Developing Management Information Systems
for
Community Learning Centres

A Guidebook

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The designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities, or concerning its frontiers or boundaries.

ABOUT THIS GUIDE

Developing Management Information Systems for Community Learning Centres: A Guidebook presents in a systematic way the steps to develop and operate a management information system for community learning centres (CLC-MIS). It targets primarily all individual who are responsible for operating and managing a CLC. It can also be useful for education administrators at the local, district, and provincial/state levels, as well as for those at the central education Ministries , in building nationwide CLC-MIS networks. For those who will be involved in CLC data collection, recording, analysis and/or dissemination, this guide offers information on not only the technical specifics regarding such operations, but more importantly on the overall concept and approach of the CLC-MIS, and the implications of his/her actions.

The guide contains seven chapters. Chapter 1 explains the importance of the CLC-MIS, and its role and purposes. Chapter 2 highlights the key functions of a CLC-MIS, the types of data that will be needed, plus the kind of tools that can be used to record and report such data. It is to be read with reference to the Annex, which presents corresponding examples of forms, reports and data summaries. Chapter 3 describes in more detail the way to start collecting and recording data at the CLC level. This is followed by Chapter 4, which explains in a step-by-step manner how to check, tabulate and analyze CLC-MIS data. Chapter 5 deals with subsequent functions of producing information outputs and reporting to higher levels of the educational administration. Chapter 6 then focuses on how different stakeholders can make good use of the information produced by the CLC-MIS. Finally, Chapter 7 describes important factors that should be taken into consideration when developing an operational CLC-MIS.

As these chapters are arranged in a logical sequence, it is recommended that the first-time reader follows this sequence in order to acquire a firm and systematic grasp of the basic concept and functions of CLC-MIS development and usage. Subsequently, during the actual development or operation of the CLC-MIS, the readers may selectively refer to specific chapters as deemed appropriate.

Countries and CLCs which have not yet established their own CLC-MIS are encouraged to use this guide in developing such a system. In the course of such developments, please systematically document the progress made, problems encountered, solutions adopted, and lessons learned. Your feedback of such salient experiences will help to further enrich and improve the methodology presented in this guide, which will be updated on a regular basis.

All related communication may be addressed to:

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FORWARD

Over the past decade, non-formal education for out-of-school children, adults and youth through community learning centres (CLC) has been spreading rapidly in developing regions of the world. The CLC activity underway in Asia and the Pacific accounts for some of the most prominent non-formal education delivery.

CLC development has spurred the need to match the quantitative increase in CLCs with qualitative improvements. Among a wide range of solutions proposed, strengthening CLC management has been identified as a key approach. It is believed that better management of interactions with local communities, resource inputs and learning processes will not only improve the overall relevance and quality of CLCs, but also create better outcomes and a far greater impact on learners and communities.

Access to timely and reliable data and information is key to sound management today. In pursuit of methods to promote the development of educational management information system (EMIS) in countries of the world, in 1993 UNESCO began conceptual and technical work on a non-formal education management information system (NFE-MIS). This led to the publication and wide dissemination in 2005 of the *NFE-MIS Handbook: Developing a Sub-national Non-formal Education Management Information System*. Feedback received during field work in testing and applying the Handbook identified the need to strengthen information management, especially within CLCs, both as the main source as well as the main user of such information.

It is with this objective in mind that the Asia-Pacific Education for All (APPEAL) programme of the UNESCO Regional Office for Education in Asia and the Pacific initiated in 2006 a project to develop a CLC management information system (CLC-MIS) by supporting field tests in Indonesia, Lao People's Democratic Republic (PDR), Mongolia, Thailand and Viet Nam. The outcome of this undertaking is *Developing Management Information Systems for Community Learning Centres: A Guidebook.*

We would like to take this opportunity to express our very warm thanks to all the country teams which participated in this project for contributing their findings and suggestions to this guidebook. Special thanks goes to Alex Stimpson and Chu Shiu-Kee for having compiled the many rich experiences and ideas into this practical guidebook.

With the wide dissemination of this publication, UNESCO very much hopes to encourage more countries, and particularly CLCs, to develop their CLC-MIS and, thereby, fundamentally improve the quality and impact of CLCs. UNESCO welcomes all feedback of experiences and ideas, which will be shared on the UNESCO APPEAL website and used in future programming.

Gwang-jo Kim
Director, UNESCO Bangkok

CHAPTER 1
INTRODUCTION

Why Establish a CLC Management Information System?

Community learning centres (CLCs) continue to multiply and spread into more geographical areas. To cater to the learning needs of local children, youth and adults who hope to acquire new knowledge, competencies and skills, CLCs are increasingly being established by local governments, community bodies and/or non-governmental organizations. CLCs can offer tremendous opportunities for spreading literacy, learning and training among children, youth and adults in local communities. By focusing on grassroot-level human development, CLCs can contribute to sustainable community development, and to improving local conditions.

However, CLCs still face issues concerning the relevance and quality of the learning services they provide, as well as inadequate community participation in these services. Much of society does not yet know what community learning centres can offer, nor do communities fully utilize the learning opportunities offered through CLCs. In addition, many CLCs operate in isolation, and lack information and resources to improve their capability and quality. This is caused by such factors as bad transportation, inaccessibility and difficult geographic conditions; high costs and limited budgets; inadequate skills in organizing and managing learning programmes; and lack of public awareness, community participation and support.

To address these challenges, CLCs must have strong information management procedures and outreach communication with local communities, as well as with other development partners at all levels. In this way, CLCs can generate awareness of, participation in and support for their activities. These actions are also necessary in order to increase CLCs' responsiveness and accountability.

Within each CLC, a more systematic collection and use of information can equally help to strengthen its programme efficiency, effectiveness and outcomes. Most important of all, a CLC management information system (CLC - MIS) can be used to help the CLC manager, management committee members, and facilitators to 'learn' and to regularly take action to improve CLC management and programme delivery.
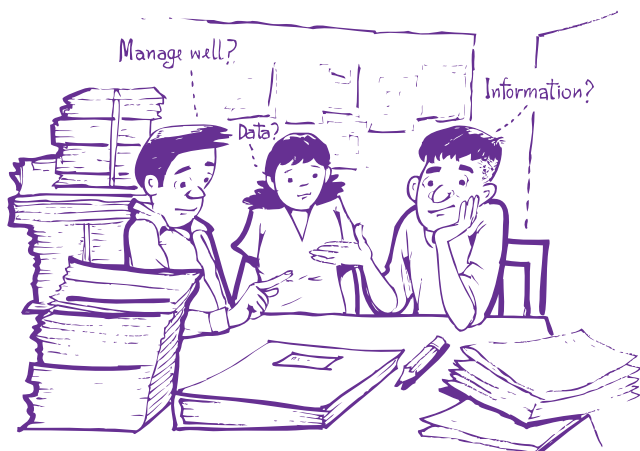
What is a CLC-MIS?

Definition

A management information system is an organized information and documentation service that systematically collects, stores, processes, analyzes, reports and disseminates information and data.

Figure 1 below shows how an MIS works. In Step 1, data are collected. In Step 2, they are stored and processed, either in paper records or through a computer. In Step 3, analysis is carried out to show salient results, which are then used to improve activities before they are diffused to the relevant information users in Step 4.

Figure 1: How a Management Information System Works

| Collect data | Store and process data in MIS | Analyze and use data to improve activities | Disseminate results and reports to target groups |
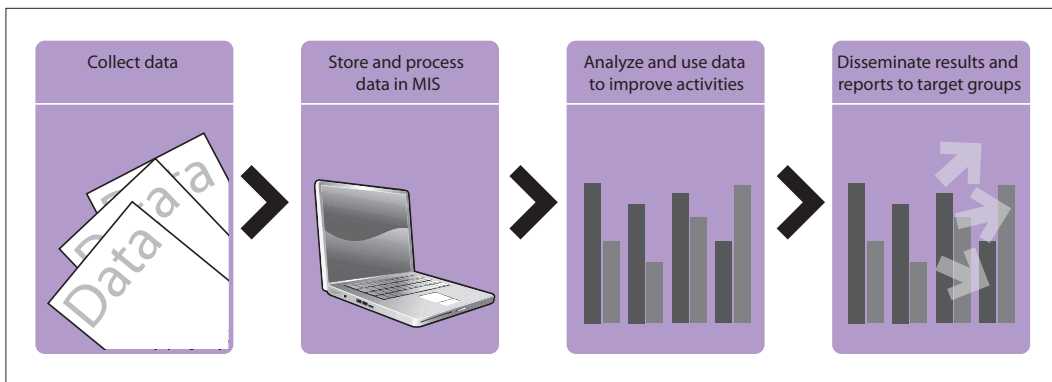
Importance of a CLC-MIS

A CLC-MIS performs all the above information management functions, specifically with information and data related to the CLCs. It is to be noted that the CLC-MIS can operate within a CLC, as well as at the district, provincial and central levels. Together these levels form an information network that facilitates the flow and shared use of information on CLCs (see Figure 2).

This information flow allows a CLC to better plan, manage and coordinate its programmes. The same is true for exchanging related information, experiences, expertise and learning resources.

Thus, the main purpose for developing a CLC-MIS is to establish a systematic collection, dissemination and use of relevant and reliable information about CLC activities, resources and results.

NATIONAL LEVEL

PROVINCE

DISTRICT

SUB DISTRICT

CLC

COMMUNITY

Information flows down from the national level to all actors, but only flows up via formal channels.

Not everybody has access to the same information.

National level

Province

District

District

CLC

CLC

CLC

CLC

Information can flow both ways between all levels of the non-formal education system.

i.e. between CLC and national level, between separate CLCs, or between districts.
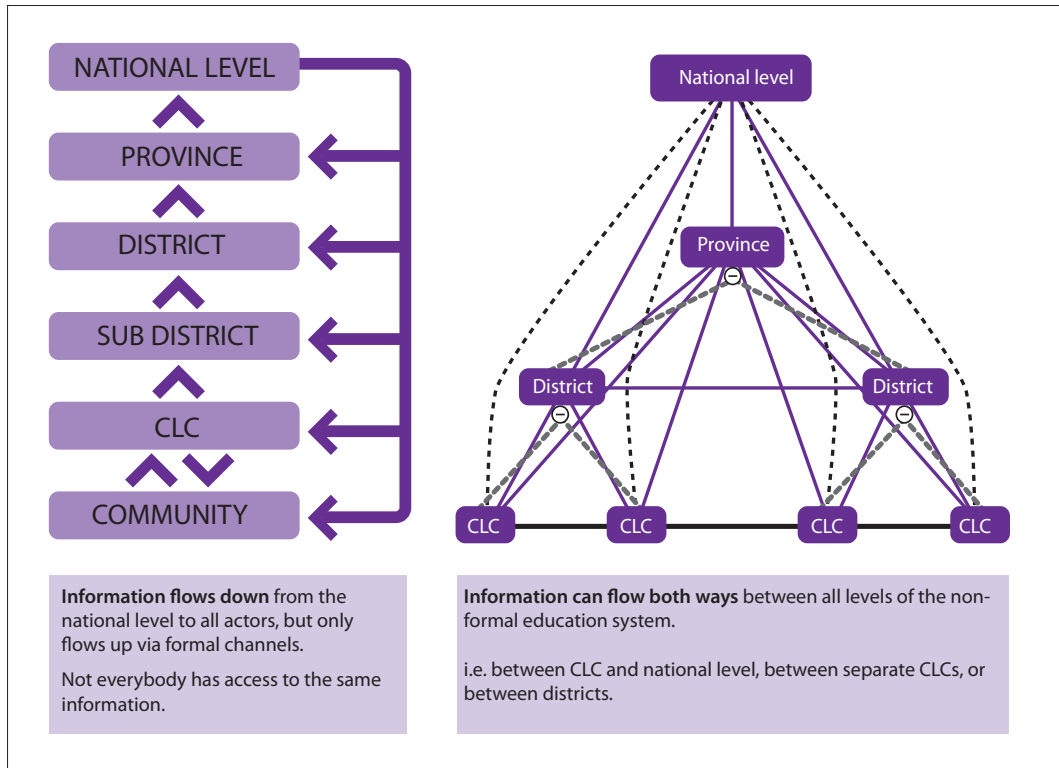
As shown in Figure 2, a CLC-MIS can operate within individual CLCs, as well as at higher levels of the educational administration. Together they constitute a CLC-MIS network. Taken as a whole, the CLC-MIS network can inform policy-making at both central and provincial levels; planning, management and coordination down to the CLC level; and, most importantly, widespread sharing of information and networking among stakeholders and learners. Each of these functions is discussed below:

Policy-making

Sound policy-making at the national level (including at the Ministry of Education) depends on the availability of relevant and reliable information. For example, a good understanding of the distribution of learning needs and of CLC activities within a country can help to assess how such needs are being met; where there are existing gaps, issues, priorities; and what kinds of policies and legislation will need to be adopted and implemented.

Equally important will be a continuous stream of feedback about policy implementation, especially regarding how local governments and partner agencies enact policies that provide resource support to CLCs and mobilize community participation. Feedback from

local communities and CLCs regarding the relevance, quality and impact of the learning programmes can further influence policies, as well.

Related CLC information can also help policymakers to establish standards and norms for improving the performance of CLCs and raising the quality of facilitators/managers.

Planning and Management

Information is key to effective planning and efficient management of individual CLCs and of CLC networks, as a whole. Information collected, stored and analyzed under the CLC-MIS can be directly utilized by the CLC manager for both day-to-day operations and forward planning. Secondly, CLCs can derive summary information from the CLC-MIS that can, in turn, inform higher education administrators to aid in policy-making, planning, coordination and government resource allocation.

Knowing where potential learners are and what they need to learn, and the factors that may affect their learning, are essential to designing programmes that closely respond to their needs. Using such knowledge when planning a learning programme, CLC managers can get a clear idea about how much financial, human and material resources will be required, as well as what other prerequisites and conditions should be fulfilled. This information will also illuminate what kind of partnerships and initial actions will be needed in order to mobilize resources and bring together the right conditions for launching a learning programme.

From the start of the learning programme through to its completion, the facilitator(s) together with the CLC manager must closely monitor learners' participation and progress in order to ensure that all (if not most) of the learning resources are available and utilized. They must also monitor to identify issues and solve problems that may arise during programme implementation. Finally, they will need to gather information about the number of learners who have or have not successfully completed the learning programme, together with student feedback evaluations that address the relevance and quality of the programme. Such evaluations can provide insightful lessons learned that will be useful in planning and managing future programmes. All these actions require systematic information gathering, analysis and use within CLCs.

It is through the CLC-MIS that systematic reporting of information from the CLCs can be established. In turn, this reporting enables higher levels of the educational administration to better plan and coordinate actions to promote CLC networks; ensure proper management in responding to local learning needs; and offer support in meeting national quality standards.

