Demobilization, Land and Household Livelihoods

Lessons from Ethiopia

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Daniel Ayalew, Stefan Dercon and Pramila Krishnan

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Daniel Ayalew is affiliated with the Addis Ababa University; Stefan Dercon with Katholieke Universiteit, Leuven and the Centre for the Study of African Economies, University of Oxford; and Pramila Krishnan with the Centre for the Study of African Economies, University of Oxford.

Abstract: With the overthrow of the Derg in 1991, some 500,000 ex-soldiers needed to be demobilized and reintegrated back into their communities. Successfully integrating such a large number of ex-soldiers is clearly important to social stability. While carefully targeted assistance is necessary, conditions in the rural and urban economies at the time of demobilization are also critical to ex-soldiers and the reconstruction of their livelihoods. This paper therefore pays close attention to land tenure and to the urban labour market, and their implications for reintegrating ex-soldiers back into the community. Data from four recent household surveys are used for this purpose. On the basis of the data analysis, the paper concludes that the demobilization and reintegration programmes achieved some success. Ex-soldiers returning to their rural communities did not, by and large, face major problems in gaining access to land. State ownership of land facilitated the reintegration process. However, lack of a land market does pose problems, and tensions over land may increase. Ex-soldiers have below average holdings of livestock (a key asset for rural livelihoods) reflecting difficulties in livestock provision in the reintegration programme. Moreover, ex-soldiers who entered the urban economy encountered a tough labour market and many became unemployed. In summary, young people have few livelihood opportunities in either rural or urban Ethiopia, a situation that must be remedied if social conflict is to be avoided and poverty reduced.

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1. Introduction

Ethiopia has undergone radical political and economic change over the last three decades. After the 1974 revolution, which brought the emperor down, a military government - the Derg - nationalized major enterprises and land. Economic controls, including restrictions on agricultural trade and heavy taxation of the rural economy, were also imposed. Armed conflict with separatist movements increased in the 1980s, while drought, war and an inadequate disaster relief policy resulted in widespread famine over 1984 and 1985. The war intensified towards the end of the 1980s, especially in the northern regions, and economic conditions worsened. Economic reform began in 1988 with partial liberalization, including some agricultural market reform. But by 1990 the Derg's position was precarious, and it was overthrown by rebel forces in 1991. The Ethiopian People's Revolutionary Democratic Front (EPRDF), a loose grouping led by the Tigray People's Liberation Front (TPLF), took Addis Ababa, while the Eritrean People's Liberation Front (EPLF) took control of Eritrea.

The process of demobilizing ex-soldiers and reintegrating them back into their communities started almost immediately. Up to 500,000 were eventually demobilized, including 100,000 ex-combatants who were repatriated from camps in neighbouring countries.[1] Successfully reintegrating such a large number of ex-soldiers is clearly important to social stability. While carefully targeted assistance is necessary, conditions in the rural and urban economies at the time of demobilization are also critical to ex-soldiers and the reconstruction of their livelihoods. In this regard, two factors are of key importance.

The first is access to land, an asset of crucial importance in a rural economy with few off-farm employment opportunities. The ability of ex-soldiers to re-establish themselves in the rural economy largely depends on the availability of land to them, together with such important assets as livestock. But land is a longstanding and highly sensitive issue in Ethiopia; the rallying cry 'land to the tiller' was one of the unifying factors in the downfall of the imperial government in the 1974 revolution, and the subsequent land reform. Thus, land policy - in particular the thorny issue of state ownership of land - must be considered.

For ex-soldiers seeking to establish themselves in urban areas, the state of the urban labour market is of key importance. Wages and employment opportunities are affected by macro-economic conditions, in particular by the Economic Rehabilitation and Reconstruction Programme (ERRP) that began in October 1992. This initiated a new phase in Ethiopia's transition from state socialism to a market economy. The accompanying trade and exchange liberalization, the devaluation of the birr, and the start of other structural reforms - including gradual privatization - all affected the urban labour market. The fiscal reform entailed a major retrenchment of public-sector workers and therefore reduced the number of urban job opportunities.

This paper therefore pays close attention to land tenure and to conditions in the urban economy, and the implications of both for reintegrating ex-soldiers back into the community. To this end, we use data from four recent household surveys. The first consists of a survey of 1500 households in seven towns conducted in 1994 by the Economics Department of Addis

[1] Unfortunately the border war with Eritrea that broke out in May 1998 led to a new mobilization and a large increase in military expenditures in both countries.

Ababa University with Gothenburg University (henceforth referred to as EUHS, 1994 and 1997). Data from a 1989 Youth Employment survey conducted by the Ministry of Labour is also used (Ministry of Labour, 1990). The third data set consists of a survey of 1477 households across fifteen villages. It was conducted by the Economics Department of Addis Ababa University and the Centre for the Study of African Economies, Oxford University (ERHS, 1994/95). Finally we draw upon data from a survey of about 12,000 households - the Welfare Monitoring Survey - conducted by the Central Statistical Authority in 1995/96 (WMS, 1995/96).

The structure of this paper is as follows. In section 2 we describe and assess the objectives of the demobilization and reintegration programmes and their implementation. We find that the programmes achieved some success and that administration costs were low. In section 3, we focus on the outcomes for ex-soldiers who entered the urban economy; they encountered a tough labour market and many became unemployed. In section 4, we use micro-level evidence to study the efficiency of the targeted aid to ex-soldiers and the extent of their reintegration in the rural economy. We establish that, by and large, ex-soldiers have not faced major problems in gaining access to land. However, they do have lower holdings of livestock, in part reflecting difficulties in livestock provision in the reintegration programme. Section 5 delves further into the issue of land access. We find that state ownership of land facilitated the reintegration process. However, the lack of a land market does pose problems, and underlying tensions over land may increase. Section 6 concludes the paper by setting out the lessons that emerge from the Ethiopian experience. In particular, we emphasize the plight of young people who have few livelihood opportunities in rural and urban Ethiopia, a situation that must be remedied if social conflict is to be avoided and poverty reduced.

