CHAPTER IV: PILOT PROJECTS TO IMPLEMENT DEPS

OVERVIEW:

Chapter IV covers the process and the achievements of the NIPDEP pilot projects. A major purpose of the pilot projects was to give selected districts the learning experience of actually implementing projects and strategies reflected in their DEPs. 39 pilot projects were carried out in 2003 and 41 in 2004; grouped as to 1) INSET and community awareness, 2) procurement, and 3) construction.

This was the first experience for the pilot district officers to plan improvement projects and to implement and monitor them by themselves, which is to happen soon under NDP. NIPDEP conducted trainings in planning and proposal development, budgeting, project management, community participation, and project monitoring and evaluation. An oversight, accountability and management structure were developed as well at the local and national levels. There were many challenges and problems observed and reported by the district officers, by Core Trainers and by the NIPDEP monitoring team during the first year (2003) implementation of the pilot projects; however the district teams gradually came to understand their roles and responsibilities and became more confident through completing the two-year (two cycle) project implementation.

During the two-year pilot projects, the six pilot districts constructed 15 classroom blocks, 18 teachers houses and 39 pit latrines, procured more than 8,000 textbooks, and 2,500 desks. They also conducted INSET to cover about 5,000 teachers and 2,700 SMCs and PTAs members. There is still room for improvement; however, the two-year experience taught the district officers, the Core Trainers and the NIPDEP Team what was missing, what needed to be improved and what were the potentials. A system for evaluating these projects was also initiated beginning with a baseline study, to assess the achievement and the impacts by the district officers as well as by the NIPDEP Team at mid-point and at project end; the results of the evaluation surveys are shown in Chapters VI and VII of this Report.

The collection of "anecdotes of the pilot projects" is in Appendix-II of the Final Report. Pilot Project Implementation Manual, the data from the construction pilot projects, and INSET/awareness campaign monitoring/evaluation report are included in the NIPDEP Reference Documents.

4.1 OBJECTIVES AND TARGET GROUPS

4.1.1 Objectives

The objectives of the NIPDEP pilot projects were to provide district level personnel an opportunity to:

(1) implement several improvement strategies identified in their DEPs;
(2) learn from this effort how to manage resources to achieve objectives;
(3) be accountable and transparent in project operations;
(4) work with the community to give it a sense of ownership for their schools;
(5) recognize the complexity of the improvement process; and,
(6) reveal the extent to which the planning process and DEPs were realistic.

39 pilot projects were conducted in Phase I from June 2003 to February 2004 and 41 pilot projects were conducted in Phase II from May 2004 to February 2005. The list of pilot projects of Phase I and Phase II by district is attached in Appendix-1.

4.1.2 Target Groups

The primary target areas were the six pilot districts of Nkhata Bay, Ntchisi, Mchinji, Machinga, Nsanje and Thyolo. The secondary targets were the 27 non-pilot districts which were to receive training under NIPDEP to update their DEPs.

The target groups of the NIPDEP pilot districts are outlined in Table 4-1. Most importantly, the target for capacity development in planning and management of development and improvement projects was to be the district level personnel and other key persons connected with the offices of the DAs, local community leaders, stakeholders and Core Trainers.

Table 4-1: Target Group Outline of the NIPDEP Pilot Project (as of 2000)

	Nkhata Bay	Ntchisi	Mchinji	Machinga	Thyolo	Nsanje	Total
1. Primary Schools							
No. of Primary Schools	149	123	183	144	186	102	887
Enrolment	63,454	58,730	92,146	106,375	147,795	53,683	522,183
No. of Teachers	1,055	897	1,560	1,338	2,204	810	7,864
2. Secondary Schools							
No. of Secondary Schools	22	11	21	18	33	14	119
Enrolment	2,860	3,123	4,500	4,493	6,335	3,375	24,686
No. of Teachers	156	86	187	114	198	99	840
3. No. of PMT and TF members	71	52	67	68	67	68	393

Source: 2000 school census data from DEPs of Nkhata Bay, Ntchisi, Mchinji, Machinga, Thyolo and Nsanje

4.2 PILOT PROJECT PLANNING

The DPTs that developed specific and detailed pilot project proposals to JICA were the DEMs, DPDs, DoFs, CPEAs, District Director of Public Works (DPWs), District Community Development Officer (DCDO), with Core Trainers in supportive roles. In order to get the project proposals formulated, NIPDEP organized first a meeting with the DPTs and the Core Trainer Team, at MIM in January 2003, to kick-off the pilot projects and begin to discuss project ideas that would help implement their DEPs. They did a very rough update of their DEPs, looking only for major, obvious changes, and they were given the idea on how to identify approximately 15 potential projects to from their DEP action plans.

In February 2003, the district team conducted a stakeholder survey to elicit their stakeholders' views on what kinds of projects would be highest priority DEP implementation projects. Thereafter the stakeholders' meeting was held in pilot districts form February to March 2003 in order to match the survey results into the potential projects identified by the kick-off workshop participants, and further prioritize the projects to be implemented under NIPDEP. A proposal finalization workshop was held at MIM in March 2003.

The proposals produced covered Phase I (JFY2003/04) and Phase II (JFY2004/05). Following the workshop, the NIPDEP Team submitted these proposals to JICA for its

consideration for funding The ones for Phase I were approved by late March, although there were some specific adjustments requested in a few proposals. For Phase II, the proposals were reviewed and refined with the backing of the detailed implementation plans which were produced based on the Pilot Project Implementation Manual at the workshop in March 2004.

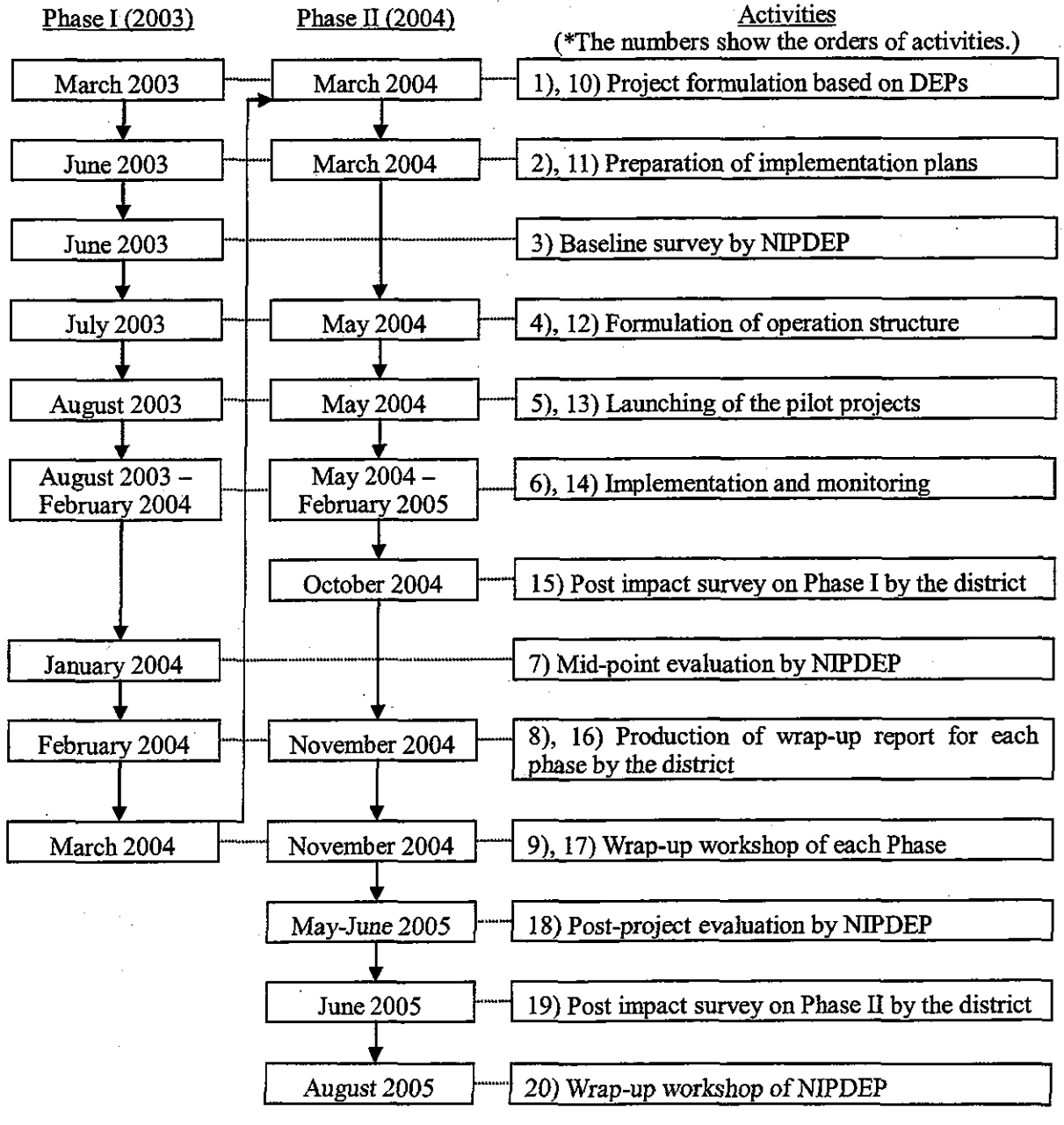
The list of projects in descriptive matrices approved in Phase I (39 projects) and II (41 projects) by district is attached in Appendix-I of the Final Report.

4.3 PILOT PROJECT IMPLEMENTATION AND MANAGEMENT

4.3.1 Implementation Steps

The implementation schedule of the 20 major steps of the NIPDEP pilot project is summarized as shown in Figure 4-1.

Figure 4-1: Schedule of the NIPDEP Pilot Project Implementation



4.3.2 Implementation Plans and Implementation Manual

Prior to the pilot projects Phase I, the NIPDEP Team developed a Pilot Project Implementation Manual (see the NIPDEP Reference Documents). The Manual included the matrices in Box 4-1 as the way to prepare for the implementation of the pilot projects:

The package of matrices from 1A to 5 comprises the implementation plan for each pilot project. Other forms are meant for project accounting, monitoring, and management. The DPTs were trained on this Manual and the implementation plans were completed at the workshops in June 2003 for Phase I projects before implementation.

Box 4-1: Matrices and Forms in Pilot Project Implementation Manual

Matrix 1A:	PMT Pilot Project Operational Structure Plan
Matrix 1B:	Task Force Structure Plan
Matrix 1C:	Task Force Terms of Reference
Matrix 2:	Community Participation Action Plan
Matrix 3:	Pilot Project Activities Steps Timeline
Matrix 4:	Activity Budget
Matrix 5:	Monthly Operating Budget Estimate
Account Book:	Daily Log Forms
Monitoring Form A:	PMT Monthly Report
Monitoring Form B:	TF Monthly Report
Monitoring Form C:	Monitoring Visit Report

The details of the Matrix will be described in the section below.

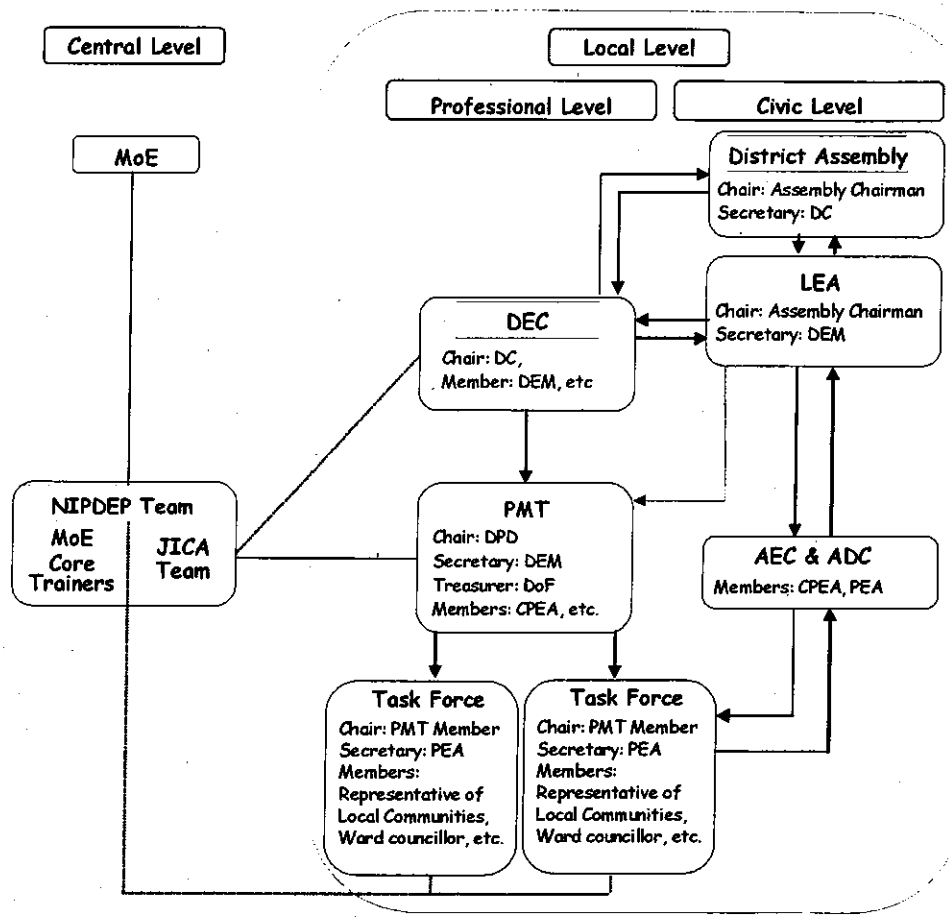
4.3.3 Project Management Structure

The pilot project management structure was developed as in Figure 4-2, after consultation with many key stakeholders and officials at the local level in order to insure that the structure was one that would result in the local communities feeling a sense of responsibility and ownership for results; there would be appropriate legal oversight and accountability.

One major concern was that the contracts for project oversight and results would be with those most concerned with results at the project level, but that they, also, would have a legal authority that was rooted in a political, legal sub-division of the GoM. In this case, the political sub-division was the DA. The role of the NIPDEP office had to be equally spelled out, as it has the ultimate accountability to GoM and JICA for the use of the JICA resources and program results.

Each set of district projects was to be overseen by a Project Management Team (PMT) of approximately 10 persons, a mix of local professional, political and community leaders. The PMT was technically created by the DEC, which had its authority from the DA. The DEC had a direct legal relationship, as well, to the LEAs down to the Area Education Committees (AECs) and Village Education Committees (VECs.). The PMTs related directly to the NIPDEP Team composed of the Core Trainers and the NIPDEP Team.

