origin of the technical infrastructure which was critical of Alvord.

The Scheme was one of the original irrigation schemes started by Mr E. D. Alvord. His criteria for the need for, and the siting of, irrigation schemes was very different from the criteria used today . . . The efficient use of water and the degree of the 'need' for the schemes were of minor importance in those days, there being an abundance of water that was not being put to good use . . . The layout of the old irrigation scheme was appalling when judged by modern standards . . . Due to the antiquated layouts and inefficient earth furrows that still exist on seven of our schemes, it is only possible to achieve irrigation of 18 to 31 days. This would be unacceptable to any commercial irrigation farmer, or irrigation officer.<sup>16</sup>

But Alvord did not only rely on the 'technical infrastructure fix'. He also introduced and enforced new regulations in those irrigation schemes he worked in. Between 1931 and 1947, these included Mutema, Nyanyadzi, Mutambara, Mvumvumu, Chibuwe, Maranke and Devuli (now Devure). The regulations discouraged farmers from involvement in rain-fed agriculture and urged them to depend solely on irrigation. Off-farm activities, such as migrant work, were discouraged.<sup>17</sup> In practice, farmers

<sup>13</sup> Sparrow gives details of construction of technical infrastructure. The (main) canal was completed in 1945; in 1947 two night storage dams were completed; between 1957 and 1963, the inverted syphon on the Ruvaka River and the lining of the new canal was completed [Agritex, Mutare, Sparrow, M. R. (nd) 'Mutambara Irrigation Scheme'].

<sup>14</sup> NAZ, SP160/IP, Alvord to the Chief Native Commissioner, 7 Aug. 1939.

<sup>15</sup> Government of Zimbabwe, Ministry of Lands, Resettlement and Rural Development, 'Feasibility Study: Mutambara Irrigation Scheme'; Agritex, Mutare, Danby, 'Mutambara Irrigation Scheme'.

<sup>16</sup> Agritex, Mutare, Danby, 'Mutambara Irrigation Scheme'.

<sup>17</sup> Rukuni, 'The evolution of smallholder irrigation policy in Zimbabwe', 202-203.

became tenants in the scheme. Their tenancy was confirmed by a water rent which was fixed at 10 shillings per acre in 1942, a two-fold increase since its introduction in 1932. 'Commercial' crops such as wheat and beans were required to be grown.

### **Protests and closure of the scheme**

One of the earliest signs of protest came from people who declined their labour and personal enterprise being taken as a gift to the community. As a result Alvord was forced to write on 7 December 1942 to the Chief Native Commissioner about 'the question of paying out all plowholders who worked without pay when we took over this furrow over in 1936'.<sup>18</sup> He asked for permission to use money from the National Reserves Trust Fund to pay out a total of £26 5s 0d to be shared between the group (of 50) of these 'original plowholders'. Two days before, Alvord had also written to the Chief Native Commissioner in connection with a similar complaint by five men whose canal from Ruvaka river had been taken over by the government. Instead of £109 17s 9d that the men demanded, Alvord recommended a payment of £40 on the basis of estimates by the Irrigation Department.<sup>19</sup> There are no records of the actual payments.

The claims seemed to have unleashed further protests until the scheme was closed in 1974. In 1947, the problem was reported to be that the people did not want to co-operate with the officials. One official came to the conclusion that punitive action was doing very little.

I today sentenced 7 plowholders for contravening section 11 S/S (b) chapter 176 as read with GN 42/38, but doubt whether this disciplinary measure will do much good. After court was over the natives in question complained to me that the Native supervisor Sibiya was as much an offender as they were.<sup>20</sup>

A small consolation, according to one government official, was that Chief Mutambara had shown greater interest in this project during this year (1947).

The uneasy relationship between government officials and plowholders continued until the early 1970s. Then things worsened considerably. Government desired to issue permits of occupation, which were obligatory in terms of Section 9 (1) of G.N. 69/70.<sup>21</sup> The permits were to be renewed annually subject to a display of good 'discipline' on the part of the plowholders. Plowholders were expected to follow an approved cropping

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<sup>18</sup> NAZ, SP160/IP, E. D. Alvord to Chief Native Commissioner, 7 Dec. 1942.

<sup>19</sup> NAZ, SP160/IP, E. D. Alvord to Chief Native Commissioner, 5 Dec. 1942.

<sup>20</sup> NAZ, S160/M1, Anonymous to Department of Native Agriculture, 21 Jan. 1947.

