

# Topic 5

## MONITORING AND EVALUATION OF IMPACT

The terms Monitoring and Evaluation (M&E) are often used in a broader sense than what is known from project work.

Half of the resource papers for the workshop presented 'M&E experiences' that consisted of surveys and analyses of biophysical, socio-economic or institutional issues without specific reference to any project or policy intervention.



Data is necessary to value the contribution of this

farmer to development in Hanoi, Vietnam

# Monitoring and Evaluation

In these cases M&E helped to describe situations and trends of urban agriculture; e.g. its growing significance for urban food security or the level of water pollution over the year. In the strict sense, this kind of "M&E" would be better classified as Situation Analysis and Diagnosis (see page 10-12 this volume). Nonetheless, this topic paper considers that repeated situation analyses also contribute to project M&E. For the purposes of this topic paper, M&E is viewed as:

*...a set of activities and methods to track change in a given situation or system, and/or to assess project progress and impact. M&E can help us understand whether: (i) anticipated changes have actually occurred, and (ii) if these are in fact the result of the intervention under review.*

*Collectively M&E involves gathering information, data analysis, judging and making decisions. To analyse these changes, M&E should build upon an initial situation analysis and is likely to use related key parameters/indicators.*

While there is already a well-established body of general literature on M&E in agricultural research and development (R&D), most of the reported experiences are based on the rural setting. In view of the contrasting characteristics often mentioned between rural and (peri-)urban agriculture (Table 1), a distinct form of M&E in the urban context is expected. However, how far have projects on urban agriculture taken up the challenge of adapting M&E to the urban and peri-urban context? And does M&E require a different framework, approach, methods and tools, and/or indicators when applied to urban agriculture?

### PLANNING MONITORING AND EVALUATION

Despite the variation in definitions and procedures among the analysed papers, there is consensus on the need for careful and advanced planning of M&E. In several papers, the procedures for M&E planning are presented, for

instance one based on experiences with participatory impact monitoring in Sudan (Plastow and Pantuliano 2001) and participatory monitoring and evaluation in the Philippines (Campilan 2001). Hovorka (1998) suggested a set of gender M&E guidelines for urban agricultural research projects. The guidelines are presented as questions which should facilitate the assessment of exactly how gender analysis has been implemented by the project team during different phases of the project cycle and how effective this has been on enhancing overall project outputs. The list of questions in all instances is not specific to urban agriculture, and is thus open to modification and expansion.

### PARTICIPATORY M&E

M&E is generally seen as a means to assess project efficiency, effectiveness, relevance and causality. Traditionally, its purpose is to promote accountability and transparency to outsiders. It is expected to yield information about project progress and accomplishments of targets, as illustrated for Bangladesh (Talukder et al. 2001). Information is often collected to serve the needs of donor agen-

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To facilitate identification of indicators and to allow for the harmonisation of assessments, international indicator databases have been established, such as UNDP's Global Urban Indicators Database

(www.urbanobservatory.org).

The database was established for monitoring the implementation of the Habitat Agenda UMP-LAC is seeking to integrate urban agriculture in the "Urban Indicators Programme". A generic set of UPA indicators is being pilot-tested in Lima, Peru. (Dasso 2001).

cies, administrative and management entities and/or policy-making bodies. More recently, participatory monitoring and evaluation (PM&E) or participatory impact monitoring (PIM) has emerged as an approach, seeking to involve local people, collaborating organisations and programme field staff.

As an internally driven process, PM&E is initiated and led by these project insiders. It is also called *self-assessment*, or a *joint or stakeholder M&E*, when done by insiders together with external groups. PM&E experiences reported by the resource papers follow either of these two modes. These were contrasted with the conventional externally-driven M&E, which is

initiated from the outside and exclusively conducted by those having no direct involvement or interest in the project

PM&E emphasises methods and tools that are more interactive, exploratory and flexible, e.g. participatory appraisals and ethnographic methods. It has been observed, however, that PM&E has high transaction costs; the emphasis on interactive communication among project stakeholders can make the process more time consuming. Not surprisingly, the most comprehensive examples of PM&E cited in the resource papers are those implemented by projects or institutions with relatively better funding support.

