



Thematic study

Participatory Monitoring and Evaluation

Approaches to Sustainability

Learning, ownership and
better management

Capacity 21

The 1992 United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro appointed UNDP as task manager of Chapter 37 of Agenda 21. Chapter 37 focuses on capacity building for sustainable development. In support of this appointment, governments recognized the need to establish an innovative and catalytic facility that could work with countries to build their capacities to implement Agenda 21. Capacity 21 was launched.

Operational since 1993, Capacity 21 has supported over 75 developing countries and countries in transition. With average annual expenditures of approximately US \$9 million, Capacity 21 has worked with countries to define their own priorities and to develop and implement integrated strategies for sustainable development.

Working in close partnership with governments, civil society and the private sector, Capacity 21 programmes are country-owned, country-driven processes that inform and influence national and local policy- and decision-making. They build long-lasting capacities for sustainable development and the management of change at all levels of society.

Global Environmental Facility

Following a three-year pilot phase, the Global Environment Facility (GEF) was formally launched in 1994. GEF facilitates cooperation and finances actions to address four focus areas critical to protect and sustain the global environment. These are: Biodiversity, Climate Change, International Waters and Ozone Depletion. The issues of land degradation and desertification, as they relate to each of these areas, are also addressed.

During its first decade, GEF allocated US \$3 billion, supplemented by US \$8 billion in additional co-financing, for 700 projects in 150 developing nations and countries with economies in transition.

GEF is the designated financial mechanism for international agreements on biodiversity, climate change and persistent organic pollutants. As the only new funding source to emerge from the 1992 United Nations Conference on Environment & Development, GEF today counts 162 countries as members.

The United Nations Development Programme, the U.N. Environment Programme, and the World Bank implement projects on behalf of the GEF. Other partners, including the Regional Development Banks, specialized UN agencies, NGOs and a wide range of public and private entities, execute GEF projects.

UNDP is an important implementing agency of the GEF. The cumulative UNDP-GEF portfolio during 1991-2001 amounts to US \$1.23 billion, with an additional US \$2 billion secured in co-financing. The UNDP portfolio supports activities in 140 countries, with over 2,400 completed and ongoing projects, and approximately 80 projects under preparation. The UNDP-GEF Small Grants Programme supports 1,300 projects in 46 countries.

Introduction

Approaches to Sustainability Series

Capacity 21 has piloted the implementation of Agenda 21 principles in more than 75 developing countries and countries in transition, and is strategically placed to draw on an extensive knowledge base to share good practices and experiences with the global development community.

Through Capacity 21 support, many countries have adopted innovative capacity-building approaches to meet the challenges of environmental degradation, social inequity and economic decline. As you will read, each experience in building and strengthening capacities is unique and aims to meet national priorities. There is no blueprint for sustainable development.

The Approaches to Sustainability series is Capacity 21's main tool for the analysis and dissemination of the innovative approaches and lessons emerging from Capacity 21 programmes (and selected other experiences from around the world).

The objectives of the Approaches to Sustainability series are:

- To foster the exchange of information and experience on capacity development for sustainable development among programme countries, national stakeholders and their development partners; and
- To facilitate analysis and advocacy of experiences and approaches in capacity building for sustainable development to inform (global, regional, national and local level) decision- and policy-making.

Approaches to Sustainability publications are available in four forms:

Country studies explore the challenges, opportunities and obstacles faced by specific countries as they define and implement their unique visions of sustainable development. Each publication investigates, step by step, a single country's most effective sustainable development planning, implementation, monitoring and learning processes.

Regional studies provide a synopsis of the experiences, approaches, methodologies and lessons piloted by each Capacity 21 programme in each region. Building on this analysis, and on processes of national and local consultation, analysis and review, the regional studies articulate a continental vision for the future implementation of Agenda 21.

Thematic studies analyse specific themes or challenges facing countries as they move towards sustainable development. Drawing on the approaches, experiences and lessons of a range of countries, these studies reveal how different countries deal with common issues and concerns. **Regional thematic studies** analyse specific themes or challenges relating to specific regions.

Country-driven, country-owned production process

Approaches to Sustainability publications promote a country-driven, country-owned approach to production of both country and thematic studies, advocating the full participation of local actors to ensure ownership, credibility and relevance. As such, the series serves as a strategic capacity development exercise in its own right. Specifically, the process of consultation, review and analysis behind the production of each ATS publication helps to strengthen forward-looking, participatory management of regional and national programmes; develops skills and competencies for strategic analysis and synthesis of the experiences and approaches emerging from programmes; and strengthens capacity to communicate key issues to decision-makers to influence policy choices.

The series provides a useful outreach, advocacy and learning tool for the numerous civil society, public and private sector partners involved in the production of each publication.

We hope that you will find the series interesting and useful and, as always, we welcome your feedback.

For further information about the Approaches to Sustainability series, please visit www.undp.org/capacity21

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List of Acronyms and abbreviations

C21	Capacity 21
CBO	Community-based organisation
GEF	Global Environment Facility
ICLEI	International Council for Local Environmental Initiatives
IUCN	World Conservation Union
LIFE	Local Initiatives Facility for Urban Environment
M and E	monitoring and evaluation
MAP 21	Mongolian Action Plan for the 21st Century
NGO	non-governmental organisation
PME	participatory monitoring and evaluation
PRA	participatory rural appraisal
SGP	GEF Small Grants Programme
UNDP	United Nations Development Programme
WHO	World Health Organisation

Summary

Capacity 21 and the UNDP's office of the Global Environment Facility (UNDP-GEF) co-operated on this study of their experience with participatory monitoring and evaluation (PME). Their aim was to promote better learning from experience and better use of this learning in future planning and management – among their own programmes and by international co-operation programmes in general. The experiences cited in the paper are mostly, but not entirely, those of national and regional programmes supported by the UNDP-GEF and Capacity 21 during the 1990s.

The paper does not recommend a single methodology for PME (though some good tools are described in the annexes). The study aims to promote a better understanding of the methodologies available, why they have emerged, who is trying them, what has worked, what hasn't, and how different programmes have addressed their problems. The paper has been prepared in parallel with another study on participatory planning approaches. Both participatory planning and participatory monitoring and evaluation are necessary, complementary components of a participatory approach to international co-operation.

Section 2 defines participatory monitoring and evaluation, and considers the key challenges and advantages associated with the approach. PME involves stakeholders and beneficiaries in the collective examination and assessment of their programmes or projects. The purpose of PME is to meet our bureaucratic needs while also developing stakeholders' capacities to assess their own actions. Other key elements are ensuring participants' learning through PME, and ensuring that they are able to apply this learning to ongoing projects and programmes as well as new ones being planned.

There is a general need to move from PME theory and rhetoric to practical applications. Many private sector organisations face a similar challenge when becoming learning organisations.

Key challenges when designing PME systems are to ensure, first, that participants and beneficiaries will be meaningfully involved in all stages of designing and implementing these systems, and then, that their time and effort will be worth it.

Some of the most **important advantages of PME** are:

- Capacity development: PME can greatly enhance learning from experience, leading to superior performance, improved quality and enhanced ability to manage change.
- Strengthening ownership and building social capital — including ownership of the

The study aims to promote a better understanding of the methodologies available, why they have emerged, who is trying them, what has worked, what hasn't, and how different programmes have addressed their problems.

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problem-solving processes and recommendations and actions emerging from them.

- Improving management and quality control.

Section 3 summarizes promising PME approaches, some of the barriers to introducing these approaches, and how these are being faced by different programmes around the world. **Factors that usually help ensure successful PME include:**

- Ensuring necessary commitments of human and financial resources, effective preparations and sufficiently skilled personnel.
- Tailoring PME approaches so they will fit the unique conditions, mix of participants, roles and activities of each programme or project.
- Using PME results effectively — to justify the cost of the approach and to maintain credibility among participants.
- Allowing participants to choose the focus of their monitoring and evaluation, based on their priorities — with official monitors or evaluators acting as facilitators.
- Ensuring that PME provides real benefits for participants — stakeholders and managers alike — and generates information that contributes to achieving a project or programme's core purpose.

Some of the **main problems faced when trying to move to PME approaches** in recent years include:

- Pervasive “business as usual”, ill adapted to PME and resulting in insufficient budgets and skills, insufficient incentives for participants and too much faith in numeric indicators focused on visible outputs.
- Lack of trust and familiarity with PME approaches, including failure to recognise the value of PME and absence of traditions of participation.
- Vague commitments, with unclear responsibilities, schedules and objectives.
- PME strategies that go into too much detail and are not very realistic.

Effective ways of addressing each of these problems are also described in section 3.

Most practitioners reading this review are either involved in (an) existing programme(s) or are involved in planning (a) new one(s). Our review is relevant to both cases, but in different ways. For existing programmes that have started with participatory approaches, PME is essential to maintain the momentum, ensuring that participants remain engaged and supportive. In programmes that have not been planned in a

participatory manner; it is difficult but possible to move to PME approaches during implementation. The most important, and usually the most difficult, things to change are people's attitudes and behaviour. Finding the necessary funds and human resources will be easy in comparison.

Questions derived from IUCN's "*eight characteristics of institutions that encourage and respond to learning by doing*" and from Senge's suggested "signs of a learning organisation" can help existing programmes judge how far they have moved towards genuine learning organisations, able to design and carry out effective PME.

Projects or programmes at the design stage and committed to PME approaches can benefit from a wealth of experience and information available to guide their design work. In this regard, many readers will find our annexes as useful as the main text. These annexes include: an excerpt updated from Capacity 21's original monitoring strategy (Annex A); a case study on the use of indicators in participatory monitoring by the Sustainable Seattle programme, executed for China's Local Agenda 21 programme (Annex B); a summary of a learning exercise carried out by a national Capacity 21 programme in the Gambia (Annex C); a multi-media list of sources of further information on PME (Annex D); and a short description of participatory monitoring and evaluation of training workshops in Kenya (Annex E).



Introduction

Why are we writing this paper?

Capacity 21 and the UNDP's office of the Global Environment Facility (UNDP-GEF) decided to work together on this thematic paper on participatory monitoring and evaluation (PME) for a number of reasons. These are neatly summed up in a recent paper by Robert Chambers: *"The lexicon of development has expanded, perhaps irreversibly, to include participation. And, as usual with concepts that gain currency, rhetoric has run far, far ahead of understanding, let alone practice... Many of the frontiers are now practical, about how to make good things happen. They concern methodology — how to do things better,...how to learn from experience"* [emphasis added]¹.

One important reason for writing this paper is to promote better learning from our collective experiences and better planning and management. The experiences we drew upon in preparing the paper were mostly, but not entirely, those of national and regional programmes supported by the UNDP-GEF and Capacity 21 during the 1990s. The paper aims to meet the needs of practitioners implementing or planning similar programmes today, with the GEF and Capacity 21, and with many other international co-operation programmes around the world.

The same article by Chambers cited above also highlighted a handful of areas where the need for improved methodology is especially great. These include PME and the closely related areas of training, institutional change and what he calls "disempowerment". He says that **participatory monitoring and evaluation "complete the participation circle" by enabling groups and communities to conduct their own monitoring and evaluation**, reconciling their needs with external needs for indicators and other information.

Khadija Belfakir in UNDP's Morocco office has worked closely with two phases of a national Capacity 21 programme. She emphasizes the interest and challenges of PME and reports that in Morocco, "We've seen a remarkable growth in recognition of the potential of the participatory approach to support sustainable development. We have to admit, though, that the approach remains difficult to apply for a number of reasons. A key issue is the great number of interpretations of what it actually means. We can often find as many different interpretations [of 'participatory approach'] as we have participants. So one of the first things that needs to be done is to bring everyone to the same level, to promote a common understanding of the approach to be followed, of what is expected from the process and the people involved in it."

Our paper does not attempt to recommend a single methodology for PME (although good tools are described in the annexes). **This study aims to promote a better shared understanding of the range of methodologies available and why they have emerged; of who is trying what and what has worked; of the problems that have arisen and how they have been faced** in different parts of the (rapidly shrinking) world.

The paper aims to meet the needs of practitioners implementing or planning similar programmes today, with the GEF and Capacity 21, and with many other international co-operation programmes around the world.

¹ R. Chambers, cited in Who Changes? Institutionalising Participation in Participatory Monitoring and Evaluation, J. Blackburn and J. Holland, eds. (London: Intermediate Technology Publications, 1998).

What is the link with the participatory planning paper?

Participatory planning and PME are different parts of the same whole — a participatory approach to development co-operation.

We are preparing this paper in parallel with another study on Capacity 21's experience with participatory planning approaches. As discussed in our common introduction to these two papers, **participatory planning and PME are different parts of the same whole — a participatory approach to development co-operation.** We believe that both are needed to achieve the best long-term results, but neither is sufficient on its own. To do one without the other is to invite problems.

*The World Health Organisation (WHO) recognises the link between participatory planning and PME: "If community participation is to be truly meaningful in promoting community health and sustainable development, it must be given priority not only at...planning stages...but also within the processes of monitoring and evaluation."*²

Carrying out participatory planning without subsequent PME is likely to create expectations of a participatory approach, then frustrate these expectations by excluding participants from the key management, quality control and learning processes of monitoring and evaluation during implementation.

On the other hand, trying to introduce PME of projects or programmes where participants haven't been involved in design and planning may be expecting too much of these participants. People who haven't been involved in the design and planning of a project or programme are likely to be less willing and less able to play effective roles in its monitoring and evaluation.

What process have we followed in preparing this paper?

The UNDP-GEF and Capacity 21 have collaborated on this paper, sending successive versions to practitioners and partners around the world to obtain their views and examples in order to ensure that the final study will reflect the wealth of experience that has accumulated globally in recent years.

This paper continues a process that began for Capacity 21 with the preparation of Capacity 21's Monitoring and Reporting Strategy. That strategy was defined, during four months of consultations in 1995, among Capacity 21's global network of advisors, the UNDP's regional bureaux and Office for Evaluation and Strategic Planning. An updated segment of this original Capacity 21 strategy is attached as Annex A. Capacity 21 has recently launched a review of its performance in implementing its 1995 strategy, with the aim of updating it, based on the experience of national and regional programmes over the past six years.

Capacity 21's original strategy reflected valuable input from the UNDP-GEF office and from the Local Initiatives Facility for Urban Environment, both of which were also seeking to enhance their monitoring capacities at that time. The UNDP-GEF, with

² WHO, "Community Participation in Local Health and Sustainable Development: A Working Document on Approaches and Technique", European Sustainable Development and Health Series, no. 4 (Copenhagen, 1999).

its far larger programme and complex global matrix of stakeholders, inevitably took a little longer to define its approach. Today, its commitment to PME is clear: *“To the extent possible, monitoring and evaluation should use participatory mechanisms to enable stakeholders to share their feedback. This is one way of promoting learning among those involved and getting their views on the progress of the project.”*³

Participatory monitoring and evaluation involves stakeholders and beneficiaries in the collective examination and assessment of a project.”³

The UNDP-GEF’s Small Grants Programme has been a particularly enthusiastic supporter of the PME approach. A number of its experiences are cited in this paper. Good references on PME, originally recommended in a manual prepared by the UNDP-GEF’s Small Grants Programme in Bhutan, are included in Annex D.