<sup>21</sup> Agritex, Mutare. Hunt, Noel, A. to the Provincial Commissioner (Manicaland), 4 May 1972.

programme including the use of specified types and amounts of seed and fertilizers. They were also to subject themselves to the orders of the District Commissioner and the Irrigation Manager.<sup>22</sup> There was widespread opposition to this requirement. Plotholders argued that it was their land in the first place; how could they be required to apply to use their land? A wheat variety, Devuli, introduced in the same year, was rejected by farmers. Meyer, the Assistant District Commissioner, Melssetter (now Chimanmani), found it difficult to establish why there was opposition to Devuli seed.<sup>23</sup> He was not the only one. Many officials were baffled as they could not connect the Devuli debacle to the permits. To them it was necessary to introduce the variety so as to prevent an outbreak of rust, a disease of wheat which can only be effectively controlled by changing varieties that are grown. It was Young, the Irrigation Manager, who discovered the connection as he wrote that 'all they wanted was to get the permits removed'.<sup>24</sup>

The stance of the plotholders exasperated government officials at the national, provincial, district, and scheme levels. From the office of the Secretary of Internal Affairs came the advice that all irrigators could be removed if necessary.<sup>25</sup> At the provincial level 'drastic action' was considered even in respect of Chief Mutambara.<sup>26</sup> Higgs wrote about the 'prospect of action to be taken towards eviction of recalcitrant or non-cooperative plotholders'.<sup>27</sup>

Before that could be done, however, there was a need to find out whether there were grounds of nullification of the eviction orders on the basis of prescriptive rights.<sup>28</sup> The services of the government attorney were sought. The government attorney replied that prescriptive rights, which could be claimed by a person who had cultivated the plot over a long time or had been given use of the plot by someone, did not apply since that was only possible if that person had never acknowledged the authority of the government. Recognition of the government authority was defined to mean the payment of any money in connection with the plot.

Once this was clarified, the coast was clear for government officials to do their best to maintain discipline. The Irrigation Manager, Young, summed

<sup>22</sup> Agritex, Mutare, Barlow, G. A. to District Commissioner (Melssetter), 10 May 1972; Hunt, Noel, A. to the Provincial Commissioner (Manicaland), 4 May 1972.

<sup>23</sup> Agritex, Mutare, Meyer, J. J. to the District Commissioner (Melssetter), 15 April 1972.

<sup>24</sup> Agritex, Mutare, Young, I. M. (nd) 'Mutambara'.

<sup>25</sup> Agritex, Mutare, de Bruijn, L. J. to Provincial Commissioner (Manicaland), 26 April 1972; Hunt, Noel, A. to the Provincial Commissioner (Manicaland), 4 May 1972.

<sup>26</sup> Agritex, Mutare, Barlow, G. A. to the Secretary of Internal Affairs, 28 June 1972.

<sup>27</sup> Agritex, Mutare, Higgs, B. R. to the Secretary of Internal Affairs, 18 July 1972.

<sup>28</sup> Agritex, Mutare, Barlow, G. A. to District Commissioner (Melssetter), 24 July 1972.



up the prevailing mood when he said that since fines did not seem to deter the plotters the only option left was to 'boot the blighters off the scheme'.<sup>29</sup> However, by this time every plotter was a 'blighter'. Government officials could no longer rely on the incumbent Chief Mutambara who was described by one official, Peter, as 'playing a double game of pretending to co-operate with the authorities, but behind our backs encouraging civil disobedience'.<sup>30</sup>

It was left to Peters, the District Commissioner of Melsetter, to wrestle with the intricacies of the evictions. The option of eviction was not pursued at all as it was unworkable. It was much simpler to close down the scheme, as he suggested in his letter to the Provincial Commissioner of Manicaland on 17 April. In the same letter he identified the cause of the problem:

the problem, as stated in this minute, is not the shortage of water or the condition of the soil but rather a social problem resulting directly from the attitudes of the people.<sup>31</sup>

Other technically minded people would not have agreed with him that there were only social problems at play.

#### **The closure of the scheme in 1974**

The simmering discontent among farmers caused by losing their scheme to the government eventually led to the closure of the scheme. J. R. Peters, in a letter to the Provincial Commissioner of Manicaland in 1974, gave an account of the main events leading to the closure of the scheme.

The suggested increased water charges from \$2, 50 per acre to \$14 per acre met with disapproval from farmers. Although the officials had given a prior warning of the issue two years before, this did not help matters. A last meeting called by the District Commissioner to resolve the issue was reported as 'unruly' and 'obvious hostility made it impossible to reason with them'. At that meeting the District Commissioner, the Irrigation Manager, and the Agricultural Officer were present while farmers were represented by the 'Acting Chief and leading irrigation personnel from the scheme'.

According to Peters, farmers opposed the proposed increases on these grounds:

- a) The irrigation scheme had been built by the people and not by the Government. Under the direction of Mr. Alvord, they had dug the main canal in 1934 and opened up the area for irrigation.

<sup>29</sup> Agritex, Mutare, Young, I. M. (nd) 'Mutambara'.

<sup>30</sup> Agritex, Mutare, Peter, D. A. to J. R. Peters, 26 April 1972.

<sup>31</sup> Agritex, Mutare, Peters, J. R. to the Provincial Commissioner (Manicaland), 17 April 1972.