Figure 4-2: Operation Structure of the NIPDEP Pilot Project



Each pilot project in a district was to have a pilot project Task Force (TF) of approximately eight local persons with appropriate expertise appointed by the PMT, including selected appropriate PMT members. Based on the Phase I pilot project implementation, for Phase II, the structure was revised as that SMC chairpersons were to be added to the TFs in order to improve the linkage between the projects and supporting communities, especially with respect to construction projects. Phase II saw the district teams select beforehand their prospective TF and PMT members. The selection process was more consultative and the PMT/TF members were only endorsed after the district level kick-off workshops.

4.3.4 Community Participation

As noted earlier in this report, NIPDEP had emphasized that pilot projects should make maximum use of community participation to insure community ownership of results. Without such an approach there would not be a commitment to sustainability for the work accomplished by NIPDEP. The establishment of community based implementation structures, using PMTs and TFs in management, oversight and monitoring roles, were the major way NIPDEP made operational community participation.

The DPTs had to indicate on Matrix 2 what community support was required for each pilot project for different activity step, who was to seek it and how.

4.3.5 Implementation Schedule

In the planning process, implementation activities were identified by NIPDEP for each type of project (i.e. construction, procurement and training) as core activity steps. This identification of implementation activity steps was to assist TFs in carrying out their organizational and accountability responsibilities.

The total implementation period was set initially for Phase I was 6 months (June to November 2003) and Phase II was 7 months (May to November 2004). Then, DPTs were to identify step-by-step on Matrix 3 (Figure-4 in the Pilot Project Implementation Manual in the NIPDEP Reference Documents) exactly what steps or activities had to be done, when to implement to complete each project on time, and form core steps and additional steps could be added by the teams. They had to indicate who was responsible for implementing each step and what was the intended outcome or output for each step. The activity steps matrix is in many respects indicates the self-monitoring and accountability for each pilot project.

4.3.6 Budgeting

Budgeting for NIPDEP pilot projects was done along the line with activity steps identified in the implementation schedule of Matrix 3. It was an activity-based budget which the planning team had to calculate in Matrix 4 with the estimated costs of different items required for each activity with the unit price list provided by NIPDEP. This was the most difficult and time consuming part for DPTs during the workshop; however, there was a good understanding why such a matrix was needed in order to account for funds and manage the budget.

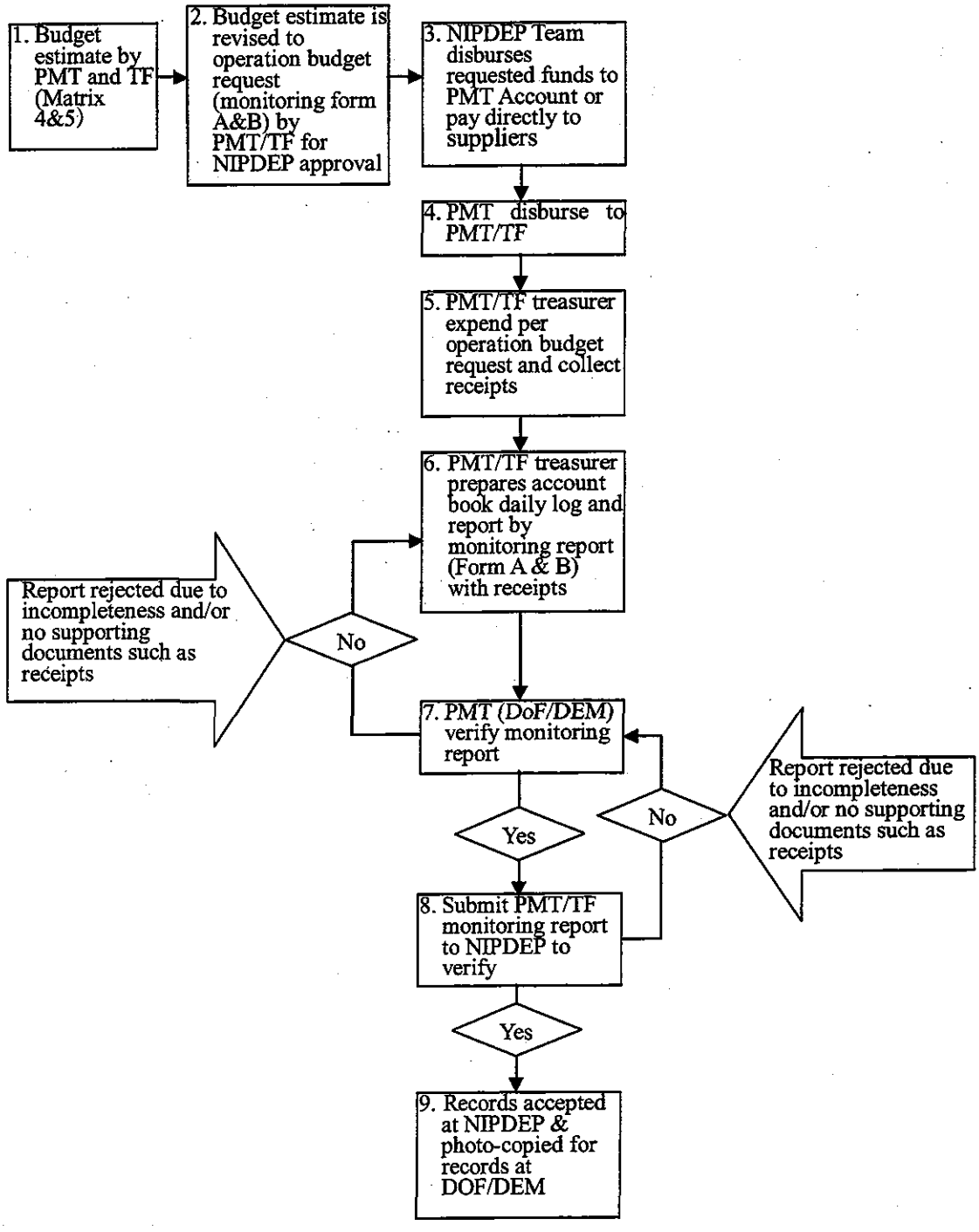
The financing of pilot projects was primarily from JICA, but each pilot project was to show how local resources were to be mobilized to assist in the support of the projects. Most support was evident in construction projects where local communities used their own labor and materials to make bricks for new school blocks.

The teams had to complete a Monthly Operational Budget Estimate: Matrix 5 that detailed their monthly estimated costs to implement each activity or step. The Matrix 5 was needed in order to assure that project managers had their funds in time to carry out their activities or steps and stay on schedule. This Matrix 5 provided the information to control cash flow for each project and provides the NIPDEP Team with critical information as to what funds were needed when to implement each pilot project's implementation activities or steps.

4.3.7 Financing and Accounting

Figure 4-3 shows how the funds were to be managed from the budget making point to acceptance by the NIPDEP Team of the monthly accounting from PMT and TFs. NIPDEP tried to design its financial and reporting system to place financial planning and management at the local pilot district level in order to foster capacity development as part of decentralization. The PMT treasurers were expected to be the entity in the district NIPDEP structure to manage the district's project bank account and make disbursement to TFs on the basis of budgeted monthly amounts and expenditure reports. It had overall fund management responsibilities.

Figure 4-3: Financial Management Flowchart for Disbursement, Record Keeping and Reporting



It should be noted that certain procurements and construction were identified to be paid directly by the NIPDEP Team for efficiency purposes, such as equipment and for construction contracts and certain materials to be bought from single source supplier that were best purchased in bulk centrally; however, most funds were managed locally, especially those activities for INSET, community awareness campaigns and for local activity related to construction.

The Implementation Manual was the key document in providing accounting guidance as to what should be done and how it should be done. Account log forms were supplied to the PMTs and the TFs to use in keeping daily track of transactions with receipts and for consolidating into monthly reports. These procedures were part of the pilot project implementation workshop training and were re-enforced after implementation by periodic treasurers' meetings.

The treasurer of the PMTs was also responsible for reviewing expenditures and receipts submitted monthly by TF treasurers before transmittal of PMT financial reports to NIPDEP Team office in Lilongwe to receive the next month's allocations for TF activities. It was apparent earlier that many of the TF treasurers lacked the skills to manage their funds or were very slow to make reports to the PMT, thus, delaying other TFs from receiving their monthly allotments. The Manual had to be revised in Phase II to make the process more comprehensible, and any borrowing was stopped.

4.3.8 Reporting

Reporting for the pilot project activities was in two parts: 1) financial and 2) progress/monitoring. financial reporting is as described in the previous section. The monthly progress reports were compiled by the TF secretaries. A complete progress report was made up of monitoring reports and minutes of meetings.

TFs held meetings at least once every month during which reports of progresses and problems were shared and discussed. The TFs would also draw up schedules for their next steps of activities and thereafter assign duties to various members. It was usually after these monthly meetings that TF secretaries and treasurers would produce their reports.

The TFs would submit these reports to the PMT. The PMT would then compile a monthly PMT report which would then be submitted to the NIPDEP Team office. The PMT secretary's duty was to produce a report of PMT activities and their minutes of meetings and summarize the TFs' monitoring reports. A complete PMT monthly report had to contain *complete* financial and monitoring reports from all TFs and PMT. Any district that did not submit a complete report could not be funded for the next month's activities.

4.3.9 Monitoring

(1) District Level Monitoring

As described in the above section, TFs and PMTs were to monitor the progress of the project against activity steps set in Matrix 3 and 5 through monthly meetings and field trips, and report it in the monthly reports. A monitoring and evaluation check list was set out in the Implementation Manual for their reference.

The implementation plans for Phase I revealed that most of the district teams either did not include monitoring as a regular activity or it was included as a one-off activity to be done with an evaluation at the end of the project. Based on this experience, they were made to improve this situation to include monitoring in activity steps and in budget for Phase II.

(2) NIPDEP Team Level Monitoring

Monitoring at NIPDEP level was designed to rely on the monthly monitoring reports submitted by the PMT and on regular (monthly) monitoring visits to the districts. It was comparatively easy for the NIPDEP Team to monitor the pilot project activities through regular monitoring visits to the districts, than to monitor the financial operations of TFs.

Monthly monitoring visits to the districts by the NIPDEP Team would at most times include a brief meeting with PMT members followed by site visits. The TF meetings with PMT and the NIPDEP Team members were held to discuss the progress and problems of the various projects and to try to fill in gaps in the financial reports. Although many of the problems arising were dealt with by the PMT at district level in the spirit of capacity building, there arose occasionally some issues that required the direct intervention of the NIPDEP Team.

Communication between the NIPDEP Team and the district teams was very frequent through telephone conversations with almost all the districts on a daily basis. Representatives of the PMT made almost as many visits to the NIPDEP office as the NIPDEP Team made to the districts. Core Trainer Team also monitored on their own or accompanied the NIPDEP Team to go to their respective districts.

(3) Monitoring by Local Consultants in Construction and INSET

The initial concept behind hiring a local consultant (Norman and Dawbarn (Mw) Limited) was to set up a supervisory and monitoring structure for the construction projects. Some of many duties of the consultants relevant to this section were to 1) manage the tendering and contracting processes for the districts; 2) produce bills of quantities; 3) supervise actual construction; 4) produce payment certificates; 5) hold monthly technical meetings; and 6) submit monthly reports to NIPDEP.

Having given the districts the mandate to plan and implement their projects, it was not surprising to observe that many disapproved of the idea of having a consultant supervise their construction activities. Many of the TFs felt that their role was diminished with the introduction of the consultant. There was consequently very little communication and cooperation between the TFs and the local consultant.

Meetings were eventually held between the PMTs and the TFs, the consultant and the NIPDEP Team to resolve these problems and discuss how these three entities could work together. In addition, the performance of the local consultant and construction projects in Phase I prompted the NIPDEP Team to employ a construction specialist as a member of the NIPDEP Team, who was the link between the districts, the consultant and the NIPDEP Team. This coupled with the lessons learned from the year before saw a drastic improvement in the implementation of the construction projects in Phase II, but still, the communication problems were observed in some pilot districts between the construction consultant and the PMTs and the TFs.

For INSET and awareness campaign projects and the training component for procurement projects, during Phase II, NIPDEP brought in the local consultant (CDI) to place personnel in each pilot district to advise PMT and relevant TF in monitoring, technical guidance and follow-up evaluation. Since they were based in the district, PMT and TF had easy access to the personnel and it contributed a lot to the improvement of the said projects.

4.3.10 Workshop and Training

Workshops and training conducted to facilitate the pilot projects are listed in Table 4-2.

Table 4-2: Workshops and Training during the NIPDEP Pilot Projects

Workshops/Training	Schedule/Place	Targets	Objectives
1. Pilot project implementation workshop	June 2003 At MIM	DPTs (representative of PMTs)	To prepare the detailed activity plan and budget plan for Phase I
2. District-level pilot project implementation workshop	June 2003 In the districts	PMT and TF members	To organize PMTs/TFs and to orient the projects and their tasks
3. Pilot project progress workshop for Phase I	November 2003 At MIM	DPTs (representative of PMT)	To confirm the pilot project progress
4. Workshop to formulate proposals for Phase II	March 2004 At MIM	DPTs (representative of PMT)	To formulate proposals for Phase II
5. Training of PMT/TF treasurers	April 2004 At MIM	PMT/TF treasurers	To improve financial management
6. Pilot project implementation workshop	May 2004 At MIM	DPTs (representative of PMTs)	To prepare the detailed activity plan and budget plan for Phase II
7. District-level pilot project implementation workshop	June 2004 In the districts	PMT and TF members	To organize PMTs/TFs and to orient the projects and their tasks
8. Wrap-up workshop for Phase II	December 2004 At MIM	DPTs (representative of PMTs)	To wrap up the Phase I pilot project management and outputs
9. Wrap-up workshop for the NIPDEP pilot projects	August 2005 At MIM	DPTs (representative of PMTs)	To wrap up all of the pilot project management and outputs

4.4 ACHIEVEMENT IN IMPLEMENTATION SCHEDULE AND BUDGET

This section focus on the achievements of NIPDEP pilot projects comparing to the original schedule and budget plans to draw lessons for further maintenance and sustainability.

4.4.1 Schedule

Most of the INSET, awareness campaign and procurement projects were conducted according to the schedule set by TFs. Trainings on INSET and awareness campaigns mostly took place during the school holiday in August, as both teachers and students were available. In order to keep up with the schedule, the TFs had to start making necessary arrangements well before the training, including the selection of trainers, printing training materials, finding an appropriate venue, etc. There were a few exceptions, however, where the TFs had to delay or reschedule training programs because of the late funding caused by late reporting to NIPDEP and the unavailability of trainers. These trainings were either postponed to the next school holiday in November or held during weekends during the school term.

As for procurement, the TFs managed tendering procedures better in Phase II and they had improved in time management compared with the first year. Some TFs suffered from the delays in the delivery of science kits due to the long importing process.

