



Small homegarden plots and sustainable livelihoods for the poor¹

Robert Mitchell and Tim Hanstad
(Rural Development Institute)

The briefing note examines how the poor can use small amounts of land to establish homegardens to advance important livelihood objectives. In many settings, lack of access to land may be the most critical obstacle to creating homegardens useful to the poor. Land is a critical resource for most families in the world. Land has inherent value, and can be a critical component in the creation of value. Even relatively small plots of land substantially supplement the physical, financial and nutritional security of poor households. Land is an important basis for identity and status of individuals within a family and of families within a community. Land can also be the foundation for political power. Programmes that allocate small plots of land for homegardens can provide benefits far beyond those derived directly from homegardens.

Sustainable livelihoods

The Sustainable Livelihoods Approach (SLA) focuses on the capabilities of people and highlights interrelationships among people and assets they develop and on which they rely. The SLA seeks to increase the sustainability of the lives of the poor by promoting six core objectives: (1) more secure access to, and better management of, natural resources; (2) more secure access to financial resources; (3) a policy and institutional environment that supports multiple livelihood strategies and promotes equitable access to competitive markets; (4) better nutrition and health; improved access to high quality education, information, technologies, and training; (5) a more supportive and cohesive social environment; and (6) better access to basic and facilitating infrastructure.²

Within this framework, homegarden plots can play many roles. Secure access to a homegarden plot can be a livelihoods objective in itself. Homegardens are also a natural asset through which other livelihood objectives, such as gender equality and sustainable use of resources, may be achieved. Access to land sufficient to establish a homegarden can enable a household to produce foods for consumption or trade. Skills learned in production increase the family's human assets. Consumed foods improve the family's nutritional status and food security. Sale of foods improve the family's financial status. Trade, exchange of information and cooperation with other villagers strengthens the family's relationships with others.

Homegardening in world practice

Homegardens may usefully be described as small-scale food production systems located near the residence, controlled by household members, and used to produce

food to supplement the family diet and the family budget. Homegardens typically contain a wide diversity of plants and many are often used to raise poultry and small numbers of livestock. Homegardens exist in almost all tropical and subtropical regions where subsistence land-use systems predominate.

Although most commentators identify homegardens as occupying "small" plots, this criterion is applied to a wide range of plot sizes, varying from a few square meters to more than one hectare. If limited public resources are to be used to provide the poor with land for habitation and gardening, the size of parcels distributed will determine the number of households benefited. The objective must be to determine what parcel size is large enough to provide meaningful benefits to a poor household while not being so large as to consume disproportionate government resources and thereby deprive other deserving households of a similar opportunity.

Small homegardens may be particularly useful to poor families since homegardening may be undertaken with virtually no economic resources and by using locally available planting materials, natural manures and indigenous methods of pest control.

Benefits of homegardens

Homegardens can provide a number of benefits to families, ranging from improving nutrition and providing a source for additional household income, to improving the status of women in the household and protecting the physical environment.

Family health. Homegardens are one strategy for addressing malnutrition and micronutrient deficiencies. Numerous studies have found that homegardens produce a high percentage of fruits and vegetables consumed by homegardening families. A study of a large-scale

¹ This briefing note is based on LSP Working Paper 11: "Small homegarden plots and sustainable livelihoods for the poor" prepared by Robert Mitchell and Tim Hanstad.

² Department for International Development ("DFID") (2001). Sustainable Livelihoods Guidance Sheets. DFID, London.

homegardening project in Bangladesh found that families who grew more fruits and vegetables and families who grew a larger variety of fruits and vegetables were likely have a higher intake of vitamin A.

Some homegardens primarily produce energy foods and provide an important source of daily household calories. Homegardens can thus provide important protections against family food insecurity. In some settings, climatic conditions mean that owners of homegardens have something available to harvest throughout the year, either for consumption, for home industry or for sale. This year-round availability is especially important to poor households, particularly during the period between rice harvests. Homegardens may also be a principal source of household food and income during periods of insurgency or other social stresses that interrupt normal channels of food distribution.

