

# External Support During the Transition Phase: Roles for Humanitarian Aid and Development Assistance from a Village Perspective

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**Summary.** — Development orthodoxy based on macroeconomic theory stresses the importance of physical and human capital accumulation as necessary elements for economic growth. Growing concern among development practitioners that textbook economic theory and results from formal questionnaires may not converge with the perceptions of the recipients of aid, however, has led to an increase in the use of participatory appraisals and related approaches. To explore resettled villagers' perceptions of aid and its role in reducing poverty, the research followed two techniques described in the literature on participatory rural appraisal: (a) a wealth-ranking exercise to examine villagers' concepts of poverty and the determinants of growth, and (b) semi-structured group discussions to explore villagers' thoughts on the role of aid. What is reassuring from this exercise is the convergence between villagers' perceptions of poverty and the role of aid with the implications of the economics literature and the results from administration of a formal household questionnaire.

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## 1. INTRODUCTION

Current development orthodoxy, based on macroeconomic theory, stresses the importance of physical and human capital accumulation as necessary elements for economic growth. There is growing concern among development practitioners, however, that textbook economic theory and results from formal questionnaires may not converge with the perceptions of the recipients of aid. This increased sensitivity to the opinions expressed by the poor has led to an increase in the use of participatory appraisals and related approaches. In contrast to the enormous macroeconomic literature on economic growth and a strand of that literature on the effectiveness of aid, work at the micro-level on the causes of growth and the impact of aid on poverty has been weak. Even less attention has been paid in the economics literature to the views of the poor on income growth and the role of aid. With declining *per capita* GDP throughout much of Africa, and the continuing debate on whether aid has been effective, many argue

the gap between economic theory, formal questionnaire-based survey work and the perceptions of the poor must be bridged in order to improve the success of poverty alleviation programs (Adams, Evans, Mohammed, & Farnsworth, 1997; Chambers, 1994a, 1994b, 1994c; Mukherjee, 1992; Narayan, 2000).

The resettlement program on which this work is based was one of the major poverty alleviation efforts of the early 1980s in Zimbabwe, and resettlement is certain to command increasing attention in the region in the years ahead. Whether resettlement programs are successful is keenly debated. It has long been recognized that resettlement exercises, particularly in the early and transitional phases, increase the vulnerability of those resettled and may actually reduce welfare before households begin to benefit from their new setting (see Hulme, 1988;

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Nelson, 1973; Scudder & Colson, 1981). The question is how have these resettled households fared. Did initial development assistance in the form of access to assets such as land and farming inputs establish potential for growth? Did humanitarian aid in the form of drought relief or supplementary feeding protect households when they were most vulnerable? An important policy dimension of this analysis, therefore, is the extent to which timely external assistance may constructively support resettled populations during periods of stress and enhance the transition to self-reliance.

In June 1997, the author conducted a participatory rural appraisal (PRA) to explore these issues through villagers' perceptions of aid and its role in reducing poverty. Following the PRA literature, the approach focused on two techniques. The first is a wealth-ranking exercise to establish the correlation between income data collected through a formal household survey and villagers' own rankings of households; and to examine villagers' concepts of poverty and their ideas regarding the determinants of growth. This exercise involved having groups in a village classify households into wealth categories according to their own selection criteria, which they were then encouraged to discuss. The second is a semi-structured group discussion conducted in each village to explore villagers' thoughts on the role of aid. Villagers were prompted on: what they thought the government could do to reduce poverty both in drought and nondrought years; what types of aid they thought had protected them from poverty; and what type had assisted them in growing out of poverty. In conjunction with this fieldwork, in the 1997 formal household questionnaire administered under the Zimbabwe Rural Household Dynamics Study (ZRHDS), families were asked to compare their household to other households in the area and report whether they thought they were better-off, about-the-same or worse-off, and give reasons for their answer. Households were also asked to list possible policies that the government could implement to reduce poverty both in drought and nondrought years.

What is reassuring from this exercise is the convergence between villagers' perceptions of poverty and the role of aid, outcomes from the formal household questionnaire, and expectations from the current economic literature. Microeconomic research on the ZRHDS data set indicates that giving households access to assets in the form of land, capital and inputs has

yielded rapid growth in rural incomes. Villagers themselves acknowledge the significant increase in their incomes since being resettled. Evidence from the ZRHDS data set and villagers' discussions suggests that this growth in income is a function of the accumulation of assets, but perhaps more importantly learning to use the assets. Humanitarian aid, in the form of drought relief in particular, appears to have protected households from poverty rather than promoted them out of poverty. This finding from both the formal questionnaires and villagers' perceptions is in accordance with findings in the economic literature (see Buchanan-Smith & Maxwell, 1994; Ravallion, van de Walle, & Gautam, 1995).

The paper begins with a brief overview of current development thought on economic growth and the role of aid. Quantitative work on the growth in incomes of these resettled households and the role aid has played in this growth are summarized, and the interested reader is referred to the specific articles detailing the applied econometric work. Section 3 outlines the methods and data, in particular the participatory rural appraisal and wealth-ranking techniques used to explore the villagers' perceptions. Section 4 reports the results of the wealth-ranking exercise, which examines villagers' concepts of poverty and compares their perceptions with the income data collected from the ZRHDS. This section concludes with a summary of the key causes for growth among the resettled households as identified by the villagers themselves. Section 5 presents the findings on how villagers think the government could reduce poverty in their village; and what the government could do to protect households against poverty in the event of another drought. This section also gives an account of villagers' perceptions as to what type of aid has protected them from poverty—commonly referred to as humanitarian aid—and what type has promoted them out of poverty—namely development assistance. The conclusion draws together the three strands of thinking on the roles of humanitarian and development assistance during the transition phase.

## 2. CURRENT DEVELOPMENT ORTHODOXY

### (a) *Growth theory*

In recent years there has been a large increase in the number of papers in the macroeconomic

growth literature that try to explain differences in growth across countries, and the impact of inequality and redistribution on growth. Much of the literature starts with the standard textbook theory of growth proposed by Solow (1956). Using a Cobb-Douglas production function, Solow models output as a function of capital, labor and technology. Assuming constant returns to scale, he relates output per unit of labor to the amount of capital per unit of labor, emphasizing how growth arises from the accumulation of capital. The capital stock evolves according to the rate of saving, the rate of population growth and the rate of growth in technology, where all three are considered exogenous. Over time the economy approaches a steady state where income is constant and income per person grows at the rate of technological progress.

The textbook Solow growth model thus emphasizes the importance of the accumulation of capital for growth, where traditionally capital was defined as the tangible stock of equipment. Accepting the argument that capital is accumulated whenever today's consumption is forgone an important form of capital accumulation is the acquisition of skills. By redefining capital to include human capital, Mankiw, Romer, and Weil (1992), and others (for example, Benhabib & Spiegel, 1994), have extended the explanatory power of the Solow model. In addition, there have been a number of attempts to address this notion of exogenous technological progress. Referred to in the literature as "endogenous growth theory" these approaches abandon the assumption that production displays decreasing returns with respect to capital. Instead, they redefine capital to include a broad range of reproducible factors of production, which exhibit increasing returns to scale. For example, Romer's (1990) work on learning-by-doing emphasizes the side effects of investment, whereas the work of Lucas (1988) on human capital, and Grossman and Helpman (1991) and Aghion and Howitt (1992) on research and development emphasize the intentional accumulation of knowledge as the engine of growth.

Such thinking in macroeconomic growth theory has dominated policy choices prescribed to developing countries, namely the importance of the accumulation of both physical and human capital as necessary for growth. It is therefore important to test whether such results hold at the micro-level.

Empirically, growth dynamics have typically been studied using macroeconomic data with countries as the unit of observation. These studies have run cross-sectional regressions with each country's average growth on the left-hand side and a set of variables expected to determine that growth on the right-hand side (physical and human capital accumulation, spending on research and development as a proxy for knowledge, and other variables constructed on an *ad hoc* basis—such as fiscal and monetary policy, openness to international trade and geographical location). Mainly due to data limitations, to date, little work has been done at the micro-level.

With access to one of the longest running rural household panel data sets in Africa (ZRHDS), Owens (1999) and Gunning, Hoddinott, Kinsey, and Owens (2000) use multivariate regression analysis to explore the growth in income of these resettled Zimbabwean households. The studies find that since resettlement, these households have experienced a dramatic increase in crop income and an impressive accumulation of assets. While these income gains are due partly to asset accumulation, they can mainly be attributed to increased returns on assets. The studies also find that growth has been widely shared, with income inequality falling over the period. While evidence shows that households advantaged in some regard at the time of resettlement initially did obtain higher incomes, this effect disappears over time.

These findings are of considerable value given that few studies exist which examine the dynamics of household income change over such a long period of time. Nor do many studies link macroeconomic theory with microeconomic evidence. The finding that macroeconomic theory is borne out at the micro-level is reassuring given that many development policies are based on macroeconomic theory. Current development orthodoxy, which stresses the importance of physical and human capital accumulation, appears to hold at the household level. Whether villagers shares this view will be discussed in the next section.

