Methods for Microenterprise Development in Urban Agriculture

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1 Microenterprises and development

Much of the rapidly growing population in developing countries participates in that part of the economy which lies outside the regulatory framework of governments; this is known as the informal sector. Although the definitions vary according to the national context, it is generally agreed that the informal sector, whether rural or urban, comprises small and microenterprises producing and distributing basic goods and services in unregulated, but competitive markets. Microenterprises provide income and employment for significant proportions of workers in rural and urban areas. In the developing member countries of the Asian Development Bank (ADB), they account for more than 60% of all enterprises and up to 50% of paid employment (ADB, 1997).

According to the definition of the ADB, microenterprises employ fewer than ten workers, including the owner-operator and any family members who work in the business. Professionals or groups of professional service providers and high-technology firms are not included in this definition. The term microenterprise therefore implies an income and asset limit. It is widely understood that microenterprises are enterprises of the poor. Consequently, microenterprise development can serve four major development objectives: (1) poverty reduction, (2) the empowerment of women (3) employment generation and (4) enterprise development as an end in itself.

The USAID Office of Microenterprise Development suggests the following criteria for evaluating microenterprise service programmes (EDGCOMB, 1996). Ideally, these should lead to:

(1) at the household level
• increased income
• increased assets
• increased welfare

(2) at the individual level
• increased control of resources (especially for female clients)
• increases in paid employment
• increased self-esteem (especially for female clients)

(3) at the business level
• increased net worth
• increased net cash flow

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increased differentiation between the microenterprise and household

(4) at the community level
• increases in client’s paid employment

Additionally, microenterprise services should contribute to an increased diversification of household economic activities, increased reliance on high return productive activities, improved economic security and increased labour productivity. They should not have negative impacts on natural resources and environmental quality.

2 Business opportunities in urban agriculture

Due to the proximity to markets, business opportunities in urban agriculture abound (i.e. BONCODIN et al., 2000, FAO, 1999, HOLMER, 1999, LEE-SMITH & LAMBD, 1991, MARULANDA, 2000, MBIBA, 1994, TEGEGNE et al., 2000), resulting in different types of enterprises. These can be classified into four major categories:

• Production enterprises (production of vegetables, fruit, ornamentals and livestock as well as aquaculture and forestry),
• Processing enterprises (e.g. food preparation, packaging, milling and drying),
• Input delivery enterprises (agricultural supplies such as fertilisers, compost, soil media, seeds, pesticides, water, tools and feeds),
• Service delivery enterprises (special labour services such as milking, seedling production, agricultural advisory services, animal health assistance, accounting and bookkeeping).

The emphasis of this paper is on microenterprises, since larger ones are (by definition) more firmly established. However, the latter are also important actors in urban agriculture, particularly in terms of technology development (e.g. seed companies that breed varieties appropriate for urban conditions, irrigation companies that develop specialised irrigation equipment such as bucket irrigation systems).

Besides the aspects that are directly related to agriculture, business opportunities in urban agriculture may also involve ecological services. Cities take in natural resources, process them, and then discharge various types of pollution. These open-loop polluting systems can be closed by means of improved municipal solid waste systems combined with urban agricultural activities. However, to make these systems sustainable, they have to be designed in economically viable, environmentally sound and socially uplifting ways. If the term ‘waste’ is defined as a ‘misplaced resource’, it then acquires a commercial dimension. About 40-50 % of municipal solid wastes in developing countries are of organic origin (ZURBRÜGG & ARISTANTI, 1999). Consequently, they constitute potential raw materials for composting and can be reintegrated into agricultural production systems. Other components such as paper, glass, metals and plastics, which constitute 20-30 % of the solid wastes, are important raw materials for the recycling industry. If materials are properly sorted and not contaminated, the ‘garbage pickers’ at the landfill sites could improve recovery rates and obtain better prices for these products (HOLMER, 2001a). Various guidelines and manuals on how to involve micro and small enterprises in municipal solid waste management are available, but have been poorly integrated into local programs (AHMED, et al. 1996, GTZ, 1998, HAAN et al., 1998, LARDINOIS & FUREDY, 1999, LARDINOIS & KLUNDERT, 1995).
3 Methods for microenterprise development

Regarding methods for microenterprise development in urban agriculture, it is necessary to distinguish between 1) analytical methods and 2) intervention methods. Depending on the type of enterprise they are applied to, these methods may interrelate and be combined in various ways. Table 1 lists some examples of analytical and intervention methods for microenterprise development in urban agriculture.