Information-sharing

A **stakeholder** is someone who has a share or an interest in the CLC, for example members of a CLC management committee, local leaders, educators, and members of the district education authority.

As highlighted above, promoting information-sharing is a major function of the CLC-MIS. This is particularly important for individual CLCs, which need to be in frequent contact and communication with the local community in order to know about their learning needs, to inform them about past and upcoming programmes, to mobilize their active participation and support, and to gather feedback on the quality of programmes organized by the CLC. A functional CLC will also regularly inform and maintain close relationships with relevant branches of the local government, local organizations, business enterprises and other stakeholders with a view to generating their support. A key task of the CLC manager is to continuously communicate with local facilitators and other suppliers of learning resources about on-going and upcoming programmes so as to solicit their collaboration.

At higher levels, the CLC-MIS will help to assemble and disseminate information on what is happening in various CLCs in terms of their programmes and achievements. The CLC-MIS should especially highlight new and innovative programmes, the latest learning resources, and outstanding facilitators. Such information dissemination allows CLC actors to learn about good practices that may be duplicated to help improve their own CLCs. Figure 2 illustrates how information can be exchanged between various actors in the CLC system.

No. of illiterates in the country

Total literacy classes in a year

No. of CLCs operating in the country

National Level

No. of CLCs in the district

Name of developmental agencies in the district

Local level

No. of illiterates in village

No. of learners in the literacy programmes

Grassroots level
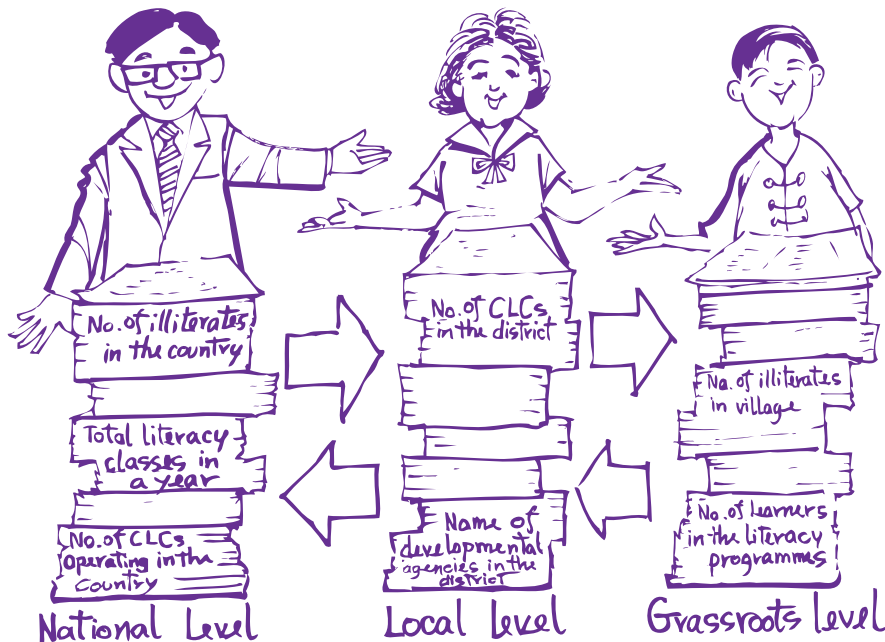
Networking

> **Networking** is a system linking together individuals and groups for sharing information and services.

CLC-MIS networking creates a supportive system that facilitates direct sharing of information and, hence, of ideas, experiences and resources.

Through the CLC-MIS, many CLC managers and facilitators can learn about the existence of innovative programme ideas and experiences from other CLCs. They can follow up by directly contacting other CLCs in order to exchange salient experiences and know-how in programme design, delivery, management and evaluation. Coordinated joint efforts may also develop among some CLCs to organize similar programmes. In such joint efforts, they may share their learning resources and become more cost-effective. Similar sharing of learning resources may also develop through networking with local schools and professional bodies.

In addition, by actively disseminating information about a CLC and about the kind of learning programmes it offers to the local community, branches of the local government, local organizations and business enterprises, a CLC can mobilize more active support and participation, and generate closer collaboration in organizing programmes that benefit them in return. For example, household health and sanitation programmes can be frequently organized at CLCs in cooperation with the local health department. Local enterprises may entrust certain pre-service training to CLCs, including raising the literacy level and life skills among workers.

Other Benefits

Many other benefits can be derived from a functional CLC-MIS. These are highlighted in Figure 3.

CLC-MIS Network Structure

As discussed above, a CLC-MIS is structured and functions as an information network. Within a CLC-MIS network, data are first gathered and stored by individual CLCs. Such data are used in the day-to-day management of the CLC and for information dissemination to local stakeholders. Data are then summarized and sent to higher levels of the educational administration for use in policy-making, planning, coordination, resource allocation, and performance assessment. The information can also be disseminated to wider audiences so as to build awareness, to mobilize support and participation, to promote CLC networking, and to share experiences and learning resources.

Figure 3: Benefits of a CLC-MIS
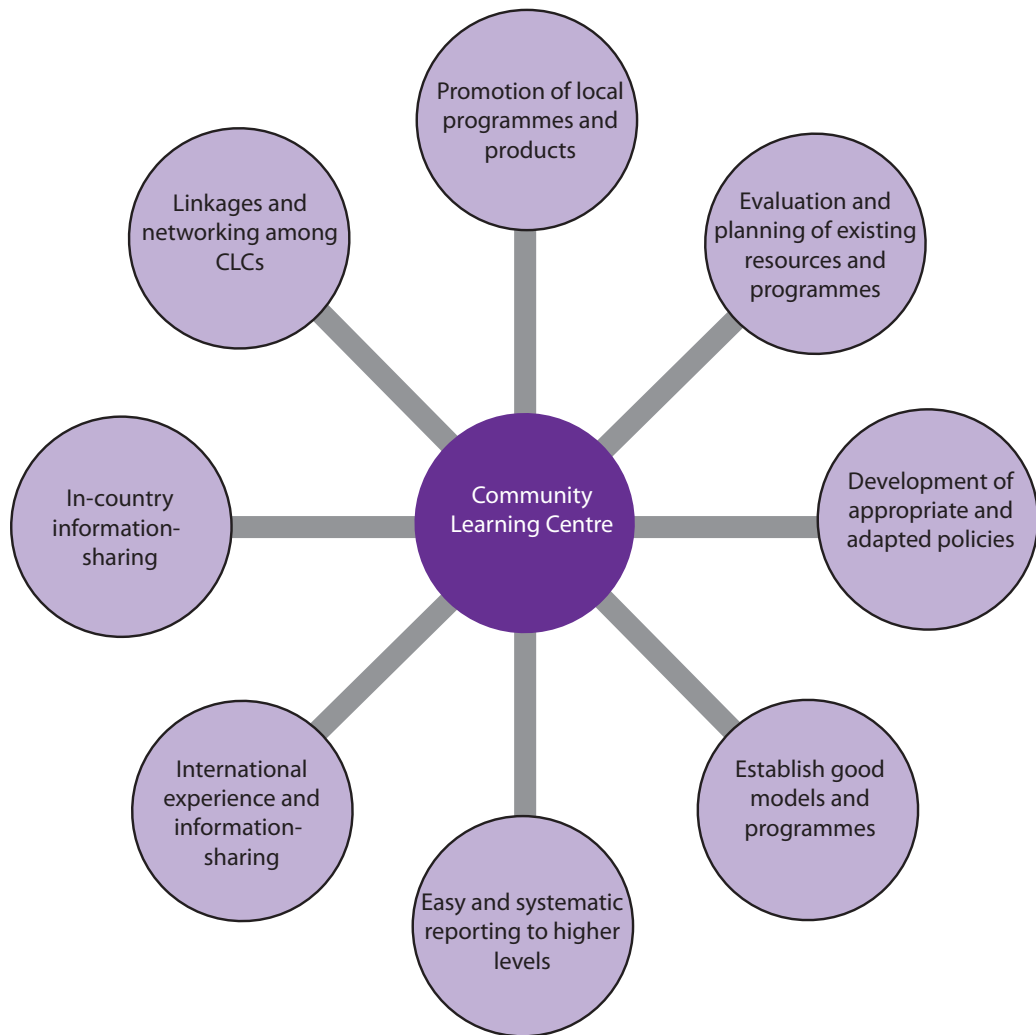
This guide focuses specifically on CLC-MIS development at the individual CLC level and its linkages to local stakeholders and higher levels of the education administration. Readers interested in knowing more about the overall concept and operations of NFE-MIS may refer to UNESCO's NFE-MIS Handbook.[1]

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1 UNESCO. (2005) *NFE-MIS Handbook: Developing a Sub-national Non-formal Education Management Information System*. Paris: UNESCO. This publication can be consulted or downloaded at: http://unesdoc.unesco.org/images/0014/001457/145791e.pdf

DATA MANAGEMENT INPUT

The below figure shows how a CLC-MIS works. Its working mechanism can be broken down into three broad phases: input, process and output. *Inputs* describe the kind of data which should be collected from different sources. *Process* explains the series of activities to process and analyze the data in order to arrive at various types of information *output,* which are the real benefits of a CLC-MIS. Each of these three phases is described in more detail in the following sections and chapters.

Figure 4: How a CLC-MIS Functions

Input (Preparation: what you need)	Process (Action: how to do it)	Output (What we get)
Data on:	Actions to:	Information about:
• Local population and learning needs • CLC activities • Human resources • Financial resources • Existing local learning resources • Policies and regulations • Network partners • Local group activities	• Review, modify, and complement CLC-MIS record-keeping tools in line with national reporting formats • Systematically collect and store data • Tabulate data • Analyze data • Validate data • Update and upgrade data	• Tables, graphs and reports showing CLC performance indicators and analysis • Descriptive list of past, present and upcoming CLC programmes • List of CLC facilitators • List of learning/training materials • List of equipment and facilities • Financial summaries • Analytical reviews of CLCs, learning programmes, performance and budget, population, programmes, facilitators, learners, etc • Network partners and agencies

The *input* phase of CLC-MIS data management concentrates on:

- Determining what data are required
- Identifying sources of data and information
- Considering the kind of data tools to be used

Input (Preparation: what you need)	Process (Action: how to do it)	Output (What we get)
Data on: • Local population and learning needs • CLC activities • Human resources • Financial resources • Existing local learning resources • Policies and regulations • Network partners • Local group activities	Actions to: • Review, modify, and complement CLC-MIS record-keeping tools in line with national reporting formats • Systematically collect and store data • Tabulate data • Analyze data • Validate data • Update and upgrade data	Information about: • Tables, graphs and reports showing CLC performance indicators and analysis • Descriptive list of past, present and upcoming programmes • List of CLC facilitators • List of learning/training materials • List of equipment and facilities • Financial summaries • Analytical reviews of CLCs, learning programme performance and budget, population, programmes, facilitators, learners, etc Network partners and agencies

The Importance of Data

The main concern of a CLC manager is how to know whether the programme(s) and activities organized at the CLC successfully serve the learning and developmental needs of the community. In order to find out, a primary task will be to collect related data and information, and then analyze them so as to find answers to these questions.

Data can be defined as information which can either be quantitative (e.g. 5 programmes; 3 facilitators; 38 learners; etc.) or qualitative (e.g. the main kinds of skills the local learners want to acquire; a learner's feeling as to whether a programme has been useful or not useful; etc.). In operating a CLC-MIS, both quantitative and qualitative data are collected and used. The two types of data complement each other and together paint a more complete picture about the performance of the CLC. This includes aspects of the CLC's operations that need improvement.

Kinds of Data to Collect

Much information and data are available within the local community. A regular task of the CLC manager is to tap into these data in order to closely monitor the match between learning needs in the local community and the CLC's programme activities. This is done by maintaining frequent communication with all related information sources, such as the local administration and their branches, local organizations, community leaders, school teachers, religious leaders, business enterprises, NGOs, and learners. Through them, information can be obtained about the geographical distribution, characteristics and needs of the local population; the local economy, labour structure and demand; development priorities; and learning needs.

A special focus may be given to data about disadvantaged population groups, illiterates, the poor, the unemployed, and females. If some of these data are either not available or unreliable, special surveys, interviews and focus groups may be conducted to collect additional information. These techniques are described in Chapter 3.

In data collection, a first step is to identify what kind of CLC management functions and issues would require data and information support. This will help to determine specific information items to be collected so as to illustrate the status and/or changes in such management functions, new issues and solutions. In addition to the learning needs assessment above,

considerations could include programme planning and delivery; human, financial and material resources management; and networking with local and outside bodies.

Scope of Data

For the majority of CLCs, the CLC-MIS will regularly collect, update, record and store the following key information items:

a)   Map of local area covered by the CLC
b)   Information on local organizations, bodies and partners
c)   Demographic information on local populations, i.e. by sex and age group
d)   Data on illiterates and their location
e)   Data about the educational attainment of the local population
f)   Data on unskilled and unemployed populations
g)   Data on poor families and other disadvantaged people
h)   Data on experts, teachers, skilled people and leaders capable of working for CLCs
i)   Data on learning activities conducted at community learning centres
j)   Data on learners and results
k)   Data on material resources and facilities available at the CLCs
l)   Data on CLC finance
m)   Data on networking, i.e. who the CLC networks with, how often and for what purpose
n)   Data on problems and issues encountered in implementing the CLC programme and activities

Once the different types of data that should be collected have been identified, the next step is to find out about possible sources for the data, and the channels, methods and tools to be used in the collection process. Some of these data channels and tools may be better suited for collecting quantitative data, whereas some others are better used for collecting qualitative data. In principle, information items (a) to (g) above can be obtained from the local administration and organizations, and data items (h) to (n) should be collected and recorded directly at the CLC. Thus, different CLC-MIS tools for gathering and recording data and information will have to be designed, developed and used based on the kind of data the CLC needs, and on the kind of data source, channel and method used.

Basic CLC-MIS Tools for Data Collection, Recording and Reporting

To ensure that essential CLC management information is available, reliable and useful at the source, a necessary step in the development of a nationwide CLC-MIS network involves efforts to strengthen and standardize systematic data collection, record-keeping and information use in all CLCs. Examples of a basic set of forms for CLC-MIS data collection and record-keeping, as well as summary reports that combine information from the list above, can include the following (see Annex for suggested content and design):

1. General information about the CLC and the community
2. Learning Programme Plan
3. Learner Registration Form
4. Facilitator Record
5. Inventory of CLC facilities and equipment
6. Inventory of CLC learning materials
7. Programme Evaluation Form
8. Learning Programme Report
9. Programme Management Summaries
10. Financial report on income and expenditure

Using the Forms and Reports

The **General Information Form** (see Annex, Form A) records information on the local community and its population. Also included may be descriptive information about the CLC, the kinds of learning programmes and activities it organizes, and the composition of the CLC Management Committee. As appropriate, related quantitative and qualitative information about existing disadvantaged populations, employment, the local economy, priority learning needs, etc. may be added. The information in this form is to be regularly updated as and when changes occur.