Our paper also responds to the GEF’s 1999 Project Performance Report, which called for its programmes to pay greater attention to what is working, what is not working, and why; to be more strategic in building on its successes; and to direct what is being learned from experience into new programmes.

Outline of paper

Following the introduction, our paper offers a definition of PME and an overview of the key challenges and advantages associated with it (section 2). In section 3, we summarise some of the promising approaches to emerge in recent years, as well as some of the very real barriers to introducing PME, and how these are being faced. Throughout the paper, we make extensive use of text boxes to describe the experiences of national programmes and projects that have tried to adopt PME, with support from the UNDP-GEF, the global Capacity 21 initiative and others.

We have tried to keep the main text of the paper reasonably short. Detailed discussions of methodologies are in the annexes. We suspect many readers will find these annexes as useful as the main text.

3 UNDP-GEF, Information Kit on Monitoring and Evaluation (New York, 1999).



The PME concept, challenges and advantages

What is participatory monitoring and evaluation?

A definition of PME can be borrowed from the UNDP's handbook for participatory evaluation. What is applied to evaluation can mostly be extended to monitoring as well: *"Participatory evaluation [is] a dimension of participatory development embodying many of the same concepts, [involving] the stakeholders and beneficiaries of a programme or project in the collective examination and assessment of that programme or project. It is people centred: project stakeholders and beneficiaries are the key actors of the evaluation process and not the mere objects of the evaluation... In a participatory evaluation, the role and purpose of the evaluation change dramatically. Such an evaluation places as much (if not more) emphasis on the process as on the final output... [The] purpose of the evaluation is not only to fulfil a bureaucratic requirement but also to develop the capacity of stakeholders to assess their environment and take action."*⁴

Another key element of PME is the process of learning by participants — often learning from other participants — and ensuring that these participants can apply their learning, through effective feedback systems, to ongoing projects and to new ones being planned.

Another key element of PME is the process of learning by participants — often learning from other participants — and ensuring that these participants can apply their learning.

Some simple examples help illustrate what we mean by PME:

- A series of meetings was held with communities active in **Jordan's** national biodiversity conservation programme, before preparing an annual progress report for the programme. This allowed the programme co-ordinator to ensure that the views of these communities were reflected in the annual report — and that actions were taken to address the problems raised by these communities.
- A national programme in **Bolivia** worked with informal federations of municipalities, helping them to define their sustainable development priorities and strategies. The programme carried out an extensive monitoring exercise with local government and non-government stakeholders from those federated communities. It asked them, in workshops and written surveys, what they thought of the programme's support to their municipalities, what had worked well and what hadn't, and what they thought needed to be done next.
- A global **Biodiversity Planning Support Programme**, backed by the UNDP-GEF, carried out a client feedback survey at the end of its first year of operations. The survey results guided their planning of the second year of operations.
- In **Lebanon**, Capacity 21 supports the development of Local Agendas 21 by four municipalities. Stakeholders from these communities came together to assess their progress through a series of participatory workshops. The evaluation team adapted a self-assessment methodology developed by the International Council for Local Environmental Initiatives.⁵ First, they helped the stakeholders define the scope of the evaluation; then, they asked for their views on the project's results so far and on the

⁴ UNDP, Who Are the Question Makers? A Participatory Evaluation Handbook (OESP-UNDP, New York, 1997).

⁵ ICLEI Local Agenda 21 Pilot Self-Assessment Module (ICLEI European Secretariat, Bonn, 1999).

processes followed to achieve those results. They analysed these evaluation results with the stakeholders, looking at how each community could use the lessons from the evaluation in further developing their local agendas.

Why the interest in participatory monitoring and evaluation?

The UNDP handbook cited earlier helps explain the growing interest in PME: “The growing interest in participatory evaluation parallels the growth of such concepts as empowerment, democratization, partnership and sustainability. Each of these concepts attempts in one way or another **to give a greater say to the spectrum of voices in our programming countries — not only to national governments but also to civil society, communities and municipalities, the poor and the disenfranchised, who have been the object of development co-operation and whose voices have not been adequately heard.**”

The growing enthusiasm for PME also stems from a belief that very often, *“the people who are most qualified to design, manage and monitor projects are the field-based practitioners and local stakeholders who are most familiar with local conditions — not outside ‘experts’ or ‘professionals’”*.⁶

The UNDP handbook describes the contributions made to participatory development theory and practice over the past couple of decades by people such as Paulo Freire, Mohammed Anisur Rahman and Robert Chambers. It describes the seminal, highly interwoven methodologies that have emerged under the guidance of these thinkers, including participatory action research, participatory rural appraisal, participatory learning and action, farming systems research, self-evaluation and beneficiary assessments.

These approaches, developed over decades by practitioners and researchers around the world, began to be taken seriously by most international co-operation agencies during the 1990s. For most of these agencies, it is a dramatic departure from their old approaches: *“At its most fundamental level, the participatory evaluation approach is investigative and educational. It is about systematically involving the least powerful, least visible and least assertive actors in evaluating development efforts devised on their behalf. Drawing on their experiences and views exposes the true nature of the problems as they see them and engages them in a process of creating and articulating viable solutions to those problems.”*⁷

What are the main challenges and advantages?

“When we try to bring about change in our societies, we are treated first with indifference, then with ridicule, then with abuse and then with oppression. And finally, the greatest challenge is thrown at us: We are treated with respect. This is the most dangerous stage.”

— A . T. Ariyaratne, paraphrasing Mahatma Gandhi

6 R. Margolius and N. Salafsky, *Measures of Success — Designing, Managing and Monitoring Conservation and Participatory Monitoring and Evaluation Projects* (Washington: Island Press, 1998).

7 UNDP, *Who Are the Question Makers?*

Why is the respect stage so challenging? Because it's the stage when **we are obliged to move from theory and rhetoric to practical applications**. This is essentially the stage we are at with the application of participatory approaches in general and PME in particular. As Michael Cernea put it: *“No matter how intense or loud, the advocacy for people’s participation in development programmes remains gratuitous rhetoric if it is not translated into a how-to social methodology for making popular participation real.”*⁸

This challenging move to the “respect” stage can be seen in the private sector as well, where many organisations have become committed to making themselves learning organisations, involving a commitment to what we would call participatory monitoring and evaluation, among other things. For these companies as much as for our international co-operation projects, this evolution makes it *“more important than ever to think and act strategically. Otherwise, all the talk about ‘learning organisations’ will amount to little more than another management fad”*.⁹ The same can be said about the UNDP, which now calls itself a learning organisation.

In simple terms, **the key challenge when designing PME systems is to ensure, first, that participants and beneficiaries will be meaningfully involved in all stages of designing and implementing these systems, and then, that their time and effort will be worth it**. An important part of this challenge — remember the Moroccan experience cited earlier — is clearly defining and agreeing upon the monitoring and evaluation roles and responsibilities of each player.

The key challenge when designing PME systems is to ensure, first, that participants and beneficiaries will be meaningfully involved in all stages of designing and implementing these systems, and then, that their time and effort will be worth it.

Some of the most important advantages of PME are:

- Capacity development — it can greatly enhance learning from experience.
- Building social capital by strengthening ownership and commitment.
- Improving management and quality control.

Capacity development — learning from experience

“Our greatest glory is not in never falling, but in rising every time we fall.”

Confucius

According to the UNDP-GEF’s information kit on monitoring and evaluation, **PME “seeks to build capacity...[and provide] stakeholders and beneficiaries with the opportunity to reflect on a project’s opportunities and obstacles”**. It aims to generate practical knowledge “that results in the application of lessons learned and leads to corrective actions and/or improvements”. Many maintain that monitoring and

⁸ M. Cernea, “The Building Blocks of Participation: Testing a Social Methodology” in Participatory Development and the World Bank; Discussion Paper no. 183, B. Bhatnagar and A. C. Williams, eds. (The World Bank, Washington, 1992).
⁹ P. Senge et al., The Fifth Discipline Handbook — Strategies and Tools for Building a Learning Organisation (New York: Doubleday, 1994).

evaluation processes in participatory projects are essentially learning systems, for both managers and participants. This has led some to propose that the whole process be termed “learning”, which is often perceived more positively than either “monitoring” or “evaluation”¹⁰, both of which have strong connotations of outsiders judging the work of participants.

It is instructive to look at private sector organisations trying to turn themselves into “learning organisations”, committing themselves to lifelong learning and to constant shifts in the ways they think and behave.

Why the emphasis on learning? Again, it is instructive to look at private sector organisations trying to turn themselves into “learning organisations”, committing themselves to lifelong learning and to constant shifts in the ways they think and behave. **The underlying reason for all this effort is because they believe it leads to superior performance, better quality and enhanced abilities to manage change.**¹¹ Clearly there are some differences between UNDP-GEF or Capacity 21 projects and those of private firms. The former don’t always share similar goals, strategies, values or incentives. But they DO share a need to enhance the performance of their organisations and the staff of these organisations. They also share the need to ensure quality relationships with “clients”, with the people whose needs they aim to satisfy.

Some of the most compelling analysis of private sector organisations looks at how learning organisations might emulate certain functions of the human brain. Of particular interest is the brain’s ability to self-organize in order to evolve together with emerging challenges. Our brain has the capacity not just to gather and use information about performance, but to constantly assess the context in which this performance is taking place and to modify its internal operating systems in response to changes in this context. Many organisations unintentionally inhibit their own capacities to learn and evolve in this way by establishing management controls, such as overly strict performance standards, intended to ensure that their activities remain within certain limits.¹² A number of operating principles proposed to help organisations overcome these inhibitions and develop their own abilities to self-organize are relevant to the PME approach and will be examined later in the paper.

An important future vehicle for this sharing of experiences is likely to be Capacity 21’s Approaches to Sustainability series, in which local and national stakeholders participate in documenting their experiences. Participation in preparing these papers is often itself valuable capacity development.

When Capacity 21 took stock of the results of its monitoring and reporting strategy several years ago, it concluded that one of its main results was a growing list of lessons learned in key programming areas being shared among the global community. GEF’s Lessons Notes series serves the same function within the GEF community. An important future vehicle for this sharing of experiences is likely to be Capacity 21’s Approaches to Sustainability series¹³, in which local and national stakeholders participate in documenting their experiences. Participation in preparing these papers is often itself valuable capacity development.

10 For example, C. Ward, “Monitoring and Evaluation” in Participatory Development and the World Bank; Discussion Paper no. 183.

11 P. Senge et al., The Fifth Discipline Handbook.

12 G. Morgan, Images of Organisation — the Executive Edition (San Francisco: Berrett-Koehler, 1998).

13 This paper is part of the Approaches to Sustainability series; the series is described on the inside cover of this document.

MAP 21 is Mongolia's national sustainable development strategy for the twenty-first century. The MAP 21 co-ordination office is designing PME systems to ensure that MAP 21 demonstration projects will provide valuable learning and awareness for direct participants as well as others in their respective sectors, and for Mongolian society as a whole. [Participants] will also use participatory approaches for monitoring the implementation of provincial (aimag) level action programmes, working with aimag governments, communities, local training and service centres and journalists to define the best participatory approaches to monitor local action plans and projects. They find that, as in most places of the world, PME is new to Mongolians. While one of the main advantages of PME is its contribution to capacity development, it is often necessary to start by developing the capacities needed to carry out PME effectively — to “learn how to learn”.

Strengthening ownership, building social capital

How does PME enhance ownership of development projects? By including project participants and other stakeholders in the ongoing analysis of their project's problems, constraints and opportunities — where they are often able to propose solutions that are both creative and realistic. In turn, **participants' sense of ownership of these problem-solving strategies, and the recommendations and actions that emerge from them, make them more inclined to make the necessary changes themselves.**¹⁴ The approach also helps ensure that projects stay focused on meeting the real needs of participants and beneficiaries, rather than those identified by outside experts.

Participatory approaches pose their own challenges, discussed in more detail in the following section. But they also have the potential to empower recipients. Active participation of stakeholders in PME can result in new knowledge or a better understanding of their environment. This new knowledge and understanding can enable them to make changes that they themselves have discovered or advocated. When this happens, stakeholders develop a sense of ownership of their project's results that cannot be induced by an outside intervention.¹⁵

A regional project supported by the UNDP-GEF in West Africa, Control of Greenhouse Gas Emissions through Energy Efficient Building Technology in West Africa, has found that making sure participatory monitoring results are reflected in project management decisions helps build stakeholders' sense of ownership of their project. One result of their participatory monitoring was a change in their approach to energy efficiency coding activities; these activities were re-designed with stakeholders providing the necessary expertise to make them better fit the West African context.

¹⁴ UNDP, Who Are the Question Makers?

¹⁵ J. Vilorio and M. Hosain, “Transforming Organisations by Learning and Adaptation: Process Monitoring in the NWFP Community Infrastructure Project (CIP)” (draft, World Bank, Washington, 2000).

A biodiversity conservation project backed by the UNDP-GEF in the Darien region of Panama includes a participatory micro-credit initiative. Previous credit schemes in the region had failed, mainly because of the limited participant involvement in monitoring and evaluation processes. Stakeholders such as family groups and local authorities now participate fully in monitoring, reporting and evaluation. These transparent processes have helped build participants' trust in the programme.

Powerful management and planning tools

Project managers and planners increasingly see PME as an important tool, providing information valuable for both management and planning. Yet many may still perceive PME as an additional burden — time-consuming, complicated and costly. Both views are understandable. We believe this approach is valuable, of course, but it is also important to recognise that it requires more time, skill and budget than “business-as-usual” approaches to monitoring and evaluation. It is important to weigh the full range of potential costs and benefits thoroughly and objectively when designing the PME approaches to be adopted in your project.

A regional project supported by UNDP-GEF in East Africa, Reducing Biodiversity Loss at Selected Cross Border Sites in East Africa, offers a good example of the use of participatory monitoring as a management tool. There, stakeholder participation in monitoring contributed directly to redefining project activities, making them clearer and more sharply focused on meeting project objectives.

Why is the private sector — usually so good at cost-benefit analysis — also so interested in the idea of PME, which it subsumes under the broader concept of “learning organisations”? Because private sector organisations believe it can improve their performance:

Why is the private sector — usually so good at cost-benefit analysis — also so interested in the idea of PME, which it subsumes under the broader concept of “learning organisations”? Because private sector organisations believe it can improve their performance: “Some say they want to build high-performance organisations or gain competitive advantage. Others talk about total quality management, fast cycle time systems, self-managing work teams, empowered organisations, improving their innovation and productivity, finding core competencies, or (as we do) building learning organisations. No matter what words they use, they are all really describing different facets of the same fundamental purpose: to marry the individual development of every person in the organisation with superior economic performance.”¹⁶

Meanwhile, back in our world, growing numbers of programmes, especially at the community level, also recognise the need for these kinds of tools.

The biodiversity project working with micro-credit in Panama, and highlighted in the previous section, has seen the management benefits of PME, which offers it effective and highly visible internal control systems. Another example is in El Salvador, where the Nación 21 programme supports communities’ efforts to define and implement their own local level strategies for sustainable development. Nación 21 co-ordinators recognise that it is especially important to have a good monitoring system in place at local levels, where things often proceed and change more quickly than at the national level.

¹⁶ P. Senge et al., The Fifth Discipline Handbook.