Table 1: Examples of analytical and intervention methods for microenterprise development in urban and peri-urban agriculture (UPA)

<table>
<thead>
<tr>
<th>Analytical methods:</th>
<th>Intervention methods:</th>
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<tbody>
<tr>
<td><strong>Explanatory study/Situation analysis</strong></td>
<td><strong>Human resources development</strong></td>
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<tr>
<td>• Inventory of main types of UPA entrepreneurial activities</td>
<td>• Enterprise management training</td>
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<td>• Enterprise development assistance</td>
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<tr>
<td><strong>Feasibility Study</strong></td>
<td><strong>Enterprise Development Assistance</strong> (to start up new business or strengthen existing ones)</td>
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<tr>
<td>• Identification of demand for specific product or service</td>
<td>• Removal of constraints as identified in feasibility study</td>
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<td>• Identification of potential markets (quality and quantity requirements)</td>
<td>• Attract capital</td>
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<td>• Identification of technical needs</td>
<td>• Start business</td>
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<tr>
<td>• Competitiveness</td>
<td>• Develop linkages</td>
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<td>• Profitability</td>
<td></td>
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<td>• Risk analysis</td>
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<td>• Availability of inputs</td>
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<td>• Identification of human resources</td>
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<td>• Forecasting of above-mentioned items</td>
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<td>• Financing</td>
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<tr>
<td><strong>Market/Network/Cluster analysis</strong></td>
<td><strong>Influencing conditions/platform advocacy</strong></td>
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<tr>
<td>• Who are the actors involved?</td>
<td>• Favourable policies</td>
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<tr>
<td>• What relationships already exist?</td>
<td>• Institutions involved (access to credit, land tenure etc.)</td>
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<tr>
<td>• How do these networks operate?</td>
<td>• Market infrastructure</td>
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<td>• What are the gaps?</td>
<td>• Training programmes</td>
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<td></td>
<td>• Trading support</td>
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3.1.1 Examples of analytical methods

**Identification of present practices of urban food production**

Surveys to determine the economic, sociological and anthropological situation of urban and peri-urban communities and micro and small farm enterprises in three Southeast Asian cities (Cagayan de Oro, Philippines; Ho Chi Minh City, Vietnam; and Vientiane, Laos) were conducted by the Peri-urban Vegetable Project (PUVeP) in 1998 (funded by the European Union). The surveys were aimed at evaluating and prioritising the various socio-economic and anthropological constraints on urban vegetable production and its impact on the community, farm enterprises and urban administration. Specifically, the researchers wanted to (1) describe the socio-demographic and economic characteristics
of the vegetable growers, vendors and consumers in the three cities, including income and savings, health status and gender relations; (2) determine the vegetable consumption pattern, quality criteria and household waste disposal practices; (3) identify the vegetable production practices such as pesticide and fertiliser use, integrated pest management, crop rotation, irrigation and labour inputs; and (4) describe vegetable marketing systems including methods of marketing, types of vegetables sold, source of supply, quality criteria and common problems encountered by vendors.

Figure 1 illustrates the conceptual framework of this study. It shows the major variables: social factors, vegetable farming practices, marketing systems, vegetable consumption patterns and household waste disposal practices. Two major linkages are shown in the framework.

Figure 1: Conceptual framework of socio-economic interactions of peri-urban vegetable production, marketing and consumption in Southeast Asia

Firstly, social factors, situated at the centre of the framework, are related to all other variables (production, marketing and consumption). This means that factors such as income, education, gender relations, migration patterns and health status affect the production, marketing and consumption of vegetables. For instance, a group of farmers with less income, insufficient education and training in vegetable farming and no access to land and water resources may produce lower quality vegetables compared to farmers with secure access to resources and proper education and training in vegetable farming.

Secondly, the relationships between production, marketing and consumption are all symmetrical. Such relationships can be called the ‘production system’. Each of these variables (within and across categories) affects the others. As a system, any major change in one of these variables may lead to corresponding changes in the others. For
instance, an introduction of a new crop variety into the production system may affect the marketing and consumption patterns.

The surveys were conducted at various urban and peri-urban districts in the three cities. The total number of respondents in each city was 300, comprising 100 vegetable growers, 100 vendors and 100 consumers, who were chosen at random. The survey questionnaire contained questions pertaining to socio-economic status, vegetable consumption patterns, vegetable production practices, marketing systems and household and waste disposal practices. Data were processed using statistical software and were analysed by applying descriptive statistics. Partial results of the surveys were published by HOLMER et al. (2001a, b, c), POTUTAN et al. (2000), SCHNITZLER et al. (1999a b, c).