Household income. Livelihood benefits of homegardens go well beyond those related to nutrition and subsistence. In many cases, sale of products produced in homegardens significantly improves the family's financial status. Because they are cultivated so intensively, returns to land and labour may be higher for homegardens than for field agriculture.

Homegardens can contribute to household income in several ways. The household may sell products produced in the homegarden, including fruits, vegetables, animal products and other valuable materials such as bamboo and wood. The household may also use the homegarden site to conduct cottage industries.

In addition to direct earnings from sale of homegarden production, production consumed by the household frees up household earnings for other purchases.

Wage security and household status. Ownership of the homegarden plot can contribute to improved and sustainable livelihoods in important ways that are often overlooked, including improved leverage in labour markets, enhanced social status and greater political participation. These benefits are summarized in Box 1.

Benefits to women. The role of women in homegardening varies widely. Although women undertake most tasks related to homegarden management in many settings, these tasks are more broadly shared by all family members in other settings. The role of women in homegardening may be culturally determined, or may be a function of other factors, such as household composition or the secondary status of women in the workforce.

In some settings, sales of homegarden produce may be one of the only sources of independent income for women. Women's control of homegarden resources has been linked to improvements in household nutrition, especially nutrition of children. In the urban homegardens of Lima, whereas men gardeners typically are interested in producing crops that have a high market value, women gardeners favor food for family consumption.

Education and information may play an important role in determining the extent to which women control homegarden production. Studies demonstrate that women who are better

BOX 1. BENEFITS OF OWNING A HOUSE PLOT

For otherwise landless families, ownership of a plot used for construction of a house and establishment of a homegarden can provide livelihood benefits beyond those derived directly from the homegarden itself:

1. **Place for residence.** Although perhaps the most obvious, this benefit should not be overlooked when millions of households lack secure rights to land for a house.
2. **Status.** In India, recipients of government-allocated house plots cite increased status as the most important benefit from the plot, more important even than increased income and food consumption.
3. **Wealth generation.** House plots and occupying structures are typically the most important source of wealth of poor households. As poor households build and improve their house, build other structures, plant trees, and make other labour-intensive improvements to their plots, they create family wealth.
4. **Bargaining leverage in labour markets.** Agricultural laborers who do not own their own house site often rely upon their employers for a place to live. This often creates a dependency relationship that severely limits bargaining leverage for wages.
5. **Post-harvest activities and storage.** In many settings, the homegarden plot is the site for important post-harvest activities such as drying and threshing, and for storing food, tools and other capital assets.
6. **Non-agricultural income generation activities.** Owning a homegarden plot with some extra space can enable poor households to pursue other non-agricultural production, service or retailing activities such as handicraft production or petty shops.
7. **Access to credit.** In a study of government-allocated house- and-garden plots in Karnataka, India, more than one third of respondents reported that obtaining the plot had increased their access to credit and nearly one quarter reported actually receiving credit as a result of owning the plot.

informed regarding production techniques and dietary benefits of homegarden produce are more likely to make decisions about distribution of homegarden production and more likely to control the income from product sales.

Environmental benefits. Homegardens may contain multiple and sometimes rare varieties of plant species, which not only represent in-situ reservoirs for biodiversity, but which can aid in preventing pest and weed outbreaks. The high density of homegarden plants can also provide habitat for wild animals such as insects, reptiles, birds and small mammals.

Terraced homegardens have been recommended as a land conservation measure to preserve soils on sloping areas. Infertile soils may benefit from the presence of fruit trees, the deep roots of which bring mineral constituents to the topsoil, and the fallen leaves of which provide a natural protective mulching cover and bring more humus into the soil.

Where population pressures and lack of arable land threaten to push families to resettle in forests and wetlands, distribution of small homegarden plots to landless and land-poor families can reduce pressures to migrate. This helps to reduce conversion of lands better left as forests and wetlands, and also allows families to remain in areas with established social services and markets for garden surpluses. Distribution of homegardens may also reduce the need for land-poor families to gather fodder and fuelwood from marginal lands, contributing to the sustainability of such lands.