A **Learning Programme Plan** (see Annex, Form B) should be systematically prepared when a new programme is planned. It defines the intended learning objectives, scope, capacity, contents, methods, dates and organization of the programme. Its estimates of resource requirements will form the basis for allocating and mobilizing support.

Besides its use for planning and resource allocation purposes, the Learning Programme Plan also serves as a reference against which the final results and outcomes of the programme will be evaluated. For example, the number of learners actually registered in the programme, when compared with the planned capacity, can indicate how much the programme objective and design correspond to learning needs. Some programmes may have a lower-

than-expected number of registrants, whereas some others can be over-subscribed. Actual utilization of human, material and financial resources, as well as the resulting outcomes, may also be checked against the original plan.

For all learners joining a learning programme, they must confirm their intention to attend by completing a **Learner Registration Form** (see Annex, Form C). By counting and analysing the completed forms, one can know the number of learners registered in each programme, and their profile in terms of sex, age group, educational attainment and other characteristics. The profile and background information about registered learners given in this form can also be used to track learners' progress through the learning programme, outcomes, and eventually the impact through follow-up surveys.

In a similar way, the **Facilitator Record** (see Annex, Form D) is used to record profiles of people who can teach or facilitate learning programmes at a CLC. Such records must be kept for all facilitators who have worked for the CLC, and can also be used to record information about potential facilitators for the future. When all such Facilitator Records from different CLCs are reported and combined together for unified storage at the Ministry of Education, a national roster of CLC facilitators can be established. The roster can help individual CLCs to search for and contact suitable facilitators for conducting specific learning programmes.

It is standard practice for CLCs to systematically keep and update **inventories of physical facilities, equipment and learning resources (**see Annex, Forms E and F). Besides data on the quantity, description and date of acquisition of these facilities, such inventories should also contain information about the conditions of such facilities and equipment, as well as the frequency of their utilization. These can help CLC managers to decide on maintenance schemes and new acquisitions.

Towards the end of each learning programme, all learners should be required to complete a **Programme Evaluation Form** (see Annex, Form G), and submit it to the facilitator responsible for the programme. This evaluation form will gather information from learners regarding the design, content, method, organization and learning resources of the programme, especially as to how well these respond to their learning needs and conditions. Evaluations will provide first-hand information about the relevance and quality of the programme, which will be valuable for planning and conducting similar programmes in the future.

Most important of all, upon completion of each CLC learning programme, a **Programme Report** (see Annex, Report A) must be prepared by the facilitator(s) who conducted that programme, signed and submitted to the CLC manager. This document will report on what happened with the programme in terms of actual dates and duration as compared to the original programme plan; changes (if any) of programme objectives, contents and methods; the number of learners who registered and who completed the programme; the details of the facilitator(s) and learning materials and equipment used; and programme income and expenditure.

The **Programme Evaluation Form**, once completed by each learner, must be submitted together with the facilitator's Programme Report, in which a summary of the learners' evaluations will be included, as well as the facilitator's own assessment of the strength and weaknesses of the programme, lessons learned and recommendations.

The data contained in the Programme Report and other forms can then be utilized to prepare various **management summaries** (see Annex, Summaries B, C and D) for direct use by the CLC manager and management committee members, particularly with regard to the evaluation results and proposed follow-up action. They also constitute essential elements in the periodic reporting to higher levels.

Depending on specific local conditions and management information needs, other information items may be added to these forms and report formats. Other forms and reports, such as attendance sheets and ledgers of financial transactions, can be designed and used as well (see pp. 10-14 in Module Two of the CLC Management Handbook[2]). It is through the establishment of such systematic record-keeping and reporting at the CLCs that reliable and consistent data can be gathered and shared in operating an effective nationwide CLC-MIS network.
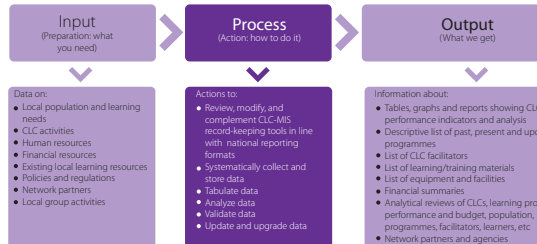
2 UNESCO-APPEAL. (2003) *CLC Management Handbook*. Bangkok: UNESCO. Download at: http://www2. unescobkk.org/elib/publications/clcmodule/CLC_Management_Handbook.pdf

CHAPTER 3
DATA MANAGEMENT PROCESS

Chapters 3 and 4 look at the *process* phase of the diagram. This chapter considers the main tasks of data collection, namely:

• the concept of data management
• how to collect data
• data sources and collection methods

Input (Preparation: what you need)	Process (Action: how to do it)	Output (What we get)
Data on: • Local population and learning needs • CLC activities • Human resources • Financial resources • Existing local learning resources • Policies and regulations • Network partners • Local group activities	Actions to: • Review, modify, and complement CLC-MIS record-keeping tools in line with national reporting formats • Systematically collect and store data • Tabulate data • Analyze data • Validate data • Update and upgrade data	Information about: • Tables, graphs and reports showing CLC performance indicators and analysis • Descriptive list of past, present and upcoming programmes • List of CLC facilitators • List of learning/training materials • List of equipment and facilities • Financial summaries • Analytical reviews of CLCs, learning programmes, performance and budget, population, programmes, facilitators, learners, etc • Network partners and agencies

Objectives of Data Management

In order to manage the data collected, a CLC manager has to set up clear objectives about the end-purpose of the CLC-MIS. The key objectives should include:

a)	to have complete, accurate, reliable and high quality data

b)	to have data that can be used to effectively plan, set up and manage learning programmes and activities

c)	to be able to disseminate data and information to relevant stakeholders

d)	to have data that can be linked to and shared with other CLCs and MIS systems

Components of Data Management

A number of tasks are necessary to successfully manage data. As described in Chapter 2 and the Annex, a first prerequisite in developing a CLC-MIS at the CLC level will be to define and promote the widespread use of standard record-keeping forms within CLCs in order to systematically collect and store the essential CLC management information. Such standard record-keeping practices can greatly help to improve the consistency and usefulness of data over time and across CLCs and learning programmes. Reporting to higher levels of the educational administration can also become much easier and reliable, thereby rendering policy support and coordination at the central, provincial and district levels more effective.

Some CLCs may already be using certain formats to keep records of programmes, learners, facilitators, learning materials, finance, etc. Samples of these forms and records can be collected and reviewed in light of the objectives listed above and the example forms that are provided in the Annex. Together with feedback from CLC managers regarding their

experiences and recommendations in using these forms, a set of national standard CLC record-keeping forms can be designed, field-tested and implemented in all CLCs. This, of course, does not rule out the possibility for some CLCs to record additional data in order to support their own specific information needs.

To promote widespread implementation of systematic data collection and storage using standardized record-keeping in the CLCs, the standard formats should be accompanied by easy-to-understand explanations and/or instructions. Where needed, training sessions may be organized for CLC managers and staff to use these forms in establishing a CLC-MIS at the CLC level.

To provide training in setting up a CLC-MIS, individual CLCs will need to consider the following:

1. How to form and coordinate the CLC-MIS team
2. How to manage the use of data tools, forms and equipment
3. How to collect, tabulate and analyze the data
4. How to coordinate the development of the reports
5. How to store, back-up, update and upgrade the data
6. How to present and disseminate the data for a variety of purposes

The Data Collector

Before data can be managed, it first needs to be collected from somewhere. It also needs to be collected by someone. This person is called the data collector and could include:

• CLC managers
• CLC management committee members
• Facilitators or teachers at the CLC
• Volunteers
• Community members
• Learners

In relation to the key information items (a) to (n) listed in Chapter 2, different people may be responsible for collecting specific types of data and information according to their role and contacts. For example, the CLC manager and key CLC management committee members may be responsible for requesting information on items (a) to (g) related to the conditions of the local population and economy from the local administration, organizations and business enterprises. The CLC facilitators, learners, other community members and volunteers can help to more precisely assess learning needs and record data items (h) to (n) regarding the functioning of the CLC.

An important issue to consider is the *capability* of the data collectors. Data collectors require prior training and preferably experience in data collection. They must fully understand the purpose of the data collection and how best to use the tools, methods and forms in gathering a maximum amount of data with minimum errors. Through their frequent

involvement in CLC-MIS operations, they can also accumulate experiences and dexterity in data collection.

Collecting Data in the Community

A data collector should take the following steps in order to effectively collect data in the community:

First, think about and try to understand the types of issues and questions that are relevant to the community and, therefore, the kind of information and indicators that will help to answer these questions.

Second, think about the type of data needed in order to derive useful indicators. This process will help to decide from where and from whom to collect the data, which tools to use for gathering data, and how best to go about using them to collect a maximum amount of reliable data. Following the guidelines that are provided by the Ministry of Education or another relevant governmental entity may help to do this. A good knowledge of local conditions/issues and the ability to speak to people locally will also help.
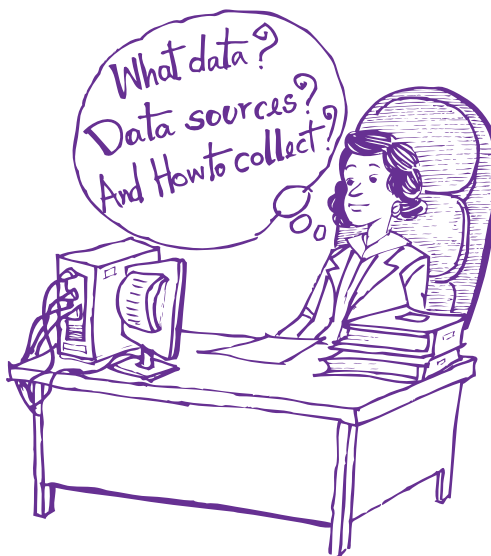
This is essentially an approach in which one thinks about the end result desired, and then one designs the process backwards in order to achieve this result. It can help if the question is always asked: "If I want to have ……, what do I need to do to obtain it?"

Third, using the information from the first two steps, the data collector should determine what kind of data collection method and tool to use, for example, via standard record-keeping forms, sample surveys, interviews, or focus groups (see sections below).

Some factors that affect the selection of method and tool include:
a) type of data desired
b) literacy level of potential respondents
c) time available to collect the data
d) funds available to collect the data
e) geographical condition, location and distance of respondent
f) skills and experience of the data collector(s)

Fourth, the data collector shall collect and store the data in standard record-keeping forms (see examples in Annex). For all these forms, it is a good idea to test them before widespread use by asking a small number of target respondents to respond to the questions. This can help the data collector to understand how to correctly ask the question and to make sure that the answers given are clear, unambiguous and respond to the questions. This is particularly important in ensuring the reliability of the answers because different people may understand and answer the same question in different ways. Or it may be that because a question is worded in a particular way, it leads people to answer in a *biased* fashion. Testing the form and then updating it based on the results of the test can help data collectors to improve the data collection and recording processes, and the *quality* of the data obtained.

Data Sources

Primary data can be directly gathered from respondents through forms, questionnaires, interviews or anecdotes (if heard or observed directly). Secondary data are data not directly obtained from key partners and learners, but indirectly obtained from other local people or bodies. Some of these other local bodies that can provide useful data for CLC-MIS are:

a) schools
b) health centres
c) businesses
d) village councils
e) agricultural cooperatives
f) local leaders (head of village, sub-district)
g) police stations
h) religious centres (i.e. mosque, church, temple)
i) local business entrepreneurs

Data Collection Methods

The selection of an appropriate method of collecting data is important because it can have an impact on the relevance and reliability of the information obtained. There are many different methods that can be used to collect data. These include:

1 Gathering data from existing records and information sources
2 Recording data and information on CLC activities
3 Conducting sample surveys of households and learners
4 Interviewing stakeholders and partners
5 Organizing focus group meetings
6 Anecdotes from local events, gatherings and contacts

Gathering Data from Existing Sources

As indicated in Chapter 2, the local government and its branches may have collected and stored detailed data about the local population and their characteristics, such as age, sex, address, family composition, educational level, employment, etc. Other local organizations and agencies may hold data about poor households, ethnic or linguistic minorities, illiterates, and disadvantaged population groups. Local business enterprises may know about their needs for skilled manpower, as well as the number of workers they need to train in different skills.

In order to more precisely assess learning needs and organize more effective learning programmes, the CLC manager, key management committee members and CLC-MIS staff must tap into all the existing data by regularly requesting the relevant government branches, organizations and business enterprises to provide the latest information.

Recording Data and Information on CLC Activities

Knowledge about what the CLC has done and is doing (including the state of progress of its learning activities) is very important not only for the CLC manager, but also for informing and mobilizing stakeholders. The CLC should systematically keep up-to-date records about the local population (see Annex, Form A); detailed plans of learning programmes (Form B); learners' applications and registration (Form C); facilitator records (Form D); inventory of facilities and equipment (Form E); records of utilization of learning materials (Form F); programme outcomes, including evaluation and reports (Form G and Report A); costs and finance; partner contributions; community support and involvement; and so on.

These records will constitute a crucial source of data for assessing the performance of the CLC and for informing its stakeholders. For example, information about learner registration in and completion of the programme, when analyzed, can help to see whether the programme responds to learning needs and also indicates the quality of results.

Conducting Sample Surveys of Households and Learners

In order to more precisely understand the development and learning needs in the local community, surveys of households or individuals may be conducted to directly ascertain learning needs. Such surveys can at the same time help to better understand the characteristics and conditions of different households and people, and how best to make them participate in and support CLC activities.

Sample surveys of past learners can also be organized to gather their feedback about the relevance and quality of learning programmes they attended, and what benefit they derived from the programmes.

A local household survey requires data collectors to collect data by visiting households in the community. This is a popular method of collecting data because data collectors can also observe and understand the real situation in the households, besides asking questions and recording responses. This method may be suitable for obtaining the demographic profiles of households, the education level of household members, their respective learning needs, health status, occupation, household income and expenditure, linguistic abilities, etc.

Once given the required background training, data collectors could be CLC managers, volunteer teachers, community members, or selected CLC learners.

Interviewing

A **structured interview** follows an established set of questions. These same questions are asked to all respondents. This is good for obtaining comparable data.

A **semi-structured interview** follows an overall framework of topics and an established set of questions, but allows for open, two-way discussions of the topics.

This method is similar to the local household survey by collecting information directly through face-to-face questions-and-answers with relevant respondents. Interviews can be either *structured* or *semi-structured*. In order to get accurate data, interviewers need to understand clearly the interview process and the advantages and disadvantages of various interview approaches so as to obtain data which are comparable across interviews.