Meanwhile, it is important to emphasise that PM&E is not meant to be a substitute for the more conventional approach. Rather, it seeks to enhance the overall effectiveness of M&E by capitalising on the core strengths of the conventional approach (technical monitoring, external project review, etc.) while addressing in a more participatory way the interests of the different stakeholders (needs assessments, participatory monitoring, self-assessment workshops, community validation, etc.).

## ADAPTING M&E TO THE URBAN AGRICULTURE CONTEXT

Feedback from project participants is widely considered to be a key role played by M&E, particularly important in dynamic (peri-)urban settings. The multiple aspects of change intrinsic to urban agriculture will affect the relevance of the objectives, as they initially were set, and the indicators and methods for monitoring and evaluation chosen.

Based on the cases presented in the workshop in Nairobi, it was generally observed that M&E methods and tools widely used in rural agriculture tend to be sufficiently generic for application to the urban agriculture context. Instead of calling for major methodological adaptations, the resource papers stressed practical guidelines to enhance M&E's sensitivity and relevance to the specific urban socio-political and agro-ecological milieu (Table 2).

For example, a joint project by the Kumasi University and IBSRAM has used PM&E methods that are comparable to those in rural agriculture projects. PM&E workshops and farm visits were organised using a variety of PRA methods, including a farmer self-analysis of changes in their knowledge, attitudes, skills and aspirations (KASA) in view of the introduced technology (Drechsel et al. 2001).

On the other hand, PRA tools may be incompatible with the cultural and political environment in certain communities. Gabel (2001) reported that in Harare, Zimbabwe, there are limitations to the use of participatory mapping tools for determining the geographic coverage of urban agriculture. As in many cases, urban farming is not a legal activity per se, and farmers have felt uncomfortable mapping their fields. This would call for more formal/structured methods in order to generate quantitative, technical information that is more familiar and acceptable to urban government leaders and policy-makers. Among these could be the use of GIS to map green urban spaces and large-scale surveys to determine the contribution of agriculture in the city to urban food demand.

## INDICATORS

Indicators are key parameters to show and measure change. Standardised indi-

**Table 1: Comparison of key features distinguishing rural from urban/peri-urban agriculture.**

<b>"Rural" situation</b>	<b>"Urban/periurban" situation</b>
Conventional, 'textbook'-type of farming	Unconventional, mobile and transient; partly above ground or without soil
'Farming' is a primary livelihood, engaged full-time	Farming often a secondary livelihood, engaged on a part-time basis
Usually 'born' farmers	'Beginners', part-time farmers, in part migrants from rural areas, hobbyists
Majority of community members engaged in farming	Percent of community members engaged in farming is highly variable
Generally supportive views of importance of agriculture	Contrasting views
More homogeneous, political, economic and social context	More heterogeneous
Land use generally stable for agriculture	Competing land uses (agricultural and non-agricultural)
Seasonal periods	Year-round growing of crops
Relatively high security of land tenure	Relatively low
Relatively low labour costs	Relatively high
Often far from market location	Closer to market location, favourable for perishable cash crops/products
Likely availability of research and extension services	Less likely
High priority on policy agenda	Mixed; policies often vague or non-existent

cators from rural agriculture cannot be applied in an urban setting, without first examining their appropriateness.

The selection of M&E indicators for UPA can be daunting since agricultural activities are closely interwoven with the complex system of livelihood and food security strategies of urban households. An output indicator, for example, such as 'increased backyard production of food' cannot be assumed to automatically improve household food security or bet-

ter diet; households may sell the food products and use the cash income for other purposes. Similarly, a food consumption survey may not reflect urban reality if it ignores food supply from street kitchens and vendors, at least for the highly mobile working sector of the urban population. Secondly, 'conventional' units of measures for rural farming systems may not be valid for the more 'unconventional' systems of UPA. For example, measuring UPA coverage in terms of hectares will exclude a signifi-

