

*Paper to present at the AEGIS European Conference on African Studies, 11 - 14 July 2007,
African Studies Centre, Leiden, The Netherlands*

Panel 17 - States at work: African public services in comparative perspective

Wanted by the state: farmers making headway - a case study in Tigray, northern Ethiopia

Kaatje Segers ^a, Joost Dessein ^b, Jan Nyssen ^{a,c}, Mitiku Haile ^c, Jozef Deckers ^a

^a Department of Land Management and Economics, Katholieke Universiteit Leuven, Celestijnenlaan 200 E, B-3001 Heverlee, Belgium

^b Social Sciences Unit, Institute for Agricultural and Fisheries Research, Burg. Van Gansbergelaan 109 box 2, 9820 Merelbeke, Belgium

^c Department of Land Resources Management and Environmental Protection, Mekelle University, P.O. Box 231, Mekelle, Ethiopia

Corresponding author: kaatje.segers@biw.kuleuven.be, tel. +32-16-32.97.34 - fax +32-16-32.97.60

Abstract

Local level administrators in rural Tigray (northern Ethiopia) are in an awkward predicament. Higher level authorities saddle them with target numbers for beneficiaries of rural development programmes. Meanwhile they have to live up to their reputation of locally accountable and in favour of grassroots development, a relic from the Tigray People's Liberation Front's (TPLF) revolutionary days. Based on in-depth qualitative research on the implementation of a household rainwater harvesting pond programme in one district of the Tigray region, we investigate how local level administrators cope with this dilemma and how this influences farmers' reactions on the programme, its success and the relations between farmers and authorities. Two strategies deployed by district and sub-district administrators to win over farmers for the rainwater harvesting pond programme are explored. First is the practice to favour the programme's participants - conceived of as willing to improve - above other candidates for employment in a food-for-work programme, which farmers compete for. Second is the constant motivation and mobilisation of farmers in general, and of the largely overlapping subgroups of model farmers and TPLF party members in particular by stressing the latter's role and responsibilities as pioneers in development. These local government's moves are followed by farmers' countermoves (e.g. digging a pond to stand a good chance of employment in the food-for-work programme or for the sake of peace with authorities). Together they result in a beneficiary targeting error in the food-for-work programme and in the massive construction of rainwater harvesting ponds, the large majority of which fail because their owners do not aspire to make them succeed. In addition farmers' and local administrators' perceptions of each other are affected.

Key words: Ethiopia, TPLF, state, local governance, mobilisation, rural development, water harvesting, food-for-work

Introduction

This paper is concerned with local level administrators in the rural areas of Tigray, the northernmost region of Ethiopia, and the awkward predicament they are in and have to cope with. Like average local administrators in a modern state they are squeezed between higher authorities and the grassroots level, but a number of Tigray specific factors add to the trickiness. It is useful to have those in mind before moving on to try to understand the rural Tigrayan version of what panel convenors have referred to as the banal, habitual, routinised functioning of what might be called the “real” state.

At present the Federal Democratic Republic of Ethiopia is governed by the Ethiopian People’s Revolutionary Democratic Front (EPRDF), a coalition dominated by the Tigray People’s Liberation Front (TPLF). Power balances in the country are virtually unchanged since TPLF after two decades of guerrilla war played the leading part in the defeat of Mengistu Hailemariam and his Derg regime in 1991. The military dictatorial Derg regime assumed power in the years following the overthrow of emperor Haileselasie in 1974. Derg carried through a number of radical socialist reforms, while harshly repressing any form of opposition. The population in Tigray, where resistance grew quicker and stronger than in most other regions, was particularly hard hit by Derg’s Red Terror campaign. The humanitarian crisis following a drought in the middle of the eighties, is known to be exacerbated by Derg’s counter-insurgency strategy of disrupting food and food aid flows to and within Tigray (Clay 1991; Clay & Holcomb 1986; Hendrie 1989; Milas & Latif 2000).

During years of civil war TPLF was the mainstay of popular resistance against the Derg in Tigray. Grown out of the 1974 revolution and initially spearheaded by a political elite of mainly students and teachers, the movement succeeded in winning over bigger and bigger parts of the rural population to its liberation struggle. Highly successful peasant mobilisation eventually was decisive in the front’s military victory (Gebre A.B. Barnabas & Zwi 1997; Aregawi Berhe 2004; Hammond 1999; Hendrie 1999; Reid 2003; Young 1997a). Besides to channelling widespread anti-Derg sentiments TPLF largely owed its success in the rural milieu to a political agenda of democracy and self-government, and to a socio-economic one centred on public welfare creation (Hendrie 1993).

During the revolution TPLF established a number of popular institutions that had to ensure democratic decision-making and rule within the movement as well as in communities in the liberated areas. Organised in mass associations men, women and youth elected their representatives in the local *bayto*, the committee governing a district and the key institution of popular political participation and accountability (Gebre A.B. Barnabas & Zwi 1997; Hendrie 1999; Milas & Latif 2000; Young 1996; Young 1997a). Connected to the Marxist idea of self-criticism and traditional Tigray means of evaluation *gemgam* was developed to evaluate military actions, but evolved into a common means to encourage discipline and transparency in all kinds of TPLF associations and activities (Aalen 2002; Keeley & Scoones 2003; Young 1997a).

In contrast with past regimes, including Derg, TPLF pursued a policy of not extracting resources from the rural population and of support for recovery and enhancement of farmers’ livelihoods in areas under its control. The provision at an early stage in the revolution of primary education and health care and of agricultural inputs and extension services are signs of TPLF’s commitment to rural development (Gebre A.B. Barnabas & Zwi 1997; Berhane Hailu & Mitiku Haile 2001; Hammond 1999; Hendrie 1999). Relief assistance was crucial in terms of protection against famine and therefore in consolidating the movement’s legitimacy in a society affected by drought, exploitation, terror and war (Hendrie 1999; Lanz 1996; Milas & Latif 2000). Duffield &

Prendergast (1994) in this context talk about a political economy in which political support and public welfare are organically linked and mutually reinforce each other.