Data collectors carry out interviews in order to get systematic and comprehensive data. Interviews can be conducted if:

• the data collectors want to get more detailed data

• some of the data required are in open-ended descriptive form (i.e. geographical condition, learning needs, behaviour, opinion, etc.)

• the respondents are illiterate and unable to complete forms or questionnaires

• the data collectors have enough time to get the data

An example of a CLC-MIS interview recording form is shown below. During the interview, the data collector must bear in mind the purpose is to as much as possible obtain clear, unambiguous and detailed answers to the questions. It is the collector's role to prompt the respondent for specific details, instead of recording only general ideas. The same approach applies to interviewing current or past learners and other community members.

Example 1: Interview Form

Time:	17 October 2008 10 am
Place:	House No. 6, Ta Lok Village
Officer:	Chapchai JAIDEE
Respondent name:	Mrs. Marisa SOMBAT
Sex (please choose):	male / female
Place of birth:	Ta Lok Village
Date of birth:	29 June 1983
Address:	House No. 6, Ta Lok Village
Literacy:	Cannot read and write
Housing conditions:	3 room wooden house with thatched roof
Conditions of environment:	Hilly with dense forest
Learning needs:	Read and write; health and hygiene; child care and ………. education; income-generation activities;

Data Collection through Focus Groups

Data collection through focus groups operates by bringing together the target people in one place to exchange views and discuss specific questions and issues.

During a focus group meeting, deliberate efforts can be made to focus the discussion on specific issues, to try to reach consensus, and to systematically record information from the exchanges.

This method can be a good way for collecting a wide variety of opinion in a short space of time. However, this method needs at least one facilitator per group. The facilitators also must very clearly understand their objectives and utilize different techniques to communicate with the group in order to draw out and record salient information (see Example 2).

Example 2: Meeting Note

Date:	Tuesday 11 February 2008
Time:	3-5 pm
Subject:	What are the latest learning needs?
Place:	Ta Lok CLC
Leader of meeting:	Mr. Sunan Apirak
Number of participants:	6
Result of the meeting:	
By order of demand: 1.	Ability to read and write; 2. Health and hygiene; 3. Fruit processing skills; 4. Bird flu prevention; 5. ICT

Anecdotes from Local Events and Contacts

Data and information can be collected during local events and gatherings, or during formal or informal contact with community members and other stakeholders. These occasions allow for observation of the stakeholders or target learners, and for listening to their views. Often this can lead to the recording of anecdotes and interesting information that is relevant to the CLC's work.

The advantage of this method is the spontaneity of people's expression and behaviour which, when captured, recorded, analyzed and compared, can yield valuable insights that cannot be obtained during an organized data collection or survey. If the data collector is not entirely sure about the data collected through the other methods, this may also be a way to clarify/verify the findings and conclusions.

With the information provided in Example 3, for instance, the CLC management committee might adapt its programme planning. From a practical perspective, committee members might consider holding the activity at an alternative time so that other people can attend.

Example 3: Anecdote

Date: Friday, 27 November 2008
Time: 11 am
Subject: Participation in CLC learning programme
Place: Food shop
Note: When I was in the food shop, I saw four young people who were enjoying their food. I heard them talking about one programme that was organized at the CLC. The youngest one said that actually he wanted to join the programme, but he felt ashamed. The person he was talking to said that she was interested, but because of the time it was being organized, she couldn't attend.
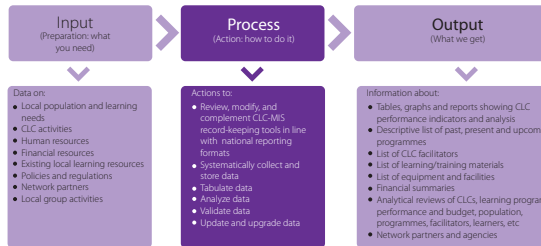
Selecting Appropriate Methods

• Use simple methods where possible.

• Try to involve stakeholders and/or learners in designing and testing the indicators and methods.

• Certain methods are best suited to collecting specific types of data, so choose the method carefully.

• If possible, try to verify the accuracy of the data collected using other sources.

CHAPTER 4
DATA MANAGEMENT ANALYSIS

As the second part of *process* in CLC-MIS data management, this chapter concentrates on:

- Data quality control and tabulation
- Indicators and analysis
- Updating and upgrading data

Input (Preparation: what you need)	Process (Action: how to do it)	Output (What we get)
Data on: • Local population and learning needs • CLC activities • Human resources • Financial resources • Existing local learning resources • Policies and regulations • Network partners • Local group activities	**Actions to:** • Review, modify, and complement CLC-MIS record-keeping tools in line with national reporting formats • Systematically collect and store data • Tabulate data • Analyze data • Validate data • Update and upgrade data	**Information about:** • Tables, graphs and reports showing CLC performance indicators and analysis • Descriptive list of past, present and upcoming programmes • List of CLC facilitators • List of learning/training materials • List of equipment and facilities • Financial summaries • Analytical reviews of CLCs, learning programme performance and budget, population, programmes, facilitators, learners, etc • Network partners and agencies

How to Tabulate, Analyze and Use Data

Analysis means to examine carefully and in detail so as to identify causes, key factors and possible results.

Information is a message told, read, or communicated that can be understood.

Data are facts and statistics used for reference or analysis.

The terms **data** and **information** are used inter-changeably in this publication.

Tabulating data means summarizing the data collected and recorded in various forms at the CLC into summary tables and charts that can be easily understood and interpreted. Analysis involves careful examination of the collected data, tables and charts in order to identify patterns, trends and exceptions so as to draw meaningful conclusions, issues and solutions. It includes using different types of data to calculate indicators that can give additional insights regarding the performance of CLC programming and management.

Tabulation and analysis can be done either manually (using paper, pen and calculator) or electronically (using computer). CLCs that are equipped with a computer can handle these tasks in a faster and more sophisticated way. However, suitable software should be selected and CLC personnel trained in its use. Depending on the amount of training the CLC staff members already have, experts may be needed to help in this process.

There are different phases in the data tabulation and analysis process. Firstly, data need to be extracted from the stored record forms and tabulated (i.e. put into tables). Secondly, indicators such as completion rates, cost per learner and learner-facilitator ratios can be calculated and added to the tables. Thirdly, graphs and charts may be drawn to visually present key trends or findings. This can make it easier for people to understand and use the information, since it simplifies and summarizes a lot of information into one picture. Fourthly, all the tables, charts and indicators can be analyzed together to review what actually happened at the CLC, and to identify the achievements and shortcomings if any, and any aspect that may need further improvement. For example: What were the problems? What are the potential causes of these problems? What can be done to solve these problems? Finally, these results together with the insights obtained and actions proposed can be presented or reported to the CLC staff, members of the CLC management committee, key local stakeholders, provincial and district education authorities, and the Ministry of Education.

Data Quality Control and Tabulation

From the very start of tabulation and analysis, one must be wary of missing and erroneous data, which can bias the analytical results and lead to wrong conclusions. Before tabulation, CLC-MIS data should be thoroughly checked following the steps below:

Step 1: Check for missing and incomplete records and data. First, check through all the CLC-MIS records, interview forms and information notes to make sure that all programme plans, learner registrations, attendance sheets, facilitator records, end-of-programme reports, inventories of learning materials, equipment and facilities, financial accounts, etc. are available and complete. If there are missing or incomplete records, the CLC staff member responsible for them must be asked to complete them.

Step 2: Check the accuracy of data. A closer scan of each of the above-mentioned records may be made to identify data omissions and obvious data errors that might have been made when collecting the data or recording them into the record forms and reports. Checking against other records and data sources can also help to identify missing data and erroneous data. The person who collected and/or recorded the data will have to clarify, rectify and complete these records.

Steps 1-2:
Data quality control

> **Step 3:**
Organize data

> **Steps 4-5:**
Tabulation

> **Steps 6-7:**
Additional tabulations and charts

After the data have been checked, corrected and completed, tabulation can take place following steps 3 to 7 below:

Step 3: Break down the data into categories, for example, learners by sex and by age-groups, facilitators by qualification, learning programmes and learning materials by type, etc.

Step 4: Begin tabulation by extracting data from the records and summarizing them into tables. To begin with, a simple table (see example SUMMARY B in Annex) may be made of the number of learners registered for a programme by first listing the names of learning programmes, and then counting the number of registered learners for each programme. When putting the counted number of learners against each programme name in the list, a simple table is ready. The total number of learners may be calculated and added to the bottom of the table to demonstrate the overall level of participation in all the learning programmes organized by the CLC. Such tables may be made for different periods of time, e.g. every month; every 3 months; every 6 months, every year, etc.

Step 5: Building on the simple table in Step 4, more data can be extracted from the registration forms and added, such as two additional columns showing respectively the number of male and female learners, or additional columns showing the number of learners by different age groups. To these may be added more columns showing the number of learners who have successfully completed each programme (if needed, also by sex or by age group).

Step 6: Similar tabulations can be made for the number of facilitators by qualification; of learning materials and equipment by type; and of expenditure and income by type, etc. (see SUMMARY C and D in Annex). Together with the tables suggested in the above steps, they constitute the basic tabulations produced by a CLC-MIS.

Step 7: As will be described in more detail in the next sections, the CLC-MIS data can then provide a basis for chart presentations and the calculation of various indicators to aid in assessing and managing the performance of the CLC and its programme activities.

How to Analyze Data and Indicators

A **performance indicator** is a measurement which shows how efficiently something fulfills its intended purpose.

The data tabulation methods suggested above can help CLC stakeholders to compare the sizes of different learning programmes in terms of the number of learners registered, to identify programmes in which no female learners were registered, or to ascertain how well CLC facilitators are qualified. Depending on what we want to know and understand, other simple analyses like these may be made directly by studying and comparing the figures in the simple tabulations to look for specific patterns, trends and exceptional cases, and to understand why certain outcomes happen.

In addition, an important next step will be to calculate CLC-MIS indicators to deepen the analysis and interpretation. Some of the key CLC-MIS indicators are explained below. For example, the **percentage of female learners and female facilitators** can be calculated for each of the listed learning programmes to examine gender balance. The **percentage distribution of learners by age group**, once calculated, will show the tendency of participation among people of different ages in different programmes. For a recurring programme that is repeatedly organized over time, this indicator can help the CLC manager to examine whether there is any change in the predominant age group from one programme to another - for example, whether there is a shift to younger or older age groups. Such a finding may call for appropriate changes in the design, content and method used in future programmes.

For each learning programme, dividing the number of learners by the corresponding number of facilitators provides a **learner-facilitator ratio**. This ratio can be used to compare the adequacy of facilitators and the workload among facilitators of different programmes in order to better plan future training, recruitment and deployment of CLC facilitators.

The same kind of ratio may be derived for different types of **learning materials and equipment,** and expressed as **ratio per learner**. Such ratios can help to assess whether there are enough learning materials and equipment for shared use by the learners. It is also important in CLC management to regularly assess the utilization rate of CLC premises, facilities and equipment. Their **frequency of use** should be recorded in terms of the number of times or hours used per week or per month.

Dividing programme expenditure by the number of learners registered, one can estimate the **cost per learner** so as to compare such costs across different programmes, as well as to mobilize adequate finance for organizing similar programmes in the future.

A particularly important CLC performance indicator is the **completion rate**. This can be obtained by dividing the number of learners who successfully complete a programme by the number of learners who originally registered in the programme. Completion rates can directly indicate output productivity and, hence, quantify the programme's performance.

At the same time, completion rates reflect programme relevance and quality, which are essential factors for retaining learners to the end of the programme. This indicator can be further analyzed by the gender and age group of learners, and cross-checked against the quality of facilitators, learning materials, methods, and other related factors.

It is worth noting that analyzing data takes both imagination and practice. There are many innovative ways to draw salient information, either directly by analyzing simple tabulations and charts, or indirectly by calculating and interpreting various CLC-MIS indicators. It might help to discuss CLC issues and information needs with CLC staff and stakeholders so as to identify additional indicators and analytical methods, and to exchange views on the interpretation of the results of analysis. For example, ask them: Do you agree on what the pattern and trend indicate?

There are still many other ways to analyze CLC data. Other methods that are frequently used include:

1. Arranging or ranking CLCs, programmes, facilitators, etc. in ascending or descending order according to different indicators.

2. Comparing performance indicators with other CLCs (e.g. completion rates; cost per learner; etc.), or over time (e.g. what change is there with respect to last year?)

3. Create charts or graphs to present the data visually. This can help to simplify the issues and improve understanding for subsequent planning of programmes or training courses.

Analyzing Tables and Charts

For CLCs that are equipped with a computer, the data in Example 4 below can be used with the 'Insert Chart' tool in Microsoft Excel to create two charts for four regions.

Example 4: Data Tabulation
By collecting the information about the population and literates, we can present the data as follows:

Region	Population		Number of literates		Literacy rate (%)	
	Total	Female	Total	Female	Total	Female
North	2,812,861	1,400,102	2,723,944	1,332,382	96.84	95.16
East	3,178,506	1,548,838	3,010,449	1,495,919	94.71	96.58
South	2,004,894	1,153,732	1,853,059	938,252	92.43	81.32
West	1,509,068	757,171	1,433,494	701,518	94.99	92.65

The first chart (Example 5) concerns the population and the number of literates by gender. With this chart, one can visually compare the length of bars showing population and the number of literates by gender in each region.

Example 5: Chart – Population and Literacy by Gender and Region

Population

Legend
■ Total Population ■ Total literates
■ Female population ■ Female literates

Regions: North, East, South, West

Y-axis: 0 to 3,500,000 in increments of 500,000
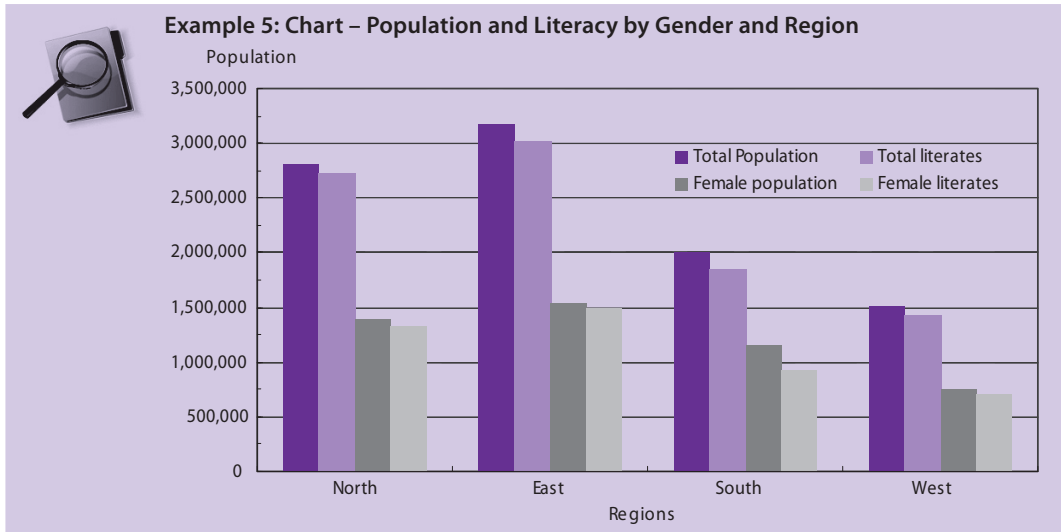
The second chart (Example 6) shows the female literacy rate in each region and compares this with the total literacy rate. Because the indicators are calculated as *percentages*, it is easier to compare the performance of the different regions. The first chart, which shows the *number* of people by region, does not take account of the differences in the size of the region as clearly as the second example.