2. The Design and Implementation of Demobilization

The defeat of the Derg's army and the demise of the regime in May 1991 left about half a million soldiers dispersed across the country. Most ex-soldiers returned to their homes by themselves but some fled to Sudan and Kenya. In July 1991, the Transitional Government of Ethiopia (TGE) decided to formally demobilize the defeated Derg army; it posed a security threat and a large force was now unnecessary and expensive to maintain (Colletta *et al*., 1996 and ILO, 1995). The 'Commission for the Rehabilitation of Members of the Former Army and Disabled War Veterans' was therefore established.

Former Derg soldiers were asked to report for formal demobilization at nine discharge centres across the country. In response, 455,000 ex-soldiers reported and then assembled for registration and pre-discharge reorientation. About 50,000 ex-combatants did not report, and were thus excluded from reintegration assistance. In the summer of 1992 fighting broke out between EPRDF forces and the Oromo Liberation Front (OLF) - one of the initial members of the transitional government - and 22,200 OLF fighters were subsequently captured. These too had to be reintegrated. Finally, the Ethiopian National Defence Forces (ENDF) were reorganized with the aim of achieving ethnic diversity; this led to the demobilization of up to 30,000 EPRDF soldiers (mainly Tigrayans). In total, the commission was responsible for the demobilization and reintegration of 509,200 ex-combatants and war veterans.

The commission collected socio-economic data on the ex-combatants in the discharge centres; this helped to identify and classify them into different target groups. Most were

young - between the ages of 20 and 25 - and had a relatively high level of formal education by Ethiopian standards.[2] Half of them were married and slightly over half of them had children to support (Dercon and Daniel, 1998, Colletta *et al*, 1996).

The commission classified the transition from soldier to civilian into three interrelated stages: demobilization, resettlement and reintegration. Resettlement referred to assisting the return of the ex-soldiers to their communities, while reintegration referred to the longer-term process of returning the ex-soldier to "normal civilian life" within the community. The commission provided a "transitional safety net" package - consisting of cash and in-kind assistance - to surmount the immediate problems of resettlement.[3] This was given to all ex-combatants, including OLF fighters and ENDF ex-soldiers. The socio-economic reintegration programme was, however, restricted to the disabled and to those who had served more than 18 months. It was assumed that ex-soldiers with less than 18 months service required less orientation and assistance to start a normal civilian life (Commission, 1994). Assistance at this stage was also quite minimal - concentrating mainly on meeting basic needs - given the large number of ex-soldiers and the programme's limited resources. Socio-economic data collected at the discharge centres was used to classify ex-combatants into four categories - rural settlers, urban settlers, disabled ex-combatants, and war veterans covered under the pension scheme - and each group had its own reintegration programme to meet its specific needs.

The rural reintegration package assisted around 170,000 ex-soldiers. They received a plot of land and basic agricultural inputs including implements, seeds and fertilizer. Plough oxen and heifers were supplied only to the most vulnerable groups (Commission, 1994). The commission claimed that almost all of eligible persons received land and basic agricultural tools and implements, while those involved in sedentary agriculture received seeds and fertilizers. The commission initially planned to provide one ox or one heifer per head, but in the event only one third of the rural settlers received an ox or a heifer.

The urban reintegration programme included nearly 100,000 ex-soldiers who either came from urban areas or were used to an urban way of life through long years of military service. They received help in returning to public and private sector employment, skill certificates, vocational training in marketable skills, and soft loans.[4] The reintegration of the urban group proved to be difficult given their lack of marketable skills and the tight labour market. We discuss this in detail in section 3.

About 37,000 of all demobilized soldiers were classified as disabled. More than half were, after some rehabilitation, included in the urban and rural programmes, while the more severely impaired were covered by a pension scheme. The pension scheme also covered about 10,000 ex-soldiers older than 45 years.[5]

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[2] See Dercon and Daniel (1998) and Daniel and Dercon (1998) for a detailed comparison of the educational attainment of ex-soldiers and their civilian counterparts. This comparison is undertaken using the 1994 census results and the Ethiopian Rural Household Survey.

[3] For details on the breakdowns of the resettlement allowance see Daniel and Dercon (1998), Colletta *et al*. (1996) and Commission (1994).

[4] A detailed analysis of the magnitude and actual implementation of the urban reintegration support can be found in Daniel and Dercon (1988), Dercon and Daniel(1998) and Colletta *et al*. (1996).

[5] Donors and NGOs implemented additional support programmes in collaboration with the commission (NGO Networking Service, 1996). The main ones were the German Technical Co-operation (GTZ), Catholic Relief

The demobilization and reintegration programme was generally seen as a success by the government and the donors. More than 70 per cent of the demobilized soldiers reportedly obtained some assistance at a cost of about $200 per demobilized soldier. The government covered about 45 per cent of the total cost of the programmes. The administrative costs were kept to less than 10 per cent of the budget, indicating that the available resources were used efficiently (Colletta *et al*., 1996).

3. Demobilization and the Urban Labour Market

About 43 per cent of the eligible ex-soldiers (about 160,000) chose to settle in urban areas after demobilization. There is no systematic record of how many soldiers recruited from rural areas choose to settle in urban areas. However, the small ERHS 1994/95 sample suggests that more than 85 per cent of ex-soldiers returned to the rural areas. Allowing for war casualties, this indicates that most ex-soldiers returned to their home villages and that ex-soldiers in the urban reintegration programme mostly originated from urban areas.

