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DRY FIELDS AND SPIRITS IN TREES — A SOCIAL ANALYSIS OF IRRIGATION INTERVENTION IN NYAMAROPA COMMUNAL AREA, ZIMBABWE

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Abstract

The article examines some of the social consequences of government intervention to develop an area through the introduction of irrigated agriculture. The scheme in question was started in the late 1950s, and was largely populated by immigrant farmers from other areas in Zimbabwe. The article looks at social dynamics between irrigators and dry-land farmers, between locals and newcomers, and between farmers and government agencies. These ideas are expressed in issues of leadership, in religious beliefs and practices, and adaptations of the technology. Farmers have not simply passively accepted ideas and structures imposed upon them, but have adapted the technology and the structures to suit their various purposes, and their relations with those about them.

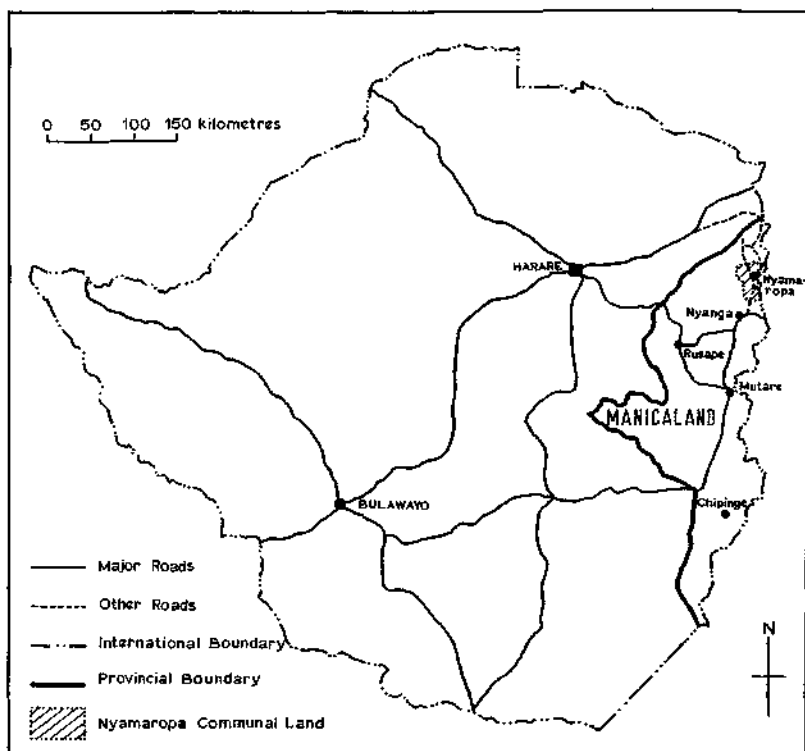
THIS ARTICLE EXAMINES the social dynamics of colonial irrigation intervention in a communal area in Zimbabwe. Central to the analysis are the various social and political outcomes of such an intervention. We first consider why irrigation farming was introduced in Nyamaropa Communal Area, and then we focus on certain relevant intervention issues.

To understand the objectives of such an intervention and its impact on the socio-cultural fabric of the area and its people, we need to consider the history of the area before, during and after the intervention, the manner of intervention and the actors and agencies involved. By shedding light on how such an intervention is managed by the state and other agencies and how particular actors (or groups of actors) in the area try to control development in the valley, we show what kinds of expected and unexpected outcomes are emerging from the process of intervention, how these emerge and how local actors respond to them.

We understand intervention as a social process aiming to transform economic and social life in a targeted community or region, set in motion by agencies originating from outside the targeted community. The view of the outsiders (such as the managers of the intervention process) of the

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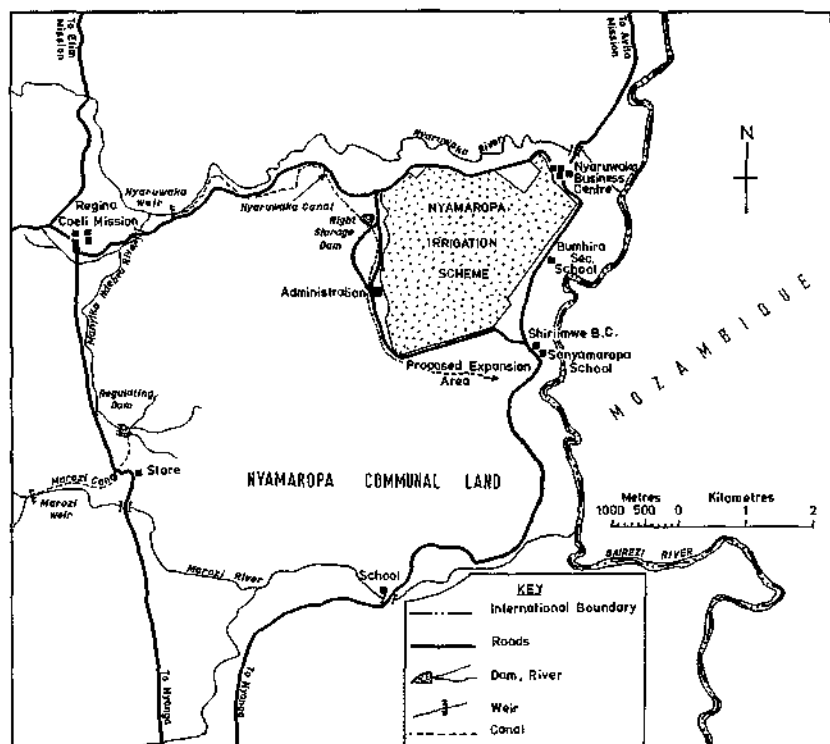
LOCATION OF RESEARCH AREA



