get another lot. Another hen house was constructed at the end of Phase II using the contingency to accelerate the nitrogen production for fish ponds.

The attitude of the target CDSS is very positive now. The fact that they managed to build a better chicken house than the first one using the contingency from the pilot project funding, and that the way they look after chicken and fish pond changed tremendously indicates they really changed their attitude towards this project. They even opened a bank account to administer the income they gained through both chicken (eggs and meat) and fish sales. The signatories for the account are not only the school but also the school committee members. And the committee was divided into two: one for chicken and the other for fish pond.

The following might be recommended for future similar project. First, this kind of committee should come up with the written action plan so that even when the people involved change, there will be continuity as a committee. Secondly, MoE should retain the teachers who were involved in the project for a certain period so that the sustainability will be assured.

4.8 ACHIEVEMENTS BY PILOT DISTRICT

In this section, the NIPDEP Team provides an overview of the general achievements by each pilot district mainly focusing on the changes observed between Phase I and Phase II. These achievements are related to the NIPDEP objectives: 1) planning; 2) project implementation; 3) financial management; 4) monitoring and evaluation and 5) ownership and commitment.

4.8.1 Nkhata Bay

Pilot projects in Nkhata Bay were largely in construction of primary classroom blocks and teachers' houses, secondary school classroom blocks and a laboratory. These were carried out through Phase I and into Phase II. Phase I construction sites were scattered and two sites were in extremely remote areas, where monitoring was rarely done. Time and budget factors were not taken into consideration in monitoring remote areas. Phase II provided a lesson for Phase I and so the site selections were made in a way that they could easily be monitored.

Overall communication and coordination among TFs in Nkhata Bay, during Phase II, got better than in Phase I. In particular, there was strong cooperation among construction TFs. For example, the DCDO was active in conducting community mobilization in all the construction TFs. Similar collaboration was observed in procurement of laboratory kits and furniture for TFs-4 and -6 during Phase II.

Other than construction, the activation of SMCs project, which also covered PTAs, influenced construction positively.

The INSET project was conducted for primary school teachers in Phase I and for CDSS teachers in Phase II. EMIS training was only conducted in Phase I.

Commitment has not been a problem in Nkhata Bay. In general, PMT members were eager to devote themselves to development work. With their enthusiasm, they came up with counter-proposals and arguments for NIPDEP to implement projects. This led to the fact that the district tended to budget its construction beyond project ceilings at the planning stage. As a result, the NIPDEP Team had to request they cut down the number of buildings in Phase II.

Elusive financial management in Phase I was tremendously improved in Phase II after the PMT discussed the issues with DoF at the beginning of Phase II. It was unfortunate that financial management was disrupted by one DA treasurer who is still at large with project and DA funds. The follow-up to find the missing funds, however, was done properly under the leadership of the District Commissioner. Both the TF and PMT reported the loss of funds in writing, and the matter was taken to the National Audit Office for special audit inspection. The audit report was produced and it was resolved that the missing funds would be replaced from DDF by the DA.

Monitoring by MoE, the Core Trainer of NIPDEP in charge of the district attempted to assist the district on site selection and the follow-up with the District Council (DC) on the misappropriation of funds. Monitoring has improved from Phase I, which was reflected in the improved monitoring reports submitted.

4.8.2 Ntchisi

Ntchisi had three types of projects throughout Phase I and II: 1) in-service training for primary school teachers, 2) SMC training, and 3) construction of teacher houses for primary schools. Desks and chairs procurement covered primary schools in Phase I and secondary schools in Phase II. EMIS training was conducted only in Phase I, and in Phase II, CDSS laboratory equipment was procured

Although Phase I was carried out smoothly, Phase II did not go as smoothly as Phase I. Compared to Phase I, PMT members were rarely available for NIPDEP activity. This was partly attributed to too many donor activities concentrated in Ntchisi. The DEM seemed to be almost the sole active player. At the time of shifting from phase I to Phase II, the biggest concern of the PMT and TF members appeared to be concerned only with their allowances, that they enquired about constantly to the NIPDEP office.

Among all activities, construction projects made big improvements by selecting reliable local contractors and by increasing the frequency of monitoring. They learned lessons from Phase I, when they could not finish their projects because of inappropriate selection of contractors and poor monitoring. In Phase II, still the DPW was not as active as required, although his officer (Works Supervisor) covered him well.

Furniture was procured from local carpenters for primary schools in Phase I, while in Phase II, they procured them from a wood furniture company "Raiply" for secondary school desks and chairs, hoping for better quality.

Financial management in Ntchisi was satisfactory at the onset of Phase I, but during Phase II, one treasurer was absent due to training outside the district, and both PMT and TFs did not transfer the work to someone else in good time. This situation delayed the funding of all the TFs in the district for almost two months.

Meetings and monitoring by PMT were not conducted as scheduled in Phase II because of the reasons stated above.

4.8.3 Mchinji

Mchinji had construction projects throughout Phase I and Phase II. Classrooms for primary schools and pit latrines for primary schools were built in two phases, and CDSS classrooms were constructed in Phase II. In-service training for teachers was implemented for primary schools in phase I and for secondary schools in Phase II. EMIS training and desks and chairs procurement for CDSSs were carried out only in Phase I, and in Phase II, gender awareness in primary schools was conducted.

At the outset of Phase II, the commitment of PMT and TF members selected was high, beginning with the kick-off meeting which was conduced by the PMT to raise awareness and enthusiasm of TF members to participate in the project.

The outstanding characteristic of Mchinji Phase II was the successful community mobilization for construction. At all the sites, the necessary community contributions were completed in good time. It was unfortunate that the same contractor who demonstrated good job performance in Phase I did not perform according to expectations in Phase II, which caused big delays in the completion of buildings. Other than construction, over which PMT and TF did not have direct control, the rest of the activities were carried out on schedule.

Another success story related to community involvement was the gender awareness project in Phase II. This TF was ahead of schedule in conducting its activities. It was very creative in involving community women leaders in its activities.

Mchinji is a district where the challenges of coordination between the DEM office and assembly offices were observed. For instance, some key TF members for construction and gender awareness were from the assembly office, where their mode of work seemed to be different from the DEM office; however, there had always been efforts from both sides to fill in the gap. Their efforts contributed to the betterment of the project results. For example, under the gender awareness project, it involved area development committees from DCDO's point of view, and SMCs and PTAs from DEM's point of view.

The Mchinji DPT members were flexible about appointing to the PMT/TF persons who were active in implementation. At the beginning, the PMT chairmanship was a problem, because the original person who was appointed to be the chairperson was not active at all. Before the start of Phase I, the Director of Administration (DoA) was appointed as PMT chairman. As a result, the DEM was the lead in day-to-day activities whereas the DoA, the PMT chairperson, continued to be helpful until his departure.

The accountant from the DEM's office was put in as PMT Treasurer, while Acting DoF was the Vice Treasurer. Financial reporting from Mchinji was good from Phase I although there were some reporting delays. The seeking of financial advice from NIPDEP was persistent in Mchinji.

The NIPDEP Core Trainer in charge of Mchinji was good in guiding the district not only from the standpoint of NIPDEP, but also from the overall aspects of the education sector in general.

4.8.4 Machinga

Machinga pursued the same projects in both phases, namely, an awareness campaign for primary schools, in-service training for primary and CDSS teachers, teacher houses construction for primary schools, pit latrines, boreholes construction for primary schools, and income generation for CDSS.

Machinga tried to improve some projects based on Phase I experiences. Awareness campaigns in Phase I ended by forming local education committees, while in Phase II, they tried to make operational their activities, thus making staff more motivated by the procurement of bicycles and by requesting them to produce action plans for each committee. In-service training for both primary school teachers and CDSSs tried to scale down the target number of teachers so that they would have a better focus.

The textbook procurement project in Phase II tried to incorporate sustainability aspects through TRF similar to one used in Nsanje. They managed to conduct training and agreed on a pupil contribution of MK250 for the TRF, and for parents to pay a refund fee for the loss of a book. Even so they realized that further librarian skills training was necessary, possibly through the national library service, as was done in Nsanje.

Pit latrine construction projects were not finished in Phase I, mainly until reluctant community contributions were taken seriously by the LEA before starting Phase II. In Phase II, old sites saw improvements and latrines were completed. New sites in Phase II, however, still experienced difficulties with community participation, which was exacerbated by the late procurement of cement.

Financial management declined when the PMT Treasurer resigned his DoF position in Machinga. This resulted in late reporting and poor accounting, but it improved towards the end of Phase I, when the vice treasurer became more active. Such improvements kept the accounting work above an acceptable level of quality during Phase II.

4.8.5 Thyolo

In Thyolo, the same projects were implemented in both Phase I and II. The projects were in-service training for primary and secondary school teachers, textbook procurement for secondary schools, HIV/AIDS intervention in primary schools, science kit procurement for secondary schools, office equipment procurement for CDSSs, and pit latrine construction for primary schools.

In Phase II Thyolo demonstrated improvement in the implementation of two projects. The HIV/AIDS project had a big delay and completed activities superficially during Phase I. As a consequence of lessons learned from Phase I, Phase II was completed on time and the quality of the activities was higher. This was enabled by a revised TF membership.

Another improvement occurred related to science kit procurement between Phase I and Phase II. During Phase I, the TF had a problem in the selection of a supplier, and once it was done, they experienced a long delay in procurement. But in Phase II, their procurement was on time and well ahead of schedule compared to the other two districts which also procured science kits. One innovative change was that in Phase II, the TF procured the cabinets from a local carpenter, rather than procure them again from the previous supplier in South Africa.

Budgeting in Phase II was improved by incorporating some items which were overlooked in Phase I. Non-construction projects managed to keep contingencies up to the end which were used for additional supplementary activities.

As for PMT, Thyolo was led under the good leadership of the DEM, supported by the DPD, but the DEM found it difficult to mobilize PMT members for monitoring activities because they were too busy with other commitments. Even then, the PMT was proactive in problem solving, and, indeed, helped the TFs plan their budgets and funding requirements properly and on time. This was at the cost of the DEM being overused by TFs in executing their project, although the DPD proved useful at critical moments. Reporting by Thyolo PMT included not only minutes of meetings but monitoring summary sheets as well.

Financial management was put on track in Phase II when the PMT treasurer replaced the DoF, who had been busy always with other commitments to supply accounts for the assembly. Their own kick-off meeting, at the onset of Phase II, which focused on financial accountability and management, also, contributed to sound performance of the TF treasurers in Thyolo.

4.8.6 Nsanje

Nsanje implemented the same projects for Phase I and II. They included procurement of desks and chairs from primary and secondary schools; science kit procurement for CDSSs, textbook procurement for secondary schools; TDC office equipment improvement, in-service training for primary school head teachers; and DEM, and in-service training for secondary school teachers.

From the beginning, Nsanje has been noted for its team work under the strong leadership of PMT Chairperson and Secretary. The tie with the NIPDEP Core Trainer was evident. They often obtained advice and physical support from her, such as transport arrangements, looking for potential suppliers for their procurements, and organizing SEMAs as trainers.

Bearing in mind that there was no construction, planning and budgeting was relatively better than other districts, but it was even more improved from Phase I when the TDC equipment project was completed under-budget. The exception for Phase II was science kits procurement, which was planned, based on the price of Phase I kit procurements, which were too low, as the price rose due to currency exchange problems. However the price problem was solved at the end by adjusting the quantities. Also the delay in science kit procurement was because of the over-reliance on the Core Trainer to do some of the procurement tasks for the TF.

The TDC equipment procurement in Phase I was negatively affected by a poor assessment of the TDC environment (electricity supply availability) and the need for appropriate equipment. This resulted in a change in the target TDC. Also some machines that were bought failed to work and the suppliers were reluctant to service them. In Phase II, the TF members assessed the environment in order to procure appropriate equipment, such as not buying a photocopy machine, but rather a duplicating machine. The supplier was also changed from Phase I. In Nsanje, quality control and follow-up on the procurements were further strengthened.

Nsanje had a few minor changes in TF chairperson for Phase II, that resulted in a smoother implementation of community mobilization.

Financial reporting got worse towards the end of Phase I; however, it was improved in Phase II, when the PMT vice-treasurer became active and played more of a role in following up financial reports and funding requests. They tended to ask to spend their contingencies at the beginning of their projects. When budget estimates began to slip later in the projects, they started to appreciate the importance of keeping the contingencies up to the completion of their activities. For the training project, they introduced a daily disbursement of money which contributed to more transparency and a more serious attitude toward financial accountability by participants. They were relatively better in Phase II than in Phase I in adhering to the reporting deadlines.

4.9 KEY ISSUES AND PROBLEMS

After carrying out the pilot projects in six pilot districts for two years, which were formulated from the needs identified in DEPs, key issues for implementing DEPs in form of training and awareness campaigns, procurement, and construction projects were as follows:

4.9.1 Planning

(1) Overall Planning

1) ***Members of District Planning Team:*** The preparation of implementation plans for Phase I involved, at most, four district level officers. The assumption at the time, by the NIPDEP Team, was that their positions and experience constituted a sufficient information resource base. Learning from these experiences, the composition of the DPTs for the Phase II planning workshops was increased to six with the inclusion of the DCDO and DPW. These persons were included to strengthen the planning for construction projects (DPW), strengthen planning of community based capacity building projects and to ensure that all projects reinforced community involvement and ownership (DCDO).
2) ***Competence and Commitment of PMT/TF:*** Actual implementation of the NIPDEP projects presented obstacles that affected adherence to the implementation schedule. The low level of competence of the PMT and TF members selected during the planning process to implement these projects was one, while the other was the uncertain level of member commitment.

(2) Budgeting

1) ***Impractical Budgeting:*** A number of steps and activities had either been overlooked or under budgeted. The former was especially true for the capacity building projects while the latter, coupled with the devaluation of the Malawi Kwacha (MK) against the US dollar and subsequent inflationary costs of commodities (July – August 2003), most affected the construction and procurement projects. These problems could only be circumvented through re-budgeting, rescheduling and reducing activities as no contingency funds had been in the Phase II project budgets except for construction, but it was included (15%) for all projects in Phase II.
2) ***Budget for Monitoring:*** NIPDEP Pilot Projects Phase I found that activities such as monitoring, evaluation, and transport for delivery of goods were overlooked, and as it was not budgeted. Therefore, it was important for Phase II to list all the

necessary activities to be budgeted, so that they were included in their budgets. This avoided the situation where necessary activities were not carried out because they were not budgeted. Since NIPDEP introduced activity-based budgeting in the form of matrices, Thyolo said that they used it in their district assembly budgeting under the decentralization policy.

3) ***Importance of Up-to-date Price Information:*** It is necessary to capture the most recent price information from vendors, especially for the imported items such as construction materials and office equipment, as they change with the foreign exchange rate changes. It may be best to plan by using US dollars for pricing these items. Even when all the activities are budgeted with the most recent information, the importation of goods and inflation rates may impact the budget implementation, thus contingencies should be combined with the budgets preferably at common rate of national inflation, which is currently at around 15%. Also, for multi-year budget, it is advisable to build in an escalation factor. If the cost in year one is A, then the year two budget should be A x 15%, and the year three to be A x 15% x 15%.

(3) Scheduling Planning

1) ***Considering School Calendar and Working Cycle:*** Scheduling of activities should consider when the target beneficiaries and implementers are available. School calendars, GoM fiscal years, working cycles of staff involved in implementation should be taken into account. Furthermore, different donor activities should be planned with different timings, so that district expertise can be equitably distributed for all the activities.

4.9.2 Project Management

(1) INSET and Awareness Training Projects

1) ***Importance of Proper Programs Based on Needs Assessment:*** The key issue with respect to INSET and community awareness training appeared to be whether the district planners had a well-founded idea as to what was to be done, why and how. The activity steps in the planning process called for needs assessment to determine what the training needs were for the participants, but the TF members often did not have the expertise to conduct such surveys or assessments, so the training tended to be off-the shelf training programs used in other INSET training by MIE. MIE provided much of the contracted training in Phase I. This improved in Phase II by emphasizing needs assessment and providing assistance to TFs from CDI to learn how to do needs assessment.

(2) Procurement Projects

1) ***Timely Delivery or Hands-on Training on Delivery:*** The key issue in procurement was that some of the procurements, such as science kits, did not arrive on time and the training on the equipment was not always possible or well done. In general, however, procurement, especially those made through the NIPDEP office, were satisfactory, but the vendors did not, at times, perform up to contracted expectations and deliver on time.

2) ***Inflationary Cost for Imported Equipment:*** Items that had to be imported, such as

brick makers, took considerable time and were more expensive when imported. Inflationary costs were another major issue in Phase I, hopefully covered more satisfactorily in Phase II with the inclusion in budgets of an inflation factor of 15% as a contingency item and an escalation factor in the out-years.