So what does this chart tell us?

With this chart, it is easy to compare first the performance of, for example, the North compared with the South. Second, it allows us to compare the literacy rate for women in these regions as compared with the total population.

We can draw two main conclusions from this chart:

1. The *total* literacy rate in the South is low *compared* to the other regions. Additional focus should be placed on improving literacy in the South. Extra activities and ensuring the correct target groups are reached may help.

2. The literacy rate for *women* is lower than the total literacy rate in each of the regions, apart from the East. It is particularly low *compared* to the total in the South. Extra efforts need to be made to improve the literacy among women in these regions. In the East, because the total literacy rate is less than the rate for women, it implies that extra efforts are needed to improve literacy amongst men.

Example 6: Chart – Literacy Rate by Gender and Region

Region	Total	Female
North	96.8	95.2
East	94.7	96.6
South	92.4	81.3
West	95.0	92.7

Regions (vertical axis), % (horizontal axis: 70, 75, 80, 85, 90, 95, 100)

■ Total ■ Female
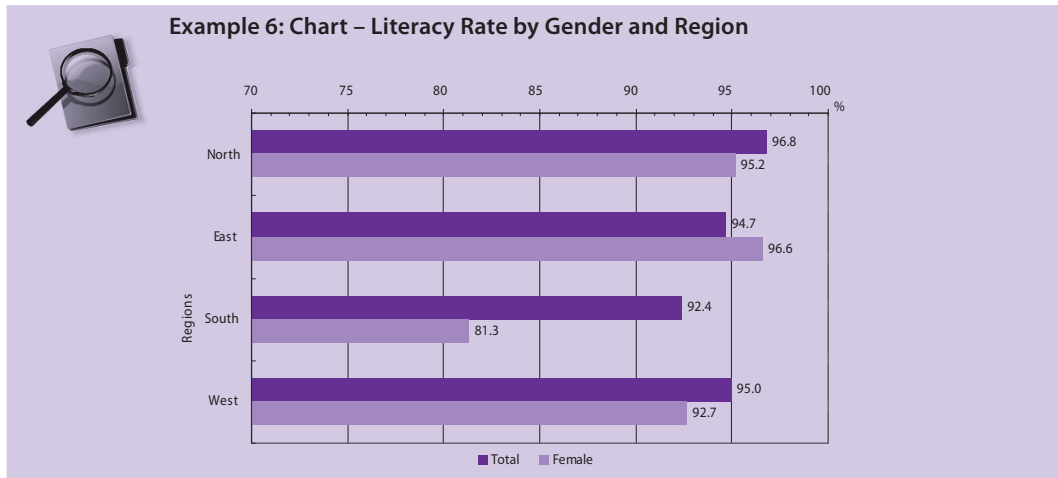
How to Update and Upgrade Data

Updating data is the process by which existing stored data or information is updated by adding more recent and up-to-date data. Upgrading data means to improve the accuracy, completeness, reliability and meaningfulness of the data, for example, by clarifying the definitions and classifications of data; filling in previously missing data; correcting erroneous data; rendering more efficient and reliable existing ways to collect or record the data; including new types of data and indicators; or upgrading computerized processing and analysis software programmes.

A CLC manager should update the CLC-MIS records or database as regularly as possible, especially according to the schedules of programmes and activities, and to various management and reporting requirements.

Regularly updating the data is of critical importance in CLC-MIS. Data analysis can only be as good as the data that are used to produce it. If the data are old and do not reflect the current situation, then the results of the analysis will be flawed and lead to wrong understanding, conclusions and decisions.

Similarly, the CLC manager should promptly upgrade data when there are changing policies and information needs by adjusting the record forms and databases (if possible, together with new computer hardware or software).

Importance of Ensuring Data Security

Stored data - whether on paper record forms or in computerized databases - can be accessed, altered, deleted or lost. This may be due to unintentional errors made by the CLC-MIS staff themselves, or as a result of intentional intrusion and action by other people.

Computers can also be affected by viruses. To protect against such events, the following actions should be taken to improve data security:

1. Limiting access to the record forms and/or databases
2. Making and keeping copies of essential data
3. Backing-up stored data when data is modified or updated
4. Setting-up anti-virus software or programmes in the computer
5. Updating anti-virus programmes at least once a month, but preferably once a week
6. Setting different passwords for different users
7. Setting-up permission requirements to use or change data with different levels of privilege
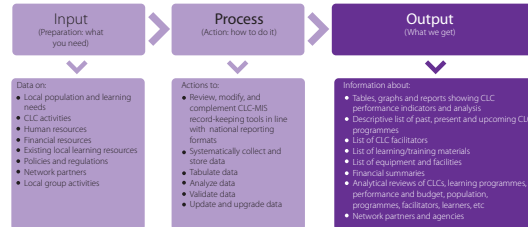
CHAPTER 5
DATA MANAGEMENT OUTPUT

This chapter looks at the *output* phase of the diagram. In doing so, it takes into account the processes of:

• how to produce the output
• how to report data
• how to send data

It also discusses some of the different types of output that a CLC should aim to develop.

Input	Process	Output
(Preparation: what you need)	(Action: how to do it)	(What we get)

Data on:	Actions to:	Information about:
• Local population and learning needs • CLC activities • Human resources • Financial resources • Existing local learning resources • Policies and regulations • Network partners • Local group activities	• Review, modify, and complement CLC-MIS record-keeping tools in line with national reporting formats • Systematically collect and store data • Tabulate data • Analyze data • Validate data • Update and upgrade data	• Tables, graphs and reports showing CLC performance indicators and analysis • Descriptive list of past, present and upcoming CLC programmes • List of CLC facilitators • List of learning/training materials • List of equipment and facilities • Financial summaries • Analytical reviews of CLCs, learning programmes, performance and budget, population, programmes, facilitators, learners, etc • Network partners and agencies

How to Report Data and Information

In general, the CLC-MIS reporting system will include the following:

1. CLC profile (including summary information on the demographic, social and economic characteristics of the community; learning needs; and profile of the CLC in terms of overall organization, management committee, premises, equipment, staffing, finance, etc.)
2. Learning programme management summaries
3. Facilitator/instructor profile summary
4. Learner profile and outcome summary
5. Inventory of learning resources and frequency of use
6. Financial summary
7. Evaluation from learners, facilitators, community leaders and members
8. Periodic and yearly CLC reports

At different programme levels and at various stages of programme implementation, these reports may be used by the CLC management, stakeholders, administrators and policy-makers within the education system to monitor and improve CLCs.

Data can be reported manually and electronically. Manual reporting can be done by completing standard data collection forms from the Ministry of Education, either hand-written or typed. Usually, these data reports are sent in hardcopy. With the spread of the Internet and e-mail, some countries have developed electronic reporting systems whereby CLCs fill out standard computerized data collection forms and then submit them via e-mail, or by directly accessing and filling out the forms on the Internet. Viet Nam and Indonesia have been known to have pioneered Internet-based CLC-MIS reporting and information dissemination systems.

In addition to filling out data collection forms, a good way of presenting key results is to make a CLC summary report. For periodic and yearly CLC reports, data may be reported following a systematic format. As an indication, the CLC report can combine the formats of the CLC Programme Plan and Report, and incorporate the Programme Management Summaries and Financial Summary. Extracts of the summary outputs (1) to (6) above, as well as more detailed tabulations, can be annexed to the report. Most important of all, the CLC report should highlight the key findings of the analysis, data interpretation, information and indicators, and implications for the future.

How to Present the Data

Simple or complex data and indicators can be presented manually or via computer technology. Presentation tools include:

a) Tables
b) Graphs and charts
c) Summary reports
d) Maps
e) Photos
f) Books or handbooks
g) CD-ROM, VCD, DVD

Examples 7 and 8 provide two common data presentation techniques - tables and graph charts.

Example 7: Table: Demographic Data in Sub-district XYZ

Province: FGH . . . .
District: PQR . . . .
Sub-district: xyz . . . .

No.	Village	Total Population	Female	Male	Number of Families
1.	A	1,500	800	700	605
2.	B	750	350	400	200
3.	C	650	300	350	200

This data could be further broken down by collecting and including information about some core learner groups, such as disabled people, housewives or immigrants.

Example 8: Demographic Data in Sub-district XYZ

Population (1000s)

If data for particular villages are presented using an Internet-based CLC-MIS, their performance could be presented as follows:

a)   Each village in the sub-district is presented in a map

b)   Key performance indicators are shown for each village or CLC when selected in the system

c)   A general description of the CLC is provided in addition to village or sub-district information

If a CLC does not have access to a computer, it is possible to prepare a manual data presentation, for example, by making tables, charts or pictures. These could then be posted at the CLC to inform those who use the facility.

How to Send Data and to Whom

Data can be communicated to other organizations in hardcopy or electronically, or both. This will depend on the available communication infrastructure, as well as on government policy and requirements.

The reader can refer back to Figure 2 in Chapter 1 to see the various types of information flow that can exist between CLCs and the different levels of a country's education system. A level higher than the CLC may be the district,

provincial or national level, and the lower level could be the village. The same level would be another CLC, the local government and its branches, local organizations, schools or other local bodies. If you have a networked CLC-MIS such as the one in the second example in Figure 2, where data are sent directly to the central level and are processed centrally and made accessible via the Internet, then information distribution is easier because any level of the education system can access the central CLC-MIS and know about the programmes and activities of other CLCs. Similarly, you can learn about many other CLC programmes and activities, and not just from those that choose to send you information.

Some countries may have a policy that data must be sent in hardcopy. Both hardcopy and softcopy distribution have their advantages and disadvantages, as seen in Table 1 below.

Table 1: Manual v. Electronic Data Sending

Distribution System	Advantages	Disadvantages
Manual	• Easy to do (human resources do not need computer skills) • It does not need electricity	• Can be costly, because of photocopy and postal service costs • Can be bulky due to number of pages • Takes time to arrive at its destination
Electronic	• Efficient • Easy to store • Quick distribution and reception via Internet	• Needs electricity • Needs good computer skills

USING THE CLC-MIS

This chapter provides some examples of the ways in which the information in the CLC-MIS can help in promoting and managing CLC activities. Data that have been analyzed and salient information that has been extracted by the CLC-MIS can be used in a number of different ways, such as to:

1 Distribute information
2 Solve problems
3 Develop strategy
4 Plan programmes
5 Evaluate programmes
6 Support policy-making

Each of these is considered in more detail below.

Distribute Information

Many people are simply too busy working to have time to inform themselves of the exact conditions and learning opportunities in their local community. CLCs can play an important role in raising local people's awareness of issues and changes in the local environment, and in generating their support and participation in learning programmes organized by the CLC. One way of doing this is to utilize the data and information produced by the CLC-MIS to inform the local population and stakeholders of relevant issues, and of CLC programmes and activities that can contribute to addressing these issues.
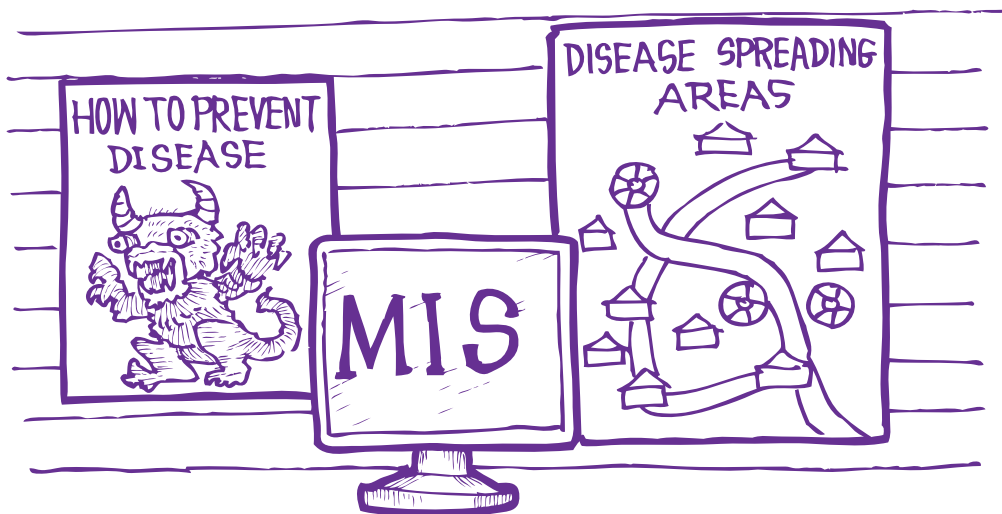
CLC-MIS data and analysis results

>

Presentation to the community

>

Community awareness, participation and support are increased

Steps to Distribute Information

Activities that should be conducted for the CLC to disseminate information to the local community include:

Step 1: Extracting information from the CLC-MIS on community conditions: local potential, local problems, community behaviour, daily activities and their impact, demography (by age and sex), education (number of illiterates, number of students, number of drop outs), local economy and skilled manpower needs, etc.

Step 2: Ensuring that the analysis and results are factually based on data collected and stored at the CLC-MIS, and are directly relevant to the problems and needs of the community. Such results may include assessed implications of the following for learning and community development:

• Distribution of the local population by sex and by age group (<15, 15-24, 25-34, 35-44, 45-54, 55-64, 65+)

• Literacy: number of illiterate and literate people

• Education: educational attainment of the local population, number of students, number of drop-outs from formal education (primary, secondary, senior high school), number of people participating in non-formal education

• Number of unskilled and jobless people

• Number of poor families and disadvantaged

• Number of teachers, experts, skilled people as well as fields of specialisation

• Problems in the community (social, economic, environmental, etc.)

• Potential resources in the community to improve conditions (natural resources, facilities that can be used for education and training, human resources, etc.)