- b) Government had not developed the scheme by introducing an improved layout with lined canals as was the case with other irrigation schemes.
- c) They did not see how the Government could charge them for water which came from God, not the Government.
- d) During the last summer season they had received so much rain that it spoilt their crops — so why irrigate?<sup>32</sup>

The view of the government is given in the next paragraph of the same letter.

After listening to their arguments it was obvious that the majority of those present were unable to see the real advantages of irrigation as there was 'no apparent need' for irrigation in a highveld area where drought years were the exception rather than the rule. Our own Ministry's history of weakness on this issue and an assurance by a previous Minister in 1969 or 1970 that no increases in water rates would occur until the scheme was re-developed, are factors which are not easily forgotten and encourage opposition to new policies or changes in existing policies.<sup>33</sup>

A three-point ultimatum was given to farmers. The three points were:

- a) Acceptance of the increase in water rates to \$14 per acre.
- b) Modification of the scheme to allow those who wished to accept the increase the opportunity to continue irrigation farming whilst either the remainder could leave the irrigation scheme or that part of the scheme be turned into dryland farming area.
- c) Conversion of the entire scheme into a dryland farming area without water, in which case the main canal would be closed and no private or individual irrigation permitted.<sup>34</sup>

Farmers refused to budge on the issue of water fees and at a meeting 'with the tribal leaders at Acting Chief Mutambara's kraal' this was conveyed to the District Commissioner. The scheme was officially closed on 1 October 1974. Farmers chose point (c) and embarked on rain-fed farming within the scheme boundary. Farmers are quick to point out that in that particular year, without the benefit of irrigation, they got a very good harvest better than when they used to irrigate!

The ill-feeling towards the scheme by government officials spilled into the post-colonial era. E. P. Danby who was the Principal Agricultural Officer (Irrigation) for Manicaland Province somewhere between 1974 and early 1980s commented that

<sup>32</sup> Agritex, Mutare, Peters to the District Commissioner, 11 Sept. 1974.

<sup>33</sup> *Ibid.*

<sup>34</sup> *Ibid.*

... Another most important consideration at the present time is that ground visits will be necessary for the re-design exercise, escorts and protection will have to be provided ... But before any decision is arrived at as to the re-construction of Mutambara Irrigation Scheme, an overall appraisal of the scheme must be made, as well as an indepth enquiry as to whether the people who are farming the land now as dry land are willing to pay the full water rates. They would of course want free water to use or waste as they think fit ... I consider that far better use could be made of any money that is contemplated to spend on the re-development of Mutambara ...<sup>35</sup>

## THE PERIOD OF DEMOCRACY

### **The re-opening of the scheme**

The scheme remained closed until the war of liberation was over in 1980. For the farmers the fruit of the struggle was immediate — they regained *their* irrigation scheme. Farmers talk about the District Administrator from Chimanmani, who in 1980, came and handed over the scheme to farmers. The Chief talks about a document which was signed by the District Administrator in which the hand-over of the scheme was made legal. The document however, cannot be traced. This 'legal' ceremony was preceded by opening up the canal through the efforts of farmers who pooled their labour and cleaned it. To promote democracy in the scheme it was decided at the same meeting that an Irrigation Management Committee would be elected to run the scheme. Woodworth, the Acting Provincial Agricultural Officer of Manicaland, wrote that the scheme was reopened in August 1980.<sup>36</sup>

### **A decade of popularly-elected committees<sup>37</sup>**

The first Irrigation Management Committee was elected in 1980. Subsequent committees were elected in 1982, 1984 and 1987. The main offices were the chairperson, vice chairperson, a secretary, a treasurer and vice treasurer. The committee employed two water bailiffs who were directly answerable to the committee. According to Mangudya, who served as Management Committee member from 1982 to 1990 and was the last chairman of the popularly-elected committee, the committee met weekly to review progress. He recounted other activities of the committee. It supervised the water bailiffs and worked closely with staff of the national extension department, Department of Agricultural, Technical and Extension Services (Agritex). The committee had a plan to build a dam across the Ruvaka River. It was

<sup>35</sup> Agritex Mutare, Danby, 'Mutambara Irrigation Scheme'.

<sup>36</sup> Agritex, Mutare, Woodworth, S. G. to the Director, DEVAG, 1981.

<sup>37</sup> In this context, 'popularly-elected' means that all plottolders could participate in electing the office bearers.

also constructing or in the process of constructing fly-overs to prevent siltation of the canal at those points, four in all, where natural waterways crossed the main canal. There was also a plan to open a bank account for the scheme. The Irrigation Management Committee instituted a set of bye-laws.