Results to date: UNDP-GEF, Capacity 21 and others

PME is a methodology that continues to evolve globally, with many related, interwoven but distinctive strands such as PRA and learning organisations. Based on the experience of Capacity 21, UNDP-GEF and others around the world in recent years, it is possible to identify a few factors that contribute to success, and to describe familiar problems and some of the better ways to deal with them. First, some things that usually work.

What works?

Factors that help ensure successful PME include:

- Ensuring necessary commitments, resources, preparation and skills.
- Tailoring PME approaches to match each situation and culture.
- Using PME results effectively.
- Allowing participants to choose the focus of their monitoring, based on their priorities.
- Ensuring benefits and incentives for participants, stakeholders and managers.

Ensuring necessary commitments, resources, preparation and skills

For PME approaches to work, projects or programmes need to be committed to them. This commitment is needed not just in project documents, but among all the players involved in planning and implementing these programmes, from local stakeholders to government partners to the UNDP and its consultants. **Commitment needs to be demonstrated by allocations of human and financial resources.**

Participatory monitoring and evaluation are novel approaches in many countries. Resources are often needed to help improve the skills available among participants, to ensure they can participate effectively in monitoring and/or evaluation exercises (to “learn how to learn”). Frequently, the first step is to assess the current skills of the people to be involved in PME and provide training as needed. Training can use a growing list of available resource materials (some of the more interesting materials are described in our annexes).

To learn how to learn.

Several projects backed by the GEF, such as Inventory, Evaluation and Monitoring of Botanical Diversity in Southern Africa and Reducing Biodiversity Loss at Selected Cross Border Sites in East Africa, have concluded that capacity development is essential for ensuring effective PME.

In Kenya, the national Capacity 21 programme started with training in participatory approaches. This training is carefully monitored and evaluated by participants to ensure that they derive lessons that can be used in improving the training. This process is described in Annex E.

Theorists looking at how private sector organisations can become learning organisations talk about the need to “build the whole into the parts”. This requires the kind of preparation we are talking about here, including:

- Shared visions, values and purpose that bind the organisation and help individuals absorb the challenge of the whole (and guide PME);
- Designing tasks and defining work holistically, with multi-skilled staff able to perform multiple tasks (including PME);
- Designing accessible information systems allowing all participants, even in remote locations, to participate fully in the evolving institutional memory and intelligence (fed by PME); and
- Decentralised organisational structures (including PME systems) that are unified by information technology and shared visions/values/cultures.¹⁷

The necessary skills will vary widely among programmes, from the ability to facilitate workshops or carry out objective interviews of other stakeholders, to the ability to systematically measure and record scientific data, to the ability to collate and analyse different types of information.

UNDP-Morocco has found great need for training and strengthening of capacities, for both designing and implementing effective PME. It found that making decision-makers and local stakeholders more aware of the importance and value of participatory approaches was usually a necessary first step.

Workshops with large groups representing a cross-section of interests can be effective for assessing or evaluating multi-level or multi-faceted initiatives.

On another level, planning for PME needs to ensure careful choices of venues and approaches for meeting and working with participants and stakeholders. Workshops with large groups representing a cross-section of interests can be effective for assessing or evaluating multi-level or multi-faceted initiatives. The need for data from individuals or smaller groups can usually be satisfied through field visits and face-to-face contact.¹⁸

A climate change project supported by the GEF in Bulgaria has established a Municipal Energy Efficiency Network, which stages monthly meetings and annual conferences at which stakeholders share feedback, and assess the progress of the project, including the impediments to the achievement of their objectives.

¹⁷ G. Morgan, Images of Organisation.

¹⁸ UNDP, Who Are the Question Makers?

Tailoring PME approaches to match each situation and culture

As many guides and references point out,¹⁹ the “cookbook” approach doesn’t work for PME. **PME systems, if they are to be effective, need to be custom designed to reflect the unique conditions, mix of participants, roles and activities of each project.**

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The underlying principles behind PME are fairly universal, as are the potential benefits discussed earlier. Many of the lessons about what works and the problems that arise are also remarkably common world-wide. But the details — what exactly is likely to work at a given time and place, in a given society, culture or country — vary enormously around the world. What works well in a small community-based biodiversity conservation project in Nepal or Central America, for example, is not likely to be appropriate for a national energy efficiency programme in India or China.

The UNDP-GEF Small Grants Programme in Mexico has tailored its own PME approach. It emphasises “self-reflection”, whereby communities assess the effects their project-related activities are having on their environment and how these activities have empowered them to bring about change in their lives.

National or local stakeholders, with support from specialists, need to judge which kinds of participatory approaches are likely to be best suited in their context. Participatory processes need to be carefully designed to prevent domination by special interests and to ensure that all relevant stakeholders are able to participate meaningfully in shared deliberations. It is important to “shift the boundary” to move towards more participatory approaches wherever possible. China’s Agenda 21 programme, for example, made significant progress simply by involving individual industries in developing and monitoring Local Agendas 21. A number of programmes, such as national Capacity 21 programmes in Mexico and El Salvador, ensure participatory monitoring of activities at the community level, but don’t have participatory interaction between individual community projects and the overall national programme.

Participatory processes need to be carefully designed to prevent domination by special interests and to ensure that all relevant stakeholders are able to participate meaningfully in shared deliberations.

Using PME results effectively

There are two compelling reasons for ensuring that PME results are used effectively: to justify the cost of the approach, and to maintain credibility among participants. Regarding the cost-benefit issue, we can usually justify the PME approach only if the information gained from it is used — and clearly seen to be used — to improve the quality of future management or planning decisions. This is a real concern for projects that invest in substantial PME systems.

The African NGO-Government Partnerships for Sustainable Biodiversity Action project, supported by the UNDP-GEF, has expressed its concern that the monitoring and evaluation framework developed by its project may not be sufficiently used as a management tool at national and regional levels.

19 For example, C. Ward, “Monitoring and Evaluation”; and R. Margolius and N. Salafsky, Measures of Success.

Similarly, a regional climate change project in West Africa has expressed its concern about weak linkages between participatory monitoring on the one hand and the project's ongoing planning and management on the other hand. The project believes the solution is to have enough flexibility in its planning and management systems to ensure it can respond to new monitoring and evaluation information as this is generated.

PME systems are not justifiable if they are not matched by management and planning systems with the necessary flexibility to respond to monitoring or evaluation information that is generated. This can be explained in terms of learning organisation theory. Simple feedback systems (what some call “single-loop learning”) are able to use routine information about things like budgets or work targets, and most projects and programmes have these systems in place. Learning organisations, however, need to escape being “trapped in the status quo” by these traditional systems. They need to be able to gather information (through PME) that can help them make timely changes in their internal design and organisation as necessary, in response to changes in their operating environment (so-called double-loop learning).²⁰

GEF's global biodiversity planning support programme offers a good example of how to maintain credibility through flexibility. After a year of operations, it carried out a client feedback survey and used the results of this survey to revise the work plan for the second year of operations. On another level, when the project sponsored workshops, it distributed questionnaires to the participants and made sure this feedback was used to improve future workshops.

The credibility issue looks like this: participants in PME are asked to give their time and effort to carry out effective PME exercises. They can usually be persuaded to do this at least once. They will be a lot harder to convince a second time if they cannot see the results of their initial participation.

In the first in a series of Capacity 21 regional workshops, Latin America brought together government, NGO and UNDP participants from throughout the region. Participants carefully evaluated each workshop session. Their verbal, and especially written, evaluations are now a key source of information for designing the next workshop in the series and designing Capacity 21's future strategy in the region.

Private firms that aspire to be learning organisations also aim to ensure the continuous testing of their experience by stakeholders (in this case, their employees). This experience is then transformed into useful knowledge — knowledge that is relevant to the core purpose of the organisation and made accessible to the whole organisation.²¹

Pakistan's North-West Frontier Province provides a good example of the effective use of PME results. It uses its process monitoring approach to ensure quality control not only in planning, but also at each step of the project cycle. The approach has guided a process of continual course correction, which in turn has helped the project move steadily towards achieving its objectives.²²

²⁰ G. Morgan, Images of Organisation.

²¹ P. Senge et al., The Fifth Discipline Handbook.

²² J. Viloria and M. Hosain, Transforming Organisations by Learning and Adaptation.

Allowing participants to choose the focus of their monitoring, based on their priorities

As pointed out in Capacity 21's original Monitoring and Reporting Strategy (by Hugo Navajas of Bolivia), it is important to make PME systems as user-friendly as possible. **National programme managers/co-ordinators should be encouraged, for example, to provide their programme participants with a menu of possible indicators, allowing these participants to select a limited number of indicators of greatest relevance to them.** Examples of this sort of menu are provided in Annexes A and B.

An interesting participatory process for indicator selection and formulation carried out by the Sustainable Seattle programme was recently the object of a case study by China's Local Agenda 21 programme. "Participation by all stakeholders is essential if indicators are to be relevant to the community vision of sustainability, meaningful to all sectors of the community, and serve as an effective tool for changing behaviour ... The process used by Sustainable Seattle could easily be modified by municipalities in China." (The case study is in Annex B)

Stakeholders and beneficiaries need to do more than just provide information. As they are doing now in a number of programmes supported by UNDP in Morocco, they should also decide on PME design, participate in the gathering and analysis of information, and in making the recommendations that emerge from this analysis. **The official monitor or evaluator's role in conventional evaluations is transformed into the role of facilitator in PME** — animating workshops, guiding the monitoring or evaluation process at critical junctures and, if necessary, consolidating the final report on the stakeholders' findings.

The official monitor or evaluator's role in conventional evaluations is transformed into the role of facilitator in PME — animating workshops, guiding the monitoring or evaluation process at critical junctures and, if necessary, consolidating the final report on the stakeholders' findings.

A regional climate change project backed by the GEF in the Arab States ensures stakeholder participation in defining their project's monitoring and evaluation system, including the definition of indicators.

Stakeholder participation in PME design is seen in a Sustainable Livelihoods programme supported in Swaziland: "The goal of the session was primarily to understand how partners have approached the issue of monitoring and evaluation... and their own benchmarks for success or failure... It offered an opportunity to introduce the proposed methodology that would initiate the process of indicator development and seek views on its applicability in Swaziland. Finally, the meeting aimed to identify a participating community where the methodology/ strategy could be piloted, generating a list of provisional community-derived Sustainable Livelihood indicators... Partners were provided an overview of the exercise and the proposed strategy for indicator development. In turn, stakeholders furnished their own opinions and suggestions on how best to proceed... Each stakeholder had a different set of views on what qualified as benchmarks for components for which they were responsible." ²³

23 UNDP, Indicators of Sustainable Livelihoods: A Community Perspective from Swaziland (UNDP-Swaziland, undated).

Ensuring benefits and incentives for participants, stakeholders, managers

There have to be real incentives to convince the people to start participating, and to keep participating, in monitoring and evaluation.

This issue is closely linked with the previous one. Those who will be asked to participate in PME need to perceive these approaches as positive and valuable to them. There have to be real incentives to convince the people to start participating, and to keep participating, in monitoring and evaluation. This has been recognised by a regional energy efficiency project operating in Côte d'Ivoire and Sénégal with support from the GEF. There, the programme has tried to increase stakeholders' incentives to participate in monitoring and evaluation by officially and explicitly acknowledging the inputs of stakeholders, for example, with thank-you letters and with specific reference to individual contributions in project reports.

One strong incentive, mentioned earlier, is the sense of ownership that comes with having participated in a project since its design and planning stages. Broad participation from the outset of planning is very important and we strongly encourage it. Yet it is not likely to be a sufficient incentive on its own in most cases. And — luckily for many projects that would like to move to more participatory approaches after not-very-participatory beginnings — early participation is not necessarily an indispensable incentive.

The information generated by PME needs to be made readily accessible to all interested parties in an organisation or project, and to have recognised value and relevance to the organisation's core purpose. For example, a global biodiversity protection project supported by GEF is finding that participation is low in its monitoring surveys because participants in these surveys can't see a clear, direct connection between the surveys and subsequent actions that could affect them.

A move to PME approaches can often highlight other changes needed in a programme's or organisation's system of incentives and/or information management. These programmes or organisations will often need to ensure that the value of high quality monitoring and evaluation information is better reflected in the rewards going to those who generate it.

Finally, PME systems for complex initiatives involving multiple organisations or projects need to satisfy the needs and interests of each partner in order to create and sustain motivation among all partners.

Problems and Solutions

Next, we look at some of the main problems — and strategies for dealing with them — faced by UNDP-GEF, Capacity 21 and other programmes trying to move to PME approaches in recent years. In summary, these problems include:

- “Business-as-usual” attitudes, ill adapted to PME and resulting in insufficient budgets, insufficient incentives for participants and too much faith in numeric indicators focused on visible outputs.

- Lack of trust in and familiarity with PME approaches, including failure to recognise the value of PME, absence of traditions of participation, and lack of confidence and familiarity with PME approaches.
- Vague commitments, with unclear responsibilities, schedules and objectives.
- PME strategies that go into too much detail and are not very realistic.

Business as usual

A widespread problem has been a tendency to say: “Now we will do participatory monitoring and evaluation” without actually changing much. As though saying it will happen will be enough to make it happen. It doesn’t work like that. PME won’t happen without making a number of fundamental changes. The process requires, for example, deliberate planning and budgeting for elements that are not part of traditional top-down monitoring or evaluation — factors like careful identification of stakeholders’ roles in monitoring and evaluation, capacity building and analytic workshops.

PME and the GEF Small Grants Programme — not “business as usual”

The GEF Small Grants Programme (GEF SGP), supports community-based groups and NGOs to facilitate community participation in designing, implementing and evaluating their projects. The SGP is a pilot and demonstration scheme testing innovative projects and methodologies including participatory assessment, monitoring and evaluation at the community level. The following participatory assessment, monitoring and evaluation mechanisms are considered essential at the project level:

- *Budgets to cover the costs of PME are included in each project.*
- *Indicators are established for each project in a participatory manner.*
- *Community-based assessment and planning grants support pre-project participatory assessment and planning activities designed to strengthen communication and participation in project identification and development.*
- *Grant funds assist intermediary NGOs and research centres to participate in the monitoring and analysis needed to use participatory methods to identify and document best practices.*
- *Experience exchange workshops allow grantees to identify and disseminate lessons learned.*

Insufficient budgets and time

One way in which business as usual can impede efforts to introduce PME is by failing to allocate sufficient budgets and time to properly plan, carry out and apply the results of PME exercises. This problem was highlighted by the GEF on a more general level in its latest project performance report: “Genuinely participatory processes have proven to take a lot of time and require more resources than initially expected. Often, however, expectations regarding the length of time or amount of funding required for project design and implementation have not changed to reflect this experience. GEF may need to make adjustments to allow adequate time and resources to encourage full participation.”²⁴

PME techniques will usually cost more than traditional monitoring and evaluation, and the budget will be spent on things not usually associated with traditional M and E. Things like training in PME approaches for both project staff and stakeholders (“learning to learn”), workshops for stakeholders, local consultants to carry out case studies and other surveys of changes in attitudes and knowledge among various populations, support for monitoring of specific indicators by specific stakeholders, and then more stakeholders workshops. In Morocco, they have found that it may be necessary, depending on the size and nature of the programme, to assign a resource person responsible for managing a project’s PME system.

Insufficient incentives for participants

PME requires considerable effort from many people who, in the past, were seldom asked to be involved in monitoring or evaluation. This will not work if they are not more motivated than they are in business-as-usual approaches.