#### (b) *The role of aid*

A strand of the economic growth literature has focused on aid and its effectiveness. The topic is hotly debated with some finding that aid is not effective (Boone, 1996), while others find that aid has a positive effect on growth but only

when economic policies are sound (Burnside & Dollar, 1997). Tarp and Hansen's (2000) recent review of the growth and aid literature finds that aid does spur growth. In contrast to the enormous macroeconomic literature, work at the micro-level on evaluating the effects of aid on poverty has been limited. As Cassen and Associates (1994) notes, relatively few evaluations have made any serious attempt to quantify the effects of aid on low-income groups, and those that do often lack data for "before" and "after" comparisons that would strengthen the conclusions. By relying on cross-sectional surveys, evaluations have been unable to observe the distributional impact of policies or policy changes on the poor. They have therefore been unable to determine which policies protected the poor and which promoted them out of poverty.

As mentioned elsewhere in this issue, the households under study here were resettled after 1980, with each being allocated five hectares of arable land for cultivation, with the remaining land in each resettlement area devoted to communal grazing. Households were also allocated residential plots within a planned village. A portion of the arable land was initially tilled, and each household was given a small allocation of seed and fertilizer in the first season. Since the early period, resettled households have continued to receive development assistance in the form of, most notably, agricultural extension advice, but also inputs for farming, medical and educational grants. Some households have also been involved in donor-funded cattle-fattening projects, poultry projects and sewing and knitting cooperatives.

In the last section it was established that these resettled households have seen dramatic increases in their incomes. Initial aid in the form of land and inputs was paramount to this success. Similarly, an empirical study of the ZRHDS data set conducted by Owens, Hoddinott, and Kinsey (2003a) shows that access to agricultural extension services, defined as receiving one or two extension visits per year, raises the value of crop production by 15%. This result is found after controlling for innate productivity characteristics and farmer ability.

In conjunction with Africa's poor economic performance, the last 10 years have witnessed an increasing amount of bilateral and multilateral aid devoted to emergency and distress relief. Due to the increase in the number

and intensity of emergencies, especially in Africa, a greater proportion of donor, government, and nongovernmental organizations (NGO) budgets is now being devoted to short-term relief operations rather than long-run development programs. The share of aid budgets taken up in providing relief to the victims of drought, war, and other emergencies has increased more than fivefold in the last decade, while the amount of aid spent on nonemergency activities has remained broadly unchanged over this period (Buchanan-Smith & Maxwell, 1994; Owens *et al.*, 2003b).

With this increase in expenditure on relief operations, there is increasing concern that emergency relief may be adversely affecting development efforts. In particular, it might be suspected that large volumes of short-term relief aid may be at the expense of longer-term development efforts to reduce poverty.

Evidence from a further empirical study of the ZRHDS data set justifies such concerns. Estimating the relationship between net crop income and factors of production, Owens, Hoddinott, and Kinsey (2003b), show that capital stock, trained oxen and at least one or two extension visits per year, have large positive effects on increasing household net crop income. Establishing the second-round effects of crowding-out and investment, these estimated relationships were used to simulate the effects of alternative relief and development interventions on incomes and the incidence and severity of poverty. Two striking results relevant to this paper were: first, substituting aid in terms of physical and human capital for drought relief causes poverty to fall in nondrought years; and second, such improvements in well-being are achieved without households necessarily being made worse off during a drought year. A clear indication that development aid in the form of capital and extension advice is more effective at helping households move out of poverty, than relief assistance which acts solely to protect households from shocks.

To summarize, economic theory suggests that investment in human and physical capital are important for growth and therefore poverty alleviation. The applied empirical work on Zimbabwe's resettled farmers strongly supports these findings and also highlights the importance of development assistance as opposed to relief aid in achieving that growth. The next step is to determine whether these findings are supported by the recipients of aid.

### 3. METHODS AND DATA: PARTICIPATORY RURAL APPRAISAL AND FORMAL HOUSEHOLD QUESTIONNAIRES

This section outlines the methodology used to explore villagers' perceptions of poverty, the determinants of growth, and the role of aid. We utilized two techniques described in the PRA literature: first, group wealth rankings; and second, semi-structured group interviews focusing on the role of aid. In addition, in the formal household questionnaire for the 1997 round of the ZRHDS survey, a section was included on household-level perceptions of poverty and the role of aid.

The first technique involved having male and female groups in a village place households into wealth categories according to their own selection criteria. This procedure generated discussion on villagers' conceptions of poverty and the determinants of growth and made it possible to compare their perceptions with the income data collected from the formal household questionnaire. The specific process started by asking villagers how they defined wealth and poverty. Having prepared an identification card for each household, villagers were asked to sort the cards into as many piles as they liked, according to perceived wealth groups within the village. Once the cards were sorted into wealth categories, villagers were asked to review the piles and make any changes they felt necessary. Villagers were then asked to describe the key characteristics of each household and explain why it had been placed in its particular category. This often led to a general discussion describing the key features of each "pile" rather than the individual households in that category. The ensuing discussion centered on the key factors that accounted for households either becoming wealthy or poor.

The second technique was more akin to the now-popular focus-group interviews. In this exercise, we held a semi-structured group discussion in each village on the role of aid. This discussion involved asking each group of men and women four open-ended questions, which they were left to discuss freely while the enumerator took notes. The groups were first prompted on: what they were doing to reduce their own poverty and that in the village; what they would do if they had more money; and how they thought the Government could reduce poverty in their village. Using the same format, they were then prompted on: what they

were doing to prevent poverty in the event of another drought; what they would do if they had money; and what they thought the Government could do. Finally, they were asked to discuss the types of aid they had received and identify which types of aid they thought had helped to promote them out of poverty, and which types had protected them from poverty?

The section on perceptions in the 1997 ZRHDS questionnaire attempted to replicate this qualitative information at a household level. Household representatives were asked to compare the household with other households in the area and report whether they thought they were better-off, about-the-same or worse-off. They were given the opportunity to list up to three (unprompted) reasons why they considered themselves to be so. Households were also asked to list possible policies that they thought the government could implement to reduce poverty both in drought and nondrought years (again unprompted).

For the PRA exercise, a random sample of 17 of the 22 villages surveyed each year was selected.<sup>1</sup> The idea was that those villages not selected could act as controls for future surveys.<sup>2</sup> In accordance with standard practice, three groups of informants were chosen to carry out the exercise. Separate, semi-structured interviews and rankings were conducted with groups of men and women, and where staff were available, rankings were conducted with the agricultural extension worker. Drawing on the PRA literature, the technique of wealth-ranking described by Chambers (1994a, 1994b, 1994c), RRA Notes (1992) and Bevan and Joireman (1997) was followed.<sup>3</sup> For the ranking exercise, the extension worker was a natural choice; this is because of the importance of crop income for the households, the importance of extension advice in determining crop income, and because the extension worker knows the farmers well. In one area, Mutanda, the extension worker had recently left. His replacement had only just been appointed and did not feel he knew the villagers well enough to carry out a ranking. The elected chairmen of the villages were chosen as suitable replacements. In Sengezi, rankings were conducted with both the extension worker and village chairmen. This was done because the extension worker was absent for most of the fieldwork period, and it was feared he would not return in time. (In fact he did return and so a further set of rankings was conducted.)

Attendance at the meetings was mixed. On arriving in a village, the chairman was asked

to gather 10 men and 10 women, preferably household heads or senior members of the household, to participate in the exercise. As it turned out, it was impossible to control who came to the meetings. While attendance would often start with the stated number of individuals, curiosity would often lead to a huge increase in the numbers attending as the meeting progressed. On average, the exercise lasted for two hours (tea and snacks were served), after which people started to drift away.

In Mupfurdzi, six of the nine villages surveyed each year were selected. Later a seventh village, Tongogara, was added because the other villagers continually referred to it as the wealthiest in the scheme. It was decided that an exercise in this village would be useful, but it was found that most people were busy working in their fields. Instead of the group exercises, an individual interview and ranking was therefore conducted with the head of one of the wealthier households.

The number of households in each of the villages in Mupfurdzi ranges from 13 to 43. In most cases, all households were surveyed and ranked. This resettlement scheme is the wealthiest of the three surveyed and responded best to the exercise. Generally, the meetings were well attended and generated lively discussion. A notable exception was the women's group in Mudzingo, a village of Apostolics characterized by polygamous marriages. Attendance began with nine women but soon increased to 27. There was a strong feeling of disunity among the women and a distinct distrust of outsiders. One house had the slogan "come as a visitor, not as a spy" painted on the wall.