FEREDE (2001) describes a survey of horticultural production and marketing systems in the urban and peri-urban areas of Addis Ababa, Ethiopia using a similar methodology as the one applied in Cagayan de Oro. Although there are specific cultural differences, urban agriculture in both cities was shown to be an important survival strategy for the poor by providing food, employment and income. However, more institutional assistance is needed to improve its potential to alleviate poverty.

**Identification of quality and quantity requirements of private households, traders and institutional users**

Marketing begins with discovering which product customers want to buy. Providing the features and quality customers want is a critical first step in marketing. The marketing process then continues by setting a price, letting potential customers know about the product, and making it available to them. Marketing activities and strategies result in making products available that satisfy customers, while making profits for the enterprises that offer those products. Although standards and quality control are frequently lacking in developing countries, they still need to be established to ensure competitiveness, particularly with respect to imported goods. It is a fact that ‘the market sets the quality’, not only regarding the quality of the product itself, but also in terms of handling and packaging. In addition, consumers (especially institutional users) require consistent, regular deliveries of minimum volumes of a specified quality. To be competitive, the entrepreneur – whether a farmer, a compost producer or a garbage picker – must quickly respond to buyers’ requirements by means of his or her knowledge of, and communication with, the market. Consequently, appropriate transport facilities and communication systems (i.e. linkage with the markets) have to be put in place.

AGBAYANI (2001) describes methodologies for determining vegetable quality and quantity requirements for private households, vendors and institutional users in an urban setting in the Philippines. Two surveys were conducted in Cagayan de Oro, one among private households, growers and vendors (described above), and the other among 100 randomly selected institutional users, including restaurants and hospitals. The survey results provide specific consumer information such as consumption and purchasing patterns and quantity and quality requirements. This information makes the market more transparent for growers and policy makers.

**Urban and peri-urban based clusters of small-scale agrifood enterprises**

Another example is described by WHEATLEY (2001). ‘Clusters’ are groups of similar micro and small-scale enterprises which are commonly found in concentrated
geographical areas of many developing countries, especially in Asia. Working with clusters of enterprises and their associated support services, rather than with individual enterprises, can be both an efficient way of using scarce resources and effectively facilitating change in a wide number of enterprises through a small intervention leveraged across the cluster. Cooperation between enterprises within a cluster can also be a means to overcome scale disadvantages while maintaining flexibility, creativity and agility in an uncertain commercial environment (e.g. raw material sourcing) or creating a supply of skilled labour. This type of cooperation is also termed collective efficiency (SCHMITZ, 1998). WHEATLEY (2001) cites the example of root crop starch clusters in Vietnam to show how a traditional cluster which produced low grade starch for relatively low-growth markets is evolving into a more dynamic cluster by developing linkages to new markets that pay higher prices, but also demand higher quality. This process has not been driven by external agencies, but by a combination of the new market linkages and the entrepreneurial capabilities found within the existing cluster.

To understand how these types of urban agriculture and agro-processing are linked to the urban poor and what opportunities exist for enhancing their contribution in a sustainable way, the following methodologies are applied:

- Using participatory methods for livelihood analysis to understand the existing system of enterprises and the network of relationships between the relevant households.
- Creating a forum where all actors in the cluster can interact.
- Facilitating communication between all actors in a cluster.
- ‘Visioning’ the future: where do the different actors see the cluster going in the future? What changes are needed to get there? Can all actors agree on a common vision?
- Seeking out new markets.
- Jointly implementing small projects that are planned and undertaken by the micro-enterprises themselves to start the innovation process (such as study visits to new, high value markets).

3.1.b Examples of intervention methods

**Small Agricultural Production Promotion Programme (PROVE)**

One example of a successfully implemented strategy to enhance microenterprise development in urban agriculture is the Brazilian initiative PROVE, which stands for Small Agricultural Production Promotion Programme (HOMEN DE CARVALHO, 2001). PROVE is designed to promote and sustain small agricultural production, processing and trade involving several urban and peri-urban agricultural systems, such as vegetable gardening, fruit production and livestock systems. Low-income groups are the principal beneficiaries.

The overall objective of PROVE is to show that promoting small production schemes is a positive social option to ensure sustainable development. For this purpose, specific strategies have been developed for socially excluded producers. These strategies include:

- Supporting producers in producing and trading their agricultural products, thus enhancing their competitiveness in the formal market.
- Ensuring that bank credits are provided by both public and private financial institutions.
• Implementing actions to encourage and support producers to establish associations, cooperatives and others groups to ensure the sustainability of the programme.
• Reviewing and reformulating specific sanitary legislation for agricultural products.
• Establishing small agro-industrial processing facilities.
• Creating small agro-industrial offices where producers can acquire the necessary inputs by making interest-free instalment payments.
• Improving market visibility by creating a selected trademark (PROVE) which serves as a quality hallmark, linking the products to the programme.
• Enhancing product trading by establishing 'producer kiosks' in supermarkets.
• Continuing inspection and monitoring to assure consumers of high quality products.

