Strengthening Planning, Monitoring and Evaluation in Latin America and the Caribbean
Douglas Horton & Gerdien Meijerink, ISNAR

Summary

Title: Strengthening Planning, Monitoring and Evaluation in Latin America and the Caribbean

Duration: 1992-1998. From 1992 to 1995, the project focused on training in planning, monitoring and evaluation. In 1996 and 1997, the training effort broadened to include three additional topics of high priority to the region’s managers: management information systems, project formulation and management of organizational change processes. In early 1996, at the request of agricultural research leaders in the region, the PM&E project moved beyond its original information and training strategies and initiated work with selected organizations to support strategic planning and organizational change processes.

Objectives: Strengthen planning, monitoring and evaluation (PM&E) in order to improve research management, enhance the relevance, effectiveness and efficiency of agricultural research programs, and contribute to the flow of useful information and technology to agricultural producers.

Activities: Three types of activities were carried out:

- **Information:** Reference books and training materials were prepared for use in training events and workshops and for distribution to managers and libraries throughout the region. Prepared in Spanish, the materials were later translated into English and distributed in other regions.

- **Training:** Training events and workshops were organized. A regional group of trainers was established, and its members organized and delivered a number of sub-regional training events in the region. Several regional workshops were also organized to plan and review the project’s activities and to disseminate its results to high-level managers in the region.

- **Facilitation of organizational change.** The project provided direct support for strategic planning and organizational change processes in selected organizations that were committed to making the efforts required to bring about significant improvement in their PM&E systems. These organizations, known as “Pilot Cases,” were in Costa Rica, Cuba, Panama and Venezuela.

Area: Policy and Institutions
Region: Latin America and the Caribbean (LAC).

Background

Capacity development has moved center stage in the agendas of development organizations. As technological and institutional change accelerate and budgets for overseas development assistance decline, strengthening the ability of individuals, groups, organizations and institutions to carry out their functions and achieve desired results is essential to ensure the sustainability of development efforts and the eradication of poverty.
From 1992 to 1998, ISNAR formed a research partnership with agricultural research organizations in LAC to carry out a regional project aimed at strengthening planning, monitoring and evaluation (PM&E). An evaluation was done to identify the main impacts of the project and to learn lessons for improving future capacity-development programs.

**Stakeholders: beneficiaries and partners**

The project’s main stakeholders were agricultural research managers and their organizations in the LAC region. They have played a key role as partners in the research and in implementing research results. Together with ISNAR staff, they planned activities, tested innovations, reviewed results and modified plans accordingly during project implementation. Managers from agricultural research organizations in the region participated in project planning workshops. They worked in teams to develop a set of training materials. Later, they tested and revised the materials and employed them in training workshops. Managers were also actively involved in reviewing and evaluating the project. Active involvement of the project’s intended beneficiaries ensured the relevance of its activities, and application of its results.

Not only were the stakeholders actively involved in the project as research partners, they were also the principal intended direct beneficiaries. Thirty-five managers from 15 organizations in 12 countries gained skills and experience in PM&E through their involvement in intensive regional training workshops, through preparing the project’s training materials and through serving as trainers in sub-regional training events. Approximately 150 managers from 25 organizations throughout the region participated in such sub-regional workshops (Figure 1). Up to the end of 1998, these individuals had organized national training events that reached at least 3,000 participants. The PM&E training continued after completion of the ISNAR project, and by the year 2000 there had been at least 5,000 participants in national events. The participants mainly consisted of agricultural research managers, who often attended more than one training event.

Total project funding was approximately US$ 4 million over six years. Funding was provided by several international development agencies and by the research partners themselves (the regional organization in LAC and ISNAR). The participating regional organizations made substantial contributions to the project activities, amounting to approximately US$ 500,000. ISNAR made a contribution of over US$ 1 million (Table 1).

**Impact: Capacity development in PM&E**

Rather than attempting to develop and introduce general solutions that would “fit” all organizations, the project attempted to understand and build upon the diversity of knowledge and experience present in the region, and elsewhere, and to work with local managers to develop locally adapted solutions to management problems.

Individual and organizational performance can be viewed as a function of three groups of factors: the operating environment, the level of motivation and the capacity of the individual or organization to carry out desired functions (Figure 2).