In Mutanda five of the seven villages were selected. The average number of households in these villages was 30, but due to the set up of the survey, only 10 households had been regularly interviewed. The aim was to limit the exercise and specifically the ranking to these 10 households, although if other households wished to be ranked they were included. This proved to be the most difficult scheme. Attendance was low, people seemed very suspicious, and responses to the exercise were hesitant. There was a pervasive atmosphere of distrust and disunity among the participants. An example of this lack of unity showed itself in the naming of villages. Whereas villagers in other schemes gave their villages names, those in Mutanda were unable

to agree and continued to refer to their village by the government-assigned numbers. The reason for the disharmony seemed to lie in a pattern of resettlement, which was noticeably different from that in the other schemes. The settlers in Mupfurdzi and Sengezi had strong political awareness having been moved as part of a planned government strategy of resettlement. In Mutanda, by contrast, the most villagers were self-settled squatters, with very little political solidarity, who were simply allocated the land they were squatting on by the government.

A meeting that did go well, however, was the men's group in Village 24, although it did transpire that they had a clear objective in mind. It was discovered later that they had had a meeting before the ranking exercise in which they had decided to ask the research team for a dam and fencing. All discussion came back to the need for these items.

In Sengezi, four of the six villages were selected. The number of households in these villages ranges from 35 to 55, with on average half the village being surveyed each year.

In general, the meetings in Sengezi started slowly, although attendance increased to quite large numbers as the meeting progressed. Rankings tended to center around the general issue rather than specific cases, perhaps due to the large number of villagers who attended the meetings. The men's groups were quite lively, while the women's were mixed. In Mungo, the women seemed bored and unresponsive, whereas in Mawire West they were very forthcoming.

An alternative method of wealth ranking is to identify individuals from different wealth groups and do individual rankings. In Goto (Sengezi), the chairman was asked to rank households in the village. Then, using his identification, individual rankings were conducted with the wealthiest and poorest households.

The results of the exercise are detailed in the following sections. It is easiest to begin with villagers' concepts of wealth and poverty before exploring their views on growth and the role of aid. This can best be done by looking at the results of the wealth-ranking exercise. These results are detailed in Section 4 and conclude with a summary of the key factors that caused households either to become wealthy or fall into poverty. Section 5 reports the results of the semi-structured interviews addressing villagers' perceptions on aid.

#### 4. VILLAGERS PERCEPTIONS OF POVERTY AND GROWTH

##### (a) *Wealth ranking*

The technique of wealth ranking provides a useful starting point to understand how villagers perceive poverty. If villagers rank households according to the same criteria that economists use, namely income, then we can establish that at least discussions regarding poverty, growth and aid have a common base. Wealth ranking has the benefit of allowing us to directly compare villagers' perceptions with the household survey in a formal statistical manner. In line with other papers that have compared wealth ranking and household surveys (Adams et al., 1997; Scoones, 1995), the finding is that there is a remarkable correlation between the results of these two methods.

At the group level, villagers identified poor households on a number of criteria, most of which were visible characteristics. Ownership of cattle, farming equipment, quality of housing and health/education of children were noted in almost every village. When prompted for individual household characteristics, villagers

listed attributes such as the skill of the farmer, whether the household had a bank account, and the variety of food eaten within the household. While men tended to focus on farming assets and quality of farming, women often included ownership of household items, condition of clothing, and cooperation within a household as key factors determining a household's ranking. The agricultural extension workers focused on farming skills, in particular whether the head had a farming certificate or attended extension meetings. The extension workers also tended to rank households engaged in off-farm activities as poor, irrespective of their income from other activities.

To compare villagers' wealth rankings with the ZRHDS data set, the rankings of the men, women, and extension worker were compared, and an average of the three rankings was calculated. These groups and group average rankings were then compared with a number of income and capital variables. Table 1 reports the results of rank correlations between average household income over the period 1992–93 to 1995–96 with the villagers' own wealth rankings. Average household income comprises crop income, livestock income,

Table 1. Rank correlation between villagers' perceptions and mean total household income (1992–93 to 1995–96)

Village	Men	Women	Extension worker	Average of three rankings	Other	No. of house-holds
<i>Scheme 1: Mupfurdzi</i>						
11 Chitepo	0.738***	0.755***	0.723***	0.828***		22
12 Mudzinge	0.758***	0.446*	0.774***	0.793***		19
13 Muringamombe	0.396*	0.464**	0.522*	0.580**		25
14 Mutoramhepo	0.482*	0.651**	0.257	0.707**		13
15 Pedzanhamo	0.693**	0.693**	0.326	0.715**		11
17 Tongogara			0.463**	0.547***	0.561***	37
19 Zvomanyanga	0.596***	0.767***	0.497**	0.669***		23
<i>Scheme 2: Mutanda</i>						
21 Mt Zonwe	0.802**	0.791**	0.257	0.795**	0.784**	7
23 Village 14	0.353	0.465		0.484	0.566*	10
24 Village 10	0.875***	0.529		0.720**	0.526	8
26 Village 8	0.650**	0.625*		0.698**	0.503	9
27 Village 6	0.791**	0.798**		0.811***	0.767**	9
<i>Scheme 3: Sengezi</i>						
31 Mungo	0.736***	0.456*	0.618**	0.644***	0.438*	16
32 Goto	0.486**	0.540**	0.398*	0.519**	0.406*	21
33 Rundu	0.544**	0.329	0.343	0.451**	0.145	20
36 Mawire East	0.645**	0.696**	0.644**	0.737***	0.679**	12
37 Mawire West	0.754***	0.931***	0.546*	0.863***	0.708**	12

Source: Author's fieldwork, 1997; and ZRHDS data set, 1994–97.

Notes: \* Significant at the 10% level; \*\* Significant at the 5% level; and \*\*\* Significant at the 1% level.

Table 2. Rank correlation between villagers' perceptions and average ownership of capital items (1992–93 to 1995–96)

Village	Men	Women	Extension worker	Average of three rankings	Other	No. of house-holds
<i>Scheme 1: Mupfurdzi</i>						
11 Chitepo	0.487**	0.397*	0.405*	0.488**		22
12 Mudzinge	0.512**	0.654**	0.454*	0.621**		19
13 Muringamombe	0.585**	0.362*	0.313	0.529**		25
14 Mutoramhepo	0.174	0.234	0.411	0.422		13
15 Pedzanhamo	0.866***	0.722**	0.363	0.821***		11
17 Tongogara <sup>a</sup>			0.184	0.320	0.553***	37
19 Zvomanyanga	0.723***	0.742***	0.397*	0.648***		23
<i>Scheme 2: Mutanda</i>						
21 Mt Zonwe <sup>b</sup>	0.267	0.474	-0.086	0.265	0.294	7
23 Village 14 <sup>c</sup>	-0.082	0.047		0.025	0.174	10
24 Village 10 <sup>d</sup>	0.895***	0.858**		0.922***	0.724**	8
26 Village 8 <sup>d</sup>	0.733**	0.406		0.624*	0.560*	9
27 Village 6 <sup>d</sup>	0.685**	0.771**		0.755**	0.733**	9
<i>Scheme 3: Sengezi</i>						
31 Mungo <sup>d</sup>	0.883***	0.737***	0.576**	0.790***	0.909***	16
32 Goto <sup>c</sup>	0.770***	0.757***	0.634***	0.792***	0.662***	21
33 Rundu <sup>d</sup>	0.765***	0.750***	0.642**	0.791***	0.748***	20
36 Mawire East <sup>d</sup>	0.797**	0.676**	0.529*	0.730*	0.582**	12
37 Mawire West <sup>d</sup>	0.401	0.665**	0.854***	0.747***	0.466	12

Source: Author's fieldwork, 1997; and ZRHDS data set, 1994–97.

Notes: \* Significant at the 10% level; \*\* Significant at the 5% level; and \*\*\* Significant at the 1% level.

<sup>a</sup> Village 17—"other" refers to household 1,701.

<sup>b</sup> Village 21—"other" refers to household 2,105. Not chairman, but "top guy" in village.

<sup>c</sup> Village 23—"other" refers to two latecomers, households 2,308 and 2,303.

<sup>d</sup> Village 24, 26, 27, 31, 33, 36 and 37—"other" refers to village chairman.

<sup>e</sup> Village 32—men refers to rich household, women refers to poor household, other refers to village chairman.

income from off-farm activities and public and private transfers. Table 2 similarly compares capital ownership over the same period with villagers' rankings. Capital refers to the ownership of agricultural tools, equipment and trained oxen.<sup>4</sup>

It is worth noting that the rank correlations were calculated for a number of quantitative variables, including current household income, current *per capita* income, current capital ownership, total crop income and current crop income. Broadly speaking, correlations were similar across the variables, however, the total average income and capital ownership variables correlated best, suggesting that villagers ranked households according to long-term status.

The overall picture presented in Tables 1 and 2 is reassuring. There is generally a striking correlation between villagers' identification of wealth groups and levels of income and capital ownership. The strength of the correlations centers on two key features; first, how the villagers defined poverty; and second, the unity or cohesion within the village.