local community is frequently based on generalized and biased notions of their technical abilities to bring about changes in their social and economic lives. This image of the 'target group' is limited and distorted by ideological considerations and socio-political relationships. It results in a failure to consult the target group on the design and implementation of intervention programmes. Targeted people are considered as passive receivers of knowledge, technologies and organisational models, and the social and cultural fabric of the targeted community is largely ignored. Intervention has therefore been regarded as a linear model of change with expected or planned outcomes by development practitioners, who may overlook the negative outcomes and not fully understand unexpected outcomes of development interventions.

Intervenor neglect lifeworlds of those who are intended to benefit from interventions, and consequently problematic situations have emerged in the

NYAMAROPA IRRIGATION SCHEME



course of intervention. These problematic situations have been identified analytically as 'development interfaces'. A development interface is

a critical point of intersection or linkage between different social systems, fields or levels of social order where structural discontinuities, based upon differences of normative values and social interest, are most likely to be found (Long, 1989, 1, 2).

The notion is used to stress the dynamic nature of social interfaces and their potential for conflict, that is, different social 'systems' interact but fail to combine to form a new social system (see also Arce and Long, 1992, 214). The understanding of the development interface is crucial for coming to grips with the dynamic of intervention in general and with the different and unexpected outcomes of intervention in particular. This article describes how the social interface was produced in Nyamaropa, and what is happening at the interface.

INTERVENTIONS BY THE COLONIAL STATE IN NYAMAROPA COMMUNAL AREA

Nyamaropa communal area is located about 180 km north-east of the eastern border city of Mutare. The area borders on Mozambique at the Gairezi river. The original peoples of Nyamaropa belong to the Barwe-Tonga ethnic group of the Shona peoples. They were practising some form of localised, rather restricted, shifting cultivation. Each household (*imba*) would have about three sites to shift amongst. According to elderly farmers interviewed, cultivation was not their sole, not even major, source of livelihood. They also hunted, fished and gathered for their food.

Two interventions by the colonial state dramatically changed the life of the original inhabitants. The enactment of the Land Apportionment Act (1930) by the colonial government led to the eviction of whole families from their home areas which were designated for White commercial farming. Nyamaropa communal area, which was not gazetted for White commercial farming, attracted many people from the area around Nyanga town about 60 kilometres away, and from other places in Zimbabwe. Some came from as far as Harare, Chipinge, Rusape, Buhera and Mutasa. They settled in Nyamaropa or close by and started farming. Subsequently, they visited the headman of the neighbourhood and kraalheads² in the area to pay *mutete*, a gift to show respect, a form of homage to the traditional custodians of the land. The intervention of the colonial state in other areas of Zimbabwe brought different groups of people together in Nyamaropa, whose origins are still recognized by everyone as they are easily identifiable by their names and totems. Those who came from other places are labelled by the original inhabitants of the area as newcomers or aliens (*wawuyi*); the original inhabitants and their descendants are identified as locals (*wemuno* or *wepano*).

The second intervention brought irrigation technology to the area. The idea to construct an irrigation scheme in Nyamaropa emerged in the mid-1950s when an African agricultural demonstrator noticed the irrigation potential of the area. The valley of Nyamaropa appeared to have fertile soils and a dam to hold the water to supply the valley was easy to build nearby. The construction of the irrigation scheme started in 1956. Both forced and voluntary labour from local villagers and from people displaced from their home areas was mobilised by district commissioners to construct canals.³

² 'Kraalhead' is the administrative term for the local village head formerly in charge of a tax register. In most areas, he was originally the head of an identifiable village.

³ Reynolds (1969) studied the development of the irrigation scheme shortly after its completion in 1960. His work provides a detailed analysis of how and through what networks the newcomers arrived in Nyamaropa: through kinship networks, church groups, visits and hearsay.

The irrigation scheme started operating in 1961. Some irrigators say that the first crop was in 1960, but there are conflicting accounts of this. From the beginning, the scheme was cultivated by the newcomers and by the locals. The majority of the locals, however, rejected the idea of irrigating, and only a few of them joined. It did not fit their life styles as they did not imagine themselves as the full-time farmers that irrigation required. They also resented paying irrigation fees for land they considered theirs and accused newcomers of taking over their land, and of being puppets to the colonial authorities who were confining people to poor and arid areas. The locals were given the choice of joining the scheme as irrigators or moving off the land onto the surrounding hills. Many took off to Mozambique. Some settled on the slopes of the hills, and now provide much of the labour on the scheme.