3) ***Maintenance Services and Consumables for Sustainability:*** In Nsanje, a sophisticated photocopy machine was put in a rural remote area where maintenance services were difficult to provide. In Thyolo, parents think they do not have to contribute funds for examination paper production any more because they are typewriters and duplicating machines at schools. Now the schools are crying for the financial resources to maintain the machines. It is recommended, even before formulating the procurement projects and selecting the sites, that these sustainability issues be considered.
4) ***Needs Assessment for Procurement:*** Needs should be assessed properly from the point of view of how the procurement will contribute to the betterment of education. Proper site surveys should be conducted in order to assess the environment, whether the procured goods will operate properly and be kept safely. Availability of stable electricity should be checked whether any electrified appliances can be safely introduced, such as computers and photocopy machines. The availability of storage for science kits and other equipment and supplies should be checked at this stage. The survey should also assess the capacity of the targeted people as to whether they can use the procured items comfortably and keep them safe. If any consumables, maintenance, and repair costs arise in the future, it is essential to assess the financial resources available from the communities at the target site, MoE and DAs.
5) ***Supplier Selection:*** In the case of equipment, supplier selection should consider not only prices, but also warranties, spare parts and maintenance service availability for the purpose of improving sustainability. Preferably, transporting equipment should be handled by the supplier, so that they can set up and test the workability of the environment right away at the time of hand-over. For supplier selection, transparency and accountability should be adhered to. NLGFC set procedures for assembly procurement, that included both open tendering and the more closed soliciting standards and procedures for bids, according to the size of procurement.
6) ***Effective Combination of Equipment Procurement:*** When a combination of items is procured, some items can complement each other and multiply the impact to the beneficiaries. It was demonstrated in Thyolo that procuring a typewriter and a duplicating machine together at the secondary schools, helped them to produce documents easily. Further combinations should be considered for quality improvement such as for teachers' houses, textbooks and teachers guides, typewriters, and duplicating machines.

(3) Construction Projects

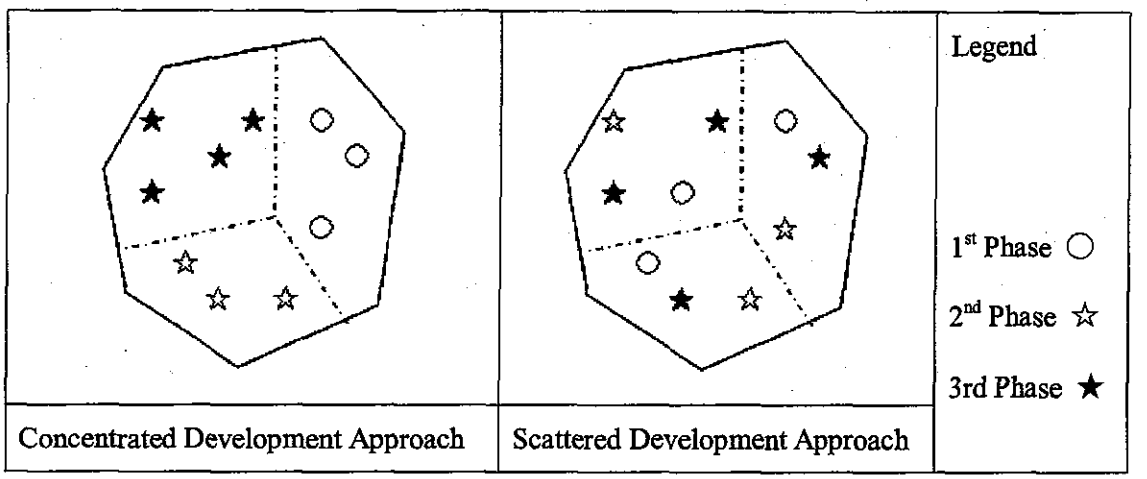
1) ***Selection of Contractors:*** One of the key issues in construction was the question as to whether to use local contractors or national contractors outside the district. Both approaches were used, each of which having advantages. At the same time, for selection of contractors and suppliers of materials, competitive tendering is

essential. However, selection should not only be based on competitive price, but also should take into consideration the capacity of the contractors to produce quality buildings and provide service and materials on time.

2) ***Cost and Availability of Materials:*** Some projects were not completed on time, because of shortages of cement, inadequate quality of bricks made by the communities, sites that were too remote, such as in Nkhata Bay, and contractor incompetence, resulting in some structures having to be re-done. Cost fluctuations should be taken into account for budgeting, and proper contingencies should be put into the budgets. The cost of construction materials tends to fluctuate due to their importation as well as items used to be produced in the semi-monopolized domestic market. Imported materials should be budgeted in consideration of foreign currency exchange rate movements.
3) ***Site and Social Surveys:*** At the stage of project formulation, the importance of site and social surveys before site selection cannot be emphasized too much, for they contain important information, such as availability and access to materials, community readiness, and land ownership, for smoother implementation and sustainability.
4) ***Quality Control in Construction Process:*** According to this assessment, construction is the area where district capacity is yet to reach the point of being able to handle construction of quality buildings on their own. Technical assistance by outside experts is still necessary for quality control. For NIPDEP projects, consultants were hired for technical assistance services and certification of work completion. It is recommended that the districts use this mechanism for the time being for quality control, along with the possible external technical assistance, as well.
5) ***Community Participation and Ownership:*** The NIPDEP Team learned that frequent monitoring and consensus building by the communities fostered participation by the communities from the early stages of the construction projects, even from the time of the site surveys. To prevent possible disruption from social events and agricultural work in the community, it is important to schedule timing of community work.
6) ***Quality Control of Community Contribution:*** Construction materials being mobilized by the communities such as bricks, sands, quarry stones, and water, the quality issue should be taken seriously and carried out according to pre-established commitments. The broadly accepted notion of "twenty-five percent of cost should come from community" may not lead to the achievement of project objectives, if these materials are only seen from a quantitative point of view and not with a view for the need for a quality product. Preferably, the district should build the capacity to judge quality at the community level.
7) ***Concentrated Development Approach for Effective Monitoring:*** For construction projects, the amount of monitoring and activity costs are not proportional to project scale. These costs are more related to the type of activities, number of sites, and site locations. Selecting a smaller number of sites and constructing a limited number of quality buildings is more efficient. Thus a concentrated development approach as shown in Figure 4-5 will be more efficient in minimizing the

monitoring costs, to keep project schedules and secure building quality.

Figure 4-5: Comparison of Concentrated Development Approach and Random Development Approach



8) ***Quality Control of Bricks:*** The solution NIPDEP introduced was SSB technology to encourage community efforts and address the quality issue. It is recommended that the SSB be used even though it raises the cost slightly more than baked bricks, but they have longer life and make for a higher quality building. SSB can shorten the construction period and it is environmental friendly because there is no need to cut fire-wood to fire the bricks.
9) ***Regular Monitoring:*** Frequent monitoring of project progress is necessary especially when the district pursues construction in the form of micro projects where the contractor capacity is limited.
10) ***Consideration on the Local Construction Industry:*** Planning and implementation of construction projects should take into consideration limited capacity of the construction industry, which consists of materials production manufacturers, contractors, and materials suppliers.
11) ***Coordination among Donor Projects:*** The district should coordinate carefully when they have several donor projects coming in at the same time. Each may come to the same district with different ways to involve communities, and it may disturb the local market for construction materials, as NIPDEP projects experienced in Ntchisi. Moreover, the district technical experts such as DPW and Work Supervisors may be too busy, if involved in too many projects. They are also in charge of non-educational construction such as roads, bridges, clinics and markets. Thus, this is the area where coordination is needed at the top by MoE, but it is also important to be done by the DA, as well.

4.9.3 Financial Management

1) ***Treasurers' Competence and Commitment:*** There were many problems during Phase I, with respect to financial management. It was argued that the choice of TF treasurers did not take into account their commitment, as well as realize their accounting ability, but the NIPDEP Team saw improvement in Phase II. This was achieved through: 1) the selection of treasurers at PMT and TF level, 2) treasurers training before phase II, 3) a planned treasurers meeting, in which the budget was

planned, 4) stricter adherence to the NIPDEP payment principles and rules which were "no report, no funding" for the following month, and 5) the direct payment by the NIPDEP office to the larger contractors and suppliers.

2) ***Poor Capacity in Record Keeping and Financial Management:*** In the course of executing the projects, it was observed that the delays in reporting were perpetuated by poor record keeping, non chronological recording of expenditures, unwarranted copying and calculation errors which prompted lengthy correction by the NIPDEP staff. Prior to the beginning of Phase II, the NIPDEP Team organized a Financial Management Workshop, during which the TF and PMT treasurers were oriented on changes made in the reporting process and/or how to properly compile their monthly reports. Phase II also saw the introduction of bi-monthly treasurers meetings at district level where the treasurers could share and discuss their experiences and attempt to find solutions to their common problems.
3) ***Limited Transport:*** Although it should not be an excuse for non-performance, the issue of transport needed to be addressed. It came out clearly in the case of construction, but also in the monitoring of all activities. Lack of reliable transport hampered the delivery of needed materials, the delivery of procurements and the maintaining of projects. The MoE and Ministry of Local Government should find the resources at local level to provide vehicles or make them available.
4) ***Attitude for Allowance:*** Allowance issues for those involved in the project activities kept surfacing. The size of allowance and the NIPDEP rules for giving allowances must be solved at the ministry level. There needs to be an attitude change and a stop should be made to different and often competitive donor funding from their routine SEMA's roles in training and inspection, PEA's roles in training, inspection, and monitoring, many meetings can be incorporated into their routine budgets as government officers

4.9.4 Monitoring and Reporting

1) ***Importance of Regular Monitoring:*** Regular monitoring visits are the most effective way to follow the progress of projects. NIPDEP set three layers of monitoring, i.e. PMT at district level, Core Trainers, and external experts for construction. Based on the experience, it is recommended that districts should leave a similar layer of monitoring for implementing DEPs. Quality construction requires highly technical expertise. It is recommended that monitoring costs be incorporated in each district and division office budget as recurrent costs.
2) ***Limited Budget for Monitoring:*** The PMT was not provided with an operational budget during Phase I that could cater to monitoring the different activities being conducted by the TFs. Although PMTs were provided with a monthly allocation to cover meetings and report submissions to NIPDEP, this money could not be stretched to cover regular monitoring trips. This was rectified in Phase II by the provision of a PMT operating budget that covered monitoring, communications and reporting among other activities.
3) ***Limited Knowledge for Monitoring:*** Little or no background/technical knowledge in the areas of their pilot projects contributed to poor monitoring by many TF members during the first phase of NIPDEP. Thus, the few members that had

necessary background and knowledge did the most effective monitoring and reporting. Through this experience, the districts realized that they had to trim down the size of their TFs and more carefully select their members.

4) ***Delay of Report Submission:*** Late submission of TF reports to the PMT usually forced the PMT to either submit an incomplete report to the NIPDEP office or wait until they had a complete report. Both actions had the same consequence – the NIPDEP office would withhold funding, resulting in the stalling of many planned activities. Withholding funding was a measure set by the NIPDEP Team in an attempt to promote teamwork and responsibility within the whole implementing structures at district level. It meant failures to report by individual TFs caused failure to meet deadlines by the entire district. This concept was neither comprehended nor appreciated by the districts until well into the second phase of implementation.

4.9.5 Community Participation

1) ***Engendering of an Ownership Sense:*** Community participation is tied to the idea of a feeling of ownership of their school. The district which demonstrated good success in involving its community was Mchinji. Since Phase I, they stated that the inclusion of the traditional authorities and ward councilors in the TFs accelerated the implementation of the projects, and was a driving force for successful completion. This is in contrast with Nkhata Bay where they claimed that the community representatives in SMC training TFs did not function. This is because they expected all the TF members to be trainers, when NIPDEP's expectation was for this position to be that of a communicator with the community for projects.
2) ***Assessment of Community Resources:*** The NIPDEP pilot projects showed that much of the community mobilization focused on construction activities rather than procurement and training; however, it would be ideal to put community mobilization in each project/activity, so that all beneficiaries (communities) appreciate and hopefully play a part. Of interest in this project is how Nsanje PMT and TF managed to work out a mechanism for obtaining textbooks through the TRF which requires parent contribution.
3) ***Timing of the Community Participation:*** One interesting observation during implementation was the consequences of the delay in carrying out construction and the repercussions arising from early community mobilization. It was observed that when a community was mobilized and sensitized they organized themselves quickly to make its community contribution. Delays hampered their enthusiasm. In addition, the timing for actual intervention conflicted with the agriculture cycle for the community in attending to their gardens. Thus, community mobilization in relation to the actual starting of a project should be carefully timed and should be done at the appropriate time of the year, not when the community is embarking on tending to their gardens.
4) ***Community Participation in Procurement Projects:*** There should be ample time given to mobilize resources. In general, community participation was taken relatively lightly in procurement compared to construction. To consider the

sustainability of procurement projects for maintenance, repair, and replacement, it is recommended the community be well informed in advance, so that it is ready to share the financial burden in the long term to use the procurements efficiently and effectively. At the same time, costs for consumables and spare parts for equipment should be incorporated into the recurrent costs of the district offices.

5) ***Community Participation in Construction:*** In some respects the long-term maintenance of projects by the district itself, especially those dealing with construction is only problematical at this point. NIPDEP devoted some construction workshops to this issue and has laid out ways for such maintenance programs to be organized and accomplished by the communities involved. The project emphasized community support for improvement projects and emphasized that the communities must have a strong sense of ownership for the projects after NIPDEP ends in order to sustain them. The extent to which this occurs remains to be seen.

4.9.6 Leadership, Teamwork and Communications

1) ***Leadership at the District Level:*** Leadership under this project comes from several sources, namely the NIPDEP Team, MoE and its district personnel (mainly the DEM), and the Department of Local Government through the assembly (mainly the DPD or DoA). It is important that the leadership at the district level is, to a large extent, influenced by the support from the community and the environment in which projects are being executed. For instance, extreme situations were observed among the pilot districts in terms of strong versus weak leadership due to a lack of team work, poor communication and unconstructive criticisms.
2) ***Importance of Leadership:*** In a number of cases, the leadership of the chairperson among the PMTs and TFs was, at times, lacking because these persons had too many activities and did not delegate work. All these events were taken as part of the learning curve in the leadership process, because different TFs and their PMTs ended up having teams that could be seen as having stronger leadership than when the projects started. Actually, an interesting scenario was observed in a construction project where the DPWs of Machinga admitted that he started off poorly in terms of public relations with his colleagues, but ended up on good footing.
3) ***Selection of PMT and TF Members:*** To select members of the PMT and TF, whose positions had not been specified, the planning teams had to rely on their collective memory and assumptions of the competence and experience of their choices. This also meant that PMT and TF members were appointed with neither their knowledge nor consent, and this affected their levels of commitment. This was especially true for District Assembly officers who were usually too busy with their own duties and had little time to concentrate on NIPDEP.
4) ***Limited Teamwork Experience:*** One major problem in the implementation of projects was the fact that the pilot district planning teams often had not worked together locally and some had no experience with planning or management of development projects. Most of the planners had little experience, as well, with

working closely with the community to enlist its involvement and participation in project implementation.

5) ***Commitment of the DEMs, PMTs, TFs and Communities:*** Assignments of responsible personnel should consider not only their expertise but their commitment and other responsibilities. NIPDEP proposed the formation of PMTs and TFs with ideal memberships considering the positions at district level with strong links to the communities. Construction projects schedules were affected when faced with communities that were reluctant to make contributions. Reduction of meal allowances for meetings and workshops incited more reluctance from some district personnel to participate in NIPDEP activities, opting to dedicate their time to higher paying activities.

CHAPTER V: NATIONAL DISTRICT EDUCATION DEVELOPMENT PLANS (NDEP) TO SUPPORT DEPS MANAGEMENT

OVERVIEW:

This Chapter provides a summed approach, implications from DEP updating and pilot projects, outline of the National District Education Development Plans (NDEP), roles of NDEP and DEPs, and key issues for NDEP implementation.

The MoE needs to improve its commitment and ownership sense for the DEPs and NDEP as well as the National Education Sector Plan, which was drafted now, and PIF for realizing educational development in the country. In order to achieve the national goals shown in PIF and to realize the policy objectives of the National Education Sector Plan, the DEPs provide in detail the urgent and needed strategies and projects to address the priority problems in the districts and thus the nation as a whole.

The NDEP has been prepared as guidelines and an action plan to provide a concrete answer to questions such as: "What kind of activities should be implemented with respect to the DEPs?"; Who is responsible for the management of each activity in the DEPs?"; and "When and how should it be conducted?"

The 1st draft of NDEP was prepared by the NIPDEP Team in December 2004 based on the discussions with the working groups which consisted of the education officers from MoE as well as the findings and lessons learned from the DEP updating and the implementation of the NIPDEP pilot projects. This was followed by a 2nd draft that was discussed in June 2005 for approval by the NIPDEP Steering Committee.

The NDEP has a close relationship with the DEPs and the national policies and strategies such as PIF, National Education Sector Plan (drafted), NDP etc.; therefore, it should be reviewed and updated by MoE when these national policies and strategies are finalized and/or updated.

The NDEP is attached to this Report as Appendix-IV.