It is with this history and promise of democracy and development, and the sky-high expectations they have generated, both within and outside Tigray, that TPLF as the core of the new government embarked on the challenge of putting post-war Ethiopia back on the rails (Young 1997b). Linking relief with development was basic post-conflict rehabilitation policy (Milas & Latif 2000), serious steps towards devolution of state power were taken (Teferi Abate Adem 2004) and EPRDF repeatedly expressed its commitment to participatory democracy. However fifteen years later, whereas much of political, social and economic thinking is still guided by analysis grown out of the experience of the revolution (Milas & Latif 2000), it becomes bit by bit clear that TPLF has only partly complied with wishes.

With a gross domestic product per capita of less than quarter of the Sub-Sahara Africa average (World Bank 2007) and a seventh but last place in the Human Development Index ranking (UNDP 2007) Ethiopia is one of the poorest countries in the world. Although World Bank and IMF see poverty on the decrease, some authors (Devereux & Sharp 2006 and Dessalegn Rahmato 2003 among others) challenge this view and warn against generalisations. Certainly Ethiopia is a shock-prone country, with shocks having severe and long-lasting effects (Dercon *et al.* 2005; World Bank 2005). The country is still suffering from both chronic and transitory food insecurity (Nichola 2006) and at times near to a famine outbreak (Hammond & Maxwell 2002).

Against EPRDF's rhetoric of democracy and participation a strong, centrally led and hierarchic state has outlined. Recent elections revealed flaws in the democratization process (Abbinck 2006; Pausewang *et al.* 2002a) and a top-down approach to federalism did not allow adequate power devolution to lower levels of administration (Meheret Ayenew 2002). Accounts on the local level are a little less unequivocal. There are authors who observe the revival of local authoritarian structures in peasant associations and in peasant relations to local authorities (Pausewang 2002b), the decay of *gemgam* to a top-down process with very little popular community initiative (Meheret Ayenew 2002) and associations serving as instruments of state control (Fredu Nega *et al.* 2006). On the other hand Keeley and Scoones (2003) find differences between regions, with a more positive record for Tigray attributed to a tradition of dialogue and sensitivity to local concerns developed during the revolution. Teferi Abate Adem (2004) describes local government as a site for the exercise of central party control as well as for promoting local autonomy and self-governance.

In the field of rural development, which this paper deals with, a top-down approach to policy-making and planning, is pervasive (Berhanu Abegaz 2004; Keeley & Scoones 2003). Agricultural extension in the country is not participatory in nature and focused on technology transfer (Kassa Belay 2002; Kassa Belay & Degnet Abebaw 2004; Berhanu Gebremedhin *et al.* 2006). Examples of low performance in rural development interventions attributed to blueprint approaches and lack of genuine farmers' participation in planning and design are legion (see Yohannes Aberra 2004, Seleshi Bekele Awulachew 2005 and Woldeamlak Bewket 2007 among others). Another relevant feature of many rural development programmes in Ethiopia is its supply driven nature, which manifests itself in the widespread use of quotas. These target numbers of farmers expected to join a programme are set at a higher level and passed on to a lower one for fulfilment (Berhanu Gebremedhin *et al.* 2006; Rami 2003; Woldeab Teshome 2003).

So far for the context in which local level administrators in rural Tigray operate. In their twin roles of lowest representatives of the state and mediators between farmers and higher level authorities they are at the interface where many contrasts crystallize: contrasts between the state's

participatory rhetoric and its top-down practice, between farmers' memories of TPLF's revolutionary days' promises and their present days' experiences of poverty. We will now continue with a case-study of how local administrators in Degua Temben in Tigray manoeuvre and cope with these dilemmas in implementing a household rainwater harvesting pond programme, how their strategies and actions influence farmers' reactions on the programme, its success and the relations between farmers and authorities.

Research area and methodology

Degua Temben *wereda* or district is situated in the northern Ethiopian highlands, an area with an agricultural history of over 2000 years (McCann 1995). The prevailing agricultural system is one of integrated annual crop and livestock production in which oxen provide the draught power for ploughing smallholders' fields. Degua Temben covers little more than 1100 km² and counts around 120 000 inhabitants. The district main and in fact only town of Hagere Selam is situated about 40 km west of Mekelle, the regional capital. An all weather road connects them. Degua Temben district is made up of 18 *tabyas* or sub-districts, the sub-district being the lowest formal administrative level. Research has concentrated on one of these sub-districts in particular. The sub-district under research is divided in three *qusjets* or villages, each of them composed of two to three *gots* or hamlets.

Fieldwork has been spread over two periods, the first from March 2005 until February 2006 and the second from August 2006 until May 2007. Data have been gathered by participant observation (de Certeau 1984) and by open and semi-structured interviews with farmers and administrators, local as well as others. People interviewed include sub-district administrators, village leaders, agricultural extension or development agents, soil and water conservation technicians and agricultural cadres. Next to these, responsible persons in the district Bureau of Agriculture and Rural Development, the district Food Security Office and the regional Food Security Coordination Office, the district and regional Bureau of Water Resources, Mines and Energy and the district branch of the Relief Society of Tigray (REST), a local NGO, have been interviewed.