Within participating organisations, PME is unlikely to work if it is not accompanied by shifts in organisational cultures and procedures, including incentives and reward systems. While this may look like the tail wagging the dog, it is important to remember that these are the same shifts needed to accommodate a shift to participatory approaches in general.²⁵ And, as we have seen from the private sector analysis, organisations DO need to make some fundamental shifts if they want to become flexible, resilient and inventive learning organisations.²⁶

²⁴ GEF, Project Performance Report 1999 (Washington, 2000).

²⁵ For example, R. Chambers in *Who Changes?*

²⁶ Another practical guide is M. J. Marquart, *Building the Learning Organisation* (New York: McGraw-Hill, 1996).

Some important non-monetary ways to increase the incentive for individuals to participate in PME processes include:

- Making people feel they're doing something that matters — to them personally and to the larger world (for example, give visible and high-profile recognition to people's contributions, as did the GEF project in West Africa mentioned earlier, with letters of thanks and reference to individual contributions in reports).
- Helping participating individuals to enhance their creative capacities (for example, through well-planned, well-run workshops designed to review and resolve specific problems).
- Creating situations where people can see that they can achieve more together than as individuals (for example, by bringing together different communities that can learn new practical skills through reviewing each other's work, as in Nepal's Sustainable Community Development Programme).
- Making organisations aware of the value of otherwise unarticulated knowledge and skills among their members or staff (for example, by giving individuals opportunities to participate in the monitoring and evaluation of new areas that interest them).
- Making organisations open to new emerging visions from all levels (for example, with regular, relatively unstructured meetings to discuss current issues and challenges facing the project).
- Ensuring that individuals can learn what is happening in other parts of their organisations (for example, with clear, credible and interesting reporting). This has been called “the importance of redundancy” in learning organisations, where sharing of information is an essential condition not only for commitment, but also for creativity, shared understanding and trust.²⁷
- Ensuring that people feel free to question all assumptions and biases (for example, with clear and consistent demonstrations from managers and co-ordinators that they welcome all constructive questions during monitoring and evaluation).
- Ensuring that people treat each other as colleagues, with mutual respect and trust in the ways they talk to each other and work together, irrespective of their positions (for example, with the kind of trust-building exercises discussed in our parallel paper on participatory planning).
- Ensuring that people feel free to experiment, to take risks and openly assess the results without fear of punishment (for example, by raising the profile on experiments during monitoring and evaluation and stressing the value of all information gained through experimentation, irrespective of the outcome of the experiment).²⁸

Too much faith in numeric indicators

“There are lies and damn lies and then there are statistics.”

— Benjamin Disraeli

Traditional monitoring and evaluation, particularly traditional monitoring, have often been focused on numeric indicators of various sorts. A UNDP guide to monitoring still in use in the mid-1990s, for example, stated that monitoring “seeks to ensure that

²⁷ G. Morgan, *Images of Organisation*.

²⁸ Adapted from P. Senge et al., *The fifth Discipline Handbook*.

input deliveries, work schedules, targeted outputs, and other required actions are proceeding according to plan. [It] is concerned largely with the transformation of inputs into outputs”.²⁹ There is often still a bias in favour of “hard” numeric data, which can be counterproductive when trying to promote PME approaches: “It is better to have less perfect but more usable data and data that can more easily be shared than to have a massive amount of data that becomes the private and often confidential possession of a few expert-specialists.”³⁰

Monitoring of numeric indicators, while usually important, is seldom an effective monitoring approach on its own. It is even less likely to satisfy all the needs of participants in PME. On the other hand, numeric indicators can be very useful when used together with other more qualitative assessments, as was done in Pakistan’s Community Infrastructure Project.³¹

Progress Monitoring	Process Monitoring
Concerned primarily with physical inputs and outputs.	Concerned with key processes for project success
Measures results against project targets.	Measures results against project objectives.
Relatively inflexible.	Flexible and adaptive.
Focuses on project activities/outcomes.	Looks at broader socio-economic context in which the project operates, and which affects project outcome.
Indicators usually identified up-front and remain relatively static throughout project lifetime.	Continuous and iterative testing of key processes and indicators.
Measures both qualitative and quantitative indicators, but the focus is on quantitative indicators.	Measures both qualitative and quantitative indicators, but the focus is on qualitative indicators.
A one-way process, where information flows in one direction, from field to management.	A two-way process, where information flows back and forth between communities, field staff and management.
Paper-oriented (use of uniform formats).	People-oriented and interactive.
No post-action review.	Constant review and follow-up.
Takes communication between stakeholders for granted.	Includes effectiveness of communication between stakeholders at different levels as a key indicator.
Uses formal data-collection methods.	Uses participatory methodologies.
Not usually self-evaluating and correcting.	Is self-evaluating and correcting.

Source: J. Vilorio and M. Hosain, *Transforming Organisations by Learning and Adaptation*.

29 UNDP, *UNDP Policy and Procedures Manual*, chap. on “Monitoring, Evaluation and Reporting” (New York, 1987).

30 Maria-Thérèse Feuerstein, quoted in *Who Are the Question Makers?*

31 J. Vilorio and M. Hosain, *Transforming Organisations by Learning and Adaptation*.

There, they have developed a complementary mix of what they call “progress monitoring” (mostly quantitative, not very participatory) and “process monitoring” (mostly qualitative and essentially participatory), summarised in the adjacent box.

The addition of process monitoring of qualitative indicators is essential for projects or programmes to become learning organisations, able not simply to judge their progress against static targets, but to determine when organisations need to adapt their operating systems to evolving circumstances (or evolving understanding of their circumstances).

Process monitoring assesses the quality of processes such as:

- Identification and selection of participating communities.
- Community action planning.
- Participation within community-based organisations.
- Community capacity development,
- Conflict resolution
- Gender issues at community and management levels.
- Incentives and performance of field staff.
- Partnerships with NGOs.
- Managing information, such as documents on best practices.

Failure to recognise PME’s potential value

Not everyone appreciates the potential values of participatory approaches to monitoring and evaluation. There is still sometimes a tendency to see them as alternatives, rather than complementary to managing for results. UNDP has developed both an impressive Handbook on Participatory Evaluation³² and a Handbook on Results-oriented Monitoring and Evaluation.³³ There is remarkably little about participatory approaches in the latter handbook. Yet much of the private sector interest in these participatory, or learning, approaches stems precisely from the perception that they will lead to superior performance — improved results — due to more consistent quality improvement and enhanced abilities to manage change.

Results-oriented monitoring and evaluation and PME are not mutually exclusive. As the Pakistan example discussed above and Capacity 21’s original monitoring and reporting

³² UNDP, Who Are the Question Makers?

³³ UNDP, Results-oriented Monitoring and Evaluation — a Handbook for Programme Managers (New York, 1997).

strategy both suggest, **these two approaches can and should be highly complementary.** The writer will never forget the dangers of exclusively quantitative monitoring systems, seen firsthand for years on end in an ill-fated integrated agricultural development project in northern Sierra Leone. That project's progress reports spoke year after year of thousands of hectares of farmland brought under new varieties of rice and groundnuts, of tens of thousands of new farmers participating in the credit-for-inputs scheme, of millions of dollars worth of improved seeds, fertilizers and agro-chemicals provided to farmers. Also for years on end, no one reported on qualitative issues such as the inferior quality of "improved" seeds being provided to project farmers, the project's chronic inability to deliver inputs to farmers on time (or the devastating results of late planting in a humid tropical agro-ecosystem), and the high levels of dissatisfaction among increasingly indebted farmers.

One problem in adapting to PME approaches arises when people are unsure about how to incorporate PME information into their existing management systems.

One problem in adapting to PME approaches arises when people are unsure about how to incorporate PME information into their existing management systems. An early participatory community-level sustainable development programme supported by Capacity 21 in Honduras, for example, received repeated messages in monitoring reports about the need for major changes in its implementation plan. These messages were disregarded, and the programme suffered considerably as a result.

Projects and programmes that want to work as learning organisations cannot allow themselves to be so focused on their own internal rules, short-term targets and control systems that they fail to observe and understand external challenges, and to innovate the needed responses to them.

Well-designed PME systems are likely to generate valuable, timely information on project performance and, especially, about the likelihood of meeting longer-term fundamental objectives, not just shorter-term and more easily quantifiable ones. Management systems need to ensure that this information is available and used in decision-making throughout the programme cycle.³⁴ In other words, projects and programmes that want to work as learning organisations cannot allow themselves to be so focused on their own internal rules, short-term targets and control systems that they fail to observe and understand external challenges, and to innovate the needed responses to them.³⁵

UNDP-Morocco has found that ensuring a clear, strong link between PME information and management decisions helps to promote a heightened awareness among programme participants of their individual and collective responsibility for their results.

Lack of trust, confidence and familiarity with PME approaches

PME approaches, like participatory approaches in general, need a far higher level of mutual trust and confidence among participants than is the case with more traditional monitoring and evaluation approaches. Another Approaches to Sustainability series paper being prepared on participatory planning approaches³⁶ discusses practical techniques for building and maintaining the necessary trust and confidence.

The expression "conspiracy of success" aptly describes a common unwillingness among participants in international co-operation programmes to describe their own

³⁴ As pointed out, for example, in Capacity 21 Monitoring and Reporting Strategy (UNDP, New York, 1995), and C. Ward, "Monitoring and Evaluation".

³⁵ G. Morgan, Images of Organisation.

³⁶ Mohamed et al., "Participatory Planning" (draft, Approaches to Sustainability series, UNDP, New York, 2001).

activities as anything but successful. This phenomenon is hardly confined to the culture of international co-operation. The same tendency can be a major barrier in private firms wanting to become learning organisations. Where there is corruption, the conspiracy of success will be harder to overcome.

There are many barriers to mutual trust and confidence. A regional biodiversity project in East Africa, for example, reports barriers encountered when trying to involve communities and other target groups more effectively in PME. These included different levels of education and status among participants, as well as rivalries and competition among members of the national steering committee.

A capacity development project backed by the UNDP-GEF in Russia aimed at promoting energy efficiency found that PME was hampered by lack of mutual confidence between project managers in Moscow and those implementing the project in the city of Vladimir.

In both these projects, the initial response to these problems has been to clarify the respective roles and responsibilities of different stakeholders and participants. While this is a good start, it probably won't be enough to build the levels of mutual trust and confidence project participants will need to co-operate effectively in PME.

In PME, trust and confidence are important both among participants and between them and any facilitators helping to orient and organize their work. Facilitators often need to learn techniques for sort of “disempowerment” mentioned earlier. The approach is from Paolo Freire: “By entering another reality it is absolutely necessary for [one] who is going to in some way perform a very difficult exercise, an almost impossible exercise, that is to 'deknowledge-ise' ourselves. This means to forget the knowledge which we had before and to begin again. But now, this time, inside of the new reality or cultural frame of reference. This way the people can have more power than we do. Always, the best rule is to know that we do not know that new situation as do the people who live it. It is through our disempowerment that they are empowered a little.”³⁷

International and national agencies and their professionals often have decision-making powers that depend on non-participatory approaches. These may be slow to change. An inherent conflict between the need for organisational learning on the one hand and the realities of power and control on the other is widely recognised in the literature of learning organisations. Here again, the challenge will likely be greater where there is corruption.

A familiar dilemma for our projects and programmes is how to enable widespread participation in PME exercises, how to get past the leaders, official or self-appointed, and those who are most vocal. This issue was highlighted recently by a biodiversity protection programme in Panama, where the project's participatory approaches to micro-credit were interpreted as a challenge to local authorities, who were accustomed to reserving for themselves the role of allocating resources or benefits. This problem can be further complicated in poor communities where many community members who

A familiar dilemma for our projects and programmes is how to enable widespread participation in PME exercises, how to get past the leaders, official or self-appointed, and those who are most vocal.

37 P. Freire, cited in Who Are the Question Makers?

have experience and information of value to the group may lack the confidence, self-esteem and skills of the professionals managing the programme.

The kind of trust and confidence needed to make PME approaches work effectively is often absent in part because the participatory dimension of PME is such an unfamiliar concept to so many of us. The national programme supported by Capacity 21 in Bulgaria (Capacity Building for Implementation of Agenda 21 in Bulgaria), for example, was planned in a fairly conventional fashion, but was committed to moving steadily towards more participatory approaches during implementation. When programme members first thought of participatory monitoring exercises, though, they found that many of the participants were not ready for this kind of unfamiliar approach. They lacked mutual trust; they were still at the stage of “establishing their credentials” with each other, and would not be comfortable with public analysis or open self-criticism of their performance and results.

One way to increase confidence in the PME approach is by ensuring, as much as possible, that all participants’ agendas are transparent, turning hidden agendas into open agendas where everyone clearly has a chance to influence outcomes.

Lack of trust, confidence and familiarity can all impede the move to PME approaches.

Lack of trust, confidence and familiarity can all impede the move to PME approaches. They virtually guarantee that the move will take time and require capacity development to make it work properly. This will not happen overnight just because it is written into a project design. But experience in a growing number of countries suggests that, with time and commitment, the transition is possible.

In Pakistan they found that “the rigidity of government rules and procedures has often prevented ‘process learning’ from being translated into ‘process changes’. Critiques of processes and procedures have often been met with antipathy. However, with time, process monitoring has gained acceptance and is now viewed as an integral part of the project. Even where it is hard to effect change, the department is now willing to at least discuss issues and learn from experience, even where these challenge commonly held truths. The transformation of the CIP [Community Infrastructure Project] from a closed, hierarchical organisation, with no horizontal or vertical information flows, into a more participatory, ‘learning organisation’, with distinct ‘buy-in’ to community driven development, is one of the major achievements of process monitoring.”³⁸

Some kind of capacity development in PME approaches is usually necessary. A growing list of references and resource material is available to support and complement this capacity development. Many are listed in Annex D.

Vague commitments, with unclear responsibilities, schedules and objectives

PME systems are necessarily more flexible and more diverse than traditional approaches to monitoring and evaluation. This does not mean they are devoid of methodology — on the

³⁸ J. Vioria and M. Hosain, Transforming Organisations by Learning and Adaptation.

contrary, they usually require better command of a range of methodologies than more traditional monitoring and evaluation approaches. Yet, in the same way that many projects have said they will move to PME, without committing the necessary resources, many have also said they will do PME, without saying what they would do or really knowing what to do. In most cases, an effective PME approach needs to combine rigour, diversity of approaches and genuine participation.

An effective PME approach needs to combine rigour, diversity of approaches and genuine participation.

Rigour: The experiences of a number of projects supported by the GEF have underlined the need for clear PME strategies that are understood and respected by all stakeholders.

Many countries have found that PME works much more smoothly when participants agree during project planning about the nature of the monitoring and evaluation information they will need and how they are going to meet these requirements. When this isn't done, projects trying to adopt participatory approaches to monitoring and evaluation tend to be frustrated by insufficient baseline data or lack of suitable indicators, or both. A manual prepared for the GEF Small Grants Programme in Bhutan provides valuable guidance on PME methodologies for small projects. Capacity 21's original monitoring strategy (excerpts in Annex A) suggested that each national programme would need a plan clearly indicating who would do what, how, when and where in the monitoring of the national programme. Capacity 21's original strategy suggested ways for national programmes to tailor their own monitoring and reporting plans, adopting new tools and methods and integrating their use into the UNDP's review and reporting cycle.