5.1 EXPECTED ROLES OF NDEP AND DEPS IN NATIONAL EDUCATION SECTOR PLAN

5.1.1 Objectives

The objectives of the NDEP are to:

(1) contribute to the achievement of the national goals as stipulated in PIF and the National Education Strategic Plan. Under the PIF and the Strategic Plan, the NDEP is also expected to promote the National Decentralization Policy/Devolution Plan, HIV/AIDS Strategy, MPRSP, MEGS, Gender Policy and the MDGs in education sector;

(2) provide MoE HQs, divisions and the district officials with a concrete plan and guideline to update, implement, monitor and evaluate DEPs;

(3) improve understanding and build capacity in MoE HQs to support the districts' updating and implementing of DEPs; and,

(4) define more clearly the roles of MoE and the GoM in improvement and development of education in the districts and what educational development in the districts and which development actions and activities should be shared between GoM, MoE, international development partners, NGOs and the district and local communities.

The four objectives can be summarized in terms of:

(1) providing GoM, MoE HQs and the district officials with a concrete action plan to update, implement, monitor and evaluate DEPs; and

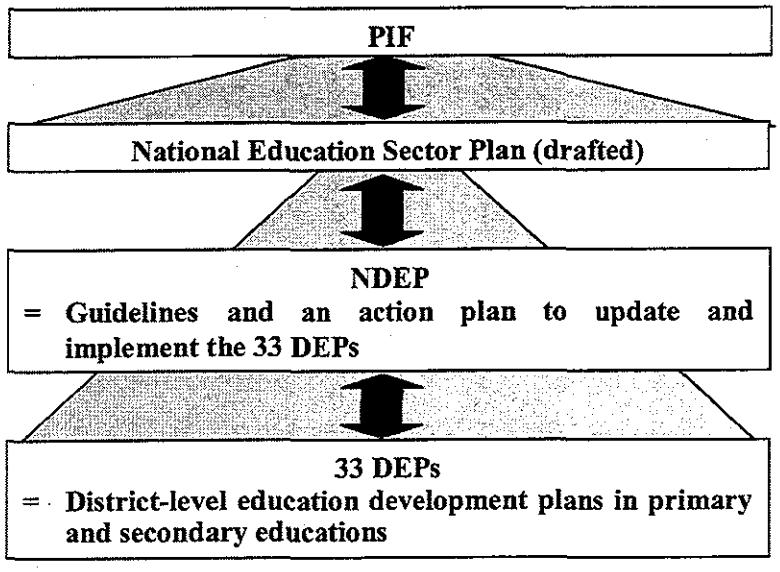
(2) improving understanding and build capacity in MoE HQs to support the district updating and DEPs implementation.

The target sub-sectors of the DEPs and the NDEP are the primary and secondary education.

5.1.2 Relationship with National Policies

The relationship among PIF, the National Education Sector Plan (drafted), NDEP, and the 33 DEPs is shown as in Figure 5-1.

Figure 5-1: PIF, National Education Sector Plan, NDEP and DEPs



The 33 DEPs, which reflect the actual education development in the district and the needs of the stakeholders, are prepared to achieve the national goals of the National Education Sector Plan and then the PIF, through the NDEP guideline for supporting the DEPs planning/updating and implementation.

In many of the plans, there are needs identified that only the GoM can address, such as pre-service teacher education and training, EMIS development and improvement at any levels, increased funding for development strategies and needs for improved infrastructure, such as roads and electrification. The DEPs provide a confirmation and unique ground truth for national needs identified from other sources and processes.

As stated in the objectives, NDEP will contribute to carrying-out, properly and effectively, the DEPs updating and implementation through a sound understanding and practical back-up by GoM, MoE, division office, and the related ministries. The DEPs, with the NDEP, will contribute to the accomplishment of the national plans in the education sector: the PIF and the National Education Sector Plan. At the same time, the DEPs, with the NDEP, are expected to contribute to the achievement of the NDP, HIV/AIDS Strategy, MPRSP, MEGS, and Gender Strategy.

5.1.3 Updating of NDEP

As mentioned above, the NDEP has a close relationship with the DEPs and the national policies and strategies such as PIF, National Education Sector Plan (drafted), NDP etc.; therefore, it should be reviewed and updated by MoE when these national policies and strategies are finalized and/or updated and when any action plans for these national policies and strategies are created.

5.2 APPROACH

The approach for NDEP development was based on consultations among the different key stakeholders with interest in education (civil societies, NGOs, international cooperation partners), other GoM departments, such as the MEP&D, MoF, MoLGRD, the MoE (relevant departments and the Department of Education Planning) and the NIPDEP Team.

The consultations culminated into a position that could be taken by the GoM as a guide for NDEP strategy and its implementation in the light of DEPs and other strategies advanced by the MoE. In carrying out consultations and discussions, collection and use of relevant literature such as PIF, Education For All Plan, the Teacher Education Development Strategy and other documents was determined as one of the important factors, in addition to the DEPs, for developing the NDEP.

The discussions were facilitated by an initial workshop for all stakeholders in order to help define a way forward based on a revitalized proposal and its terms of reference (see Figure 5-2). There were meetings under the following groupings (working groups, sub-working groups – basic and secondary education, planning, management and finance).

The following structure was used to support the NDEP activities:

(1) The Steering Committee of NIPDEP was considered the key to directing, coordinating, monitoring and approving the development of the NDEP. Thus the overall responsibility fell to the Principal Secretary for Ministry of Education. The secretariat remained under the Directorate of Education Planning of MoE. The Steering Committee used existing terms of reference under NIPDEP but taking into account NDEP requirements,

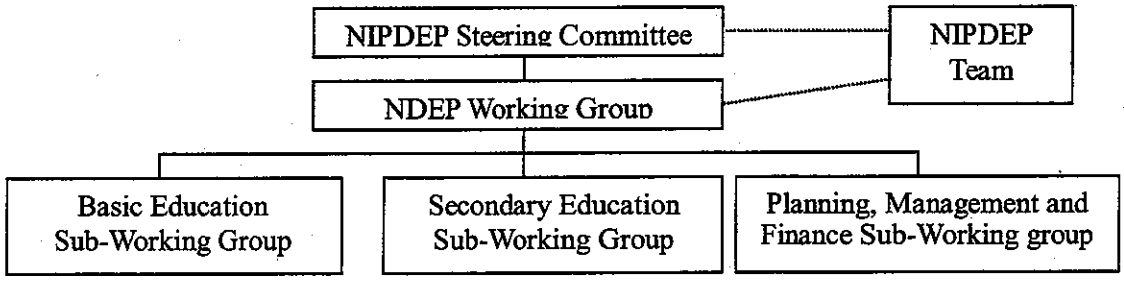
(2) Below the Steering Committee there was a Working Group, which took care of technical issues related to NDEP preparation while the Steering Committee was a policy related body. Thus the working group's terms of reference had more to do with technical issues such as approving a proposed outline and subsequent resultant activities of the sub-groups, ensuring availability of relevant documentation and personnel for the formulation of the plan to the sub-groups,

(3) There were three sub-groups, namely Basic Education, Secondary Education and

Planning, Management and Finance. These sub-groups had towards the end assembled sector statements and action plans into one document as a NDEP.

The planning structure of NDEP is shown in Figure 5-2.

Figure 5-2: Planning Structure of NDEP



5.3 IMPLICATION FROM DEP UPDATING AND PILOT PROJECTS

The NDEP is dependent on an annual review and revision of DEPs. The last updating of DEPs was a good entry point for the development of the current NDEP because it provided the different key players in districts in relation to national planning with a common agenda for implementation of national development strategies in the education sector from a grassroots perspective

It should be pointed out that NIPDEP, with the technical assistance of JICA, provided the MoE, the division and the district education officers an opportunity to review and update district team formulated DEPs in training workshops and conduct pilot projects based on the same DEPs. At the same time, under NIPDEP, the NDEP was formulated based on the same experience and in conjunction with a selected group of persons who underwent DEP updating and pilot project implementation. The entire NIPDEP process was pertinent to NDEP for understanding planning, implementation, monitoring and evaluation of education development projects in promoting decentralization in the education sector in Malawi.

Arising from the implementation structure of the NIPDEP pilot project, it was observed that there were no formal project implementation structures below the district level in Malawi; therefore, the NDEP guidelines introduce implementation structure formed under the NIPDEP pilot projects as an example case. This implementation structure, shown in the Figure 4-2 (P51), was organized by the NIPDEP Team and MoE to improve the project ownership and participation of district technical personnel and community members and to foster the transparency of a project and have adequate financial management.

Furthermore, it was observed that the DEMs and their officers as well as DPD and DA professional staff, led PMTs and TFs with technical support from the division (division planners)

Under the NIPDEP pilot project, PMTs and TFs were formed in each district to plan, implement, supervise and monitor the pilot projects, which were formulated, based on the strategies and projects identified in the DEPs. PMTs consisted of a DPD, as a chairperson, DEM, as a secretary, DoF, as a treasurer, and other professional staff members at the district level. A TF, led by one of the local professionals, consisted of other local professional staff

members: such as DPW, DCDO, CPEA, PEAs, head teachers, teachers and NGO representatives.

5.4 OUTLINE OF NDEP

The NDEP has the following chapters and contents:

Chapter 1: Introduction

This Chapter of NDEP includes 1) the background of the NDEP preparation, 2) the objectives of NDEP; 3) the relationship among the DEPs and NDEP, and 4) the DEPs and NDEP's contribution to the national plans and policies.

Chapter 2: Overview of DEPs Management

Chapter 2 provides 1) the outline of a DEP, 2) the steps of the DEP management cycle and 3) the key players for each of the steps for the DEP management with an organization which clearly show who is responsible for each step.

Chapter 3: Action by District and Support by MoE

In Chapter 3, major actions, key points and key players are shown and explained by each step for DEP management: 1) data management, 2) planning and updating of DEPs; 3) approval of DEPs; 4) marketing and resource mobilization of DEPs; 5) implementation and monitoring of DEPs; and 6) evaluation and feedback for DEPs.

Chapter 4: Operation Structure

Chapter 4 includes: 1) the key persons and agencies in DEP management; such as DEM, the Department of Education Planning of MoE, division planners etc. and 2) the responsibilities shown in a table for each of the key persons.

Chapter 5: Implementation Schedule and Budget

Chapter 5 includes: 1) the implementation schedule and 2) the budget for implementation estimate for NDEP from FY2004/05 to FY2007/08.

Chapter 6: Recommendations

Important recommendations for implementing NDEP and DEPs smoothly and effectively are given in this Chapter as follows:

(1) a clear definition of the role of DEPs in the National Education Sector Plan;

(2) the strengthening of a leadership role for the Planning Department of MoE;

(3) a more active recognition of the DEPs by the MoE implementation departments;

(4) the utilization of good facilitation skills for division planners;

(5) an increased capacity developed and ownership strengthened for personnel at the district level;

(6) set up of implementation structure and clarification of responsibilities based on NIPDEP experience; and,

(7) more collaboration with international development partners and NGOs in NDEP and the DEPs updating and implementation.

5.5 KEY ISSUES FOR NDEP IMPLEMENTATION

Three factors are critical for NDEP implementation, namely 1) leadership and commitment, 2) structures (systems and scheduling) and 3) making available of funds through marketing and resource mobilization of DEPs.

5.5.1 Leadership and Commitment

The NDEP has a close relationship with the DEPs and the national policies and strategies such as PIF, National Education Sector Plan (drafted), NDP etc.; therefore, it should be reviewed and updated by MoE when these national policies and strategies are finalized and/or updated.

The Planning Department of MoE has played a role in leading a section in the preparation and implementation of the DEPs and the NDEP. In the implementation stage of the NDEP and the DEPs, the mission of the Planning Department is more and more important not just in the stage to updating the DEPs; but to assist the districts, which are eager to implement their DEPs created, reviewed and revised based on the actual needs in their districts, that collectively represent the needs of the country as a whole.

In order not to eliminate the districts' potentials and to promote the education development activities at the district level, it is highly recommended that the Planning Department should have a stronger sense of a leadership role and ownership in the NDEP and DEP implementation and its updating. Especially, the following activities in the NDEP need to be led and coordinated by the Planning Department effectively:

(1) define the DEPs official position and role in the National Education Strategic Plan and support the DEPs efforts as part of its routine responsibilities;
(2) review and approve the updated DEPs annually in collaboration with all other related departments of MoE;
(3) ensure that the DEPs are reflected in the national education budget and resource allocation plans;
(4) coordinate the international development partners in updating, fund-raising and implementation of DEPs; and
(5) improve the sustainability of the DEPs updating efforts through financial and technical assistance.

When coordinating international development partners, the Planning Department must prepare a list of project achievements, outputs and future project plans for and in each district with those which MoE has completed and/or plans to implement. Such an exercise should be conducted in collaboration with international development partners. Without this list, the DPTs can not have the whole picture of current education development and short to medium term project plans for DEP updating. The preparation and updating of this list is one of the most important donor coordination activities done by the Department of Education Planning, MoE. Needless and wasteful duplication of efforts can be avoided if the Department of Education Planning plays a forceful coordinating role.

There is a need for good facilitation skills of division planners and capacity development and ownership of the entire process by the districts through active participation.

Finally the international development partners and NGOs should assist the district and MoE in making the NDEP function efficient and effective by:

(1) providing technical and/or financial assistance for DEP preparation and for education development projects proposed by the districts based on the DEPs;
(2) providing information about their project achievements and near future project plans in the districts and to the MoE on a routine and systematic basis to improve donor coordination and support for the districts in updating and implementing their DEPs; and,
(3) routinely considering DEPs in their future project planning and/or financial assistance.

5.5.2 Systems – Setup of Implementation Structure and Clarification of Responsibilities

There is no formal implementation structure for education development projects. Different projects have been implemented under the different implementation structures. As shown in Chapter 4, the NIPDEP pilot projects formed an implementation structure, which consisted of a PMT and TFs. The achievements and impacts of the NIPDEP pilot projects have proved that the implementation structure of NIPDEP is functional and helpful at the district level to increase the ownership and partnership of the district professionals and community members and to improve the transparency of project management and financial management.

It is recommended that there be a formal project implementation structure to clarify the responsibilities of the key players at the district level for effective and efficient project implementation based on the lessons learned and experience of the NIPDEP pilot projects. Furthermore, there is a need to establish an effective and efficient mechanism to ratify DEPs so that no delay s will hamper the development at district level.

At the MoE there is need for the related departments of MoE (Basic Education, Secondary Education, Education Management Advisory Services (EMAS) and DTED) to participate actively in DEP related activities from the onset. Thus these departments should be officially and routinely recognized by related departments within MoE and be regarded as important players in related duties and pre-requisite plans and resultant documents, if smooth implementation of DEPs and NDEP is to be attained.

5.5.3 Marketing of NDEP and DEPs

In order to make NDEP a reality, the DEM offices and DAs need to market their DEPs to mobilize resources to implement them. Furthermore, it is important to prepare practical and credible DEPs which describe rationale and priority strategies and projects clearly with a realistic budget.

For marketing DEPs, DEMs must identify possible funding sources at the local and national levels. The target might include NGOs which are based in and/or are active in their districts. International development partners, private investors, MoE, DA/DDF and MASAF should also be listed. Contributions from communities will be one of the most useful and effective resources for project implementation: such as their volunteer participation, labor provision, provision of locally available teaching materials, the contribution of small funds, and other sources.

PART III:

EVALUATION

CHAPTER VI: POST PROJECT IMPACT SURVEY DONE BY PILOT DISTRICTS

Three Types of Evaluation in NIPDEP:

To collect information about achievements, impacts and sustainability of the NIPDEP as well as its pilot projects from the different viewpoints as much as possible, three types of evaluation surveys were conducted by the different groups with the technical assistance of the Core Trainers and the NIPDEP Team, which were as follows:

(1) "Post project impact survey," conducted by the education officers of the pilot districts; which also aimed at capacity development in evaluation of development projects.

(2) "Post pilot project evaluation," conducted by the Center for Education Research and Training (CERT), the Center for Social Research (CSR) and MIE.

(3) Evaluation on "capacity development in NIPDEP," done by CDI.

Chapter VI summarizes the approaches and the findings of the (1) post project impact survey done by the pilot districts. The following two Chapters (VII and VIII) cover the (2) post pilot project evaluation and the (3) evaluation on capacity development in NIPDEP.

Additionally, a collection of anecdotes of the NIPDEP pilot projects, which includes unexpected impacts of the pilot projects, is shown in Appendix-II.

OVERVIEW:

The (1) post project impact survey done by the pilot projects aimed at building the capacity for conducting impact surveys at district level, and, as a result, give the district and NIPDEP Team first-hand information to understand the changes brought about by the projects and the maintenance plan toward sustaining projects at the target schools and TDC levels.

The DPTs conducted, with the technical assistance of the Core Trainers, the survey mainly comprised DEM, CPEA, and PEAs from the PMT/TFs. Some reported the increase in enrolment and in attendance after classroom construction; the improvement in teachers' absenteeism through the teacher house constructions; improved awareness and concern for school management by the community members etc., while some reported problems, such as too short preparation time, and less flexibility for deciding types of projects etc.