Factors related to developing productive homegardens for the poor

A number of factors combine to determine whether homegardens are an appropriate strategy for improving the livelihood of poor families. Among these, access to suitable land – i.e. a land plot that is large enough and sufficiently fertile for a family to establish a homegarden, and to which the family has ownership or ownership-like rights – is perhaps the most fundamental factor. Where access to suitable land is not a constraint to establishing homegardens, other important factors become relevant, including access to water, access to know-how, and access to stocks of appropriate plants and animals.

For families without adequate and secure access to land, lack of land is the single most important barrier to homegardening. On crowded Java, the great majority of homegarden plots (known locally as “pekarangan”) are smaller than 200 m².

Even where a family has nominal access to land, the insecurity of their rights to such land may dissuade them from making long-term investments in improving the land, such as planting trees, improving drainage, installing fencing or building a fishpond. Squatters and families who occupy land merely with the permission of a landlord may even worry that their improvement of the land they occupy may lead to eviction as others seek to cash in on the investment. Thus, it is not only the quality and sufficiency of the land itself, but the quality of the family’s right to control the land which are critical.

If lack of access to land is a constraint in establishing a homegarden, how much land do families need to establish a homegarden? While the average size of existing homegarden plots is instructive regarding social and economic norms in a given community, there is evidence that distribution of even relatively small amounts of land to land-poor families can provide a base for important improvements to the household nutrition.

For wage-earning families in Kerala, India, who cultivate homegarden plots occupying a fraction of an acre, the value of homegarden production was found to be the most consistent positive predictor of child nutrition, and was an especially strong predictor during the slack employment season, as well as in households in which the mother is not employed outside the home.

A study of rural homegardening households in Karnataka found that intensity of tree growing increased

markedly once homegarden plot size reached 1800 sq. ft. (162 m²). Researchers in Karnataka also found that, after taking into account the size of the parcels, families who receive land from the government appear to be as likely to plant trees or raise animals as are families who inherit or purchase the homegarden plot, even in the absence of extension advice. This data suggests that at least for some poor families in Karnataka, access to land is a primary barrier to tree planting and animal raising.

At least one state in India is initiating a programme that will establish several-acre colonies of house-and-garden plots with 10 plots per acre, and allocate the plots to landless and land-poor families. The land will be located within one kilometer or less of the village in which the recipients currently reside, and such land will either be existing government land or land that the government purchases.

BOX 2. COST OF OBTAINING LAND: EVIDENCE FROM INDIA

The cost of obtaining suitable land on which to allocate homegarden plots is likely to be affordable, especially in rural areas. In Karnataka, India, a November 2001 sample of 400 rural households in four districts estimated the value of unimproved and non-irrigated agricultural land to be between 21,000 and 44,000 Rupees per acre, with an average of 33,250 Rupees per acre, which equates to approximately US\$ 694 per acre (US\$ 1,714 per hectare) at November 2001 exchange rates. This represents an average cost of approximately \$86 per family benefited if each family receives 500 m² of land (20 families per hectare). These estimates reflect the likely purchase price of acquiring agricultural land at market prices, but do not include administrative costs of acquisition and allocation, or costs of constructing simple roads and drainage. Although such costs are likely to be low in comparison to land acquisition costs, they are not negligible.

Policy and programme considerations

In determining whether to adopt homegardening as a strategy for improving the livelihood of poor families, planners must begin by defining the class of prospective beneficiaries. Although homegardening may be a beneficial intervention for both urban and rural poor populations, the opportunities are likely to differ based on a number of considerations. Suitable land is much more likely to be available in sufficient quantity and quality in rural areas.

Once planners make a preliminary determination that homegardens might provide benefits to the target population, planners should determine what proportion of families in that population have access to suitable land on which to construct a house and establish a homegarden. Where families do not possess suitable land or their rights to possessed land are not sufficiently secure, this is the single largest barrier to establishing homegardens. While the cost of obtaining and allocating land to target families may be quite affordable, the nature of land – the fact that it is immovable, and the fact that access to land can have important social and

political implications – makes its allocation more complicated than allocation of other homegardening inputs such as water, know-how, or appropriate plant and animal stocks.