By contrast, many construction projects experienced delays during implementation. One of the fundamental problems of construction projects was the tight scheduling since the implementation period was limited to only eight months between May and November. Some TFs took too much time to motivate local communities for participation in construction, while others were delayed due to the shortage of construction materials like cement at market.

4.4.2 Expenditure

Although every activity of pilot projects was supposed to be operated according to the cost estimate, it was not always the case for many TFs; especially TFs for the construction projects. The actual prices for buildings were determined only at the tendering stage. The price also depended on the construction plan and the bidding system. In Phase-I, many pilot projects experienced a shortage of costs caused by the underestimation of budget, poor accessibility and scattering of sites. TFs and NIPDEP tried to improve the whole process of planning in Phase-II by introducing appropriate unit prices, more competitive bidding systems and the selection of more accessible sites. These measures worked favorably in reducing prices especially for national level contractors. For example, Nkhata Bay TF2 constructed two school block buildings roughly for MK900,000 against the estimated cost of MK1,100,000.

The budgeting for INSET/awareness campaigns or procurement was more flexible due to the nature of the activities planned. The differences in actual and estimated prices were often compensated by adjusting the number of units. For instance, the under-budgeting of printed training materials was covered by reducing the number of trainees or reducing the amount of remuneration. Cheaper prices for desks and chairs than the cost estimated allowed the TFs to purchase extra ones.

Towards the completion of pilot projects, the NIPDEP Team requested TFs to prepare a plan on how to use the leftover balances in budgets including the contingencies. Table 4-3 shows some examples of the usage of remaining budget. There were also some TFs which did not finish using their budgets even one month before the ending date. NIPDEP had to urge them to make maximum use of the budget, as they had originally planned.

Table 4-3: Examples of the Usage of Remaining Budget

Type of Project	Usage
INSET and Awareness Campaign	• Printing extra training materials, teachers' guide • Conducting follow-up trainings • Procurement of teachers' guide
Procurement	• Teachers' orientation • Procurement of Additional equipment • Training on Maintenance for PTA, SMC
Construction	• Repairing existing structure • Training for usage and maintenance • Purchasing extra teachers' guides, learning materials • Procurement of SSB machines

Table 4-4 shows what percentage of the budgets were spent compared to the original budgets. Of 41 pilot projects, eight projects expended 95% of the budgets; three classroom construction projects, one science laboratory construction project, one teacher house construction projects, one pit latrines construction, and two follow-up projects for Phase I.

Table 4-4: Percentages of the Budget Used

	Pilot Project	Pilot Project	Pilot Project	Pilot Project	Pilot Project	Pilot Project	Pilot Project	Pilot Project
Nkhata Bay	Primary classroom construction	Secondary CDSS classroom	Secondary CDSS INSET of teachers	Secondary CDSS science lab.	Primary active school committee	Follow-up for the Phase I	--	--
% of Used Budget	87.55%	95.71%	99.67%	94.52%	100.00%	99.23%		
Ntchisi	INSET of Primary school teachers	SMC training	Primary teacher house construction	Secondary CDSS lab. equipment	Secondary desks and chairs provision	Follow-up for the Phase I[*2]	--	--
% of Used Budget	99.99%	100.00%	98.37%	100.00%	100.00%	93.37%		
Mchinji	Primary classroom construction	Primary classroom construction	Secondary CDSS INSET of teachers	Secondary CDSS classroom	Primary pit latrines construction	Primary gender awareness	--	
% of Used Budget	93.32%	93.89%	99.99%	92.60%	100.00%	100.00%		
Machinga	Community awareness campaign	Secondary CDSS textbook provision	Secondary CDSS INSET of teachers	Primary INSET of teachers	Primary teacher house construction	Primary pit latrine and boreholes construction	Secondary CDSS income generation	Follow-up for the Phase I
% of Used Budget	100.00%	100.00%	100.00%	100.00%	92.85%	100.00%	100.00%	100.00%
Thyolo	Primary INSET of teachers	Secondary INSET of teachers	Secondary textbook provision	HIV/AIDS education promotion	Secondary science kit provision	Secondary CDSS office equipment provision	Primary pit latrines construction	Follow-up for the Phase I
% of Used Budget	99.87%	100.00%	100.00%	100.00%	99.99%	100.00%	87.28%	64.35%
Nsanje	Primary desks and chairs	Secondary CDSS desks and chairs	Secondary CDSS science kit	Secondary textbook provision	TDC office equipment provision	INSET of education officers	Secondary INSET of teachers	
% of Used Budget	100.00%	100.00%	99.16%	100.00%	100.00%	100.00%	100.00%	

4.5 PROCESS AND ACHIEVEMENT IN TRAINING AND AWARENESS CAMPAIGN PROJECTS

Both district education officers and community stakeholders identified that there had been a strong need for capacity building of primary and secondary teachers, particularly the unqualified. In case of primary school teachers who were allocated to teach at the secondary school level, especially at CDSS, teachers are under-qualified. At primary schools, there are many volunteer teachers who are unqualified. These teachers are supposed to obtain the necessary qualification through teachers training course at colleges, but since their capacity is limited, and the lack of available funding, as a short and medium term strategy, district had to opt for INSET to cover up this gaps in their teaching skills, knowledge for each subject, classroom management etc.

In addition, the capacity of the local communities regarding their awareness of important social issues was necessary to improve the quality of education. In order to develop the capacities of those stakeholders, NIPDEP pilot projects implemented INSET for primary and secondary teachers and awareness training and campaigns for students, teachers and local communities during the two NIPDEP phases.

Among the 39 pilot projects of Phase I, 17 projects (44%) were related to capacity building, while there were 14 out of 41 projects (34%) in Phase II. The ratio of the capacity building projects decreased from Phase I to Phase II; however, the capacity building projects were planned, implemented and monitored to improve their quality and output in Phase II.

The following sections describe the process and achievement of 1) INSET and 2) training and campaign for community awareness.

4.5.1 In-service Training (INSET)

(1) Background of the Pilot Projects and Objectives

The objectives of INSET were to 1) improve relevant knowledge and skills; 2) enhance competency and expertise; and 3) encourage managerial skills, increasing confidence in teaching, among unqualified and/or under-qualified primary and secondary teachers[6]. Targets of the INSET-related projects are summarized in Table 4-11. INSET-related TF members were therefore composed largely of CPEAs, PEAs, teachers and headmasters, as well as district education officers such as DEMs. In many cases, DEMs, most of whom had been either primary or secondary teachers, were very active and played an important role in implementing the projects.

(2) Processes of Implementing the Projects

Most of the INSET-related projects followed similar processes: from 1) planning; 2) needs assessment; 3) planning of training and selection of trainers; 4) preparation of training programs and materials; 5) implementation of actual training; up to 6) monitoring and evaluation. This section tries to analyze the quality and efficiency of TFs at each stage of the processes, based on the monitoring observations by the NIPDEP Team. It also identifies problems which occurred during the process.

a) Needs Assessment

Box 4-1 summarizes the major questions the TFs asked through its needs assessment survey. Based on the lessons learned from the pilot projects in Phase I, the process of conducting needs assessment were emphasized during Phase II, in order to better incorporate the actual needs of the target people, i.e, mainly teachers in INSET trainings. In terms of subjects to be trained, needs identified were: mathematics and science, and English, but also physical education and music; however, the pilot projects covered teaching skills and classroom management, but not improvement in knowledge for each subject.

Box 4-1: List of Questions Asked for Needs Assessment

- Name of Zone
- Name of School
- Name of Headmaster
- Criteria of Target Teachers
- No. of the Target Teachers
- Subjects Covered (including not only teaching subject but also methodology, management, advisory, counseling needs)
- Topics Covered for Each Subject

[6] Exceptionally, INSET program for primary teachers in Thyolo targets teachers who have worked for more than 10 years and have never participated in this kind of training, as all the unqualified primary teachers were sent to teachers colleges to gain minimum qualification as part of a national initiative.

The monitoring survey found out that most TFs succeeded in incorporating the needs into their training programs; however, most TFs succeeded in selecting appropriate subjects, but failed to select important topics for each subject. They selected too many topics to be covered during the limited program length. As a result, at some training courses, facilitators had to either rush to cover all the topics, using a lecture method, or omit some topics which were relatively difficult to teach and where there were critical needs to be covered. Some training courses then failed to go sufficiently in-depth.

Table 4-5 identifies good practices for conducting a needs assessment survey:

Table 4-5: Good Practices of Needs Assessment Survey

District	TFs	Good Practices
Nkhata Bay	TF 3: INSET CDSS	The TF not only asked teachers to answer the questionnaire they prepared, they asked students as well. Consequently TF succeeded in reflecting the opinion of students as well.
Thyolo	TF1: INSET Primary	To reduce the burden of TFs, the TF asked a PEA in each zone to visit all the primary schools. This was based on the idea that PEAs know the needs of existing primary schools as they visit them often and monitor what is happening.

According to the monitoring survey, some problems were identified among some TFs, which are summarized in Table 4-6.

Table 4-6: Problems Identified and Recommendation on Needs Assessment Survey

Problems Identified during Needs Assessment Survey	Recommendations on Needs Assessment Survey
(1) Some TFs have not been trained to prepare a Questionnaire Survey Sheet and conduct a Needs Assessment. - Some questions were very vague and not focused - They were not trained on how to collect, summarize and analyze data to ensure validity. - Without pre-testing, some could not ensure feasibility of the questionnaire.	(1) There is need to provide some kind of training to conduct needs assessment on: - How to prepare a focused and relevant Questionnaire Survey Sheet - How to collect data - How to monitor data collection - How to summarize and analyze data collected - How to conduct pre-testing
(2) Most questionnaires prepared by TFs did not consider physically challenged pupils/students and gender issues.	(2) The questionnaire should consider physically challenged pupils/students and gender issues.
(3) TF only asked opinions of PEAs and teachers.	(3) Questionnaire should ask not only PEAs and teachers but also pupils/students and if possible parents, PTAs and community people to incorporate voices from major stakeholders.

b) Planning of Training and Selection of Trainers

As shown in the Table 4-11, most TFs targeted either unqualified or under-qualified primary/secondary teachers as trainees, and selected MIE trainers, PEAs (in case of primary) and SEMAs (in case of secondary) as trainers. The trainers were selected based on 1) relevant qualifications (Degree), and/or 2) teaching experience. It was also observed that DEMs and DPDs were active not only in pilot project management, but also in working as a trainers (e.g. in Machinga). What was striking was that 36 % of TFs contracted with MIE[7] for both Primary and Secondary INSET.

One good practice for selecting trainers was the approval of TF-1 in Thyolo (INSET Primary); the TF contracted with MIE for training of trainers and selected one PEA and two competent teachers from each zone as a trainer of trainees, considering the sustainability of training at zonal level. One major problem in contracting with MIE was, according to the monitoring survey, many TFs suffered from a budget shortage to pay MIE, as it created some new unexpectedly[8] cost items.

c) Training Program and Materials

While most TFs prepared a rough training program based on a needs assessment, the preparation in detail of the training program (contents development) and materials development was done either by actual trainers (e.g. SEMAs and DEMs) or MIE. As Table 4-11 suggests, 36 % of TFs relied on MIE for actual content development and training of trainers. This implies that considering sustainability of this kind of training, was essential for the TFs which contracted with MIE to try to accumulate the expertise from MIE in order, in future, to sustain the training.

On the other hand, TF-3 in Nkhata Bay (INSET CDSS), TF-2 of Ntchisi (INSET Primary) and TF-3 of Machinga (INSET CDSS) seemed confident enough to develop their own program content. They prepared the training materials and trained the trainers and trainees. Apart from an observation that the contents were too much to be covered within the planned days, they succeeded in raising the capacity of the trainees in their subject knowledge and teaching methodology.

It was observed, in most cases, many TFs included training of Teaching and Learning Using Locally Available Resources (TALULAR) as part of training content, and they put emphasis on a participatory teaching approach as well as introduced new curriculum for both primary and secondary levels.

One interesting example of an INSET project was TF-1 in Thyolo (INSET Primary). Although most TF selected major subjects such as English, Math and Science, the Thyolo TF selected music and PE for INSET training. The TF members and DEM put emphasis on the acquisition by teachers of this special expertise on their own. Consequently, it was reported that pupils at schools were enjoying classes in music and PE.

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[7] This institute has accumulated expertise on curriculum development and teaching methodology. Therefore MIE has instructed training in both subject areas as well as teaching methodology.

[8] MIE has invented a new cost (professional cost for trainers). Due to this, TFs had to reduce either the number of participants for TOT and actual training or the length of the training.

TFs were asked to submit a "Training Plan Review Sheet" to identify whether they prepared appropriately for ToT and actual training and to make the trainings as rewarding and effective as possible. The information collected is summarized in Box 4-2. As a general observation, most TFs more or less prepared the review sheet. Some TFs prepared it with detailed information (e.g. TF-3 of Mchinji and TF-2 of Thyolo), while some prepared only rough ones. Others did not prepare the review sheet at all before the training (e.g. TF-1 & -2 of Ntchisi, and TF-4 of Machinga). In addition, there were some TFs who did not know what happened during the preparation processes, as a result of the over reliance on the outside institution (MIE) contracted to provide the training. From the perspective of sustainability and quality, it was advisable that TFs managed their tasks properly by themselves and when outside institutions were involved, they should monitor and learn from them as much as possible, so that they could do the same on their own next time.

Box 4-2: Contents of the Training Plan Review Sheet

- Rationale of the Training
- Training objectives
- Details of Training Subjects
- Details of the Contents to be covered for each selected subject
- Profile of the Trainers (qualification, experience, etc.)
- Profile of the Target Teachers

Box 4-3 summarizes the problems identified during this stage with corresponding recommendations.

Box 4-3: Problems/Recommendations Identified regarding Needs Assessment Survey

- Many TFs relied on outside institutions (MIE) for training content development, which suggested that the capacity at district level for this expertise could not be easily developed. It was recommended that at least the people within the district participate in the training plan development and implementation process for sustainability of INSET programs in the future.
- The planned training program content seemed to be too voluminous to be covered during the planned training periods. Therefore, it was advisable to either reduce the content (more focused) or make the training period longer. There were many TFs which did not specify the necessary qualifications, expertise, experience, etc. for the Trainers of the ToT before the actual ToT. This affected the relevance and quality of the training.
- There were some TFs which had not prepared project plans (training plans) and a training review sheet. The absence of plans may have deeply affected the success of the training, and it expected capacity building among the TF members to conduct INSET in the future on their own.

d) Implementation of Actual Training

Table 4-7 summarizes observations related to actual INSET training (ToT and actual training) (both positive and negative) and recommendations related to the process of the actual training implementation. It is important from the observations to plan training in detail as much as possible, considering as much information as possible, especially because the financial resources are limited and it is time and energy consuming to keep progress and financial records.