This was the first time they evaluated projects conducted by themselves. The indicators and information they collected through the field surveys were not necessarily well presented; however, actual opinions and findings from the project sites and how the pilot district officials understood and analyzed them were described in the reports.

The wrap-up reports of the NIPDEP pilot projects prepared by the DEMs in the pilot districts based on the post project impact survey, are included in the NIPDEP Reference Documents.

6.1 APPROACH, METHODOLOGY AND OPERATION STRUCTURE

The Survey covered, at most, 10 schools/TDCs as samples from the construction and procurement projects in each pilot district.

The interviewer team consisted of DEM, CPEA or PEAs from PMT/TFs. Some districts added head teachers from the sites and desk officers from DEM's office, who were in PMT/TFs as interviewers. The interviewees were head teachers, deputies and/or PEAs at schools and TDCs. The survey tool was the questionnaire (see Appendix-III) which was prepared by the NIPDEP Team. It has two parts.

Part 1 is an interview sheet. The interviewee answered on the type of intervention made by the NIPDEP pilot projects on the site. Some sites had more than one intervention such as a school block and teacher's house construction in Nkhata Bay, or a science kit and textbook procurement in Nsanje. They were then directed to rate on a five point scale the results of each intervention and the contents of the maintenance plan, from very poor (rated 1) to very good (rated 5). The interviewer's opinion as to the most significant changes, both in positive and negative ways, was recorded for the different stakeholders for schools, teachers, students/pupils, parents, and school committees and the community. In some districts, such as Nkhata Bay and Thyolo, they opted for focus group discussions with stakeholders, and in other districts, they interviewed stakeholders separately. In Nsanje, interviewers went beyond the interview with the questionnaire, and checked where the procured goods, such as textbooks and lab kits, were kept.

Part 2 of the questionnaire is the Data Sheet. The interviewer first filled in the data as to conditions before and after the pilot projects from the school records and district EMIS data, and calculated the differences for comparison. For the NIPDEP pilot project Phase I, which was implemented from May 2003 to February 2004, the data was compared between the indicators in May 2003 and September 2004. For the pilot project Phase II, which was implemented from May 2004 to February 2005, the data comparison was made between those in September 2004 and May/June 2005.

Indicators included for both construction and procurement projects were: 1) number of pupils/students, 2) attendance rate, and 3) number of teachers. Indicators, only for construction projects, were: 1) number of classroom block (permanent or temporary), 2) which school year students/pupils use the classroom blocks newly constructed by NIPDEP, 3) pupil/classroom ratio, 4) number of pit latrine for boys, 5) number of pit latrines for girls, 6) number of teachers' houses (permanent or temporary), and 7) the availability of safe water. For the procurement projects, the number of the procured goods such as desks, science kits, textbooks, computers and duplicating machines, together with the pupils/textbooks ratio were included in the check of the achievements for the different projects.

The results of the survey was summarized in the Impact Survey Report by the DEM and submitted together with the collected questionnaire forms and the account log for the Survey expenses.

6.2 FINDINGS OF IMPACT SURVEY: ACHIEVEMENT, IMPACT AND SUSTAINABILITY

In total, 52 out of 98 pilot project sites (schools and TDCs) were covered by the first impact survey, and 51 out of 95 pilot project sites were covered by the second impact survey as shown in Table 6-1.

Table 6-1: Number of Samples Taken and Summary of Ratings

District	Project Type (Built Items and/or Procured Items)	1st Survey: Phase I		2nd Survey: Phase II	
		Site number surveyed (Total site number)	Rating level*: and No. of answers	Site number surveyed (Total site number)	Rating level*: and No. of answers
Nkhata Bay	School block and teachers' houses (with pit latrines, desks and chairs)	2 sites (3 sites)	Rate5: 1 Rate4: 1	1 site (1 site)	Rate5: 1
	Teachers' houses only	1 site (1 site)	Rate3: 1	N/A	N/A
	School block only	2 sites (2 sites)	Rate4: 2	1 site (1 site)	Rate3: 1
	Laboratory construction	1 site (1site)	N/A	1 site (1 site)	Rate4: 1
	Computer / photocopier (INSET)	1 site (1site)	Rate5: 1	N/A	N/A
	Follow-up (pit-latrines for phase I sites)	N/A	N/A	5 sites (5 sites)	Rate2: 1 Rate3: 2 Rate4: 2
	Total	7 sites (8 sites)	-	8 sites (8 sites)	-
Ntchisi	Teacher's house	3 sites (3 sites)	Rate3: 1 Rate4: 2	3 sites (3 sites)	Rate3: 1 Rate4: 2
	Desks and chairs	5 sites (5 sites)	Rate4: 4 No rate: 1	6 sites (8 sites)	Rate2: 1 Rate3: 3 Rate4: 1 Rate5: 1
	Mobile laboratory	N/A	N/A	2 sites (3 sites)	Rate4: 1 Rate5: 1
	Computer (under INSET)	1 site (1 site)	Rate5: 1	N/A	N/A
	Total	9 sites (9 sites)	-	9 sites (14 sites)	-
Mchinji	Furniture to CDSS	2 sites (2 sites)	Rate4: 2	N/A	N/A
	School blocks and teachers' houses (with desks and chairs); Phase II did not construct teacher's house	3 sites (3 sites)	Rate4: 1 Rate5: 2	2 sites (2 sites)	Rate5: 2
	School block and administration block, & latrine	N/A	N/A	1 site (1 site)	Rate4: 1
	Latrines	3 sites (3 sites)	Rate3: 1 Rate4: 1 Rate5: 1	3 sites (3 sites)	Rate4: 1 Rate5: 2
	Total	8 sites (8 sites)	-	6 sites (6 sites)	-

Note: * Rating Level: from "Rate1" (= Very Poor) to "Rate5" (= Very Good)

District	Project Type (Built Items and/or Procured Items)	1st Survey: Phase I		2nd Survey: Phase II	
		Site number surveyed (Total site number)	Rating level*: and No. of answers	Site number surveyed (Total site number)	Rating level*: and No. of answers
Machinga	Textbooks and teaching guides	5 sites (7 sites)	Rate4: 1 Rate5: 1	4(+1)** site (7 sites)	Rate3: 1 Rate4: 2 Rate5: 2
	Teachers' houses	2 sites (2 sites)	Rate5: 2	1(+1) site 1 (site)	Rate5: 2
	Latrines and boreholes	1 site (4 sites)	Rate5: 1	2 sites (2 sites)	Rate5: 2
	Follow-up(latrines and borehole)	N/A	N/A	1 site (4 sites)	Rate5: 1
	Fish pond income generation	0 site (1 site)	N/A	1 site (1 site)	Rate4: 1
	Total	8 sites (21 sites)	-	9 sites (15 sites)	-
Thyolo	Textbooks	4 sites (10 sites)	Rate4: 2 Rate5: 2	2(+1) sites (5 sites)	Rate4: 1 Rate5: 1
	Science kits	3 sites (5 sites)	Rate3: 1 Rate5: 2	3(+2) sites (5 sites)	Rate3: 1 Rate4: 1 Rate5: 3
	Office equipments (typewriter and photocopy machine)	5 sites (6 sites)	Rate4: 1 Rate5: 4	2(+2) sites (5 sites)	Rate5: 2
	Pit latrines	2 sites (6 sites)	Rate4: 1 Rate5: 1	2 sites (2 sites)	Rate2: 1 Rate5: 1
	Total	10 sites (27 sites)	-	10 sites (17 sites)	-
Nsanje	Desks and chairs (primary)	1 site (4 sites)	Rate5: 1	3 sites (8 sites)	Rate4: 1 Rate5: 2
	Desks and chairs (secondary)	1 site (4 sites)	Rate5: 1	3 sites (6 sites)	Rate3: 1 Rate4: 1 Rate5: 1
	Science kit	6 sites (7 sites)	Rate4: 3 Rate5: 3	1 site (7 sites)	Rate4: 1
	Textbooks and teachers' guide	6 sites (7 sites)	Rate4: 1 Rate5: 5	2(+2) sites (8 sites)	Rate4: 3
	Office equipment (photocopy/duplicating machine and typewriter)	2 sites (3 sites)	Rate3: 2	2 sites (6 sites)	Rate5: 2
	Total	10 sites (25 sites)	-	9 sites (35 sites)	-

Note: * Rating Level: from "Rate1" (= Very Poor) to "Rate5" (= Very Good)
** ( ) = No. of questionnaire filled in from the project sites of Phase I.

NIPDEP requested the DEMs report the result of the Impact Survey in the form of a report accompanied by the questionnaire forms collected. The report format was 1) an introduction; 2) a summary of the rating results; 3) an impact of construction/procurement/income generation projects; 4) maintenance plan; 5) findings from the data sheet; 6) benefits and

impacts in a short and long term; and 7) lessons learned. The following sections are the summary of both questionnaires and the reports submitted.

6.2.1 Achievement

(1) Construction Projects

In Nkhata Bay, construction projects contributed to the increase in the enrolment in some cases and reduced drop-outs. The physical environment for teaching and learning was improved, especially by laboratory construction and it increased apparently the number of students taking sciences). The absenteeism rate also has considerably reduced in most school block projects.

In Ntchisi, for teachers' house construction, the teacher house ratio and the teacher attendance rate improved, while the enrolment went down. The number of teachers increased at Kafamtandala with one teachers' house constructed from Phase I, but remained the same at Msinda, where in total, three teachers' houses were built. As a result, the teacher/house ratio improved district-wide.

In Mchinji, enrolment indicators increased at Lombwa and increased a little at Nthema. There was an inflow of pupils also from neighboring schools. This was assumed to be due to the improvement in the learning environment with the construction of two new classroom blocks and pit latrines, and the procurement of desks at each site. The number of teachers increased, as well, without the construction of teachers' houses. The explanation given was that before construction, there was a very bad environment for the pupils to learn and for teachers to teach. The community talked about the high quality of the construction done and that it transformed the surrounding communities.

In Machinga, there was great variation in enrolment, some showed increases while others showed decreases in enrolment for either boys or girls in the various classes for different schools. In the case of borehole and pit latrine sites in Nanyumbu, Nankhunda, and Mikachu Primary Schools, enrolment increased mainly in the lower classes. The trends in enrolment might be clearly spotted with time. As for the attendance rate, it showed increases after the project. It might have been that the pupils' problems that caused low attendance were reduced by the NIPDEP pilot projects. The number of teachers' houses increased by two at Nanyumbu Primary School; however, the intervention could not show whether an impact resulted in either a decrease or an increase in teachers at nearby schools. This might be noted in some years. The number of pit latrines at schools increased with the construction of permanent toilets. The number of needed boreholes near the schools was added.

In Thyolo, the student enrolment for secondary schools registered a rise, except for January, in Mikombe and Chikolombe CDSSs. At the primary schools, where the construction of pit latrines took place, the pit latrine to student ratio improved, but the pit latrines were not yet in use when the impact survey was conducted. That might be why the enrolment at Goliati Primary went down. A positive development was that the decline was higher for boys than girls, who were the main target of the pit latrine projects.

Tables 6-2 and 6-3 are the excerpts from the collected questionnaire form (Part 2: Data Sheet), the change in number of pupils in relation to pit latrine and school block construction projects.

Table 6-2: No. of Pupils at Pit Latrine Project Site - Before and After NIPDEP Pilot Project

District	School Name	Pit Latrine		No. of Pupils Before		No. of Pupils After		Difference	
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mchinji	Pinda	0□ 4	0□ 4	529	523	664	629	+135	+106
	Mikundi	2□ 5	2□ 5	585	537	606	542	+21	+5
	Chimteka	2□ 5	2□ 6	490	473	617	635	+127	+162
Machinga	Namisangu	0□ 4	0□ 4	441	451	333	371	-108	-80
	Mikachu	1□ 5	1□ 5	287	297	317	340	+30	+43

Table 6-3: No. of Pupils and Pupil/Classroom Ratio at School Block Project Site - Before and After NIPDEP Pilot Project

District	School Name	Intervention				No. of Pupils						Pupil /Classroom Ratio
		No. of School Block (temporary)	No. of Pit Latrine		No. of Desks	Before		After		Total Change		
			Boys	Girls		Boys	Girls	Boys	Girls	Boys	Girls	
Nkhata Bay	Msomba Primary	0□ 1 (4□ 4)	0□ 4	0□ 4	0□ 60	80	97	98	113	+18	+13	N/A□ 55:1
	Kavuzi CDSS	1□ 2 (0□ 0)	3□ 7	4□ 6	50□ 100	51	46	67	59	+16	+13	49:1□ 32:1
Mchinji	Lombwa Primary	1□ 3 (3□ 0)	2□ 4	2□ 4	60□ 120	224	164	315	303	+91	+139	224:1□ 104:1
	Nthema Primary	0□ 2	0□ 1	0□ 1	N/A	235	269	246	252	+11	-17	N/A□ 124:1
	Bua CDSS	1□ 2	N/A	N/A	N/A	198	140	235	147	+37	+7	169:1□ 95:1

(2) Procurement Projects

In Ntchisi, the number of desks increased thereby the student to desk ratio decreased.

In Machinga, textbooks for pupils and teachers' guides were increased at school level; thereby improving the pupils to textbook ratio.

In Thyolo, the improvement of pupils to textbook ratio in CDSSs was large, for example from 108:1 to 20:1 in January 2005 in Mathematics, from 8:1 to 2:1 at Nyodola CDSS in English. According to the DEM, the increase of the textbooks might have been one factor contributing to the high attendance rates. The science kits might have played the same role in increased attendance rates.

Table 6-4 below is the excerpts from the collected questionnaire form (Part 2: Data Sheet), the pupil: textbook ratio on textbook procurement projects.

Table 6-4: Secondary School Pupil Textbook Ratio - Before and After NIPDEP Pilot Project

District	School Name	Pupil : Textbook Ratio				Attendance Rate	
		English		Mathematics			
		Before	After	Before	After	Before	After
Machinga	Malundani	9:1	2:1	2:1	1:1	Form1:90% Form4:95%	Form1:95% Form4:99%
	Mpilanjala	23:1	8:1	Social Studies 23:1	Social Studies 8:1	Form1:88%	Form1:98%
	Liwonde	Physical Science 8:1	Physical Science 5:1	7:1	5:1	Form1:75% Form4:80%	Form1:70% Form4:83%
Thyolo	Nyodola	8:1	2:1	5:1	2:1	Form1:85% Form4:95%	Form1:90% Form4:99%
	Mikombe	3:1	1:1	4:1	1:1	Form1:95% Form4:82%	Form1:94% Form4:93%
	January	54:1	7:1	108:1	20:1	Form1:90% Form4:75%	Form1:90% Form4:85%

The teaching of science subjects at some Thyolo secondary schools was very difficult. With the provision of the science kits, students had hands-on experience with experimentation and observation and the conceptualization of ideas and theories were enhanced. The science kits in Thyolo enabled some schools, which taught physical science only to the junior section, to extend them to the senior classes, and some schools were able to introduce the subject for the first time. Practical lessons raised students' enthusiasm to learn science subjects. Teachers were motivated to teach science, and some parents were encouraging their wards to learn science because they were aware of the availability of science kits. Drop-out and absenteeism went down as students' interest in education improved.

The office equipment for CDSS in Thyolo, such as typewriters, duplicating machines, and printers, enabled the schools to produce examinations without going to another school or the division office. Expenditures for producing tests went down. This is because, previously, typists from distant schools and the division office, had to be paid allowances to type the tests. The teachers learned a new skill, typing, and they also taught their colleagues. Students were taking examinations on time. The delay which was there because of congestion at the division office was reduced.

In Nsanje, the provision of textbooks for secondary schools and the training of librarians made it possible for the pupils to benefit from this timely assistance. As a result of desks and chairs procurements, both primary and secondary school students, especially girls, were more comfortable at school using desks. Their uniforms were kept clean as compared to the time they were sitting on the floor. In Nsanje, the duplicating machines procured for TDCs were useful to both primary and secondary schools. The machines were ideal because they could be operated manually.

6.2.2 Impact

In this section the impact after Phase II projects implementation is summarized from the interview sheets and the survey reports:

(1) Construction Projects

In all the districts where the school blocks were built, the improvement in the teaching and learning environment was acknowledged and teachers morale was boosted.

In Nkhata Bay, pit latrines improved school sanitation, resulting in improved health practices in schools. The supply of desks for the classroom blocks enhanced the joy of learning. The communities in Nkhata Bay were seen to know their roles better in education management and have a sense of ownership of the schools. Communities made use of school blocks for other social occasions such as community activities and church services. Community participation improved in Phase II, but in some areas it is still a problem. PMT/TF, teamwork was enhanced. In the long run, Nkhata Bay expected the quality of education to be improved, the pupil to teacher ratio to improve, and the drop-out rate reduced. The laboratory improvements in science subjects should result in an increase in the number of pupils taking sciences.

