



Growing in importance — vegetable gardening in the South

Charles Batchelor

Small-scale vegetable production can be crucial to improved livelihoods in developing countries — availability of (and access to) water is often a deciding factor in its success.

If water resources are scarce, as is the case in most dryland areas, private gardens tend to promote inequality between the (relatively) richer garden-owners and their poorer non-garden-owning neighbours.

This issue of *Waterlines* carries a number of articles focusing on vegetable gardening. Vegetable or household gardens are crucial to indigenous agricultural production systems in almost all developing countries. Vegetable production can meet a variety of basic needs, including improved nutrition and income generation and, as in societies the world over, community or allotment-type gardens also act as an ideal meeting-place; women, in particular, gather both to share ideas and to socialize.

There is much debate currently on how best to promote improved and sustainable livelihoods in developing countries. Accepted principles are that externally supported livelihood programmes should build on the range of capital assets which already exist at any given location, and that the best entry points for livelihood programmes are those for which there is a high demand and that make most productive use of available capital assets.

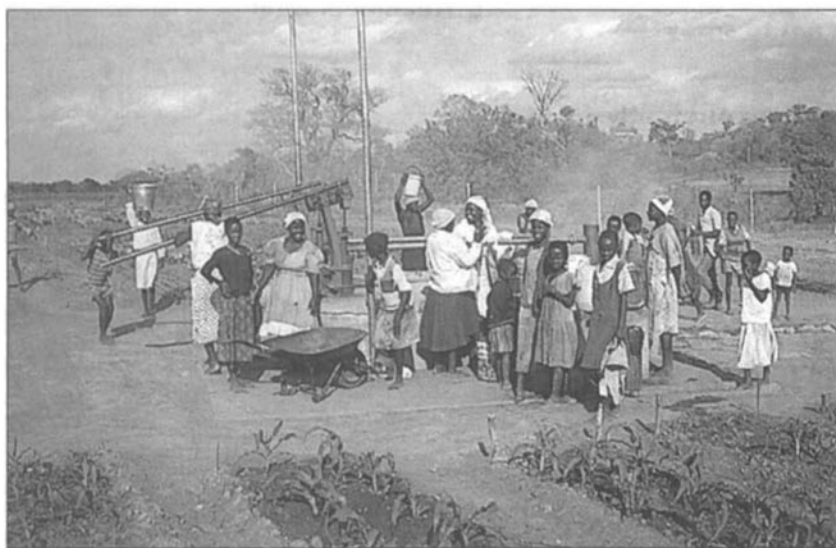
Vegetable gardening is an excellent option conforming to both of these principles. It is often already a part of the existing farming system and it is an activity that makes extremely productive use of capital assets: water, land, agricultural / horticultural skills and experience, labour, financial resources and organizational skills, for example.

Types of garden

A number of different types of irrigated garden can be found in dryland areas. These include private gardens, whereby a farmer or an individual household fences and manages a garden using water from their own well, a river or a public waterpoint, and community or allotment-type gardens. In this latter type a number of farmers or households have plots within a fenced area and water is obtained from a public waterpoint. Then there are collective gardens — a garden is operated by the community and the produce is shared. The type of gardening practised depends on a number of factors that include availability of water resources, social and institutional settings, and the advice on offer from extension services.

Assuming that sufficient water resources are available, the main advantages of private gardens as opposed to community or collective gardens are all connected to the relative ease with which they can be set up and managed. Decisions are usually made by one or two people within the one household, and leadership disputes — inevitable with community gardens — are rare. But if water resources are scarce, as is the case in most dryland areas, private gardens tend to promote inequality between the (relatively) richer garden-owners and their poorer non-

Different types of irrigated garden include private, community or allotment-type and collective gardens.



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irrigation and the small farmer

garden-owning neighbours. Apart from improving equity at the village level, community or allotment gardens have the advantage over private gardens in that they can reduce competition for water resources. Community gardens also empower communities; people gain confidence and develop organizational skills which they then use to tackle other resource-management problems. Many of these — such as reducing overgrazing of communal grazing areas, or reducing run-off from hill slopes, can only be tackled effectively by community action.

Constraints on vegetable gardening

The main technical constraints on successful vegetable production are the availability of (or access to) land, water, agronomic inputs, extension advice, and fencing materials. There are also a whole range of social, economic, legislative and institutional factors that can have an important bearing on the success of small-scale vegetable production. These include the availability of labour, organizational skills, availability and proximity of markets, availability of credit, water rights, land tenure, and a range of gender issues.