Table 4-7: Summary of Observations at Training Implementation Stage

Observation identified during the INSET trainings	
Needs addressed	Many INSET trainings were identified as reflecting the actual needs. However it is also true that all the topics based on the needs were not covered due to the time limit, or facilitators had to rush to cover all the topics selected.
Participatory teaching not always conducted	In many INSET training courses, the facilitators successfully adopted participatory teaching methodology when giving lessons at the trainings. The programs included too much content, so they had to give lectures too often to cover it instead of using participatory methods. There were also complaints that the trainings were not in depth as a result.
Too much contents to be covered	As TFs included too much content, facilitators often had to rush to teach it all or omit some topics, which, as a result, prevented them from using participatory teaching methodologies. At the same time, it was difficult to address expressed needs found in the needs assessment as some topics were omitted. As a result, some participants confessed that too many subjects were taught and their teaching was not in depth. Some requested another INSET as a result. Therefore it is strongly recommended that at the planning stage (especially at needs assessment stage), TFs focus on selected topics based on the pupils and teachers' documented needs.
Shortage of budget	Due largely to under budgeting, many TFs had to shorten the length of training or reduce the number of participants. Under budgeted items included 1) the cost of fuel for monitoring, 2) the cost for contracting outside institutions such as MIE, 3) the cost for transportation of participants, and 3) the cost of allowances for participants (the number of the participants were underestimated.) This affected project implementation either by shortening the training length, by reducing the number of participants or by reducing the amount of allowances provided, or by reducing the number of subjects covered.
Late funding & postponements of the training date:	As a result of late funding, some TFs had to postpone the training dates. There were many other TFs which failed to submit monthly progress and financial reports, which resulted in late funding. Because of this, some TFs had to postpone their training programs[9].
Venue problem	There were some TFs that had to change venue just before the training date, which affected absence rates among participants.
Intentional omission of topics	Some facilitators appeared to omit topics intentionally, those too difficult to teach, which might have reduced the impact of training.

[9] The worst case is that TF 1 had postponed the training due to late funding; however, this delay extended over the regular school period. Therefore, the TF had to wait until the end of the period. Another TF 3 in Mchinji, only 129 out of 210 expected participants (61%) were present at the training. The direct reason was not evident; however, it might have been related to the date setting of the training. It was therefore important to cover the 39 % of the expected participants who did not participate in the first training.

e) Monitoring and Evaluation

Monitoring and evaluation of the INSET training was mainly done through training and classroom observations by; 1) TF members themselves and 2) the NIPDEP Team. In the case of Machinga, TF3, the monitoring of training was conducted at 8 CDSSs out of 15 CDSSs by the TF members and the facilitators from SEMA.

Monitoring projects was to be one of the most critical activities to be undertaken by the TFs. The TFs were generally not familiar with its methodology in Phase I. Guided by the facilitators and the NIPDEP Team (CDI), the performance of the monitoring was improved in Phase II. Box-6 shows some of the items that the TFs used as indicators of progress during the monitoring.

One of the findings was that the monitors tended to jump to the erroneous conclusion that the training was relevant and the teachers were now teaching better, a conclusion without adequate observations. Some of their observations were not convincing, because of the lack of the quantitative information. As already suggested by some of the TFs, continuous monitoring should be carried out not just by the TFs members or PEAs, but also by division and district offices.

Box 4-4: Monitoring Items

- Training is improved in lesson planning
- Syllabus are used
- Training subjects are taught in classes
- Training and learning materials provided during the training are being used

(3) Achievements

Output and outcomes from the implementation of the INSET-related projects are summarized in the Table 4-9. Some of the important points are described below:

a) Outputs

An immediate output of INSET projects was that a large number of teachers were trained. The number of teachers trained is summarized in Table 4-10. Some TFs selected their target groups from several zones out of the whole district; others selected several schools in all zones. Training manuals, handouts and other materials, such as posters and maps, were other important outputs. If manuals and handouts were made available to all the participants, the quality of teaching would presumably be better than if they were not avaialble. About a half of the TFs that implemented INSET courses could not supply enough training manuals due to technical and financial problems and limits.

b) Impacts/Outcomes

Measuring the outcomes and impacts of the INSET was not an easy task. Five days training should not be expected to sustain changes in teaching behaviors; however, it was observed that the impact of training on class management, such as the preparation of lesson plans, time management, and uses of the syllabi, was learned more evidently by trainees than by comparison the teaching of subject matter. In Nsanje, after the CDSS training, some teachers went back to their schools and prepared lesson plans for the new term as trained in INSET, so that they now know preparation is necessary before each class.

It was also observed in relation to the application of participatory methods, that some teachers became more interactive, giving pupils/students more opportunities to participate actively in classroom teaching and learning in the form of, for example, question-and-answer (Q&A) and brainstorming, group activities, etc. Some negative outcomes were also seen. The five day INSET did not really help those unqualified teachers. They could not really be expected to be capable of handling subject matter like science and mathematics in such a short time, so gains in competence were minimal. The outcomes by each pilot project are summarized in Table 4-10.

4.5.2 Training and Campaign for Community Awareness

(1) Background of the Pilot Projects and Objectives

Many of the educational problems in Malawi, such as, a high dropout ratio, low literacy rate for girls, high incidences of HIV/AIDS among teachers, are not only an education problem, but are closely related to the socio-cultural environment of local communities. Involvement of the community in education and its understanding of its importance will help not only increase enrolments of more children in school but also improve the environment for learning. NIPDEP awareness programs included training to strengthen the SMCs and PTAs. Such training was conducted in Nkhata Bay and Ntchisi. An education awareness campaign was conducted in Machinga, training for gender awareness in Mchinji and an HIV/AIDS intervention campaign was conducted in Thyolo.

The main objectives of the SMC and PTA training in Nkhata Bay and Ntchisi was to equip the PTA, SMCs and local communities with knowledge, skills and attitudes to enable them to contribute effectively towards school management. The pilot project Phase I implementation of EMIS training in Nkhata Bay, Ntchisi and Mchinji was to target not necessarily the communities, but the teachers at all levels to stimulate them to improve data collection and analysis. The awareness activities of Mchinji, Machinga and Thyolo were aimed at increasing awareness of the social issues that affect school attendance and learning such as gender, HIV/AIDS and drop-outs. These issues were addressed through various sensitization and training programs for the local communities.

(2) Processes of Implementing the Projects, and Problems Identified at Each Stage

a) Need Assessment

Most of the TFs used a questionnaire form to obtain the information concerning who were the main stakeholders and what kinds of knowledge and skills training they needed. For instance, a Knowledge, Attitude, Practice and Behavior survey (KAPB) was conducted in Thyolo to assess the stakeholder's knowledge of HIV/AIDS related issues. As shown in Table 4-8, the KAPB survey showed a lack of knowledge about HIV/AIDS by all stakeholders, particularly parents. A sensitization campaign, conducted after the survey was conducted which put a stress on the importance of understanding the knowledge about the need for protection from HIV/AIDS.

In Mchinji, the needs assessment was targeted for three different cultural groups because their concepts of gender and cultural and religious practices were different from one another.

If the approach was appreciated, the TF should have incorporated the results in the training content, which was not always the case.

Table 4-8: Summary of HIV/AIDS Knowledge (KAPB survey)

	Students (96)	Teachers (16)	Parents (20)
Definition of HIV/AIDS	17%	63%	10%
Danger of HIV AID	40%	69%	35%
Danger of premarital sex	54%	25%	35%
Traditional practices to increase HIV/AIDS	54%	25%	35%

Source: KAPB Survey Result, Thyolo 2004
Note: ( ) indicates the size of the sample

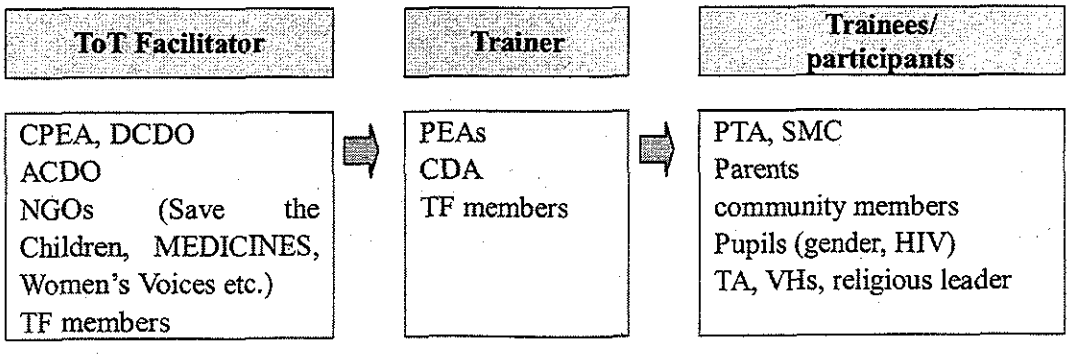
Needs assessment was a useful method to identify the stakeholders during the pilot project Phase-I and to improve the training content and quality for Phase II. It was observed that none of the TFs changed or improved the questionnaire after the review of the previous year.

b) Planning of Training and Selection of Trainers and Trainees

At the planning stage, the TFs incorporated the results of the needs assessment, then identified the ToT, trainees and developed the training programs. In comparison with the INSET, the background of the facilitators of ToT and trainers of awareness programs were more divergent. As shown below, the TFs identified the facilitators not only from the education sector, but also from the DCDO and NGOs. In Ntchisi, the main facilitator for the ToT was identified from the Save the Children Federation, who had many years of experience in community mobilization programs. In Mchinji, the TF selected facilitators from all organizations related to girl's education in the DEM office, the Ministry of Gender, the National Initiative for Civil Education (NICE), and the Women's Voice and Youth Association.

The trainers were mainly Community Development Advisors (CDAs) and CPEAs designated at each educational zone. It was considered a good combination since both have their own strengths in "Education (CPEA) Awareness (CDA)" (Figure 4-4). By involving the different organizations, some communication problems were caused. If a TF chairperson were at a DEMs office, communication with the PEAs was much easier than with the CDAs. In Mchinji, some PEAs were not informed of the changes in schedules and eventually this caused further delays in the training.

Figure 4-4: Trainers, Trainees and Participants of Awareness Campaign



The type of trainees and participants were different from one project to another, depending on the objectives. One of the key stakeholders in education awareness was the involvement of the traditional authorities (TAs) and village heads. In Machinga, the TF attempted to formulate education cluster committees including village leaders and SMCs. In order to encourage the whole community to participate in the program, the TF visited all 12 traditional leaders to ask them to support their activities. The TF and the TAs visited group village headmen (GVHs) to do the same, and finally the village headmen (VHs)

In Mchinji, too, the TF realized that the stakeholders who influence the changes in behavior and practice were the TA and other religious and traditional leaders in the local community, in addition to students, teachers and parents. The sensitization of the TAs was the most effective way to change negative ideas and behaviors about education. Apart from the TAs and counterparts, another important stakeholders were groups of women from the local communities. Most TFs neglected the inclusion of women, including, surprisingly, gender awareness training in Mchinji.

c) Development of Training Programs and Materials

Training programs and materials were prepared based on needs assessments and selected targets; therefore, the focus of the training topics was quite different from one project to another. Box 4-5 shows the comparison of school management training in Nkhata Bay and Ntchisi. As a result of the need assessment, Nkhata Bay focused more on social subjects, such as gender, child rights, and environment, as the main issues. In Ntchisi, training was centered on the functions and management of SMCs, which tried to show how other stakeholders could possibly be related to them.

When the training topics were selected, the TF started to prepare the training materials. As in the case of INSET, most of the TFs for awareness campaigns used the ready-made materials prepared by the professionals from the outside. In Nkhata Bay, although a number of important topics were given, the TF selected and used the handouts developed by donors which hardly reflected the local context. Since there was a unique traditional and cultural context in Nkhata Bay, it might have been more effective if they had developed their own materials by their own experts, on the important issues such as gender, HIV/AIDS and child rights.

Box 4-5: Samples of Training Programs and Materials

Nkhata Bay	Ntchisi
• Role of PTA, SMC	• Composition of SMC
• Leadership styles	• Functions of SMC
• Problem solving steps	• Responsibilities of head teachers
• Community mobilization & fund raising	• Roles of parents, chiefs
• Record keeping	• Problems of SMCs
• Professional ethics of teachers	• Factor limiting the level of community participation
• Child rights, gender,	
• HIV/AIDS, environment	• Formulation of school development plan
• Plan of action	• Action plan

One good practice in Mchinji concerned the preparation of the training materials (Table 4-9). While the TF members drafted the training and sensitization materials by themselves, the Ministry of Gender and other ToT members gave them relevant advice for the finalization. The original materials of the TF included brochures, handouts and four kinds of posters, advocating increased enrolment of girls.

d) Implementation of Training

The actual training for awareness took place in around three to five days. School management training was conducted in five days, as there were more topics to be covered than the rest. HIV/AIDS training was held in two parts: the first for head masters and teachers and the second part for peer educators (life skill club members). Gender Awareness training was held for three days, one day for each category of stakeholders, because the messages for each were different.

Table 4-9: Main Topics of Gender Awareness by Different Stakeholders

DAY	Participants	Main Topics of the Sensitization on Gender
Day 1	Students (1 boy and girl per school)	Importance of retention of schooling, girls being educated. Boys' behavior towards girls. Introduction of role models
Day 2	Teachers (1 male and 1female teacher per school)	Reconsideration of punishment. Encouraging retention of girls. Prohibition of affairs with students
Day 3	Parents (PTA, SMC, parents)	Importance of girls being educated Construction of facilities such as toilets for girls
Additional Meeting	Community leaders (TA, VHs, religious leaders, PTA, SMC)	Sending girls to schools Stop cultural and religious practice during the school term

All the TFs completed their training programs despite some delays and changes in the number of participants. Delays in the schedules were the critical factor for the success of training as the teachers were engaged in teaching during the school term. In the case of Ntchisi, the late submission of the financial reports by other TFs forced the TF to conduct the training during the weekends of the school term. High absenteeism and teaching inefficiency resulted.

The most important part of education awareness training was to develop an action plan at the end of the training. In the Action Plan, each target group (SMCs, education clusters and other education committees) was to develop an action plan, indicating what, when and how actions were be taken by the groups to implement what was learned.

e) Monitoring and Evaluation

As is the case with INSET, TFs overseeing awareness campaigns were generally not familiar with the objectives and processes for monitoring and evaluation in Phase I. It was improved in Phase II guided by the facilitators and CDI personnel. For awareness training, the role of TFs was to monitor and evaluate the progress of the action plan implementation. Both in Nkhata Bay and Ntchisi, most of the PTAs and SMCs were more active in the

implementation of construction projects such as teacher's houses and classroom blocks. It was a positive sign that the SMCs were actively involved in the construction projects.