In Ntchisi, at Msinda School, the teachers' houses added to the beauty of the school and teachers were more motivated to teach. The teachers were more punctual and available to the pupils most of the time as they resided at the school. School property security improved as the houses were used as storerooms for the school. The communities were motivated and the spirit of self-help was rekindled. These houses set standards for the communities as they upgraded the standards for housing in their communities. The standards for education started showing improvement, combined by GoM inspection visits in June 2005, that found Msinda School as one of the best schools in Malawi. This might be a result of the construction of three teachers' houses at the school. Communities, which benefited from the knowledge acquired on the use of SSB machines, demanded more construction of teachers' houses.

In Mchinji, at Lombwa School, with new beautiful classrooms, teachers were willing to teach there, while in the past they would refuse to be transferred to such a school. An increase in the number of classrooms and pit latrines gave hope that teaching and learning would be improved and the performance of pupils improved. Another effect in Mchinji brought about by the construction projects was that the community continued to cooperate in the handling of projects. Different stakeholders put their efforts together toward construction. This maximized community contribution in the development of schools. One other impact was on the teachers. The teachers in the schools were better motivated because their teaching environment was improved. It was easier than before to post teachers to these schools, when,

in the past, teachers had not been willing to be posted to these schools. In this case, pupil's performance was expected to improve. More time was spent on teaching and learning, as opposed to the time spent by teachers before construction. When pupils learned under trees, when the rain started, pupils were told to go home. When it was cold or hot, attendance of pupils was low. The construction projects re-invigorated the motivation of members of the communities, who had in the past molded bricks for their schools, but had failed to access any donor support. They were now expected to do more for future projects.

In Machinga, after the completion of the teachers' houses, teachers were relieved from traveling long distances. This boosted morale of those living within the school premises making practice more effective teaching. The quality of the houses were high, which stood as models in the local communities. At the same time, pit latrines contributed to the improved health of the population around the school, which was noted in the reduced cases of diarrhea. In addition, it gave the schools a new improved look. There was hope that the attendance rate would gradually normalize with the pit latrines, because the pupils who had been reluctant to go to school, due to problems of sanitation, were likely to come back to school, especially girls. In the long run, the communities and schools around the sites would emulate the construction of pit latrines as constructed by NIPDEP. Another construction project in Machinga was the boreholes. The boreholes drilled at schools in Machinga were used by the schools and surrounding communities. It saved the time for teachers and pupils to search for water at a distance and minimized accidents cases of pupils scrambling to nearby water points.

In Thyolo, their only construction project was pit latrines at two schools. Although, at the time of the survey, the latrines were not yet put in use, but it was apparent that each school was optimistic that sanitation and hygiene would improve. This was because they would have proper facilities as opposed to the make-shift urinals and poorly constructed latrines they were currently using. The attendance for girls was expected to improve and the nearby tea estate security guards would have a rest from chasing pupils trespassing to use their facilities. Time on task for learning was expected to be decreased as there might be no need for pupils to get involved in construction work. It is a common practice in primary schools to use boys for putting up structures like urinals and temporary latrines. The new latrines encouraged the SMCs to embark on their own similar projects, especially at Mpinji Primary School, because there was a need to increase more permanent latrines of this type and the urinals for boys were needed.

(2) Procurement Projects

In Ntchisi, the desks were procured for CDSSs where there was an acute shortage. Though these new desks were not enough, it improved the teaching and leaning environment and classroom management where they were located. The environment was now more conducive to learning although those classes without desks were complaining. Most of the girls were not expected to drop out of school as they were now sitting at desks. Lab kits in Ntchisi were procured for CDSSs which had never had this equipment. It was a morale booster for the science teachers as they started teaching science with emphasis on practical learning. The students found lessons more interesting as they had hands on experience and their learning environment had improved. It encouraged students as well to opt for sciences. This motivated both teachers and students to work hard and "as a result Malawi will develop

(from a DEM's Survey Report)." The textbooks bought from the contingency of TF 1 helped both professional staff at the office and teachers to upgrade their competencies. The photocopier was used for the production of teaching and learning materials used in different zone-based INSETs.

In Machinga, pupils' textbooks and teachers guides, which were procured in CDSSs, were expected to create a healthy learning environment for pupils and enable the teachers to perform more effectively. The SMC and parents were relieved from expenditures for books, and the community had pride in the books that will benefit pupils. Accessibility to the textbooks instilled a sense of discipline in students through the use of the books. In the longer term, a reading culture among students was expected to be instilled if books are read more regularly. The textbooks also increased the confidence in teachers during their instruction. This was because the reference materials were readily available and they could make good lesson preparations. Students were getting more information on their own since they had access to textbooks. On the part of parents, the burden of buying textbooks for their wards was eased. At a school, where the SMC subsidized the purchase of textbooks, the project enabled them to save some money.

For Machinga the fish pond income generation project, teachers, pupils, and households had the advantage of having protein available mainly from eggs and chickens. SMC and the community were appreciative of the acquisition of poultry and fish ponds, and for the knowledge and skills from the project. It was also a source of new funds that were used for school activities. In the future, communities and students were to use the skills learned in managing chicken and fish farming at home or to secure a job.

In Thyolo, typewriters for CDSSs improved the communications between the community and the school, because letters were well-typed and easy to read. Since NIPDEP provided these items and INSET to teachers, the quality of education was expected to be higher. Moreover, examination results were expected to improve while at the same time produce more knowledgeable graduates for the labor market. In addition, drop-outs and absenteeism were to be reduced as interests in education were expected to rise and be cultivated in students. The Thyolo DEM expected that the provision of office equipment would lead to an improved student assessment system, resulting in better performance on external examinations. The quality of data produced and made available by schools was to be of higher quality, as well. Textbooks for secondary schools assisted teachers and pupils to learn, but libraries were required, also, so pupils could have access to some of the reference books needed. Some CDSS complained that they were given a book, which they did not order.

In Nsanje, in the schools, procured desks and chairs during Phase II for the examination cluster centers;, therefore, it was anticipated that students would not sit on the floor during examinations. Some desks were reported as too small, mainly those that were procured for secondary schools. In Nsanje, no CDSSs had lab kits before the coming of NIPDEP. Physical sciences were now being introduced in the CDSS, but the only problem was the lack of qualified science teachers. As a result, interest in science subjects was aroused in some pupils by the kits, but off-set by a lack of qualified teachers. Some chemicals had not yet been delivered to the CDSS at the time of the Impact Survey. It was why science kits were rated as average by respondents where there were no chemicals (3). Some chemicals were still kept at the division office and had not reached the schools. Duplicating machines and typewriters at

TDCs in Nsanje were considered very useful in the preparation of examinations and mock exams.

6.2.3 Sustainability

In Nkhata Bay, deliberate efforts were put into capacity building of local communities for the sustainability of the projects. Project teams were trained in post project maintenance. Some borehole spare parts were purchased in advance for the repair of water sources by the communities. The DPT members continued monitoring and supervision activities after the NIPDEP pilot projects.

In Ntchisi, all secondary schools that benefited by receiving desks made arrangements to provide security for the property and use School Development Funds for maintenance of broken pieces of furniture. The communities around schools, where there was construction of teachers' houses, agreed to take care of the building and maintain the structure for house rents.

In Mchinji, in all the schools, where construction was done, the communities formulated plans for maintenance of their facilities. The interviewer observed that through the community contribution, the community's greater share of ownership of the project was nurtured. As they had been doing projects, community members planned to make financial contributions towards the maintenance of the structures.

Also ***in Machinga***, the second report stated that the spirit of ownership to sustain the assistance was high and an element of pride in the project was seen at the sites. Maintenance plans were already on the ground. Textbooks provided were to be maintained through the maintenance of records to ensure books lent out were endorsed for a follow-up date to be returned. Book catalogues would be maintained and regular stock taking to be carried out. For borehole, water point committees were set up and operational to enforce rules for care and security, and contributions would be from users for the purpose of maintenance when a boreholes breaks down. For the fish pond project, fish pond committees and poultry committees were set up and poultry houses were cleaned daily. The transparency and security of the project was enforced. For teachers' houses, house rents collected were being used for further development activities in the school.

In Thyolo, 60% of the schools interviewed already developed maintenance plans for the facilities, while for the rest, the interviewees had no idea about maintenance, or they were not asked about it. However, there was a hope of sustainability in the procurement projects, because schools relied on the SMC to set up mechanisms for maintaining the facilities.

Nsanje appeared quite outstanding in the development of maintenance plans for procurement projects. For desks, schools sat down and formulated regulations to be followed on the usage and care of desks. They agreed that a desk should be maintained as soon as it showed signs of defects. The SMCs were responsible for the maintenance of the desks. Mpatsa Primary School agreed to charge a fee for desks to be used by other people, for example, during weddings. Secondary schools had funds for maintenance through the development fund at their schools

For science kits, the TF made some social contracts with the schools that were assisted with the procurement of lab kits. These schools were held responsible for replacing the broken

items. They agreed that if a pupil breaks some of the apparatus intentionally then he/she should be charged to replace it. The school was to be responsible for replacements of used up chemicals. As for textbooks, TFs made agreements with the schools that the books shall be maintained. All books were stamped to show which schools owned them. Head teachers agreed to send back books bearing another school's stamp if found at their school. Parents agreed that a pupil who has lost a book should buy a new book to replace it. Torn books should be maintained by the school, using the general purpose fund (GPF) and TRF. The TDCs which received duplicating machines set out the operating rules at the time the machines were put in place. The TDC Management Team agreed it would be assisting in the maintenance of the machines using the money realized from charges from those who want to have their work duplicated.

6.3 KEY ISSUES

6.3.1 Issues Identified by the Pilot Districts

In general, the statements under the lessons learned do not directly arise from the impact survey itself, rather, arose from the reflections which were reported during the impact survey activity and after three to four months from the completion of projects. These issues are for planning, management and monitoring of projects and with respect to the relationships with the communities. It will still be good to summarize the issues pointed out as "lessons" in the survey report prepared by the DPTs.

(1) *Construction Projects*

The importance of continued monitoring and supervision was highlighted by the Nkhata Bay DEM. He also pointed out from construction at the Msawa School, that the accessibility problem could hinder proper project management. On a technical note, they got feedback from the teachers that 2-bedroom houses were too small, and 3-bedrooms would be better. In Mchinji, based on their experiences, they felt that the issues with the contractors had to be sorted out with urgency, so that completion of the projects could be done on schedule. The Thyolo DEM, on a similar note, claimed that construction projects needed more time and therefore preparations must start ahead of implementation. Mchinji analyzed the fact that paying contractors at each stage upon certification by stakeholders could make the projects achieve completion.

(2) Community Participation

Nkhata Bay and Thyolo found that there was a need for stakeholder involvement in all project matters. The Thyolo DEM emphasized that communities must be made fully aware of the nature of their contributions towards a particular project, and that, where possible, communities must be trained on how they will accomplish some activities. This especially helped when the executive members in the TFs were tied-up with other duties. Ntchisi also suggested that, for any project to be successful, it would be important to involve the main stakeholders from planning to implementation. Mobilization of building materials by the communities in Mchinji was done early enough so that the timing, when construction started, was not a constraint.

On the other hand, Nsanje explained that the community was consulted on their needs from the start. Nkhata Bay indicated that after two phases of the NIPDEP pilots, community participation became better. Mchinji echoed that when implementing projects in the communities, members who were stakeholders were supposed to be involved in the process of planning, implementing, monitoring and evaluation. If stakeholders are involved in the members, the projects would be implemented with few difficulties.

(3) Planning and Budgeting

Thyolo emphasized that needs assessment surveys must be conducted before the commencement of any project. This will ensure that the project activities are addressing the identified problems in terms of their plans and budgets. Needs may change over time and a project is being implemented the needs must constantly be re-examined.

There were lessons drawn from Ntchisi and Thyolo DEMs on resource allocations. Both of them suggested that where there was such a big gap to fill, it was better to concentrate all the efforts and resources to solve well-targeted problems rather than to spread thinly resources over all problems at once. For example, there is an acute shortage of desks in Ntchisi, which even after NIPDEP procurement projects, the shortage will not be solved. Other students, not enjoying these facilities, complained as if they were being discriminated against.

Budgeting for construction projects, according to Thyolo, should be based on the real cost of activities and not guesses. Costing should be done based on the quoted figures. The budgets for construction and procurement in particular, must be big enough to cover the activities adequately. In addition, the budgets should have a reasonable contingency which acts as a safety valve.

(4) Management and Monitoring

In Nkhata Bay, the district members became more transparent in the area of procurement, because even community members were interested to know what had been purchased and why it had been purchased from a particular supplier. From the project management aspect, Ntchisi officers indicated that they had learned how to account for the cash received and the importance of meeting deadlines.

The importance of continued monitoring and supervision was emphasized in the Nkhata Bay Report. They came to the conclusion that regular meetings are essential for the success of any project. With respect to monitoring, Ntchisi suggested that intensified monitoring during implementation is important. Thyolo had the idea that monitoring should be done by people who understand the nature of the activities taking place. Monitoring should be comprehensive and regularly done. There should be enough resources allocated for the activity. Monitoring tools should always be used in monitoring wherever possible and written reports produced. In addition, the importance of team work for successful management was recognized.

Ntchisi found that the involvement of different people help to widen their experiences and understanding of school improvement issues for the community at large. Nsanje also noted that the multi-sectoral approach in the implementation of the project assisted in completing projects on time. Machinga and Nkhata Bay claimed that working with officers from various departments had far reaching results in terms of expertise at various levels and disciplines.

Mchinji and Nsanje felt that the implementation structure had been very good for transparency and accountability. Mchinji emphasized that due to the participation of many stakeholders, the projects enabled them to learn how best projects could be implemented. This would, in turn, enhance the decentralization process in which members in the communities were expected to spearhead development in their areas. Although other districts suggested the operational structure would be improved by strengthening the link with communities by having more people on TFs or have links with SMCs through PIUs. Mchinji reported that diverse stakeholders were involved in monitoring.

The aspect of time management was raised by the Thyolo DEM. According to him, it is important to give ample time for each project to complete in order to have a proper conclusion of activities. There must be logical scheduling of activities, following priorities, scheduled to be done at the same time.

(5) Maintenance

Machinga stated that infrastructure had to be regularly maintained if the structure had to last longer. Nsanje ensured that the community had the capacity to maintain and protect property, if they were well trained and empowered. All the above points are valuable, however, it would be better if they could link the negative statements made by the stakeholders and signs picked up from the impact surveys and make an attempt to solve or improve the situation. For example, most of the procurements filled in gaps for student/equipment lowering ratios; however, some of them required inputs to be put in different areas, such as science kit procurement, entailed also the allocation of qualified science teachers to use the kits.

6.3.2 Survey and Reporting Capacity of the Pilot Districts

Some observations could be made as to the capacity of the pilot districts to collect and complete questionnaire forms. For some questionnaires, the data sheets, where the indicators are required, were left blank. It indicates that either the school or the district does not keep the records for enrolment and attendance rates, and/or the interviewer simply ignored the data sheet. Another point observed was that there were rampant mistakes made on the same data sheet in calculating the gaps and ratios. In general, the ratings were summarized and presented adequately. For the stakeholders' opinions on the changes, most DEMs tended to summarize the positive points. When they picked up the negative points, they did not link it to any improvement or possible solution in the future.

In treating the indicators from Part II, Thyolo and Machinga made the analysis link changes in an indicator and the intervention based on the data sheet whilst others summarized the trends in the change of figures before and after the intervention. On the other hand, the Report from Nkhata Bay strangely mentioned the drop-out rates which the questionnaire sheet does not cover. It would have been better if it reported the real figures for drop-out rates to show the change.

All in all there was an improvement in the way they conducted the survey and their reporting from the first to the second survey. Therefore, in the future, it is expected that further guidance and training would boost their capacity even more in this area. If they have a chance in the future, it is recommended that they go back to the same sites and check the same items to ensure sustainability.

CHAPTER VII: POST PILOT PROJECT EVALUATION BY NIPDEP TEAM

OVERVIEW:

The post pilot project evaluation was conducted by CERT, CSR and MIE with the technical guidance of the NIPDEP Team to evaluate effectiveness, efficiency and impact of the NIPDEP pilot projects from the viewpoints of the educational professionals.

It was decided that at three points of the program implementation (baseline, mid-point and post pilot project), evaluation studies be conducted to assess the progress achieved in the districts as they implement their projects.

Through the quantitative data collection at school, achievement testing, teacher survey and focus group interviews, some improvement was observed in the access and the quality of the primary and the secondary education such as pupils to classroom ratio, pupils to latrine ratio and percentage of untrained teachers. At the same time, there were some decreases observed in the primary enrolment and the total number of teachers. Very low scores of the achievement testing of the secondary school teachers showed the serious quality problems in CDSSs. These changes were observed in the pilot districts; however it is difficult to tell if the NIPDEP pilot projects contributed to these achievements and/or problems.

The post-project evaluation report, which includes more detailed results of the evaluation survey is included in the NIPDEP Reference Documents.