The way the bye-laws came into existence was markedly different from the common practice whereby Agritex is heavily involved. For eight years the popularly-elected committees operated without written bye-laws. After being subjected to the difficulties of working with people, a need arose to have bye-laws, according to Mangudya. In his capacity as chairman of the Irrigation Management Committee, he was obliged to work towards drafting of the bye-laws. He put in a lot of personal effort shuttling to and from Chimanmani district and police offices. The bye-laws were eventually drafted and agreed upon in 1988, and are contained in the document *Mutambara Irrigation Scheme Policy*. Signatories were the Chairman and Secretary of the Irrigation Management Committee, the Chief, the councillor, Member in charge of Zimbabwe Republic Police, Agritex and the District Administrator.

The bye-laws stipulated the fines that would be levied against farmers who breached any one of them. These related to stock-keeping, proper water use, maintenance fee payment, cultural practices concerning crops, canal maintenance and a good working relationship with Agritex. During the tenure of the four popularly-elected committees there was no apparent clash with the Chief. The Chief acted as a patron of the scheme while the Irrigation Management Committee oversaw the daily running of the scheme.

### **Popularly-elected Irrigation Management Committees lose control**

Popularly-elected Irrigation Management Committees were composed of people from all blocks. This seemed to have riled a section of the 'royal family', particularly the 'Chief's sons' (who are not necessarily his sons but could be sons of the Chief's full and half brothers).

One close associate of the Chief, Vhashi Munjoma,<sup>38</sup> who also happens to be one of the two water bailiffs as already mentioned, does not hide the fact that he found popularly-elected Irrigation Management Committees untenable as 'squatters were in control'. It seems that in the latter half of the 1980s, certainly after 1987, a 'royal committee' was secretly founded which waited for an opportune time to take-over the scheme. The role of the Chief in the clandestine arrangements is not clear.

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<sup>38</sup> This and other names that follow are not the true names of the people. Vhashi Munjoma regards himself as royal family although he has no legitimate claim to the Chieftainship [see Deyo, M. (1955) 'The history of the Mutambara tribe' *NADA*, XXXII, 55]. His royal claim seems a strategy to safeguard his personal interests in relation to access to irrigation water.

At present there is no popularly-elected Irrigation Management Committee. Popularly-elected Irrigation Management Committees lost effective control of the scheme in 1990. The present Irrigation Management Committee, whose composition is virtually unknown to many of the farmers, was appointed by the Chief. Every farmer knows at least that the Chief is now the Chairman of the Management Committee. The Chief himself readily states that he is the chairman. From time to time, some of the members of the appointed Irrigation Management Committee come to light through hearsay. These include one of the 'sons' of the Chief, Mashoko, and recently the Treasurer and Secretary. These latter two complain that they are being used by the Chief and his 'sons'. They point out that they were told clearly by the royal family that they were not part of the Committee but were just entrusted with some responsibilities for now. To stress their plight they said, 'We are just caterpillars (bulldozers) sent to prepare the road for the real people.'

Disappointment among the generality of farmers with the way the scheme is currently run is rife. Many farmers accuse the Chief, not openly though,<sup>39</sup> of bringing the scheme into chaos. Some farmers say that development is being hindered. They refer to cases of some donors who were turned away simply because the Chief and his close associates were afraid to lose control of the scheme.

The Chief appointed two of his close associates as water bailiffs who oversee water distribution in the scheme. The first, Lovemore, who services blocks A and B or Guta and Gonzoni,<sup>40</sup> is a 'son' of the Chief. The second water bailiff, Vhashi Munjoma, services Zomba and Maunzani. Popularity of the water bailiffs among the farmers is low. They are accused of favouritism in water allocation. It is alleged that they take money in bribes as well as giving water to close friends and associates.<sup>41</sup> Those who belong to the Chieftainship are said to benefit most.

But what were the circumstances that led to the take-over of the scheme after a decade of popularly-elected committees?

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<sup>39</sup> Of late there has been open criticism, at least once, in which the Chief was challenged on the point that he had no bye-laws by which to administer the scheme. He (the Chief) could not just use the bye-laws that were drafted by the popularly-elected Irrigation Management Committee. This was, of course, a clever way of challenging the legitimacy of the Chief, who appointed himself the Chairman of the Irrigation Management Committee.

<sup>40</sup> In December 1994 the Chief swapped the areas served by the two water bailiffs because of complaints by farmers. Afterwards farmers still complained that the water supply situation had not improved.

<sup>41</sup> This could well be a fact as the water bailiffs receive a low salary of \$150 as of December 1994. Moreover, by the same date the salaries were six months in arrears. This is a reflection of the poor collection rates as well as the fact that water fees are quite low being \$30 per hectare per year. The water fees are also meant for maintenance although since 1990 no maintenance involving money has been undertaken.

