

Larger Homestead Plots as Land Reform? International Experience and Analysis from Karnataka

Land reform legislation in India, designed to redress issues of poverty and landlessness, has in most cases, suffered from design flaws and a failure of implementation. Land reform efforts are also stymied due to a lack of political will, scarcity of land and resources. Research summarised in this article seeks to offer an innovative and alternative solution, one that involves the provision of amply-sized homestead plots. As experiments in other countries, replicated in certain districts of Karnataka have borne out, such homestead and garden plots hold out the prospect of substantial benefits to poor, rural households, offering them much more than a place to build a house.

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I Introduction

Poverty imposes an enormous toll on India and its citizens, especially in rural areas where almost three out of four Indians and close to 80 per cent of the Indian poor live.¹ Despite decades of poverty alleviation efforts, the absolute number of poor has doubled since independence in 1947. India today retains the dubious distinction of having the largest number of poor people on the planet.

India also has the largest number of landless rural households on the planet. Plaguing tens of millions of households, rural landlessness is closely associated with poverty. A recent World Bank study shows that landlessness is, by far, the greatest predictor of poverty in India, finding the incidence of poverty to be 68 per cent among landless wage earners. By comparison, the incidence of poverty was found to be 51 per cent for scheduled castes and scheduled tribes; and 45 per cent for households where no one was literate.²

The problem of rural landlessness in India has, of course, been a regular subject of concern. In the decades following independence, most Indian states passed land reform laws aimed at broadening access to rural land. The two most common methods were: (1) redistributing ceiling surplus land, and (2) strictly regulating or prohibiting landlord-tenant relationships. While the effect of these laws has varied from state to state, most observers agree that in India as a whole, such laws have had only marginal impact on broadening access to land. Even in states such as West Bengal, Kerala, and Karnataka, where land reform laws have been hailed as relatively successful, the problem of rural landlessness remains substantial and the rural landless comprise the bulk of those living in poverty.

Today, Indian policy designers and policy-makers are faced with a serious challenge. On the one hand, rural landlessness remains a substantial problem at the root of much of India's poverty. On the other hand, there is little political will for addressing the problem through traditional land reform means (that is, by redistributing land via the imposition of land ceilings or by strengthening the rights of tenants).

What appears needed is a revised, or at least an expanded agenda for land reform. That is, an agenda that can address the land hunger of India's rural impoverished in a manner that will provide reasonable benefits to the landless, and is at the same time politically feasible, financially affordable, and not market constraining. Can any measures be identified which will simultaneously satisfy all these conditions? This article aims to take a step in that direction. The present article summarises relevant international experience and recent field research in

India that point toward what would appear to be both an effective and practical land reform alternative – an alternative, involving the provision of ample homestead plots, that could provide the poorest of the poor an opportunity to lift themselves out of poverty.

Section II provides an overview of international experience concerning benefits accruing from homestead and garden plots, highlighting several specific country settings. Section III describes the relevant government schemes providing such plots in the Indian state of Karnataka, the setting for much of the research findings presented in the following sections. Sections IV, the core section of the article, presents the results of recent research on homestead plots in Karnataka. Section V summarises the research findings and distills policy implications and recommendations.

II

Global Experience with Homestead and Garden Plots

This portion of the article first summarises the general benefits that small homestead and garden plots have provided to families in a variety of settings around the globe. Second, it details the remarkable benefits that such plots have provided in specific country settings. Finally, it briefly discusses prior findings (separate from our own findings, discussed later) concerning the benefits of homestead plots in an Indian setting.

General Benefits of Homestead and Garden Plots

While scant attention or research has been focused on the benefits that very small parcels of land can provide to poor rural households, what evidence does exist strongly supports the benefits of such plots. Small homestead or garden plots have been shown to confer multiple important benefits, in terms of food, income, status, and economic security to households worldwide.

Plots of land that are large enough to sustain a small garden or even a few trees increase the quantity and quality of food consumption, resulting in better overall family nutrition and health. Gardens, by providing a supply of diverse fresh fruits and vegetables, provide nutrition (especially vitamins A and C) that is absent from field agriculture crops, which are mainly grains.³ Households with gardens often obtain more than 50 per cent of their supply of vegetables, fruits, medicinal herbs and protein (for those with animals) from them.⁴ Homestead and garden plots can also significantly contribute to a family's supply of fuel wood. In Bangladesh, homesteads provide almost 90 per cent of all fuel wood used.⁵

In addition to providing a place for a garden and fruit or wood trees, small pieces of land can be used to shelter animals and store fodder. Animals in turn improve a family's supply of protein through eggs, milk and meat. They can also benefit a family by providing them with saleable commodities, producing manure that can be used on their own land as fertiliser or sold to others, and through their usefulness as draft animals to be used on the family's own land or to be leased to other farmers.

Homestead and garden plots also provide an important safety net through their value as a source of food, income and capital for families in times of drought, unemployment, or other hardships.⁶ Homestead plots enhance family income and economic security as they can produce a surplus for sale in the market and provide something for the family to fall back on in times of need. One researcher surmised that upwards of 20 per cent of household income can be attributed to house plots through the sale of surplus vegetables and animals products, combined with savings on amounts spent to purchase food in the market and medical expenses.⁷ Such plots also improve a family's economic position through their use as collateral, which increases a family's ability to access credit either for investment purposes or in times of distress.

The status and self-image of rural households is increased by the ownership of land, even a very small plot of land. Such status is important for overall well-being, for its ability to increase a family's involvement in village politics, and for helping households to access informal sources of credit in the village. It has also been shown to increase agricultural labourers' ability to bargain for higher wages (or a sharecropper's ability to bargain for a greater share), as they are no longer dependent on their employer for a place to live.⁸

Many of the important benefits from small homestead and garden plots accrue specifically to women. Such

plots provide women with a place close to home to garden and undertake other economic activities (i.e., tending animals, cottage industries, etc) that can provide them with an important source of independent income.⁹ This is especially important in places where custom does not readily permit women's participation in the labour market, as the homestead plot can become a production site for women's economic activities. However, even in places where women are able to participate in the labour market, household plots often reduce the time necessary for regular chores and provide women an opportunity for a more reasonable balancing of domestic and non-domestic tasks. Homestead plots in many settings provide an important source of fuel wood and household water that women might otherwise have to travel long distances to obtain. In sum, adequate household plots often: (i) provide women the potential to play a more significant economic role, thus improving their status and bargaining power within the household; and (ii) reduce the hours women are required to spend on regular chores.

Such plots can also provide important security to women in case of divorce or the husband's death, particularly if women hold or share formal legal rights to the plot. As one female agricultural labourer remarked to the authors after receiving a house plot in her own name, "Now my husband cannot throw me out".

Moreover, there is a vast literature confirming the fact that resources in the hands of women are much more likely to improve the well-being of the whole family, especially children.¹⁰ Because women are likely to do most of the gardening on homestead plots and have relatively greater control over the produce and income, there is a substantial degree of assurance that such produce will go largely toward the whole family's well-being.

Specific International Experience with Homestead and Garden Plots

Internationally, there is strong evidence of the value of homestead and garden plots to the rural poor. The most remarkable evidence comes from the Indonesian island of Java and other densely populated tropical locales, but small plots have proven value in countries with more temperate climates as well, such as the countries of the former Soviet Union.