---

1 CARDI, The Caribbean; CENICAFE, Colombia; CIAT, Bolivia; CONITTA, Costa Rica; CORPOICA, Colombia; ICTA, Guatemala; INIA, Chile & Uruguay; INIFAP, Mexico; FONAIAP, Venezuela; IDIAP, Panama; SINCITA, Cuba; MAG, Costa Rica.
2 The results of these evaluation studies are detailed in Horton et.al (2000).
3 Therefore the number of participants exceeds the number of individuals trained. Training has been provided in several different topics, and some individuals have participated in more than one event.
Capacity development at the level of individuals

The evaluation indicated that the project contributed to the knowledge and ability of many individuals to plan, monitor and evaluate agricultural research. Project publications provided useful information on PM&E. Training activities provided opportunities to exchange information, share experiences and experiment with new management approaches and techniques. The most intensive learning and capacity building at the individual level occurred in the Pilot Cases, where many individuals associated with the project have assumed leadership roles in organizational management and change efforts.

The most significant effects achieved at the individual level have been in the realm of motivation. Managers have become more aware of the need for organizational change. In the early 1990’s, when the PM&E project was getting underway, few managers in the region anticipated the magnitude of change that their organizations would experience in the coming years. Most thought the problems they were experiencing – for example, budgetary restrictions – were transitory or could be solved by reducing costs. Many believed that calls for improved governance and accountability would pass with time. They hoped to weather the storm by improving public awareness and cutting costs, rather than by making fundamental changes in their organization’s goals, strategies or modes of operation. Participating in the PM&E project made many professionals view organizational change in a more positive light and become actively engaged in organizational change efforts.

Managers have also gained an appreciation of the value of PM&E. The project encouraged managers to view external pressures as signals of the need for fundamental changes in organizational goals, strategies and operations. It was argued that a sustainable organization required the capacity to identify and respond appropriately to threats and opportunities in an increasingly turbulent environment. In this context, an integrated PM&E system was viewed as essential for:

- Monitoring external trends and identifying needs and opportunities
- Defining relevant goals
- Developing appropriate strategies
- Aligning the activities of staff members with organizational goals and strategies
- Continuously improving strategies, activities and outputs by learning from experience

Evaluation indicated that many managers who participated in workshops, training events and Pilot-Case activities have assimilated new concepts and tools and made use of them in their management practices. Participation in the project helped many see the potential value of PM&E as a management tool. Many became motivated to improve their PM&E activities and their management practices more broadly.

Managers improved their knowledge and skills in PM&E. Evaluation showed that contributions of project publications and training contributed to knowledge and skills in PM&E and in strategic management. It also provided evidence of enhanced professional capacity for managing organizational change, particularly in the Pilot Cases. These three areas are interdependent: enhanced knowledge and skills in PM&E is of little value in the absence of a capacity for strategic management and for managing organizational change.

Many of those who participated in project activities have improved their management practices. Most improvements have been made at the level of research activities and projects that they manage directly. Fewer changes have been made at the level of research programs or higher levels, where organization-wide decisions are required.

In addition to management skills and abilities, the project has contributed to the capacity of many individuals to organize effective teamwork and to conduct management training on their own.
Capacity in management training is a valuable resource in the region that many organizations have tapped to upgrade their own management skills and practices. This capacity is also being employed by universities in Chile, Argentina, the Dominican Republic and other countries.

**Contributions at the level of organizations**

Despite the project’s contributions to individual motivation, capacity and performance, significant improvements in organizational PM&E have only been registered in a few cases. Organizational change has occurred where the following conditions have been met:

- The *environment* was conducive to change (e.g., strong external pressures for change)
- Top managers provided *leadership* for change
- A *critical mass* of staff members was involved in the change process and was committed to it
- Appropriate *institutional innovations* were made available or developed
- *Resources* were provided for change (e.g., dedicated time of key staff members and budgets for training and facilitation)
- There was adequate *management of the change process*

Two key factors have limited the contributions of the PM&E project in many organizations: lack of support of senior managers for large-scale organizational change, and the small proportion of staff members who participated in project activities.

Where fundamental change occurred, the organization itself took the lead and the project played a catalytic, supporting role. The project has contributed to fundamental organizational changes in three of the four Pilot Cases – SINCITA, Cuba, IDIAP, Panama and FONAIAP, Venezuela – and in a few other organizations – principally INIA-Uruguay and INIA-Chile. In these cases, organizational change was achieved by motivating key managers and by providing concepts, information, training, and tools needed for improving management. In the Pilot Cases, change processes were achieved by backstopping local change teams. And participating organizations were encouraged to provide the needed time and resources for a successful provide change process.