**Human resources development**

One factor that is frequently neglected in strategic programmes is *human resources development*. Important elements of human resources development include entrepreneurship training, continuous updating and improvement of the curricula of agricultural universities and colleges, improved group and cooperative management, a responsive bureaucracy, responsive local governments, and, last but not least, good programme and project management. PAJE (2001) describes methodologies for improving the entrepreneurial skills of those involved in urban agriculture. The CEFE Training Methodology, which stands for Competency-based Economies, Formation of Enterprise, has evolved over the years from an approach focusing on training individuals who want to start their own enterprise, to a comprehensive training methodology designed to evoke enterprising behaviour and competence in a wide variety of situations. The fundamental assumption is that people who have a clearer vision of their goals and who are equipped with the skills to achieve them are far more likely to become productive individuals in society. Although the training methodology has a wide appeal and has been applied in a variety of situations, its core focus remains the stimulation of the growth and development process in small and medium enterprises, including those in the informal sector. It develops and enhances the business management and personal competencies of the two sets of actors who are considered to be the most important players in the enterprise growth process: entrepreneurs and the personnel from enterprise support and regulation institutions. For entrepreneurs, the emphasis is on improving their business performance. For personnel from enterprise support and regulation institutions, more attention is given to creating a positive enabling environment at the macro and meso levels.

A full CEFE course covers a period of three to five weeks, depending upon the time required for the potential entrepreneurs to do their field work and to write their business plans. In general, the trainees spend about one-third of their time outside the course venue collecting and analysing information and preparing brief presentations.

The importance of human resources development is demonstrated by ANSALDO’s (2001) descriptions of a project that tried to link small potato growers in the Philippines with the formal market (the agro-industrial processing industry). The major constraints encountered in this project could be attributed to the lack of the farmers’ social preparedness, particularly their lack of understanding about what it means to be an entrepreneur. ANSALDO (2001) concludes:
• Poverty alleviation is one of the greatest concerns of governments in developing countries.
• Human development is a key intervention to alleviate poverty.
• An important component of the human development strategy is enterprise development to allow people to provide goods (food) and services and thereby earn income.
• This can be done most effectively through cooperatives that are established to serve the largest number of people, particularly small farmers in urban and rural areas who remain marginalised despite globalisation and liberalised trade.
• To do this, a key activity is required, i.e. the formulation of an ‘enterprise paradigm’ acceptable to the government, business and civil society sectors.

4 Conclusion
Urban agriculture microenterprises are an important factor for providing food, income, employment and ecological services to significant proportions of the populace in cities of developing countries. However, despite the tremendous opportunities they offer for the well being of current and future generations and the environment, their potential is often poorly exploited.

A variety of methods and tools are available that are relevant for microenterprise development in urban agriculture. However, there are certain limitations on the methods described earlier. Regarding the analytical methods, the major constraints on feasibility studies are the costs involved and the qualifications that are needed to carry them out. In addition, it is often difficult to strike the correct balance between being overly broad or being too narrow, i.e. where to start and where to stop. Regarding the intervention methods, many projects initiated by NGOs have failed due to the lack of qualified personnel. There is a need for individuals with specialised technical training; they are the ones who come up with appropriate and applicable solutions. They are also needed to conduct more research on appropriate technology development. The unresponsiveness of policy makers and institutions in countries where urban agriculture is not recognised as a legitimate activity is another serious limitation.

The methods described above are also somewhat inadequate when used for forecasting supply and demand (modelling) as well as for combining and integrating technical, social and ecological concerns (micro-macro linkage). There are also gaps regarding methods for identifying whether an individual has the aptitude to be a potential entrepreneur and especially for ensuring the proper integration of already existing gender tools, or the development of more appropriate ones, into microenterprise development programmes.

To further enhance microenterprise development in urban agriculture, the following are also required:
• Publication of relevant materials,
• Training of urban agriculture actors to become more sensitive to gender issues in microenterprise development,
• Incorporation of models (forecasting prices, etc.),
• More research on identifying existing urban agriculture systems to increase market transparency for microentrepreneurs, investors and other actors in urban agriculture,
• Promoting awareness of urban agriculture and improving its linkage to existing microenterprise development programmes.

The above must be encompassed by an ‘enterprise paradigm’ which is acceptable to the government, business and civil society sectors with the understanding that urban agriculture is a force on its own which benefits cities and urban residents.
5 References


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