Although the general notion of poverty is the same across villages, there are slight differences in emphasis. These differences are important in determining the correlation between the quantitative variables and the wealth rankings, and are also useful in explaining discrepancies. The agricultural extension worker ranked households according to farming ability, irrespective of income earned from non-farm activities. Given the importance of agriculture as a source of income, this means that in many cases the rankings of the extension worker were correlated with the income variable. Where off-farm income was important, however, there could be discrepancies. In Mutoramhepo, the extension worker ranked a household with the third highest level of total income as the poorest. His reasoning was that, "although the farmer tries his best, he has problems with management that result in poor yields." It was noted also that this farmer "does engage in other projects, like poultry, which he is good at." In Sengezi, where households earn a greater proportion of their income from off-farm



activities, the extension workers' rankings were less significant. More specifically, in Mawire West, the extension worker identified those households where members worked on commercial farms as poor because they did not use their own land properly. Although not presented here, correlations were also calculated for crop income. In this village, the rankings of the extension worker were highly correlated with the crop income figures.

Similarly, the women tended to define wealth in terms of ownership of assets, including agricultural tools and household items, clothing and other visible characteristics. This conceptualization was reflected in the high correlation between their rankings and the capital variables. They also tended to rank households higher than the men and extension workers, a finding also found in the study by Scoones (1995). An interesting example is Mudzingo, where the rankings of the women were not correlated with those of the men, the extension worker or with the income variable. They were, however, correlated with the ownership of capital. This finding suggests that their rankings were based on visible signs of success rather than well-being. If there was as much distrust among the women as was portrayed during the meeting, then this result is not surprising. If there is limited information sharing, then the only way that they could rank each other would be on the basis of visible assets. This criterion for ranking seems to identify wealthy households accurately but is less useful for ranking middle and lower income households. Consequently, the women's rankings correlate with the rankings of men, the extension worker, and the income variable for wealthier households. Correlations between the rankings of the other households were, however, very poor.

The men tended to define wealth in terms of income from farming and assets owned for farming, but they acknowledged the importance of off-farm income for some households. Their rankings were highly correlated with both total income earned over the period and capital ownership. In Pedzanhamo, the men specifically said they ranked according to ownership of cattle and implements used for farming, a factor that explains the high correlation with the capital variable.

Another feature to note is the importance of harmony within a village in determining the correlation with the quantitative variables. Where a village was united and working well together, there is a high correlation with the

total income variable. Where there was less cohesion in the village, the rankings tend to correlate more with the visible variables, such as capital ownership or current income. There was a tendency for the small villages to be more united and have a feeling of greater solidarity, a factor that resulted in their rankings being more in line with the quantitative variables.

Finally, the ease with which the villagers responded to the ranking exercise was important. Where there was reluctance, the rankings were poorly correlated. In village 23 in Mutanda, a negative correlation with the capital variable was found. This is one of the most remote villages visited—with no bus route or local shops. The women were particularly uninterested in the exercise, while the men were hesitant about ranking the poorest households. While there was correlation between those ranked as the wealthiest, the ranking of the middle and poorer income households was more disparate. In contrast, where there was lively discussion there appeared to be high correlation—for example, in Zvomanyanga, where participants turned up over 15 min early for the meeting.

In line with similar studies, it was found that the correlations between economic indicators measured by the standard household survey and those defined through a wealth ranking exercise, were positive and significant.

Comparing these economic indicators with the perceptions expressed by individual households during the ZRHDS survey provides a mixed picture. During the formal household survey, households were asked to compare themselves to other families in the village/area and rate whether they were worse-off, about-the-same, or better-off. They were asked to position themselves for both a normal year and a drought year. They were also asked to list up to three reasons why they responded the way they did. While all 397 households ranked themselves, only 222 offered reasons to explain their ranking.<sup>5</sup>

Most households ranked themselves as about the same as other households in the area. In a normal year, 68% reported being about-the-same, although this fell to 58% in a drought year (Table 3). In a drought year, the number reporting themselves as worse-off doubled from 12% to 26%. Of the 78 households that reported themselves as better-off in a normal year, only 43 did so in the drought year, while 33 felt they moved down a group to about-the-same, and two reported they were worse-off than others. Of the 270 households that

Table 3. *Households' ranking of welfare status: normal year and drought year*

Normal year	Drought year			Total in normal year (%)
	Worse-off	About-the-same	Better-off	
Worse-off	49			49 (12)
About-the-same	51	199	20	270 (68)
Better-off	2	33	43	78 (20)
Total in drought year (%)	102 (26)	232 (58)	63 (16)	397 (100)

Source: ZRHDS data set, 1997.

reported they were about the same in a normal year, 51 said they were worse-off in a drought year, and, intriguingly, 20 claimed they were better-off. Of those that reported getting better-off in a drought year, seven said they had more than enough cattle which they could sell; seven said they had enough food stored; three had access to off-farm income; two had savings and one reported it had gardens to rely on (one listed no reason).

Table 4 reports the rank correlations between the individual household ranking from the ZRHDS survey—first with the total average household income over the period between 1992–93 and 1995–96 and, second, with the village ranking from the PRA exercise. What is at first surprising is how poorly the individual household rankings correlate with both the income variable and the community village ranking. In only five of the villages does the

Table 4. *Rank correlation: households' ranking, mean total household income (1992–93 to 1995–96), and villagers' perceptions*

Village	Correlation with total income		Correlation with village ranking	
	Normal year	Drought year	Normal year	Drought year
<i>Scheme 1: Mupfuruzi</i>	0.321***	0.448***		
11 Chitepo	0.126	0.156	–0.033	–0.209
12 Mudzinge	0.327	0.460**	0.419**	0.538***
13 Muringamombe	–0.023	0.433**	0.328	0.549***
14 Mutoramhepo	0.451	0.645**	0.167	0.361
15 Pedzanhamo	0.653**	0.658**	0.504	0.393
16 Zvataida	0.682***	0.628***		
17 Tongogara	0.634**	0.322**		
18 Gwetera	–0.12	0.255		
19 Zvomanyanga	0.309	0.268	0.121	0.268
<i>Scheme 2: Mutanda</i>	0.529***	0.498***		
21 Mt Zonwe	0.612	0.714	0.716	0.770**
22 Village 13	0.625	0.580		
23 Village 14	0.224	0.442	0.451	0.337
24 Village 10	0.774**	0.644	0.867***	0.649
25 Village 11a and b	0.540	0.660		
26 Village 8	0.696**	–0.032	0.516	–0.032
27 Village 6	0.228	0.548	0.387	0.471
<i>Scheme 3: Sengezi</i>	0.213**	0.345***		
31 Mungo	0.348	0.473	0.105	0.383
32 Goto		0.322	0.152	
33 Rundu	0.451**	0.425	0.275	0.351
36 Mawire East	0.293	0.410	0.266	0.334
37 Mawire West	0.276	0.387	0.629**	0.725***
38 Injina	–0.408	–0.316		

Source: Author's fieldwork, 1997; and ZRHDS data set, 1994–97.

Notes: \* Significant at the 10% level; \*\* Significant at the 5% level; and \*\*\* Significant at the 1% level.

correlation coefficient exceed 0.6, compared to 12 villages above this level for the village rankings.<sup>6</sup>

On the whole, the income variable tends to correlate best with the individual ranking in a drought year. This ranking certainly has more variation than that in the normal year, when 68% reported that they were about-the-same. This is particularly the case in Mupfuruzi, where seven of the nine villages reported significant correlations in the drought year but only four in the nondrought year. This pattern is repeated in Sengezi, although here the individual household rankings are poor. By village, the correlations were small and rarely significant. In Goto, all households reported themselves as about-the-same in a normal year. For the whole scheme, 80% reported themselves as about-the-same, with only 5% reporting themselves as better-off. The pattern is less stark in Mutanda, where three of the seven villages reported higher coefficients in the normal year (and two were significant), compared to four villagers with higher coefficients in the drought year (when none was significant).

Upon reflection, these poor correlations should not be a surprise. It is much harder for an individual to compare him/herself with another than for a group of people to categorize individuals in their community. A finding during the village rankings was that many households were quick to categorize other households but argued about which pile their cards should be placed in. Thinking there may have been a pattern in this behavior, the sample was divided into three groups according to income to see how the individual rankings correlate within each income group. The correlations are small but significant for the middle and richest groups (0.267, significant at 1% and 0.206, significant at 10%), but extremely small and insignificant for those households that reported the lowest levels of income (0.014). Of those who actually were poor in income terms, only 27% ranked themselves as such, 67% ranked themselves as about-the-same and 7% as better-off. In contrast, 72% of those in the middle-income group ranked themselves as about-the-same, and 40% in the wealthy group as better-off.