The action plans from the awareness training such as education awareness in Machinga, Gender Awareness in Mchinji and HIV/AIDS in Thyolo stimulated the implementation of sensitization programs at the school and community level. In Thyolo, life skills club (LSC) members trained in each target school conducted their anti-HIV/AIDS campaign at schools twice a week. Their activities included, singing of songs advocating the eradiation of HIV/AIDS, dramas on the dangers of smoking and drinking, speeches and poems composed and read by the students and dancing. LSCs also participated in competitions on different themes such as music, sports, drama and so on. The TF is planning to run a league (football and netball) which is scheduled to begin after the completion of the pilot project.

(3) Achievement

a) Output

The summary of the outputs and outcomes of the awareness programs is provided in Table 4-10. The immediate output of the awareness training was the provision of training for the various stakeholders as explained earlier. Furthermore, other outputs were also achieved. 17 bicycles were provided in Machinga, for the supervision of education awareness activities at the end of the pilot project. Although the number was not enough, as there was a total of 33 clusters covered, it was a good start for the committee to take over the ownership and maintenance of the bicycles. In the case of Nkhata Bay and Ntchisi, the TF produced a training manual for the PTAs and SMCs. They are now at the DEM's office a general guideline for the forthcoming awareness activities in the district. Poster, handouts and leaflets were made available by the gender awareness TF in Mchinji, too.

b) Outcomes

Many of the SMCs were revived, SMC members and related people been again to recognize their role in education. In Ntchisi, particularly, SMCs were coordinating with donors encouraged to build teachers' houses where new school buildings were being constructed with the assistance of DfID. A two-year long activity in Machinga was also bearing some fruits. In Michonpe cluster, while almost one third of the children left school during last academic year, there were only a few drop-outs this year. This was due to the effort of a cluster leader (village headman) who imposed fines on the parents not sending their children to school. In Naperi cluster, the members made efforts to monitor the attendance of pupils and visited the pupil's houses directly, if he/she was absent for more than a week. With the provision of bicycles, the cluster members were expected to work more actively toward community education awareness.

The role of pilot projects was to reactivate the existing committees to pursue their roles or to familiarize the stakeholders with important social issues. Some of the stakeholder groups already started to take actions. The real question, however, is whether the continuity or sustainability of such activities will be supported by the community. The stakeholders should make use of the resources in the future made available to them during Phase I and Phase II, such as the training materials, training personnel, local organization networks.

Table 4-10: Summary of Outputs and Outcomes of INSET and Awareness-related Pilot Projects in Phase-I and Phase-II

	Name of Pilot Project	Output		Outcome (Positive and Negative)	Managerial and technical issues encountered
		Phase-I	Phase-II		
Nkhata Bay	TF 5 INSET for management (Phase-I)	146 teachers 160 heads and DEM trained	NA	Teachers commented that they can now teach the new curriculum with ease and confidence.	
	TF 6 DEMIS/EMIS Training (Phase-I)	179 heads trained. Statistical bulletin was prepared	NA	Improved data management and record keeping was observed in the targeted schools.	Due to the failure in budget estimates, the number of trainees was reduced.
	TF 3 INSET CDSS (Phase-II)	NA	94 teachers 16 head teachers were trained Training manuals were developed	Improved teaching as per inspection reports. The participants become confident enough to give the same INSET to their colleagues and actually plan to conduct INSET at school-level. It has been observed participants are applying participatory methods acquired at the training at classroom level.	Late funding delays the timing of the training.
	TF 5 Activating SMC	710 SMCs trained Training manuals were developed	52 PTAs were trained Training manuals were developed	Record keeping improved in schools. Community involvement and participation in development work improved. E.g. many schools have molded bricks for construction of classrooms.	Reduction of allowances from MK 300 to MK100 discouraged the participation of some members.
Ntchisi	TF2 DEMIS/EMIS Training (Phase-I)	1 computer procured 354 attendance registers procured 675 teachers were trained	NA	More local people who came to the DEM's office to report discipline problems with teachers, requested more teachers and are asking for changes in teachers.	The scheduled time was not long enough to finish all the content of the training program.
	TF 1 INSET Primary	482 teachers trained	389 teachers trained	The participants understood the importance of so-called neglected subjects such as agriculture, art crafts, and PE. Some participants have increased the number of hours for art crafts. Some of the participants have started voluntarily school farming after the INSET.	Delay of the funds delayed the schedule and so the training was held during the school term.
	TF 2 INSET SMC	76 SMCs trained Training manual was produced	1700 SMCs, . PTAs members trained PTA manual was produced	After the training, some SMCs became more active in constructing and maintaining teachers' houses. The participants feel confident in INSET with their colleagues.	Improvement of training contents by using participatory methodologies.

	Name of Pilot Project	Output		Outcome (Positive and Negative)	Managerial and technical issues encountered
		Phase-I	Phase-II		
Mchinji	TF3 INSET Primary	187 Untrained teachers trained	NA	Class management skills were most effective and time management was particularly improved.	The initial content targets for the teachers (trainees) were not all covered.
	TF 4 EMIS Training (Phase-I)	80 Senior staff trained Statistical bulletin 1 photocopier machine procured.	NA	Training enabled the head teachers and deputy head teachers to fills in the various statistical homes at the school level.	In some schools, records were not available; some head teachers were also teaching and they had no time for record updating.
	TF 3 INSET Secondary (Phase-II)	NA	129 Under-qualified teachers were trained	Teachers are now better prepared before their classes and they now use INSET teaching and learning materials. More teachers now try to motivate their students. More teachers have voluntarily prepared teaching materials for effective classroom teaching.	ToT was conducted only for 3 days due to misunderstandings between the facilitators from SEMA and the TF.
	TF 6 Gender Awareness (Phase-II)	NA	895 (pupils, teachers, community leaders trained. Sensitization materials were developed	With the training, the TAs and village headmen now can convince parents to send their girls to school. Some communities encouraged the religious-traditional practice of initiation to take place only during the school holidays.	Because of the wide coverage area, the TFs had tremendous problems in monitoring the activity.
Machinga	TF1 Education Awareness	33 cluster committees formed	33 SMC committee members trained. 17 Bicycles were provided for 17 active committees.	In Michonpe cluster in Machinga, while almost one third of the children left the school during last academic year, there were only a few drop-outs this year. This was due to the effort of a cluster leader (village headman) who imposed fines on the parents not sending their children to school. In Naperi cluster, the members monitored the attendance of the pupils and visited the pupil's homes if he/she was absent for more than a week. Inaccessibility to bicycles discouraged the activities of some committees.	Reporting from each cluster committee was very poor and it was difficult for NIPDEP and TFs to grasp the progress.
	TF 3 INSET CDSS	140 teachers trained	115 CDSS teachers from in 15 CDSS	According to classroom observation, more teachers started to prepare day-to-day lesson plans as well as an annual teaching plan and some of them voluntarily prepared teaching materials for effective classroom teaching. It seems that this INSET and TF2 procurement of textbook have synergistic effects in terms of a better quality of education.	
	TF 4 INSET Primary	1,044 teachers trained	290 teachers from 5 zones trained	Neglected subjects such as music and PE are now taught at many schools.	Training in 7 subjects in 4 days was inconsumable for the most of the participants.

	Name of Pilot Project	Output		Outcome (Positive and Negative)	Managerial and technical issues encountered
		Phase-I	Phase-II		
Thyolo	TF 1 INSET Primary	289 untrained teachers trained	448 teachers in 13 zones trained	The INSET program included music and physical education. 2 teachers who participated in the INSET said that pupils enjoyed the classes of music and PE much more than before. Some teachers had not learned these subjects at school and they were not capable of teaching then without subject matter training.	
	TF 2 INSET CDSS	60 CDSS teachers oriented to new curriculum	60 CDSS and 5 private schools teachers were trained	All participants have received training manuals, which were to be used continuously after the training on classroom teaching.	Proper needs assessment was not done at the beginning and there were complaints from the participants about the training contents.
	TF4 HIV/AIDS Intervention in Primary schools	46 LSCs formed 30 SMC members and patrons, 150 peer educators trained	16 primary schools (pupils, patrons and head teachers total 112) trained	The existing Life Skill Clubs were reactivated. LSC members in each target school conducted their campaigns at school twice a week.	
Nsanje	TF 6 INSET Primary /Management	6 PEAs and DEM trained	179 head and deputy teachers (Head teachers trained	Some participants use the maps and pictures which were given at the Training at their school, which attracts pupils to what is being taught much more than before. School management has been ameliorated, which encourages SMC to make and collect bricks for constructing headmaster's house.	Training materials were distributed only after the training due to the shortage of funds.
	TF7 INSET Secondary	127 CDSS teachers trained	125 CDSS teachers (119 on day 1 and 121 on day 2) trained	Secondary teachers, interviewed said that they have learned a lot about the subjects, especially in science and English. They said they can make the most of this experience in actual classroom teaching.	

Table 4-11: Summary of INSET-related Projects in Phase I and Phase II

	Type of Training	Program Developer	Contents Developer	Trainer of Trainers	Material Developer	Trainers (Facilitator) (No.)	Trainees (No.)
Nkhata Bay	TF 3 CDSS	TF	SEMAs, secondary teachers in the district	SEMAs, secondary teachers in the district	SEMAs, secondary teachers in the district	SEMAs, secondary teachers in the district	94 teachers 16 head teacher
	TF 5 SMC	TF	Headmaster PEAs, NGOs CDAs (community dev. assistants)	Headmaster PEAs, NGOs CDAs (community dev. assistants))	Headmaster PEAs, NGOs CDAs (community dev. assistants)	PEA, CDA	52 Parents & teachers association
Ntchisi	TF 1 Primary	TF	*MIE*	*MIE*	*MIE*	*MIE*	389 teachers trained
	TF 2 SMC	TF	TF	TF	TF	PEAs, CDAs NGOs	1700 SMCs, PTAs members trained
Mchinji	TF 3 Secondary	TF	SEMAs	SEMAs	SEMAs	SEMAs	129 under-qualified teachers
Machinga	TF 3 CDSS	TF	SEMAs, DEM Secondary teachers in the district	SEMAs, DEM Secondary teachers in the district	SEMAs, DEM Secondary teachers in the district	SEMAs Secondary teachers DEM	115 CDSS teachers from in 15 CDSS
	TF 4 Primary	TF	*MIE*	*MIE*	*MIE*	PEAs, experienced teachers	290 teachers from 5 Zones
Thyolo	TF 1 Primary	TF	*MIE*	*MIE*	*MIE*	PEAs, experienced teachers	448 teachers in 13 zones
	TF 2 CDSS	TF	Experienced teachers within the district	Experienced teachers within the district	MEN	Experienced teachers within the district	60 CDSS 5 private schools teachers
Nsanje	TF 6 Primary Management	TF	*MIE*	*MIE*	*MIE*	PEAs, experienced secondary teachers	179 head and deputy teachers
	TF7	TF	SEMAs DPD Domasi College of Education Chancellor College	SEMAs DPD Domasi College of Education Chancellor College	SEMAs DPD Domasi College of Education Chancellor College	PEAs, experienced secondary teachers	125 CDSS teachers

4.6 PROCESS AND ACHIEVEMENT IN PROCUREMENT PROJECTS

4.6.1 Approach for Procurement

11 projects out of 39 NIPDEP pilot projects (28%) in Phase I, and 11 out of 41 (27%) projects in Phase II were procurement projects. Procured equipment were science kits, desks and chairs, textbooks and teachers guides, and office equipment. Main objectives and key issues for each procurement project are as shown on Table 4-12.

Table 4-12: Procurement Items, Objectives and PIF Key Issues

Procured Items (target level of schools)	Objectives	Major Key Issue (PIF Goal)
Desks and Chairs (both primary and secondary schools)	▪ To create enabling environment for teaching and learning especially for girl children; Improve quality and retention; Stop drop-outs (Mchinji and Nsanje)	Equity
	▪ To develop and maintain minimum standards for quality education (Ntchisi)	Quality
Textbooks and Teachers Guides (secondary schools)	▪ To increase accessibility of instructional materials to both teachers and pupils; To increase exam pass rates (Machinga and Thyolo) ▪ To improve the implementation of the new curriculum; To improve the availability of study materials; To improve pupil capacity in doing assignments (Nsanje)	Quality
Science Kits (secondary schools)	▪ To create students' creativity, critical thinking, and wills for experimental research (Ntchisi) ▪ To enhance science and technology education in secondary schools (Thyolo) ▪ To equip CDSS teachers with necessary information, knowledge, and equipment so that students are taught science subjects (Nsanje)	Quality
Office Equipments (CDSSs in Thyolo; TDCs in Nsanje)	▪ To Improve the capacity of CDSSs to provide support services to education (Thyolo) ▪ For TDCs to function as in-service and referral centers, to equip TDCs with necessary facilities (Nsanje)	Management

Source: Prepared by NIPDEP Study Team

4.6.2 Process of Procurement

(1) Planning

In general, project activities were implemented as they were originally planned. In terms of budgeting, however, some districts did not plan adequately in Phase I. An example of inadequate planning was that some districts discovered the items they planned to purchase were far more expensive than they had budgeted. It was not only because they did not use

up-to-date market price information in budgeting, none of the budgets had any items in them, such as contingencies to counter price inflation. As a result, these districts were forced to reduce the number of items they could purchase. The second example was that budgeting for transportation for site selection and supplier selection was not planned carefully. One TF in Nsanje realized that they had a small transportation budget for site selection and for supplier selection, although they had to visit Blantyre for obtaining quotations, contracting orders, and for the delivery of goods. The inclusion of contingencies in the procurement budgets in Phase II saw a drastic improvement in the implementation of these projects.

One point to be noted at the time of project formulation is operational costs after the project ends. Even though a "procurement project" was easily given as a straight forward uncomplicated intervention compared to training/community awareness and construction projects, for sustainability, it is important to incorporate budget items for recurrent costs such as consumables, maintenance, and repairs not only to come from the community, but also from district offices and the education division offices.

(2) Implementation

The main activities are shown in Box 4-6. Activities, such as regular TF meetings and financial and program management, reporting by TFs were required in addition to the listed activities.