## HOW AND WHY DEMOCRACY COLLAPSED AND THE CONSEQUENCES

**The \$50 000 donation**

The opportunity to take-over the scheme by the royal family seemed to have presented itself in the late 1980s. In 1988 the District Commissioner in Chimanimani sent to the scheme a donor, the Lutheran World Federation, which was interested in funding some development projects. After some consultations with the potential donor, a public meeting was organised by the popularly-elected Irrigation Management Committee to brief farmers of the proposed development. The cost of the rehabilitation of the scheme was estimated to be in excess of Z\$100 000.<sup>42</sup> Chiwanza listed the main tasks to be undertaken as fencing, canal repairs, desilting the night storage dam, constructing a grid as well as catchment conservation. In the end a sum of \$50 000 was given by another donor, ANCPD (full name could not be found) under the auspices of the Zimbabwe Council of Churches. It is not clear why the Lutheran World Federation did not finally provide the finance.

The Deputy Projects Coordinator of the Zimbabwe Council of Churches gave some details of the \$50 000 donation. The Heal the Wounds Organisation sourced the money and placed the Council in charge of disbursing the money. The Zimbabwe Council of Churches, as a religious organisation, insisted that the money be handled by an affiliate organisation, so the nearby Mutambara Methodist Mission was drawn into the picture. The Chief was included as a representative of the people. These conditions were conveyed to farmers and the Irrigation Management Committee.

This account by the Zimbabwe Council of Churches is disputed by Mangudya. According to him, the Irrigation Management Committee, of which he was chairman, was asked to hand-over the control of the scheme to the Standing Committee whose origin and status was not clear. The Standing Committee was primarily made up of members of the 'royal family' or people with royal connections. The main actor was a 'son' of the Chief, who at one time was the superintendent at Mutambara Mission, Mr X. There were two other people with royal connections; the local councillor who is also a local businessman (Mr Z) and a primary school teacher, Mr Y, who belonged to the Munjoma house.

Mangudya said that the popularly-elected Irrigation Management Committee was told by Mr X that it would only be allowed to resume its functions once the Standing Committee had finished 'the business at hand', presumably of rehabilitating the scheme. There was also an Audit

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<sup>42</sup>Chiwanza, P. (1989) 'Rehabilitation of Mutambara Irrigation Scheme' (Mutambara Irrigation Scheme, Working Document).

Committee which was set up to inspect books of the Irrigation Management Committee so that the Standing Committee could start on a clean slate. Messrs X, Y and Z constituted the Audit Committee.

The last Mangudya heard of the money was in 1990 when the Zimbabwe Council of Churches wrote a letter to him addressed to *The Irrigation Chairman, Mutambara Community Irrigation Project, c/o Chief Mutambara*. The letter read in part:

As you know, Zimbabwe Council of Churches paid out to you a cheque of \$50 000. The accompanying letter dated 4/07/90 specifically requested you to submit to us progress and financial reports within 6 months of the receipt of the money. The reports are crucial since they testify the manner in which the funds will have been used. In respect of the above, may I therefore, inform you that the reports are now due/over-due.<sup>43</sup>

This letter lay idle at the local school for a month as there was confusion as to who the owner of the letter was. Eventually the letter was given to Mangudya. After receiving the letter Mangudya took the letter to Mr X who told Mangudya to 'keep quiet since he did not know anything'. Mangudya complied.

The way the money was used remains a question not only to the Zimbabwe Council of Churches but to farmers themselves. A flow chart (not presented), that showed who would do what in the disbursement of the donor money, was prepared by the self-appointed Project Coordinator, Mr X and the Community Researcher, Mr Y. Four structures were created: the community leadership, administrative body, the correspondence and financial committees.

The community leaders, as the rest of the people in the other structures, appear to have been appointed by Mr X. A number of 'representatives' were appointed from each of the four communities, Guta, Gonzoni, Zomba and Maunzani. There were peculiarities in the appointments. The first was the inclusion of a non-irrigator, as a representative in the Guta Community. The surprise inclusion happened to be one of the Chief's 'sons'. Vhashi Munjoma, the water bailiff, was appointed a 'representative' for Maunzani Community although he did not hold a plot in that block. Overall there was a dominance of names with royal connections.

The second structure, the Administrative body, had three arms. The first arm, called the *Guhune Ward: Political and Development*, consisted of the Chief, two councillors, the local Agritex official, other royal family members and other less obvious names. Then there was the *Church and Community Coordinators* arm. Three reverends were present as was Vhashi

<sup>43</sup> Mutambara, Munonyara, P. to Irrigation Chairman, Mutambara Community Irrigation Project, 1991.

Munjoma, some members of the royal family and the community researcher, Mr Y. One of the reverends is currently one of the Chief's new committee members. The third arm was the *Irrigation and Project Committee*. This included the chairman, vice chairman and secretary of the popularly-elected Irrigation Management Committee, the Standing Committee, some members of the royal family and other less obvious names.

The names of the people with the power to sign financial requisitions were indicated with an asterisk. These included the Chief, the Chairman of the Irrigation Management Committee, the project coordinator, Mr X and one other reverend who was not resident on the scheme but nevertheless satisfied the bureaucratic requirements as he was part of the hierarchy of the Zimbabwe Council of Churches.