An Indian project with GEF support, Optimising Development of Small Hydel Resources in the Hilly Regions of India, has found that monitoring needs to be done at regular intervals and to stick with agreed timetables if it is to remain effective.

The Agrobiodiversity in Alatau project supported by the UNDP-GEF in Kazakhstan uses a PME plan initially established with all stakeholders. Progress reports are now produced based on feedback from these stakeholders, using a variety of participatory tools

Diversity: PME requires a mix of information-gathering techniques, because no single technique is sufficient to track the complex evolution of most projects and programmes. Learning organisations need to have a variety of feedback mechanisms, because the phenomena they are trying to learn about are varied and complex. Techniques need to include those that can ensure PME processes will reach the diversity of people in stakeholder communities.

*WHO suggests including visual and arts-based methods to ensure broad participation in its community health and sustainable development programmes. WHO also recommends the use of “the story dialogue method” in participatory evaluations, and of simple “community indicators” in participatory monitoring.*³⁹

39 WHO, Community Participation in Local Health and Sustainable Development.

A suggested protocol for monitoring and evaluation of a Sustainable Livelihoods programme in Egypt identifies a wide range of techniques, including household surveys, case studies and interviews with participants, as well as indicators of poverty, process and sustainability.

Genuine, effective participation: Ensuring genuine and effective participation in PME is perhaps the most difficult condition to respect. Yet the learning, empowerment and creation of mutual trust and respect that participatory processes aim to engender will be impossible without constant emphasis on real participation. For really effective learning organisations, PME provides a critical service, ensuring that emerging issues are explored from multiple perspectives, and ensuring that many can participate in judging the effects of joint actions and decisions.

Guided by these general principles, one must make judicious decisions about what constitutes a realistic level of genuine participation in the socio-cultural and political context of each country or community. In practical terms, ensuring meaningful participation of stakeholders means a willingness to discuss and negotiate issues with them at each stage — to discuss and negotiate monitoring techniques, roles in collecting and analysing data, evaluation questions and evaluation results.

A regional biodiversity protection project backed by the GEF in Latin America will carry out a mission later this year to help determine whether its monitoring tools and strategy are truly participatory in nature.

Design PME systems to accommodate local realities such as political instability, geographic distances, indigenous language issues, gender issues and cultural diversity.

Jordan's Agenda 21 office will work with government, NGO and private sector stakeholders to identify substantive roles for each in the monitoring of their national Agenda 21.

Ensuring meaningful participation often also means making a significant effort to help participants effectively play new roles in PME systems, especially through training. It means designing PME systems to accommodate local realities such as political instability, geographic distances, indigenous language issues, gender issues and cultural diversity.

PME strategies that go into too much detail and are not very realistic

While many programmes have experienced the sorts of issues discussed above, a few have also encountered essentially the opposite problem — PME systems that were so elaborate, cumbersome and expensive that they simply could not be carried out. The national Capacity 21 programme in Mongolia encountered this problem with a first draft PME plan that was vast and impractical, developed by a visiting intern with little grasp of local needs or constraints.

Conclusions

Participatory monitoring and evaluation is an approach whose time has come, almost. The UNDP-GEF and Capacity 21 and many others are committed to the approach. The trick now, as Robert Chambers pointed out, is to go beyond the rhetoric. As this review suggests, there is a wealth of tools, techniques and experience to draw on. Applying these lessons, innovative methods and procedures effectively will require changes in the institutional cultures of most of the organisations involved. More importantly, it requires changes in behaviour and attitudes among all partners and stakeholders, including donors.

The American thinker, Buckminster Fuller, maintained that if one wanted to teach people a new way to think, one shouldn't bother trying to teach it to them, but rather give them a tool. Through using the new tool, they would move to the new way of thinking. As our annexes suggest, there is a wealth of tools available for PME. A number of programmes, such as Capacity 21's new regional offices in Latin America and Africa, are looking for innovative ways to get these tools into the hands of national programmes. We hope that, as Fuller suggests, the more widespread use of these tools will help reinforce participatory thinking among the programmes using them.

We hope our review has illustrated how much UNDP-GEF, Capacity 21 and many others involved in international co-operation have learned about the use of these tools in the past few years. We know, for instance, that PME can be a powerful tool for capacity building and helping our projects and programmes perform like learning organisations. We know that PME approaches strengthen feelings of ownership among stakeholders and provide powerful management tools. We know a lot more than we did about ways to make PME work. We know that effective PME needs realistic budgets, schedules and training plans. We know that PME approaches work best when designed to fit into each programme's unique social and cultural context and to focus on stakeholders' priorities.

We also know a lot more than we did a few years ago about the pitfalls to avoid. PME won't succeed where it is simply business as usual wrapped in new rhetoric. It won't work where participants lack the knowledge about the approach or confidence in each other needed to make it work. It doesn't work well, if at all, where it is not carefully planned in advance or, on the other hand, where plans are so elaborate as to be unworkable. Last but certainly not least, as demonstrated in our annexes, we know where to look for information about how to do PME.

For practitioners involved in international co-operation programmes who are reading this review, there are essentially two possible scenarios. Either you are involved in an existing programme, or you are in the process of planning a new one (or you might be involved in both processes at the same time). We believe our review is relevant to either case, but in different ways.

Existing programmes either have been developed as participatory initiatives, or they haven't. In programmes that have started with participatory approaches, PME is

Applying these lessons, innovative methods and procedures effectively will require changes in the institutional cultures of most of the organisations involved. More importantly, it requires changes in behaviour and attitudes among all partners and stakeholders, including donors.

essential to maintain the momentum, ensuring that participants remain engaged and supportive. In programmes that have not been planned in a very participatory manner, it is usually difficult, but certainly not impossible, to move to PME approaches during implementation. The most important, and usually the most difficult, things to change are people's attitudes and behaviour. Finding the necessary funds and human resources will be easy in comparison.

One possible way to introduce a PME approach after your programme is under way could be a "learning exercise". A learning exercise was carried out by the national Capacity 21 programme in the Gambia, in collaboration with the International Institute for Environment and Development, and it helped shift the focus of the programme towards participatory learning (this exercise is summarized in Annex C).

How can existing programmes judge how far they have moved towards genuine learning organisations, able to design and carry out effective PME systems? The following questions could prove useful. One set is from the World Conservation Union (IUCN) and the other from a guide aimed at private firms. They are complementary.

First, IUCN's "*eight characteristics of institutions that encourage and respond to learning by doing*" - is your project/ programme:

- using a range of mechanisms for obtaining feedback from the field?
- testing and improving hypotheses?
- encouraging communications among disciplines, departments and institutions?
- combining complex analysis with simple, effective actions?
- encouraging beneficiaries and participants to take control of their own projects?
- creating and maintaining opportunities for reflection; not leaving this to chance?
- developing explicit, shared visions of the past, present and future?
- using errors and failures as important resources for learning?⁴⁰

Next, Senge's suggested "signs of a learning organisation":

- Do you continuously test your experiences?
- Are you willing to challenge your sacred cows not just in crises, but in good times?
- Do you have structures designed for this testing?

⁴⁰ IUCN, *Reflective Institutions — Eight Characteristics of Institutions that Encourage and Respond to Learning by Doing* (Gland, Switzerland, 1997).

- Are people comfortable when raising potentially negative information?
- Are you producing knowledge and building capacities for effective action?
- Does your organisation have capabilities it didn't have before?
- Have you improved the quality of your knowledge?
- Are you sharing the knowledge?
- Is it accessible to all members of the organisation?
- Is the learning relevant to the organisation's objectives?
- Can people use it?⁴¹

For projects or programmes still at the planning stage, decisions ought to be simpler. Either your future programme will be committed to a participatory approach and to being a learning organisation, or it won't. If it is committed, then you will need to plan and budget for integrating effective PME systems into your programmes during the design phase. We hope this Approaches to Sustainability has stimulated your interest in the wealth of experience and information available to guide this design.

41 P. Senge et al. The Fifth Discipline Handbook.



Annexes

Annex A:

One approach to PME — a revised version of Capacity 21's original monitoring and reporting strategy

Many who participated in this study felt we should include Capacity 21's original "Monitoring and Reporting Strategy", which proposed a participatory and learning approach to national programme monitoring and suggested a number of practical steps for carrying out this approach. A number of participants in our study felt that excerpts from an updated version of this original strategy (prepared in 1995) should figure in the main text. We opted to include these excerpts as an annex instead, in order to keep the text reasonably concise. In this revised version, we have changed many references from "monitoring and reporting" to "participatory monitoring and evaluation", but the focus is still more on monitoring than on evaluation. We believe this is justified. The success of most evaluations depends to a considerable extent on the quality of monitoring information available to evaluators. In mid-2001 the Capacity 21 unit in New York, together with national and regional programmes around the world, launched a review of their performance in implementing this strategy over the past six years.

How can appropriate PME plans be designed and implemented?

PME plans should be built into programmes from the beginning

Each national Capacity 21 programme should develop its own programme PME plan as early as possible during programme development. These plans should be formalized and agreed upon among programme participants and managers, the country office and the Capacity 21 unit prior to programme approval.

Figure 1: Examples of building PME into the national programme

The Capacity 21 committee in Country X ensured that PME will be a significant part of its national programme. The national programme's PME plan was developed with participating national organisations during programme design. PME activities are included in the national programme budget, and the PME roles of the national programme manager and participants, the UNDP country office and the programme's Capacity 21 advisor are all defined in the programme's work plan.

Country Y's Capacity 21 programme was approved in early 1994 without a formal PME plan. The national programme committee recently developed a plan, with the support of the UNDP country office and the Capacity 21 advisor. A small supplementary budget has been requested from the global Capacity 21 programme for local short-term consultants to assist in PME.

Monitoring systems should be user-friendly and tailor-made

Respecting and maintaining the unique character and creativity of each national programme is as important as ensuring effective PME. Monitoring plans should be user friendly for the national programme participants and managers who will be taking the lead in implementing them. They should be easy to understand and carry out, and clearly serve the needs of those implementing them. The plans should avoid developing reporting systems that are too demanding, too standardized or too complicated.

National monitoring plans should also be tailor-made to reflect the unique character, opportunities, needs and constraints of each country, its Capacity 21 programme, participants and themes. Plans can include support for short-term training and advice to enhance the PME capacities of national programmes.

Figure 2: Examples of user-friendly, tailor-made PME

Country X's plan for PME will involve (1) monitoring four indicators of programme results and two indicators of longer-term socio-economic and environmental sustainability at the national level, (2) a case study of a pilot project supporting community-based small-scale renewable energy production, and (3) interviews with a sample of individuals trained by the programme in environmental audit techniques, to be carried out before, immediately after, and a year after their training. All three PME activities will be carried out by programme participants, under the direction of the programme manager and with the support of a local expert, contracted for two months per year over the three-year life of the programme.

Country Y's PME plan calls for each of eight participating national organisations (two each from government, NGOs, academia and the private sector) to monitor one key indicator of results in its areas of interest (industry, international trade, poverty reduction, energy, water resources, agriculture and urban management). In addition, a local consultant will be contracted to prepare a series of short videos documenting the development and implementation of the national Capacity 21 programme, focusing on the problems solved and lessons learned during the programme. The national television network will air the video free of charge as its contribution to the national Capacity 21 programme (and because it's always looking for good local programming).

Encourage learning from mistakes

A critical feature of all national PME plans should be encouragement to acknowledge and learn from mistakes. The overall value of national programme PME plans will depend to a great extent on their ability to effectively encourage participants and managers to recognise the inevitability of mistakes and the value of these mistakes as learning experiences. There is obviously no simple formula for this kind of encouragement. Each national programme will have to address the issue in ways suited to the local context.

PME systems should also be rigorous

National PME plans need to be designed to deliver high-quality monitoring information. They should provide clear answers to the following questions:

- What type of information will be generated by monitoring?
- How will this information be generated, and by whom?
- If indicators will be monitored, which ones, or how they will be selected?
- If baseline data will be required, how will they be gathered?
- How will monitoring information be used by the national programme?
- What are the nature and purpose of new programme approaches to be monitored and evaluated?
- Who will carry out monitoring and reporting, and what will their roles be?
- What is the timetable for PME reports?
- What are the links between programme monitoring and evaluation?
- How can indicators improve the effectiveness of monitoring and evaluation?

What type of information will be generated by monitoring?

National PME plans should clearly define how they will meet the information needs of the different stakeholder groups including:

- National programme participants.
- National programme management.
- Other interested members of the national community.
- Other Capacity 21 programmes around the world.
- UNDP and other members of the international community.
- The bilateral agencies financing Capacity 21.

The exact structure and content of reports will vary with each programme.

How will this information be generated, and by whom? National PME plans should indicate how different types of monitoring and evaluation information will be obtained, analysed and summarized, and who will do it.

If indicators will be monitored, which ones, or how they will they be selected? Indicators often provide a useful means of monitoring and evaluating results. The use of indicators to monitor programme results and effects is discussed below. PME strategies that include the use of indicators should identify the indicators to be used, or the process to be followed for selecting them, early in the programme.

If baseline data will be required, how will they be gathered? Reliable baseline data are likely to be required for PME of most national programmes. This is particularly true where indicators are to be used, but also for other types of monitoring such as audiovisual documentation, participant observation, case studies, public meetings, sample surveys, and reports by participants and managers. Baseline data requirements, and plans for satisfying these requirements, should be described in the national programme's PME plan.

Figure 3: Example of meeting information requirements for PME

In Country X, the Capacity 21 committee decided that its monitoring of Capacity 21 programme results and effects will focus on five indicators:

- 1. The number of public sector organisations introducing economic instruments to improve environmental management.*
- 2. Evidence of increased private sector investment in environmental management services and infrastructure.*
- 3. The number of community plans for sustainable water resource management that are in place and achieving results.*
- 4. The number of local government agencies having officers with well-defined environmental management responsibilities.*
- 5. The level of satisfaction with performance of sustainable development NGOs among members of target groups for NGO programmes.*

Consultation with programme participants confirmed that national statistics would be suitable for establishing baseline conditions and subsequent measuring of indicator 1; a national bank could provide reliable data for indicator 2; indicators 3 and 4 would require modest budgets for assembling initial data and annual updates; and indicator 5 could be monitored best with a series of interviews over the life of the programme.

How will monitoring information be used by the national programme? National programmes need to commit themselves not just to generating monitoring and evaluation information, but also to sharing it with programme participants and using it to improve programme activities and management.

What are the nature and purpose of new programme approaches to be monitored and evaluated? PME information will be especially important for assessing the results of new

approaches to capacity development for sustainable development, and for improving existing approaches. National programme PME plans should clearly state how these new approaches will be assessed during the programmes.

Figure 4: Examples of using PME as a design and management tool

Country Y's monitoring of results of its training activities indicated that professional staff from manufacturing firms participating in Capacity 21 pilot training programmes found the training impractical. The training was modified and now includes practical advice on using improved environmental standards to improve access of local manufactured goods to international markets.

Country X's monitoring of programme management indicated that, in the first year of the programme, the programme's public awareness component had produced none of its expected outputs. Representatives of the key organisations participating in the national programme met to analyse the situation and devise a response. It was agreed that the originally planned approach to public awareness was not feasible, because it targeted organisations that didn't have sufficient incentive to participate. A revised plan was devised for this component, involving a more appropriate approach and a more limited budget. The UNDP country office and Capacity 21 agreed to a reallocation of the surplus budget to the programme's pilot projects in sustainable resource management.