The irrigation intervention brought about yet another distinction in Nyamaropa: those who irrigate (*warimudambo*), the majority of whom are the newcomers and a minority are locals, and those who are engaged in dry-land farming. Dry-land farming is primarily rain-dependent or rain-fed agriculture and it represents a way of farming different from irrigated agriculture in which water supply is normally constant, reliable and secure. The government department of Agricultural Technical and Extension Services (Agritex) created two separate sections for irrigated and dry-land farming. Later on, in the course of development, the distinction also acquired another meaning as dry-land farming became associated with 'traditional' and irrigation with 'modern'. Furthermore, since the country experiences severe periods of drought, farmers and Agritex associate irrigation increasingly with relief from drought.

Although many dry-land farmers today are involved in part-time irrigation especially in winter, they still do not regard themselves as irrigators, and refer to most of the full-time irrigators as aliens. Newcomers and locals have been in conflict for more than 30 years now. We shall return to the issue of emerging conflicts and cooperation between the different social groups.

When the scheme was being constructed and the plots being allocated, no-one anticipated problems that would result in a re-allocation of plots and compel authorities to introduce a block system, in which each type of crop is grown in a separate block and irrigators have plots in each of several such blocks. As farmers came into the scheme, they were given four-acre plots randomly. Indeed, they chose and cleared their own four-acre plots, and, if the irrigation officer deemed their performance excellent, they were given extra land (often two acres) as a reward. This was not an extension of the plot they were already working on, but on a different side of the scheme. Consequently, farmers had to move between plots kilometres apart in the scheme. The pattern and variable sizes of land-

holdings precluded a block system of irrigation. When Nyamaropa irrigation scheme started, prospective farmers were requested to clear their own plots for cultivation, probably so that they would identify with the project and regard the plots and the whole scheme as their own. The project seems to have succeeded in this objective.

The colonial intervention in Zimbabwe and Nyamaropa communal area triggered off dramatic socio-cultural and economic changes. Alongside irrigation, intervention brought new administrative and economic structures and agencies to the area. The involvement of the Department of Native Agriculture in agricultural production of smallholders increased substantially. After independence in 1981, the newly formed Agritex became responsible for the dissemination of information to both the irrigators and dry-land farmers about crop recommendations, crop rotation schemes and new technologies. New crops arrived in the area, such as tobacco, cotton, wheat and hybrid maize, most of which were to be produced for the market.

In the period during which Nyamaropa irrigation scheme was constructed, those introducing irrigation assumed that intensified production would speed up the commoditisation of small-scale communal production (see Roder, 1965, p. 125; Reynolds, 1969, Introduction). They hoped that this would stimulate 'development' for the benefit of both the producers themselves and their prospective markets in the adjacent dry-land area, the urban centres and the national economy at large.⁴ The introduction of cash crops brought also other new agencies of change, such as buyers of cotton, tobacco and maize. In addition, new forms of governance were introduced in the form of local government structures operating alongside the long-established tribal authorities comprising chiefs, headmen of neighbourhoods and kraalheads. Some of these were African leaders appointed by the colonial authorities to help administer reserves, especially in tax collection and land allocation (see Bratton, 1978; Weinrich, 1971, pp. 9-28).

Intervention created another structure. The daily management of the scheme today is in the hands of the Irrigation Management Committee (IMC) and Agritex. The IMC is elected by the irrigation community and is headed by a chairman, assisted by a vice-chairman, treasurer, secretary and eight members⁵. Together with Agritex, the IMC decides on water

⁴ This was obviously a double fanged objective. African agriculture was not supposed to develop so much as to affect or compete with European farmers. It was also realised by the authorities that it would be to the advantage of the European to keep African farmers productive so that they could supply food for employed workers. See for instance Mosley (1983).

⁵ IMC members are not paid for their work — they only receive travel allowances. One of the reasons that they stand for election is that membership is a status symbol, a prestigious position in the irrigation community.

distribution but not on maintenance fees, which are set by the government. For this purpose, a set of by-laws were formulated, and accepted by a general meeting of the irrigation community. These by-laws lay down the rules of conduct of the irrigation scheme. They indicate, amongst other things, that if maintenance fees are not paid on time farmers will be evicted if the IMC and Agritex decide so. The IMC is supposed to enforce by-laws, collecting fines from farmers who violate them, to convey meetings involving irrigators and to act as some kind of broker for the marketing of irrigation produce.

Presently Nyamaropa Irrigation scheme covers 422 hectares, has about 400 plottolders and its main crops are cotton, maize, tobacco, beans and wheat. Table 1 below shows some of the production patterns in terms of hectareage per crop over five seasons.

Table 1
HECTARAGE PER CROP, NYAMAROPA IRRIGATION SCHEME, 1991-5.

Season	Maize	Cotton	Tobacco	Bean	Wheat	Others
1990-1	146,2	194,1	47,7	119	76,9	28
1991-2	140	181,2	73,7	?	22	?
1992-3	189,2	141,3	61,0	191	91,9	?
1993-4	190	175,4	62,2	89,1	130	?
1994-5	177	193,6	65,4	50	?	5,5

Source: Agritex Offices, 'Nyamaropa Irrigation Scheme'.

Hectareage figures in Table 1 show that subsistence and food crops remain as popular in the irrigation scheme as cash crops, which are highly recommended to farmers by Agritex in government irrigation schemes. Most Nyamaropa farmers prefer first to secure their food reserves before they venture into cash crop production. The almost permanent co-existence of subsistence and commercial production is one of the less talked about outcomes of irrigation intervention in smallholder irrigation schemes.