In determining what proportion of families in the target population have access to suitable land on which to construct a house and establish a homegarden, planners should assess suitability of land in relation to two important factors. First, the parcel on which the family resides must be large enough to support a homegarden that can provide significant benefits to the family. Second, the family must have ownership-like rights to the land rather than use the land as a squatter or with the permission of a landlord. The existence of ownership-like rights determines whether the family has the right to improve the land and whether the family has a reasonable expectation of receiving the benefits of any long-term improvements, such as planting trees.

In the case of assessing the availability of public lands for reallocation, planners should take special care to verify that the land is not functioning as a common property resource providing benefits essential to the local population. Planners frequently underestimate or are unaware of the extent to which poor families use such resources to graze livestock, hunt forest animals, and gather plants for consumption, fodder, medicine and fuel. Even where planners recognize that such activities occur, they may underestimate the importance of these activities in the household economy of the poorest families. It may be counterproductive to eliminate a common property resource that provides a low level of support to a large number of poor families in order to distribute homegarden plots to a smaller number of families, even if the total economic use of the land would be enhanced by such a use conversion. The detrimental impact on some poor families would not justify the benefit to other poor families. Planners should also satisfy themselves that available land is not located in a place where residential uses would create unacceptable sanitation or other environmental problems.

If planners determine that appropriate land is available in the vicinity of the target population, they should then calculate the cost of purchasing such land (if it is necessary to purchase it), as well as administrative costs of obtaining and allocating the land, calculated in terms of costs per family benefited. Planners must also consider whether the beneficiaries should share in the costs of land purchase (as well as other costs), and, if so, to what extent. Important factors to consider include: affordability for what are likely to be among the society's poorest households, administrative costs of collection (relative to benefits of such collection), the desirability of cost-

sharing by beneficiaries to promote their “ownership” of the program activities, and related moral risk issues.

Another consideration is whether creation of homegarden plots is likely to reduce the amount of arable land, causing a fall in overall agricultural productivity or exacerbating food security concerns. Even assuming that arable land is used to create homegardens, these risks are likely to be insubstantial for several reasons. First, because even very small plots can provide important benefits to families, the total amount of land needed for homegardens is likely to be modest. To place this in perspective, in India, distribution of 380 m² plots to each of the nation's estimated 15 million completely landless families would require only 600,000 hectares of land, which is approximately 4/10 of 1% of the nation's 161.8 million hectares of arable land.

Second, if used with even modest intensity to produce vegetables, fruits and animal products, homegarden plots are likely to produce as least as much agricultural value per unit area as had been produced on the arable land.

Third, even if homegardens do not produce as much per hectare as arable land, the effect of any reduction in the total amount of food produced is likely to be offset by the fact that homegardens efficiently provide foods to one of the most food-insecure segments of the population.

Summary and Conclusion

Homegardens represent an especially useful strategy for promoting sustainable livelihood objectives for the poor, including secure access to land and water, improved financial security, improved leverage in wage bargaining, improved nutrition, improved social status and political status, and better access to basic infrastructure. Where poor families lack secure rights to homegarden plots of suitable size and quality, programs to obtain and allocate land to such families will often be a constructive and socially beneficial use of government resources. For such families, the benefits of obtaining ownership of land on which to construct a house and garden go well beyond other benefits normally associated with homegardening.

The process of developing and implementing a homegarden strategy will itself require cultivation and some degree of risk taking. Donors, government planners and project implementers can gain a head start in planning by conducting rapid rural appraisal to assess the opportunities for establishing and promoting homegardens in a particular setting. Donors in particular should look for ways to encourage government planners to assess such opportunities, including learning from NGO's that have practical experience in implementing homegardening projects.

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS



Livelihood Support Programme (LSP)

An inter-departmental programme for improving support for enhancing livelihoods of the poor. Through the **Livelihood Support Programme (LSP)**, FAO seeks to improve the impact of its interventions at the country level through the effective application of Sustainable Livelihood (SL) approaches. This work is supported by the UK Department for International Development (DfID). Email: lsp@fao.org

Access to natural resources sub-programme

Access by the poor to natural resources, including land, forests, water, fisheries and wildlife, is essential for sustainable poverty reduction. The sub-programme focuses on building stakeholder capacity to improve poor people's access to natural resources.