Productive use of water

Increasingly, funding agencies, whether governments, NGOs or international agencies, are emphasizing participatory approaches to developing water resources. They assert that both local organizations and individuals take responsibility for managing the water and other resources, and for maintaining equipment such as pumps or reticulation systems. On page 5 **Chris Lovell, George Nhunhama, Sam Sunguro, and Osmond Mugweni** describe a novel approach to developing groundwater resources in Zimbabwe. Communities are constructing wells to source water for domestic use and vegetable production. This has proved highly successful: the communities have a far greater sense of ownership for these productive waterpoints than for waterpoints that are developed purely as a domestic-supply source. In this context, productive waterpoints are considered to be community-based waterpoints, designed and implemented to provide water both for domestic use and for income-generating



Gil Moti/Still Pictures

Vegetable production can improve livelihoods in poor urban and peri-urban communities.

activities such as small-scale vegetable production.

Limited water supplies and the availability of labour are the principal constraints on the size of irrigated gardens in many dryland areas. Adopting irrigation practices that increase efficiency, and lead to a combination of reduced labour requirements, garden expansion, increased yields, and/or improved crop quality, makes good sense. On page 23, **Monica Murata** and her co-author describe the results of an evaluation of a number of low-cost irrigation techniques that can be used by women in typical irrigated gardens in southern Africa. Murata and Lovell also ask why uptake of the research recommendations has been so patchy.

Urban gardening

Forty-five per cent of the world's population now live in urban areas, a rise of roughly a third since 1960. Urbanization is occurring fastest in developing countries; since 1950, their urban populations have more than doubled — now representing 39 per cent of the total. There are now 41 cities with populations exceeding 5 million, and 23 more are expected to surpass that figure by 2015; thankfully, development activities that can improve the livelihoods of poor urban and peri-urban communities are attracting more and more attention. The approach to gardening described by **Colin Hudson** on page 10 is suited to locations in which space and/or good soils are limited — often the case in urban and peri-urban areas. This 'tyre-garden'

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The importance of the role played by women in production and natural resource management is gradually being recognized.

Integrated natural resource management

The importance of stakeholder participation, the role played by women in production, the potential of indigenous techniques and the role of local institutions are gradually being recognized; and accepted opinion on the role of incentive systems in natural resource management has changed. Within the world of research, and among funding agencies, a lively debate ensues on how to improve incentive systems — cost-effective, replicable and sustainable — which can influence resource-users' own decision-making in terms of better natural resource management.¹ Practical experience shows that achieving increased production, from activities such as vegetable gardening, improves livelihoods and has the potential to be an effective incentive (or first step) towards effective community-based natural resource management. ■

approach has other advantages: it facilitates non-chemical pest control, and it uses water extremely productively.

Crop husbandry

Vegetables require good husbandry. Understandably, the individual's gardening skills have a major bearing on yields and crop quality which, in turn, influence market value. Pest control is a vital part of crop husbandry and, on page 14, **Hans Dobson** provides a pragmatic view of pest control based on his work in southern Africa.

about the author

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1. Zaal, F., Laman, M. and Sourang, C.M. (1998). *Resource conservation or short-term food needs? Designing incentives for natural resource management*. Drylands Programme Issue Paper No. 77, IIED, London.

Coming up in the January 1999 issue

Uncollected solid waste, often found rotting in heaps on the ground and blocking drains, provides a transmission route for many diseases endemic in developing countries. This can be a more serious health hazard than sanitation waste from on-site sanitation systems, yet solid waste management (SWM) is generally seen as a low priority and the people responsible for it are normally low status and short of resources. In January 1999, *Waterlines* — in an issue co-ordinated by WEDC — will discuss the complex questions surrounding solid waste and how best to deal with it. This issue examines the formal and the informal sector systems for SWM — whether the two can be successfully integrated (using a case study from Hyderabad, India); and the growing importance of the informal sector and how to make best use of it in future planning. The role of the household as a key stakeholder in SWM systems is also looked into (with research from South Asia), as are factors to be considered in the selection of the most appropriate collection systems for particular situations. With additional stories from around the world, from present conditions to future challenges, far-reaching issues are addressed, not only in a technical, but also the social context.

contributions

Waterlines welcomes written contributions. If you have information you feel would be of value and interest to other readers, send us your manuscript.

Manuscripts should be less than 2000 words long. Photographs and illustrations are very important, and should be black-and-white and captioned. The editor regrets that no responsibility can be accepted for the return of the original manuscript or illustrations.

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