SOCIALLY CONSTRUCTED OUTCOMES AND THE SOCIAL REALITIES OF INTERVENTION

Nyamaropa irrigation scheme can be regarded partly as a settlement scheme for displaced people (Reynolds, 1969, 14), and partly as a 'development project' to stem rural-urban migration by giving people an alternative source of livelihood through commercialized agriculture. Both objectives were partially fulfilled but not without conflict. A look at Nyamaropa shows that the mode of intervention in the area failed to respect the culture and social lives of the original inhabitants. When the

African agricultural demonstrator noticed the irrigation potential of Nyamaropa, the District Commissioner held meetings with locals but failed to convince them to join the irrigation scheme. They were told to either stay and irrigate or move off the land onto the surrounding hills. The fact that their life-styles included other activities than farming did not matter to the intervenors. As long as they could persuade a few of the local people to join, and as long as the large group of displaced victims of the Land Apportionment Act kept flocking in to take up the plots and set the project rolling, administrators saw no problem. But the reality was different, complex and full of conflict.

Nevertheless, the intervention had some success. Through interviews with irrigators, dry-land farmers, and representatives of development agencies, as well as from observations and attending meetings, we encountered various socially constructed versions of success attributed to development interventions in Nyamaropa communal area. We also encountered accounts which point to problematic aspects of the interventions as various conflicts or interfaces emerged in the process.

One such positive construction is that the scheme succeeded because it managed to resettle many people who had been displaced from their home areas. Through the construction of the irrigation scheme, these people gained access to new and irrigated land. In addition, as pointed out by Agritex staff and most of the irrigators, farmers were enabled to produce valuable crops such as cotton, tobacco, maize and beans, which satisfy both their subsistence and cash needs.

Irrigation provides them with the necessary produce to pay, in cash or in kind or both, for the agricultural inputs (seeds, fertilizer, fuel, draught power) and the labour they need (waged, or from family and kin), and to take part in community life, spiritually, culturally as well as socially. What irrigators stress is, as one expressed it, that 'everything is coming from the soil we work on'. Irrigation gave them the opportunity to become successful farmers (*hurudza*) enabling them to live a decent life, that is, own a brick house, eat well, and be able to send their children to school. Another irrigator characterised schooling by referring to 'learning from money from the land'.

While the production of cash crops by most irrigators may indicate a general shift from subsistence cultivation towards the realisation of the objective of commercialisation, hardly any irrigators moved totally away from subsistence production. Both irrigators and surrounding dry-land farmers practise a combination of subsistence and commercial production. Their lives and the needs of their families and their position in the community do not allow them fully to commercialise their irrigation production. What is particularly striking in Nyamaropa is that some very successful farmers, who have set up shops with earnings from their irrigated

plots, still produce for both home consumption and the market. Extension workers on the scheme pointed out cases of farmers whom they felt were fully commercialised. Subsequent interviews, however, and our observation of the production, processing, storage, and disposal of their produce, indicated that they do not sell all that they produce; they distribute substantial amounts to friends and relatives whose harvests may not have been good for that particular season.⁶ Other irrigators have repeatedly complained that the plots that they were allocated are too small for any one of them to produce on a scale large enough to commercialise fully. They say that they would like to be fully incorporated into the market but they have problems marketing their crops, since some buyers demand quantities too large for them to produce.

Marketed production in Nyamaropa irrigation scheme has not reached the level expected by the originators of the scheme. Rural development is fluid, unpredictable and contradictory. Probably none of the staff of the irrigation department would have thought that the scheme would be a vital source of income and food supply for scores of surrounding dry-land farmers and hundreds of Mozambicans who flock into the irrigation scheme for different reasons. There has been an impressive diffusion of the scheme's impact in terms of food support to a wider radius of human settlements which in itself is a positive achievement even if it was not in the specific objectives of government irrigation policy (cf. DERUDE, 1983).

There is another angle on the relative success of irrigation intervention in Nyamaropa. A number of dry-land farmers are amongst the best producers of maize, cotton and tobacco in the communal area, competing favourably with irrigators. Irrigators benefit from the advantage of relatively secure water resources and three cropping seasons, against dry-land farmers' one cropping season and dependence on erratic rainfall patterns. Nevertheless, during the early years of the scheme, farmers said that there was no significant difference between irrigation and dry-land farming because there were good rains. In some years, dry-land farmers produced much more than irrigators because the latter's crop would be waterlogged. Besides that, dry-land farmers cultivate larger portions of land than irrigators.

From the point of view of the implementing agency, Agritex, the scheme is partially successful because of Agritex's involvement in improving production levels of farmers. Because of their management capabilities,

⁶ This obviously prompts one to think that maybe the conceptual application of market production and commercialisation as concepts should be flexible and adaptable to specific situations. We feel that talking of these terms in 'percentages' and 'extents' does help solve the problem 'to an extent', although it is likely to leave economists looking for ways to concretise the issues involved in the particular socio-economic processes. Long (1986) provides an instructive theoretical framework for the analysis of commoditisation of agriculture.

their technical skills and knowledge of improved crop production, and sometimes their good working relationships with irrigators, the scheme is functioning. But the scheme could do better if for example water distribution was made more efficient by both farmers and the extension (managing) agency. Agritex staff have blamed farmers for cropping the whole scheme, which means that it takes longer to get round a full cycle of water allocations to the plants, resulting in some farmers' crops wilting while the dam is full. Agritex staff acknowledge that the scheme gives irrigators opportunities for decent living. In spite of that, Agritex's frontline workers argue that Nyamaropa farmers are bad investors and not all of them always listen to Agritex's technical advice which they consider inappropriate: 'Farmers still do their own things, mixing old and new ways.' This view is supported by some of the 'successful' irrigators who state that thanks to Agritex they are able to produce in a modern way. These 'modern' farmers 'fully' adopted Agritex's recommendations.