Who will carry out monitoring and reporting, and what will their roles be? National PME plans should also clearly identify the monitoring and evaluation roles of each of the principal parties to be involved in the development and implementation of these plans, i.e.:

- National programme managers.
- Different national programme participants and stakeholders.
- UNDP country offices and regional bureaux, and
- The Capacity 21 Unit.

It is especially important to ensure that national programme managers and participants are fully involved in the design, planning and implementation of their programme's PME plan, including selection of appropriate means of assessing results and effects. This participation will reinforce their overall participation in national dialogues about national sustainable development objectives.

What is the timetable for PME reports? The national programmes' PME plans should include clear timetables for reporting on monitoring activities and for periodic evaluations. These should be co-ordinated with the regular reporting requirements of the national partners and the UNDP.

Figure 5: Example of PME roles and timetables

The parties involved in Country X's Capacity 21 programme agreed on a PME plan calling for each participating national organisation to (1) participate in one facet of programme results monitoring (half will monitor indicators and half will prepare case studies), and (2) provide brief reports on its use of programme resources and the outputs produced with these resources. Ongoing programme support for participating organisations is conditional on their meeting these obligations according to the schedule and format agreed upon with the programme manager. The national programme manager uses participants' reports in the preparation of her or his biannual reports. The UNDP country office reviews and discusses the draft reports with the programme manager and chairs annual programme reviews. A Capacity 21 advisor worked with the national programme in developing its PME strategy. The advisor stays in touch with the programme manager by fax and can visit to help out with PME and other programme issues that arise. The advisor reviews all reports, participates in annual reviews and prepares a brief annual report on the programme to the Capacity 21 unit.

What are the links between programme monitoring and evaluation? National plans should clearly define the connection between programme monitoring and mid-term or end-of-programme evaluations. They should aim to ensure the availability of reliable, high-quality information for evaluation purposes. Plans should consider whether there is a role for *ex post facto* evaluations in the years following the completion of Capacity 21 programmes, and how the monitoring programme can serve the needs of this kind of evaluation.

Figure 6: Example of the link between monitoring and evaluation

*Country Z's plan for PME combines indicators, case studies and participant interviews. Two of the six indicators chosen, rural drinking water quality and diversification of national exports, are expected to be more useful for evaluators measuring longer-term effects than for measuring the shorter-term results of Capacity 21. One of the case studies, set in low-income districts of the country's three largest cities, will also gather baseline data for evaluating the longer-term effects of the programme on social development, technology use and environmental quality. All participant interviews will include questions about perceptions, attitudes, knowledge and activities, which can be revisited during *ex post facto* evaluations.*

How can indicators improve the effectiveness of monitoring and evaluation? Monitoring and evaluation of many Capacity 21 programmes can be enhanced by using indicators for measuring these programmes' results and effects. Indicators should complement, not replace, more qualitative assessments of results and effects such as case studies and interviews of participants. Indicators can be valuable for validating, supporting and supplementing more qualitative observations. While indicators are often numeric, they may also be simple "presence/absence" indicators, such as "non-

government and private sector representatives active/not active and influential/not influential on national policy development committees”.

Definition and role of indicators

Indicators [are] measures designed to highlight trends and detect changing conditions in some element of the economic, social or environmental system(s) in a given jurisdiction. [They] must be measured consistently through time and [should] be linked to the impacts of human activities. [They are] typically developed to monitor systemic changes resulting from policy decisions, or to monitor progress in meeting performance objectives.

— KPMG Peat Marwick Stevenson and Kellog, *Evaluating Progress Toward Sustainability in the Fraser River Basin — Part I: Sustainability Indicators Methodology*, Environment Canada, Vancouver

The goal of monitoring results and effects is to help estimate changes induced by Capacity 21 programmes. This sort of induced change can be difficult to distinguish from a normal range of variation. Monitoring of indicators should start from the earliest stages of programming and continue long enough to help observers distinguish natural variability from the actual results and effects of their programmes.

Use a few simple indicators

Appropriate indicators for monitoring programme results and effects should be selected by national programme participants. When using indicators, national Capacity 21 programmes will have to reconcile conflicting imperatives. While it is desirable that all important environmental, economic and social results and effects of Capacity 21 programmes be captured by monitoring, there are two compelling reasons to start by monitoring only a few key indicators:

- Resources available for monitoring are limited.
- Monitoring reports, if they are to be widely read by national participants and the international community, should be concise and uncomplicated.

How to select indicators?

Many criteria for indicator selection have been proposed in recent years (for example, availability, causality, comparability, correlation value, ‘integratability’, predictive ability, spatial detection, temporality, threshold value, ‘understandability’, validity, visibility). National Capacity 21 programmes should adopt an approach to selecting indicators that can be easily explained to and implemented by national participants. The most important criteria for selecting indicators of the results and effects of Capacity 21 programmes are probably:

- Level of national participant interest in the indicator.
- Relevance of the indicator to the national Capacity 21 programme's objectives.
- Relative ease of access to reliable indicator data.
- Ability of indicator data to convey clear meaning to a broad audience within the country and, if possible, among the international community.

Each national programme needs to consider its information needs and how these should be met. For example, while accessibility to data is an important criterion, monitoring should not simply be tailored to suit available data or technical skills. Data routinely collected by government departments, for instance, may or may not be a cost-effective source of Capacity 21 monitoring data, depending on their adequacy and reliability.

Effective use of indicators (and many other kinds of monitoring and evaluation techniques) requires proper baseline information. Capacity 21 programmes should ensure that these baseline data are assembled promptly once indicators have been chosen.

Provide a menu of types of indicators of results and effects

It may be useful in many cases to provide national programmes with menus of possible types of indicators. These menus can provide a broad, though not exhaustive, array of indicator types from which national programmes can choose a more limited number of indicator types for measuring their programmes' results and effects against the "base case" before Capacity 21. One or more specific indicators of each type can then be chosen by participants to suit the local context.

Figure 7: Example of the selection of indicators for PME

Country Y's Capacity 21 national committee decided its programme's PME plan would monitor a limited number of key indicators of programme results and longer-term effects. With the help of the Capacity 21 menus of indicators, 15 possible results indicators and seven effects indicators were proposed by different committee members. The committee developed an evaluation grid to choose four best results indicators and two best effects indicators. Committee members were asked to score each possible indicator against four key criteria:

National participants' interest (maximum 5 points)
Relevance to national programme objectives (maximum 5 points)
Ease of access/ability to generate reliable data (maximum 5 points)
Ability to convey clear meaning to a broad audience (maximum 5 points)
Aggregate score (maximum 20 points)

The four results indicators and two effects indicators with the highest aggregate scores were then retained for the monitoring programme.

How can Capacity 21 support national monitoring and evaluation systems?

Helping define what national programmes need for effective PME

Most national Capacity 21 programmes, and their partners in the UNDP country offices, are likely to require support in developing and implementing their national programme's PME plan. Some programmes may find, for example, that the original programme objectives need to be more precisely defined to ensure that they can be effectively monitored, reported on and later evaluated. Many national programmes can benefit from short-term advisors, both locally engaged and those provided by the global Capacity 21 programme.

The global Capacity 21 initiative finances the monitoring and evaluation of national programmes, as part of approved budgets for national programmes. National programme requirements for PME support should be assessed and budgeted early in programme planning. Programmes may need, for example, to have budgets for local consultants and training to enhance the PME skills of national programme participants and managers.

Figure 8: Example of defining what's needed for effective programme PME

In Country X, the Capacity 21 programme began without a clear PME strategy. In the middle of the programme's first year, the programme manager, senior staff of 10 national organisations participating in the programme, the UNDP country office and a Capacity 21 advisor met to design the programme's PME strategy, then define what the programme would need to carry out this strategy. They concluded that the programme would need:

- *Short-term training in PME for the programme manager, who would then provide detailed briefings to the 10 national organisations.*
- *Three months' services from a local expert to support the PME activities of participating organisations.*
- *Six months' services from local experts preparing case studies of three of the programme's pilot projects.*
- *A budget for national publication of the highlights of monitoring programme results.*

The total budget required to meet these needs was estimated at US\$8,000, or roughly 1 per cent of the programme budget.

Providing technical assistance and training for national programme participants

There is often a need to utilize short-term consultants and to provide short-term training and awareness raising for national programme managers and participants and their UNDP country office partners.

Figure 9: Example of using short-terms consultants in PME

In Country Y, the Capacity 21 programme is using a local expert to assist private sector, NGO and public sector participants in the programme who are preparing case studies describing their participation in the Capacity 21 programme. The consultant will help all groups design their case studies and edit their final reports. She will also assist some of the groups to assemble information and write their draft reports. The Capacity 21 programme also hires another local consultant for a month per year to collect, collate and analyse information on the eight indicators of results the programme has chosen to monitor.

Training can be carried out jointly with the UNDP's GEF programme and/or during regional workshops planned for Capacity 21 programme managers in a number of regions around the world. Training should be "training the trainers", equipping programme managers to later help their national programme participants to better understand the importance of effective PME, and to develop and implement effective PME strategies. This approach will be most effective if UNDP country office staff working with national programmes are also involved.

The objectives of training sessions can include:

- Enhanced awareness of the role of rigorous programme PME in achieving results and addressing problems.
- Enhanced awareness of the need for and value of constructive criticism.
- Enhanced awareness of the need for programmes to be continually generating, analysing and responding to PME information.
- Enhanced knowledge about suitable PME techniques, such as indicators, case studies and various types of interviews and questionnaires.
- Enhanced skills in carrying out various PME techniques.

The final design of these training sessions should be based on assessments of the needs of the target group, obtained from a sample of country offices and from members of the target group themselves, through short interviews and questionnaires.

Types of indicators for measuring results and effects of Capacity 21

The following tables list different types of indicators of national Capacity 21 programme results and effects, for consideration by national programmes when choosing specific indicators for their PME plans. The lists are not exhaustive, but are intended to illustrate the range of possibilities. National programmes are encouraged to adapt and enhance the lists as required to meet their needs.



Indicators for measuring results of Capacity 21 programmes

Types of indicators of results (examples of specific indicators are indicated in brackets)

Types of indicators of *improved planning* for sustainable development

- To what extent has an analytic inventory of previous initiatives been done? Is it reflected in the national Capacity 21 programme? [Examples: national conservation strategy (NCS) and/or national environmental action plan (NEAP) analysed by C21 programme participants; clear C21 response to NCS and NEAP recommendations.]
- To what extent are sustainable development plans, policies and strategies in place and achieving results in key sectors or regions? [Examples: (1) national/regional/local plans in place and achieving results for sustainable energy production and consumption; (2) sustainable water resource management; (3) sustainable urban development; (4) regional or local strategies for sustainable development.]
- To what extent are multi-sectoral planning committees, composed of government, NGOs and the private sector, in place and achieving results? [Examples: (1) national/regional/local committee on environment and poverty in place and defining national/regional/local policy and programmes for reducing the effects of environmental degradation on the poor; (2) national/regional/local water users' committee for sustainable water resource management formed and defining national/regional/local policies and programmes for sustainable water management.]

Types of indicators of improved organisational capacity for sustainable development

- To what extent has there been organisational change towards policies, programmes and plans based on sustainable development criteria? [Examples: introduction and implementation of effective public and private sector policies/programmes/plans (1) to encourage energy efficiency and conservation; (2) to ensure effective environmental and social impact assessment of public and private sector policies, programmes and projects.]
- How effective has co-ordination been? [Examples: (1) measure of improvement in information exchange among public and private, national and international organisations; (2) increase in number of joint missions and/or joint utilization of experts by international co-operation and development agencies.]
- To what extent has there been positive change in regulations and/or efficacy of regulations? [Examples: (1) common, clear environmental management regulations agreed/in place/being used in all regions in the country; (2) common, clear environmental management regulations agreed/in place/being used in all countries in the region; (3) common environmental management regulations agreed/in place/being used by all levels of government/by all sectors of the economy.]

- What have been the recorded changes in economic management systems? [Examples: effective systems developed/adapted and being used (1) to account for environmental and social costs of resource and environmental degradation; (2) to account for environmental and social costs of alternative development strategies.]
- How many private firms have environmental officers or officers with explicit environmental management responsibilities? [Examples: (1) number/percentage of small and medium-sized manufacturing firms having at least one officer with environmental management training being used to ensure the quality of the firm's environmental management performance; (2) number of large manufacturing firms making measurable improvements in their environmental management practices/performance.]
- How many government agencies have officers carrying out well-defined environmental management responsibilities? [Example: number of national/regional/local agencies, outside of environment agencies, that have trained, effective officers responsible for environmental planning/management/ monitoring.]
- How many staff within government and private environment departments have the necessary skills and mandate to carry out effective assessments of the social and economic impacts of environmental policy and programme options? [Examples: analysis of the employment-creation and income-generation potentials of alternative environmental policies and programmes; increases in this type of analysis being used in decision-making.]

Indicators for measuring results of Capacity 21 programmes

Types of indicators of results (examples of specific indicators are indicated in brackets)

Types of indicators of *improved participation* in sustainable development

- What are the language(s) of oral presentations and written information, including meetings, summaries, proceedings, progress reports, training material? [Examples: percentage of meetings held, documents produced, trainings carried out in languages accessible to most of local population.]
- What information systems are in place? [Examples: national node of Sustainable Development Networking Programme (SDNP) or similar domestic information system established and accessible to broad range of national government, private sector, NGO and CBO users.]
- What are the numbers and diversity of organisations (range of public and private) participating in, having influence over, and/or benefiting from the design, planning and implementation of C21 programmes and other national/regional/local forums and

development programmes? [Examples: numbers of public, private, NGO, CBO and academic organisations involved in C21 programme development, implementation and PME, and their satisfaction with this involvement.]

- What are the measures of participation by private sector, NGO and CBO organisations in other national/regional/local sustainable development forums and programmes? [Examples: measures of their participation in the definition and implementation of sustainable development policies and programmes in education, rural resource management, urban management, energy management, water management, management of public finance, trade, etc., and their level of satisfaction with this participation.]
- What are the measures of increased legitimacy and effectiveness of NGOs and CBOs promoting sustainable development? [Examples: (1) measures of active involvement and support of internal stakeholders in NGOs/CBOs; (2) measures of social support and trust for NGOs/CBOs; (3) measures of satisfaction of target groups (e.g., women, poor, rural resource managers); (4) measures of potential/real impact on public policy such as meetings with policy makers, articles in press, policy changes achieved.]

Types of indicators of *improved means* of implementing sustainable development

- What is the allocation of financial resources in the public sector, private sector, local/community level initiatives and NGOs? [Examples: (1) evidence of increased proportion of public sector resources available for local and community sustainable development initiatives; (2) evidence of increased private sector investment in environmental and social services and infrastructure; (3) evidence of use of public sector resources to leverage increased private investments in sustainable development initiatives.]
- What mobilization is being made of internal and external means for achieving sustainable development targets? [Examples: (1) transfers from military; (2) increased domestic investment from private sector sources; (3) increased international private investment and joint ventures; (4) increased international co-operation.]
- What awareness raising/education/training is being carried out to ensure adequate numbers of sufficiently skilled human resources in private, NGO, government and academic institutions, and community groups? [Examples: (1) participants' and participating organisations' assessments of the quality and value of their training experiences, immediately after training, 6–12 months after training; (2) measures of the effectiveness of participants before and after their training.]
- What economic instruments and social instruments are effectively promoting sustainable development? [Examples: (1) number of public and private organisations introducing economic instruments to improve environmental management and measures of the effectiveness of economic instruments introduced; (2) numbers

and measures of effectiveness of programmes to raise public awareness and understanding of environmental health issues.]