Despite the mixed results on comparing the individual household rankings with the other two economic indicators, the descriptive information provided by individuals does support the results of the wealth-ranking exercise—villagers define wealth in terms of income from

farming and ownership of assets, in particular ownership of cattle and farming equipment. Table 5 reports the reasons households gave for their position. The first three columns report the reasons listed by those who considered themselves worse-off; the second three columns give the reasons provided by those who considered themselves about the same; and the final three columns list the reasons reported by those who considered themselves better-off.

There is a clear pattern in Table 5. Those households who considered themselves better-off listed reasons such as having enough cattle and food, being a good/skilled farmer, and owning farming equipment as well as other assets. Those who considered themselves worse-off listed not having enough livestock, and not owning farming equipment or other assets. Only 36% of households that ranked themselves as about the same gave reasons as to why. They listed the whole range of reasons reported by those better-off and worse-off. The striking difference is that these households were more likely to respond that they owned cattle and farming equipment, but not enough of either.

In light of the discussion above, it appears that the individual self-rankings are extremely difficult to rely on. On the other hand, rankings developed through group discussions appear to correlate positively and significantly with income variables calculated from formal questionnaires.

#### (b) *Determinants of growth*

Discussions on concepts of wealth and poverty during the wealth-ranking exercises extended to discussions on how households become rich or poor. In these discussions, a number of groups commented on issues of transitions in welfare status. While there was general agreement that all households had moved up in terms of wealth, there was disagreement about whether individual households moved between different categories or tended to remain in the same category.

The male groups tended to argue that everyone had moved up in terms of wealth and had done so in the same order, but they also identified reasons for some households slipping back into poverty. For instance, in Mudzingo, it was noted that “group membership does change but only on rare occasions.” Not securing fertilizer, or suffering from illness, were listed as reasons for slipping from one group to a lower one.

Table 5. *Reasons given by households for the way they compare themselves to other households*

List of reasons for being poor or well-off	Worse-off			About-the-same			Better-off		
	1	2	3	1	2	3	1	2	3
Have enough cattle				12	10	4	19	14	3
Have enough food/eat well				9	1		15	8	3
Am a good farmer/work hard/skilled				7	5	1	12	5	2
Own farming equipment				2	5	3	6	6	6
Have access to off-farm income				4		2	3	7	1
Have savings/budget for drought				3	1	2	2	7	1
Have assets/higher standard of living				1	1	2	5	4	1
Have a good quality/large house				1	1	2	3	5	
Large area of land tilled				3	1		5	1	
Meet basic needs		1		4				1	
Can send children to school					1		1	4	1
Can hire labor/access to labor and capital					1			1	
Have good soil						1	2	1	
Have a small family								1	
Do not have enough livestock	8	3	1	15	1	2	2		
Do not have enough farming equipment	3	3		4	2	1			
Do not have enough money	1	3		3	1			1	
Own nothing	5	3	1	1	1				
Do not own much property	11	2	2	4	3				1
Have no husband/labor shortage		3		5	3	2			
Have bad soil		1	1	2		1			
Do not harvest much	4	3		1	1	1			
Have no off-farm income	1	1			8				
Am old/disabled/ill	4			1	2				1
Have no cattle	6	3	2	9	4				
Have no farming equipment	3	6		3	2	2			
Have no money	2			4	3	1			
Cannot send children to school		1							
People hate us/jealousy	1				1				
Total	49	33	7	98	59	25	75	66	20

Source: Author's fieldwork, 1997.

Male groups also listed a series of unfortunate events that could lead to reversals of fortune. Villagers in Muringamombe argued that only one or two households had slipped back; they cited stringent credit repayment conditions, which forced certain households to sell assets after the drought, as the cause of their fall into poverty.

The female groups, on the other hand, agreed that everyone was moving up generally, but they argued that moving between groups was common. Women in Zvomanyanga said that, if there were a drought, those with off-farm income would jump ahead of others. In Mawire West, it was argued that "in the beginning everyone moved up, but because some didn't invest they stayed where they were." The female groups also tended to cite specific examples of households that had advanced or slipped back.

The top panel of Table 6 lists all the reasons the groups noted for a household's decline in welfare status. Illness was the most common reason. General life-cycle changes, such as declines associated with sending children to school or with old age, also featured. Households were also likely to move down as a result of selling assets, whether to protect themselves from poverty, to pay school fees, or to spend on frivolous items. A related point was the sale or loss of cattle through disease or drought. Less charitable reasons were also listed, including frivolous spending, being lazy or drinking too much tea.<sup>7</sup>

Most of the determinants of growth, as identified by all the groups, fell within the broad theme of working hard at farming. Planning, budgeting, using inputs, investing in equipment and cattle, and using extension advice were all

Table 6. *Villagers' perceptions of the determinants of welfare changes*

	Women	Men	Total
<i>Declines in welfare</i>			
Illness	6 (11, 14, 24, 31, 33, 36) <sup>a</sup>	7 (12, 13, 19, 24, 31, 33, 37)	13
Bereavement	4 (24, 31, 33, 36)	1 (24)	5
Life cycle <sup>b</sup>	2 (15, 33)	5 (15, 21, 31, 36, 37)	7
No inputs	2 (11, 14)	3 (11, 12, 37)	5
Cattle die through disease	4 (14, 15, 31, 37)	3 (15, 27, 36)	7
Cattle die/are sold due to drought	4 (15, 26, 33, 36)	3 (15, 19, 26) <sup>c</sup>	7
Sell assets	5 (15, 19, 24, 33, 37)	3 (13, 24, 33)	8
Drought/flood	5 (12, 13, 23, 33, 36)	5 (11, 12, 14, 27, 37)	10
Frivolous spending <sup>d</sup>	5 (11, 15, 21, 24, 37)	6 (13, 15, 23, 24, 26, 33)	11
Theft	2 (26, 31)	2 (26, 31)	4
Lazy	1 (24)	2 (24, 27)	3
Take another wife	1 (11)	1 (23)	2
<i>Improvements in welfare</i>			
Build on what government gave at time of resettlement	2 (36, 37)	2 (11, 13)	4
Use inputs	3 (14, 27, 36)	4 (11, 12, 13, 37)	7
Invest in equipment	2 (26, 37)	4 (12, 13, 19, 24)	6
Own/buy cattle	4 (13, 15, 26, 37)	3 (21, 23, 24)	7
Secure a loan	1 (11)	4 (12, 13, 19, 33)	5
Extension advice	7 (11, 12, 15, 19, 23, 26, 36)	5 (13, 23, 26, 27, 31)	12
Copy good farmers	1 (19)	2 (11, 27)	3
Experience	1 (12)	3 (11, 13, 31)	4
Work hard/persevere	6 (11, 12, 21, 24, 27, 37)	7 (11, 14, 15, 26, 27, 31, 33)	13
Plan and budget well	3 (19, 24, 37)	4 (11, 13, 24, 27)	7
Rain and good harvest	6 (13, 14, 19, 24, 27, 31)	1 (19)	7
Market for goods produced		3 (21, 24, 26)	3
Off-farm income during droughts	1 (19)		1
Good relationship with spouse	2 (24, 27)	1 (23)	3
Join a labor group	2 (33, 37)		2
Number of villages	15	15	30

Source: Author's fieldwork, 1997.

<sup>a</sup> Figures in parentheses are the identification numbers for the villages in which groups gave the indicated responses. See Table 1.

<sup>b</sup> Life cycle refers to (i) children growing up and thus a fall in labor (15, 33); (ii) paying school fees (31, 36, 37); old age (15); children not securing employment (21).

<sup>c</sup> Depends on the type of cattle—Hardy Mashona stock are more drought tolerant than Tuli, Brahman and Afrikaner types, although these latter types are larger and fetch more money at the market.

<sup>d</sup> Refers to spending money on beer drinking, tea, clothes and make-up.

regarded as important for growth. Many groups made comments about “the desire to succeed” and competition within the village being healthy for growth. Related to extension advice, a number of groups cited as positive extensive farming experience and copying the practices of good farmers. The female groups often noted that rain leading to a good harvest was an important factor. The women in Ma-wire East gave advice to someone being resettled now: “Don’t take loans. Try hard to pay by cash; work for someone in return for cattle;

do a little farm labor to pay for fertilizer. If you manage this, then you will move up.” This sentiment was echoed when the women’s group in one village argued: “No-one likes poverty. In order to move up, you must deny yourself new clothing and the like and invest in your field. If you have nothing, you have no protection from hard times.” In another village, the women advised people to: “Do brick-making in the first year. With the money, you can get someone to plow your field. When you harvest, you can buy cattle, and so keep increasing.”

Various issues relating to human capital were also raised. The overriding sentiment was that education does not matter. As summed up in one village:

The level of education doesn't come into it. 'So-and-so' didn't go to school but has more property than those who are educated. He does send his children to school because he doesn't want them to have the same kind of life as him. He works hard and doesn't want them to suffer.