Noticeable in this arrangement is the fact that Mangudya, the chairman, was virtually in the dark about the whole episode although he was supposed to be a signatory. In fact it was common knowledge that the real people behind the whole exercise were the project coordinator, Mr X, and to a lesser extent the community researcher, Mr Y.

In the end the project was run by Mr X, who had consolidated his position by relying on three power bases. Firstly as a member of the royal family he could be part of those structures where traditional leadership was required. Because he was also educated as a qualified graduate secondary school teacher, he could manage to by-pass other members of the royal family who were better placed than him in the Chieftainship hierarchy but were handicapped by a lack of education. Another power base he used was his religious training. He was once a reverend at Mutambara Mission and had trained in the United States. This gave him access to the religious fraternity. All the three power bases were used to advantage. He enlisted the help of various people to his cause.

Meanwhile the Zimbabwe Council of Churches has not managed to get an account of the way the money was used. The Deputy Director (Projects) was openly antagonistic to enquiries about the issue, treating such enquiries as an 'agitation by these University people'. There was nobody prepared to discuss the issue at the offices of the Zimbabwe Council of Churches. Two officials claimed ignorance on the issue, each referring to the other as the 'real' people involved in the project. However, the signatory of the letter cited above, Mrs Munonyara, admitted that 'the whole thing had been confused from the start'. The issue is unlikely to be cleared up since Mr X has since died.

Thus a monetary donation, intended to improve the technical infrastructure, in practice provided the final push towards a full-blown political crisis in the community.

#### **A case of history refusing to lie low**

Perhaps the most important factor which has contributed to the problems



of water distribution today in the scheme relates to socio-political problems among farmers. It seems that these had been dormant during the colonial years as the immediate problem was to get back their scheme from the colonial authorities. A long-standing feud between certain members of the irrigation community is responsible. The most significant name in this regard is Maunzani. Maunzani is not only a tail-end block which suffers the typical downstream water shortage syndrome, but is also historically a separate community, which was lumped together by the technical design with the other three: Guta, Gonzoni, and Zomba. The story as related by an old man, Matemera, who has been in the scheme for over 30 years, sounds like a classic kingship struggle tale. Its credibility seems to be borne out by water distribution problems that occur today.

Long time ago the wife of the chief bore twin boys who were born three days apart. News of the birth of the younger baby boy was announced first to the chief and the younger boy assumed the throne. To secure his position the younger later in life killed the rightful heir. In time spirits of the grieved party are said to have haunted the descendants of the usurper. As a gesture of appeasing the spirits, a portion of the land, that today is called Maunzani, was given to the deprived party. Even today it is widely understood that the Chieftainship of the Incumbent Chief ends as soon as one crosses the Chipakonye River (which marks the beginning of Maunzani which also comprises some rain-fed land) and resumes thereafter.<sup>44</sup>

Marguerite Deyo gives a different version:

Chief Fuha (an ancestor of Chief Mutambara's eldest son) was Chikomo, the successor to the Chieftainship. His other sons were: Maunza, who lives at Maunzani between Ruwaka and Makoko Rivers . . . Chikomo, and his brother, Maunza, both desired chieftainship. Chikomo who feared for his life, hid himself away. One day when his daughter, Wanyamwanambo was taking food to him, Maunza followed her. Upon seeing Chikomo he let fly an arrow which instead of killing Chikomo, killed his daughter . . .<sup>45</sup>

Although the versions of the story are different, what is clear is that Maunzani is inhabited by a people who have a long-standing argument with the descendants of Chikomo, Chief Mutambara's people. The legitimacy of the Chief Mutambara in Maunzani is disputed. This past history has present day implications.

In 1990 irrigators from Maunzani wrote a letter to the District Administrator requesting the scheme to revert to government control. When the letter reached the District Administrator and Agritex, they assumed that it was the Irrigation Management Committee that had

<sup>44</sup> Field notes, 15 Sept. 1993.

<sup>45</sup> Deyo, 'The history of the Mutambara tribe', 55-64.

requested government involvement. Enquiries revealed otherwise but the matter was not pursued. The significance of 1990 as the date in which government take-over was requested appears to be based on one main reason. Before independence the government officials operated as a neutralising force between these two feuding communities. For the first ten years after independence the popularly-elected Management Committee played a similar role since the committee members came from all over the scheme. The take-over by the Chief apparently opened up old wounds. Even today the Maunzani community does not hide its displeasure with the present situation with the Chief in control. The supply of water to Maunzani is so desperate that on my very first visit there in October 1993, I was asked to 'help out' by one old man. One woman, after I had been introduced to her as a researcher, thought it fit to express her desperate water situation of having to dry plant in an irrigation scheme, 'Never mind, God is not jealous like those people up there, for it is going to rain.' In the same afternoon it rained!