In what follows the term local administrators is used to indicate a rather loosely defined group of people. Though initially the term refers to sub-district administrators, it is reasonable to expand the concept to include some other people. Essential for local administrators in our case is that they assume in one way or another responsibility for implementing the rainwater harvesting pond programme and that they interact with farmers on a regular base. Development agents and village leaders, though not administrators *sensu stricto*, are included in the concept of local administrator as they are sub-district administrators' most important allies in implementing the programme. District administrators and officials who frequent the sub-district to chair meetings, give trainings and so on, though not strictly local, are included as well. Besides it should be noticed that the boundary between administrators and farmers is fuzzy and somewhat artificial, as on average sub-district administrators, village leaders and other people in administrative functions in the sub-district (agricultural cadres for instance) are farmers.

The Rainwater Harvesting Pond Programme in Degua Temben

In 2002 Degua Temben was one of the first 22 districts in Tigray to be included in the Rainwater Harvesting Pond Programme (RHPP)¹ launched by the regional government. The RHPP's objective is to decrease farmers' dependency on the highly seasonal and erratic rainfall patterns² by rainwater harvesting and storage in ponds, locally called *horoyo*, in their backyards. The trapezoidal ponds (13 m x 13 m at the surface, 4 m x 4 m at the bottom and 2.5 m deep) designed for this purpose have to collect rainwater and run off water during showers in the rainy season. This water reserve can then be used for supplementary crop irrigation to bridge rain gaps during

the rainy season or to extend the growing period after the rains have finished. In addition it serves as a domestic water supply, as drinking-water for livestock and for small-scale irrigated horticulture (Landell Mills 2004). Currently around 3180 out of around 27000³ households in district Degua Temben have a rain water harvesting pond on their land.

RHPP planning at the regional level was a joint effort of the then Bureau of Rural Development⁴, the then Water Resources Development Bureau⁵ and REST (Landell Mills 2004). We will not go into detail on the planning process itself, but highlight especially one of its outcomes, being target quotas for rainwater harvesting ponds. Based on an assessment of the number of vulnerable households, a target number of rainwater harvesting ponds to be built by September 2003 was formulated for all 22 districts in the programme. Not only the programme has been expanded to include nine additional districts in 2004, but also the district target numbers have been stepped up ever since the RHPP's launch. Regional plans, including an implementation manual and target numbers, have been forwarded to the districts for approval and implementation.

Degua Temben accepted the target number of 600 rainwater harvesting ponds to be built by September 2003 and another 800 to be completed by September 2004⁶. Responsibilities for implementation, supervision and monitoring of the RHPP in the district have been shared among the then Bureau of Agriculture and Natural Resources (BoANR)⁷, the then Water Resources Development Bureau⁸ and REST⁹. A district RHPP steering committee divided Degua Temben's target numbers among its 18 sub-districts and passed them on to the latter. In the sub-district where fieldwork has been done, the sub-district legislative body approved the plans and three foremen were trained and engaged by the BoANR¹⁰, one for every village of the sub-district. Backed up by a sub-district RHPP steering committee, the sub-district's three development agents and the sub-district administrators, the foremen embarked on tracing potential beneficiaries and site selection in the beginning of 2003.

A number of incentives had to break down barriers to people's adoption of rainwater harvesting ponds. In 2003 households willing to construct a pond on their land were provided with the necessary manpower through different food-for-work arrangements. Either one *gudjile*, a group of around 30 neighbouring households, was contracted to complete one rainwater harvesting pond in exchange for 2900 kg grain or people were set to dig in exchange for three kg grain per working day. In 2004 households had to use their own labour to dig a pond on their land, however they were exempted of unpaid community work in order to free labour for doing so. Interested households could obtain a plastic to cover their pond's floor and walls in order to prevent seepage on interest-free credit and at a subsidised tariff.

Despite this range of adoption encouraging measures households ready to construct a rainwater harvesting pond grew only little by little in number and by the end of 2004 the sub-district target quota of was far from being reached. Moreover most households who were in from the start either belong to the group of relatively wealthy and less risk averse or live nearby a spring and hence were quite confident of their ponds going to be filled. At the beginning of 2005 local administrators, finally accountable to the higher levels for carrying out decisions taken by the local legislative bodies, find themselves faced with a tremendously difficult task. Farmers' interest being about to reach its saturation point, they are supposed to convince large numbers of households to get in on the RHPP¹¹.

Wanted: farmers making headway

Local administrators essentially have made an appeal to two different strategies to win over farmers for the RHPP. It is important to notice that the use of these strategies is not restricted to

the case of the RHPP. Although practical interpretations vary, both are basic parts of the local phase in the implementation process of any rural development programme in the study area.

Recruitment strategy for development 1: linking participation in development programmes to participation in food-for-work

The beginning of 2005 - the RHPP in the sub-district is about to reach an impasse - is the time the Productive Safety Net Programme (PSNP) makes its entry in the study area. This programme has been launched by the Ethiopian government at the end of 2004 and is part of its Food Security Programme. For its implementation in Tigray the regional government cooperates with REST. The PSNP's objective is to provide either cash or food transfers to the food insecure population in chronically food insecure districts in a way that prevents asset depletion at the household level and creates assets at the community level (MoARD 2004). The PSNP differs from previous food-for-work and food aid programmes in the study area in that it sets itself the target to provide long-term predictable support to chronic food insecure households instead of emergency aid in cases of acute food insecurity. In May 2006 17900 of about 27000 households in district Degua Temben are the beneficiaries of the PSNP's public work component, next to 4010 labour-poor households who receive direct support through the programme¹².