On the Indonesian island of Java, homestead and garden plots of very small sizes, known as 'pekarangans', are extraordinarily productive. These plots are generally near the house and densely planted with a variety of multi-storeyed and mixed tree and vegetable crops, which supply a continuous and diverse source of food and a small but steady supply of income from the sale of surpluses.¹¹ Families also often keep livestock on such plots, which are used for draft power and for their manure which is composted and used as fertiliser.

Pekarangans cover 10-15 per cent of cultivatable land area and typically range in size from one-tenth to one-fifth of an acre (4,350-8,700 square feet).¹² Despite this small size, research by Stoler showed they can provide more than 20 per cent of a household's income.¹³ RDI's field research in Indonesia has found that a family could earn gross income that was more than equivalent to one full year's adult wages as an agricultural labourer from only 6,500 square feet of house and garden land, as well as providing a significant part of household consumption needs.¹⁴

In addition to contributing to family income, plots of this size yield significant amounts of produce for home consumption, such as banana, cassava, coconut, or sweet potato. Pekarangans have been shown to produce 44 per cent of total food calories, 32 per cent of proteins and 65 per cent of the fuel consumed by rural households.¹⁵ Alternatively, if used for intensive production of grain, research has found that plots of 4,300 square feet, if irrigated, can yield enough paddy rice to provide 40 to 60 per cent of the basic yearly nutritional requirements for a family of four persons.¹⁶ These benefits are achieved even though tending the household garden only consumes about one-twelfth of the owners' total working time.¹⁷

Small garden plots have been shown to be similarly productive on island nations in the Caribbean. Cuba, in particular, has achieved striking success with small-scale garden projects initiated over the past decade. In response to the crisis that struck the country after the fall of the Soviet Union, Cuba decentralised its large state farms, and also began fostering small-scale gardens in and near urban centers.¹⁸ Urban agriculture on small plots of unused land was permitted and encouraged and programmes were established to distribute small pieces of unused urban land to individual and community gardeners with some security of continued access.¹⁹

As a result of these policies small-scale gardeners now provide 60 per cent of all fresh produce consumed in Cuba, and food security and overall nutrition has been greatly enhanced.²⁰ Such small-scale agriculture, is not only a sideline operation in Cuba, it has created new employment opportunities as well. In 1998 small-scale agriculture accounted for 7 per cent of new jobs created.²¹

Small garden plots also have proven value outside the tropics and semi-tropics. In the former Soviet Union 'dacha' (country cottage) plots, which average 0.15 acres (6,500 square feet) are used by urban dwellers as a retreat from the city and a place for intensive gardening. During Soviet times such plots, which in many cases were more productive than similarly situated cropland, were critical in both Russia and Ukraine in allowing households to survive lean economic times. Since the break-up of the Soviet Union the Russian government has allocated millions more such plots to urban and rural residents. Such plots in Russia now comprise about 4.5 per cent of total agricultural land and produce 64 per cent of all produce grown in the country; 90 per cent of the country's potatoes; and 75 per cent of its fresh vegetables.²²

Earlier Research Findings on Homestead and Garden Plots in Kerala

The land reform legislation of several Indian states granted agricultural labourers' ownership rights to the land that they lived on. One such state was Kerala, where 'kudikidappukars' (landless agricultural labourers) were specifically granted the right to purchase, at a very sharp discount, the land their dwelling was on as well as up to 10 cents (0.1 acre) of land around their house in rural areas.²³ As a result of this provision 2,84,203 families acquired permanent rights to their homesteads.²⁴

This reform conferred many important benefits to landless agricultural labourers, who scarcely derived any benefits from other land reform measures. These plots have been found by several researchers to be very beneficial to their owners in terms of income, food production, and economic security.²⁵ Acquiring secure tenure was of great importance to agricultural labourers in Kerala, who previously risked being evicted from the land they lived on, which was usually owned by their employer.²⁶ Furthermore, employers also often used the threat of eviction as leverage to extract greater rent on field land that the labourer rented.²⁷ Thus, allowing the purchase of this land by labourers was significant in increasing their economic security. These small plots have also been found to provide a significant source of income and food to beneficiaries as they can be used to grow an abundance of many fruits and vegetables, including jackfruits, mangoes, cassava, plantains, and coconuts.²⁸

III

Rural Housing (and Related) Government Schemes in Karnataka

State governments in Indian have used different schemes and programmes to allocate homestead land for poor rural households. Some are co-funded by the state government and the government of India. Such schemes are often thought to fall into three different categories: (1) rural housing schemes; (2) programmes to regularise unauthorised possession of land; or (3) land reform programmes (several states had relatively small components of their land reforms that provided homestead plots). This section summarises some of the important schemes in the state of Karnataka where the authors both oversaw a rural household survey and conducted direct rapid rural appraisal field research focused on recipients of government-allocated homestead plots.

House Site and Construction Schemes

Both the central and state level governments have adopted various schemes to provide housing, and house sites when necessary, to India's rural poor. In the mid-1980s the central government initiated a house site and construction assistance scheme now known as Indira Awaas Yojana (IAY). The scheme has involved annual expenditures of Rs 1,536 crore over the past several years.²⁹ The Karnataka state government has also established its own housing assistance programmes, the Ashraya Yojana and Ambedkar schemes.³⁰

The primary targeted beneficiaries under both Gol and Karnataka state schemes are members of scheduled castes or scheduled tribes living below the poverty line (Rs 11,800 per year). Under both schemes approximately Rs 20,000 is allotted to beneficiaries to construct a house. Under the Gol scheme the beneficiary must arrange for construction on his or her own, while under the Karnataka state schemes, a government

contractor can be used.

Under the Karnataka state schemes, the government will provide a site of 30 by 40 feet in rural areas for the house if the beneficiary family does not already have one. This size of plot (1,200 sq ft or 2.75 cents) is just large enough for a house with only a small strip of land to spare.

Regularisation of Encroachment

In Karnataka state we encountered many households that had encroached onto government land to establish homesteads and/or cultivate land. State law has permitted the regularisation of many of these encroachments, so long as the applicant was personally cultivating the land and had occupied the land for at least three continuous years prior to April 14, 1990.³¹ Currently, applications for regularisation are no longer accepted.³²

Another provision of the law permits the regularisation of unauthorised construction of a house on government land. Several village officials understood that under this provision only the footprint of the house itself could be regularised – land around the house would have to be regularised under the unauthorised cultivation section of the law, discussed above. One family we interviewed had received ownership of their house itself under this provision. They had not, however, received ownership of the fenced and obviously much-used land around their house.

House Sites for Agricultural Labourers under the Land Reforms Act

Under the Karnataka Land Reforms Act, agricultural labourers were given the legal right to apply for and receive ownership of their dwelling and dwelling site.³³ The law initially limited the amount that could be granted to 2,180 square feet, but that ceiling was eliminated by 1982 Amendment. In Karnataka, 15,530 applications by landless labourers for housing sites have been approved.³⁴ On average, each applicant received 5,880 square feet.