Ex-soldiers found a much-changed urban labour market. At the end of the 1980s, the public sector was by far the most important employer and, in general, wage employment was more important to urban incomes than self-employment or informal-sector employment. But the economic reforms of the 1990s altered this picture.[6] Retrenchment and an end to job guarantees to university graduates and school leavers resulted in a substantial reduction in public employment. By the early 1990s, urban job opportunities were under severe pressure, and this was compounded by the addition of a large number of demobilized soldiers.

Table 1 provides information on employment and unemployment in the larger cities for the period 1990 to 1997 from the EUHS and the Youth Employment survey. The data are for men between 15 and 29 years of age - the most relevant age group for ex-soldiers since most were below 25 years of age when demobilized. Table 1 shows that the public sector was the most important employer in 1989, while participation rates appear relatively low, consistent with more young people staying in full-time education. By 1994, participation had increased considerably. This is consistent with census and WMS evidence that shows large increases in drop-out rates from high schools in the early 1990s. Public sector employment declined considerably after 1990 while there was some increase in self-employment and private sector employment.[7] Unemployment declined slightly by 1997. However, youth unemployment rates remain very high.

Society, the Ethiopian Rehabilitation Fund initiated by the World Bank and OXFAM (UK/Ireland). Daniel and Dercon (1998) discuss these programmes and the target groups of the respective agencies in more detail.

[6] Bevan (1999) discusses the fiscal aspects of reform in Ethiopia, while Alemayehu (1999) discusses financial reform.

[7] If all adult men are considered, unemployment is smaller and public sector employment rate is still higher, confirming the conclusion that new recruitment into the public sector is much smaller than before, although retrenchment has also added to the decline in public sector employment. Note that evidence including the large number of smaller towns across Ethiopia in the WMS suggests overall unemployment rates to be lower and self-employment higher. Nevertheless, the overall picture is the same in that survey.

Table 1. Employment and Unemployment (large cities) 1990-1997 – Men of 15-29 years

	1990	1994	1997
Unemployment rate (% of labour force)	34.3	55.4	51.4
Public (% of labour force)	42.7	12.9	13.8
Private (% of labour force)	14.0	19.4	24.4
Self (% of labour force)	9.1	12.4	10.4
Participation rate (% of sample)	37.3	54.8	47.7
Sample size	1535	1332	1598

Source: Ministry of Labour (1990), EUHS (1994 and 1997). See Dercon, Krishnan and Tesfayi (1998) for details on the data and the calculation of these measures.

We have no survey evidence on the extent to which demobilized soldiers found employment in urban Ethiopia. However, information about their skills and qualifications gives us an impression of their opportunities. While 10 per cent of the Derg's army did not have any schooling, almost 50 per cent had attended primary school - this is much higher than the national average, although it is below the urban average. Nevertheless, this was not much of an advantage for ex-soldiers; unemployment among primary and secondary school leavers is very high. Unemployment is 54 per cent among male workers who have completed secondary education (EUHS data).

Table 2. Distribution of Male Workers Across Sectors by Education

	Less than primary 1994	Completed primary 1994	Completed secondary 1994	Completed tertiary 1994
Unemployed	15.5	33.6	54.1	19.0
Public sector	17.3	21.5	23.8	56.7
Private sector	32.0	24.6	12.2	15.6
Self employed	35.2	20.4	9.8	8.7

Source: EUHS (1994).

Why are so many educated workers unemployed? Some unemployment appears to be the result of high reservation wages, in turn linked to high public sector wages and the willingness to queue for such opportunities - over half the unemployed want only a public sector job (Dercon, Krishnan and Tesfayi, 1998). Most of the unemployed (80 per cent) still live with their parents or other close relatives, suggesting that they can rely on social and income support, thereby enabling them to search for the better paid jobs (EUHS, 1994 and WMS, 1995/96). Youth unemployment increased as long as university graduates - and by extension secondary school leavers - were guaranteed public sector employment. However, the levels have stayed high despite the removal of job guarantees. It is striking how few graduates have been absorbed into the private sector or have become self-employed. Dercon, Krishnan and Tesfayi (1998) find that negative attitudes towards private- and self-

employment may play a role, especially for some ethnic and social groups. However, the relatively low levels of private sector job creation and investment in recent years must have contributed to the rise in unemployment among skilled workers.

The commission attempted to help ex-combatants resume their previous jobs or to find public sector employment, but this was clearly difficult in the context a labour market adjusting to economic reform. In their review of the demobilization experience, Colletta *et al* (1996) comment that it was relatively 'complex and difficult' for the commission owing to the 'tightness of the labour market' and the lack of marketable skills among ex-combatants. Nevertheless, about 40,000 demobilized soldiers obtained temporary jobs on contract to the public sector, mostly in agricultural and construction activities. Others found employment in the Ministry of Health or were integrated into the new army (the ENDF). Some were helped to continue their education and a small number were helped to enter self-employment. But many most likely joined the army of the unemployed.

In a country only recently emerging from the traumas of civil war, this is a dangerous situation. Young people, with little hope of future work, may well engage in opportunistic behaviour, and perhaps remain as an army in waiting. This is not a plea for active labour market policies or for public-sector job creation schemes. While they may have a role to play in some contexts, the lack of private sector and self-employment growth in recent years is at the core of the problem. Note also that increasing human capital via education is not a solution when unemployment among skilled workers is so high. Again, more rapid growth in private-sector job opportunities is necessary for human capital investment to realize its potential. Unfortunately, the reform programme's record in generating employment has been disappointing.