Most organizational improvement has occurred in planning. There has been considerable interest in strategic planning in the region, and many organizations have undertaken strategic planning exercises. The project has provided concepts, tools, guidance and support for strategic planning in the Pilot Cases. Project publications and training have supported strategic planning exercises in other organizations – most notably in INIA, Uruguay and INIA, Chile and to a somewhat lesser extent in INIFAP, Mexico. Some other organizations have also used project concepts and tools in carrying out strategic planning. Improvements have also been made in operational planning for research centers and projects.

There have been some improvements in monitoring, particularly as project-management systems have been established. Much less improvement has been made in evaluation, which continues to be the weakest phase in the management cycle.

In recent years, there has been a strong move to organize of research in projects. The PM&E project highlighted the importance of the project as basic unit of research management, and it offered principles and tools for improving project formulation and management. Evaluation

---

4 The findings reported here are consistent with those reported in studies of organizational change in other settings, including educational organizations and large corporations. The reader is referred to Mohrman et. al, 1989; Harvard Business School, 1998; Hobbs, 1999; Fullan, 1991; Huberman and Miles, 1984; and Hoy and Miskel, 1996.
indicates that in most organizations the PM&E project’s contributions have been larger at the project level than at higher decision-making levels.

In the final stage of the PM&E project, integrated PM&E systems were expected to be operating in at least four organizations in the region. Such systems were expected to integrate planning, monitoring and evaluation activities, to use standardized PM&E instruments and procedures, and to have adequate personnel and resources to perform their assigned functions.

With guidance from the project and in a few cases support, several organizations have taken actions to strengthen and integrate their PM&E systems. Such efforts have been most vigorous and thorough in the Pilot Cases. During 1998, SINCITA-Cuba, FONAIAP-Venezuela and IDIAP-Panama designed new PM&E systems and SINCITA and FONAIAP prepared operating manuals for the new systems. Other organizations have improved some aspects of their PM&E systems, but with less integrated approaches.

It is important to note that the PM&E project has not *caused* the reported changes. However, in several cases it has *contributed* to them. As noted above, the region’s agricultural research organizations have been under considerable pressure to improve their planning and reporting. In this context, the information, training and support provided by the PM&E project responded to felt needs. Where there was a high-level commitment to improving management, the project has often supported the purpose and direction of change.

**Conclusion: lessons for designing and managing capacity-development programs**

The evaluation has thrown light on many aspects of capacity development. The following general lessons have been identified for improving the design and management of future capacity-development programs.

*Intended beneficiaries should play central roles in designing and managing capacity-development efforts.* The PM&E project illustrates the value and the feasibility of involving intended beneficiaries in all phases of program design, implementation and evaluation. Participation of managers from the region contributed to the relevance of activities, products and services. It also enhanced local ownership of the project and its results. This has contributed to the use of results and the sustainability of capacity-development efforts initiated by the project.

*Capacity-development programs should articulate and test their underlying theories and assumptions.* Capacity development is still more a process of social experimentation than of social engineering. Many programs are overly ambitious and have vague goals, weak designs and unrealistic assumptions. If program designers and managers would articulate and test the theories and assumptions underlying their programs, it could greatly facilitate learning from experience. Such learning is essential to improve the design and management of future programs.

*Capacity-development programs should focus their attention on organizations that are committed to change.* Since top-level commitment and leadership are essential for large-scale organizational change, it would have been more effective to concentrate the project’s training resources on organizations that were committed to change and to have tailored the project’s training to these organizations’ needs and circumstances.

*Capacity-development programs need to go beyond providing inputs and facilitate change processes.* Experience with the PM&E project indicates that the key to capacity development is not the *provision* of information or other resources but the use of such inputs in solving problems and actually changing organizational procedures. Problem-solving capacities can best be built up through experiential learning, rather than the transfer of resources or tools.
Capacity-development programs need to work simultaneously on many fronts. A number of critical success factors are associated with fundamental organizational change:

- Top-management commitment to change
- Support from key external stakeholders
- A critical mass of support within the organization
- Appropriate institutional innovations
- Resources for implementing change
- Astute management of the organizational change process

The experience of the PM&E project highlights the need to work simultaneously on both technical and political factors at different organizational levels – ranging from the top managers and key external stakeholders who must lead and endorse change, to operational staff members who must design and implement new management systems.