• Map of the local area

- List of local enterprises and key businesses

- List of local cultural sites and traditional folklore that can be of interest for community and tourism development

- List of community leaders

- Actual and potential organizations which can network with and support CLC activities

Such results can be used to look at the current and future potential impact on members of the local community, and the kind of learning and training programmes that can be organized by the CLC to help to ease these problems.

Step 3: Presenting the results in simple and easy-to-understand ways, such as in leaflets, on wallpaper, in books, handbooks and in PowerPoint slides to be presented during local events. Efforts may be made to encourage such community events to be held at the CLC so as to showcase the CLC and its activities. This will help to raise community awareness, support and participation.

Step 4: One should not forget to use the CLC-MIS's data collection capacity to closely monitor and evaluate the results of CLC information dissemination activities. Some of the questions that might be asked are:

- Did the information reach the people who should be reached?
- Was the message clear and communicated effectively?
- Did the audience understand the key issues?
- Was the format appropriate or should another format, for example a leaflet, be used next time?
- What was the impact? For example, how many community members will participate in future CLC activities as a result?

Solve Problems

CLCs can play an important role in helping to solve specific problems in the local area and community through education and training of community people. With the data it collected and the information and analysis it produced, the CLC-MIS may identify problems that can be addressed by imparting specific knowledge, skills and behaviour to local people.

Steps in Problem-solving

Step 1: First, CLC-MIS data and information are utilized to identify problems within the community.

Example: *Many people become sick with dengue haemorrhagic fever.*

This would involve further questions and answers, including:

• What happened in the community (problems or obstacles), and what was its impact?
• How many people are affected?

Step 2: Analyze the data relevant to the problem and draw conclusions.

• Who gets sick and where?
• In which age group are they?
• What is their education level?
• How is their living environment like?
• What kind of jobs do they have?

Step 3: Develop alternative solutions.

• Provide health education about how to prevent the disease
• Train local people to clean the environment
• Try to reduce exposure to mosquitoes
• Immunize people
• Provide health treatment to those affected

Step 4: During and after the training programmes at CLCs and other bodies, the CLC learners directly support the community in applying the solutions by:

• Identifying target groups of people most at risk and their characteristics such as: level of education, environmental condition, age group, etc.;

• Taking action to explain to them the cause and effect of the disease, and ways to prevent it; and

• Assisting the target population to implement the solutions.

Develop Strategy

Strategy is the determination of the basic goals and objectives of the CLC, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals.

CLC strategy development is one of the most important reasons for setting up the CLC-MIS, collecting/analyzing data, and evaluating results. The determination of relevant CLC strategies must be supported by timely and reliable data and accurate analysis so that strategies can be realistically implemented in a way that responds to local community needs.

Figure 8: Strategy Development Process
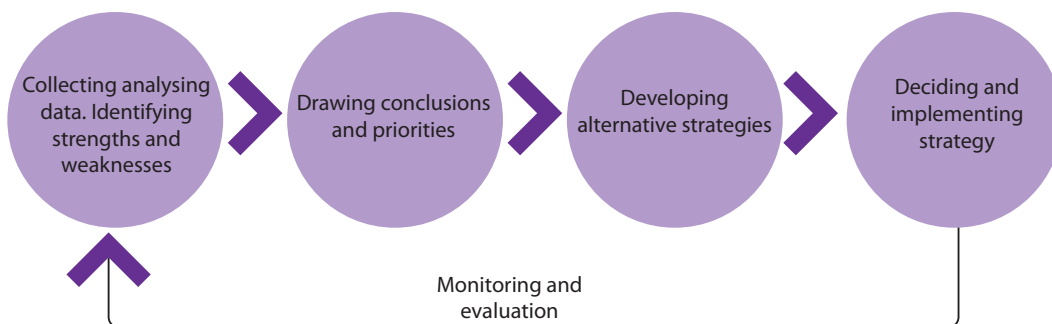
Steps to Developing Strategy

When developing strategy, it is necessary to pay attention to the following factors:

a)   Collecting and analyzing different types of data, which could consist of:

- Strengths or weaknesses of: community contributions, agency and village support, government support, natural resources, human resources, facilities, number of illiterate people, number and availability of learners, number and availability of facilitators, etc.

- Special grids to help analyze information

A grid for literacy programme conditions may look like this:

Subject	Strengths	Weaknesses
Population	5 teachers in primary school 2 skilled people in handicraft	55 young unskilled people in poor families and illiterate
Natural resources	Plentiful bamboo and wood Near tourist attractions	Environmental education needed regarding importance of sustainable natural resources
Networking	Local schools strong supporters of CLC programmes	Lack of coordination with other potential networking partners
Facilities	Everyone has some facilities that can be shared	There is a specific lack of machines
Support	Agency or Government non-financial support	Lack of funding

b)   Drawing appropriate conclusions about the strengths and weaknesses so as to identify priorities in the local community.

c)   Using this information to develop alternative CLC strategies that are relevant to community conditions and needs. These strategies might include:

   • literacy programmes integrated with life-skills training

   • programmes for unemployed young people (e.g. income-generation skills)

   • the 'application' of skills with a 'learning by doing' approach (learning in the workplace) in cooperation with local industries and services

d)   Determining the strategies which are most relevant and which can be implemented in the field. Implementing the strategy by first developing plans for organizing appropriate CLC learning and training programmes (see below).
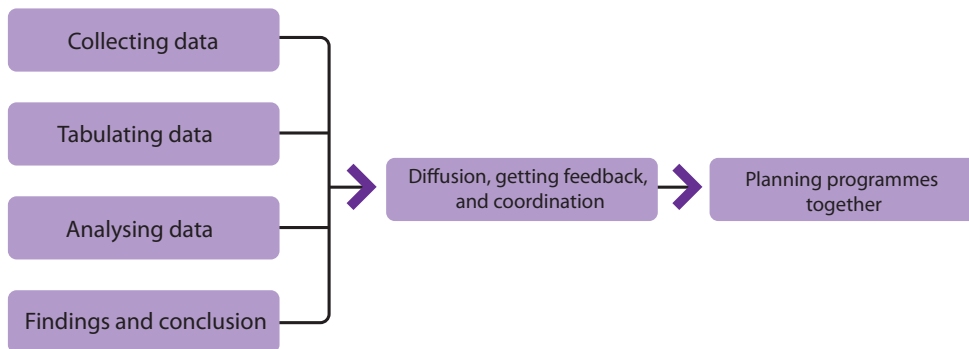
Plan Programmes

An operational CLC-MIS that brings together comprehensive data about local learning needs and about the CLC's capacity and performance is crucial to effective planning and management of responsive and effective CLC learning
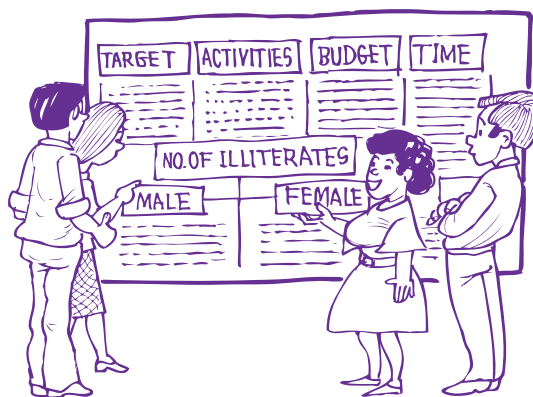
programmes. This effectiveness, in turn, works to mobilize resources from partners and other stakeholders.

Figure 9: Programme Planning Process

Steps in Planning Programmes

Step 1: By collecting comprehensive data on community conditions and needs, the CLC-MIS can conduct analysis and identify priority areas (and subsequent strategies) for programme development. Taking into account the CLC's capacity, a number of such programmes can be selected for detailed planning. Before going into detailed planning, the programme ideas and priority learning programmes should be made known to the local community, and a systematic effort should be made to gather feedback and advice.

Step 2: On the basis of community feedback, the final selection of priority CLC programmes can be made. Detailed planning can begin by fine-tuning programme objectives, contents and methods, and by then estimating programme capacity, timing and resources needed in order to respond to the identified learning needs. A careful review can be made of existing programme schedules at the CLC and the availability of suitable facilitators and learning materials. Other CLCs that have conducted similar programmes may be contacted for their advice and sharing of experiences and learning resources. Stakeholders at local and higher levels will be requested to mobilize funding and other support in kind.

Step 3: Once there are clear and positive answers to the above prerequisites, a detailed programme plan can be prepared which clarifies such issues as when and where the programme will be conducted, who will organize the programme, who will teach the programme, what will be the contents and methods, what kind of learning materials and facilities will be used, and how will resource support be provided, etc. An example of such a detailed CLC programme plan format is shown in the Annex, Form B.

Evaluate Programmes

Evaluation should be conducted systematically to assess programme effectiveness in planning, delivery, management, learners' achievement, impact on the community, etc. Besides using the analyzed CLC-MIS statistics and indicators in comparing learning programmes over time to understand performance trends and gaps, all CLC learning programmes should be directly evaluated so as to draw lessons from the stakeholders. As described in Chapter 2, at the end of each and every CLC learning programme all the learners must be required to complete an evaluation form (see Annex, Form G). The facilitator in charge of the programme will be responsible for collecting, analyzing and summarizing learner evaluations, and include salient elements in the end-of-programme report (see Annex, Report A), together with the facilitator's evaluation. The CLC manager and management committee can then draw conclusions and lessons from both sets of systematic evaluation results in order to adjust CLC strategy and plan future programmes.

Successful learning programmes at the CLC can have a positive impact on the learners and, through them, on the community as a whole. For example, by comparing data on community conditions before and after the programme, one can also identify the changes and draw conclusions about the impact of the programme. These data may be collected from existing sources within the community.

Such impact, or the lack of it, can be traced back to the adequacy and quality of resource inputs, how these were utilized during the CLC learning programmes, and other factors affecting learning results. By establishing the systematic evaluation of CLC programmes using the data the CLC-MIS collected and stored prior to, during and after each learning programme, a far-reaching mechanism can be put in place for continuously ensuring the quality and accountability of CLCs.

It may, however, be noted that changes in the community may be due to a combination of factors, among which the CLC learning programme is one. Care must therefore be taken so as not to overly attribute community changes solely to CLC programmes.

A recommendable additional evaluation practice is to gather from other key local stakeholders their views and opinions in order to better understand a programme's true impact. Such additional evaluation can take the form of interviews of local community leaders and people who have been associated with the CLC's work. They can speak about what outcomes/impacts on the people and local community they have observed as a result of the CLC learning programme, and what they think should be done in the future in order to improve the CLC's impact.

The most important stakeholders are the learners, themselves. They should be systematically asked to evaluate programme performance from their own perspective during and after participation in the programme. For example, learners can be required to indicate what they want to learn when they register to participate in a programme. At intervals during the

programme, they may be asked how they feel about the programme, and what they think should improve. At the end of the programme, each learner can fill out the CLC Programme Evaluation form, in which they can freely express their views about the objectives, design, contents, methods, outcomes, and quality of resource inputs into the programme.

All these evaluation activities under the CLC-MIS, when implemented on a systematic basis, will combine to ensure that the CLC can regularly update, upgrade and improve its learning services to the community.

How to Evaluate Programmes

Step 1: Collect data on a CLC programme that was conducted in the community, especially in response to the following questions:

• How many people registered in the programme?

• How many people successfully completed the programme at the end of the programme?

• What other concrete products or outputs are there from the activities?

• How much funding and resources (human and material) were necessary to support the activities? How does this compare to the expected level of funding and other resources needed?

• What do the learners and local stakeholders think about the relevance, quality and possible impact of this programme?

• With answers to these questions, one can compare the *planned* output or target with the *actual* output. It also allows for comparing the required resource inputs necessary to achieve a given output.

Step 2: Analyze and compare the data.

It is important that *performance* indicators like the ones suggested in Chapter 4 be systematically calculated and analyzed in order to properly evaluate programmes. Performance indicators can be obtained by comparing *planned* with *actual* results. For example, one activity may plan to successfully train all students in HIV/AIDS prevention education, but in the end only 65% of students complete the class. The performance of the course can therefore be judged as not to have met expectations and, if this is the case, one should think about what can be done to improve the completion rate next time.

Figure 10: Evaluation Cycle
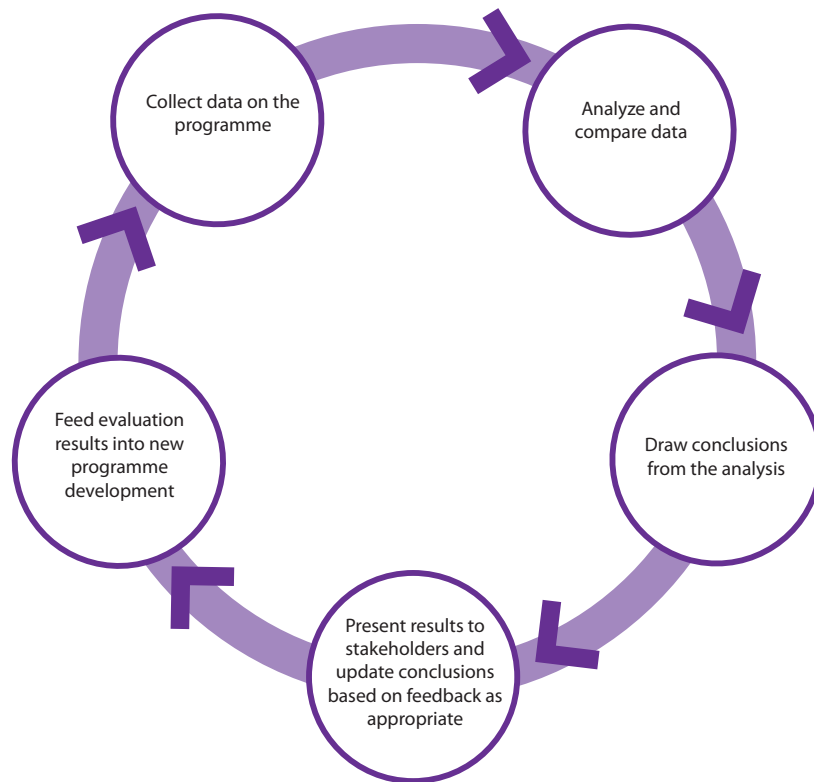
Step 3: Draw conclusions from the analysis.

• If there are many outputs or products and many people benefited, the programme can be continued.

• If the output is below expectations, this programme may need to be revised.

• If the programme does not give much benefit or there are only a few community members interested in attending the programme, a decision could be taken to stop the programme.

Step 4: Disseminate relevant parts of the evaluation results to the community, and actively seek further feedback from the community in order to update the conclusions.

Step 5: Feed the evaluation results into the processes of updating the CLC strategy and development of new programmes.