PSNP planning processes were in the same vein as for the RHPP, with the difference that they were given a start at the national level. At the regional level planning, coordination and implementation responsibilities are with a large number of government agencies (MoARD 2004). Of importance to our discussion is that, together with a programme implementation manual and targeting guidelines, PSNP public work quotas were passed on to the districts. The district food security task force took responsibility for their distribution to the sub-districts. For a household one PSNP public work quota means the right for one of its adult members to participate eight months a year during maximum 5 days per month in PSNP public work activities (MoARD 2004). The household's compensation consists of an in kind equivalent of 6 ETB¹³ per working day. In practice participating households in Degua Temben receive monthly 15 kg wheat, 1.5 kg pulses and 0.5 l oil¹⁴ per PSNP public work quota. Out of the district's 17941 available quotas 935 were granted to the sub-district under study¹⁵. A sub-district and three village food security task forces were established, made up of sub-district administrators, village leaders, development agents, members of the sub-district legislative body, teachers and health workers and representatives of the women's, men's, youth and elderly people's associations. Together they have authority to allocate, in accordance with PSNP targeting guidelines, quotas to the most vulnerable of the about 1050 households in the sub-district.

Let us now switch to the demand-side. In line with observations in other areas in Tigray (Woldeab Teshome 2003; van den Berg & Ruben 2006) participating in food-for-work programmes is a favourite livelihood strategy for nearly all households in the sub-district, especially during the agricultural slack season. At this time of the year food-for-work wages are only slightly lower than those for unskilled labour in the nearby town of Hagere Selam and -once quotas have been obtained- job security is higher. Over seasonal labour migration to Mekelle or the lowlands in the west of Tigray local employment in a food-for-work programme has the advantage that it is more favourable to farmers' family and social life. Moreover it is easy to combine with farm activities, especially short term migration to the lower lying grazing areas where from the start of the rains until the harvest farmers use to take turns tending the cattle of a number of households together.

As a consequence the demand for PSNP public work quota in the sub-district goes way beyond the supply. For local administrators, many of them combining offices in the sub-district RHPP steering committee and the sub-district or village food security task forces - in trouble to get

rainwater harvesting ponds adopted as well as unable to meet the demand for PSNP employment - the solution is there for the taking. In the hope of boosting the number of rainwater harvesting ponds they decide to set farmers' willingness to dig one as a PSNP selection criterion¹⁶.

By doing so they not insignificantly season the programme's targeting guidelines, which prescribe the identification of PSNP beneficiaries based on chronic food insecurity.

A sub-district development agent justifies:

Of course we select the poorest farmers for participation in the safety net programme. But there are so many poor people in this sub-district who are willing to work in the programme that we have to choose between them. So first we give the chance to the ones who show they want to make an effort to improve their lives¹⁷.

According to this line of reasoning people who dig a water harvesting pond strive for escaping food insecurity and hence deserve a boost by the PSNP. The actual distribution of the 935 PSNP public work quota to 481 households in the sub-district indicates the measure is not only a matter of discourse. From the households with a rainwater harvesting pond almost 90 % received at least 1 PSNP public work quota, whereas from households without a pond less than 40 % did so. However the large majority of early-adopters undoubtedly are not part of the most food insecure in the sub-district, who typically have difficulties to invest in productive assets. Despite state subsidy, to install and profitably operate a pond requires substantial efforts in terms of labour and cash, which are often beyond chronic food insecure people.

Recruitment strategy for development 2: mobilisation

Saddled with ambitious target numbers for beneficiaries of the RHPP and in the face of farmers' fading interest to join the programme local administrators fall back on a second well-tried strategy: that of strong and persistent motivation and mobilisation. Although there is evidence that administrators increased persuasive efforts in the course of 2005, it is difficult to exactly pin down how much and when they did. Farmers who responded to administrators' moral incentives by digging a pond might have done so because they perceived either repeated or more intense pressure, or a combination of both.

The story of priest Gebregiorgis, village leader and owner of a failed rainwater harvesting pond, is illustrative in this:

We dug our pond in 2005. We paid a few hundred ETB to daily labourers, wasted money. As you know I am a village leader, and people complained me. They said: "you are telling to everybody to dig a pond, but you do not have one yourself." If I would have had a good catchment near my land, I would have dug a pond before, but what is the use of a pond if it impossible for water to enter it? Sub-district administrators constantly commented upon me. They visited me in my house and I tried to convince them of the impossibility for a pond on my land to harvest rainwater, but they did not accept. One day on a meeting in the district my case was brought up again. I was so tired of it that I decided to dig a pond anyhow.

As the example indicates encounters between local administrators and farmers in which the former try to persuade the latter to join the RHPP are in different formats. A common one is that of an administrator giving a speech to a group of farmers on a meeting in the centre of the sub-district or village. Except in the case of a development agent formally training a selected group of farmers on the topic, meetings are rarely convened to discuss rainwater harvesting ponds in particular. Usually the issue is brought up by a local administrator chairing - officially or

otherwise - political meetings of TPLF party members, monthly meetings of the sub-district legislative body, general sub-district or village meetings et cetera. Another setting is that of a local administrator having face to face contact with a farmer, for instance in the case of a development agent visiting a farmer at home. As there are not so many relevant particularities to one type of encounter or another, neither in terms of arguments and rhetoric used by the administrators, nor - as we will see - in terms of farmers reached by the message, we will limit ourselves to a discussion of the content of the discourse.

While the method and habit of farmers' mobilisation themselves date back to TPLF's revolutionary days, the core argument is essentially unchanged too. Local administrators fall back on historical feelings of hatred against Derg and try to extrapolate these to farmers' present-day enemies, poverty and underdevelopment. Today's struggle for development is equivalent with yesterday's struggle for liberation is in short the base of administrators' argument. With this point of departure, loyalty to TPLF's war against Derg - which is considered self-evident - directly translates into loyalty to TPLF's aim of combating poverty, and from there straight into willingness to participate in the RHPP. Conversely, and more implicitly of course, not digging a rainwater harvesting pond can be interpreted as a sign of desertion.