7.1 APPROACH: METHODOLOGY AND OPERATION STRUCTURE

A baseline study was undertaken in June of 2003 while a mid-point evaluation study was conducted in March 2004 except the achievement testing, which was conducted in June 2004 to carry it out in the same time of the year as the baseline study. The post-project evaluation was conducted during June of 2005, although achievement tests were administered in the some month only one year apart.

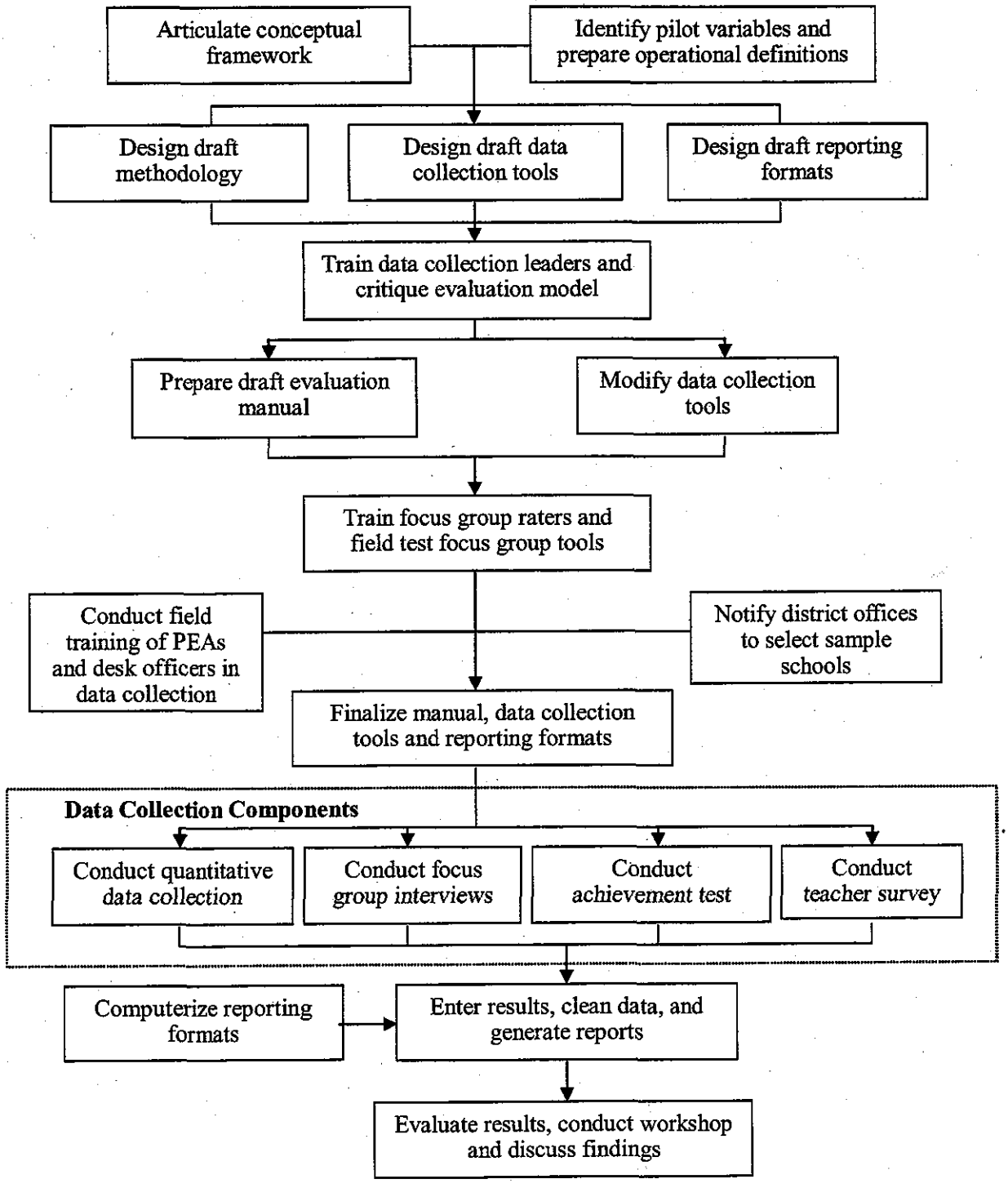
Thus, the evaluation of the pilot activities spanned two full school years. The objectives of the evaluation were to:

(1) Evaluate pilot input, process and outcome indicators at three points in time and determine which interventions seem to cause the greatest positive impact on improving the education system.
(2) Evaluate pilot outputs to determine if all districts completed their planned pilot outputs and to account for problems in pilot implementation.

The project evaluation methodology was conceptualized as a two-tiered analysis examining results at district level and at school level. The NIPDEP Team, in support of CERT, contracted to implement the project evaluation, designed a flowchart for implementation as shown in Figure 7-1. A two-volume guide was prepared that contained the procedures and instrumentation developed for use in the evaluation.

The evaluation team was comprised of CERT and CSR staff (responsible for overall design and implementation) and MIE (responsible for development, administration and reporting of achievement scores). The Core Trainers and the district education officers were also included for their capacity development in data management and evaluation (responsible for quantitative data collection and focus group interviews and ratings) and the NIPDEP Team personnel provided technical support for them in the entire process.

Figure 7-1: Study Flowchart



Responsibilities of each group of stakeholders are outlined on Table 7-1.

Table 7-1: Responsibilities of the Evaluator Groups

Group	Responsibilities
CERT/CSR	Overall management, management and implementation of quantitative data collection and focus group interview, training and management of raters for focus group interviews, compilation of data entry and reporting
MIE	Preparation, administration and reporting on achievement test scores
PEAs/Desk Officers	Collect quantitative data and complete data collection forms
Rater Teams	Conduct focus group interviews, rate responses, complete forms

7.1.1 Level of Analysis

The evaluation team was interested in how interventions acted to improve education systems. Since pilots are implemented at the school level, the team analyzed selected schools based on which mix of pilots were implemented. School level results among different pilot configurations were examined, and conclusions were drawn as to which configuration of pilot activities seem to have the greatest, positive impact on results. Also, the team wished to examine results of pilots in terms of their implications for district managers and district policies. Therefore, this study was designed to collect data that could be aggregated to reflect district-level outcomes. In some cases, data concerning indicators were collected at the school-level and aggregated to reflect district results, while, in one case, data were collected directly from district managers.

7.1.2 Instrumentation

Data collection tools were designed specifically for this project. They were used to collect measures pertaining to all indicators related to input, process, output, and outcome. It was necessary to use four different types of tools to collect accurate and relevant data about how the education system performed within each district. The following tools were developed to collect data for this study.

Survey Tools: The *District Survey Form* was used to collect quantitative data from the 124 primary schools and 24 secondary schools that were participating in this study. These schools were sampled across the six districts and results were averaged to determine a district-level score for each quantitative indicator. The *Master Survey Form* was to be used to transfer all quantitative and qualitative data for the subset of 24 primary schools and 12 secondary schools that were selected on the basis of the pilot project configuration. Information from the *District Survey Form*, all *Focus Group Forms* and *Achievement Tests* were transferred to this form to determine school-level results for each of the schools participating in this level of analysis.

Focus Group Forms: There were four different forms – 1) the *Student Focus Group Form*; 2) the *Teacher Focus Group Form*; 3) the *Education Manager Focus Group Form*; and 4) the *Community Focus Group Form*. The student, teacher and community forms were used for

both primary and secondary school focus groups across the total sample of 36 schools. The education manager form was used with school level managers and in the survey of the six district focus groups for education managers. A total of 150 separate focus groups were conducted. The instructions found on each form describe how the inter-rater focus groups were conducted.

Achievement Test: A total of eight different achievement tests were prepared. *Mathematics* and *English Tests* were constructed for standards 4 and 6, and forms 1 and 3. Open ended tests were constructed based on the accepted curriculum in use in Malawi schools. Test items required students to calculate or reason the correct answer and a writing space was provided for each item. Each test was timed to last one lesson period.

Teacher Questionnaire: An additional survey questionnaire was administered to all teachers of the 124 primary schools and 28 secondary schools. This questionnaire aimed at soliciting teacher's views about the teaching learning process.

7.1.3 Sampling

The number of schools selected to participate in the district level study is found on Table 7-2. PEAs were asked to rank order all schools in their zone from lowest to highest performing in their estimation. The bottom and top outliers were chosen as part of the sample. The Cluster Heads were asked to select one CDSS and one CSS to participate in the sample. The decision was left to them as to which schools to choose.

Table 7-2: Number of Schools in the Sample for District-Level Analysis

District	Primary Schools	Secondary Schools
Nkhata Bay	22	4
Ntchisi	18	4
Mchinji	22	4
Machinga	20	4
Thyolo	26	8
Nsanje	16	4
Total	124	28

A subset of schools was selected from among those above to participate in focus group discussions for school level analysis. Table 7-3 shows the number of schools involved.

The 24 primary and 12 secondary schools were selected on the basis of their pilot participation. For primary schools, four schools were to be selected from the 124 schools that fit the six different pilot configurations shown on Table 7-4:

Table 7-3: Number of Schools in the Sample for School-Level Analysis

Schools	Primary		Secondary	
	Urban	Rural	CDSS	CSS
Experimental	10	10	8	0
Control	2	2	2	2
Total	12	12	10	2

Table 7-4: Primary Schools Selected for School-Level Evaluation

Pilot Configuration and Grouping	Urban Schools	Rural Schools
Group 6: Construction and data accuracy in-service	1. Nkhata Bay - Chikale 2. Mchinji - Lombwa	1. Nkhata Bay - Mlare 2. Mchinji - Sunama
Group 5: Teacher in-service and in-service for educational managers	1. Ntchisi - Kalinganya 2. Mchinji - Matuwamba	1. Ntchisi - Mtuwanjovu II 2. Nkhata Bay - Nkwali
Group 4: Public awareness, sanitation and in-service	1. Nkhata Bay - Bandawe 2. Thyolo - Luchenza	1. Thyolo - Konzalendo 2. Machinga - Kayuni
Group 3: Furniture and in-service	1. Nsanje - Chigumukire 2. Machinga - Chinduzi	1. Ntchisi - Mtsiransembe 2. Thyolo - Mberenga
Group 2: Public awareness and sanitary constructions	1. Machinga - Liwonde 2. Mchinji - Bua	1. Machinga - Mikachu 2. Thyolo - Mpinji
Group 1: Schools with minimal participation.	1. Nsanje - Bangula 2. Nsanje - Nyamadzere	1. Ntchisi - Nyanga 2. Nsanje - Mtawira

The subset 12 secondary schools chosen from among the 28 secondary schools for the district study needed to be in line with the six pilot configurations in Table 7-5.

The number of the students covered by the achievement test is displayed in Table 7-6 for the 24 pilot primary and the 12 pilot secondary schools. All teachers in the sample schools were also tested. The mid-point and post project surveys, across the separate academic years, new cohorts of students were tested each time. The same teachers were tested in most cases with the exception that new teachers assigned to these grade levels. Tests were carried out in June 2004 and 2005.

Participants in the focus groups were selected from the pilot school area as well as those schools designated as control. Standard 4 and 6, Form 1 and 3 students and teachers were selected to participate in the focus groups while community members participating as members of the school committee or the PTA were selected. School level managers included anyone assigned to the TDC if attached to the pilot school, the head teacher and other assistant managers. The district level focus groups included CPEAs, cluster heads, the DEM and other district personnel.

Table 7-5: Secondary Schools Selected for School-Level Evaluation

Pilot Configuration and Grouping	CDSS	CSS
Group 6: School construction and classroom furniture	1. Nkhata Bay - Maula 2. Nkhata Bay - Tukombo	
Group 5: Instructional materials with teacher in-service and classroom furniture	1. Thyolo - Mtambanyama 2. Thyolo - Bvumbwe	
Group 4: Improvement in quality of data collection and reporting; and classroom furniture	1. Ntchisi - Mawiri 2. Mchinji - Bua	
Group 3: Science laboratories, or kits including supplies; classroom furniture	1. Machinga - Chinkwezule 2. Ntchisi - Kayoyo	
Group 2: CDSS with minimal interventions for managers	1. Nsanje - Mtowe 2. Nsanje - Magoti	
Group 1: CSS with no interventions		1. Machinga - Puteya 2. Mchinji - Ludzi Girls'

Table 7-6: Number of Pupils/ Students Tested at Mid and Post Evaluation Studies

Level	Sex	Mid-point	Post Pilot
Standard 4	Boys	496	1065
	Girls	503	1042
	Total	**999**	**2107**
Standard 6	Boys	397	842
	Girls	378	922
	Total	**775**	**1764**
Form 1	Boys	269	518
	Girls	247	516
	Total	**516**	**1034**
Form 3	Boys	212	504
	Girls	152	388
	Total	**364**	**892**

7.1.4 Delimiting Factors

As a social inquiry, it was not possible to control the environments using an experimental approach. Thus, it was not possible to control for all variables. Interventions due to other donor activities may create outcomes, confounding the results of this study.

For example, the World Food Program (WFP) is operating, in some schools, a school feeding program with the impact of increasing enrolment, especially for girls. Since enrolment is a key indicator of this study, it will be impossible to attribute change in enrolment in these schools as a result of the NIPDEP project interventions. Other factors are beyond the control of the study, and attempts were made to identify and explain these situations in the case study analysis.

District scores for indicators are based on averaging scores from pilot schools participating in this study. Although the percentage is rather high, around 15 percent, an error of measurement was introduced when drawing conclusions about district level results. The same is true when looking at average scores for schools participating in similar pilots. Although schools were selected having similar pilot configurations, the match is not exact. While one school may have in-service for all teachers, others may have in-service for a select number. Thus, the averaging of the scores for these schools representing one classification of pilot project configuration may not have been as precise as hoped.

7.2 FINDINGS OF BASELINE, MID-POINT AND POST PROJECT EVALUATIONS

The analysis of the data is divided into four subcategories 1) quantitative data collected at school level; 2) achievement testing; 3) teacher surveys; and 4) focus group interviews. The following sub-sections provide the results of the data analysis.

7.2.1 Results of the Quantitative Data Collection at School Level

(1) Enrolment

A close examination of the enrolment trends from the schools revealed the usual picture of diminishing enrolment figures as pupil's progress to higher standards. Girls' enrolment diminishes faster than that of boys, an indication that there are still serious problems of girl's education in Malawi primary schools.

Thus, while the numbers of boys and girls are almost equal in the lower standards, it appears that differential household, school and community expectations about boys and girls exert different pressures to affect the education of boys and girls differently in Malawi.

(2) Pupils to Classroom Ratio

Problems of classroom shortage have persisted in Mchinji, Machinga and Thyolo districts where over 100 pupils are in one class, which are shown in Figure 7-2.

Nkhata Bay and Mchinji carried out the pilot projects of primary school block construction. The numbers of the school blocks constructed through the NIPDEP pilot were limited; however, benefited also from other classroom construction projects, the classroom to pupil ratio in Mchinji improved slowly. In Nkhata Bay, the ratio substantially improved from baseline to mid-point.

As shown in Figure 7-3, the students to classroom ratio for the secondary schools were much better than the primary, however it might be caused by the low rate of the enrolment. Among the pilot districts, Ntchisi and Mchinji had the trend of the increase of the ratio. Mchinji had the ratio of 55.64:1 at the baseline and 100.25:1 at the post pilot evaluation.

Figure 7-2: Pupils to Classroom Ratio of the Primary Schools in the Pilot Districts

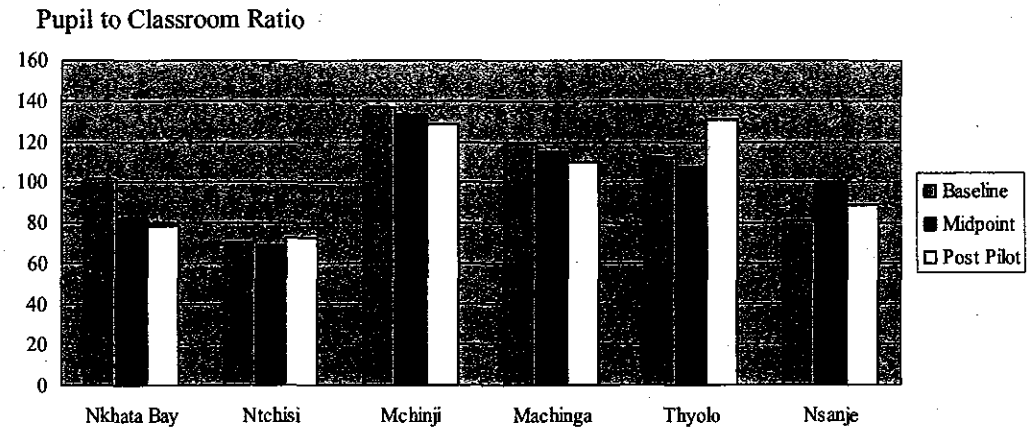
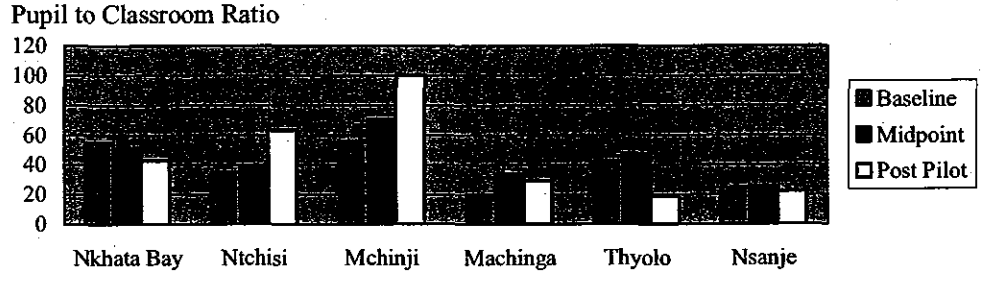


Figure 7-3: Students to Classroom Ratio of the Secondary Schools in the Pilot Districts



(3) Safe Water Supply

Machinga, which showed the gradual decrease in the percentage of the primary schools with safe water (Table 7-7), has the borehole construction pilot projects to ease this difficult situation. Mchinji showed a big decrease in the percentage from the mid-point to the post pilot.