Another set of social constructions about intervention is emerging in the area. These constructions capture some of the unexpected outcomes of irrigation intervention. Some irrigators point out that Agritex's technical advice is helpful and that it is a government managed scheme, but they feel that Agritex 'should not push them around and run their lives'. They want autonomy to do things as they wish. Not everybody is happy with, or able to follow, Agritex's crop recommendations, and some continue to look for 'alternative' ways of reproducing soil fertility or rotating their crops. Most irrigators emphasize their own information and knowledge networks, in which Agritex is not involved and where they like to discuss matters related to farming and markets.

Yet another reality on the scheme is that not all irrigators are full-time irrigators as the by-laws laid down by the IMC and Agritex require them to be. These imply that an irrigator should not have other jobs or businesses and should not have a dry-land plot. A number of irrigators are migrant labourers and do not work on the scheme regularly. Most of the work is done by their wives and children. There is much leasing and swapping of plots in Nyamaropa. Agritex staff estimate that more than 60 per cent of legitimate irrigators are involved in such deals every season. Such arrangements are hailed by those who benefit from them as the outstanding contribution of the irrigation scheme to a wider population. However, neither the IMC nor Agritex pay attention to such illegal practices. Many families receive remittances from their children or close kin who are working outside the scheme. These developments exaggerate the success of the scheme as remittances and incomes from migrant labour subsidise commoditised agriculture on the scheme. For many irrigators, these sources of cash are essential for their survival because they help them buy farming inputs and implements.

The by-laws imply that dry-land farmers should not have access to the scheme, since they are not considered to be irrigators. The reality, however, is that many of them do irrigate and see irrigated farming as an integral part of their survival strategy. Another unexpected reality of contemporary Nyamaropa irrigation scheme is that many successful irrigators and local businessmen are in a position to rent land from other irrigators.

Nyamaropa is a product of various interventions resulting in a social and cultural melting pot. Out of this melting pot many conflicts emerged and continue to arise. The IMC and Agritex are at the moment in conflict about present and future management of the scheme, especially with regard to water distribution and seasonal cropping patterns. Expansion of the scheme to give more dry-land farmers access to irrigated plots and the introduction of a block system divide the irrigation community into two conflicting camps headed by two different types of local leadership. Another conflict, sometimes latent and sometimes open is between various belief systems. The local perception held by headman Sanyamaropa and his people of the role of ancestors is not always accepted by irrigators, in whose view local traditions stifle development and progress. Most irrigators instead became members of many churches in and around the irrigation scheme.

OUTCOMES OF INTERVENTION IN NYAMAROPA

Three outcomes and associated social processes are central for the understanding of contemporary Nyamaropa and characterize well the socio-cultural fabric of Nyamaropa communal area. Firstly, we look at the two different types of local leadership and their support networks, an issue well illustrated in the expansion of the scheme and the introduction of the block system. Secondly, we discuss the clashes between different systems of values and beliefs. A third issue concerns the temporary appropriation of land by businessmen and local dry-land farmers gaining access to the scheme. This point may be seen as a reflection of the relative success of development interventions in Nyamaropa.

We do not argue that there is a total separation of the two communities that met in Nyamaropa communal area because of various external interventions. Although the two groups represent different lifeworlds and interests, many relationships have emerged in the history of Nyamaropa and have contributed to some merging of the groups. The three outcomes we have chosen clearly reflect both the conflicts between the two communities and the emerging, mutually beneficial, social relationships.

Central to understanding the conflicts is the issue of water distribution and access to water. On the one hand, the headman and his followers,

mostly dry-land farmers, believe that the shortage of rain is a result of misunderstandings between the people and their spiritual realm. On the other hand, irrigators believe that their water shortage and distribution problems are mainly caused by incompetent management on the part of some irrigators, their IMC and Agritex. Furthermore, the water problem is compounded by dry-land farmers and local businessmen involved in land deals with irrigators who either are too old to work all their land or are in arrears in their maintenance fees with Agritex.

In exploring the crucial issue of water, we analyse the meaning of the distinction between locals and newcomers and between dry-land farmers and irrigators. The nature of conflicts and the cooperative relations between the two social groups present an interesting case for the analysis of social interfaces in Nyamaropa.

TYPES OF LEADERSHIP IN NYAMAROPA

Two conflicting types of leadership have emerged in Nyamaropa. One type is illustrated by Simba, the chairman of the IMC and supported by the newcomer-irrigator community. He is a newcomer himself and an interesting character (see Magadlela, 1995, for a more comprehensive account). The second type of leadership is embodied in Sando, an irrigator and the previous chairman of the IMC, but a man who is closely associated with the local community of irrigators and dry-land farmers. He was born in the area and sees himself as a local irrigator with strong ties, including kinship ties, with the dry-land farming community.