IV

Field Research Results from Karnataka

The fieldwork results from Karnataka derive from two different methods: (i) a questionnaire survey of 400 rural households, including a sub-sample of 80 households who have received government-allocated homestead plots; and (ii) the authors' rapid rural appraisal (RRA) fieldwork³⁵ which was a follow-up to the household survey and focused on recipients of government-allocated homestead plots.

Overview of Karnataka Survey Districts

The questionnaire survey in Karnataka was conducted in the districts of Bijapur, Dakshina Kannada, Kolar, and Shimoga. The follow-up rapid rural appraisal fieldwork was done in two of these four districts: Kolar and Shimoga. The survey districts were selected as being broadly representative of the diverse agro-climatic regions and socio-economic conditions of rural Karnataka.

Karnataka has a range of climates varying from the very moist monsoon climate on the coastal and hilly areas to the semi-arid climate of the northern districts. The most significant physio-graphic feature in the state is the Western Ghats which act as a 'climatic divide' between a western tract of heavy rainfall and a dry eastern tract of low rainfall. The state is comprised of four regions: the coastal, the Malnad, the northern Maidan, and the southern Maidan. Each region is represented by one district in our questionnaire survey.

The coastal region, represented by the survey district of Dakshina Kannada, is hot and wet, with average rainfall exceeding 3,000 mm per year. The soils are lateritic except in isolated stretches near the sea where alluvium is found. Much of the region is characterised by difficult terrain full of rivers, creeks, isolated peaks, and detached ranges of hills.

The Malnad region, represented by the survey district of Shimoga, lies to the east of the edge of the Western Ghats. The region is forested and hilly. Average temperatures are cooler than the coastal region, and rainfall,

while heavy (1,000-2,500 mm per year), is also lower.

The northern Maidan, represented by the survey district of Bijapur, lies to the east of the Malnad and stretches to the northern and eastern boundaries of the state. It is a dry region, with rainfall ranging from 350 to 900 mm annually. The region is an extensive plateau with mostly deep black soil and generally open, tree-less fields.

The southern Maidan region, represented by the survey district of Kolar, lies east of the Malnad and stretches to the southern and eastern boundaries of the state. While much drier than western Karnataka, it has slightly more rainfall (500-900 mm per year) and is higher in elevation than the northern Maidan. In landscape, the region has many valleys of varying sizes and has predominantly red soils.

The following tables provide an overview of these and other indicators for the four survey districts.

Karnataka Questionnaire Survey Findings

RDI, in collaboration with Tajamul Haque,³⁶ the University of Agricultural Sciences, Bangalore, and the National Institute of Rural Development, conducted a questionnaire survey of a representative sample of 400 rural Karnataka households. The questionnaire included questions on a wide variety of land, land reform, and land market topics. One of those topics concerned homestead plots. The questionnaire asked respondents about: how and when they obtained their homestead plot; the size of their homestead plots and houses; improvements made to the homestead plot; animals kept on the homestead plot; trees growing on the plots; non-agricultural economic activities conducted on the plot; the impact of the plot on household livelihood; and a variety of related issues.³⁷

Table 1: General Profile of Survey Districts , Karnataka

	D Kannada	Shimoga	Bijapur	Kolar
Population (000's)	1,911	1,692	1,900	2,604
Rural Population (000's)	1,305(68)	1,143(68)	1,529(80)	1,997(77)
Scheduled caste (000's)	129	272	353	662
Scheduled tribes (000's)	73	38	21	178
Per capita income	10,665	10,121	7,350	6,223
Rainfall (mm/yr avg)	3,975	1,664	578	744
Principal crops	Rice,pulses	Rice,maize, ragi,cotton	Jowar, pulses, bajira, groundnuts	Ragi, pulses, groundnut, mulberry, coconut

Note: Figures in brackets are percentages.

Source: Government of Karnataka, Directorate of Economics and Statistics, Population figures are projected for 2001. Income data at current prices (1995-96)

The sample of 400 households was divided into five sub-samples of approximately 80 respondents: (i) tenant households that had received 'occupancy rights' to the tenanted land through the land reform; (ii) households that had lost land through the land reform; (iii) landless households; (iv) households that had received redistributed agricultural land through the land reform; and (v) households that had received homestead plots through some type of government scheme.

Table 2: Land Use Statistics

	D Kannada	Shimoga	Bijapur	Kolar
Geographical area ('000 ha)	834	1,058	1,712	779
Net cultivated area ('000 ha)	221 (26)	333 (31)	1,370 (80)	384 (49)
Gross cultivated area ('000 ha)	291	389	1,554	416
Net cultivated area per rural capita (ha)	0.17	0.29	0.90	0.19
forest land ('000 ha)	227 (27)	327 (31)	83 (5)	70 (9)
Land for non-agricultural uses ('000 ha)	93 (11)	102 (10)	57 (3)	74 (9)
Uncultivable wasteland ('000 ha)	71 (9)	22 (2)	54 (3)	63 (8)
Cultivable wasteland ('000 ha)	73 (9)	19 (2)	8 (0.5)	13 (2)
Pasture and grazing land ('000 ha)	31(4)	174 (16)	13 (1)	113 (15)
Trees and groves ('000 ha)	90 (11)	27 (3)	2 (0.1)	14 (2)

Fallow land ('000 ha) 26 (3) 52 (5) 127 (7) 49 (6)

Note: Numbers in parentheses are per cent of total geographical area.

Source: Government of Karnataka, Directorate of Economics and Statistics, Data is for 1996-97.

Table 3: Agricultural Landholdings

	<1 Ha		1-2 Ha		2-4 Ha		4-10 Ha		> 10 Ha	
	Per Cent of Holdings	Per Cent Area	Per Cent Holdings	Per Cent Area						
D										
Kannada	63	20	21	23	11	24	5	21	1	11
Shimoga	45	15	30	25	16	26	7	24	1	10
Bijapur	4	0.6	27	10	33	22	27	41	8	27
Kolar	53	18	26	25	14	27	6	23	1	8
Statewide	39	9	27	19	20	26	11	31	2	16

Source: Government of Karnataka Directorate of Economics and Statistics. Data is for 1990-91.

This paper reports on some preliminary data relating to the fifth group: those that received homestead plots through some type of government scheme. This group included 80 households. The findings related to how they were using the government-allocated homestead plot and the non-housing economic and social benefits accruing from the plot.

The most important findings include:

- (1) These homestead plots provide benefits far beyond those relating to housing.
- (2) The great majority of households have been able to use their homestead plot to keep animals and to grow trees.
- (3) The number of trees, animals, and related livelihood benefits increase substantially as the size of the homestead plot increases beyond the footprint of the house.
- (4) The likelihood that a household has animals increases substantially as the size of the homestead plot increases.
- (5) The likelihood that a household is growing trees on the homestead plot increases substantially as the size of the homestead plot increases.
- (6) The great majority of households report one or more significant non-housing benefits to their livelihood as a result of having received the homestead plot. The most common beneficial impact reported by respondents is an increase in status. This impact, often overlooked in more traditional economic analysis, is also most commonly prioritised by respondents as the most important benefit. Other commonly cited beneficial impacts included increased household income and increased access to credit.
- (7) A substantial number of households reported that receiving household plots increased their ability to access credit. A substantial portion of those had actually received credit as a result of owning a homestead plot. The improvement in credit access and the incidents of actually receiving credit increase as plot size increases.
- (8) Average price for dryland in the survey villages is Rs 33,250. So, if the government were to purchase land for allocating 10 cents (4,356 square feet or 0.1 acre) homestead-cum-garden plots to landless labourers, land costs would average about Rs 3,325 per beneficiary household.