Table 7-7: Change of Percentage of Primary Schools with Safe Water Supply in the Pilot Districts

	Baseline (%)	Mid-point (%)	Post Pilot (%)
Nkhata Bay	52.38	57.14	61.90
Ntchisi	50.00	50.00	59.09
Mchinji	77.27	77.27	50.00
Machinga	52.94	52.94	47.06
Thyolo	65.38	57.69	46.15
Nsanje	58.82	70.59	70.59

At the secondary school level, only Ntchisi had a 100% provision of water. The most striking feature is the tendency for water availability to decrease in most of the schools. This might be an indication of the maintenance problems schools face. Further, the fact that the provision of safe drinking water was low and decreasing should be a worrying sign for the

MoE given the negative effects that may result from the absence of water in schools, especially on girls.

(4) Pupils to Latrine Ratio

Table 7-8 shows that in the primary schools, the provision of toilet facilities has greatly improved for both boys and girls. Nkhata-bay had the least pupils to latrine ratio seconded by Ntchisi. In the NIPDEP pilot projects, Nkhata Bay, Mchinji, Machinga and Thyolo conducted the latrine construction projects. Among them, Machinga still has the worst ratio of 76:1.

Table 7-8: Pupils to Latrine in the Primary Schools in the Pilot Districts

	Boys			Girls		
	Baseline	Mid-point	Post Pilot	Baseline	Mid-point	Post Pilot
Nkhata-Bay	54	47	26	53	44	25
Ntchisi	47	41	30	47	38	22
Mchinji	125	125	50	152	96	41
Machinga	154	141	79	143	138	76
Thyolo	99	91	47	100	97	45
Nsanje	89	113	70	77	74	43

(5) Teacher to Housing Ratio

In the NIPDEP, Nkhata Bay, Ntchisi, Mchinji and Machinga conducted the teacher's house construction. However, in Nkhata Bay, Mchinji and Machinga, the teacher to housing ratio was worsened (Table 7-9). Ntchisi, whose ratio was worsened from the baseline to the mid-point, conducted the teacher's house construction pilot projects for two years. In the post pilot, the teacher to house ratio improved in Ntchisi. Among the pilot districts, Nsanje had the best ratio of 1.92:1 at the post pilot evaluation, although it did not conduct any construction projects under the NIPDEP pilot projects.

Table 7-9: Teachers to House Ratio in the Primary Schools in the Pilot Schools

	Baseline	Mid-point	Post Pilot
Nkhata Bay	2.81	3.04	3.53
Ntchisi	2.33	3.27	2.66
Mchinji	3.59	3.56	4.31
Machinga	3.00	2.43	3.41
Thyolo	3.30	2.77	2.64
Nsanje	2.15	1.98	1.92

(6) Untrained Teachers

Generally, there have been decreases in the percentage of untrained teachers in both primary and secondary schools (Table 7-10). This might be an indication of improved teacher distribution by either the division or district education offices. In both primary and secondary, the percentage of untrained teachers decreased at a faster rate in Mchinji district. It should

however be noted that there are more problems of teacher quality in the secondary schools essentially because most of the teachers there are primary school trained teachers.

In the NIPDEP, all pilot districts conducted the INSET project for the primary teachers except Nsanje, while three pilot districts, Machinga, Thyolo and Nsanje, conducted the INSET for the secondary teachers, mainly targeting CDSSs teachers. Nsanje had the bad percentage of 91% at the baseline and 90% at the mid-point, which drastically decreased to 42% at the post project evaluation, although we can not tell that this was only because of the NIPDEP pilot projects.

Table 7-10: Percentage of Untrained Teachers of the Primary and Secondary Schools in the Pilot Districts

	Primary (%)			Secondary (%)		
	Baseline	Mid-point	Post Pilot	Baseline	Mid-point	Post Pilot
Nkhata Bay	23	17	19	100	76	62
Ntchisi	23	20	20	44	49	30
Mchinji	36	30	21	77	29	23
Machinga	38	27	26	50	61	48
Thyolo	29	28	23	66	69	44
Nsanje	32	30	29	91	90	42

(7) Advisory Visits

The average number of visits by PEAs decreased from baseline to midpoint and picked up again at post pilot in primary schools. At the secondary school level, it was the reverse (with the exception of Mchinji) where the average number of visits increased from baseline to midpoint and decreased with the exception of Nkhata-bay. However, despite the increase in secondary schools, these visits are still too few and scattered.

(8) Pupils to Desk Ratio

Nsanje conducted the desks/chairs procurement pilot projects both for the primary and for the secondary schools for two years. Ntchisi conducted one for the primary in Phase I and for the secondary in Phase II. Mchinji showed the worst pupils to desk ratio both for the primary and for the secondary among the pilot districts, although they carried out the desks/chairs procurement project for the secondary in Phase I, especially 9.0:1 for the primary at the post pilot (Table 7-11).

Table 7-11: Pupils to Desks Ratio of the Primary and Secondary Schools in the Pilot Districts

	Primary			Secondary		
	Baseline	Mid-point	Post Pilot	Baseline	Mid-point	Post Pilot
Nkhata Bay	1.8	2.8	2.8	0.6	0.5	0.5
Ntchisi	1.3	1.1	1.7	0.9	1.3	0.4
Mchinji	5.0	7.0	9.0	0.8	0.7	1.7
Machinga	1.8	2.8	2.8	0.6	0.5	0.5
Thyolo	3.7	4.9	4.2	0.8	0.7	0.7
Nsanje	1.9	2.6	2.3	0.4	0.2	0.5

In spite of Nsanje's efforts to conduct the desks/chairs procurement projects for two years, the pupils to desks ratio did not improve. It was said this "no improvement" was because

more pupils from Mozambique had come to attend to the schools where new desks and chairs were found across the border.

(9) Pupil Absenteeism

At the primary level, the rate of absenteeism in general increased from baseline to mid-point and then decreased at post project in all but one district. In Nsanje however, absenteeism consistently decreased from baseline. As pointed out during midpoint evaluation, one of the possible explanations for the increase in absenteeism at midpoint was that the evaluation was carried out at the very beginning of an academic terms when attendance had not yet stabilized and as such, most of the pupils were still not taking an uninterested approach to schooling. But it is also possible that the mobilization and community awareness projects have had some positive impact on raising the importance of education.

At the secondary school level, absenteeism for Thyolo and Mchinji at midpoint were generally low although there were slight increases. Absenteeism in these two districts almost disappeared at post pilot. In Nsanje and Ntchisi, absenteeism had more than doubled at midpoint, but drastically decreased at post pilot. It was only in Machinga where absenteeism had consistently decreased probably because of the awareness campaign project. There was also a declining trend on absenteeism in Nkhata Bay.

(10) Pupil Repetition

At midpoint, overall, repetition had increased for Thyolo, Mchinji Nkhata Bay, and Ntchisi and to some extent in Machinga. The situation in terms of repetition had not changed for Nsanje district. With the exception of Nkhata Bay where repetition was steadily increasing, the general trend in the other districts was one of decreasing at post pilot. Repetition at secondary school level was generally low in all the districts except in Ntchisi.

(11) Pupil Dropout Rate

At the primary school level, there were no major differences in terms of dropout at the first two points of the project evaluation. However at post pilot, there was a big decrease in Nsanje, and slight decreases in Machinga and Ntchisi. Dropout rates increased in Mchinji and Thyolo districts. These figures are an indication of the low levels of efficiency in the schools of these pilot districts.

Table 7-12: Dropout Rates of the Primary and Secondary Schools in the Pilot Districts

	Primary (%)			Secondary (%)		
	Baseline	**Mid-point**	**Post Pilot**	**Baseline**	**Mid-point**	**Post Pilot**
Nkhata Bay	8.75	8.01	8.09	27.87	14.6	19.75
Ntchisi	16.94	15.27	14.3	21.25	5.13	4.4
Mchinji	10.79	11.01	13.86	7.12	8.42	0
Machinga	12.93	12.58	11.64	22.86	15.54	7.95
Thyolo	9.63	7.77	10.63	20.37	9.13	2.63
Nsanje	14.7	14.11	7.47	20.13	14.08	19.66

At the secondary school level, dropout rates decreased in all the districts except Mchinji. However, the dropout rate decreased to 0% in Mchinji at post project evaluation. Machinga, Ntchisi and Thyolo showed a steady decrease, while Nkhata Bay and Nsanje had worse rates.

These figures show mixed trends regarding the situation in terms of dropouts in the secondary schools. It should be noted that the unification of conventional schools and CDSSs policy brought a lot of problems into Malawi's secondary education sector and the high dropout rates below are just an indication of such problems.

7.2.2 Results of the Achievement Test

Figure 7-4 outlines the trends of the results of the achievement tests for each pilot district. Orange lines show the scores of the teachers of the sample schools; blue lines are for the scores of the boy pupils and students and red lines are for the ones of the girls.

It was difficult to see the changes in the pupils' achievements due to their very low average scores. In most of the pilot districts, the small areas drawn by red and blue ink in the midst of the radar chart in Figure 7-4, which shows the range of the pupils' records, did not increase at the three points of the evaluation. It might be because of the design and the level of the achievement tests, the primary pupils had better average scores in mathematics than in English, the secondary students were better in English than in mathematics. The average scores of the boys and the girls were quite similar in most of the pilot districts.

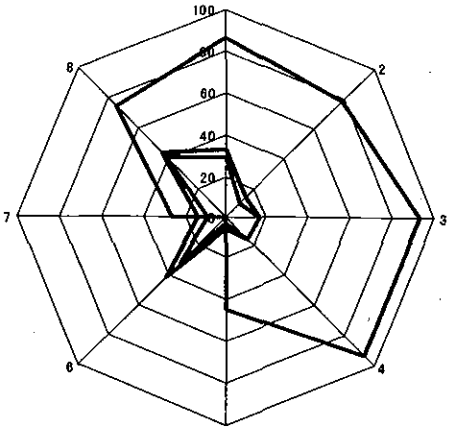
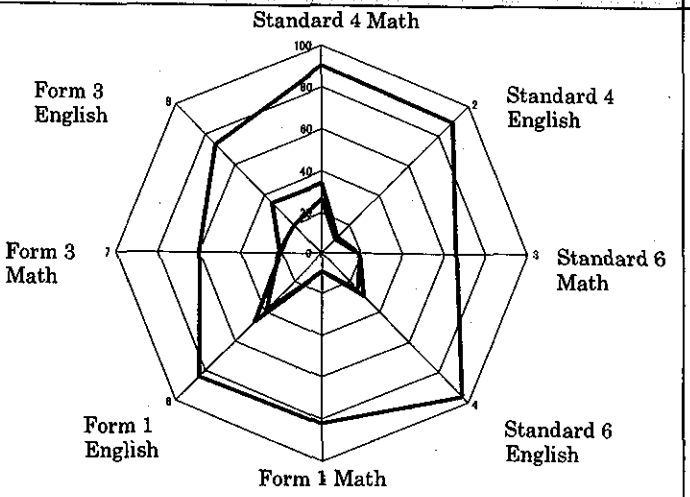
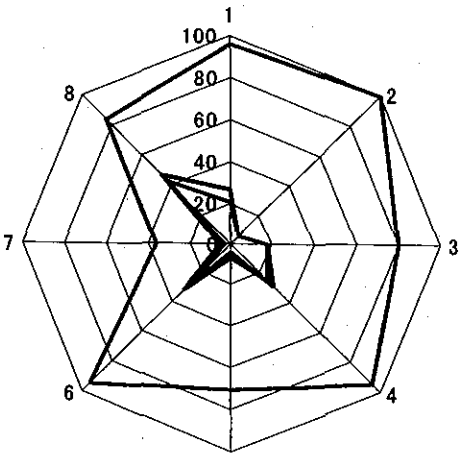
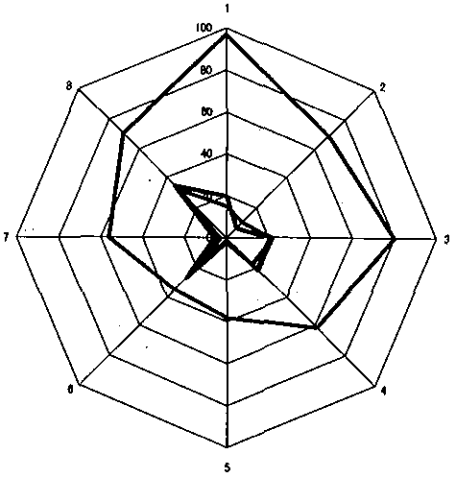
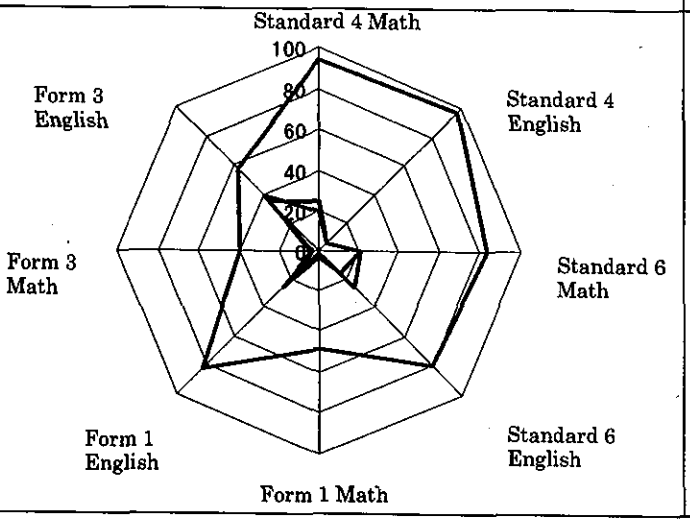
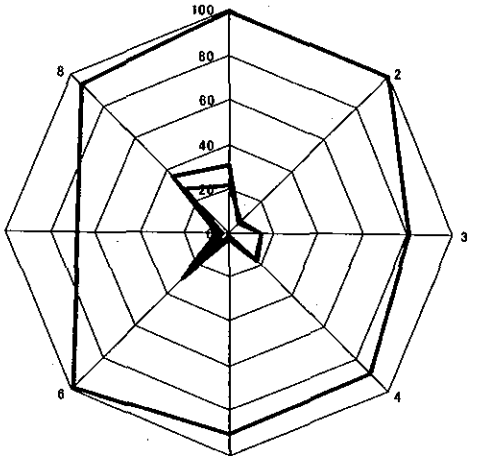
Five of the six pilot districts (Nkhata Bay, Ntchisi, Mchinji, Machinga and Thyolo) conducted the INSET projects for the primary teachers and five (Nkhata Bay, Mchinji, Machinga, Thyolo and Nsanje) conducted the ones for the secondary teachers during NIPDEP. These INSET projects focused on improvement in teaching and learning skills rather than the teachers' knowledge of the subjects. The changes among the children scores were too small to see how they were improved or worsened by the teaching and learning environment, for which some intervention was provided by the NIPDEP pilot projects. The extreme low test scores of the pupils/students might be caused by their poor knowledge, by the design of the tests, or by the limited motivation of taking the tests, which needs to be considered for the next phase.

In most of the districts, the teachers' scores increased from the baseline to the post pilot; except Machinga and Thyolo. Machinga did not have the records for Form 1 mathematics and English; however, some scores stayed at the same level or decreased from the mid-point to the post pilot. Thyolo had good scores in the primary, while the scores of the secondary teachers were low and did not increase.