Although essentially this call for renewed struggle is directed to all farmers in the sub-district alike, for TPLF members in particular it is hard not to respond to it. In addition to the tendency for them to be exposed to local administrators' discourse more than average farmers (as it is more common for TPLF members to hold positions in one of the sub-district's grassroots committees and associations), TPLF members are especially targeted by administrators' argument. As models of political commitment, the role of pioneers in development is granted to them.

Mebrahtu, a member of TPLF and owner of a failed rainwater harvesting pond, explains party members' position with respect to state rural development programmes:

As a TPLF member everything finds its way to you. Whatever programme or rule, party members are the first ones called on. They explain us the content of the programme and the arguments to convince people to participate in it. Thereupon party members start to put things in practice to set an example to others. We, party members, are expected to carry out everything the government proposes. It does not matter whether you feel sympathetic to it or not. You accept it. As a party member you have taken your decision in advance.

Virtually all rainwater harvesting ponds in the sub-district under study belong to TPLF-members, though this is not the result of policies described above only. At the same time it so happens that farmers who have shown to be into development, by digging a rainwater harvesting pond for instance, are requested to join TPLF. Local administrators do not only motivate party members to be model farmers but motivate successful farmers to become party members as well.

To justify they bring pressure to bear on fellow farmers and TPLF members local administrators often invoke higher authorities' decisions or elements borrowed from the international development discourse (the one dollar a day line is a hit in Degua Temben). By doing so they fairly well succeed in saving their own reputation, but contribute to growing disillusionment of farmers with the state. In this respect Aspen's (1994) observation, which is valid in our research area today, that people differentiate between vague and distant state (*mengsti*) and the much closer and concrete sub-district leaders and other actors within their daily spheres, is illuminating.

Farmers' responses and the sustainability of the RHPP

With regard to winning over farmers for the RHPP the double strategy to favour the programme's participants above other PSNP candidates and to press for farmers' participation in development - whatever the decisive balance between the two strategies might have been - was a lucky move. A number of households, until then reluctant to dig a pond, thereupon decided to take the plunge and embark on the RHPP. In the course of 2005 the total number of rainwater harvesting ponds in the sub-district jumped from 56 to 163.

Nevertheless the RHPP in the sub-district can hardly be called a success. One of the villages of the sub-district¹⁸ for instance counted 65 household rainwater harvesting ponds at the end of 2006, 12 of which have been built before the PSNP entered the stage and mobilisation was raised in the beginning of 2005 and 53 after. On inspection 8 of the 12 ponds in the first group meet the RHPP's objective of decreasing the owner's dependency on rainfall, while 4 do not. On comparison only 5 of the 53 ponds in the second group contribute to the household's water security, while 41 do definitely not and the remaining 7 are at best dubious cases. This high degree of failures of 2005-2006 rainwater harvesting ponds is general throughout the sub-district¹⁹.

During gaps in and at the end of the rainy season the large majority of 2005-2006 ponds either hold no water or a small and quickly fading amount, which farmers consider largely insufficient to serve for supplementary crop irrigation. At the moments such a pond contains water, during or immediately after the rainy season, households use it - if they do at all - as drinking-water for livestock or more often to irrigate teeny plots of vegetables or a few trees. However in these cases too, pond water hardly has surplus value to offer. As their rainwater harvesting ponds empty most households switch over to fetching water from a nearby hand dug well or from springs, which are abundant during and in the months after the rainy season. Actually households without a pond practice small scale irrigation of vegetables and trees with spring or well water as well, while animals are taken to a spring to drink.

Reasons why the majority of ponds in the sub-district built after the PSNP was launched and local administrators increased mobilisation efforts either do not collect rainwater or do not retain the harvested water are many. Some causes are interrelated and most ponds that are out of order suffer from more than one. First of all part of the dysfunctional rainwater harvesting ponds were badly constructed. Common shortcomings at building are the prescribed depth or area that have not been reached or the inadequate compaction of the pond's floor and walls which makes it easy for water to infiltrate. In some cases the household simply gave up after digging a small shallow hole in their backyard. Secondly a considerable part of 2005-2006 ponds suffer from lack of maintenance. Farmers do no efforts to prevent sediment from entering the pond, to clear it out or to repair collapsed walls. Some rainwater harvesting ponds are silted up completely and remain as a gentle depression in the landscape. A third reason for many ponds to fail is that households do not construct or maintain the diversion channels and inlets that are needed to harvest run-off water in a pond. Hence for their supply those ponds depend on direct rainfall only.

Many of the above mentioned problems have to do with or are aggravated by an improper location of the water harvesting pond. There are households for instance that could not complete their pond because they run up against the bedrock. There are ponds that fill up with sediment in one heavy shower because they are positioned right under a steep bare slope and ponds on the highest point in the surroundings that could never collect a drip of run-off water at all. However it is clear that the unfortunate location of many rainwater harvesting ponds is neither the consequence of farmers' ignorance nor of foremen's shortcomings in site selection.

A sub-district foreman explains the farmers' perspective on site selection:

Farmers register for a rainwater harvesting pond but they are not willing to sacrifice a piece of their land to it. Hence they propose a bad piece of land they can not use for any other purpose as a place for their pond to be dug.

Another sub-district foreman describes the local administrators' side:

The problem with site selection is that the sub-district administrators do not listen to us. When I as a foreman tell them a farmer does not have a proper place to dig a pond they simply say: "anyway, you will dig one, because we need this or this number of new ponds in our sub-district".