The rivalry between these two leaders is rooted in the fact that they represent communities having different views on the future of the scheme. The immigrant irrigators want to defend their interests in the irrigation scheme, to defend what they have and to secure enough water. The dry-land farming community, together with local irrigators with whom they share religious and cultural repertoires, also have an interest in the scheme since most of them now see the advantage of irrigation and wish to gain access to the scheme. They tend to identify with headman Sanyamaropa.

The rivalry between the leaders, however, is only partly explained by the interests of the two groups they represent. Simba and Sando have different and conflicting personalities and both have political ambitions. During the elections in 1993 for local leadership within the ZANU(PF) political party, the local (irrigator) community leader, Sando was elected to the post of party chairman — Simba was the runner-up. Probably sensing the danger of being constantly frustrated at every turn, Sando gave the chairmanship over to Simba, who is the present chair, and is also the chairman of the IMC. According to some irrigators and Agritex staff,

Sando is more popular because of his style of leadership⁷. He is said to consult more with the people and takes their advice more seriously than does his newcomer opponent.

Sando frequently expresses his concern about the future management of the scheme. He is concerned about the planned expansion of the scheme since he fears that if the current water storage capacity is not increased with it, there will not be enough water for the scheme. On the other hand he feels, as a local, strong affiliations with the dry-land community, some of whom will benefit from joining the irrigation scheme on a permanent basis. Although dry-landers have for a long time resented most developments associated with the irrigation scheme, they see the advantage of irrigation — it offers the security of a constant water supply, opportunity for second and third cropping seasons and the opportunity to plant late summer and winter crops such as beans, vegetables and wheat. This awareness is growing, particularly since the severe droughts Zimbabwe has experienced over the last decade have depleted their food reserves.

The leader of the newcomer-irrigator community, Simba, has held many leadership positions in his career. He claims that he serves the interests of the irrigator community, otherwise, as he stated once, he would not have been re-elected. He argues that it is his obligation to serve the irrigation community, so he has to stand up to all outsiders and make sure that they do not bring in ideas that will hurt the irrigators.

He is concerned about communication between Agritex and irrigators, which in his view often fails. An example he frequently puts forward on farmer-Agritex relations and the breakdown of communication is that of water shortage in the scheme. He cites the fact that farmers sent a request to Agritex a few years ago to look for alternative sources of water. It was suggested that getting water from the perennial Gairezi river nearby would be a good alternative source, but there has been no response yet, at least nothing formal from government. Simba has been in the forefront of attempts to get funding for extracting water from the Gairezi river. Although that idea was initially raised in the 1960s,⁸ he points out that the present thrust for the Gairezi project was recently re-introduced by himself and one of the local prominent businessmen when they realised that the water shortage was increasingly becoming desperate. Sando, on the other hand, feels that this option is not feasible, technically and economically.

⁷ The view of Agritex staff may be biased towards the leader of the group of irrigators who supports the block system, but they appear to be on good working terms with both leaders.

⁸ Documentary evidence of this project could not be traced. Most historical documents on Nyamaropa irrigation scheme were said to have been destroyed during the liberation war in the late 1970s.

The intention of Agritex to introduce a block system illustrates the tensions between the two communities and the two leaders. In 1993, Agritex suggested to farmers that they should adopt the block system, in which each of the four blocks within the scheme is dedicated to a particular crop at particular times. This would enable farmers to co-operate and produce in bulk for the market.⁹ For Agritex, the block system means an easier way of managing the scheme and makes best use of the available water.

Sando and some local irrigators support the block system because it would mean a redistribution of irrigated land and farmers with less land could have access to plots in each of the four blocks of the scheme. Sando argues that the existing scheme could be much better utilised as some irrigated plots are partly idle and land could become available for dry-land farmers. He also points out that those opposing the block system are involved in illegal deals with fellow irrigators and fear exposure as a result of the change. It seems, however, that Sando is losing support from newcomer irrigators on this issue.

Simba, backed by most early irrigators, strongly opposes the idea of a block system. Irrigators are so attached to their individual plots that talk about losing an acre of one's field raises tense emotions among most of them. They argue that they treated their plots very well over the years and cannot afford to change to plots that may have been under poor husbandry for years. In addition, most farmers in Nyamaropa believe that every one treats their land with some kind of personalised magic that lasts for a long time and works to give the farmer good harvests if not tampered with. They believe that such magic works only when that farmer, or a relative who knows the family values, works on that land. Agritex staff say that evicting all irrigators and re-allocating plots all over again could be a solution, but add that it may just be too dramatic, if not traumatic, a move and should not even be contemplated. Simba in his capacity as chairman of the IMC, threatened violent reprisals to those who advocated the block system. Irrigators feel that the extension agency only wants to make its management easier at the expense of the farmers. They are refusing to adopt the block system, saying that Agritex is trying to cheat them into accepting something that offers them less security than before.

⁹ A number of case studies indicate that this advantage does not necessarily occur. It is even argued that it may reduce the productivity of agriculture as irrigators act as tenants rather than owners of the land (see Manzungu, 1995).