Box 4-6: Main Activities of Procurement

(1) Needs assessment (site selection)
(2) Selection of supplier
(3) Execution of order/ contract
(4) Delivery of goods
(5) Community sensitisation
(6) Instruction / maintenance/ training for sustainability
(7) Follow-up inspection, monitoring & evaluation

a) Needs Assessment (Site Selection)

The process for site selection differed among TFs. In Phase I, some TFs did not conduct on-site needs assessments thoroughly, but made assessments from pre-compiled reports at DEM's offices. In that case, some sites were selected on the assumption that the needs and environment of the site had not changed from the time of reporting. In the case of Nsanje, they tried to procure a photocopy machine for the TDC which was to have electricity by the time the machine was to be installed. The reality was that it had not yet been electrified, so that they had to shift the machine to another electrified TDC. Other districts were not transparent about selecting the sites, and the DA chose the sites without conducting thorough needs assessments. In Phase II, assessment was improved and most of the TFs conducted the assessment by visiting potential sites. In order to have effective use of procured goods, schools that were really in need of the goods should have been assessed properly.

b) Selection of Supplier, Execution of Order/Contract, and Delivery

While NIPDEP recommended a fast and transparent way for procurement that was to obtain a minimum three quotations before selecting a supplier, some districts preferred to issue a tender. Although a tender tries to guarantee transparency and accountability, it keeps small scale suppliers away from bidding due to the bond requirements and takes more time to solicit bids.

During Phase I, Thyolo tendered for science kits with little knowledge of the tendering process and so experienced a problem with their selected supplier who refused to produce a

performance bond. Much time was spent trying to resolve this issue. Thyolo eventually had to engage their second choice who failed to supply everything according to the contract because the company sourced their goods from South Africa and the import took more time. Nsanje, on the other hand, was creative in sourcing science kits. They procured a trolley and chemicals separately from the local suppliers. The trolley was designed to fit the standard which supplies unit of MoE recommends, and so they ordered it from a local furniture manufacturer that could provide it at a reasonable price. The necessary chemicals were listed based on the textbook information and were ordered from a supplier who supplies chemicals to hospitals.

In Phase II, Thyolo still maintained the same tender process for chemicals and apparatus, which involved two suppliers. Cabinets were ordered from a local supplier selected through soliciting quotations. They finished procurement on time. By November 2004 almost all of the procurement projects had been completed with the exception of a few. They tried to ask their supplier to offer free delivery when negotiating prices. This was successful in districts such as Thyolo, where the distance from the nearby city was not very far. In Phase II, they even tried to confirm a *workability* and *warranty* on the goods, which is very important in a country like Malawi, but easily forgotten by many consumers.

c) Community Sensitisation

Community participation in procurement posed a challenge for the pilot projects. In an effort to instil community ownership of the desks, textbooks, science kits and office equipment supplied under these projects, the TFs held community sensitisation meetings before purchasing, and some after the delivery of these goods. These sensitisation meetings besides informing the communities of the impending acquisition tried to let them know the roles of teachers, students and community on the security of goods, and importance of the goods for education betterment. At the same time, the meetings aimed to ask the communities to do fund raising for maintenance, to provide consumables, and to set up a TRF.

Some TFs such as in Nsanje, with respect to newly bought desks and chairs, the communities even suggested writing rules and regulations for maintenance of goods, so that they could be used by them for a long time. Machinga in Phase II tried to introduce a TRF program, learning from Nsanje.

d) Instruction/Maintenance Training for Sustainability

Trainings were held either purely focused on maintenance (desks, textbooks) or were orientation programs on the use of the equipment, including maintenance as a topic. Nsanje district went as far as engaging experts from the National Library Service to train the beneficiary librarians. In Thyolo and Nsanje, science teachers were trained how to use science kits. In order to make effective use of procured goods, NIPDEP recommended these trainings and the use of contingency funds remaining after all the scheduled activities were completed to utilise it for purchasing start-up consumables.

As for the purchase of consumables for the office equipment procurement and science kit projects, it was expected that procured goods would not be used once their consumable goods (papers, toners, etc) and replacement goods (broken beaker, tubes, etc) were finished. In order for this not to happen, TFs should have procured the start-up stocks from their

contingency budgets; however, it was still necessary for Core Trainers and district education managers to follow up to get financial support from the division, district, or receive a contribution from the communities to ensure continued use of the procured goods.

e) Follow-up Inspection, Monitoring and Evaluation

For procurement projects, the role of the TF was to monitor the progress of the implementation, inspect and evaluate the use of goods procured by the project. In terms of progress monitoring, all chairpersons of TFs had to know all the planned activities scheduled for their project. One chairperson in Ntchisi did not have the planning "Matrices" with him. Therefore, when a NIPDEP member asked about his plans for a community sensitisation workshop, he could not answer what should be done. Similarly, some TFs did not compile and submit monitoring reports for these activities to NIPDEP, even in the second phase. As for inspection and monitoring for better use of goods after delivery, there is little to report about the present situation since it is still in progress. It is Important for NIPDEP, Core Trainers, and district officers to address the importance of inspection and monitoring for the better use of goods after delivery. It is also valuable to verify the effect of community sensitisation trainings.

f) Financial Management

In terms of payments for goods, there were essentially two modes of payment to suppliers for procurement projects set by the NIPDEP Team; direct payment and payment through the PMT account. Direct payments were made directly by the NIPDEP team to the supplier after the delivery of goods and after the receipt of a formal confirmation for such from the districts. The second mode of payment was made through the district PMT account for small scale local suppliers who did not have bank accounts but had been contracted by the districts. Payments to these suppliers were only made after delivery and after the districts had formally confirmed this. Very few financial problems were encountered during the implementation of procurement projects. A majority of them were successfully implemented within originally planned budgets, leaving the TFs with excess money from their unused contingencies. Almost all the TFs utilized their contingencies for procuring additional goods which benefited more target groups.

4.6.3 Achievement and Outcome of the Procurement Projects

The output of procurement projects throughout Phase I and Phase II are shown in Tables 4-13 and 4-14. In total, 27 science kits were procured for 27 CDSSs, 2,865 students' desks and chairs were purchased for 25 CDSSs and 12 Primary Schools, 8,573 text books were purchased for 24 CDSSs, and office equipment such as typewriters, duplicating machine, or filling cabinets were purchased in 26 CDSSs or TDCs. Other than the immediate outputs of procurements including the improvement in the access to the procured goods such as pupil/desk, pupil/textbook ratio etc), there were outcomes of Phase I procurement projects that were reported on the Impact Survey conducted by the DEM office staff members.

It was understood from Table 4-15 that, in some cases (shown in *italics*), the introduction of equipment had been misunderstood by parents as reducing their financial burden. It might be true in the short term, but in the long term, it will be a negative impact, if the cost of

maintenance and sustenance is not taken seriously and planned in advance by both parents, communities, and district and division offices.

Table 4-13: Output of Procurement Projects in Phase I

District	Pr No	Project	Type of Equipment	No of School	No.
Ntchisi	5	Procurement of desks for primary schools	Desks and chairs	5	410
Mchinji	5	Provision of furniture to secondary schools	Desks and chairs	2	195
Maching a	2	Procurement of textbooks and teaching Guides in CDSS	Textbooks	7	880
Thyolo	3	Procurement textbooks for secondary schools	Textbooks	10	2,980
	5	Procurement of science kits for secondary schools	Science kits (chemicals & movable table)	5	5
	6	Procurement of office equipment for CDSS	Typewriter	7	7
			Typewriter & duplicating machine	3	3
Nsanje	1	Improvement of teaching and learning environment by provision of desks table and chairs in primary schools	Desk and chairs (double desk)	4	400
	2	Improvement of teaching and learning environment by provision of desks, tables, and chairs in CDSSs	Desk and chairs (single desks)	4	400
	3	Improvement of science teaching by provision of laboratory kit and training of science teachers in secondary schools	Mobile lab kit	7	7
	4	Provision of pupils book and teachers guide for secondary schools	Textbook	7	1,304
	5	Operationalizing teachers development center as in-service and referral center	Duplicating machine	2	2
			Typewriter	3	3

Source: Prepared by the NIPDEP Team

Table 4-14: Output of Procurement Projects in Phase II

District	No	Project	Type of Equipment	No of School	No.
Ntchisi	4	Provision of 3 mobile laboratory kits to CDSS	Laboratory kit	3	3
	5	Procurement of desks for secondary schools	Desks and chairs	8	450
Maching a	2	Provision of textbooks in CDSS	Textbooks, teachers guide	7	1282
Thyolo	3	Procurement secondary school textbooks for core subjects	Textbooks, teachers guide	5	1,150
	5	Procurement of science kits for secondary schools	Science kits (chemicals & movable Table)	5	5
	6	Procurement of office equipment for CDSS	typewriter & duplicating machine, filing cabinets	5	5
Nsanje	1	Improvement of teaching and learning environment by provision of desks table and chairs in primary schools	Desk and chairs (double desk)	8	504+17
	2	Improvement of teaching and learning environment by provision of desks, tables, and chairs in CDSSs	Desk and chairs (single desks)	6	506+10
	3	Improvement of science teaching in provision of laboratory kit and training of science teachers	Science kit	7	7
	4	Provision of pupils books and teachers guide	Textbook	8	977
	5	Provision of office equipment to TDCs	Duplicating machine, typewriter	6	6

Source: Prepared by the NIPDEP Team

Table 4-15: Excerpt from Impact Survey on Phase I Procurement Projects

Items	Positive Impact	Negative Impact
Desks and Chairs	1) Due to a better environment, student absenteeism decreased. In some schools, girls enrolment increased. 2) Teachers can more easily monitor and instruct pupils because each pupil is allocated a desk. 3) Pupils' hand-writing got better. 4) Pupil hygiene was improved, as uniforms do not get dirty.	▪ The number of desks and chairs were not enough for all the students and the demand for the additional ones became even higher.
Textbooks and Teachers Guides	1) Students are now able to use the textbooks during and after classes, even at home. Some demonstrated better marks on exams. 2) Teachers are now more confident because they can prepare for their classes better using the teachers' guides. 3) Parents started to appreciate the schools more, and student enrolment increased. 4) *Parents are also happy because their financial burden has decreased.* 5) The textbook/student ratio was improved from 236:0 to 12:1 (Thyolo)	▪ The number and variety of books is still not enough. TF could not obtain all the books they wanted. ▪ Security and maintenance continues to be a major concern of some schools without a library.
Science Kits	1) Interest of the students in science was increased 2) For the first time, CDSS teachers started teaching physical science. (Nsanje) 3) Science teachers improved their ways of teaching by using the equipment and they are more confident now to teach. 4) Parents and communities become active and started to discuss the construction of the laboratory buildings with their own efforts.	▪ Two days training was given to science teachers; however, some unqualified teachers are still not capable of handling the equipment and teaching the subjects (Thyolo). ▪ Sustainability of the kits remains a concern in the community because they are not sure of raising enough funds for sustainability (Thyolo)
Office Equipment	1) After training, teachers are now capable of typing and they do not have to go to the division office to prepare exam papers. 2) With the combination of a typewriter and a duplicating machine, exams can be conducted timely and frequently. 3) Typing and printing of performance reports contributed to better communication with parents. 4) *With duplication machines, the schools do not have to ask parents to pay for the printing of exam papers.*	▪ Cost of consumables, maintenance and repair is high. User fees are not enough to sustain the equipment, and there is need for budget assistance from the DEM office (Nsanje). ▪ Community sensitisation should have been done at earlier stage, so that community can get prepared for cost-sharing (Thyolo).

Source: Prepared by the NIPDEP Team

4.7 PROCESS AND ACHIEVEMENT IN CONSTRUCTION PROJECTS

4.7.1 Approach for Construction Project

The NIPDEP construction projects followed basic strategies to have:

(1) reasonable and less expensive building costs for self-sustainability;
(2) effective and efficient community participation within the project timeframe;
(3) solid structures;
(4) capacity development for district officers; and
(5) a regular and routine supervision and monitoring system.

The NIPDEP construction projects had two construction operating systems in Phase I: 1) the Central Way and 2) the Micro Project, which is commonly used in Malawi.

The "Central Way" system is more popular for GoM construction projects in Malawi. In this system, the contractor is responsible for materials procurement and construction, including the hiring of labourers. Under NIPDEP, TFs conducted a tender with assistance from the Local Consultant (architect and quantity surveyor) and placed a contract with a selected contractor.

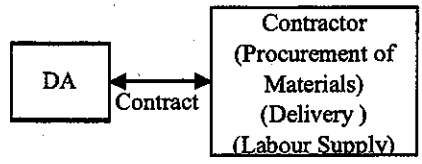
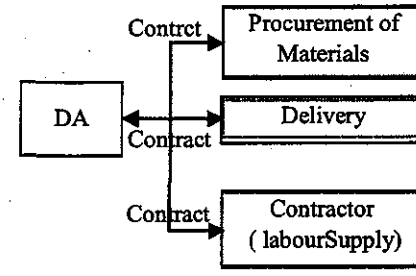
The "Micro Project" system is used on micro-level projects funded by DDF in the district. TFs work with DAs closely. The DA handles material procurement and transports materials to the project site. In the "Micro Project" system, labour is hired by the DA and provided by contractors, and the contractor is responsible for the construction work.

The purpose of introducing the two systems was to assess district capacity to carry out construction projects and to reduce the cost; the Micro Project system might reduce direct cost for projects, hidden costs being borne by DA.

Small scale projects like pit latrine construction and follow-up of Phase I projects were conducted with the "Micro Project" System.

Table 4-16 compares these two project operation systems.

Table 4-16: Comparison between "Central Way" and "Micro Project"

Items	Central Way (Hiring Contractors)	Micro Project (handled by District Assembly)
Role and responsibility for work	 Contractor has responsibility for all operation	 DA has responsibility for coordination and operation
Tender	District Assembly with the assistance by the Local Consultant in documentation	District Assembly
Procurement materials (responsibility)	Contractor	Material suppliers coordinated under DA
Transportation	Contractor	DA
Preparation of tools	Contractor	DA or Contractor, not specified
Responsibility for works	Contractor	Contractor, (responsibility is limited compared to Central Way)
Target contractor	National level (conventional) contractor	District-based (small scale) contractor
Contractor quality level	Good	Some unable to understand bills and drawing specification; Their financial capacity is weak
Construction length	Seems short Contractor has full control	Can be long because of logistic work volume DA can influence
Price	Normal	Relatively low (if no problem)

Source: Prepared by the NIPDEP Study team

4.7.2 Design, Unit Cost, Project Management, Contractors and Maintenance of NIPDEP Pilot Projects and Other Donors

International development partners and NGOs such as DfID, USAID, WB and national organizations have been conducting school block construction projects in Malawi. They have different types of construction approaches in terms of building designs, construction methodology, community participation, cost based development strategies, management experiences and their own administration and financial systems. The comparison summary is shown in the table included in Appendix-I and drawings are included in the NIPDEP Reference Documents.

DfID and KfW have a similar strategy in terms of design. Their design strategy is based on the concept of "low maintenance cost with slightly higher building cost." This is because it is difficult for communities or school management committees to collect enough funds to maintain and rehabilitate the facilities. Soil Stabilized bricks are used to reduce maintenance costs. It is said that this type of brick is good environmental protection compared with conventional bricks, because they do not need wood to fire the bricks.

KfW's model shows less project costs than the others. This is because they do not include the cost of administration and the payment to contractors.