The size of the homestead plots for the 77 households we analysed ranged from 290 square feet to 43,560 square feet.³⁸ For purposes of analysis, we divide the 77 households into four size groupings. The first group includes all households with homestead plots less than or equal to 900 square feet in size. The second group has homestead plots ranging from 901 to 1,800 square feet. The third group's homestead plots range from 1,801 to 6,540 square feet in size. The fourth group has homestead plots from 6,541 to 43,560 square feet.

Table 4 shows the overall homestead plot size data for the entire sample of 77 divided by the four districts.

Table 4: Homestead Plot Size Comparison by District (Karnataka Survey)

	D Kannada	Shimoga	Bijapur	Kolar	Total
Number respondents	20	17	20	20	77

Average size (sq ft)	12739	9671	762	773	5843
Median size (sq ft)	5886	2400	635	446	1200
Minimum size (sq ft)	3488	1200	290	320	290
Maximum size (sq ft)	34848	43560	1200	3600	43560

In general, the homestead plots in Kolar and Bijapur were much smaller than those in Shimoga and Dakshina Kannada. This, despite the fact that the total net cultivated land per rural capita in Bijapur (2.22 acres) far exceeds that in the other three districts; and the corresponding figure for Kolar (0.47 acres) is about the same as that for Dakshina Kannada (0.42 acres) and not substantially less than that for Shimoga (0.64 acres).

The great majority of the survey respondents were using their homestead plots for purposes beyond just housing. The most common non-housing economic purposes were keeping animals; and growing trees or other crops. For purposes of our analysis, we measured only large animals kept on the homestead plots (cows, bullocks, oxen, yak, etc, but not poultry). We also captured only trees serving an economic purpose and not other trees or annual crops. (While many households, especially those with larger homestead plots, were growing vegetables or other food crops on such plots, we decided not to capture this information because of the difficulty in accurate quantification.) **Table 5** provides an overall picture of animal-keeping and trees on the homestead plots for the entire sample divided by our four size categories.

Table 5: Animals and Trees by Homestead Plot Size

	Group 1 0-900 sq ft	Group 2 901-1800	Group 3 1801-6540	Group 4 6541-43560	Total for all
Number of respondents	27	18	19	13	77
Respondents who have animals	9 (33)	8 (44)	13 (68)	12 (92)	42 (55)
Avg number of animals for all respondents	0.7	2.1	2.5	3.7	2.0
Avg number of animals for those who have animals	2.1	4.6	3.7	4.0	3.6
Respondents who have trees	9 (33)	9 (50)	19 (100)	13 (100)	50 (65)
Avg number of trees for all respondents	0.7	3.7	11.8	24.7	8.2
Avg number of trees of those who have trees	2.1	7.3	11.8	24.7	12.6

Note: Figures in brackets are per cent.

Table 5 indicates that the number of animals and trees increases substantially as the size of the homestead plot increases. From the group with the smallest plots to the group with the largest, the average number of animals increases from 0.7 to 2.1 to 2.5 to 3.7.

The average number of trees for each group increases substantially as plot size increases. The average number of trees for all respondents in the small plot-size group is only 0.7 trees. That number increases to 3.7 trees, then 11.8 trees, and then 24.7 trees as plot size increases.

Moreover, the percentages of households with animals and with trees on their homestead plots increases significantly as homestead plot size increases. While only 33 per cent of households in the smallest plot-size group keep large animals, the percentage increases to 44 per cent for the second group, 68 per cent for the third, and 92 per cent for the group with the largest homestead plots.

Likewise, only 33 per cent of those households comprising the group with the smallest homestead plots have planted trees on their plots. The percentage increases to 50 per cent for the second group, 100 per cent for the third group, and 100 per cent for the largest group.

Respondents were asked whether receiving their homestead plot had resulted in a series of beneficial impacts on their house-hold livelihood. Specifically, households were asked if receiving the homestead land had resulted in increases to: (i) household income; (ii) quantity of household food consumption; (iii) quality of household food consumption; (iv) household's status in the village; and (v) household's ability to access credit. The respondents were also presented with an open-ended question concerning any other beneficial impacts resulting from receipt of their homestead plot. The results from these impact questions are shown in **Table 6**.

Table 6: Respondents Citing Positive impacts from Homestead Plot (Karnataka Survey)

Group 1	Group 2	Group 3	Group 4	all
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	0-900 sq ft	901-1800	1801-6540	6541-1 Acre	
Ave number of impacts per respondent	1.3	2.1	2.7	2.0	1.9
Respondents citing impacts	22 (81)	15 (83)	19 (100)	11 (85)	67 (87)
Increased income (as per cent of respondents)	6 (22) 1 (4)	10 (56) 3 (17)	13 (68) 4 (21)	9 (69) 3 (23)	38 (49) 11 (14)
Quality of food	0 (0)	3 (17)	4 (21)	1 (8)	8 (10)
Status	18 (67)	13 (72)	17 (89)	10 (77)	58 (75)
Credit	8 (30)	8 (44)	11 (58)	3 (23)	30 (39)
Other impact	3 (11)	0 (0)	2 (11)	0 (0)	5 (6)

Note: Figures in brackets are per cent.

The average number of beneficial livelihood impacts is lowest for those respondents with the smallest homestead plots with those households having an average of 1.3 beneficial impacts. This figure increases for the second and larger-size group to 2.1 beneficial impacts and again increases to 2.7 beneficial impacts for the third and still-larger group. The decrease in reported beneficial impacts from the third group to the largest size group (2.0 beneficial impacts) was unexpected and requires further analysis.

An increase in status was the most common beneficial impact reported (mentioned by 75 per cent of the respondents). An increase in household income was the second most popular answer (mentioned by 49 per cent of the respondents). This impact, increased income, was reported least often by those having the smallest homestead plots. The third most commonly cited beneficial impact was increased access to credit, cited by 39 per cent of all respondents. Increased access to credit was reported less often by those having the smallest homestead plots than by those in the second and third groups. But such increased access was reported as an impact least often by those having the largest homestead plots: this may be due to a larger number of those in the largest plot size already having access to sufficient credit for reasons they did not attribute to their homestead plot. Increased quantity of food was reported by 14 per cent of respondents and increased quality of food by 10 per cent of respondents.

Those households reporting more than one impact were asked to list those multiple impacts in prioritised order of importance. The results as to the highest-ranked impact for each size group are summarised in **Table 7**.