In November 1994, as I moved in the fields I received similar entreatments for help. Some of the people had irrigated their wheat only once. This was in stark contrast with some people north of Chipakonye River, which marks the boundary between Maunzani and the rest of the scheme: these had flourishing wheat and tomato crops. One royal-connected farmer told me that he had just earned \$10 000 from a tomato crop. He had another tomato crop at the point of bearing as well as young seedlings to be planted out later. Life in the irrigation scheme was apparently good for him. He was not the only one prospering. About a quarter of the farmers are distributed among 10 marketing clubs and these farmers sell produce, mainly tomatoes, to a canning factory at a good profit. The majority of these farmers are connected to the Chieftainship while others have managed to establish relationships with the former group. It is not just the geographical top and tail-end scenario that is present. Some farmers whose fields are not located in the top sections of the scheme get more water than their non-connected counterparts in the same locality. These water networks are apparently more important than ever because the last three years have been relatively dry years.

The roots of the problem lie in the lack of correspondence between the technical design and the social units which the colonial state failed to recognise. As Shanani advises, social factors should be considered in the design stage:

A crucial factor . . . is matching-up the network subdivisions with the existing sociological or administrative subdivisions . . . A lateral or minor (canal) that is designed to serve two rival villages, . . . is asking for trouble.<sup>46</sup>

<sup>46</sup>Shanani, L. (1992) 'Planning and management of irrigation systems in developing countries' *Agricultural Water Management*, XXII, (1 and 2), 67.

The scheme was not given a chance to develop as the people wanted it. Perhaps the scheme could have taken a different and may be better course altogether.

### **Winners and losers and their reaction**

Although the Chief's committee was established in 1990, it has failed to take authoritative control over the scheme. Stray cattle are no longer impounded. Some farmers have, as a last resort, fenced their plots forming fences within fences. There is illegal extension of fields, cultivation of natural waterways and maintenance of infrastructure is in shambles. Development plans are badly coordinated; indeed they only seem to exist in the mind of the octogenarian Chief, who has good ideas and yet those around him seem to have a different agenda. For example, Agritex made contact with the Chief so as to facilitate the rehabilitation of the scheme and emphasized that Agritex did not harbour any ambitions of taking over the scheme.<sup>47</sup> All the same nothing has been forthcoming from the Chief who indicated, after more than 12 months, that he was still studying the document. It would appear that those close to the Chief exert considerable influence on him to further their own interests. For example Vhashi Munjoma, the outspoken character, thought that Agritex's offer was simply a ploy to get government control through the back-door, using the following analogy: 'When I made a marriage proposal to my wife I never told her that one day I would beat her up.'

He is suspicious of all the 'help' that is offered be it from the government or donors. On being questioned how the scheme would progress since the farmers had very little money to undertake the costly rehabilitation work, he answered, 'A tortoise, in the end, will reach its destination.'

Mashoko, one of the powerful 'sons' is also antagonistic to any changes in water distribution: 'Those that suffer now had their chance to eat (benefit) long time ago. Now it is our turn.'

By this statement he was referring to the fact that the Chieftainship people were slow to embrace cash cropping and as a result *vatorwa* (strangers) made money in the past. He also says that there was no point in making the water go around to everybody when there was not enough water for everybody.

The majority of the people are dissatisfied with the present situation and are trying to do something about it. Most, if not all, development plans suggested by the Chief are passively opposed by the people. At one time he called upon the farmers manually to desilt a night storage dam near Gonzoni. This failed completely due to half-hearted involvement or a total

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<sup>47</sup> Agritex, Mutare, Madondo, C. (13 May 1993) 'Minutes of the Meeting Held by Agritex at Chief Mutambara'.

lack of it. Then the Chief tried to make the farmers contribute money so that a contractor could be hired for the purpose, but the farmers simply did not do anything. Privately farmers point out that they had contributed some money before but the money had disappeared. They also question how the \$50 000 was used. They say Mr X built a house for himself using the money. In December 1993, a call for farmers to clean the main canal went unheeded. For farmers in Maunzani community, who are the most disadvantaged and were dry planting in December 1993 while the other blocks had water for planting, the call to clean the canal was 'ridiculous'.

#### DISCUSSION: THE SOCIO-POLITICAL DIMENSION OF IRRIGATION

The question that can be posed is whether the empirical evidence presented can be used to gain a better theoretical understanding of water control problems in smallholder irrigation schemes, or whether it is so localised that it remains unique to the area? It is my belief that some insights with a wider validity can be obtained. Below is an attempt to tease out some theoretical issues from the empirical evidence presented.