4. The Reintegration of Former Soldiers into Rural Communities

The rural economy provides a livelihood for more than 85 per cent of the population. Land remains the crucial asset for survival since land productivity is generally low - reflecting the limited adoption of new agricultural technologies - and the non-farm economy is underdeveloped. Data from the 1994 ERHS suggest that the average holding is about 0.25 hectares per capita. Despite land reform in 1975, inequality in land ownership continues to exist; the richest quintile's land holdings are about double the size of those of the poorer quintile.

This picture of asset poverty is confirmed by many other indicators as well. Rural households have on average less than one oxen per household, while most farming systems require oxen-pairs. The main asset used for savings and accumulation is livestock, but average livestock values per capita are about 300 birr ($ 50). Levels of human capital are very low as well. Rural literacy rates for men are only about 25 per cent; for women the rate is below 10 per cent (people above 10 years of age, WMS, 1995/96). Rural households live about 25 km from the nearest telephone, 20 km from the nearest public transport and 10 km from the nearest basic health facility, on average. For all these indicators, the poorest quintiles are systematically much worse off than better off households (WMS, 1995/96).[8]

[8] Bigsten (1999) discusses the challenge of poverty reduction in Ethiopia.

The majority of soldiers came from the rural areas and many decided to return there; 85 per cent returned to their original village. Only those with personal and social links to the urban areas had an incentive to stay on and search the urban job market. In per capita terms, rural soldiers received less help than urban soldiers – 50 per cent less than the urban reintegration programme (Colletta *et al*., 1996). Given the incidence and depth of rural poverty this could imply that rural ex-soldiers are more vulnerable than urban ex-soldiers (see Bigsten, 1999, and Dercon and Mekonen, 1997, on rural poverty). However, this is not necessarily the case; the greater prevalence of informal safety nets in rural communities may make it easier for rural ex-soldiers to reintegrate than urban ex-soldiers. Thus, whether rural or urban ex-soldiers are better off is not as important an issue as whether ex-soldiers managed to reintegrate into their communities, be they rural or urban.

To understand how rural ex-soldiers fared, we use the ERHS. This is not specifically targeted to investigating ex-soldiers but the survey's random sample was large enough to include 132 ex-soldiers (although detailed information is available for only 114 individuals). Of the 132 ex-soldiers, 95 belonged to the Derg army and 8 to the EPRDF force, while the rest belonged to an unspecified force - probably the Derg army. The ERHS yields information on the respondent's military history, the support they received during demobilization and the living standard of the ex-soldier's household. This makes the data set unique: it allows us to study ex-soldiers in relation to their communities and to compare living standards across households which do and do not contain former soldiers.

Most of the ex-soldiers in the sample were young, which is consistent with the overall profile of ex-soldiers. Around 70 per cent were between 17 and 35 years of age in 1994 (three years after the Derg's fall). There were no female ex-soldiers in our sample (about 5 per cent of the Derg soldiers were female). About 60 per cent were household heads, and households averaged 5.5 people. About 80 per cent of the ex-soldiers did not suffer from any chronic or major disabilities.[9] Two thirds of the households reported that they were badly affected by the departure of the household's male labour during the war. One-third of households hired labour to replace the conscript.

The Efficiency of Targeted Assistance

Those who returned from the army were asked by the ERHS survey whether they received any assistance in the form of land, cash and in-kind help, from the government or NGOs. It is, however, difficult to distinguish between resettlement and reintegration assistance, as in the survey they were not asked to differentiate between the two. In general, the provision of agricultural land was part of the reintegration programme, which was intended only for those soldiers who served more than 18 months. We can therefore investigate the targeting of assistance further on the basis of one of the commission's targeting criteria - the duration of stay in the army. We use this characteristic to classify ex-soldiers in the ERHS sample.[10] This

[9] Mental illness is one of the major disabilities, and is higher among ex-soldiers than in the population as a whole. Otherwise, most were at least physically fit to work: more than 90 per cent of the sample reported that they could easily hoe a field for a morning.

[10] As the war was severe and prolonged, most of the Derg ex-soldiers served in the armed force for many years. Colletta *et al* (1996) report that only 15.4 per cent (70,162) served less than 18 months. Former OLF fighters served for shorter periods, since many of them joined after the Derg's defeat. In the rural sample, about 30 per cent of all ex-soldiers served less than 18 months.

provides us with a possible way to assess the targeting efficiency of the commission, although our sample is small in comparison to the total number of demobilized soldiers for conducting an overall evaluation of the programme.

About 61 per cent of demobilized ex-soldiers in the sample received assistance from the government, NGOs or both. This includes 47 per cent who received land (with an average size of 0.77 hectares per ex-soldier). Table 3 summarizes the findings. In addition, 22.8 per cent and 32.5 per cent obtained cash and in-kind assistance, equal to birr 340 and birr 105 on average, respectively. Overall, around 44 per cent secured cash and/or in-kind assistance, amounting to birr 260 on average for those receiving support. This figure of birr 260 is quite consistent with the gross per capita cost for the rural reintegration programme by the commission (birr 307) which includes administration costs. However, it is remarkable that about 40 per cent did not obtain any assistance, but in principle all ex-soldiers should have received birr 137 and a food ration for about 10 months (see Colletta *et al*, 1996).[11] Moreover, the distribution of support was skewed toward a relatively small number of individuals - the median value of the distribution of those receiving support in the form of cash or in-kind assistance is only birr 103.