Table 7: Importance of Impacts as Prioritised by the Respondents
(Karnataka Survey)

	Group 1 0-900 sq ft	Group 2 901- 1800	Group 3 1801- 6540	Group 4 6541-1 Acre	all
Number of respondents who ranked impacts	20	15	18	11	64
Increased status ranked highest (as per cent of those who ranked)	15 (75)	7 (47)	8(44)	2(18)	32 (50)
Increased income ranked highest (as per cent of those who ranked)	4 (20)	8 (53)	6(33)	9(81)	27 (42)
Credit access ranked highest (as per cent of those who ranked)	1 (5)	0(0)	4(22)	0(0)	5(8)

Only three of the impacts received any respondent's 'highest' rating: increased status, increased income, and increased access to credit, with the latter as a distant third among the three. Among those respondents ranking beneficial impacts, 50 per cent considered 'increased status' as the most important impact, and 42 per cent considered 'increased income' as the most important impact. Additionally, as to increased status and income, the clearest pattern that appears to emerge is that far more respondents in the smallest size group choose 'increased status' as the most important benefit, while far more in the largest size group see 'increased income' as the most important benefit.

A number of the respondents reported not only that receipt of the homestead plot had increased their ability to access credit, but also that they actually had received credit as a result of owning the homestead plot. Those results appear in **Table 8**.

Table 8: Actually Acquired Credit as a Result of Homestead Plot
(Karnataka Survey)

	Group 1	Group 2	Group 3	Group 4	all
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	0-900 sq ft	901-1800	1801-6540	6541-1 Acre	
Actually acquired credit (as per cent of the size group)	3 (11)	4 (22)	9 (47)	1 (8)	17 (22)

Again, the likelihood of actually receiving credit as a result of receiving a homestead plot from the government increased substantially as plot size increased from the smallest group to the second and third groups. The smaller number of those in the fourth group reporting actual receipt of credit as a result of the homestead plot requires further analysis, but appears consistent with the possibility that those with the largest sized homestead plots were able to gain access to credit using other means of collateral such as animals or other landholdings.

The survey also captured information concerning the average price of agricultural land in the survey villages, both non-irrigated and irrigated. In order to give some indication of the costs that might be incurred for the government to purchase non-irrigated land at prevailing market prices for allocating small homestead and garden plots to landless labourers, we show the average prices of non-irrigated agricultural land by district in **Table 9**.

Table 9: Average Price of Non-irrigated Agricultural Land
(Karnataka Survey)

	D Kannada	Shimoga	Bijapur	Kolar	Total
Avg price of non-irrigated agricultural land per acre (Rs)	26,000	42,000	21,000	44,000	33,250

The overall average for Karnataka survey districts is Rs 33,250 per acre (or Rs 332.5 per cent). If the government were to purchase land in order to provide landless labourers homestead plots of 4,356 sq ft, or 0.1 acre, then the land costs per beneficiary family would average about Rs 3,325.

Rapid Rural Appraisal Field Research Findings

An RDI team conducted follow-up rapid rural appraisal research in two of the four survey districts (Kolar and Shimoga) in July 2001. The purpose of this research was to return to the survey villages in order to obtain a more complete understanding of: (i) how poor households were acquiring homestead plots and constructing houses; (ii) the non-residential uses of such homestead plots; (iii) the impact that such plots were having on the households' livelihoods; and (iv) the relationship between the size of the homestead plots and both their non-residential uses and their impact on livelihoods.

The RDI team interviewed 30 households in the two districts; 18 in Shimoga and 12 in Kolar. Ultimately three were excluded, two because their parcel was over one acre, and one who had not received a homestead plot, leaving 27 interviews to be analysed. In addition, the research team conducted key informant interviews with numerous district-level and taluk-level officials in each district. The fieldwork resulted in a number of important quantitative and qualitative findings, which are summarised below.

Quantitative Findings from RRA Research

The RRA fieldwork involved a smaller sample, and organising the respondents into the same four plot-size groupings resulted in only five respondents in the smallest category and three respondents in the third category. Nonetheless, the quantitative data was generally consistent with the data from the survey questionnaire. We found that homestead plots in Shimoga were larger, more productive, and had more beneficial impact on livelihoods than in Kolar. The productivity of the plots and the degree of impact on household livelihood roughly correlated to the size of the plot.

The summary of the most relevant quantitative data from the RRA fieldwork (paralleling the data presented from the questionnaire survey) is presented in **Table 10**. We forego a more extensive discussion of this data in isolation because it involves a smaller sample.

Table 10: Summary Table of Karnataka RRA Results

	Group 1 0-900 sq ft	Group 2 901-1800	Group 3 1801-6540	Group 4 6541-1 Acre
Number of respondents	5	10	3	9
Average plot size	590	1338	4520	1631.4
Average number of animals	1.2	0.9	2.0	5.9

Average number of trees	0.4	1.4	28.3	47.8
Average number of impacts	0.2	1.0	1.3	1.8

The average number of beneficial impacts increases substantially as plot size increases from 0.2 for those with the smallest plots to 1.0 impacts for group 2, 1.3 impacts for group 3, and 1.8 impacts for those with the largest plots.

The average number of trees increases substantially as one moves from one group to the next; and, except for a dip from group 1 to group 2, the average number of animals shows an increasing trend as plot size increases.

We also asked respondents what household member or members held the legal rights to the homestead plot. The responses for cases where the question was asked and definitively answered are summarised in **Table 11**.

Table 11: Improvements to the Homestead Plot, Karnataka PRA

	Group 1 0-900 sq ft	Group 2 901-1800	Group 3 1801-6540	Group 4 6541-1 Acre	All
Have improved	2 (67)	5 (71)	2 (67)	7 (88)	16 (76)
Have not improved	1 (33)	2 (29)	1 (33)	1 (13)	5 (24)

Figures in brackets are percentages

In 16 of the 22 cases (73 per cent) where the question was asked and definitively answered, the male head of household alone held the legal rights to the homestead plot. Joint legal rights were reported in no cases. In five cases (23 per cent), a woman held independent legal rights to the homestead plot. Of the five women who held land in their own name, three were female heads of the household (the male head of household had died) and two were still living with their husbands.

We asked respondents during our RRA research whether they had made any significant non-residential structural or other improvements to their homestead plot since receiving or occupying the plot. The most typical improvements reported and/or observed included compound walls or fencing, cattle shelters, storage sheds, and wells. Sixteen of twenty-one respondents for whom this information was gathered had made such improvements. The number and percentages of those responding affirmatively to this question (including only those interviews where the question was asked and answered) are summarised in Table 11.

We asked many of the respondents to estimate the market value of their homestead plot with improvements (including house). In many cases, a local official or other person assisted the respondent in answering this question. The responses are summarised in **Table 12**. Translated into rupees per cent, the average estimated price per cent of such improved homestead plots is Rs 14,590 per cent, or Rs 1,45,900 for a 10 cent improved homestead plot.

Table 12: Value of improved Homestead as Estimated by Respondents (Karnataka RRA)

	Group 1 0-900 sq ft	Group 2 901-1800	Group 3 1801-6540	Group 4 6541-1 Acre	All
Average plot price (including house) (Rs)	35,00	1,25,000	2,36,000	1,22,538	
Average in RS/cent	23,500	12,600	8,250	14,590	
Number who wstimated price	4	0	2	5	11

The estimated values of improved homestead plots in Table 13, when compared to the estimated values of non-irrigated agricultural land in Table 9, provide some indication of the value added and wealth that poor households can create on unimproved homestead plots.³⁹ The average cost for ten cents of unimproved dryland was found to be Rs 3,325. The average estimated value for an improved homestead plot of ten cents

was about Rs 1,45,900. The construction costs for the houses on such plots typically ranged from Rs 20,000-50,000. Thus, the estimated values of improved homestead plots are substantially higher than the sum of the initial land costs plus the costs of house construction.