Support Policy-making

Complete and accurate CLC-MIS data can help the Government and other agencies to design policies, set standards and provide support to CLCs in community development. Data periodically reported by CLCs to the Government can update policy-makers on the latest developments and issues in the nationwide CLC network, and also inform them about changes in learning needs within local communities. The CLC-MIS therefore plays an important role in linking the Government and local communities in regard to learning, thereby ultimately promoting more responsive policies and legislative support that enable CLCs to become stronger and to provide more beneficial programmes to the local society.

Figure 11: How CLC-MIS Supports Policy-making
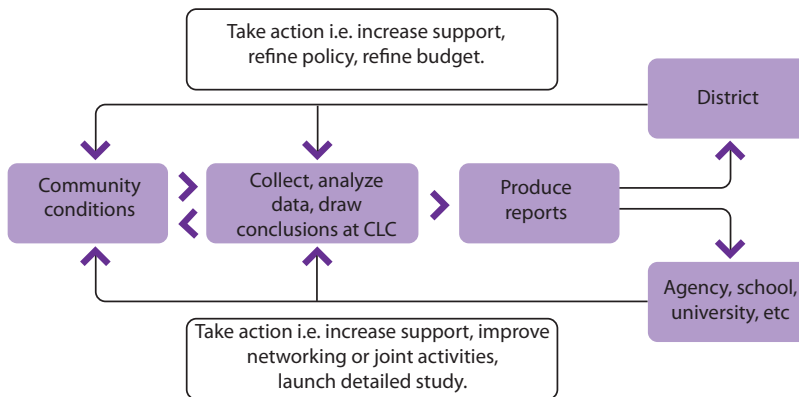
Steps to Support Policy-making

Step 1: Collect data in the community together with stakeholders. Data to be collected includes: population, target group, facilitators, local existing resources, networks, CLC activities, policy, etc.

Step 2: Analyze and draw conclusions broken down by:
• Population and target group
• Local existing resource support
• List of natural resources

- List of some problems or obstacles in the community
- List of human resources
- List of programmes that have been or can be conducted

Relevant results should be distributed to the community, bearing in mind that some segments of the community may be interested in one type of result (for example, problems related to literacy), while another segment may be more interested in another (for example, health). Results can be diffused in books, leaflets, as posters, or on CD-ROMs, VCDs, DVDs and the Internet, as deemed appropriate.

Step 3: Communicate with community and village administrators to get comments and support.

Step 4: Send data, analysis of results and programme planning to the district level, relevant agencies and perhaps also to schools or universities for special research.

Step 5: The government, agencies, schools or universities may be able to provide additional advice that helps to refine policy, funding, and other support. In this way, the CLC can enhance its accountability and may be able to mobilize additional funding.

CHAPTER 7
ESTABLISHING A CLC-MIS

Based on the CLC-MIS functions and operations described in the previous chapters, this chapter looks at the concrete actions required for developing and establishing an operational CLC-MIS within a CLC. It reviews the kind of resources needed and the organizational steps to take in defining a legal framework, mobilizing resources, and building capacity.

Resources Needed to Establish a CLC-MIS

Legal Framework

The establishment of a CLC-MIS should be backed by the adoption of government policies that clearly confer a legal status for the CLC-MIS to be an official information and reporting system for a country's community learning centres.

Such a legal status would on the one hand create necessary conditions for CLCs to take action to set up and operate the CLC-MIS. On the other hand, this will encourage local authorities and partners to cooperate in providing political, administrative and resources support. A third important purpose of the legal status is to ensure recognition within local communities of those people involved in the official data collection and dissemination functions of the CLC-MIS - both to make the service known and to gain cooperation in supplying data. A fourth purpose is to stipulate that the data and information disseminated by the CLC-MIS are official and reliable, and hence should be used as a principal information basis for CLC planning, management and coordination. This fourth purpose would also motivate those involved in the CLC-MIS to ensure that their activities produce information of the highest possible quality.

For government agencies at all levels, the CLC-MIS policy and legal status, above all, help to generate commitments of support from high-ranking authorities, which is crucial to establishing an effective CLC information network. Such support can include the provision of human resources, budget allocation, supply of facilities and equipment.
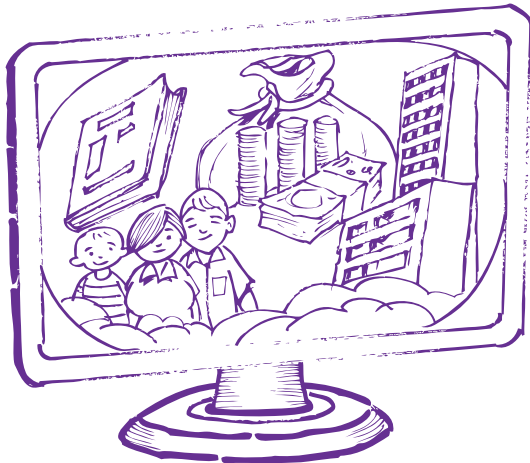
Human Resources

As can be understood from the previous chapters, all persons in a CLC who are involved in collecting, recording, processing, analyzing and/or disseminating data and information contribute to the operations of the CLC-MIS.

The number and skill level of the human resources required to operate the CLC-MIS depend on the scale of a CLC's activities and the amount of data to be handled. As discussed in Chapter 3, the CLC management staff and programme facilitators are the main people who collect and record the data. They can be assisted by selected learners and community volunteers in gathering information from households and from potential learners during sample surveys and interviews.

Facilitators are specifically responsible for ensuring full registration of learners in the learning programme, tracking their attendance, and recording completion results and evaluations.

The CLC manager and staff involved in CLC management, finance and logistical support constitute the core group of people who are responsible for processing, analyzing and disseminating CLC-MIS data. If the amount of work and the expertise required to operate the CLC-MIS are beyond the capacity of these staff, specialized CLC-MIS staff may be added. This can particularly be needed if the CLC-MIS is computerized.

In the local setting, some of the competencies needed to develop and operate CLC-MIS are listed in Table 2 below.

Table 2: Basic Competencies Needed for Operating a CLC-MIS

Position	Competencies, experience and / or knowledge
CLC managers / CLC Committee	Programme planning and implementation Needs assessment Monitoring and evaluation Data collection Data management Data analysis Reporting and presentation skills ICT skills Resource mobilization and management Networking Group meeting facilitation
Facilitators and trainers	Needs assessment Training design and facilitation Presentation skills Monitoring and evaluation ICT skills Interview /communication skills
Community leaders	Community needs identification Meeting facilitation

In developing its CLC-MIS, a CLC can call for technical assistance from other CLCs with a more advanced CLC-MIS or from higher levels of the educational administration for capacity-building, training, and advice on CLC-MIS operations. They might also help to search for and provide expertise from other CLCs or related agencies within their local or neighbouring area.

If there is a shortage of staff for developing a CLC-MIS, the local administration or community leaders may be able to provide support in assigning appropriate and adequate staff to work with the CLC-MIS. Their role and vision are very important to ensure sufficient support is provided to the CLC-MIS.

The CLC-MIS could also be supported by school teachers or volunteer retirees who have strong experience in data and information work.

Financial Resources

Financial resources can be mobilized from the local governement, agencies, NGOs, industries, businesses, and community bodies. Face-to-face meetings with them to introduce the benefits of the CLC-MIS can help to increase understanding and develop interest in this

and other CLC activities. For example, the CLC-MIS can provide information about past and planned learning programmes that relate to the local economy and skill requirements which fit with business interests and strategies. In consequence, the CLCs can call for financial support to learning programmes that address these needs.

Other financial resources could come from:
• Budget allocated for promoting and implementing government programmes in the area
• NGO and donors' project funds
• Contributions by learners
• Donations

Infrastructure and Material Resources

Infrastructure and material resources needed for the CLC-MIS include:
• Provision of basic facilities: room, furniture, electricity, telephone line
• User guidebook, ICT handbook, training materials
• Other necessary materials: stationery, filing cabinet, calculators
• Reference documentation: policy, rules and regulations, tutorials, etc
• Other CLC-MIS supported equipment: computer, Internet access

These resources are mainly required for CLC-MIS operations of data storage, processing, production and dissemination. If funding is available, the equipment can be purchased or rented. In-kind contributions of equipment, supplies and manpower in setting up the physical facilities for the CLC-MIS can also be accepted from the local community.

Information Resources

Today, information is becoming an increasingly important resource for community development. The CLC-MIS relies on the supply of data and information, and in turn disseminates information to benefit the local community and stakeholders (see Chapters 5 and 6).

Via the CLC-MIS, information exchange and networking help to share experiences, expertise and learning materials with other CLCs. Similarly, the system allows one CLC to access and benefit from learning resources and materials developed by other CLCs. This is a good and cost-effective way of learning about new and innovative types of activities other CLCs are involved in, and the results that they achieve in the process.

A primary function of the CLC-MIS will be to continuously search for and access relevant information and data, and to integrate them into the CLC-MIS database. As described in Chapter 2, much of this information is available and can be obtained freely, but some will have to be recorded or collected by the CLC. The adoption of CLC-MIS development policies and legal status would give additional impetus and backing to the active mobilization and acquisition of information resources for the CLC-MIS.

Mobilizing Resources for a CLC-MIS

Good coordination and networking among relevant agencies and organizations from central to grassroots levels can help to mobilize resource support for a CLC-MIS.
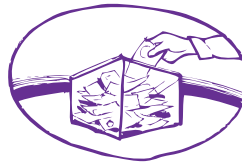
DONATION

The CLC manager and management committee members can actively participate in the process of developing the CLC-MIS, and at the same time advocate and lobby for further financial support and technical assistance from the local bodies to higher levels (e.g. district education authority) up to the central level.

VOLUNTEER

FOLK MUSIC

The resource mobilization process will be helped if information and benefits of the CLC-MIS are at the same time disseminated and demonstrated. This is because by improving needs assessments,

AWARENESS RAISING

data collection and analysis, local stakeholders and upper levels in the education system will see the value of the results and, thereby, will encourage overall support for the CLC-MIS.

The following activities can help to mobilize resources for the CLC-MIS:

1. Nominating a CLC-MIS focal point at the CLC for systematic MIS operations management, reporting and feedback. This person should be responsible for assisting the CLC manager in resource mobilization.

2. Creating and publicizing a clear and operational action plan for developing and using the CLC-MIS in the local community.

3. Submitting this action plan to local and higher authorities for feedback, consultation and support.

4. Creating good networking linkages with other agencies, local institutions, schools or other sectors during the developmental stage of the CLC-MIS action plan. This will raise local awareness about the project and may help to encourage local financial or other support.

5. Involving community people to raise awareness. This can increase support by encouraging them to participate and help develop the CLC-MIS, for example by actively participating in the data collection either as volunteers or as data suppliers.

6. Developing a campaign for mobilizing resources for the CLC-MIS, including selecting some potential donors, deciding how to approach them and determining how to effectively communicate the system's benefits.

CLC-MIS Capacity-building

Capacity-building includes training provided to improve the competencies of specific target groups.

Capacity-building includes training provided to improve the competencies of specific target groups at the CLC, such as managers, data collectors, facilitators or relevant partners. Capacity-building is important for the CLC-MIS because the system must be managed and operated in a systematic and technical manner.

There are many different ways to build a community's capacity. These include formal training (such as workshops), one-on-one training, on-the-job training, field visits and study tours. There are also less formal ways of training, such as through community meetings, peer learning or participatory activities. Different capacity-building methods are discussed below.

Formal Training

Formal training includes orientation, seminars, and workshops conducted by professional training institutions or government departments offering specific programmes designed to address the MIS training requirements of individuals or organizations. CLCs should actively seek out these training opportunities and send CLC-MIS staff to take part in order to acquire specific competencies needed for developing and implementing the CLC-MIS.

The length of the formal training will depend on the subject being covered. This kind of capacity-building often includes a demonstration of skills. Good training should also provide the opportunity to actually apply the competencies learned, developed or strengthened. This process ensures that trainees internalize the skills they need.

CLCs should be able to find information about different kinds of MIS training offered by relevant agencies and bodies.

One-on-One Tutorials

One-on-one tutorials, where the trainer and trainee work together intensively face-to-face, are effective in developing or strengthening the capacities of individuals who have difficulties learning in large groups. They can also be used to focus on specific skills that the rest of the group may already have, or if the trainee is expected to pass on the skills to other members of the CLC or community. Generally, for this latter case, it is better if more than one person attends the training so that if one member does not understand one part, the others can help. The participants of this training might include:

• CLC managers
• CLC administrative staff
• Facilitators
• Volunteers

CLCs can invite the trainer to the CLC or alternatively send the selected trainees to attend the training organized at the trainer's host institution. This training can be used to learn about various aspects of CLC-MIS operations such as how to enter data, process and analyze data, or present information and draft reports.

On-the-Job Training

On-the-job training is an activity where participants are in the actual workplace and so can observe and at the same time "learn by doing." The participants of this training can be:

• CLC managers
• CLC administrative staff
• Facilitators
• Volunteers

On-the-job training is very useful for acquiring manual and manipulative CLC-MIS skills, such as collecting data, keeping records, entering data into computer, analyzing, upgrading or updating the data.

CLC management committees or managers can obtain information about what and where they can find the training placements, depending on the needs of individuals and the host organizations, as well as the conditions. Workplace conditions that would be beneficial to successful capacity-building of CLC-MIS staff are:

• Possibility to develop computer skills to make full use of the CLC-MIS

• Possibility to cooperate between institutions and enhance networking activities

Field Visits and Study Tours

Field visits or study tours are important activities to build the capacity of CLC-MIS personnel. These activities can help them to observe and gain more exposure to and experience in CLC-MIS operations by learning about what others have been doing. Based on CLC-MIS information from other more advanced CLCs, the CLC manager or management committee can decide on the best place to visit, depending on the time, costs and specific capacity-building needs. However, the leader of the field visit or study tour should make a decision based on good information and knowledge of the place to be visited, ensuring it contributes significantly to the capacity of the people involved. Careful attention should be paid to the overall cost of the field visit to guarantee that these funds can not be better utilized in developing other aspects of the CLC-MIS.

Distance Learning

Distance learning means that the learning is not carried out face-to–face, but through correspondence, audio-visual aid, or telecommunication, including the Internet. This is especially convenient for working people who can receive learning materials and study at home by themselves during their spare time. After studying the materials, the learners need to fulfill some tasks as requested and hand in their assignments for evaluation by the trainers/teachers. Many learning resources on MIS and CLC can also be accessed and downloaded from various websites with open courses.

Community Meetings and Information Dissemination

A community meeting is an activity aimed at discussing critical issues, problems, and concerns that need to be discussed with members of the community. The participants can be:

• Community leaders
• Volunteers
• Managers / CLC Committee
• Teachers
• Members of the community
• NFE officers

Participants can improve their competencies with this activity. Meetings require the active participation of people in openly discussing and resolving strategic and other issues, as well as in taking appropriate action.