Whereas seemingly the failure of most 2005-2006 ponds may be caused by technical shortcomings in construction, maintenance or site selection, more often than not it is the consequence of flaws in administrators' and farmers' underlying motives. Ponds that have water all year round and are surrounded by lush gardens, to some of their owners the main income source, are conclusive evidence that physical or technical shortcomings are not an inherent feature of rainwater harvesting ponds in the sub-district.

Two more arguments support the hypothesis that many of the RHPP joiners in 2005 and 2006 consider having a pond a priority over having it work. Part of the ponds that hold no water is nevertheless bordered by a narrow strip of vegetables, either rain-fed or irrigated with spring or well water. Except for home consumption, these vegetables serve to keep up the household's image of "eager to improve" and have to safeguard its PSNP public work quota and to endorse its loyalty towards TPLF's struggle for development. A second indication lies in the difference between the pre- and post-2005 water harvesting ponds with respect to their floor covering. In the case-study village for instance 10 out of 12 ponds in the first group are lined with plastic, against 4 out of 53 ponds in the second group. With two exceptions of ponds with broken plastics in the first group these plastic-lined ponds are the most successful ones in the village. Whereas the lower portion of plastic-lined ponds in the 2005-2006 group could be read as a sign of lower investment capacity of the households in this group, it also indicates that many of these ponds were built by their owners in the knowledge that they would have difficulties to hold water²⁰.

When farmers in the sub-district talk about the PSNP, they use *shftenet*. *Shftenet* is Tigrinya for banditry and a corruption of the "safety net" commonly used as a shorthand for the PSNP. Farmers have many grievances about the PSNP, though one of the strongest and most generally voiced, especially among non-beneficiaries, is about the distribution of public work quotas between households. Farmers call it unfair and blame the developers for assigning *shftenet* quotas to the people they like, the people who have everything and the people who do what they want them to do. Though farmers who do participate in PSNP public work are more moderate in their complaints, they mostly do not deny or hide they owe their employment to the rainwater harvesting pond in their backyard.

Among administrators on the other hand a tendency can be observed to attribute ponds' low performance to farmers' poverty. Farmers are typically thought of as lacking the capacity to invest, physically too weak to complete their pond and poor in understanding the benefits of development in general and rainwater harvesting in particular. In fact the argument of physical inability is repeated by farmers themselves, as loss of labour by sickness or otherwise gives them an excuse to cease working on their pond without sowing suspicion about their good intentions at the start.

Conclusion

Besides the obvious beneficiary targeting error in the PSNP due directly to the alterations in targeting procedures and lots of failed rainwater harvesting ponds scattered around the sub-district, local administrators' and farmers' moves and countermoves have one additional drawback. Administrators' perceptions of farmers as well as farmers' perceptions of administrators and more generally of the state are affected. This outcome is maybe more serious than the others as it may influence the success of future development interventions in the sub-district.

To conclude it has become clear how local administrators' and farmers' actions and interactions are keys to understand the outcomes of the RHPP in the study area. A livelihoods analysis stressing agency has shown how disparities in means and ends between farmers and administrators give rise to an undesirable set of outcomes. This scenario repeats itself in different versions, both in the research area and elsewhere (Teshome 2003), whenever farmers and local administrators encounter each other in development and appear as actors to turn development programme scripts into a large and ingenious play. Being conscious of this could help rural development designers and planners to make a more realistic assessment of the predicted and observed impacts of their interventions on people's livelihoods.

Acknowledgements

Kaatje Segers' research is funded by a Ph.D. grant of the Flemish Interuniversity Council (VLIR). We would like to thank the anonymous reviewers for their valuable comments. We are grateful to all informants in regional and district administrations and to the sub-district authorities, development agents and farmers. Special thanks to Girmay Haylemariam and Yikunoamlak Teklebirhan for their commitment during fieldwork.

References

Aalen, L. (2002). Expressions of control, fear and devotion: the elections in Mekelle and Wukro, Tigray region. In: S. Pausewang, K. Tronvoll & L. Aalen eds. *Ethiopia since the Derg: a decade of democratic pretension and performance*. Zed Books, London: 83-99.

Teferi Abate Adem (2004). 'Decentralised there, centralised here': Local governance and paradoxes of household autonomy and control in north-east Ethiopia, 1991-2001. *Africa* 74 (4): 611-632.

Abbink, J. (2006). Discomfiture of democracy? The 2005 election crisis in Ethiopia and its aftermath. *African Affairs* 105 (419): 173-199.

Berhanu Abegaz (2004). Escaping Ethiopia's poverty trap: the case for a second agrarian reform. *The Journal of Modern African Studies* 42 (3): 313-342.

Yohannes Abera (2004). Problems of the solution: intervention into small-scale irrigation for drought proofing in the Mekele Plateau of northern Ethiopia. *Geographical Journal* 170: 226-237.

Aspen, H. (1994). Crisis and the management of knowledge: a tentative approach to the crisis of the Ethiopian peasantry. In: B. Zewde, R. Pankhurst & T. Beyene eds. *Proceedings of the 11th international conference of Ethiopian studies*. 9-27.

Meheret Ayenew (2002). Decentralization in Ethiopia: two case studies in devolution of power and responsibilities to local government authorities. In: B. Zewde & S. Pausewang eds. *Ethiopia*:

the challenge of democracy from below. Nordiska Afrikainstitutet, Uppsala & Forum for Social Studies, Addis Ababa: 130-146.

Gebre A.B. Barnabas & Zwi, A. (1997). Policy development in wartime: Establishing the baito health system in Tigray, Ethiopia. *Health Policy and Planning* 12 (1): 38-49.

Seleshi Bekele Awulachew, Merrey, D., Kamara, A., Van Koppen, B., Penning de Vries, F., Boelee, E. & Makombe, G. (2005). *Experiences and opportunities for promoting small-scale/micro irrigation and rainwater harvesting for food security in Ethiopia*. Working paper no. 98. International Water Management Institute, Colombo.