Many argued that extension advice was important for good farming. In Chitepo, villagers made an interesting point: "In the beginning, the extension worker would come to the plot and tell them what to do. Now that we have enough knowledge, we only need extension advice for problems. Those who used the first advice well now use accumulated knowledge."

The men in one Mutanda village had a savings scheme that they argued was making people rich. Each month six households contributed Z\$150 (equivalent to about US\$12 in 1997) to the group. Every six months, one household would get all the money to buy what it wanted, although the item had to be approved by the group. Normally a bovine or a cultivator was purchased, although in some instances households were allowed to buy a piece of furniture.

To conclude this section, villagers' perceptions of poverty and the determinants of growth match those in the economic textbooks as well as the results from data collected through the formal questionnaires. As noted earlier, current development policy focuses on physical and human capital as important for growth. Not only do villagers use income as a measure of well-being, but they identify the determinants of growth as "investing in equipment and cattle" and "accumulating knowledge." The prediction is that their perceptions on the role of aid are also likely to conform to current development orthodoxy. The following section explores the extent of such conformity.

## 5. VILLAGERS PERCEPTIONS ON THE ROLE OF HUMANITARIAN AND DEVELOPMENT ASSISTANCE

The economics literature uses the term *transfers* to refer to payments that represent an income redistribution rather than a payment in return for some productive service. *Private*

transfers refer to remittances received from nonresident household members, relatives of household members, and/or friends. *Public* refers to receipts from the government, donors, NGOs and/or a previous employer. This latter category is often referred to as aid.

As mentioned at the outset households received development assistance in the form of five hectares of arable land for cultivation, a small allocation of seed and fertilizer in the first season, and have continued to receive development assistance in the form of agricultural extension advice, inputs for farming, medical and educational grants. Aid in the form of relief assistance has been provided to households as food aid, supplementary feeding for children, food-for-work and grain loans.

Of the transfers received by the resettled households, 46% have been from government agencies and NGOs, 21% from non-resident household members, 16% from another relative and 15% from a son-in-law.<sup>8</sup> Transfers, like off-farm income, are only an important source of income in drought years. Private transfers account for a very low proportion of total household income: only 1% in nondrought years, 11% in the severe 1991–92 drought, and only 1% in the less-well publicized 1994–95 drought. Similarly, public transfers account for a small proportion of income: 4% in nondrought years, 28% in the 1991–92 drought, and 18% in the 1994–95 drought. It is not surprising then that 44% of remittances is used predominantly for food purchases, whilst 28% is used for general household purchases, and 12% for expenditure on children.

This section explores villagers' own perceptions of aid. For this, we draw on the semi-structured interviews conducted in the villages (15 groups of men and women) and the questions on perceptions asked in the questionnaire. To ensure completeness the resulting tables are quite large as they report every response given.

### (a) *Reducing poverty in the village*

The semi-structured interviews began by trying to explore what villagers themselves were doing to reduce their own poverty and that in the village community. They were then led to indicate what they would do if they received a windfall injection of money. Finally, they were asked what they thought the government could do to reduce poverty in their village.

All of the male groups and 60% of the female groups responded that farming was the most

important activity in which they were engaged in order to reduce poverty.<sup>9</sup> They also listed complementary agricultural activities, such as cattle-fattening, poultry projects and gardening. The groups of women, less enthusiastic about farming, tended to list a wide range of other activities. Poultry projects and sewing cooperatives were mentioned by 80% of the women's groups. Other activities ranged from brick-making to thatching. This gendered division between farming and *projects* was a recurring theme in the answers received.

There was little consensus among responses when prompted as to what they would do if they had money. Just under half of the men's

groups would buy cattle; a third would spend the money on a dam. Other responses included buying equipment such as a tractor, a truck, or a grinding mill. The women's groups were more in favor of grants for specific projects such as gardening, poultry-rearing and making peanut butter. They were also interested in money to buy more expensive seeds for growing specialist crops, which they identified as tobacco, potatoes and fast-growing beans.

Table 7 itemizes what villagers thought the government could do to reduce poverty in their villages. Most male and female groups felt that the construction or repair of existing dams should be a priority of the government to help

Table 7. Possible government actions to reduce poverty in respondents' village, by sex and village

	Women	Men	Total
Construct dams	7 (12, 13, 14, 23, 24, 27, 33) <sup>a</sup>	10 (11, 12, 13, 19, 21, 23, 24, 26, 27, 31)	17
Drill boreholes	3 (11, 13, 33)	5 (11, 13, 19, 26, 37)	8
Provide irrigation		2 (31, 37)	2
Fix producer prices	6 (12, 13, 14, 19, 26, 37)	7 (12, 13, 14, 15, 19, 26, 36)	13
Build a closer clinic	3 (13, 27, 37)	1 (13)	4
Closer depot/market for goods	5 (11, 14, 21, 26, 27)	1 (26)	6
Build a closer schools		2 (13, 19)	2
Provide more cattle dips		3 (14, 15, 24 <sup>b</sup> )	3
Provide paddocks	7 (13, 14, 27, 31, 33, 36, 37)	3 (12, 14, 24)	10
Provide a grinding mill	1 (11)	2 (11, 36)	3
Improve transport/reduce cost	7 (12, 13, 14, 21, 27, 33, 36)	3 (21, 27, 36)	10
Improve roads	3 (12, 33, 37)	2 (12, 23)	5
Give free inputs	5 (11, 14, 15, 21, 31)		5
Reduce the costs of inputs	6 (11 <sup>c</sup> , 12, 13, 27, 33, 37)	4 (19, 26, 31, 33)	10
Install electricity	1 (12)	4 (13, 14, 19, 31)	5
Give land to children	3 (19, 33, 36)	2 (13, 14)	5
Loan of cattle for breeding	3 (14, 15, 37)	4 (11, 13, 27, 33)	7
Provide tractor for tillage	7 (11, 13, 14, 19, 23, 27, 31)	3 (11, 19, 36)	10
Provide loans (for livestock, inputs, equipment; without collateral; reduce interest rate; to individuals)	3 (12, 14, 26)	9 (11, 13, 14, 15, 19, 27, 31, 33, 37)	12
Capital for animal projects (poultry, goats, piggery, cattle fattening)	4 (11, 14, 24, 36)	3 (33, 36, 37)	7
Capital for women's projects (own land, gardens, sewing, knitting, baking, literacy classes, crèche)	11 (11, 13, 14, 15, 19, 24, 26, 31, 33, 36, 37)		11
Reduce school fees	3 (14, 15, 27)		3
Provide welfare	5 (12, 13, 14, 15, 27)	1 (19)	6
Total	15	15	30

Source: Author's fieldwork, 1997.

<sup>a</sup> Figures in parentheses are the identification numbers for the villages in which groups gave the indicated responses. See Table 1.

<sup>b</sup> Refers to medicine for cattle.

<sup>c</sup> The women in this village have already set aside a plot for 16 members of a club, but need fertilizer.

relieve their poverty. A closely related point was the construction of boreholes and the supply of irrigation equipment. After dam construction, the second most common request was for the government to fix producer prices. Many felt that the costs of inputs, transport and consumer goods had increased, yet the price they received for their agricultural produce had fallen.

The male groups often discussed the importance of loans; they requested lower interest rates, the ability to secure individual rather than group loans, and loans for specific items such as livestock and inputs. A number of male groups discussed how burdensome loans could be. The men in Chitepo expressed fear about taking credit due to the high interest rate and initial charges. In Mutoramhepo, the groups argued that loans were useful but left households more vulnerable to drought or illness: "The original arrangement was that the AFC [Agricultural Finance Corporation] gave loans. In times of difficulty, we were unable to repay. Now the AFC won't give us loans or will charge a higher rate of interest." The villagers thought the government should intervene in difficult times by converting short-term loans to medium-term loans. Female groups, on the other hand, rarely mentioned loans and, if they did—as in Mungo, were against them. Instead, women overwhelmingly wanted money for women's projects, which ranged from sewing and knitting cooperatives to adult literacy classes (so "we can read the checks our husbands receive for the crops," or "write proposals for projects"). They also mentioned farming projects: having their own land for projects, or funds for livestock-related projects, such as poultry, piggery and cattle-fattening cooperatives. The male groups tended not to refer to specific projects; however, when queried as to how their request for the provision of electricity would reduce poverty, they argued that they could then have off-farm businesses, such as welding enterprises.

These results match those obtained through the questionnaire. Table 8 shows that overwhelmingly construction and/or repair of dams was the most common response. Boreholes, repairing roads and installing electricity were the next most commonly cited items. Loans and help with agricultural inputs were also frequently reported. One nonagricultural activity mentioned was construction of a clinic in closer proximity to the village, an item also mentioned in the group discussions. Villagers felt that not

only was the cost of travel to the clinic expensive but also labor that was unproductive because of poor health could easily cause a household to become poor.

Table 9 combines the information on individual household rankings in a normal year from the previous section with the list of items villagers first mentioned as a way the government could reduce poverty.