Table 3. Types of Assistance and Beneficiaries

Type of assistance	Percentage of ex-soldiers receiving support	Amount[a]	% benefiting with less than 18 months service (30%)	% benefiting with more than 18 months service (70%)
Land	47.4	0.77	59.4	43.1
Cash	22.8	340.2		
In-kind	32.5	105.0		
Cash or in-kind	43.0	259.8	37.5	45.8
Any assistance	61.4		65.6	59.7

[a] Land is measured in hectares, and cash and in-kind assistance in Ethiopian birr. Means are for those receiving assistance. The exchange rate at the time of demobilization was 5 birr per US dollar. Note the minor differences in the figures from those of Table 2 of Dercon and Daniel (1998). These differences are due to an update following the availability of additional data from one of the survey sites.

Assistance under the socio-economic reintegration programme was intended only for those with more than 18 months service in the army or rebel forces. However, our analysis shows that in fact only 60 per cent of this target group received assistance from any source. Of these, 43 per cent obtained land and 46 per cent received cash and/or in-kind assistance. In other words, about 40 per cent of the target group were not covered under either of these schemes. Moreover, our sample indicates that among those with less than 18 months of military service, more than half received assistance in the form of land - thus contradicting the commission's targeting criterion (see Dercon and Daniel, 1998). In terms of magnitude, the means for each group are not statistically different, although those serving longer should have received additional assistance from the reintegration programme**.** Also, it should be noted that demobilized soldiers in our sample are not landless or at least that they belong to a household that has its own land; despite the fact that less than 50 per cent received land on their return

[11] It is possible that some ex-soldiers did not receive any assistance because they did not report at a discharge centre, but the commission claimed that this applied to only about 15 per cent of ex-soldiers. Leakage is also a possibility, as are problems arising from an imperfect distribution of assistance across discharge centres.

home. This is because many soldiers retained access to land when they were in service, for reasons discussed in section 5.

In summary, the pattern of assistance was not entirely in accordance with the principles for targeting assistance as set out in the demobilization plan. However, we must be cautious given that our sample size is small in comparison to the total number of demobilized soldiers. The programme's targeting efficiency was far from perfect and the possibility of leakage in programme implementation cannot be easily dismissed. Better targeting of assistance could have reduced costs, but this would have increased administrative expenses as well; the authorities were successful in keeping these to a low level.

Some Welfare Level Indicators

Failure to reintegrate ex-combatants into civilian life would have endangered peace and security at both the local and national levels. It would also have wasted the scarce resources committed to the programmes themselves. It is, however, difficult to draw strong conclusions about Ethiopia's experience based on the available information since reintegration is a slow and time-consuming process. Nevertheless, we have some welfare indicators - per capita consumption expenditures and the body mass index (BMI) - that may indicate whether the living standard of ex-combatants is close to that of their communities.[12]

However, a simple comparison is not meaningful without correcting for differences in the characteristics of ex-soldiers and non-soldiers (i.e. those with a civilian background) in the sample. In particular, ex-soldiers are all male, they belong to a particular age group and returned to particular villages in the sample (see Dercon and Daniel, 1998 for further discussion). Accordingly, we calculated weights to be used in the derivation of descriptive statistics for the non-soldiers group to reflect the distribution of the ex-soldiers group using age, sex and survey site as selection criteria. Since the sample of ex-soldiers contains no females, they were excluded from the calculations in the non-soldiers sample. To provide weights correcting for the difference in the age distribution, the ratio of the frequency of a particular age in the soldiers' distribution is divided by the ratio of the frequency of this age in the non-soldiers' distribution.[13]

The comparison between ex-soldiers and civilians is conducted at two different levels. First, we compare the welfare level of ex-soldiers with those of male non-soldiers from all sites. The second and more appropriate approach is to compare the two groups using data from the four villages, where most of the ex-soldiers come from. The four sites in the sample with more than 70 per cent of ex-soldiers are villages near Debre Berhan, Shashemene, Dilla and in Dodota. The age-corrected weights were recalculated using data on the four villages only.

[12] The Body Mass Index is the weight in kilograms divided by the height in meters. For healthy adults above the age of 18 this index can be used as a measure for malnutrition. Values below 18.5 are generally considered to be evidence of some malnutrition, while values below 16.5 can indicate a severe problem. In the ERHS about 25 per cent of males and females are found to be malnourished with a BMI below 18.5 (Dercon and Krishnan, 1998).

[13] Since all soldiers are within the age group 17 - 60, all observations on individuals above this age are excluded. Moreover, individuals that belong to a household with a demobilized soldier are also excluded from the non-soldiers group.

The ex-post welfare level of the families of ex-soldiers is a possible indicator of the success of the reintegration programme The average per capita consumption expenditure of ex-soldiers, in absolute terms, is slightly higher than that of the age-weighted non-soldiers group when data from all sample sites is used. However, we find no statistically significant difference in consumption or nutritional indicators between ex-soldiers and comparable non-soldier families in both cases (see Table 4). This suggests that the reintegration process has been successful. But the mean levels of consumption per capita per month are quite low – less than $ 18 per month per capita and imply considerable poverty.[14] Moreover, about a quarter of adult males are also undernourished (i.e. have a BMI below 18.5). These results imply that ex-soldiers share the deep poverty and pervasive malnutrition found in Ethiopia.

Table 4. Mean Level Comparison of Welfare Indicators

	All sites		Selected sites		Testing the difference in the mean (F-Statistic)	
	Non-soldiers	Ex-soldiers	Non-soldiers	Ex-soldiers	All sites	Selected sites
Consumption expenditures	80.56	89.50	88.42	88.80	0.52	0.00
BMI	19.87	20.23	20.31	20.20	0.05	0.00
Household size	6.96	6.64	6.89	7.10	0.21	0.04

Note: The figures show minor differences from those reported in Dercon and Daniel (1998) for the reasons mentioned in Table 3 and the exclusion of individuals, who belong to households with an ex-soldier, from the non-soldiers group.