As these poor households build and improve their house, plant trees, and make other improvements to their house sites, they increase the value of the homestead plot and simultaneously create wealth for themselves by increasing the value of their assets. The homestead plot is likely the most important source of wealth for such households. It is certainly a source of wealth that they have the power to increase over time, especially if they start with a sufficiently sized house plot. In contrast, if they start with a very small house plot that allows for minimal space beyond the house footprint, their ability to create and accumulate wealth is substantially constrained.

Qualitative Findings

In addition to the quantitative results, our RRA research in Shimoga and Kolar districts resulted in a number of qualitative findings that (i) shed further light on the quantitative findings; and/or (ii) are relevant for the policy implications of this research. A listing and brief discussion of some of the most relevant qualitative findings follows:

- (1) The limits placed by rural housing schemes on the size of the homestead plot were cited as a constraint by village-level officials. On two occasions, village-level officials volunteered that the rural housing schemes would prove more beneficial to recipients if larger homestead plots could be allocated. In both cases, the officials stated that, apart from the constraints posed by the rural housing scheme rules, larger plots could and would be allocated because more land was available in their particular locality. They were also aware that beneficiaries could put incremental homestead plot land to good use by planting trees, keeping animals, or other uses.
- (2) The absence of available government land limited the scope of the rural housing schemes. The existing rural housing schemes we encountered depended upon the availability of land already owned by the government or land already owned by the beneficiary. Several local officials noted that there were many people who were potential beneficiaries of rural housing schemes, but those people did not have land on which to put a house and/or there was no government land close to the village settlement area (or close to some other area with suitable infrastructure) to give them. Because most completely landless households resided in villages where little or no more government land was available, they faced little prospect of acquiring a homestead plot.
- (3) Private land was sometimes available for purchase within the general vicinity of village settlements. Although we found little or no government-owned available for housing schemes, in most villages we visited, land markets were at least somewhat active and in several villages we learned that land was available for purchase in or near the village settlement area. It would seem that if the rural housing schemes were revised (or some complementary scheme were developed) to focus on government purchase of such land, that this "lack of land" constraint could be overcome. We found in one village that we visited that the gram panchayat was preparing to purchase six acres of private land for Ashraya scheme purposes. It was in this village that the village accountant volunteered that the Ashraya participants could receive much greater benefits if the village was allowed to provide them with larger plots.
- (4) Use of government land may limit not only quantity but also quality of land available. We did not attempt a systematic inquiry into the quality of land being distributed in the rural housing schemes, but we encountered evidence that some of the government land being distributed is of such poor quality that any agricultural use (such as planting trees or growing vegetables) would be impossible, regardless of the size of the plot. For example, we saw house sites in one Kolar village where the ground was solid rock. The lack of suitable government land for homestead distribution (due to either quantity or quality problems) would suggest the importance of being able to acquire private land on the market for such distribution. Moreover, acquiring private land for this purpose will reduce pressures to use government-owned common property resources that are serving other important social, economic, or environmental purposes.
- (5) Poor rural households have a strong will and nearly always the means to provide for their own housing. We found, as we have found in other developing countries, that even the poorest rural households typically find the resources and other means to construct their own house if they have some land on which to build it, which is held in ownership or some other tenure that is perceived to be secure.⁴⁰ In most cases, these poor households initially build a small, primitive hut and gradually improve and enlarge it over time as they are able to accumulate the necessary resources. We consistently find in both rural India and in other developing countries that households almost uniformly possess a strong incentive and entrepreneurial drive to (gradually) accumulate the necessary materials and construct suitable housing for their needs. The more typical, threshold

obstacle in the way of that entrepreneurial drive is their lack of ability to gain legal access to suitable land. In many cases, they cannot find any land. In other cases, they find land only extra-legal or illegal 'squatting', but then have less incentive to make the long-term investments for a suitable and permanent house because they lack tenure security.

(6) Government-constructed houses were almost always of very poor quality. Some rural housing scheme beneficiaries were given construction grants and/or loans to construct their own house. Others were given houses constructed by a government contractor. The government-constructed houses we viewed were nearly always of very poor quality, and consistently of poorer quality than those self-constructed by the beneficiaries. In at least two cases, we found that beneficiaries had to make substantial improvements to the government-constructed house in order to make it satisfactorily habitable. In these cases, the households preferred to stay in their temporary huts or other alternative housing rather than to move into a newly-constructed government house already needing repair.

(7) Housing scheme beneficiaries pay significant 'unofficial costs' in order to receive benefits. We were told that these unofficial costs ranged from 10-40 per cent of the amount the beneficiary was supposed to have received from the government. Beneficiaries were typically reluctant to discuss such costs, but they appear to be an expected cost when participating in such government schemes, especially when the scheme involves a construction grant and/or loan.

(8) Few government-allocated plots have been given to women, either independently or jointly with their husbands, despite the apparent benefits. We found few examples of the government allocating house plots to women, either in their independent names or jointly with their husbands. Three of the five cases we did find involved households with no adult male. In several villages we asked generally whether women ever received legal rights to government-allocated land. The answers ranged from 'never' to 'rarely' to 'I do not know'.

We were told by at least two local officials that the state government adopted a policy about five years ago that at least 33 per cent of all government-allocated land should be given in the name of women independently or jointly with their husbands. Other district-level and other local officials we asked were not aware of any such policy. In some villages, we found evidence that, in any case, such a policy was not being followed. However, in at least one village we visited, officials had given a household plot in the female respondent's name, despite the fact that she was married, and despite the fact that the couple had not asked for the plot to be given in the woman's name.

There appears to be some social and economic advantages of giving government-allocated land in the joint names of wife and husband or independently to women and few, if any, disadvantages. In the above-mentioned case where the wife received independent title, she volunteered, 'Now my husband cannot throw me out.' Another male respondent stated that government-allocated land should be given in the joint names of husband and wife. He stated that a significant portion of the landless labourer male heads of households in his village were known to drink a lot. He opined that jointly titling any allocations to such households would be beneficial as it would provide the wives with legal power to block an improvident sale by their husbands.

(9) Productivity of homestead plots of sufficient size might be further enhanced. Again, we did not make a systematic inquiry into the potential impact of support for farming on homestead plots in Karnataka, but had the clear impression that little or no such support (such as advice or assistance on achieving micro-irrigation for dry season cropping) was available. It is therefore important to note that even higher homestead plot productivity has been achievable in other countries, such as Indonesia, when support for micro-irrigation, extension advice or other modest assistance is available to the homestead-plot holder. Given the distribution of homestead land of sufficient size and quality to allow some agricultural use, this would appear of special relevance for homestead-plot recipients in India who are otherwise landless and below the poverty line.