DRY FIELDS AND 'SPIRITS IN TREES': CLASHES BETWEEN BELIEF SYSTEMS IN NYAMAROPA

Different groups in Nyamaropa have different religious repertoires. Some newcomer irrigators see locals as less progressive because of their customs and rituals of ancestral worship. At least 19 Christian churches flourish in the area, and the majority of newcomers have joined these and say that they are more modern than locals. Some locals resent the denigrating manner in which newcomers treat local traditions. Their view of local tradition is that it is backward and uncivilised and that it 'stifles development'.

An example is the observance of *chisi*, a day sacred to the guardian spirits of the land, and on which the soil should not be tilled (Bourdillon, 1987, 70 ff). Newcomers say that *chisi* no longer fits their perception of modern farming, since irrigation for them means hard work. A successful farmer, as one irrigator expressed it, 'is someone who is in the field'. Other accounts point out that 'we came here to farm, not to wait for holidays, we are in business here, why is it that those who own shops do not shut them down on Fridays to observe *chisi*?'.

The groups do not engage in open conflict, but each criticises the actions of the other. Newcomers say that local irrigators have jettisoned their ways in preference for modern life when the irrigation scheme came because they realised that their previous ways were less progressive. Some of them joined churches, and seemingly rejected their ancestral worshipping practices, but made sure that they kept social ties with dry-land relatives intact. One of the local irrigators commented, 'Everybody asks for rain in their own way. I am going to the church, others go to the chief.' He attends those meetings where people dance for rain, but he does not believe in them. 'You have to follow what your environment does.' Later on he added, 'You have to show solidarity' and 'You support others in their endeavour.' 'You have to rally behind the resolution shared by the rest of the community.' Although he is a Christian he still obeys the rules of *chisi*. 'A long time ago there were many *chisi* days, six. This is too many.' Nowadays there are only four days per month which he obeys. He hastened to add, however, that spraying and irrigating is allowed on *chisi* days.

Presently, the headman and his aides have been accusing irrigators and churches of having tainted, if not destroyed, traditional sacred places by worshipping in or near them, and warned the irrigators to observe *chisi*. Together with the local irrigator leader, Sando, the headman and his aides expressed their deep concern about the future expansion of the scheme. The enlargement will be at the expense of a place very sacred to the spirits of Sanyamaropa's people. The local Agritex officials made it clear that this is not their concern and stipulated that their mission is to

manage and improve irrigation opportunities in the area. By referring to the tasks set by Agritex at national level, they pointed out that their task in Nyamaropa is to overcome the existing hurdles which they conceptualise in terms of securing water, disseminating crop recommendations and rotation schemes, and making more land available for irrigation.

Headman Sanyamaropa and his advisors convened a meeting at the headman's home in August 1994, which was attended by village and church leaders, almost all of whom are irrigators. This meeting illustrated the current conflict between the two groups. The subject of the meeting was the erosion of traditional values and beliefs which, according to the headman and kraalheads, was caused by the introduction of Christianity. He associated this erosion with the arrival of people from other areas of Zimbabwe to join the irrigation scheme, and he indirectly accused irrigators and their religious practices of causing drought. He said:

Some of you go and pray in rivers and on mountains, and you chase our spirits away. They go and live in trees, the big ones you see around here, but you come again and cut down the tree. Where do you think the spirit goes after that? It has nowhere to stay, and you will not have rains when you have unhappy spirits.

One of the kraalheads quickly demanded that irrigators too should observe *chisi* days to please the spirits. Church leaders responded by saying that they appreciated the views of the traditional authorities and that they are allowed to pray freely. They concurred that it is important to observe *chisi* and to attend traditional ceremonies. However, there was an air of dissent amongst church leaders who felt that they were entitled to their own religious practices without obligation to traditional cults.

In this respect, a new irrigation intervention may either widen or reduce the gap between the two social groups practising different religious repertoires. Past interventions unintentionally created sets of interfaces, which it seems that Agritex and irrigators are not able to handle harmoniously all the time.

BUSINESSMEN RENTING LAND AND DRY-LAND FARMERS GAINING ACCESS TO IRRIGATED PLOTS

According to the by-laws of Nyamaropa irrigation scheme, irrigation is a full-time activity. What full-time means exactly is difficult to establish. If it means that irrigators are to survive from the produce of their plots and also to arrange the work by procuring labour from their own families, then the reality has diverged from the laws. Many irrigators have rented out plots to fellow irrigators for cash or swapped plots among friends. Many rely on help from outside the scheme in the form of remittances from their kinsfolk working in town, or draught power and labour from friends or dry-

land farmers. If being 'full-time' irrigators implies that irrigators should not cultivate dry-land plots or dry-land farmers should not irrigate, then again the reality has diverged from the laws. Many dry-land farmers are part-time irrigators and some irrigators also cultivate dry-land plots.

We now consider how and why this is happening, and what it tells us about relationships between irrigators and dry-land farmers. We also consider differentiation amongst irrigators themselves.

We begin with the last dimension of the social reality of Nyamaropa irrigation scheme, the differentiation among the irrigators. The analysis takes us back to when the scheme began with the arrival of newcomers. They came either alone or only with their close families and, as also noted by Reynolds (1969, 46), had no family or tribal connection with Sanyamaropa's people. He concludes:

The Newcomers enjoyed independence from tribal affiliations having left their traditional homes. Amongst the Newcomers, family and church loyalties replaced the growth of a sense of community and common identity... Although the villagers who had joined the scheme [the locals] displayed a growing frustration with their ties to the villages, they remained intricately involved in village and tribal life (Reynolds, 1969, 59).