##### **The political dynamic in irrigation**

A general observation is that irrigation is not free of politics. The political dynamic in an irrigation context deals with the control of important resources, chiefly land and water, and the relationships between a variety of actors that develop around these over time. These relationships are not easy to predict, a fact that goes against the disposition to predict in biological and physical academic disciplines, which have dominated the smallholder irrigation scene. It is also clear that intervenors tend to overlook 'small' things that nevertheless are very important to the people involved. For example the colonial state failed to realise the importance of private property in the community. Thus the two furrows which had been started through private enterprise were 'communized' in that the labour, time and money invested therein were not considered as private investment. It was only after claims were filed that this point was made. These informal<sup>48</sup> dimensions of irrigation often bring problems. The lack of relationship between the formal and informal control and ownership adds to the problems. For example, land ownership in the scheme seems uncomplicated as it is based on informal arrangements, while formal arrangements of water use imposed by the colonial state did not last and have been marked by persistent problems. In this case engineers who designed the scheme, and by so doing formalised a particular form of water distribution, did not take account of the differences between the various communities.

<sup>48</sup> Here informal refers to that which is not under the government.

An interesting question arising from the above is how individuals or groups manage to control resources. How do individuals and groups construct power over resources and how do they maintain or lose this power? It is important not always to focus on technical or engineering aspects that tend to be dominant in irrigation, because sometimes the political issue of power is more relevant.

### Power relationships in irrigation

Power relationships shape the outcome of irrigation projects. As the Mutambara case has shown, power does not reside in any particular individual because the same people had power in some domains and lost it in others. In the case of Mutambara, the domains of the state, the tradition, the plot and the expert<sup>49</sup> empowered some people and disempowered others.

When focus is on intervention, it can be seen that power was wielded by the colonial state via technocracy or eliticism<sup>50</sup> as exemplified by Alvord's work and thoughts. Using this philosophy, the government sought to re-order the Mutambara populace through a set of interventions, the basis of which was underpinned by a belief in technocratic superiority.<sup>51</sup> The 'expert' role functioned as it did because of its reliance on a certain power relationship. When the colonial state failed to control the situation and in consequence closed the scheme in 1974, the 'expertise' of the 'expert' diminished.<sup>52</sup> Paradoxically however, even the post-colonial state still shares the ignorance of the reality of irrigators, for example through enforcement of block irrigation where farmers are forced to grow certain crops in certain sections of the scheme.<sup>53</sup>

We also see different people relying on certain resources or capital to gain leverage over water control. The Chief, for example, gained control through cultural capital since his authority derived from traditional culture. Ownership of plots also derives from traditional culture: traditional land

<sup>49</sup> W. M. Adams explains the role of experts in Africa. He says that 'experts wield great power to transform the lives of other people. Despite professional skills and good intentions, this power does not always work for the universal good.' He goes on to quote Adlan Adams (1979), '... What matters is the halo of impartial prestige his skills leave him, allowing him to neutralize conflict-ridden encounters ... and disguise political issues, for a time as technical issues' [W. M. Adams (1992) *Wasting the Rain: Rivers, People and Planning in Africa* (London, Earthscan Publications), 36].

<sup>50</sup> The *Collins Concise Dictionary Plus* (London and Glasgow, Collins, 1989) defines technocracy as government by scientists, engineers and other such experts, and eliticism as the belief that society should be governed by an elite (the most powerful, rich or gifted members of society of a community e.t.c.).

<sup>51</sup> Roder, *The Sabi Valley Irrigation Projects*.

<sup>52</sup> Agritex Mutare, Danby, 'Mutambara Irrigation Scheme'.

<sup>53</sup> Manzungu Emmanuel, (10-12 Jan. 1995) 'Design and Practice: From the Drawing Board to the Farmer's Field: The Case of Fuve Panganal Irrigation Scheme', Paper presented at the workshop, *New Perspectives on Agricultural Innovation* (Harare, Mandel Training Centre).

ownership is still much respected in the scheme and even those farmers who have poor relations with the Chief still manage to hold on to their plots. The monetary or economic resource or capital as a means to achieve domination in water control was demonstrated by Mr X, who used his grip on donor money to gain control over water. He also used formal knowledge or education as a resource to control water and to gain political power. We also see religion as capital in that Mr X's religious affiliation put him at an advantage.

This notion of capital, here used in the broad sense of seeing how people construct power in irrigation, explains why weak, poor or uneducated people still have power to influence significantly what happens in irrigation. In other words, we need to redefine the meaning of resource if we are to have a good grasp of what is happening in smallholder irrigation schemes. It is no longer useful to think such things as money, technical expertise and administrative leverage are the only determinants of power in irrigation. It may be useful for engineers, who play an important role in irrigation because of their profession, to acknowledge that the variety of actors in irrigation schemes have access to capital in various forms: money, knowledge (both local and non-local), administrative, cultural and social. Engineers and policy makers may benefit from a realisation that these various guises of capital should be used in concert rather than in isolation from each other.

Clearly, improvement in the performance of Mutambara Irrigation Scheme does not only lie in the technico-physical domain but also in the socio-political one. This should apply to other smallholder irrigation schemes in Zimbabwe. In other words the ignorance of social reality in smallholder irrigation is an impediment to the performance of these schemes in the long run.