Assets and Income-Earning Potential

Current and future welfare is strongly determined by the level of human and physical capital of the ex-soldiers and their families. Table 5 reports the mean holdings of two of the most important rural assets - land and livestock (which also acts as a proxy for other assets). More than 75 per cent of male adults in both groups report their main activity as 'farmer' or 'family farm worker'. Hence land is crucial to the reintegration process. Although less than half the ex-soldiers obtained land, none of them, or the households to which they belonged, were landless in our sample. Across the entire sample, ex-soldiers had 0.41 hectares of land - greater than the average land holding (0.32 hectares) of the non-soldiers group. This comparison, however, may not be sensible since the majority of ex-soldiers belong to sites where land is not relatively scarce. Consequently, we used data from the four selected sites; these showed that ex-soldier families had similar land holdings to comparable non-soldier households. Thus, ex-soldiers do not face greater difficulties in access to land than other adult males. The explanation lies in Ethiopia's land tenure arrangements. Land in Ethiopia is not privately owned and since the land reform in 1975 it has been allocated by village institutions (peasant associations) according to rules set out by law, mainly according to household size (see section 5).

[14] For comparison, the World Bank (1990) suggests that $ 1 per day per capita is needed if someone is to be considered non-poor. At this definition about 80 per cent of the rural population would be poor. Dercon and Krishnan (1998) calculated a (substantially lower) specific poverty line for the sample used in the paper, adjusted to local diets and prices, and still found poverty levels of about 30-40 per cent of the sample.

Table 5. Mean Level Comparison of Assets

	All sites		Selected sites		Testing the difference in the mean (F-statistic)	
	Non-soldiers	Ex-soldiers	Non-soldiers	Ex-soldiers	All sites	Selected sites
Land in hectares	0.32	0.41	0.50	0.49	2.43*	0.00
Value of livestock in birr	304.02	309.00	484.59	323.85	0.01	2.08*

*= Equality of mean rejected at 15 per cent (using test of equality of means with unknown variance). Notice the minor differences in the figures from Dercon and Daniel (1998). The differences are due to the reasons noted in Table 3 and the exclusion of individuals, who belong to households with an ex-soldier, from the non-soldiers group.

Livestock provides a source of draft power and is therefore an important investment in rural Ethiopia. Farmers with less draft power than the average cultivate smaller fields in order to minimize the low level of yields that otherwise occur when preparation of the field is delayed. Livestock provide meat and milk and serve as a means of transportation. Moreover, given the absence of formal insurance and limited credit markets, traditional coping mechanisms are crucial during bad years. Livestock constitute one of the few relatively liquid assets in rural Ethiopia, and can therefore be used to smooth consumption when current output declines. Thus, households without livestock are very vulnerable to non-idiosyncratic negative shocks. A household's livestock holding is therefore a clear sign of wealth, especially since few alternative assets are available for accumulation in rural Ethiopia.

Comparing ex-soldiers and their civilian counterparts using data from the four selected sites (instead of the entire sample) is much more meaningful for the livestock indicator since the majority of ex-soldiers are from the sites where crop cultivation and livestock rearing are relatively important. The results from the four sites indicate that the average value of livestock owned by non-soldiers (birr 485) is 50 per cent larger than that owned by ex-soldiers (birr 324), although the mean difference is statistically significant only at 15 per cent. This may suggest that the households of ex-soldiers are relatively more susceptible to community wide risks.

Finally, we examine literacy rates and participation in off-farm wage employment (important to diversifying income sources). Ex-soldiers have relatively higher levels of literacy than non-soldiers (see Table 6). We found that around two-thirds had attended primary and junior high school and a tenth had attended secondary school. The rest had an adult or other literacy certificate. Hence, the majority had some education and only one-tenth had never attended any school.[15] This is much lower than in the equivalent age group in the entire sample: more than 45 per cent, of those men with a civilian background and with the same age group as the ex-soldiers, had never any schooling. These results suggest that ex-soldiers might have had a comparative advantage in off-farm activities. However, the higher rate of participation in off-farm employment by ex-soldiers is as large as one would expect, taking into account their higher levels of education. The rate of participation in income generating business activities is more or less similar for the two groups (see Table 6).

[15] These survey figures are close to commission data collected at the discharge centres, suggesting an illiteracy rate of 10 per cent, while 50 per cent of ex-soldiers did not get beyond primary school.

Table 6. Literacy Levels and Rate of Participation in Other Activities

	All sites		Selected sites	
	Non-soldiers	Ex-soldiers	Non-soldiers	Ex-soldiers
Level of Education				
Never any schooling	45.9	11.9	31.8	7.1
Adult literacy programme	10.7	12.9	15.8	8.6
Primary school	27.5	41.6	30.8	47.1
Junior high school	5.5	19.8	8.3	29.7
Secondary school	6.7	9.9	8.4	13.0
Higher education	0.9	-	-	-
Other	2.7	4.0	4.8	2.9
Off farm employment [16]	15.6	18.4	10.2	20.0
Income generating business activities[17]	16.5	21.9	26.6	26.3

Note that the figures for non-soldiers are calculated using male adults between 17 to 60 years old, but they are not corrected for the difference in the age distribution.