Reynolds's survey of 1962 established that about 46% of the newcomers were under 40 years old, while of the local irrigators the percentage was 29%. The majority of them (87%) were monogamous. Nearly every family in the scheme had young children. Many of the monogamous men had only married after they had turned 30 and then frequently to a girl ten or more years younger. The second wives in polygamous marriages were somewhat younger still than their husbands. It was usual for men over 40 to have infants and their wives were likely to bear more children. Since newcomers had young families, and since kinsfolk were not around, they had to turn to dry-land farmers or to other newcomers for labour. Most of the labour was hired and paid in cash or in kind (and this is still common). The sharing of implements and oxen amongst irrigators was a usual practice in the scheme. Many of the irrigators who settled on the scheme later were initially supported by fathers, brothers or fellow church members who had settled previously.

Now, the average age of Nyamaropa's irrigators is above 50 years. Most elderly irrigators can no longer work full-time on their plots. They gave their children a good education 'from money from the land', which helped them get jobs in towns. Now these children rarely come home to help their parents work the land. Consequently, the common practice is to hire labour from families of dry-land farmers, and previously from

Mozambique.¹⁰ Transactions between irrigators and dry-land farmers are not always valued in cash. There is a tendency to prefer being given access to irrigated land to grow wheat for food, especially in winter, to being paid in cash.

Other forms of transactions between irrigators and dry-land farmers are induced by indebtedness of irrigators. The severe drought which hit the country in 1991–1992 created a situation whereby many irrigators, particularly those facing labour constraints, could not afford to pay maintenance fees to Agritex. Some of them then approached dry-land farmers or local shop owners who are irrigators or dry-land farmers for financial assistance. This was given in return for use of part of the plotholder's irrigated land.

The obvious consequences are that irrigators in leasing and renting transactions help create a situation whereby there is more hectareage of wheat every winter season than expected, resulting in a depletion of the little water meant for 'July beans'. Nyamaropa irrigators normally grow beans twice a year, in March after their summer maize and in July at the end of winter. Although we do not know the exact number of transactions between businessmen and irrigators, what is known is that the former tend to favour deals with irrigators which entail 100 per cent cropping of the farmer's plot by the lessee. The nature of such transactions worsens water distribution problems in the scheme and is therefore part of the conflict among irrigators and between irrigators and dry-land farmers. Agritex and the IMC are aware of these practices but do not seem able to do anything about them.

CONCLUSIONS

The analysis has shown that the beneficiaries are not simply passive receivers of interventions — they manage to rework and redesign intervention by interpreting it in their own ways. The analysis drew partly on the accounts of irrigators and dry-land farmers themselves on how they experience and interpret their own lives and how they are affected by irrigation intervention. Development project planners and policy makers for some of Zimbabwe's communal areas who try to choose between raising market outputs and sustaining the welfare of the producers are bound to meet major difficulties in their missions if they do not address specific social and culturally defined needs in their broadness.

¹⁰ Since the peace settlement in Mozambique in 1994, many permanently employed Mozambican labourers returned to their homes. This has aggravated the problem of labour shortage among irrigators.

The analysis has presented Nyamaropa as a product of colonial state interventions resulting in a situation where different people originating from different places are bound to live and work together. Interventions created divisions between relatively prosperous irrigators and dry-land farmers and among irrigators, culminating in various, so far unsolved, conflicts. The analysis has pointed to various social constructions of their lifeworlds. The relevance of the distinction between newcomers and locals, which some people in the area still maintain, may be questioned, especially as some of the distinguishing factors tend to fade away with time. Alternatively, the categories could be replaced simply by irrigators and dry-land farmers who continue their antagonisms towards each other after over three decades living adjacent to each other and working together.

In our view, the distinction is a construction of different farmer identities and is used in particular negotiations and specific situations. The headman, for example, still reproduces the construction 'locals versus newcomers' when he refers to problems causing rain shortages. The IMC chairman, Simba, refers instead to irrigators and dry-land farmers, and sometimes to local and newcomer irrigators in his campaign against the block system. From a different point of view, Sando uses the same construction as Simba in his argument for the block system. Agritex staff predominantly use the irrigation/dry-land distinction, but sometimes refer to the local/newcomer construction when, for example, discussing issues pertaining to farmers' performance in agricultural production. What is crucial is the centrality of water resources (rain and irrigation water) and the embeddedness of social interfaces and power relationships in water issues. This is dealt with in detail in Magadlela's forthcoming study of the area.

A critical point raised in this article is the handling of different interfaces by different actors involved in various domains or levels of social interaction. To take the melting pot metaphor further, one may see the conflicting nature of emerging relationships in Nyamaropa between the headman and leaders in the irrigation community as a necessary ingredient for a development recipe. Part of this recipe is that relations between dry-land farmers and irrigators is mutually beneficial. In some cases the social groupings cooperate closely for their survival as shown in the provision of labour for food or cash. Intervenors need to realise all this. It will be interesting to see how the various actors will handle the resulting conflicts among irrigators. In the meantime, however, the struggle about water and access to food and production resources continues.

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