V

Summary and Policy Implications

Poverty and rural landlessness are closely linked in India. Land reform laws in India to address these twin problems have, in most cases, suffered from design flaws and a lack of implementation. Perhaps more importantly, land reform is largely a moribund topic among policymakers today because of lacking political will, available land, and government resources. Meanwhile, the absolute numbers of poor, rural landless labourers in India increases. Clearly, effective and innovative solutions are needed.

The research, both internationally and in India, summarised in this article points toward what would appear to be both an effective and practical land reform alternative – an alternative, involving the provision of amply-sized homestead plots. Such homestead and garden plots have frequently provided multiple and substantial benefits

to poor, rural households around the world. Our research in Karnataka shows the important role these homestead plots play for the poor rural households who receive them – a role that goes well beyond a place to build a house.

The research results in Karnataka and West Bengal against the background of our comparative land reform experience in more than 30 countries lead us to offer the following recommendations:

(1) Our most basic recommendation is that the government initiate programmes (or revise existing rural housing programmes) to allocate homestead-cum-garden plots of at least five cents and up to 15 cents in size to rural, landless families. The research indicates that such a programme would provide substantial benefits to landless families and involve relatively low costs. The research also indicates that the economic and social benefits increase significantly as the plot size increases beyond that just needed to accommodate the house. These research findings strongly suggest that a dichotomy in thinking between land reform programmes (as traditionally understood) and rural housing schemes is not appropriate. The latter can actually provide many of the benefits expected from the former when land beyond the footprint of the house is allocated. The remaining recommendations relate to this threshold recommendation.

(2) Consider re-allocating some or all of the government resources for rural housing construction toward the purchase of larger-size homestead-cum-garden plots. Experience in India and other countries indicates that: (i) even the poorest rural households, if they have secure tenure on a land plot, will find their own way, over time, to construct a suitable house; (ii) such households have more difficulty obtaining secure rights to land than they do obtaining the materials to construct a house; and (iii) public resources used to provide slightly larger homestead plots result in greater economic and social benefits than if they are used to fund housing construction.

(3) Increase the maximum plot sizes for current government schemes that impose very small maxima. The research from Karnataka shows the importance of having plots large enough to allow for sufficient land beyond that covered by the house. Every extra cent of land will likely lead to additional measurable benefits for landless labourer households. Such incremental land will provide additional space for trees, animals, crops, storage, and for conducting other economic activities that would not otherwise be possible if the same amount of land was not available or was available only some distance from the house.

(4) Include a component of government purchase of appropriately located land in a homestead-cum-garden allocation scheme. Providing sufficiently sized homestead-cum-garden plots for all landless labour families should be possible even in the absence of available government land. If government land of sufficient quality, quantity, and location is not available, the government should purchase parcels of private land for distribution to such families. The land costs would appear quite reasonable per family benefited. The average cost of dryland is about Rs 33,250 per acre in Karnataka. Thus, to use a figure midway in the five to fifteen cents range recommended in point 1, the land costs for granting ten cent plots to each qualifying household would be about Rs 3,325 per beneficiary family in Karnataka. Assuming minimum additional expenditures such as extending a simple road to an immediately adjoining area where the land could be acquired, providing an electricity line, and constructing a community tubewell with hand pump, one might be considering a total cost of Rs 5,000 to 6,000 per family benefited.

(5) Provide legal rights to homestead and garden land in the joint names of husband and wife. Several good reasons exist for providing legal rights to such plots and all government-allocated plots in the joint names of husband and wife (where both exist). We encourage state governments and the central government to adopt this as policy and enact it into law. Such a policy should probably also be supplemented with public information campaigns in the villages aimed at both women and men to explain both the purpose and the legal consequences of joint titling.

Conclusion

In sum, the experience around the world and the recent research results from Karnataka indicate that developing government programmes or revising existing rural housing schemes to purchase land (where necessary) and distribute homestead-cum-garden plots of at least 2,178 square feet and up to 6,544 square feet deserves serious consideration. The plot sizes allotted could vary depending on agroclimatic conditions, amount of land available, and number of qualifying beneficiaries. Given the expected benefits, the costs are relatively modest, certainly much less per family benefited than current rural housing schemes that do not provide or even aim to provide the same quantity or quality of economic benefits.

From a macro, all-India perspective, programmes to provide a homestead-cum-garden plot averaging 0.1 acre to 10 million of the poorest rural households over the next decade would require a total of 1 million acres, or about one-quarter of one per cent of India's cropland. Even assuming the present availability of little or no government land of suitable location and quality, if the average all-India market cost for an acre of dryland was similar to that found in Karnataka, land costs would be about Rs 33,250 per acre, requiring Rs 3,325 crore (or

Rp 33 billion) to benefit 10 million of the poorest rural families (roughly 55 million people). Spread approximately equally over 10 years, land costs for such a programme would be about Rs 333 crore per year. By way of comparison, the GOI ministry of rural development, which implements the central government's Indira Awaas Yojana rural housing scheme, has spent an average of Rs 1,536 crore per year for this scheme alone over the past five years.

Allocating sufficiently-sized homestead-cum-garden plots to the poorest of India's rural poor can provide them with enhanced status and give them the opportunity to use their own labour and ingenuity to increase their income, augment their food supply, improve their access to credit, better insure against risk, and slowly build up capital assets. This can be part of a revised agenda for land reform in India. A land reform that does not require substantial land resources, is modestly priced, is not market constraining, does not have 'losers', would appear to be politically feasible, and offers opportunity to the persisting large numbers of poor, landless families.

Notes

1 World Bank, India: *Achievements and Challenges in Reducing Poverty* (A World Bank Country Study, 1997).

2 Id at xiii-xiv.

3 See, e.g., R Marsh, 'Building on Traditional Gardening to Improve Household Food Security', *Food, Nutrition and Agriculture*, No 22 (FAO 1998) at 1; Anne Stoler, 'Garden Use and Household Economy in Java' in *Agricultural and Rural Development in Indonesia* (Gary E Hansen ed, 1981) at 244; and, Vera Ninez, 'Introduction: Household Gardens and Small-Scale Food Production', *Food and Nutrition Bulletin*, vol 7, no 3 (UN University Press, September 1985) at 2.

4 Marsh, supra note 3, at 4.

5 FAO, *Woodfuel in Bangladesh – Production and Marketing* (Regional Wood Energy Development Programme Report #38; 1998) at 159 citing J J Douglas, *Consumption and Supply of Wood and Bamboo in Bangladesh*, (Field Document No 2 UNDP/FAO Project BGD/78/010/ Planning Commission, Dhaka; 1982).

6 See, e.g., Otto Soemarwoto et al, 'The Javanese Home Garden as an Integrated Agro-Economic System', *Food and Nutrition Bulletin*, vol 7, no 3 (UN University Press, September 1985) at 4; Ninez, supra, note 3, at 2; and Stoler, supra note 4, at 243 citing K Pelzer, *Pioneer Settlement in the Asiatic Tropics* (1945) at 44.

7 Marsh, supra note 3, at 4.

8 Keith Rosenn, 'Puerto Rican Land Reform: The History of an Instructive Experiment', vol 73, no 2, *Yale Law Journal* 344 (1963).