Meetings can be held any time community members or leaders want to discuss, and can be conducted in the CLC, a building belonging to the village, a house in the community or anywhere else quiet and comfortable enough for a meeting.
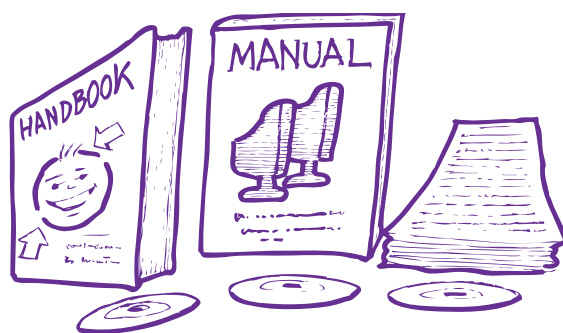
It is equally important that a CLC-MIS regularly update the community, their networking partners and the upper levels of the education system with new information regarding what is happening in their community and in the CLC. This information-sharing helps them to understand the achievements and issues facing the CLC, which encourages support to the CLC.

In addition, CLC managers and facilitators can find a lot of information (policy, good practices, lessons learned, etc.) and reference materials like handbooks, tutorials or user guides from government offices and other agencies for use in CLC-MIS capacity-building.

The dissemination of CLC-MIS newsletters, leaflets and posters may also be suitable for general awareness and capacity-building in the local community.

For those CLCs with an Internet connection, the Internet can also act as an information source. CLCs can access administrative and other popular websites to update information for their daily CLC management and operation, as well as to broaden their networking.

Information and Communication Technology (ICT)

This type of training is good for human resource development at CLCs, particularly for CLC facilitators, trainers or full-time staff who are called upon to operate the CLC-MIS. It will facilitate data management in a rapid, accurate and effective manner. Many topics can be provided for basic computer training:

- Typing skills: Free software can be downloaded at various web links for individual practice.

- Data entry

- Basic MS Office skills such as Word, Excel and PowerPoint: MS Word is needed for documentation and reporting, whereas Excel is used for accurate and automatic calculation of indicators as well as to create charts and graphs for analyzing data. PowerPoint, meanwhile, can be used to present the information in interesting and interactive ways.

- Internet access and information exploration: Lessons should covers creating an e-mail address, using the Internet to search for and research information, and using e-mail and the Internet to share results with other institutions.

- Basic maintenance of hardware and software: CLC staff can run various programmes, such as virus scanning and simple repairs. This kind of task should be done regularly.

Participatory Community Activities

Other kinds of community activities can also facilitate capacity-building for CLC-MIS staff - for example, communication skills, management and understanding of the participatory approach. Such activities require the involvement of community members and the active collaboration of CLC staff and community leaders, as well as partnership with related stakeholders. Local cultural and other community gatherings at stadiums, schools, or religious gathering places can help people to initiate their interest in participating in CLCs and local activities.

Peer Learning

Peer learning is an effective participatory learning or capacity-building technique for CLC-MIS staff. This can be conducted informally in pairs or groups of CLC staff, between CLC staff and the community, or through local wisdom. The learners can discuss their concerns in an open and supportive manner, and also work out recommendations. During the process, they can build on their confidence in operating a CLC-MIS, communication skills and presentation skills. This kind of capacity-building can take place at any time and at any convenient venue (temple, meeting room, households, etc.).
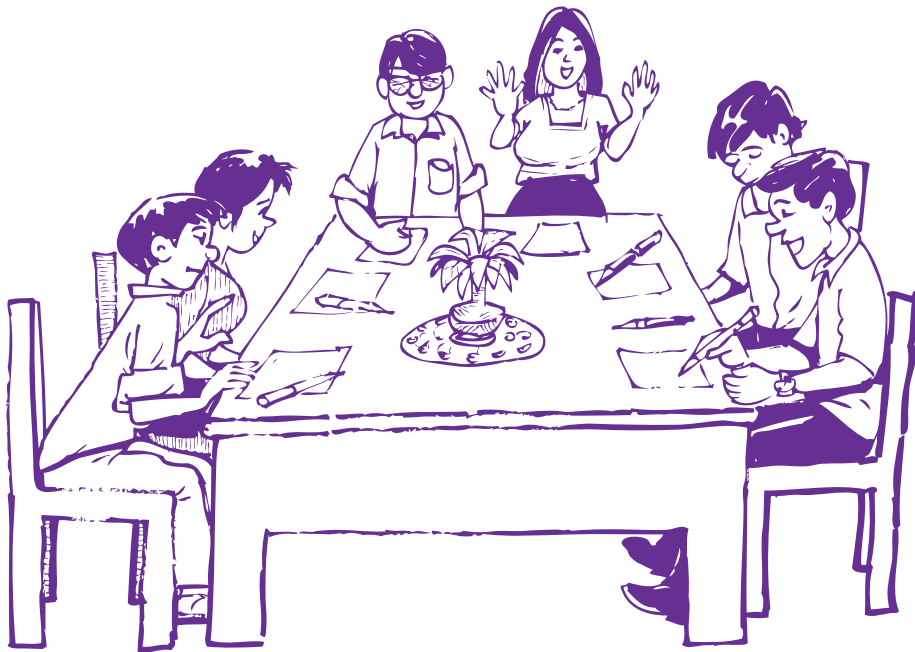
Table 3: Planning Capacity-development

Capacities to be Developed or Strengthened	Competencies Needed	Type of Training	Participants	Resources
Need assessment	Communication skills	Group meeting	CLC managers, facilitators, collectors	
	Group meeting facilitation	Material self-study	CLC managers, facilitators, collectors	
Data collection	Development of tools: forms, questionnaire,		CLC managers, facilitators, collectors	
	Interview skills		CLC managers, facilitators, collectors	
Data entry	Microsoft office: Excel, Word		CLC facilitators/ full-time staff	
	Typing skill		CLC facilitators/ full-time staff	
Data analysis	Development of graphs, charts, tables		CLC manager, facilitators/ full-time staff	
	Summary reporting writing		CLC manager, facilitators/ full-time staff	
	Presentation skills		CLC manager, facilitators/ full-time staff	
	Using software		CLC manager, facilitators/ full-time staff	
Data utilization	How to utilize MIS for different target users		- CLC manager, facilitators, collectors, community	
			- Managers at upper levels	
			- Relevant partners	

ANNEX

FORM A

General Information

Name of CLC:

CLC code:
(Reserved.
Do not fill)

Address:	
Telephone:		Email:	
Fax:		Website:	
Main contact person (name and title):		2nd contact person (name and title):	

Date of creation of the CLC :

Which local areas are served by the CLC? (give names of villages, communes or wards)

Population of the area served:	Age-group					
	<15	15-24	25-34	35-44	45+	Total
Total						
Male						
Female						

No. of illiterates in the area:	Age-group					
	<15	15-24	25-34	35-44	45+	Total
Total						
Male						
Female						

Total number of learning programmes organized in 20……

Where do the learning programmes take place? (tick one or more boxes below)

☐ In this CLC	☐ In temple/church/mosque
☐ At school	☐ In community culture house
☐ In local government facilities	☐ In the field or in farms
☐ In businesses, factories, workshops	☐ Others. Please specify:

Number of social, cultural and sports activities organized in 20……

Members of the CLC Management Committee: (add sheets if needed)

Name	Age	Sex	Position	Workplace	Term until:

FORM B

Learning Programme Plan

Name of CLC :

CLC code:
(Reserved.
Do not fill)

Programme name:			
Learning objectives:			
Target population: (No. of persons)	Male:	Female:	TOTAL:
Planned capacity: (No. of learners)	Male:	Female:	TOTAL:
Content and materials:			
Method(s):			
Venue(s):			
Duration:	weeks/days/hours		
Planned dates and schedule:			
Admission requirements:			
Facilitator(s) profile required:			
Budget: (please give detailed estimates e.g. costs of facilitator, materials, rental, supplies, etc.)			
Fees (if any):			
Partner(s):			
Observations:			

FORM C

Learner Registration Form

Name of CLC :

<table>
<tr><td>CLC code:
(Reserved.
Do not fill)</td></tr>
</table>

Programme name:

<table>
<tr><td>Name of learner:</td><td colspan="3"></td></tr>
<tr><td>Address:</td><td colspan="3"></td></tr>
<tr><td>Telephone:</td><td></td><td>Email:</td><td></td></tr>
<tr><td>Sex:
(circle the answer)</td><td>Male Female</td><td>Date of birth:</td><td></td></tr>
<tr><td>Highest educational level and grade attained:</td><td colspan="3"></td></tr>
<tr><td>Can read and write?</td><td>Yes No</td><td>In which language(s):</td><td></td></tr>
<tr><td>Occupation:</td><td colspan="3"></td></tr>
<tr><td>Learning needs:</td><td colspan="3"></td></tr>
<tr><td>Learning or training programme(s) previously attended beyond formal schooling:</td><td colspan="3"></td></tr>
<tr><td>Observations:
(including any special needs)</td><td colspan="3"></td></tr>
</table>

FORM D

Facilitator Record

Name of CLC :

<div style="border:1px solid">
CLC code:
(Reserved.
Do not fill)
</div>

Name of facilitator:	
Address:	
Telephone:	Email:
Sex: (circle one answer)	Male Female	Date of birth:
Marital status: (circle one answer)	Single Married Divorced Widow/widower
Education history: (from primary school to highest level attained)	Year School Certificate/degree received
Additional training programme(s) attended beyond formal schooling:	Year Programme name Certificate/recognition received
Occupation:		Specialization:
Previous teaching experiences:	Year Programme name Place Duration
Observations: (including any relevant special skills and experiences)	

FORM E

Inventory of Facilities and Equipment

Name of CLC :

CLC code: (Reserved. Do not fill)

1. Buildings, rooms and facilities   (add separate sheet if needed)

No.	Description	Quantity	Frequency of use	Observations
1	CLC management office			
2	Classroom			
3	Reading room			
4	Workshop			
5	Toilets			
6	Storage			
7	Garden			
8	Sports ground			
9	Others. Please specify:			
10				

2. Furniture   (add separate sheet if needed)

No.	Description	Quantity	Frequency of use	Observations
1	Table			
2	Desk			
3	Chair/bench			
4	Cupboard/shelf			
5	Blackboard/whiteboard			
6	Others. Please specify:			
7				
8				
9				
10				

3. Equipment   (add separate sheet if needed)

No.	Description	Quantity	Frequency of use	Observations
1	Electric fan			
2	Radio			
3	TV			
4	Video player/recorder			
5	Computer			
6	Photocopier			
7	Projector			
8	Others. Please specify:			

(Depending on the type of facilities, equipment or teaching/learning resources, the frequency of use can be the number of times or hours per week or per month)

FORM F

Inventory of Learning Materials

Name of CLC :

| CLC code: |
| (Reserved. |
| Do not fill) |

1. Learning materials   (add separate sheet if needed)

No.	Description (title, type, etc.)	Quantity	Frequency of use	Observations
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

2. Teaching aids   (add separate sheet if needed)

No.	Description	Quantity	Frequency of use	Observations
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

3. Other teaching/learning resources   (add separate sheet if needed)

No.	Description	Quantity	Frequency of use	Observations
1				
2				
3				
4				
5				
6				
7				
8				

(Depending on the type of facilities, equipment or teaching/learning resources, the frequency of use can be the number of times or hours per week or per month)

FORM G

Programme Evaluation Form

Name of CLC :

<div>
CLC code:
(Reserved.
Do not fill)
</div>

Programme name:	
Starting - ending dates:	
Name of learner:	

1. How did you come to know about this programme ? Was it easy for you to register in and attend this programme in terms of scheduling, timing and distance ?

2. How well does this programme's objectives, contents and methods correspond to your learning needs ?

3. How do you find the facilities and learning materials utilized during this programme ? Please suggest improvements.

4. How well have you worked with the facilitator(s) during this programme?

5. Are you satisfied with having attended this programme ? How do you plan to utilize what you have learned here ?

REPORT A

Programme Report

Name of CLC :

CLC code:
(Reserved.
Do not fill)

Programme name:	
Starting - ending dates:	
Actual total teaching hours:	

Learners and completers:

Age-group	No. of learners registered			No. of completers			Completion rate	
	Both sexes	Female	% F	Both sexes	Female	% F	Both sexes	Female
0-14								
15-24								
25-34								
35-44								
45+								
Total								

Facilitators: Learners-facilitator ratio:

(add separate sheet if more facilitators)

No	Name	Sex	Age	Topics taught	Rating
1					
2					
3					
4					
5					

Learning materials used:

(add separate sheet if needed)

No	Title	Type (books, audio, video..)	Quantity	LM-learner ratio
1				
2				
3				
4				
5				
6				
7				
8				

Equipment used:

<div align="right">(add separate sheet if needed)</div>

No	Description	Quantity	Learners-equipment ratio	Frequency of use
1				
2				
3				
4				
5				
6				
7				
8				

Income and expenditure:

Income by sources		Expenditure by type	
Government		Costs of facilitator(s)	
NGOs		Costs of venue(s)	
Business		Learning materials	
Community bodies		Stationery	
Donations		Equipment	
Fees collected		Transportation	
Other income		Other expenditure	
TOTAL INCOME:		TOTAL EXPENDITURE:	

Summary of learners' evaluation:

Summary of facilitators' evaluation: *(e.g. Learners' profile, motivation and persistence; effectiveness of programme design and methods; quality of learning resources and environment; outcomes and expected impact; problems and issues; lessons learned and recommendations; etc.)*

SUMMARY B

Programme Management Summary 1

Name of CLC :

| CLC code: |
| (Reserved. |
| Do not fill) |

Period: From... to ....

Ref	Programme name	Learners			Completers		Facilitators	
		Planned capacity	Regis-tered	% use of capacity	No. of completers	C.Rate (%)	No.	L-F ratio
	TOTAL:							

SUMMARY C

Programme Management Summary 2

Name of CLC :

CLC code:
(Reserved.
Do not fill)

Period: From.. to ....

Ref	Programme name	Learning materials (LM)			Finance	
		No. of registered learners	Quantity of learning materials	LM-learner ratio	Total programme expenditure	Cost per learner

SUMMARY D

Financial Summary

Name of CLC :

Period: From... to ....

Income by sources		Expenditure by type	
Local government		Cost of land/building	
Government depts.		Building maintenance	
Public agencies		Costs of facilitator(s)	
NGOs		Costs of other staff	
Business		Learning materials	
Community bodies		Stationery	
Donations		Equipment	
Fees collected		Transportation	
Other income. Please specify:		Other expenditure. Please specify:	
TOTAL INCOME:		TOTAL EXPENDITURE:	

DEVELOPING MANAGEMENT INFORMATION SYSTEMS FOR
COMMUNITY LEARNING CENTRES