The households that considered themselves better-off were more likely to suggest the government should provide dams and boreholes than the other two groups. The group that considered themselves as about-the-same as others reported loans more often. Perhaps not surprisingly the group that reported itself as worse-off was more likely to suggest the government provide welfare and loans of cattle and farming equipment.

(b) *Preventing poverty if there is another drought*

The second part of the interview sessions began by exploring what villagers were doing themselves to prevent poverty in the event of another drought. As before, they were prompted on what they would do if they had money. Finally, they were asked what they thought the government could do to reduce poverty in the event of another drought.

Very few of the villages reported on what they were doing to prevent poverty in the event of another drought; rather, they launched into discussion of what the government should do. Those who did respond reported they were doing a number of things—storing food, saving money, winter-plowing and growing drought resistant crops, such as *mhunga* and sorghum. If they had money, they would install irrigation equipment and invest in growing drought-tolerant crops and develop off-farm projects, such as pottery.

Table 10 lists what the villagers thought the government could do to reduce poverty if there is another drought. Again, the groups demanded the construction of a dam. Again, the call for irrigation equipment is related. There was also a call for more grain storage—both by the government and by individuals, who should be encouraged and taught how to store food. Many villagers suggested that households should contribute a number of bags of maize each year to a grain silo kept in the village, so that they would have this to fall back on during drought.



Table 8. *Possible government actions to reduce poverty in respondents' village, by priority of action*

Action	Number of responses by priority		
	First	Second	Third
Construct/repair dams	111	34	10
Borehole	26	34	6
Construct/repair roads	25	33	16
Bus service	2	3	4
Provide transport for marketing crops	4	6	2
Provide paddocks/fencing	11	22	6
Provide closer cattle dips	3	6	4
Provide more grinding mills	5	4	1
Distribute more land	9	7	3
Give households title deeds	1		
Install electricity	24	17	4
Help with agricultural inputs	12	4	
Give or loan cattle	12	5	
Help with farming equipment	3	3	
Loan tractors/draught power for tillage	10	5	3
Irrigation equipment	4	2	
Free food	9	7	2
Reduce food prices	6	2	2
Reduce fertilizer prices		1	
Reduce taxes		1	
Set attractive producer prices	7	4	
Grants/capital for projects	8	10	1
Provide building materials (e.g., for toilets)	4	3	
Build closer schools/crèche	7	14	8
Build a closer clinic	11	22	9
Build technical schools—carpentry/budgeting/adult literacy	3	4	2
Organize co-operatives for projects	2		
Organize youth/women projects		2	
Initiate cattle fattening project	2	3	
Shops	3	4	5
Provide tractors for hire at low prices	5		
Debt forgiveness	3		1
Provide easy access to loans	16	7	3
Provide loans for projects	6	2	
Loans for purchasing cattle	11	5	1
Loans for fertilizer and seed	6	3	
Loans for solar panels	1		
Housing loans	2	1	
Farming loans	6	2	
Loan for construction of borehole	2		
Food for work	5	3	2
Build industries in rural areas/create employment/policies to encourage diversification	4	2	3
Extension advice	1	1	
Annual grain loan	2	2	
Welfare for vulnerable		2	3
Give us \$50,000	1		
Help yourself	1		
Totals	396	295	103

Source: Author's fieldwork, 1997.

Table 9. *Possible government actions to reduce poverty tabulated by households' comparison with their neighbors in a normal year*

Summarized categories of actions	Worse-off	About-the-same	Better-off	Total
Dams, boreholes	12 (17.4) <sup>a</sup>	95 (96.1)	34 (27.4)	141
Transport, roads, buses	2 (3.8)	20 (21.1)	9 (6.0)	31
Paddocks, cattle-dips, mills, extension	1 (2.5)	16 (13.7)	3 (3.8)	20
Loans	8 (6.2)	38 (34.1)	4 (9.7)	50
Grants	5 (4.1)	22 (22.5)	6 (6.4)	33
Policies to generate off-farm income	3 (3.5)	20 (19.1)	5 (5.4)	28
Reduce prices—food, shops, fertilizer	3 (2.1)	10 (11.6)	4 (3.3)	17
Welfare	6 (2.4)	10 (13.0)	3 (3.7)	19
Social amenities—shops, schools	1 (2.4)	15 (13.0)	3 (3.7)	19
Organize projects	1 (0.5)	2 (2.7)	1 (0.8)	4
Loan of cattle and farming equipment	7 (3.7)	19 (20.5)	4 (5.8)	30
Other	0 (0.5)	3 (2.7)	1 (0.8)	4
Total	49	270	77	396

Source: Derived from Table 8 and Author's fieldwork, 1997.

<sup>a</sup> Figures in parentheses are the expected count.

Table 10. *Possible government actions to reduce poverty in the village if there is a drought*

	Women	Men	Total
Store more grain	1 (21) <sup>a</sup>	7 (11, 12, 13, 14, 19, 21, 26 <sup>b</sup> )	8
Encourage people to store food		2 (13, 19)	2
Provide chemicals for preserving	2 (21, 36)	3 (13, 19, 33)	5
Provide drought resistant seeds	2 (24, 37)	2 (27, 33)	4
Build more dams	6 (11, 12, 13, 19, 24, 26)	10 (12, 13, 14, 15, 19, 24, 26, 31, 33, 36)	16
Provide irrigation equipment	6 (11, 13, 14, 15, 19, 31)	3 (21, 31, 37)	9
Provide fencing for livestock	2 (24, 37)	6 (15, 19, 24, 33, 36, 37)	8
Food-for-work	3 (12, 14, 33)	2 (13, 21)	5
Provide off-farm jobs	3 (13, 27, 33)	1 (27)	4
Food aid	8 (11, 12, 14, 15, 19, 23, 36, 37)	3 (13, 15 <sup>c</sup> , 37)	11
Provide free grain	4 (13, 15, 31, 33)	1 (13)	5
Provide cattle feed	1 (23 <sup>d</sup> )	1 (19)	2
Abolish school fees in drought	3 (11, 13, 14)		3
Freeze interest on loans	3 (13 <sup>e</sup> , 19, 37)		3
Provide input loans	1 (26)	1 (14)	2
Provide grain loans	2 (13, 21, 27)		2
Plough land after drought	3 (21, 26, 31)		3
Land for a group to cultivate		2 (23, 27)	2
Supplementary feeding	3 (13, 14, 19)		3
Total	15	15	30

Source: Author's fieldwork, 1997.

<sup>a</sup> Figures in parentheses are the identification numbers for the villages in which groups gave the indicated responses. See Table 1.

<sup>b</sup> Wants to store grain but gets such a low price has to sell all of the crop to pay school fees and buy inputs.

<sup>c</sup> This frees savings for other uses such as buying inputs.

<sup>d</sup> Want cattle now to fatten and sell during drought.

<sup>e</sup> Want half as a loan, half as a grant.

Few of the male groups mentioned provision of welfare, although over half of the female groups thought the government should provide food aid. Prompted as to whether they wanted

the food aid now or during a drought, most responded they wanted it during a drought; a few suggested *now* so that they could buy fertilizer with their cash and thus not need welfare during a drought. In Muringamombe, villagers argued that, if fertilizer were given every year, they would have good harvests and therefore be able to store maize, repay loans, keep cash, and thus be self-reliant when drought occurs.

Comparing these responses to those from the 1997 ZRHDS questionnaire (Table 11), it appears that the question may have been interpreted to mean what would be most helpful during a drought. Here 44% listed food aid as the most important thing the government could do, and only 5% listed construction of a dam. Just over a third requested a grain loan. This is surprising in light of the fact that only a cou-

ple of villages requested a grain loan in the group discussions. The general feeling about the grain loans was rather negative. The men in Muringamombe declared: "For many the grain loan led to a cycle of poverty that they can't get out of. Receiving the grain loan in 1996, then having too much rain in 1997, has made it impossible for many households to repay." Evidence from the ZRHDS data set supports this conclusion (Owens et al., 2003b). The survey data suggest that a generous estimate would be that 25% of recipients had repaid their loans in full. By February 1997, FEWS (1997) noted that: "Repayment of the loans received during 1995-96 under the grain loan program has been suspended. At the time of suspension only about 23% of the total amount loaned had been repaid."

Table 11. *Prioritization of possible government actions to prevent poverty if there is a drought*

Identified action	Priority		
	First	Second	Third
Give food aid	175	22	2
Provide grain loans	148	25	1
Give supplementary feeding	8	24	7
Construct a dam	20	7	2
Construct boreholes	4	3	4
Improve roads	2	4	1
Build grain silos	1		
Store enough grain in good years		2	
Give drought recovery seeds and fertilizer	5	19	
Drought relief	15	7	2
Introduce a drought levy	1		1
Pay school fees	3	9	1
Provide capital to start co-operatives	2	5	
Provide loans for cattle feed and medicine	2	3	1
Provide farming loans to buy seed and fertilizer	1	8	2
Provide loans for livestock	1	5	2
Provide more loans	1	1	
Provide food loans	1	3	
Food for work	4	7	1
Provide off-farm jobs	2	3	
Give feed for cattle	1	2	
Provide paddocks		1	
Give livestock		1	
Provide cattle-dip tank		1	
Give money for groceries		1	1
Provide clothing		1	
Provide villagers with buyers			1
Localize cattle auctions			1
Build more hospitals		1	1
Total	397	165	31

Source: ZRHDS data set, 1997.