**Table 2: Emerging M&E challenges in UPA projects.**

<b>Urban Agriculture Features</b>	<b>Suggested Guidelines for M&amp;E</b>
<i>Unconventional farming systems</i>	<ul style="list-style-type: none"> <li>❖ Identify indicators and units of measure for unconventional farming systems in UPA, since those used in rural agriculture may be inappropriate or inadequate</li> <li>❖ Since UPA is often mobile/transient, anticipate that it can be a "moving target" for M&amp;E</li> </ul>
<i>Site proximity and accessibility</i>	<ul style="list-style-type: none"> <li>❖ Budget project resources more efficiently because proximity and accessibility of UPA sites cut travel time and costs</li> </ul>
<i>High number of stakeholders</i>	<ul style="list-style-type: none"> <li>❖ The larger number of stakeholders in UPA requires exerting more effort to seek them out for their inputs to M&amp;E</li> <li>❖ Examine how stakeholders' competing land-use objectives affect achievement of UPA goals and targets</li> </ul>
<i>Environmental costs</i>	<ul style="list-style-type: none"> <li>❖ The potential trade-offs between economic benefits and environmental costs require that M&amp;E integrates a key environmental dimension in evaluating project impact</li> </ul>
<i>Multiplicity of agricultural and non-agricultural livelihoods</i> <i>"Weak" identity of urban farmers</i>	<ul style="list-style-type: none"> <li>❖ Factor into the impact analysis the contribution of non-UPA livelihoods</li> <li>❖ Exploratory phase required to identify UPA farming population and/or select sample</li> <li>❖ Motivate farmers to set aside time for participating in M&amp;E</li> <li>❖ Negotiate with farmers regarding incentives for possible opportunity costs of their participation</li> </ul>
<i>"Urban farmers" often marginalised and unorganised</i> <i>UPA intertwined with broader urban development issues</i>	<ul style="list-style-type: none"> <li>❖ Capitalise on M&amp;E as processes for empowering and mobilising urban farmers</li> <li>❖ Anticipate that UPA project and M&amp;E could be dragged into conflict situations</li> <li>❖ Cultivate trust and confidence among urban farmers who could be suspicious of any hidden agenda for M&amp;E</li> </ul>
<i>Complex land tenure arrangements</i>	<ul style="list-style-type: none"> <li>❖ Anticipate that urban farmers' capacity to participate can be constrained by their limited rights over land/resources</li> <li>❖ Seek (in)formal permission or facilitate consensus on the use of a disputed land/resource</li> </ul>
<i>Limited or non-existent research and extension services</i>	<ul style="list-style-type: none"> <li>❖ Collaborate with other organisations/agencies (NGOs, universities, lobby groups) that may have indirect interest in UPA</li> </ul>
<i>Policy support</i>	<ul style="list-style-type: none"> <li>❖ Orient M&amp;E towards collecting adequate "hard" data often required by policy-makers/administrators</li> </ul>

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cant part of UPA done in containers, rooftops and hydroponics systems. Formulation of M&E indicators suffers from definitional and boundary-setting problems that plague urban agriculture in general. As long as approaches are not homogenised, it becomes difficult to compare M&E data between different project cities.

Nonetheless, those seeking appropriate M&E indicators can make use of existing technical indices/levels for various aspects of urban agriculture.

**CONCLUSIONS**

Most studies on urban agriculture are descriptive and based on surveys. This is especially common in papers using a more conventional M&E approach. In fact, the case studies discussed in the workshop in Nairobi show that there appears to be limited need for *new* M&E frameworks or procedures for the urban context. On the other hand, there is much evidence that the urban situation requires more thoughtful, dynamic and participatory approaches especially when R&D interventions are going to interest or affect different stakeholder groups. The challenge is then to explore how known M&E tools and indicators can best be adapted to the specific urban agriculture context, and to deliver the data and information needed for the various stakeholders interested in the assessment. A significantly high level of sensitivity appears to be necessary. There is a continuous need for more case study material on conventional and participatory approaches to M&E, and on indicators used.