The results of this section can be summed up as follows. Demobilized soldiers have not faced major problems in gaining access to land; ex-soldier households have similar land holdings to non-soldier households. Reintegration has therefore been successful, at least as far as land is concerned. Two caveats are, however, in order. First, the households of ex-soldiers are more vulnerable to shocks given their lower levels of assets (proxied by livestock) and limited diversification. Second, ex-soldiers have returned to mostly poor communities, and they are as poor as their communities. Thus, they have derived little economic benefit from their time in the army. We would expect better educated adults to earn more, but it appears that the above-average education of ex-soldiers only provides their households with the same level of welfare as that of less educated non-soldiers.

5. Land Tenure in Ethiopia and its Impact on Ex-soldiers and Young Adults

The relatively smooth reintegration of the rural ex-soldiers is remarkable. Much of this is attributable to Ethiopia's land tenure arrangements. At the same time, as we shall argue, these land tenure arrangements are flawed, in particular they marginalize young adults - precisely the age group from which the army was drawn. Thus land policy must be reconsidered despite the extreme sensitivity of the subject, and thus society's natural reluctance to address the issue directly.

Under the monarchy, the land tenure system was largely feudal and encouraged absentee landlords. Lack of assets among the poor made them especially vulnerable to drought, contributing to the Wollo and Tigray Famine in 1974. Land tenure was changed radically after the revolution. Land has been state owned - as the 'collective property of the Ethiopian people' - since 1975. In that year, the new Derg government declared illegal all private

[16] Off-farm employment includes engagement in wage employment and food-for-work programmes, working as a daily labourer and some other professional activities, except traditional labour sharing. The figures are the percentage share of individuals involved in any of these activities in their respective groups.

[17] This category includes income-earning activities such as traditional crafting, collecting and selling of firewood, trades in different types of crops and livestock, etc.

ownership of land, as well as the transfer of land by lease, sale or mortgage. Households could obtain access to land via the local Peasant Association. A Peasant Association consisted of one or more villages and effectively functioned as the local authority, replacing any previous local village powers - they were in various ways and varying degrees controlled by the state. Households had to register with a Peasant Association in order to obtain land. A household could own a maximum of 10 hectares: this was estimated to be the maximum an average household could farm with oxen and tools. In practice, holdings were only about a hectare on average. Land was, in principle, allocated on the basis of household size. When a new household was formed - through marriage or expansion for example - it could ask the Peasant Association for more land. In practice, this often meant that marginal land or land of deceased persons was allocated to these households. Obviously, in areas with population pressure (which is the case in many parts of the highlands, for example in some Southern parts such as Hadiya or Kembata, as well as in some Northern areas), more marginal land was increasingly brought into cultivation. Repeated land re-distribution was needed in many areas as well, although not everywhere. However, about one third of farmers in the ERHS reported having lost some land during the 1970s and 1980s due to land redistribution. While the land reform was meant to secure the access of farmers to land, tenure insecurity remained high in practice.

The situation was precarious in many areas by the end of the 1980s. The practice of continuous land reform was de facto frozen in 1989, as part of the market-orientated reforms undertaken by the Derg. After the Derg was replaced by the TGE there was much public discussion about land reform. It was clear that the issue was enormously sensitive, and that any change in the fundamental principle of state land-ownership was quite impossible. As a consequence, the 1994 constitution de facto restated the Derg principle of state ownership of land. Nevertheless, lease rights became legal - contrary to the Derg legislation - but sales remain illegal. In principle, the risk of leasing out land has been considerably reduced. But policy remains very uncertain, and in some areas land redistribution has again been used to provide land to new claimants.

Demobilization played a role in initiating this new wave of land reform. In many areas, soldiers who were household heads - about 60 per cent in our sample - were able to keep their claims on land. Locals continued to cultivate this land for the family of the soldier, either directly via the Peasant Association and traditional labour sharing arrangements or indirectly via a sharecropping agreement. Furthermore, in areas which provided many conscripts, ex-soldiers found it relatively easy to claim land via the Peasant Associations, since few claims had been made on land belonging to holders who were deceased and without heirs (Yared Amare, 1995). Nevertheless, in some areas the provision of land to demobilized soldiers has been one of the main arguments to justify new land reforms after 1992 - these effectively ended the freeze on land reform, but not without opposition.[18]

State ownership of land therefore facilitated the reintegration programme. However, the land policy is fundamentally flawed and is bound to lead to further tensions. We highlight three problems: inefficiencies associated with the lack of factor markets; the consequences of land tenure insecurity for agricultural investment; and the dependence of young adults on their

[18]In 1997, land reform was implemented in Amhara Region, leading to demonstrations by peasants in Addis Ababa.

families for land, leading to marginalization and frustration for the younger generation. We take each of these points in turn.

The absence of a land market may lead to inefficiencies in the allocation of inputs in production. Land rental and sharecropping could in principle contribute to equalizing input ratios. Sharecropping is very common in Ethiopia.[19] Given the relatively equal land distribution, share tenants are usually farmers with high endowments of male labour and oxen. Since share tenants and owners usually live in the same village, the informational requirements for relatively low-cost monitoring are in place; therefore in principle there is little reason for the usual inefficiencies associated with sharecropping. The ERHS data are used to investigate this further.

First, table 7 gives some data on land distribution in the main cereal-growing areas of the ERHS. Land distribution is closely related to household size, reflecting the consequences of the extensive land reform undertaken over the last few decades.

Table 7. Land Distribution in Ethiopia: Mean Land by Household Size (household size groups chosen to approximate quintiles)

	Southern/Central	North	All
1-3	0.88	1.24	1.14
4-5	1.34	1.85	1.64
6	1.62	1.93	1.78
7-8	1.70	2.79	2.11
8 and more	1.74	2.87	1.98

Source: ERHS (1994).