Capacity-development programs should adapt themselves to the needs and circumstances of the organizations they support, not visa versa. The objectives and schedules of external agencies are often confused with those of the organizations to be strengthened. However, the pace and direction of organizational changes are influenced by a multitude of factors, many of which may overshadow an externally funded project. Effective capacity-development interventions may support change processes, but they cannot lead them. Hence, they should be designed on the basis of realistic assessments of time and resources needed to bring about desired changes. To the extent possible, they should have built-in flexibility to adapt to ever-changing circumstances in partner organizations.

Integrating planning, monitoring and evaluation is crucial for promoting individual and organizational learning and improvement. The experience of the PM&E project confirms the value of systematic planning, monitoring and evaluation in the development of individual and organizational capacities and performance. As Senge (1994) and others have noted, the planning of activities, checking on progress, evaluation of results and periodic reflection on the entire cycle of activities are vital for organizational learning and continuous improvement of work and outputs. Systematic planning, monitoring and evaluation are especially important for capacity-development. Since there are no blueprints for capacity development, and each organization must learn from its own experiences, strengthening PM&E is of critical importance for learning and improvement of efforts over time. 

---

5 See references listed in the previous footnote.

6 Horton (1999: 157-160) and the references cited therein discuss the role of systematic planning, monitoring and evaluation in action learning, organizational learning, quality management and enhancement.
References


Tables and figures

Figure 1. Training workshops organized by the PM&E project and by national collaborators

Geographical coverage of workshops

Objectives

- Produce training materials
- Train trainers
- Contribute to knowledge, skills and attitudes related to PM&E

Test and validate training materials
- Train trainers
- Contribute to knowledge, skills and attitudes related to PM&E

Contribute knowledge, skills and attitudes related to PM&E

Regional and sub-regional workshops

<table>
<thead>
<tr>
<th>Workshop type</th>
<th>Number of workshops</th>
<th>Countries represented</th>
<th>Total duration (days)</th>
<th>No. of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project planning and review</td>
<td>6</td>
<td>25</td>
<td>26</td>
<td>150</td>
</tr>
<tr>
<td>Regional training</td>
<td>2</td>
<td>15</td>
<td>44</td>
<td>35</td>
</tr>
<tr>
<td>Sub-regional training</td>
<td>6</td>
<td>25</td>
<td>50</td>
<td>151</td>
</tr>
</tbody>
</table>

Note:
The PM&E project organized the regional and sub-regional workshops and has complete lists of participants in these events. National organizations organized the national events. Participant lists for national workshops were not available to the evaluation team. It is estimated that up to the end of 1998 there were at least 3,000 participants in national PM&E workshops employing the project’s training materials.

Source: Cheaz et. al, 1999.
Table 1. Sources and use of project resources

<table>
<thead>
<tr>
<th>ITEM</th>
<th>IDB</th>
<th>SDC</th>
<th>ISNAR</th>
<th>Others</th>
<th>NARO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel and operational costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>683</td>
<td>0</td>
<td>486</td>
<td>169</td>
<td>0</td>
<td>1338</td>
</tr>
<tr>
<td>Operational costs</td>
<td>607</td>
<td>430</td>
<td>162</td>
<td></td>
<td>1199</td>
<td></td>
</tr>
<tr>
<td>Planning and revision workshops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning workshop (2)</td>
<td>65</td>
<td>33</td>
<td>60</td>
<td></td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>Revision workshop (3)</td>
<td>68</td>
<td>158</td>
<td>34</td>
<td>60</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>Component 1. Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Books</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case studies</td>
<td>53</td>
<td>13</td>
<td>20</td>
<td>42</td>
<td>128</td>
<td></td>
</tr>
<tr>
<td>Monitoring and Evaluation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference manual</td>
<td>22</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manuals, modules, and other publications</td>
<td>39</td>
<td>51</td>
<td>80</td>
<td>22</td>
<td>0</td>
<td>192</td>
</tr>
<tr>
<td>Component 2. Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional workshops (2)</td>
<td>34</td>
<td>120</td>
<td>6</td>
<td>0</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Sub-regional workshops (6)</td>
<td>177</td>
<td>132</td>
<td>23</td>
<td>11</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Component 3. Facilitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshops and technical support to pilot cases</td>
<td>30</td>
<td>95</td>
<td>0</td>
<td>0</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>1149</td>
<td>556</td>
<td>671</td>
<td>278</td>
<td>483</td>
<td>3137</td>
</tr>
<tr>
<td>Administration, overhead, incidentals</td>
<td>142</td>
<td>90</td>
<td>523</td>
<td>21</td>
<td>776</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1291</td>
<td>646</td>
<td>1194</td>
<td>299</td>
<td>483</td>
<td>3913</td>
</tr>
</tbody>
</table>

Notes

(1) “Other” includes financial support from a number of donors: IDRC, IFAD, CTA, DANIDA, GTZ.