9 See, e.g., David Bornstein, *The Price of a Dream: The Story of the Grameen Bank and the Idea that is Helping the Poor to Change Their Lives* (1996) at 152-154 and *National Institute of Advanced Studies (NIAS), Status of Rural Women in Karnataka* (1998) at 21.

10 See e.g., Agnes R Quisumbing et al, *Women the Key to Food Security* (Food Policy Report; The International Food Policy Research Institute; 1995) which synthesises the current research on the strong association between increases in women's income, as contrasted with men's income, and improvements in family health and nutrition.

11 G J A Terra, 'Mixed-Garden Horticulture in Java' in *Malayan Journal of Tropical Geography*, vol 3 (October 1954) at 36.

12 Roy L Prosterman and Jeffrey M Riedinger, 'Indonesian Development and US Aid' (RDI Monographs on Foreign Aid and Development #3 January 1987) at 18. One acre = 43,560 square feet = 100 cents = 0.41 hectare. The term 'cents' is often used in Indian contexts and will be used in this article. One cent = about 436 square feet, or 1/100 of an acre.

13 Stoler, supra note 3, at 243.

14 Prosterman and Riedinger, supra note 12, at 18-19.

15 Soemarwoto, supra note 6, at 3 and Leslie Brownrigg, *Home Gardening in International Development: What the Literature Shows: Including an Annotated Bibliography, and Inventories of International Organisations Involved in Home Gardening Projects* (League for International Food Education 1985) at ii.

16 William Thiesenhusen, Tim Hanstad, Robert Mitchell, and Erman Rajagukguk, *Land Tenure Issues in Indonesia* (prepared for US Agency for International Development, 1997) at 38 no 66.

17 Robert Netting, *Smallholders, Householders: Farm Families and the Ecology of Intensive, Sustainable Agriculture* (1993) at 55.

18 Minor Sinclair and Martha Thompson, *Cuba: Going against the Grain: Agricultural Crisis and Transformation* (Oxfam America 2001) at 18.

19 Mario Gonzalez Novo and Catherine Murphy, 'Urban Agriculture in the City of Havana: A Popular Response to a Crises' in *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda, a Reader On Urban Agriculture* (Nico Bakker et al, eds 1999) at 339.

20 Sinclair and Thompson, supra note 18, at 24.

21 Gonzalez Novo And Murphy, supra note 19, at 350.

22 Yevgenia Borisova, 'Land Ownership Remains Russian Privatisation's Final Frontier', *The St Petersburg Times*, April 11, 2000.

23 Kerala Land Reforms Act (1963, as amended) § 80A. Agricultural labourers were required to pay one-half of 25 per cent of the market value of such land. Id § 80A(7). The other half of the 25 per cent was to be paid by the Kudikidappukars (agricultural labourer's) Benefits Fund. Id § 80A(8).

24 P S Appu, *Land Reforms in India: A Survey of Policy, Legislation and Implementation* (1996) at 116.

25 See, e.g., Richard W Franke and Barbara H Chasin, *Kerala: Radical Reform as Development in an Indian State* (1994) at 57; Ronald J Herring, 'Abolition of Landlordism in Kerala: A Redistribution of Privilege', *Economic and Political Weekly*, vol 15, no 26 (1980) At A-66; Patrick Heller, *The Labour of Development: Workers and the Transformation of Capitalism in Kerala, India* (1999) at 78; and, K E Vergehese, *Socio-economic Change in Kerala* (1986) at 70-71. However, for another opinion, that these plots have been less beneficial than hoped, see Joan P Mencher, 'The Lessons and Non-Lessons of Kerala: Agricultural Labourers and Poverty', *Economic and Political Weekly*, vol 15, no 41-43 (October 1980) at 1781.

26 Mencher, supra note 25, at 1791 and Heller, supra note 25, at 78.

27 Franke and Chasin, supra note 25, at 57.

28 Vergehese, supra note 25, at 70-71 and Franke and Chasin, supra note 25, at 57.

29 The description of the centrally-sponsored Indira Awaas Yojana scheme was obtained from 'GOI Ministry of Rural Development Annual Report 2000-2001, Status Paper on Rural Housing', Gramin Vikas Newsletter (August 1966), and the Raichur Zilla Panchayat of Karnataka State's web site, available at .

30 These schemes have been in existence, though under different names, for over 25 years. Originally called the People's Housing Scheme, then the Janata Housing Scheme before being renamed the Ashraya Housing Scheme. See e.g., S K Ramoo, 'India: High Court Verdict on 'Ashraya' Perturbs Krishna Govt', *The Hindu*, November 24, 1999. Much of the information that we gathered on the workings of the Ashraya and Ambedkar schemes were obtained through a meeting at the office of the Shimoga Deputy Commissioner in July 2001.

31 Karnataka Land Revenue Rules (1966 as amended) § 108.

32 The deadline for applying for regularisation was April 15, 1999. There has, however, been some talk of extending this deadline. Additionally, despite that there is talk of extending the application deadline, there appears to be little talk of changing the required date of occupation, which is currently 1990.

33 Karnataka Land Reforms Act (1961 as amended) (hereinafter KLRA) § 38(a). An agricultural labourer is defined as a person "whose principle means of livelihood is manual labour on land and includes an artisan whose principle means of livelihood is preparation of agricultural implements." KLRA § 2(2).

34 K H Gopala Krishne Gowda, 'Tenancy Reforms: The Macro Perspective' in Land Reforms in India Volume 4: Karnataka –Promises Kept and Missed (1997) at 128.

35 In these rapid rural appraisal interviews, rural interviewees are not respondents to a questionnaire, but active participants in a semi-structured interview. The researchers use a checklist of issues as a basis for questions, not necessarily addressing all questions in each interview and sometimes departing from the basic questions to pursue interesting, unexpected, or new information. During this research the RDI field researchers randomly selected households that had received homestead plots from the government.

36 National Fellow, Indian land reform expert, and currently a Member of the Government of India's Commission for Agricultural Costs and Prices.

37 A copy of the questionnaire is available upon request from the Rural Development Institute (timh@rdiland.org).

38 We purposefully ignored for purposes of our analysis three cases in which the homestead plots exceeded one acre in size.

39 Public infrastructure such as roads and electricity also accounts for some of the price difference. Infrastructure such as roads and electricity, however, play a synergistic role in increasing the value of the homestead plot (and, thus, the value of the poor household's assets) by allowing the household to make better economic use of the plot and thus further increase its value. Plot location also likely accounts for some of the price difference. However, location as a determinant of value is often related to proximity of a settlement area. If large tracts of unsettled land are divided and allocated as homestead and garden plots, new or expanded settlement areas are created, almost certainly increasing the value per square foot of all such land even before any structural improvements are made.

40 This has been a consistent finding of our Rapid Rural Appraisal fieldwork in such Asian settings as Indonesia, China, Taiwan and Vietnam. In Taiwan systematic data was developed in the wake of the post-second world war land reform programme, which demonstrated that once households gain ownership of land they have the initiative and find the resources to build their own homes. Between 1949 and 1960 the annual square footage of new house construction in Taiwan quadrupled and the square footage of repaired housing tripled. Chen Cheng, *Land Reform in Taiwan* (1961) table at 88.