Kassa Belay (2002). Constraints to agricultural extension work in Ethiopia: the insiders' view. *South African Journal of Agricultural Extension* 31: 63-79.

Kassa Belay & Degnet Abebaw (2004). Challenges facing agricultural extension agents: A case study from south-western Ethiopia. *African Development Review-Revue Africaine De Developpement* 16 (1): 139-168.

Aregawi Berhe (2004). The origins of the Tigray People's Liberation Front. *African Affairs* 103 (413): 569-592.

Woldeamlak Bewket (2007). Soil and water conservation intervention with conventional technologies in northwestern highlands of Ethiopia: acceptance and adoption by farmers. *Land Use Policy* 24 (2): 404-416.

Clay, J. (1991). Western assistance and the Ethiopian famine: implications for humanitarian assistance. In: R. Downs, D. Kerner & S. Reyna eds. *The political economy of African famine*. Gordon and Breach, Philadelphia: 147-175.

Clay, J.W. & Holcomb, B.K. (1986). *Politics and the Ethiopian famine 1984-1985*. Cultural Survival, Cambridge.

de Certeau, M. (1984). *The practice of everyday life*. University of California Press, Berkeley.

Dercon, S., Hoddinott, J. & Tassew Woldehanna (2005). Shocks and consumption in 15 Ethiopian villages, 1999-2004. *Journal of African Economies* 14 (4): 559-585.

Devereux, S. & Sharp, K. (2006). Trends in poverty and destitution in Wollo, Ethiopia. *Journal of Development Studies* 42 (4): 592-610.

Duffield, M. & Prendergast, J. (1994). *Without troops and tanks: humanitarian intervention in Ethiopia and Eritrea*. The Red Sea Press, Lawrenceville.

Berhanu Gebremedhin, Hoekstra, D. & Azage Tegegne (2006). *Commercialization of Ethiopian agriculture: extension service from input supplier to knowledge broker and facilitator*. IPMS (Improving Productivity and Market Success) of Ethiopian Farmers Project Working Paper no. 1. ILRI (International Livestock Research Institute), Nairobi.

Berhane Hailu & Mitiku Haile (2001). Liberating local creativity: building on the 'best farming practices' extension approach from Tigray's struggle for liberation. In: C. Reij & A. Waters-Bayer

eds. *Farmer innovation in Africa: a source of inspiration for agricultural development*. Earthscan, London: 310-324.

Hammond, J. (1999). *Fire from the ashes: a chronicle of the revolution in Tigray, Ethiopia, 1975-1991*. The Red Sea Press, Lawrenceville.

Hammond, L. & Maxwell, D. (2002). The Ethiopian crisis of 1999-2000: lessons learned, questions unanswered. *Disasters* 26 (3): 262-279.

Hendrie, B. (1989). Cross-border relief operations in Eritrea and Tigray. *Disasters* 13 (4): 351-360.

Hendrie, B. (1993). The impact of war in Tigray province, Ethiopia. In: T. Tvedt ed. *Conflicts in the horn of Africa: human and ecological consequences of warfare*. EPOS, Uppsala: 85-98.

Hendrie, B. (1999). *Now the people are like a lord*. Doctoral dissertation. University College London, London.

Keeley, J. & Scoones, I. eds. (2003). *Understanding environmental policy processes: cases from Africa*. Earthscan, London.

Landell Mills (2004). *Evaluation of the water harvesting schemes component of the EC funded programmes IFSP 1998 and IFSP 2000 in Tigray regional state*. Final evaluation report, updated version, 11 May 2004.

Lanz, T.J. (1996). Environmental degradation and social conflict in the northern highlands of Ethiopia: the case of Tigray and Wollo provinces. *Africa today* 43 (2): 157-182.

Gebreegziabher Lemma Hagos (2005). *The role of household ponds on the expansion of homegardens in Tigray, Ethiopia*. Unpublicised M.Sc. thesis. Mekelle University, Mekelle.

McCann, J. (1995). *People of the plow: an agricultural history of Ethiopia, 1800-1990*. University of Wisconsin Press, Madison and London.

Milas, S. & Latif, J.A. (2000). The political economy of complex emergency and recovery in northern Ethiopia. *Disasters* 24 (4): 363-379.

MoARD (2004). *Productive Safety Net Programme: programme implementation manual*. Government of the Federal Democratic Republic of Ethiopia, Ministry of Agriculture and Rural Development, Food Security Co-ordination Bureau, Addis Ababa.

Fredu Nega, Zaid Negash, Kidanemariam Gebregziabher, Abebe Ejigu, Mihret Berhanu, Nyssen, J., Bedru Babulo, Deckers, J. & Tollens, E. (2006). *Participatory Rural Appraisal report of selected villages in Tigray*. Tigray Livelihoods Paper no. 2. VLIR - Mekelle University IUC Programme.

Nichola, T. (2006). The food security problem in Ethiopia - A supply side analysis. *South African Journal of Economics* 74 (2): 315-322.

Pausewang, S. (2002b). No environmental protection without local democracy? Why peasants distrust their agricultural advisers. In: B. Zewde & S. Pausewang eds. *Ethiopia: the challenge of*

democracy from below. Nordiska Afrikainstitutet, Uppsala & Forum for Social Studies, Addis Ababa: 87-100.

Pausewang, S., Tronvoll, K. & Aalen, L. eds. (2002a). *Ethiopia since the Derg: a decade of democratic pretension and performance*. Zed Books, London.

Dessalegn Rahmato (2003). *Poverty and agricultural involution*. Forum for Social Studies, Addis Ababa.

