HOW LAND REFORM CAN CONTRIBUTE TO ECONOMIC GROWTH AND POVERTY REDUCTION: EMPIRICAL EVIDENCE FROM INTERNATIONAL AND ZIMBABWEAN EXPERIENCE

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1. International evidence on the relationship between asset ownership and growth

- Economic theory is very clear on the fact that a one-time redistribution of assets can, in an environment of imperfect markets, be associated with permanently higher levels of growth. Thus, in contrast to what has been predicted by earlier development models (Kaldor, Kuznets), redistribution can actually be *good* for growth (Aghion et al. 1999; Bardhan et al.; Piketty 1999).
- Cross-country regressions clearly demonstrate that inequality in the distribution of land ownership is associated with lower subsequent growth (Birdsall and Londono 1998; Deininger and Squire 1998; Deininger and Olinto forthcoming; World Bank, 2001 World Development Report). Figure 2 provides a graphical illustration.
- At the household level, asset ownership has a clear impact on subsequent economic success (Blanchflower and Oswald 1998; Hoff 1996).
- Equal distribution of land ownership is shown to have made a significant contribution to human development indicators, for example in China as compared to India (Burgess 1999).

2. International evidence on the impact of redistributive land reform

Even though many land reforms were often implemented in a way that reduced their possible impact on equity and efficiency, there is growing evidence from all over the world that redistributive land reform helped reduce poverty, increase efficiency, and establish the basis for sustained growth:

- Experts agree that land reforms in Japan, Korea, and Taiwan, have made a major contribution to overcoming the legacy of colonial development (King, 1973).
- In addition to aggregate evidence on the positive poverty impact of land reforms in India (Besley and Burgess, 1998), tenancy reform in the Indian state of West Bengal is shown to have led to significant increases in productivity (Banerjee et al. forthcoming).
- In the Philippines, land reform beneficiaries have invested more in their children's education than non-beneficiaries and increased their levels of assets at about three times the rate of non-beneficiaries (Deininger et al. 1999).
- In South Africa, despite many problems with implementation, it can be shown that there is no conflict between equity and efficiency goals and that land reform offers an opportunity to the poor (Deininger and May, 1999).
- In Brazil, land reform has clearly been shown to be economically viable having scope of increasing beneficiary income up to 5-fold (Buinainain et al. 1998).
- In Colombia, implementation of market assisted land reform has been shown to have a potential of targeting the most unproductive areas, thus leading to considerable productivity increases (Machado et al. 1999).

3. Evidence on the impact of land reform in Zimbabwe

- A panel survey of resettlement households started in 1983 shows clearly that resettled households' well-being has improved dramatically over the past 20 years:
 - Their livestock wealth has almost tripled (see figure 1; Kinsey et al. 1998)
 - Their productivity has increased significantly (Gunning et al. forthcoming)
 - Even accounting for agro-ecological endowment, the income of resettled households is more than five times as high as that of communal households in similar areas (and their agricultural income more than six times as high; see table 1).
- The 70,000 households which have so far benefited from land redistribution, represent about 5% of the peasant farmer population, but produce between 15 and 20% of the marketed output of maize and cotton, while also largely satisfying their own food consumption needs (Moyo, 1995).
- Redistribution efforts so far (3.2 million ha) have had no negative impact on large-scale commercial farm output, given the extent of underutilization of arable land in the large-scale commercial farm sector. The percentage of underutilized arable land in the large scale commercial farm sectors is about 40-50% in high potential agro-climatic regions I and II, and 85% in region III (Moyo, 1995; World Bank, 1991).

4. Why does it appear that resettled farmers are among the poorest in the population?

The 1995 Income and Expenditure survey found the prevalence of poverty to be highest among resettlement farmers (CSO, 1999). Several technical shortcomings of the data can explain this result:

- The survey collected data on consumption only for a one-month period, creating the danger of picking up short-term fluctuations rather than longer-term trends.
- Data collection was undertaken immediately after the drought which had a bigger impact on resettled than on communal households as resettled farmers rely less on off-farm employment.
- There is evidence that resettled households reduced their consumption subsequent to the drought in order to avoid having to sell their animals and deplete their asset stocks at a very low price (due to the absence of buyers after the drought).
- The calculation of the poverty line does not use an adult equivalence scale. This overstates poverty in general and in particular in resettled households which are bigger and have more children than communal ones. In the CSO study, children and adults are counted as if they consume equal amounts of income.
- The survey questionnaire design is biased against consumption from home production, again resulting in lower consumption estimates —and apparently higher levels of poverty-among rural and resettled households.