- Are environmentally, socially and economically sustainable technologies more accessible? [Examples: (1) economically viable integrated pest management techniques; (2) improved energy conservation and efficiency techniques/technologies for communities or industries; (3) improved water conservation and efficiency techniques/technologies for communities or industries.]
- What is the degree of public participation in the decision-making processes?
- What are the measures of effectiveness of mechanisms for policy co-ordination within government?

Indicators for *measuring longer-term effects of Capacity 21 programmes*

Types of indicators of longer-term effects

Indicators of sustainable economic growth:

- Per capita incomes in different social classes
- Debt levels (e.g., national public and private, domestic and international)
- Trade patterns (e.g., diversification of exports and export partners, growth in trade, import-export ratios)

Indicators of sustainable social development:

- Poverty levels
- Measures of adequacy and quality of education
- Measures of adequacy and quality of health care and sanitation
- Gender roles and relations
- Measures of “social capital”, such as respect for laws, respect for local/regional/national government and non-government institutions

Indicators of *improved sustainability in the use of resources and the environment*:

- Parameters of soil quality
- Parameters of water availability and quality for domestic, agricultural and industrial users
- Parameters of availability, reliability, social and environmental effects of energy supplies for domestic, commercial and industrial users
- Forest resource quality and availability for forest communities, domestic and industrial users
- Atmospheric quality parameters
- Parameters of coastal resource quality and availability for different users
- Contributions to protection of global systems (e.g., parameters of reductions in production and use of ozone depleting substances, maintenance of biodiversity, management of greenhouse gas emissions)

Indicators of improved governance:

- Functional decentralized systems
- Legal reforms
- Institutional reforms
- Fiscal reforms
- Financial reforms
- Evidence of governments collaborating with communities to help them achieve their objectives
- Evidence of governments focused on achieving common objectives instead of enforcing rules
- Evidence of governments focused on meeting needs of communities, not needs of the government
- Evidence of governments focused on results (not just inputs and outputs)
- Evidence of governments using markets to leverage change (e.g., green taxes)

Indicators of adoption of environmentally, socially and economically sound technologies in key areas:

- Energy
- Agriculture
- Water
- Urban management
- Transportation
- Manufacturing
- Forestry
- Mining

Annex B:

Indicators of sustainability — a case study from the Sustainable Seattle programme

The following case study of the use of indicators in the Sustainable Seattle programme was prepared for China's Local Agenda 21 programme by Nizar Mohamed, one of Capacity 21's global advisors.

Programme Name: Sustainable Seattle: Indicators of Sustainable Community

Importance of Issue

Interest in indicators covering both the socio-economic and environmental aspects of sustainable development has been increasing over the past few years. This interest was given added impetus in 1992 at the Rio Earth Summit, which also gave birth to the Local Agenda 21 movement around the world. Agenda 21, one of the main outcomes of the Earth Summit, calls for countries and local governments to develop indicators of sustainable development. The Commission on Sustainable Development has taken the lead globally by suggesting methodologies and possible indicators for countries to use.

Around the world, countries, cities, municipalities and communities are striving to meet the challenge of sustainable development by integrating social, economic and environmental goals. As they determine what sustainable development means for them, they seek to define new measures of progress towards sustainability. This task is most challenging and urgent at the local level — in communities, municipalities and cities.

Seattle has been in the forefront of this search and, through its Sustainable Seattle programme, was the first to develop and publish a set of Indicators of Sustainable Community, in 1993. Its experience provides a valuable model that could be adapted to meet the needs of the China Local Agenda 21 programme.

Programme Objectives

The main objectives of the Sustainable Seattle programme are:

- Make sustainability an intrinsic part of the public consciousness and inspire behaviour changes that will move the region in a more sustainable direction.
- Establish sustainability as a key criterion in policy, planning, design and decision-making at all levels of civic life.
- Encourage key institutions to incorporate sustainability principles and adopt sustainable development practices.

Indicators of a Sustainable Community

Brief History

The Sustainable Seattle programme on indicators grew out of a conference in 1990 in Washington, DC, sponsored by an NGO.⁴² Community leaders from all facets of Seattle city life came together to discuss how citizens could choose ways to measure long-term community well-being. In February 1991, 30 volunteers joined the Sustainable Seattle Network to help find indicators to measure the health of Seattle.

Over the next six months, an Indicators Task Team made up of people with diverse backgrounds — economist, energy specialist, engineer, social worker, planner — created a draft list of potential key indicators. The team recognised that, in order to find measures of a healthy community across the entire social, economic and environmental spectrum, they needed to involve more people to broaden their perspectives. A civic panel was established to collectively determine those aspects of community that the community considered important to measure. This panel of 250 people included business leaders, environmental groups, government representatives, labour, the religious community, special interest groups, educators, students and social activists.

The indicators were developed gradually over six months through a series of four workshops, interspersed with community consultations by mail. In the workshops, the civic panel helped the task team to come up with a preliminary list of indicators, then to refine them, and finally to come up with a list of 40 indicators that would give a whole-city “snapshot” of movement towards, or away from, sustainability.

During that time, a Sustainable Seattle Board of Trust was set up (including some members of the indicators team) to act as stewards of the process. They helped to create an organisational structure that encouraged consensus, shared leadership and diverse participation. This group also came up with a definition of sustainability for Seattle.

A Definition of Sustainability

Sustainable Seattle defines the community's sustainability as “long-term health and vitality — cultural, economic, environmental and social”.

The indicators of sustainability help to give all members of the community, including decision-makers, a picture of their community's progress towards their vision of sustainability. These indicators point the community towards a new way of thinking about how they live, and about what kinds of progress they need and want to make. The indicators will also help make policy-makers and the general public accountable for the city's well-being over time.

⁴² The Global Tomorrow Coalition.

What Are Indicators?

Indicators are tools that tell the community about its collective performance on the path to sustainability. Sustainable Seattle describes indicators as:

bits of information that highlight what is happening in a larger system. They are small windows that together provide a glimpse of the “big picture”. Sustainability indicators provide feedback on the overall health of our community in the same way that body temperature and blood pressure tell us about our personal health.

Indicators reflect the vision of important values and can inspire changes in behaviour. They can act as leverage points within systems.

The information provided by indicators helps stakeholders to evaluate their own performance and to make their own decisions about changing their behaviour.

Criteria for Selecting Indicators

Sustainable Seattle uses the following criteria for selecting indicators:

- Relevant — they fit the purpose for measuring, telling the community members something about their system that they need to know. The indicators illustrate an aspect that is fundamental to the long-term viability of the community.
- Reflect community values — the crucial role of indicators is communication. They are meaningful to the community and give a realistic picture of the situation. They are measures of what is of value to the community.
- Statistically measurable — relevant data for the indicators are available for the geographical area, and can be compared with other areas and at different periods of time. If the data are not readily available, they can be readily collected using practical means.
- Scientific — there is a rationale for using a specific indicator and for drawing conclusions from data collected.
- Reliable — the community must be able to trust what the indicator shows. The indicator must also be measurable consistently over time, so that comparable data are available.
- Leading — indicators must give the community information while there is still time to act.
- Policy relevant — does the indicator have relevance for policy decisions for all stakeholders in the system, including the least powerful ones?

Indicators Selected by Sustainable Seattle

The 40 indicators selected by Sustainable Seattle fall into five categories (Table 1). These indicators reflect those aspects of society, economy and the environment that are considered to be valuable by the community. Taken together, these indicators provide the community with a picture of its progress on the road to sustainability.

One of the primary uses of the indicators is to educate the community so that all stakeholders are able to take responsibility for their own actions and are able to make informed decisions. The indicators help community members to:

- Inform themselves about important trends in their culture, economy, environment and social well-being that may influence movement towards or away from sustainability.
- Examine their own choices and actions in terms of how their actions contribute to these trends, discuss these issues with their friends and colleagues, and make conscious decisions about their behaviour.
- Assess the policies and activities of businesses, organisations, agencies or institutions they are associated with, in terms of how they affect these policies, or to develop their own organisation-specific indicators.

In other words, the aim is to help people.

Table 1: Indicators of sustainable community

Environment	Population and Resources	Economy	Youth and Education
• Wild salmon	• Population	• Energy use per dollar of income	• High school graduation
• Ecological health	• Water consumption	• Employment concentration	• Ethnic diversity of teachers
• Soil erosion	• Solid waste generated and recycled	• Unemployment	• Arts instruction
• Air quality	• Pollution prevention	• Distribution of personal income	• Volunteer involvement in schools
• Pedestrian- and bicycle-friendly streets	• Local farm production	• Health care expenditure	• Juvenile crime
• Open space near urban villages	• Vehicle miles travelled and fuel consumption	• Work required for basic needs	• Youth involvement in community service
• Impervious surfaces	• Renewable and non-renewable energy use	• Housing affordability	• Equity in justice
		• Children living in poverty	• Adult literacy
		• Emergency room use for non-ER purposes	
		• Community reinvestment	

Progress Reports

Sustainable Seattle aims to present regular, biannual progress reports to the community on the performance of the city across the set of indicators. The first report was published in 1993 on 20 indicators, followed by the second report in 1995 on all 40 indicators. A third status report, on all 40 indicators, was presented in 1998.

These regular reports on progress made to the community cover the following topics

- **Sustainability trends** — this is an assessment of how the community has performed for that particular indicator for the reporting period.
- **Description** of the indicator
- **Definition** of the indicator, including the source of the data
- **Interpretation** — what the indicator and results mean
- **Evaluation** — an assessment of the results
- **Linkages** — how and to what other indicators this indicator is linked

Box 1: Example: Water Consumption

Sustainability Trend: Strong conservation programmes, summer surcharges and efficient system operations have reduced total water consumption 12 per cent since 1990.

Description A sustainable society uses its fresh water supplies efficiently. The limits to our supply of fresh water were dramatically demonstrated during the drought of 1992 when restrictions were placed on household water use. Despite our damp climate, King County depends on Cascade Mountain snow packs for summer water supplies — a renewable resource, but one subject to major fluctuations caused by annual changes in weather. This indicator measures the total volume of water consumed per day in King County.

Definition: Seattle Public Utilities (SPU) supplies water from the Cedar and South Fork Tolt Rivers to almost 75 per cent of King County's population, about 1.26 million customers. The rest of King County, mostly to the south and east of SPU's service area, is served by other, primarily groundwater-based water systems or private wells. Water consumption data are reported on an annual average basis in millions of gallons per day (mgd) and reflect only consumption within SPU's service area.

Interpretation: Total water consumption has been steady at just below 150 mgd since rebounding from the 1992 drought. This represents a 12 per cent decline from peak consumption levels since 1989. Meanwhile, per capita consumption continues to decline. Historic total annual water consumption moved upwards between 1970 and 1990, but did not grow as fast as the region's population. Consumption reached a maximum of 171 mgd in 1989 before dropping sharply after 1990. A number of factors contributed to this recent reduction in water consumption. A seasonal rate structure was introduced in 1989 with higher marginal rates in the summer peak season to more accurately reflect the value of water at its time of use. During the early 1990s, an array of aggressive water conservation programmes was implemented. New state plumbing codes specifying efficiency standards for water fixtures were adopted in 1993. A concerted effort was undertaken by SPU to reduce non-revenue water (e.g., lining leaky reservoirs, reducing unnecessary reservoir overflowing and main flushing). The 1992 drought and a very cold, wet summer in 1993 also reduced demand, but those effects were mostly temporary. Since the drought (1994 and after), consumption levelled off at about 148 mgd, where it remained in 1997.

Evaluation: In recent years we have been moving closer to sustainability in our personal water use, thanks to effective and visionary conservation efforts. Total water consumption, which grew to about 170 mgd by 1990, even as per capita consumption tapered off, has dropped to just under 150 mgd and has been maintained at that level from 1994 through 1997. This drop of 20 mgd, or 12 per cent, from pre-1992 drought levels of consumption is attributed to all of the factors described above: higher marginal water rates, conservation programmes, new plumbing codes and more efficient use of water by SPU in operating the system.

Linkages: Water use is strongly linked to other indicators, including population, ecological health, impervious surfaces, wild salmon and quality of life. Our capacity to grow food, produce power, preserve our wild salmon runs, manufacture aluminium for the aeroplane industry, and a host of other related activities depends directly on responsible stewardship of water resources. Global warming — fed by global carbon emissions, including those produced in the Seattle area — may eventually affect water supplies. Though the exact nature of its impact in the region is open to debate, it is predicted that warmer and drier summers will mean less water available for drinking, irrigation, hydropower, recreation and even salmon. In turn, less water may influence the make-up of our natural resources and the quality of life for area citizens.

Evaluation of Trends

The 1998 report presents the citizens of Seattle with a picture of their progress towards their community's vision of sustainability. The report shows both progress and problems. Of the key long-term trends surveyed, 11 indicators showed Seattle moving towards sustainability (see Figure 2), three more than in 1995. However, eight indicators showed that Seattle was moving away from sustainability, while 11 indicators remained neutral. Ten indicators do not have sufficient data to reveal any trends, showing that information systems still need to be further developed.

The summary of the 1998 report stated that:

In total 12 indicators had shifted in a positive direction since 1995 (figure 2). Strong conservation programmes, summer surcharges and efficient system operations have reduced total water consumption 12 per cent since 1990. Wild salmon runs in the Cedar River watershed are showing signs of stabilizing, but at dangerously low levels. Though still high relative to other ethnic groups, the proportion of African American and Native American youth involved in the juvenile justice system has decreased. And 42 per cent of Seattle's youth volunteered in the community last year, putting the region's youngsters five percentage points above the national average.

At the same time, five indicators have changed in a negative direction since 1995. Fuel consumption and vehicle miles travelled per capita have increased 7 per cent in the last four years, reflecting our continued dependence on the automobile. Though we are better at recycling, we continue to generate increasing amounts of solid waste. While the diversity of our teaching staff in public schools matches the diversity of our adult population, it has not kept pace with student population. At the same time, workers are facing longer hours and earn more, meaning less time for family and friends.

For each of the five main groups of indicators, the report gives a summary of the main trends that is easy for people to evaluate at a glance (Figure 3).