(2) “NARO” in the table refers to the financial contributions made to the PM&E project by regional, sub-regional, and national agricultural research organizations. The figures also include an estimate of the value of time contributed to project activities by these organizations’ own professionals who (i) participated in regional workshops on planning, implementing, revising, and evaluating project activities, (ii) served as instructors in regional and sub-regional training workshops delivered by the project, (iii) served as external resource persons during technical missions to pilot case organizations during the second phase of the project, and (iv) helped organize regional and sub-regional workshops in cooperation with the project. Calculations are based on World Bank figures recommended for local consultancy fees for these countries. The opportunity costs of those organizations which sent professionals to attend Project events are NOT included as financial contributions since, in ideal terms, this cost should be less than or at least equivalent to the benefits accruing to the organizations as a result of the professional training acquired by their scientists and managers. Neither do the figures include the significant costs incurred by the pilot case organizations who were required by the project to form national
working groups made up of professionals who were often assigned part-time or even full-time to activities to maintain the impetus to develop and implement integrated PM&E systems.

(3) Includes the cost of the case studies workshop held in Mexico in October 1992.

Source: Cheaz et al., 1999.
**Figure 2. Organizational assessment framework**

<table>
<thead>
<tr>
<th>Operational environment</th>
<th>Capacity</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>External environment in which the organization carries out its activities. Examples:</td>
<td>The resources, knowledge and skills of the organization. Examples:</td>
<td>The achievements of the organization in relation to its objectives. Four key indicators of organizational performance:</td>
</tr>
<tr>
<td>✓ Administrative and legal systems in which the organization operates.</td>
<td>✓ Strategic leadership</td>
<td>✓ Effectiveness: The degree to which the organization achieves its objectives</td>
</tr>
<tr>
<td>✓ Political environment</td>
<td>✓ Organizational structure</td>
<td>✓ Efficiency: The degree to which it generates its products using a minimum of inputs</td>
</tr>
<tr>
<td>✓ Technological options</td>
<td>✓ Human resources</td>
<td>✓ Relevance: the degree to which the organizational objectives and activities reflect the necessities and priorities of key stakeholders,</td>
</tr>
<tr>
<td>✓ Social and cultural environment</td>
<td>✓ Financial resources</td>
<td>✓ Financial sustainability: The conditions to make an organization financially viable</td>
</tr>
<tr>
<td>✓ Economic trends</td>
<td>✓ Physical infrastructure</td>
<td></td>
</tr>
<tr>
<td>✓ Stakeholders</td>
<td>✓ Program process management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Inter-institutional linkages</td>
<td></td>
</tr>
</tbody>
</table>

**Operational environment.** The external environment in which the organization carries out its activities. Examples:

- Administrative and legal systems in which the organization operates.
- Political environment
- Technological options
- Social and cultural environment
- Economic trends
- Stakeholders

**Motivation.** Refers to internal factors in the organization that influence the direction or the organization’s activities and that level of energy employed its displays in its activities. Examples:

- The organizational culture
- Incentive and rewards systems
- The institutional “climate” in general.
- The history and traditions of the organization
- Leadership and management style
- A generally recognized and accepted mission statement
- Performance-related incentive plans

**Performance.** The achievements of the organization in relation to its objectives. Four key indicators of organizational performance:

- Effectiveness: The degree to which the organization achieves its objectives
- Efficiency: The degree to which it generates its products using a minimum of inputs
- Relevance: the degree to which the organizational objectives and activities reflect the necessities and priorities of key stakeholders.
- Financial sustainability: The conditions to make an organization financially viable
Shared norms and values promoting teamwork towards organizational goals include multiple sources of funding, positive cash flow, and financial surplus.

Note:
The specific indicators of motivation, capacity, environment and performance used in Study 3 are presented in Annex 3 (individual level) and Annex 4 (organizational level).

Source: Adapted from Lusthaus, Anderson and Murphy, 1995; and Lusthaus et. al, 1999