5. Conclusion

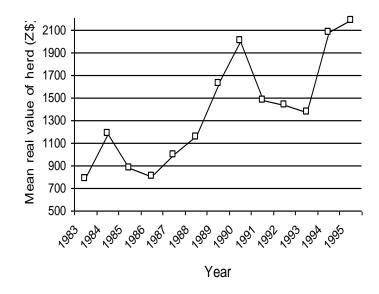
- Recognition of the importance of asset ownership for subsequent development suggests that asset redistribution can be a viable strategy to enhance growth.
- There is now a growing number of empirical studies confirming this hypothesis for actual implementation of redistributive policies.
- The best available data show that the performance of resettled farmers in Zimbabwe is better than is conventionally believed.
- If a land reform program is well designed, it can have a large impact on equity as well as productivity.

 $\textbf{Table 1: Comparison of household characteristics for \ resettled and communal households living in natural region II}\\$

Means for 1996/7 – 1996/97	Resettled	Communal
Total real household income	4442	959
of which		
real agricultural income	3771	546
real gross business revenue	197	36
real income from sale of livestock	87	18
products		
real remittances	151	270
real female income	189	99
real off farm income	46	30
Yield per acre for maize	765	420
Acreage of maize	4.6	2.7
Total acreage cultivated	8.9	4.1
Number of residents in the household	11.6	6.1
Head of cattle	11.5	6.2

Source: Calculated from Kinsey (1999)

Figure 1: Real value of herd for resettled households



Source: Kinsey et al. (1998).

References:

Aghion, Philippe, Eve Caroli, and Cecilia Garcia-Peñalosa 1999, 'Inequality and Economic Growth: The Perspective of the New Growth Theories', *Journal of Economic Literature* 37: 1615-1660

Banerjee, A., Gertler, P. & Ghatak, M. (1998), "Empowerment and Efficiency: The Economics of Agrarian Reform", mimeo, Department of Economics, MIT.

Bardhan, Pranab, Samuel Bowles, and Herbert Gintis. 1999. 'Wealth Inequality, Wealth Constraints and Economic Performance.' In *Handbook on Income Distribution*, Anthony Atkinson and François Bourguignon (eds.). forthcoming.

Besley, T. and Burgess, R. (1998), "Land Reform, Poverty Reduction and Growth: Evidence from India", mimeo, London School of Economics.

Birdsall, N., and J. L. Londoño. 1997. Asset Inequality Matters: An Assessment of the World Bank's Approach to Poverty Reduction. *AEA Papers and Proceedings* 87(2): 32-37. The World Bank.

Blanchflower, David G., Oswald 1998, Andrew J. What Makes an Entrepreneur? *Journal of Labor Economics* 16(1), 26-60

Buainain Antônio Márcio, José Maria da Silveira, Hildo Meireles Souza, and Marcelo M. Magalhães, Community-based land reform implementation in Brazil: A new way of reaching out to the marginalized? Paper presented at the GDN Launch Workshop Bonn, Dec 5-8, 1999 (www.gdnet.org).

Burgess, R. 1998. Land, Welfare and Efficiency in Rural China. London School of Economics (mimeo).

de Janvry, Alain, Elisabeth Sadoulet and Wendy Wolford. "The Changing Role of the State in Latin American Land Reforms." Paper prepared for the WIDER-FAO workshop on "Access to Land," Santiago, Chile, April 27-29. 1999.

Deininger, Klaus and Hans P. Binswanger 1999, "The Evolution of the World Bank's Land Policy: Principles, Experience, and Future Challenges", *World Bank Research Observer* 14(2), 247-76

Deininger, Klaus, and Lyn Squire. 1998. "New Ways of Looking at Old Issues: Inequality and Growth." *Journal of Development Economics* 57 (2), 257-285.

Deininger, Klaus, Francisco Lara, Miet Maertens, and Pedro Olinto 1999, Redistribution, Investment, and Human Capital Accumulation: The case of Agrarian Reform in the Philippines:'. Paper presented at the World Bank's Annual Conference on Development Economics, April 2000, Washington DC

Deininger Klaus and Pedro Olinto 1999, Asset distribution and growth: New Panel estimates, World Bank, mimeo

Gunning, J.W., J. Hoddinot, B. Kinsey and T. Owens, Revisiting forever gained: Income dynamics in the resettled areas of Zimbabwe, 1983-1997 (forthcoming Journal of Development Studies)

Hoff, Karla 1996, Market Failures and the Distribution of Wealth: A Perspective from the Economics of Information, Politics and Society 24(4), 411-432

Kinsey, B., Burger, K. and J.W. Gunning 'Coping with drought in Zimbabwe: survey evidence on responses of rural households to risk' *World Development*, 26,1 (1998), pp. 89-110.

Kinsey, B.H., 'Land Reform, Growth and Equity: Emerging Evidence from Zimbabwe's Resettlement Program', *Journal of Southern African Studies*, 25, 2 (1999) pp. 173-196.

Moyo, S., 1995, 'The Land Question in Zimbabwe'. Southern Africa Regional Institute for Policy Studies, SAPES Books, Harare.

Piketty, Thomas 1999, Theories of Persistent Inequality and Intergenerational Mobility, Chapter 6 of Handbook of Income Distribution (A. Atkinson, and F. Bourguignon, Eds.)