The WB's model cooperated with the Education Development Management Unit (EDMU), which was forced to end several years ago by corruption of its hired consultant. It had a unique combination of contractor work and community contribution. Structural parts, such as the foundation, iron post and roofing, were constructed by a contractor, while non-structural parts such as curtain walls, windows finishings etc., were contributed by the community. Their original intention was to achieve a long life span building and an active community involvement, which had not been achieved by conventional construction components.

The MASAF model is known as a successful model for community participation from the planning to post-project stage. A MASAF project is led and conducted by the community, while in other models, it is handled by technical persons. Low wage labor and community contribution make it possible for communities to construct school blocks at low cost. Currently, the MASAF model is popular in Malawi. Key factors in construction projects, however, such as the construction period and building quality, are strongly affected by the competence of personnel and the commitment of the community. To safeguard these key factors in community projects, they plan to involve district technical personnel, as NIPDEP did, in the construction project in MASAF III which started in 2004.

For teachers' houses, NIPDEP designed was 2-bedroom houses, due to the budget ceiling. Some districts expressed that they would have preferred three-bedroom houses considering the average size of the family.

4.7.3 Process of Construction Projects

(1) Planning

a) Budgeting

In Phase I, the budget plan was prepared based on sample records from the pilot districts, so cost proposal limits were set by the NIPDEP Team. Some projects underestimated the amount of activity costs required to carry out construction and/or included only a limited contingency. As a consequence, some were forced to reduce the number of facilities or the amount of furniture purchased. This affected project progress badly. The district planning teams were advised by NIPDEP, in Phase II plans, to include a contingency of 10-15% of the estimated total project cost and unit costs. The contingency percentage was calculated based on Phase I experiences. This removed the problem faced in Phase I and the balance was utilized for additional support activities.

Even then, after Phase II, as for providing unit cost per building, some districts expressed the feeling that they would have preferred to budget against a bill of quantities and in that way they thought they had more understanding and control of the budget. Also they are used to that from the MASAF experience.

b) Scheduling

The timelines for construction projects were very tight considering the numbers of construction sites and their scattered locations. Furthermore, it was the districts' first opportunity to lead and handle construction projects. It was critical for NIPDEP to complete

the project within the Phase I period (Initially, June 2003 – November 2003, and extended until February 2004) and in the Phase II Period (initially, May 2004 – November 2004, and extended until February 2005), before the onset of the rainy season, which starts in November.

Although the DAs prepared the timeline carefully in the NIPDEP proposal workshops with the technical assistance of the NIPDEP Team, the tightness of the project timelines was serious and critical from the beginning of project implementation. The delay in contractor work was improved in Phase II. Delays still remained in Phase II caused by the unsatisfactory site survey and the inappropriate sensitization of the community which affected community participation with respect to materials mobilization. On top of this, in Phase II there was an uncontrollable cement scarcity situation that caused major delays for construction throughout Malawi. The lessons learned from the planning and implementation stage need to be utilized for planning and implementation for future district construction projects in the country.

(2) Site Selection

Site selection should have been done more thoroughly and carefully in Phase I, considering educational needs, technical requirements, management capacity of TFs, timelines and financial limits. But in Phase I, in most cases, the DPTs gave higher priority to the need to provide access to underserved areas for their districts. As a consequence, they chose faraway isolated project sites, which were very critical sites to address poor accessibility. Also, no other donors or NGOs had taken care of those sites. Poor accessibility and distance between project sites forced logistical challenges for contractors to procure materials to construct facilities and for TFs to supervise and monitor projects frequently. In addition, construction on dispersed sites caused higher overhead costs.

The transportation volume for project was not enough to enjoy efficiencies of scale. Some DAs had already decided on the sites with the local educational authorities and other traditional local officials before the NIPDEP pilot project planning workshops, which meant they could not change the sites without causing serious internal political problems. For example, an income generation project in Machinga, chose a fish pond construction site without technical assessment. In spite of a strong request from the Team, they did not change the site. As a consequence, the rocky and porous soil conditions of the site made excavation difficult and left seepage, therefore causing more work and costs. Finally, it took more time and cost to construct the fish ponds and to fill them with water.

In Phase II, the NIPDEP Team and district TF teams improved this process by conducting social and technical site surveys from March to May 2004. As a result, distances among sites were taken into account, and therefore monitoring activity was done smoothly and more efficiently. This survey also contributed to improved transparency and accountability in the site selection process. But some TFs could not collect a complete set of information. Missing information, typically included international donor assistance plans in the district, the community level of sensitization due to poor communication and coordination with donors and/or limited information about their own communities. For the districts, to assess community development needs and to share information on development plans with donors, NGOs, division offices or MoE it is very essential to make improved allocations and

distributions of limited resources. Table 4-17 lists the items confirmed and assessed during the site survey.

Table 4-17: Summary of Site Survey

Target project		All Construction Project (expect for follow-up projects) in 5 districts
Implementation		TFs
Period		2004 Mar – May
Number of target school		Two or three candidate schools for one site (42 schools were surveyed and 14 schools were selected)
Survey Items	General	Name, zone, address, primary or secondary
	Social conditions	Grade, number of pupils, potential pupils, available teachers, community sensitized level, donor's assistance.
	Existing conditions	Land availability, accessibility, existing structure (number and conditions),
	Construction conditions	Water availability, soil condition, firewood or tools for brick baking, environmental factors
	Others	Location map, site map, distance from boma, physical relationship among candidate sites

(3) Tender and Contractor Selection

In Malawi, it is difficult to find reliable and capable contractors in terms of their technical level, quality, cost efficiency and reliability. This situation might be worse in case of "Micro Project", as there are no construction databases to select both reliable and well skilled contractors within the districts. Comparison between the two bidding systems which were carried out during Phase I is summarized in Table 4-18. Problems which were observed during the tender process in Phases I and II and countermeasures considered are shown in Table 4-19. As a result of taking countermeasures in Phase II, most of the projects succeeded in conducting tenders and awarding contracts. The unit price for the building also decreased.

Table 4-18: Comparison of the Two Tender System of the NIPDEP Pilot Project

Activity/Items	Central way (hiring contractors)	Micro Project (led by DA)
Target contractor	National level (conventional) contractor	District based (small scale) contractor
Contract amount in NIPDEP	3,000,000 MK	80,000MK- 300,000MK
Advertisement and time	None	Done by DA for two weeks
Pre-qualification	Proposed by consultant and revised by district and NIPDEP	Proposed by District Assembly
Number of pre-qualified contractor	5	3
Period for tender	One week	One week
Provided tender document	Bills of quantity & drawing inclusive	Simple form with bills & drawing
Quality assessment	Done by consultants through assessment of tender document	Records of district (low quality)

Source: Prepared by the NIPDEP Team

Table 4-19: Problems in Phase I and Countermeasures for Phase II

Problems encountered in Phase I	Countermeasures taken in Phase II	Results of Phase II
Due to limited communication and shortage of time for preparing tenders, only a few contractors submitted tender documents, which meant there was little competition in tendering.	Extension of tender periods and improvements and deliveries and the collection tender documents was introduced. NIPDEP and TFs increased the number of pre-qualified contractors.	Competition was good, several contractors submitted as a result tenders were competitive and most of the cases awarding price decreased.
There were several political interventions observed.	NIPDEP and TF enforced pre-qualification by reporting and close consultant's examination.	No political intervention was observed.
Responsibilities between TFs and contractors were not clear.	NIPDEP and TF revised bills of quantities and DDF contract forms which were used as a standard in Phase I to make a clear demarcation of stakeholders and specifications for works.	Several cases were observed that transport capacity of TFs was limited. But role of each organization was clear.
Contractors have limited sense of quality standard.	NIPDEP and TF carefully examined previous performance of contractors and conditions of their tools at pre-qualification stage.	Communication measures and tools problems have been solved, quality issues are much improved.
Process of pre-qualification was not strict (tools preparation, communication measures and so on).		

Source: Prepared by the NIPDEP Team

(4) Monitoring and Quality Control

a) Phase I

The technical competence of the contractors hired by the "Central Way" system was relatively high, while some of the contractor performance in "Micro Project" was poor. The projects done by the "Central Way" system were carried out smoothly in general, although there were some cases of delay due to unexpected soil conditions on the project sites or due to the slow collection of community materials.

In "Micro Projects," several problems were observed, which are summarized as follows.

1) Most contractors had limited construction knowledge and skills such as knowledge and skills in drawing and estimating bills of quantity.
2) TFs' site visits were seldom conducted during Phase I, only one or two times a month. TFs did not monitor and administer the projects properly.
3) No timely delivery of materials and supplies.
4) On-time transportation of materials to sites is difficult even with substantial communications and good transport.

As mentioned earlier, monitoring and supervision was done by the Local Consultant, TFs and the NIPDEP Team. Their roles were:

1) The NIPDEP Team monitored the overall progress of projects and supervised TFs

and consultants' activities by visiting the construction sites once a month.

2) The local consultants supervised the quality of construction and project progress in order to issue payment certificates to contractors and for labor and the workmanship of the contractors once a week.
3) TFs monitored the project activities in terms of site operation and construction and cooperated with community members and school committees, following their monitoring plan.

Because most of the contractors were not reliable or less competent, it was found that the frequency of monitoring by local consultants once a week was not enough. Some construction mistakes, which could be costly to rectify were sometimes found by the NIPDEP Team uncorrected.

b) Phase II

Based on the lessons learned from Phase I, frequent monitoring was practiced in Phase II, which contributed to the reduction of problems, although the NIPDEP Team still encountered the same kinds or new types of problems.

Most projects have experienced delays in the construction process. The main reasons were: 1) shortage of the cement supply; 2) some contractors had more work than they could manage not only from NIPDEP, but also from the other construction projects such as DfID's; and, 3) shortage of essential materials due to poor planning.

In general, the construction industry in Malawi is still underdeveloped. The same types of problems were experienced in other construction projects supported by the international development partners.

(5) Construction Management

Throughout the steps for construction projects, it was not a surprise to meet a series of unexpected events. Additional work requests were made on their contracts due to unexpected bad soil conditions. Additional site work without any agreement with the NIPDEP Team. There were non-performing contractors during a certain period. As a consequence, it was very difficult for TF personnel to manage their budgets for construction projects without technical assistance by the NIPDEP Team and the consultants.

In some cases, the suppliers didn't deliver the materials, after receiving payments from TFs. In the situations where there were shortages of essential construction materials, no suppliers accept payment after delivery. Therefore, they had to pay suppliers in advance. It was claimed that the supplier was on a recommended list issued by the GoM and this should be used. Careful assessment of the reliability of suppliers and supply conditions for the materials at tender stage helped to ameliorate these problems.

(6) Community Participation

Community participation was considered at the outset of a construction project, to be a critical mechanism for not just cost saving through their materials mobilization, but to instill in the supporting community a sense of ownership in the structures constructed. The sense of community ownership and pride engendered in the construction projects is believed will better ensure that the communities will maintain the structures after completion.

a) Physical Planning Stage

The district requests for site planning prepared by the communities were vetted in advance when the NIPDEP Team conducted site planning with local consultants. Those requests were taken into account during the initial site survey which covered primarily technical aspects. Community participation from the very early stage of the project increased community understanding and collaboration in the later stages. There were some projects, where the land was donated by the community, but the site planned for the project was not big enough. In some situations, the TF personnel discussed the need with local land owners and the land was donated to the project.

b) Actual Construction Stage

During actual construction, the communities participated by supplying locally available materials, such as bricks, sand and stones. In addition, the communities volunteered labor to excavate pits for latrines and mold Soil Stabilized Blocks (SSBs).

During Phase I, most of the projects encountered problems, such as shortages of tools, lack of transportation, use of substandard materials, inadequate supplies of materials, and constant delays in deliveries. The contractors had to wait for several weeks until the materials arrived. TFs had to release a limited contingency to cope with these situations. At the early stages of the planning, without any technical survey, it is not efficient to design and implement a community participation plan. The detailed community participation plans should be prepared in the later stages. For example, a community, which was requested to provide aggregate, had no rocky hills around their settlements. The community members had to spend two hours to carry each load to the site. To avoid such problems, the NIPDEP Team and TFs instituted a detailed planning process for community participation, by estimating materials, production locations, transportation needs, tools, periods for preparation, and quality control measures. During Phase II, there were still some problems in community participation, but the number of problems decreased.

During the implementation, TFs worked closely with SMCs and traditional community leaders to organize communities to assist in project implementation. For the projects which used SSBs, the NIPDEP Team provided cement and tools to produce SSBs through community participation. These were managed by Project Implementation Committees (PICs) that were trained by the NIPDEP Team.

Generally, the communities showed willingness to participate in development work. Their availability was heavily dependent on each community's social calendar. Any activities which did not follow the community traditions could expect minimum participation. In addition, the communities needed technical advice to maintain the quality of materials. Some TFs met resistance from the community to cooperate, partly because of the SMC's weak leadership that failed to convince the community of the need to participate, and partly because some pilot districts had different development partners construction projects, where volunteers were paid for the similar work to be done on a NIPDEP project.

Table 4-20 shows the percentage of community contribution for the construction costs. It ranges from 3-11 % during Phase I and 1-20 % during Phase II. The differences in the percentages of community contribution were caused by the volume and the price of the

materials donated by the communities. The reason why the contribution percentage decreased in the Thyolo and the Mchinji projects was because some materials were not locally available near the project sites. The community could not produce SSB because of the shortage of cement in Thyolo, which negatively affected the community contribution percentage. The MASAF projects, which require more community contribution, had a percentage of 20%. In NIPDEP's case, Nkhata Bay had a 20% contribution rate in Phase II and Mchinji TF-4 had a 10% percentage rate, which was attained by strong leadership, better communication within the communities, proper planning and better logistics management.

Table 4-20: Community Contribution Ratio

District	Object	Contributed Materials and Activity	Community Contribution Ratio (%)		
			Phase	I	II
Nkhata Bay	School blocks, Teachers houses, Lab	Bricks, sand, aggregate, SSB molding, Transportation,	Average	9	13
			Lowest	5	5
			Highest	11	20
Ntchisi	Teachers houses	Bricks, sand, (Part of SSB molding)		9	8
Mchinji	School blocks, Teachers houses, Pit latrines	Bricks, aggregate, SSB molding, cement block fabrication,	Average	9	7
			Lowest	8	6
			Highest	10	10
Machinga	Teachers houses, Pit latrines	Bricks, sand, excavation works	Average	3	5
			Lowest	2	3
			Highest	6	9
Thyolo	Pit latrines	Bricks, sand		3	1

Source: Prepared by the NIPDEP Team

It is worth noting that the introduction of SSB technology for district construction projects had an important technical impact. DAs provided a brick molding machine, training on it and cement, while communities provided labor. This technology shortened the construction period by making the process easier and at the same time it strengthened building structures with environmentally friendly materials. There are two ways to produce SSBs used in the NIPDEP projects: 1) by the members of nearby communities and 2) by labor hired with community funds. The SSB molding activities require community initiative during the sensitization stage. If they failed to form a community consensus, it was difficult to get funds and labor from the communities. The districts' income level, willingness and experience in community participation needed to be examined during the site survey or during the community sensitization activities.