Rämi, H. (2003). *Ponds filled with challenges: water harvesting experiences in Amhara and Tigray*. UN Office for the Coordination of Humanitarian Affairs (OCHA) Ethiopia, Addis Ababa.

Reid, R. (2003). Old problems in new conflicts: some observations on Eritrea and its relations with Tigray, from liberation struggle to inter-state war. *Africa* 73 (3): 369-401.

Woldeab Teshome (2003). *Irrigation practices, state intervention and farmers' life-worlds in drought-prone Tigray, Ethiopia*. Doctoral dissertation. WUR, Wageningen.

UNDP (2007). <http://hdr.undp.org/hdr2006/statistics>. Accessed on 01/07/2007.

van den Berg, M. & Ruben, R. (2006). Small-scale irrigation and income distribution in Ethiopia. *Journal of Development Studies* 42 (5): 868-880.

Fekadu Wondumagegnehu, Raes, D., Alemtsehay Tsega, Dereje Ashebir, Hailemariam Tekie, Addisu Gebre, Mewael Kiros, Nyssen, J. & Deckers, S. (2007). *Household water harvesting structures in Giba catchment*. Tigray Livelihoods Paper. VLIR - Mekelle University IUC Programme, Mekelle.

World Bank (2005). *Well-Being and poverty in Ethiopia: the role of agriculture and agency. Green cover*. no. 29468-ET. Poverty Reduction and Economic Management 2 (AFTP2), Africa Region, World Bank, Washington DC.

World Bank (2007). <http://go.worldbank.org/WA1RL12OL0>. Accessed on 01/07/2007.

Young, J. (1996). The Tigray and Eritrean Peoples Liberation Fronts: a history of tensions and pragmatism. *The Journal of Modern African Studies* 34 (1): 105-120.

Young, J. (1997a). *Peasant revolution in Ethiopia: the Tigray People's Liberation Front, 1975-1991*. Cambridge University Press, New York.

Young, J. (1997b). Development and change in post-revolutionary Tigray. *The Journal of Modern African Studies* 35 (1): 81-99.

¹ In full the programme under discussion is the Water Harvesting Schemes Component of the 1998 and 2000 Integrated Food Security Programmes, which are funded by the European Community and support the Comprehensive Community and Household Asset Building Approach (CCHABA) for improved food security. It is referred to as the Rainwater Harvesting Pond Programme. However the abbreviation RHPP is the authors'.

² The main rainy season in Degua Temben extends from June to September, but is preceded by three months of dispersed, less intense and less reliable rains. Average yearly precipitation is 769 mm.

³ 26862 households is the most recent official number available in the district, but might be an overestimation. The official number of households in the sub-district under study for instance is an over 40 % overestimation of the actual number of households living in the sub-district.

⁴ Currently Bureau of Agriculture and Rural Development.

⁵ Currently Bureau of Water Resources, Mines and Energy.

⁶ These target numbers are a revision of the initial target numbers set at the regional level, which were even higher (1200 ponds in 2003 and 4800 in 2004).

⁷ Currently Bureau of Agriculture and Rural Development.

⁸ Currently Bureau of Water Resources, Mines and Energy.

⁹ Currently district level responsibilities for the RHPP are with the Bureau of Agriculture and Rural Development only.

¹⁰ In the course of 2003 the number of foremen was reduced to one per sub-district, employed by the Water Resources Development Bureau.

¹¹ Out of 85 ponds planned for 2003 and 2004 56 were actually constructed in the sub-district during this period and the target for 2005 was set at 190 additional ponds.

¹² Households with both public work and direct support quota (e.g. able-bodied adult who takes care of an orphan) are counted in both groups.

¹³ 1 ETB = €0.087 in January 2007.

¹⁴ Cut back to 0.45 l oil in May 2006.

¹⁵ In the course of 2005 and 2006 additional PSNP public work quota have been allocated to the district and divided to the sub-districts. The sub-district under study at first received 132, then 351 and later 190 additional quotas.

¹⁶ We remain in the dark on whether the idea to link participation in the PSNP to participation in the RHPP has originated on the sub-district or on the district level. Definitely the measure has been approved on both levels and has been applied to overcome the RHPP deadlock in other sub-districts in Degua Temben as well. However decision-making in Degua Temben is such that for any measure to be implemented in a sub-district its acceptance by the sub-district responsible bodies is a prerequisite. Therefore the decision is reasonably considered theirs.

¹⁷ Readiness to dig a pond is not the only PSNP targeting criterion laid down at the sub-district level. Participants in other rural development programmes (micro credit programmes among others) have been positively discriminated for inclusion in the PSNP as well. However the development agent cited here was talking about the RHPP only.

¹⁸ To illustrate, a small systematic survey of rainwater harvesting ponds and their owners has been done in one village of the sub-district. The village where we enjoyed people's confidence mostly was selected for this purpose.

¹⁹ Other authors too (Gebreegziabher Lemma Hagos 2005, Fredu Nega *et al.* 2006, Fekadu Wondumagegnehu *et al.* 2007) note pond failures in Tigray as well, but do neither distinguish between ponds of different ages and/or ponds built under different incentive-regimes nor explain the co-existence of successes and failures.

²⁰ An analogous argument could lead to the conclusion that developers do not bother about the quality of soil and water conservation structures built within the framework of the PSNP public work component as they are out to reach rainwater harvesting pond quotas only. This conclusion is obviously false as these same people are equally responsible for achieving targets concerning the soil and water conservation activities that PSNP beneficiaries carry out under their direction. PSNP beneficiaries in general care less about the soundness of their work than about the food they get in return. However this is a known drawback in food-for-work programmes and outside the scope of this paper.