Population & Resources

SUSTAINABILITY TRENDS

Population	<i>King County's population growth has slowed to 1% per year, but continues to put pressure on many social and environmental systems.</i>	↔
Water Consumption	<i>Strong conservation programs, summer surcharges, and efficient system operations have reduced total water consumption 12% since 1990.</i>	↑
Solid Waste Generated and Recycled	<i>Though we are better at recycling, we continue to generate increasing amounts of solid waste.</i>	↓
Pollution Prevention	<i>Direct toxic releases and sewage heavy metals have both decreased since 1987.</i>	↑
Local Farm Production	<i>Farmland in King County is rapidly disappearing, though farmers markets and organic farming are on the rise.</i>	↓
Vehicle Miles Traveled and Fuel Consumption	<i>Fuel consumption and vehicle miles traveled per capita continue to increase, reflecting our dependence on the automobile.</i>	↓
Renewable and Nonrenewable Energy Use	<i>Pumping gasoline into automobiles accounts for almost half of our growing nonrenewable energy use.</i>	↓

Figure 3: Sustainability trends for population and resources

Key Features

The Sustainable Seattle Indicators programme has a number of key features that provide a model for other cities and municipalities to emulate:

- **Participation:** Sustainable Seattle has been a grass-roots movement since the beginning, and the community has been the driving force in developing the indicators of sustainability. The volunteer task force formulating the indicators has gradually brought all sectors of the community into the process. The civic panel that finalized the indicators included representation from all sectors, including local and national government. Through this process of trust-building, Sustainable Seattle has managed to build partnerships between stakeholders and promote ownership of the indicators programme amongst the entire community.

- **Linkages:** The indicators selected, and the ways in which they are measured, help the community to see linkages between the different parts of the social, economic and environmental systems. In giving communities a picture of the state of a particular aspect of community life through a small window of a specific indicator, the programme also gives them a glimpse of the big picture of sustainability. For example, the 1998 report asks the question: “Can we say our economy is sustainable if, despite its growth, we have growing numbers of children in poverty, or a dwindling supply of natural resources?”
- **Relevance:** The indicators selected are measures of those facets of the community that the people considered to be of value. At the same time, these indicators are scientifically valid and firmly grounded in theory, yet easily measurable. This balance between scientific method and community values provides a sound gauge of progress towards sustainability.
- **Indicators as tools:** The Sustainable Seattle programme uses indicators as a tool, and a means to an end, rather than an end in themselves. The purpose of using indicators, clearly articulated in the objectives of the programme, is to enable the community to make informed decisions about changing behaviour so as to promote sustainability.
- **Policy implications:** The indicators have direct implications for policy development, thus helping to bind together the required changes in individual and organisational behaviour and systems of governance that provide an enabling environment.
- **Education:** The overall aim of the indicators programme is to empower stakeholders to make their own choices through education. This applies to individual members of the community, to private sector and public organisations and institutions, as well as to government agencies.
- **Self-monitoring:** The overall philosophy of the programme is for all stakeholders to monitor their own actions. There is no external agency that acts as a policeman or woman. People are empowered to act by learning about the long-term consequences of their own actions as well as those of their organisations and institutions.
- **Self-motivation:** This emphasis on education, empowerment and self-monitoring leads to self-motivation. Individuals, organisations and institutions take responsibility for changing their own behaviour after learning about how their actions affect the long-term viability of their community.
- **Accessibility:** The indicators selected are easily understood by all stakeholders. Information about the current state of these indicators is easily accessible to all members of the community, and is presented and distributed in a form that is meaningful for all individuals, organisations and institutions.

- **Accountability:** The ease of access to information and the presentation of regular reports on progress (or lack of it) towards sustainability mean that all decision-making bodies, private or public, are accountable for the consequences of their actions and policies.
- **Iterative process:** The development of indicators is an iterative process that allows community members to learn more about the selection, formulation and monitoring of indicators as they go along. This flexibility creates a culture of learning that not only helps to improve the indicators programme, but also helps stakeholders to find better ways to promote sustainability.

Relevance to China's Local Agenda 21 Programme

The experiences of Sustainable Seattle in formulating their programme of indicators of sustainability provide some useful lessons and models for those municipalities involved in China's Local Agenda 21 programme. A key aspect of the Local Agenda 21 process is to determine a community's vision of sustainable development, and to find ways to monitor progress towards that vision. Like Seattle, these municipalities need to develop ways in which they can encourage their citizens, enterprises and institutions to change their behaviour towards more sustainable practices.

Some key features of the Sustainable Seattle programme that are relevant to the Chinese situation are:

- **Partnerships:** The NGO sector plays a crucial role in Sustainable Seattle. In the Chinese situation, where civil society does not have the same capacity, academic institutions would be able to take over the role played by NGOs in Seattle. All municipalities in China have academic or research institutions that could play a key role in an indicators programme. This role could include research on developing indicators relevant to the community, education of all stakeholders (community, enterprises, local government) in the use of indicators, and finding ways to change behaviour. Such research would help build the capacity of civil society members for monitoring progress and taking responsibility for their actions.
- **Quality vs. quantity:** One of the key lessons from Sustainable Seattle is the balance between indicators that are just numerical targets and those that reflect qualitative changes in key social, economic or environmental dimensions. People respond more to information that tells them about **quality of life** rather than remote sets of figures about production or pollution. Keeping the right balance requires an emphasis on process rather than data — the Seattle process provides an excellent model that could easily be adapted to Chinese conditions.
- **Process:** Participation by all stakeholders is essential if indicators are to be relevant to the community vision of sustainability, meaningful to all sectors of the community, and serve as an effective tool for changing behaviour. For example, the process used by

Sustainable Seattle could easily be modified by municipalities in China by using academic institutions to set up a consultative process for selecting relevant indicators, collecting the necessary information and initiating actions to make the necessary changes in behaviour.

- **Meaningful indicators:** A key factor in the success of the Sustainable Seattle programme is the use of indicators that are relevant to the community. This requires an involved process that begins with the selection of relevant indicators, collection of appropriate information, and evaluation of that information by all stakeholders. This process will help to promote ownership of the indicators by all sectors of society and lead to changes in policy and behaviour.

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Publications

Indicators of Sustainable Community, published by Sustainable Seattle, Seattle, WA 98109-5516 (US\$15.00).

Indicators of Sustainable Development: Framework and Methodologies, available from the Commission on Sustainable Development.

Internet sites

- www.scn.org/sustainable/susthome.html
This is the home page of Sustainable Seattle.
- www.iisd1.iisd.ca/measure/compinfo.htm
This is the home page of the **International Institute for Sustainable Development** (IISD), which provides a comprehensive and up-to-date information base of indicator initiatives being carried out at the international, national and provincial/territorial/state levels in the context of sustainable development. Some projects at the regional/local and community levels are included. The compendium also contains an annotated bibliography of indicator-related literature.

Other relevant sites are:

- www.sustainable.doe.gov/articles/wings/realchec.html — article on indicators of sustainable communities.
- www.venus.hq.nasa.gov/iwgsdi — the US Interagency Work Group on sustainable development indicators.
- www.dpie.gov.au/dpie/cpd/survey.indicators.html — indicators in Australia.
- www.undp.org/undp/devwatch/ — Development Watch programme to assist countries to identify sustainable development indicators.

Annex C:

The Gambia's learning exercise

In the Gambia, the national programme supported by Capacity 21 has made the following suggestions about when it might prove useful to carry out an internal learning exercise as part of a PME approach, and how to judge where this kind of exercise is most likely to succeed.

There may be a need for a learning initiative:

- When there is a need to take stock. This may arise, for example, when:
 - There is too much unreflective momentum.
 - Initiatives are moving in new directions.
 - Critical elements of the programme are stalled.
 - There are early indications that the programme, or some elements of it, need rethinking.
 - There is a sense among participants that things are not going right.
- When information on the programme and/or analysis and understanding of this information are poor or superficial. This may arise, for example, when:
 - Monitoring and reporting are not addressing the important issues.
 - There are few opportunities available for learning.
- When stakeholders are raising fundamental concerns, such as
 - Insufficient or ineffective consultation processes or consultation fatigue.
 - No effective forum for stakeholders to express their views.
 - Stakeholders do not usually meet.
 - Lack of a shared vision and goals.
 - A loss of faith in or disillusionment with the participatory processes.
 - Participatory processes that leave out key players.
 - A need for stakeholders to reclaim or assert their agenda and priorities in response to donor or other external frameworks.

A learning exercise is most likely to succeed when:

- There is real demand for and understanding of learning processes; these may be reflected, for example, in:
 - Strong leaders among the partner organisations who understand learning processes, the nature of a learning exercise, and the scope needed for such an exercise.
 - High levels of awareness among participants about learning as a concept, and a real demand among participants for a learning exercise.

There is a capacity for effective learning, ensured through:

- Careful preparation by a facilitation team working closely with prospective participants.
 - Careful selection of participants to ensure participation by all parts of the programme.
 - Selection of participants with the necessary level of authority, knowledge and experience.
 - Participants who are in touch with and knowledgeable about on-the-ground realities.
 - Participants who are open to learning and willing to work on shared tasks, towards common goals.
- There is an environment conducive to learning, where:
 - Relations between stakeholders can be honest, open and frank.
 - Participants are not intimidated by hierarchies or the presence of other sectors or stakeholders.
 - It is permitted to criticize (challenge) and to be criticized (challenged), and to look at mistakes in the context of system failures, not performance judgements.
 - Outcomes of learning are likely to be constructive and not destructive.

The main event in the Gambian learning exercise was a four-day workshop with 24 government and NGO participants.

Annex D:

Useful tools and reference material

Here are some of the documents we have found most useful:

Capacity 21. *Capacity 21 Monitoring and Reporting Strategy*. UNDP, New York, 1995. (Available on UNDP-Capacity 21's Web site: www.undp.org/capacity21)

GEF. *Incorporating Social Assessment and Participation into Biodiversity Conservation Projects*. Washington, DC, 1994.

ICLEI. *ICLEI Local Agenda 21 Pilot Self-Assessment Module*. ICLEI European Secretariat, Bonn, 1999.

IUCN. *Reflective Institutions — Eight Characteristics of Institutions that Encourage and Respond to Learning by Doing*. Gland, Switzerland, 1997.

Margolius, R., and N. Salafsky. *Measures of Success — Designing, Managing and Monitoring Conservation and Development Projects*. Washington: Island Press, 1998.

Marquart, M. J. *Building the Learning Organisation*. New York: McGraw-Hill, 1996.

Senge, P., et al. *The Fifth Discipline Handbook — Strategies and Tools for Building a Learning Organisation*. New York: Doubleday, 1994.

UNDP. *Who Are the Question Makers? A Participatory Evaluation Handbook*. OESP-UNDP, New York, 1997. (Available on the UNDP Evaluation Office's Web site: www.undp.org/eo).

UNDP-GEF. *Information Kit on Monitoring and Evaluation*. UNDP, New York, 1999. (See chap. 2.2, p. 6, on participatory approaches.) (Available on UNDP-GEF's evaluation and monitoring Web site: www.undp.org/gef.)

WHO. "Community Participation in Local Health and Sustainable Development: A Working Document on Approaches and Techniques". *European Sustainable Development and Health Series*, no. 4. Copenhagen, 1999. (Available on WHO's Web site: www.who.dk/healthycities.)

World Bank. *The Participation Sourcebook*. Washington, DC, 1996. (Available on the World Bank's Web site: <http://www.worldbank.org/publications>.)

Shorter articles and examples can also provide valuable suggestions. Some that we have found useful include:

Banarjee, A., et al. *Participation in Forest Management and Conservation*. Environment Department Paper no. 049. World Bank, Washington, DC, 1997.

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Cernea, M. "The Building Blocks of Participation: Testing a Social Methodology." In *Participatory Development and the World Bank*, edited by B. Bhatnagar and A. C. Williams. Discussion Paper No. 183, World Bank, Washington, DC, 1992.

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Last but not least, we repeat the Web sites suggested in a guide prepared by the GEF Small Grants Programme in Bhutan:

- Devline, located at the Institute of Development Studies (IDS) of the University of Sussex, UK, provides information on issues of economic, social and sustainable development from the IDS and the British Library for Development Studies. The Web site contains:
 - Databases
 - IDS research, teaching, training, publications, events
 - A large library on Participatory Rural Appraisal and other participatory approaches (for the Web page specifically dedicated to PRA, see www.ids.ac.uk/pramain.html, which also includes names and addresses of key people and organisations for PRA throughout the world) www.ids.ac.uk/index.html
 - The Food and Agriculture Organisation Web sites located in the People's Participation section of Sustainable Development Dimensions, which is a service of the Sustainable Development Department of FAO, in Rome, contains:
 - Plan of Action for people's participation in rural development
 - FAO People's Participation Programme
 - Ongoing participatory project and research activities supported by FAO rural institutions and participation service
 - Case studieswww.fao.org/waicent/faoinfo/sustdev/ppdirect/pphomepg.htm
 - The Overseas Development Administration (ODA) home page, located in London, UK, makes the following technical notes available:
 - Guidance Note on How to Do Stakeholder Analysis of Aid Projects and Programmes
 - Guidance Note on Indicators for Measuring and Assessing Primary Stakeholder Participation
 - Note on Enhancing Stakeholder Participation in Aid Activitieswww.oneworld.org/oda/

- The Participatory Action Research (PAR) Web site, located at Cornell University, Ithaca, NY, US, contains:

- PAR events at Cornell and around the world
- Institutions, course offerings and faculty
- Publications
- Practical advice and techniques

www.parnet.org

- The Participatory Learning and Action Web site, located at the Sustainable Agriculture Programme, IIED, London, UK, contains:

- Information on application of PRA methods (sectoral and regional examples)
- Lists of PRA practitioners
- Information on other participatory methodologies

www.oneworld.org/iied/resource

- The World Bank Participation Sourcebook Web site is located in the World Foreword, Table of Contents, What is the Participation Sourcebook? What is Participation?

- Chapter 1 — Reflections
- Chapter II — Sharing Experiences: Examples of Participatory Approaches
- Chapter III — Practice Pointers in Participatory Planning and Decision-making
- Chapter IV — Pointers in Enabling the Poor to Participate
- Appendices

www.worldbank.org/html/edi/sourcebook/sbhome.html

Annex E:

Monitoring, evaluation and learning — the Kendelevu way

The training in participatory planning methodologies carried out by Kendelevu, the Capacity 21 project in Kenya, has a built-in system of monitoring, evaluation and learning that operates at three levels in every training workshop. This evaluation is a process in which participants examine the strengths and weaknesses of the workshop that they have just been part of and identify the main lessons for themselves and the facilitators.

The first level of evaluation takes place at the completion of each major exercise in the workshop, when participants are asked the following questions:

- What was the most useful thing about the exercise?
- What was difficult about the exercise?

This evaluation helps participants:

- Reflect on what they have learned from the exercise.
- Provide feedback to facilitators on the effectiveness of the exercise, and how it could be improved in future.

The evaluation also enables the facilitators to find out what types of exercises and approaches are best suited to the participants and to make any necessary changes to the workshop.

The second level of evaluation takes place every day during the workshop. This consists of two steps:

Step 1: At the end of each day, participants are asked the following questions:

What did we do well today? What could we have done better?

This evaluation at the end of each day helps:

- Facilitators respond to the needs and priorities of participants.
- Workshop organizers deal with any issues before they become troublesome.
- Build the capacity of participants to reflect, analyse and take action.
- Participants learn lessons that they can apply in their own work in the future.

Step 2: A learning review at the beginning of each day enables participants to review what they have learnt during the previous day and to think about how they are going to use the knowledge. The learning review helps ground participants in the workshop at the beginning of each day.

A third level of evaluation takes place at the end of the workshop. This final evaluation is an opportunity for participants to provide feedback on the entire workshop and helps:

- Provide workshop organizers and project management with information about the degree to which the workshop has met its stated objectives.
- Enable facilitators to improve their performance in future.
- Identify strengths and weaknesses of the workshop methodologies.

(Prepared by the Kendelevu Team in Kenya)

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