(7) Post Project Structure

The NIPDEP Team conducted trainers' training during a series of construction workshops. Through the workshops, TF members were trained in the following areas.

1) Roles and functions of SMC

2) Source of funds: possible sources of maintenance funds including rental fees from teacher houses, in-kind and cash contributions from the community, and income generating activities
3) Maintenance activity: cleaning, regular maintenance, and preventive maintenance need to be planned and conducted. Each district formulated a maintenance plan for their project facilities during the training workshops.

(8) Budget Expenditure Comparison

a) Sample of the project

This section compares budgeting and actual expense for projects by illustrating two projects as examples; Nkhata Bay Project 1 "construction of classroom blocks and teacher houses in primary schools," and Mchinji Project 5 "provision of health and sanitary facilities in primary schools." These are projects which were implemented with less problems and were led by the strong ownership of TFs and communities. Project outline for both projects is shown in Table 4-21.

Table 4-21: Project Outline of Two Construction Projects

District and TF	Nkhata Bay TF1	Mchinji TF6
Project Title	Construction of classroom blocks and teachers' houses in primary schools	Provision of health and sanitary facilities in primary schools
Location	Msomba Primary School	Mikundi Primary School Chimteka Primary School Pinda Primary School
Objectives	- to increase pupil access to classrooms and teachers	- to improve retention of pupils - to improve health of pupils
Major Activity	- community mobilization and sensitization - construction of classroom blocks and teacher houses	- construction of pit latrines and water points - train stakeholders in health promotion
Type of Contractor	National level contractor (Central Way)	District-based contractor (Micro Project)
Buildings(Actual)	One classroom block One teachers' house Two 4 holes pit latrine	4 hole pits x4 3 hole pits x1 2 hole pits x2
Buildings(Planned)	Ditto	4 hole pits latrine x 2

Source: Prepared by the NIPDEP Team

b) Items to be compared

Budget and expenditure are grouped into following three categories for easier comparison:

1) construction and procurement cost: expenses for construction, procurement and materials transportation, that were paid to contractor or supplier

2) activity cost: activity cost is the expenditure which does not fall to construction and procurement, such as a tender advertisement fee or expenses for community sensitization and training
3) monitoring and evaluation cost: costs for supervision and monitoring on site, evaluation cost at post project stage. For example fuel cost, allowances, and meeting expenses.

Table 4-22 shows comparison of budget and expenditure.

Table 4-22 Comparison of Budget and Expenditure

1) Nkhata Bay TF1: Construction of classroom blocks and teacher houses in primary school

Cost Item	Budget	Rate	Actual Expenditure	Rate for Budget
Construction and Procurement	3,359,070	82.3%	3,368,200	82.6%
Activity	96,410	2.4%	197,961	4.9%
Monitoring and Evaluation	98,420	2.4%	279,109	6.8%
Contingency	525,465	12.9%	--	0.0%
Total	4,079,365	100%	3,845,270	94.3%

2) Mchinji TF6:Provision of health and sanitary facilities in primary schools

Cost Item	Budget	Rate	Actual Expenditure	Rate for Budget
Construction and Procurement	1,426,000	63.6%	1,777,447	79.3%
Activity	335,240	15.0%	257,735	11.5%
Monitoring and Evaluation	188,240	8.4%	196,255	8.8%
Contingency	292,427	13.0%	--	0.0%
Total	2,241,907	100%	2,231,437	99.5%

Source: NIPDEP Study Team

c) Budget

Mchinji's activity cost and monitoring and evaluation cost were higher than Nkhata Bay, although construction cost was much lower. The reasons for this are as follows:

1) PMT members conducted monitoring from PMT budget, not from TF's budget in case of Nkhata Bay.
2) Micro project required site operation and procurement activity by TF.
3) Mchinji planned to conduct hygiene training for pupils.
4) Mchinji's number of sites were more than that of Nkhata Bay's
5) Though building scale of Nkhata Bay projects were bigger than that of
6) Mchinji's monitoring frequency and activity sizes were not very different between them.

d) Expenditure for Nkhata Bay (Construction of classroom blocks and teachers' houses in primary schools)

As a result, the budgets were almost used as planned. Competitive tenders, when used, made construction costs low. Accordingly, they could purchase extra SSB machines, equipment and materials such as textbooks, which were needed at new schools. Contingency funds were used for maintenance of vehicles, that were used to transport materials to the site, and for the re-training cost of a water point committee.

e) Expenditure for Mchinji (Provision of health and sanitary facilities in primary schools)

Mchinji TF noticed that the budgeted number of pit latrines was less than the one they had originally planned after community sensitization. Therefore the TF had to decide not only to release contingency funds, but also to divert budget for training to construction. Construction costs had exceeded the budget due to the increase in the number of sites and pits latrines. Activity costs were minimized to cover than the budget.

4.7.4 Achievement and Outcomes

(1) NIPDEP Pilot Project Phase I (JFY2003)

Table 4-23 shows the achievement of the construction projects of Phase I. 13 sites out of 28 were completed by March 2003. 11 completed sites were constructed by Lilongwe-based contractors or the Water Fund organized by the Ministry of Water Development. Two sites were completed under the "Micro Project." The delays of the construction projects were mainly caused by lack of the technical skills of local contractors, insufficient supervision and monitoring by TFs and limited monitoring capacity of the NIPDEP Team.

(2) NIPDEP Pilot Project Phase II (JFY2004)

Table 4-24 shows the achievement of the projects in Phase II. Eight sites were almost completed out of 21 sites. Compared with Phase I, more skilled district level contractors were selected and logistics were done by TFs, so there was improvement. Remaining works finished by January 2005.

The delay was mainly due to serious shortages of cement supply in the country. It was caused also by the closing of the operation of the only cement factory in Malawi and the imposition of a heavy tax for cement imported from neighboring countries. Shortages of cement were a serious problem from August to October 2004.

Malawi has only one major producer of cement that, at present, is unable to meet the country's demand. The shortage could have been solved by importing from neighboring countries, but cement imports were banned a few years ago. The GoM is yet to lift the ban in full. At present, nearly all construction projects are experiencing delays because of this shortage, including those funded by other donors such as DfID, KfW and EU.

Table 4-23: Achievements of the Phase I Construction Projects

District	No	Project Name	Site	Objects
Nkhata Bay	1	Construction of School Blocks in Primary Schools Phase II Follow-up	Makwalakwalata	1 classroom block
			Msawa	1 classroom block
			Chikale	1 classroom block
	2	Construction of Teachers House in Primary Schools Phase II Follow-up	Makwalakwalata	1 teacher house
			Msawa	1 teacher house
			Chikale	1 teacher house
	3	Construction of Classroom Blocks and Teachers houses in CDSS Phase II Follow-up	Tukombo CDSS	1 classroom block
			Maula CDSS	1 classroom block
			Sanga CDSS	1 teachers house
	4	Construction of lab in CDSS	Usisya CDSS	1 laboratory
Ntchisi	4	Construction of Teachers Houses in Primary School Phase II Follow-up	Msinda	1 teacher house with pit latrine each
			Kayuwi	
			Kafamtandala	
Mchinji	1	Construction of Classroom Blocks and Teachers Houses in Primary School	Sunama	1 classroom block and 1 teachers houses with pit larine
			Lombwa	
	2		Kambanda	
	6	Provision of Health and Sanitary Facilities in Primary Schools	Kamwendo	2 pit latrine (4 holes)
			Chiwoko	
			Bua School	
Machinga	5	Construction of Teachers Houses in Primary School	Chiuta l	2 teachers house with pit latrine
			Chitunda	1 teachers house with pit latrine
	6	Procurement of Water and Sanitation Phase II Follow-up	Kayuni	2 pit latrines, 1 borehole
			Limera	2 pit latrine,
			Luwatala	1 borehole*
			Mikachu	2 pit latrine, 1 borehole
	7	Income Generation Activity in CDSS	Chikwezule CDSS	Fish pond
Thyolo	6	Provision of Latrines for Primary Schools Phase II Follow-up	Thunga	4 holes each
			Namaona	
			Khave	
			Mchenga	
			Kumadzi	
			KanKhomba	

Source: Prepared by the NIPDEP Study team

Table 4-24: Achievements of the Phase II Construction Projects

District	TF	Project Name/Type	Site	Construction Works
Nkhata Bay	1	Construction of School Block and Teachers house in Primary Schools	Msomba	1 classroom blocks 1 teachers house with pit latrine 2 pit latrine
	2	Construction of School Block in CDSS	Kavuzi CDSS	1 classroom blocks 2 pit latrine
	4	Construction of 1 lab in CDSS	Chihame II CDSS	1 laboratory 2 pit latrine
	6	Follow-up for the Phase I Project (Micro Project)	Makwalakwalata	1 pit latrine (1 hole) 1 pit latrine (4 hole)
			Msawa	1 pit latrine (1 hole)
			Chikale Primary	1 pit latrine (1 hole) 1 pit latrine (4 hole)
			Tukombo CDSS	1 pit latrine (4 hole)
			Maula CDSS	1 pit latrine (4 hole)
			Sanga CDSS	1 pit latrine(1hole)
Ntchisi	3	Construction of Teachers Houses in Primary School	Msinda Primary	2 teachers houses with latrine
Mchinji	1	Construction of School Blocks and toilets in primary Schools	Lombwa Primary	2 classroom blocks 2 pit latrines (4 hole)
	2	Construction of School Blocks and toilets in primary Schools	Nthema Primary	2 classroom blocks 2 pit latrines (4 hole)
	4	Construction of 1 CDSS school block and Administration Block	Bua CDSS	1 classroom blocks 1 administration block 1 pit latrines (4 hole)
	5	Provision of Health and Sanitary Facilities in Primary Schools (Micro Project)	Mikundi Primary	2 pit latrines (4 hole)
			Chimteka Primary	1 pit latrine (3 hole) 2 pit latrines (2 hole)
			Pinda Primary	2 pit latrines (4 hole)
Machinga	5	Construction of Teachers Houses in Primary School	Nanyumbu Primary	2 teachers houses with pit latrine
	6	Procurement of Water and Sanitation (Micro Project)	Namisangu Primary	3 pit latrines (4 hole) 1 borehole*
			Nankhunda Primary	3 pit latrines (4 hole) 1 borehole*
Thyolo	7	Provision of Latrines for Primary Schools (Micro Project)	Mpinji Primary	2 pit latrines (4 hole)
			Goliati Primary	2 pit latrines (4 hole)

Source: Prepared by the NIPDEP Study team

(3) Outcome of the Projects

Some construction projects completed in Phase I showed positive impacts as follows:

a) School Blocks

Each classroom block that was constructed provides a more conducive learning environment and the added space has provided the opportunity for increased enrollment. It is reported that the increase in pupils, increased community' pride in their schools, improved pupil motivation for studying, has led to better communications between community and school. Maula and Chikale School in Nkhata Bay realized the importance of the school blocks and started construction of the next school blocks on their own. On the other hand, the increase in pupils has resulted in shortages of teachers and textbooks.

b) Teachers Houses

At Nanyunbu Primary School in Machinga, two teachers' houses were built. The school recruited two additional teachers. This enabled the school to increase the intake of pupils through increased number of teachers.

Another report received was that a new teacher's house was constructed beside a school and several positive impacts were observed such as increased school security, better attendance of teachers, increased attendance ratio of pupils, and improved conditions for equipment and facilities. The head teacher was usually given priority to occupy a new teacher's house. Generally, teachers' house construction in the remote school areas had a positive impact on education.

c) Pit Latrines

At Namaona Primary School in Thyolo, the communities were very happy with the newly constructed pit latrines; so that, soon after they were completed, the community mobilized local materials to build a second latrine based on the same design. The DA provided other materials and within two month the second latrine was completed. It was observed that, due to the poor conditions of pit latrines and/or improper use of latrines, pupils had stopped using pit latrines at schools. To improve the sanitary conditions and education environment at schools, the need for improved pit latrines and maintenance training for the existing facilities was seriously considered by the districts and by MoE.

d) Income Generation Project

At a CDSS in Machinga, the district planning team chose to build four fish ponds for income generation at the schools. Due to improper selection of the site, the initial effort to fill the ponds resulted in excessive water seepage. This was overcome by reinforcing the bottom and side walls with sticky soil, carefully compacted. One pond became operational, the other followed, and after the first fish harvest, the school was motivated to put the third pond in operation. This has been achieved with the technical assistance of counterparts from the JICA technical cooperation project, "Aquaculture and Technical Development of Malawian Indigenous Species." The fish project increased the interest of the students and the teachers in fish, fish growing, and hen house operation and gave opportunities in the life-skill education program in the community. Table 4-25 shows projected income from the fish pond operation.

Table 4-25: Profit Estimation from Fish Pond Operation

Items	Unit	Quantity	Remarks
Area of Pond	m^3	1,200	3 ponds in operation
Density of Fish	Number/m^2	1	
Time of Operation/Harvest	Times/year	2	1 cycle = 6 months
Unit Price for Fish	MK	80	
Income	MK/Year	192,000	
Cost for Feeding	MK/Year	24,000	
Profit/Year	MK/Year	168,000	
Average Profit/Month	MK/Month	14,000	

Source: prepared by the NIPDEP Team

Table 4-26: Profit Estimation from Hen House Operation

Items	Unit	Quantity	Remarks
Number of Chicken	Number/Month	50	
Egg Production/Month	Number/Month	800	
Unit Price for Egg	MK	12	in August
Sales from Egg/Month		9,600	@12MK x 800
Average Sales from Chicken/Month	MK/Month	400	@200MK x 50 / 24month
Income Total	MK/Month	10,000	
Cost for Feeding	MK/Month	5,000	Layer's mash @1,580MK(for 50kg) x 3
Cost for Chicken per Month	MK/Month	1,050	Average chicken reproductive life cycle in Malawi: 2 year @500MK x 50 / 24
Cost Total	MK/Month	6,050	
Average Profit/Month	MK/Month	3,950	

Source: prepared by the NIPDEP Team

At the same CDSS, at first, a hen house was built and 50 chickens were bought. Their droppings are used to increase the nitrogen ingredients in the fish ponds, which will make the fish grow bigger. The chickens have produced eggs which contribute to CDSS's income generation. Table 4-26 shows projected income from the hen house operation. The reproductive cycle of the first lot of chickens was finished, and the committee sold them to