Despite this broadly equal land distribution, substantial amounts of land are under tenancy. About a fifth of households rent in land under a sharecropping agreement. Renting against a fixed rent in cash or in kind is still not very common: only 2 per cent report renting in land under such a contract. Crop agriculture in the main cereal growing areas depends on oxen traction. Consequently, the main input ratios to be considered involve labour, land and oxen. Table 8 reports the endowment and input ratios for those leasing in land, self-cultivators and those leasing out land.

Note that leasing in or out land is not linked to land abundance as such, but to male labour-land and oxen-land ratios. Those with relatively little male labour and no or few oxen tend to lease out their land. Sharecropping dominates fixed price rentals. Substantial amounts of land are leased in and out. The bottom two rows of the table suggest that quite a remarkable input ratio equalization takes place via these transactions. The number of ploughings and the labour input per unit of land is similar across all farms. In short, the usual inefficiencies associated with land market imperfections or with sharecropping do not appear to be significant.

[19] For a detailed discussion of why sharecropping and not cash rental appears to be used in Ethiopia, see Dercon and Krishnan (1998).

Table 8. Differences in Characteristics by Leasing Land or not

	Leasing in land	Self-cultivators	Leasing out land
Land owned (ha)	1.84	1.62	1.89
Land sharecropping (ha)	0.79	0	0.84
Land fixed rent (ha)	0.06	0	0.06
Oxen-land ratio (no./ha)	1.19	0.78	0.21
Males-land ratio (no./ha)	1.88	2.02	0.92
Number ploughings meher	3.00	2.94	3.02
Labour input meher (days/ha)	56.0	55.1	62.9

Source: ERHS (1994).

The lack of a land market does, however, still have some negative consequences. State ownership of land and the recent re-emergence of land redistribution act as strong disincentives not to invest in land in the long run. Little evidence can be found in the ERHS for any long-term investment in the cereal growing areas. For example, private soil conservation measures or irrigation initiatives are rare. Fertilizer use appears to be entirely geared towards short run gains, even at the cost of land fertility in the long run.

A further problem arises from mechanisms of access to land. A lasting legacy of land reform is that land is considered a guaranteed right by the rural population. Consequently, households have invested little in alternative activities. Increasingly, however, only marginal land was available for newly formed households. In 1989 land redistribution ended, at least temporarily. This has meant that for many years, no new land was available for newly formed households. In some areas, new land redistribution has since taken place, but these initiatives appear to be geared more towards demobilized soldiers, or to fulfil political objectives. While redistribution in general has affected incentives to invest in land, the end to land redistribution to newly formed households implied the closure for this group of their only mechanism for obtaining land.

The consequence is that the younger generation cannot claim new fertile land. If any, only marginal land is available, while there are no mechanisms to allow young adults to invest in land. One crucial consequence is that many young adults end up dependent on their families and their largely inadequate resources, and as a consequence farm plots are subdivided into ever smaller parcels (Dessalegn, 1994 and 1995). This is a problematic legacy of land reform and the lack of any fundamental change in land policy; by denying young adults of the means to gain access to land, a rural group of disenfranchised landless youngsters might well be created.[20]

[20] Recent evidence suggests that this problem is increasing. In a recent participatory study as a background for the World Development Report 2000/01, rural youth were asked to list the main causes of poverty for the young in rural areas. Three of the four reasons listed related to access to land by young families; the fourth to climatic conditions (Dessalegn and Aklilu, 1999, p.37).

6. Conclusions

The Ethiopian experience offers many lessons for other post-conflict societies. We conclude by setting out five of the most important. First, governments must be clearly committed to organizing the demobilization process. They must also allocate sufficient finance and human resources to make it work. In Ethiopia there is clear evidence of a government commitment to demobilization, at least in the period after the fall of the Derg. The government was anxious to start the process, since a large defeated army could pose a political or social threat. Further, the government paid a substantial part of the costs of demobilization (just under half the expenses).

Second, facilitating the return to rural areas is crucial to avoiding pressure on the urban labour market and related problems such as housing shortages and crime. In Ethiopia this was a problem since demobilization took place at a time when urban labour market opportunities were shrinking due to public sector retrenchment. This made it far harder to reintegrate urban ex-soldiers. Demobilization policies therefore need to be consistent with overall economic policy. This may imply sequencing demobilization before the start of large-scale public sector adjustment, if this is possible.

Third, access to land is essential for reintegrating ex-soldiers back into the rural economy. However, this is not easily implemented in an increasingly land-scarce economy, in which land sales and purchases are not possible. In Ethiopia, some ex-soldiers received land at the expense of other households or were provided with marginal and sometimes infertile land. Moreover, it created a new precedent for further land redistribution, and further disenchanted other groups with limited access to land - such as young adults who can only share their parent's land or remain unemployed.

Fourth, access to land - while important - may not be the main constraint facing ex-soldiers returning home to rebuild their livelihoods. Our analysis shows that while ex-soldiers tend to have land holdings similar to their civilian counterparts, they lack other assets. Within the different farming systems, livestock are important productive assets and ex-soldiers are disadvantaged in this regard. We also find that despite being better educated, ex-soldiers do not participate more in off-farm activities.

Fifth, it is crucial to create conditions in which young adults can develop their full potential - this is especially important in societies coming out of conflict. This is especially problematic in Ethiopia at present. Youth unemployment in urban areas is at very high levels. Private sector and self-employment opportunities need to expand in order to absorb the growing number of highly educated young adults. In rural areas, land reform has set up the expectation that land is a right for all. But this is increasingly not possible for young adults, leaving them dependent on their families. The present land policy is not consistent with the creation of the conditions necessary for young people to better themselves.

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