Table 12. *Possible government actions to prevent poverty if there is a drought and households' self-ranking of their position in the area*

Identified action	Worse-off	About-the-same	Better-off	Total
Give food aid	28 (21.6) <sup>a</sup>	123 (119)	24 (34.4)	175
Provide grain loans	14 (18.3)	98 (100.7)	36 (29.1)	148
Give supplementary feeding	1 (1.0)	6 (5.4)	1 (1.6)	8
Construct a dam	5 (3.0)	15 (16.3)	4 (4.7)	24
Provide general drought relief	1 (2.7)	16 (15.0)	5 (4.3)	22
Pay school fees	0 (0.4)	2 (2.0)	1 (0.6)	3
Food-for-work	0 (0.7)	4 (4.1)	2 (1.2)	6
Improve roads	0 (0.2)	0 (1.4)	2 (0.4)	2
Provide loans	0 (0.7)	3 (4.1)	3 (1.2)	6
Build grain silos	0 (0.1)	1 (0.7)	0 (0.2)	1
Give grants, money	0 (0.2)	2 (1.4)	0 (0.4)	2
Total	49	270	78	397

Source: Derived from Table 8 and ZRHDS data set, 1997.

<sup>a</sup> Numbers in parentheses are expected values.

Table 12 combines the household ranking from Table 8 with the first reason households gave as to what the government could do to prevent poverty if there were another drought. The overwhelming response was to provide food aid—favored by households ranking themselves as worse-off, and grain loans—more favored by the households ranked as better-off.

(c) *Aid that lifts households out of poverty and aid that protects households from poverty*

Table 13 lists the types of aid that villagers identified as helping to lift them out of poverty and helping to protect them from poverty. The distinction between the two types of aid was clear for the majority of the groups.

Food aid, food-for-work, small handouts of fertilizer and seed protected households. The response on aid that promoted households was strangely divided between the male and female groups. Many of the female groups were adamant that no aid had lifted them out of poverty. Rather the rise from poverty was a result of their own hard work. The male groups, on the other hand, referred to provision of land and supporting services through the initial resettlement program—including fertilizer and seed, housing, and—the most commonly reported type of aid—extension advice.

There were heated discussions in a number of villages as to whether loans should be considered as aid. Most of the female groups argued that “loans are not aid.” Six male groups and four female groups did state loans were a form of aid that had assisted them to move out of

poverty. The loans given to buy cattle, for example, were considered to have been poverty-reducing by giving families something upon which to build.

Only villagers in Pedzanhamo commented on aid received from relatives which they dismissed as “not significant.”

Villagers' own perceptions of aid and its role in their development appear to correspond with thinking in the economic literature and the applied micro-econometric work conducted on the ZRHDS data set. Villagers clearly distinguish between aid that has promoted them out of poverty and that which has protected them from poverty. Similarly, they distinguish between aid that would help to reduce poverty in the future and that which could prevent poverty in the event of another drought. Aid has clearly played an important role during the transition phase. It has protected households when they were most vulnerable, but more importantly it has helped these households see significant growth in their levels of income.

## 6. CONCLUSION

Macroeconomic theory prescribes investment in both physical and human capital as necessary elements for growth. Applied microeconomic research on the ZRHDS data set supports such recommendations. Household-level data show that the income growth experienced by these households has been largely a result of the accumulation of physical capital and, more importantly, increased returns to

Table 13. *Perceptions of aid as protecting households from poverty or lifting them out of poverty*

	Women	Men	Total
<i>Aid that has protected households from poverty</i>			
Food-for-work		3 (11, 13, 37)	3
Grain loans	7 (12, 13, 19, 21, 24, 26, 36) <sup>a</sup>	8 (11, 19, 26, 27, 31, 33, 36, 37)	15
Extension advice	3 (24, 33, 37)	1 (37)	4
Food handouts	2 (15, 24)	5 (11, 13, 21, 23, 24)	7
Clothes handouts	1 (27)	1 (23)	2
Initial gifts of food and tools	1 (33)	1 (33)	2
Small gifts of fertilizer and seed	7 (11, 13, 15, 24, 26, 31, 37)	5 (12, 14, 19, 31, 33)	12
Fertilizer in the drought	4 (11, 12, 15, 33)		4
Welfare	3 (13, 14, 21)		3
Paying school fees		2 (12, 26)	2
Supplementary feeding	3 (14, 24, 26)	1 (19)	4
Frozen interest on loans in 1992		1 (12)	1
Cattle dips		1 (24)	1
Helped with toilets	2 (27, 31)		2
One off cattle project	1 (36)		1
Total	15	15	30
<i>Aid that has lifted households out of poverty</i>			
Initial fertilizer and seed	1 (19)	6 (11, 14, 15, 24, 36, 37)	7
Housing	1 (12)	5 (12, 13, 14, 33, 37)	6
Pastures		1 (37)	1
Irrigation	1 (36)	2 (36, 37)	3
Resettlement/land	2 (14, 36)	6 (11, 14, 21, 27, 31, 37)	8
Heifer scheme		1 (21)	1
School fees paid	1 (14)	1 (21)	2
Fertilizer and seed handouts	1 (12)	4 (13, 21, 23, 27)	5
Extension advice	3 (13, 14, 21)	7 (14, 19, 23, 24, 31, 33, 36)	10
Cement for toilets	1 (19)	3 (19, 27, 33)	4
Loans	2 (11, 14)	3 (12, 19, 26)	5
Loans to buy cattle in the 1980s	2 (12, 33)	3 (14, 15, 33)	5
Bus service	1 (12)		1
Electricity		1 (11)	1
Piggery/goat and sewing projects	2 (11, 13)		2
Total	15	15	30

Source: Author's fieldwork, 1997.

<sup>a</sup> Figures in parentheses are the identification numbers for the villages in which groups gave the indicated responses. See Table 1.

this capital though learning by doing. This finding is also reflected in the perceptions expressed by the villagers themselves. Investment in equipment and cattle, along with following the advice of agricultural extension staff, were the most commonly reported determinants of income growth.

Concern among development practitioners that the current increase in spending on relief aid may be adversely affecting development programs is borne out using the household-level data. Simulations substituting develop-

ment aid in the form of physical and human capital for drought relief caused poverty to fall in nondrought years, without making households worse-off in the drought year. The opinions expressed by the villagers also reflect this knowledge and concern. With respect to aid they had received, they are clearly able to distinguish between relief aid that had protected them from poverty—food aid, food-for-work, small handouts of inputs—and development aid that had helped them move out of poverty—the provision of land and supporting

services, especially agricultural extension advice. When reporting what they thought the government could do to reduce poverty in drought and nondrought years, villagers called for investment in both physical and human capital.

It is reassuring, therefore, to be able to conclude that villagers' perceptions of poverty and the role of aid converge with the empirical evidence from formal survey work and current economic thought.

## NOTES

1. The random sample was chosen by drawing cards out of a hat.
2. The 1997 ZRHDS questionnaire included some pilot qualitative questions. To build on this in the future, it would be interesting to note whether the answers of villagers who had gone through the group discussions of the PRA exercise were different from those who had not.
3. In May 1992, IIED published a paper entitled "Special issues on applications of wealth ranking" that was the outcome of a series of seminars at the Institute of Development Studies, University of Sussex. Participants exchanged experiences with wealth ranking that were then documented in the PRA Notes. Subsequently, Bevan and Joireman (1997) conducted a more practical implementation of the guidelines.
4. For a full description of the income and capital variables, see Owens (1999).
5. This is probably because of the wording of the question in the questionnaire: "What are the main reasons you consider yourself to be either poor or well-off?"
6. Because of concern that this was due to some households comparing themselves to other households in the area, rather than within the village, the correlations with income in the scheme were also calculated. Although significant, the coefficients were all below 0.5.
7. The men in Rundu seemed particularly concerned with the effects of drinking tea. "Daily buying of tea is a source of poverty. Some people take a lot of tea. This is unnecessary." This quote puts one in mind of William Cobbett's outpourings on the "badness" and the cost of tea drinking in 19th century England. "At any rate it communicates no strength to the body; it does not in any degree assist in affording what labor demands." After detailing the costs he concludes "the wretched thing amounts to a good third part of a good and able labourer's wages!"
8. Data source: ZRHDS.
9. A number of groups leapt straight to discussing what they thought the government should do.

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