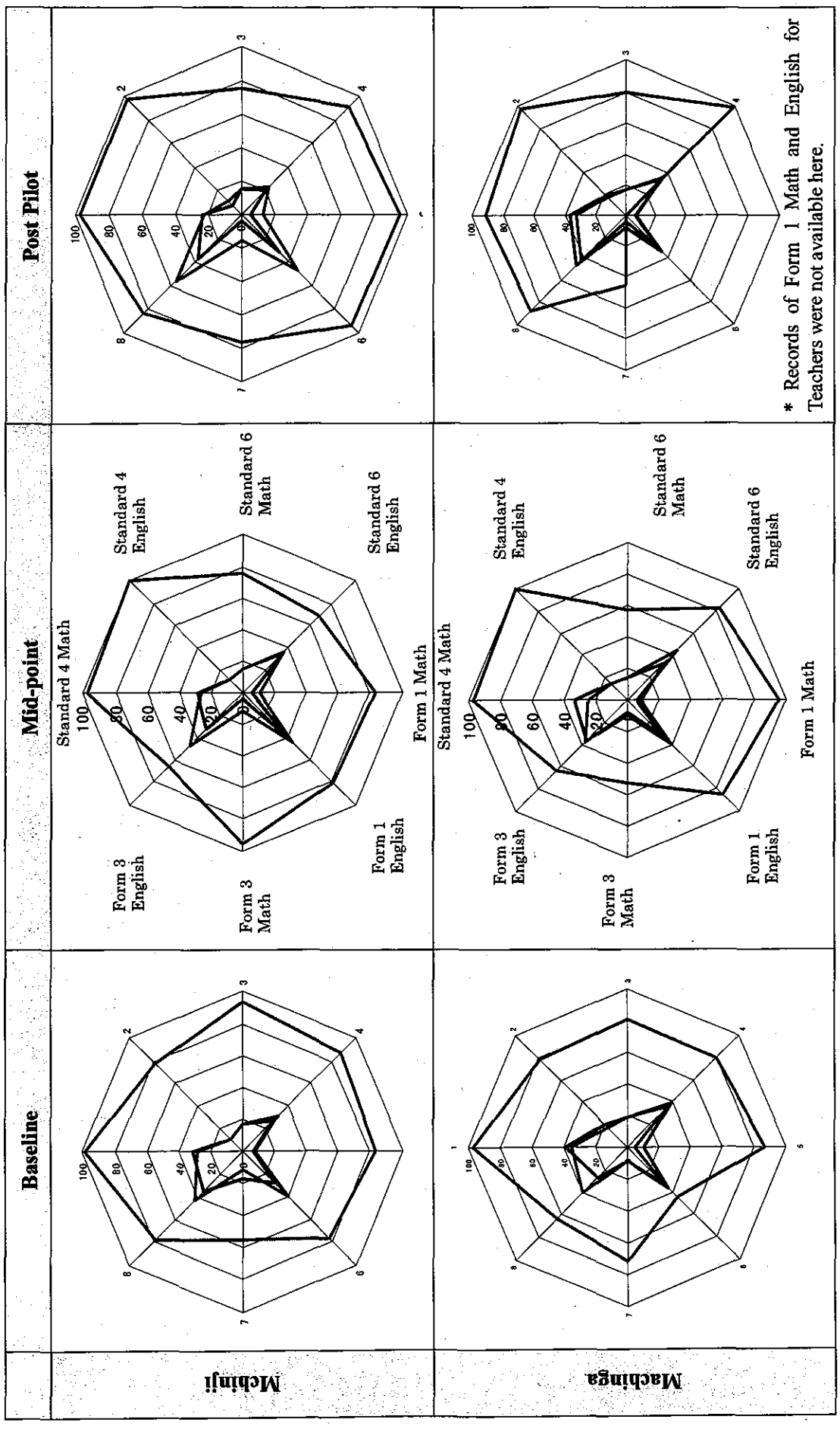
The teachers in the sample primary schools got higher scores than the secondary teachers. This tendency is obvious in Nkhata Bay, Machinga, Thyolo and Nsanje. In Ntchisi and Mchinji, even the secondary school teachers improved scores both in English and mathematics. In Nkhata Bay, the teachers recorded better scores in English than in mathematics. In Thyolo, they had better scores in mathematics than in English. Teachers in Ntchisi and Mchinji recorded higher scores in both mathematics and English in the primary and the secondary schools. Low scores of secondary school teachers might be the result of the poor quality of teaching and learning in the classrooms in CDSS.

It might be too bold to say but the INSET of NIPDEP might have contributed to some extent to the improvement of the teachers' knowledge in Nkhata Bay, Ntchisi and Mchinji when seeing the results of the achievement tests.

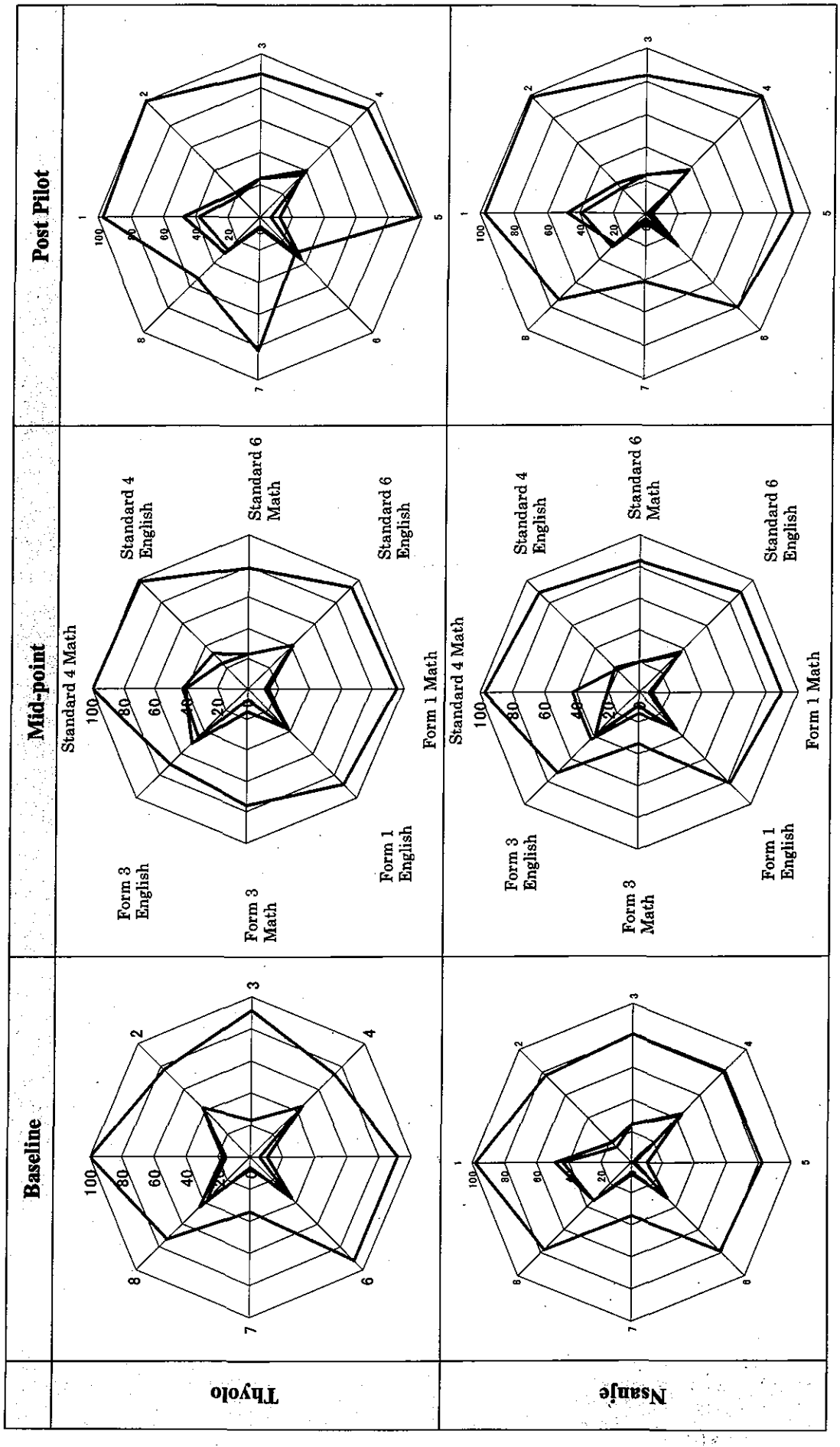
Figure 7-4: Rader Charts of the Results of the Achievement Tests of the Pilot Districts

	Baseline	Mid-point	Post Pilot
Nkhata Bay	 * Records of Form 1 Math and English for Teachers were not available here.		
Ntchisi			

Note: blue line ——— for boys; red line ——— for girls; orange line ——— for teachers



Note: blue line —— for boys; red line —— for girls; orange line —— for teachers


Baseline
Mid-point
Post Pilot
Thyolo
Nsanje
Standard 4 Math
Standard 4 English
Standard 6 Math
Standard 6 English
Form 1 Math
Form 1 English
Form 3 Math
Form 3 English
Note: blue line —— for boys; red line —— for girls; orange line —— for teachers

7.2.3 Results of Teacher Surveys

To ensure that results of the evaluation studies were comprehensive, the design of the NIPDEP evaluation studies had included a questionnaire that was administered to some teachers in the selected schools. This questionnaire solicited information about the characteristics of the teachers who responded to the questionnaire, schools, classrooms and the teaching and learning environment. At every school, a maximum of 10 teachers responded to the questionnaire. The teacher survey was intended to complement the results from the focus groups and the quantitative questionnaire as observed above. Teacher sampling is reflected on Table 7-13.

Table 7-13: Teachers Responding to Questionnaire by District and Sex

District	Nkhata-Bay			Ntchisi			Mchinji			Machinga			Thyolo			Nsanje		
Primary	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post
Male	85	79	79	79	87	76	157	149	144	77	77	113	178	217	134	59	74	102
Female	25	26	46	26	30	26	72	80	70	54	28	42	49	86	66	46	35	27
Total	110	105	125	105	117	102	229	229	184	131	105	155	227	303	200	75	109	129
Secondary	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post
Male	23	35	29	23	27	23	22	41	31	20	45	16	28	67	60	28	64	28
Female	3	4	2	3	7	5	3	8	8	6	12	0	13	15	11	3	10	1
Total	26	39	31	26	34	28	26	49	39	26	51	16	41	82	71	31	74	29
Grand Total	136	105	156	131	151	125	155	278	214	157	156	171	168	303	271	106	183	158

(1) *Teacher Qualifications*

At the primary school level, there were fewer unqualified teachers compared to secondary (Table 7-14). The number of unqualified teachers were decreasing in most of the pilot districts except in the primary schools in Nkhata Bay, however the total numbers of the teachers (total number of the qualified and unqualified teachers) decreased in most of the districts from the mid-point to the post-pilot, which might partly examined by looking at the influence of HIV/AIDS on teacher absenteeism, mortality or redeployment.

Table 7-14: Number of Qualified and Unqualified Teachers by Sex in the Pilot Districts

		Nkhata-Bay			Ntchisi			Mchinji			Machinga			Thyolo			Nsanje		
Primary		**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**
Male	Qualified	71	61	70	64	70	66	123	123	100	58	64	65	114	163	96	44	52	65
	Unqualified	14	17	80	15	17	8	34	26	12	19	13	47	64	52	37	15	22	37
Female	Qualified	15	22	38	17	24	23	54	69	63	40	21	29	28	66	58	12	21	22
	Unqualified	10	14	8	9	6	3	17	10	7	14	6	13	20	20	8	4	13	5
Total teacher	Qualified	86	83	108	81	94	89	177	192	163	98	85	94	142	229	154	56	73	87
	Unqualified	24	31	88	24	23	11	51	36	19	33	19	60	84	72	48	19	35	42
Secondary		**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**	**Base**	**Mid**	**Post**
Male	Qualified	3	2	2	17	4	4	19	15	3	2	19	4	8	17	23	13	13	7
	Unqualified	20	33	21	5	22	13	3	26	21	18	26	12	20	50	31	15	51	21
Female	Qualified	1	0	0	1	2	2	3	5	0	0	2	0	5	3	3	1	5	0
	Unqualified	2	4	1	2	4	2	1	3	5	6	10	0	8	12	7	2	5	1
Total teacher	Qualified	4	2	2	18	6	6	22	20	3	2	21	4	13	20	26	14	18	7
	Unqualified	22	37	22	7	26	15	4	29	26	24	36	13	28	62	38	17	56	22

The number of female teachers in secondary schools is very low. Some of the sampled districts like Machinga had not a single female teacher whether qualified or unqualified while Nkhata Bay, Mchinji and Nsanje districts registered no qualified female teacher during the post evaluation survey.

(2) Experience and Workload

At the primary level the mean number of years of teaching experience ranged from 8.3 years to 14.15 years. Post evaluation figures are slightly higher than baseline and mid-term figures in all the districts except in Nsanje where post evaluation means for male teachers is lower than baseline and mid-term means. At the secondary school level the mean number of teaching years ranged from 7.7 years to 20 years across all the three points evaluations.

At the primary school level the mean number of years spent at the present school ranged from 2.3 years to 5.9 years. In Ntchisi and Nsanje districts, the mean number of years increased slightly during post evaluation as compared to baseline and mid term means. Nkhata Bay and Machinga means slightly decreased while the mean for male teachers at Mchinji and for female teachers at Thyolo decreased during post evaluation survey. At the secondary school level, the mean number of years spent at the current school ranged from 3.0 years to 26.3 years. The means at the post evaluation are in some cases lower, while in others higher than the baseline and the mid point means.

(3) Teacher Classroom Practices

At both primary and secondary levels, more and more teachers indicated minimal use of lecture methods at the post evaluation than during the baseline and the mid-point surveys (Table 7-15). The use of question and answer was rated as the most used in teaching and learning among the teaching methods. In the post evaluation, group work and presentations came second followed by group projects. It can not be fully judged if these changes were caused by the INSET pilot projects of NIPDEP, although most of the INSET focused on the improvement of teaching and learning skills in the classrooms.

At the secondary school level, the use of textbooks at the post evaluation was greater than at the time of the baseline and mid-point evaluations while at the primary school level there was a general decrease in textbook usage from 76.8% during mid-point to 52.8% during post evaluation.

The results indicate that textbooks are the most used teaching and learning materials in both the primary and secondary school levels. This is followed by the use of examples from the real world and then the use of wall charts. The use of wall charts decreased in primary schools during post evaluation while three dimensional models were used more often at the post evaluation than at the time of the mid-point and baseline. The increased reliance on textbooks by secondary school teachers may mean that those unqualified to teach in secondary can not do without the books.

Table 7-15: Frequency of Teaching/Learning Interaction Methods Used in the Classrooms

	Never			Rarely			Hard to Tell			Sometimes			Often			Always		
	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post	Base	Mid	Post
Primary																		
Lecture	28.3	10.2	11.7	26.6	18.0	20.4	22.8	27.7	28.1	14.0	24.8	19.9	3.8	12.6	14.3	4.5	6.8	5.6
Q and A	0.5	1.0	---	0.7	0.5	3.1	2.5	4.8	4.7	12.9	14.8	14.1	21.3	33.5	31.4	62.2	45.5	46.6
Group Projects	24.5	13.8	13.6	12.1	24.1	12.5	17.7	13.3	23.4	22.0	26.6	27.2	15.4	18.2	14.1	8.2	3.9	9.2
Group Work	2.2	5.9	1.6	3.3	---	6.9	11.9	13.7	12.2	26.7	28.8	25.9	31.2	35.6	35.4	24.7	16.1	18.0
Education Visits	37.3	41.3	35.8	19.1	35.4	41.7	16.7	15.5	13.9	12.8	4.4	6.4	9.0	2.4	0.5	5.0	1.0	1.6
Retelling	7.6	12.1	13.1	15.1	24.2	16.8	21.5	31.9	20.4	30.1	23.2	33.0	18.8	6.8	10.5	7.0	1.9	6.3
Secondary																		
Lecture	8.9	25.9	25.8	22.6	27.8	25.9	25.0	20.6	23.4	26.2	16.8	15.5	9.5	6.0	4.7	7.7	2.8	4.7
Q and A	---	0.6	0.7	1.7	1.2	0.7	4.0	2.7	1.9	19.4	10.5	7.8	24.0	34.2	22.9	50.9	50.7	66.0
Group Projects	13.7	14.9	17.4	22.2	14.7	13.1	17.6	19.3	21.7	27.5	27.6	26.0	14.4	16.0	15.7	4.6	7.6	6.1
Group Work	1.2	1.4	1.4	6.4	2.7	3.7	18.7	11.2	7.5	28.7	27.5	19.6	30.4	34.2	31.1	14.6	23.0	36.7
Education Visits	41.6	33.8	37.9	25.9	22.0	28.2	12.7	21.7	15.6	10.8	11.4	11.1	7.8	3.6	5.7	1.2	1.5	1.4
Retelling	21.7	4.0	3.5	21.1	10.1	9.1	24.8	23.8	19.4	18.6	33.6	33.0	11.2	20.3	5.7	2.5	8.1	1.4

(4) Application of Record Keeping Tools

At the primary school level almost all responses indicated that they used registers. There was an increase from 87.5% at the baseline to 90.0% during the mid point and further to 91.2% at post evaluation of those who claimed they always use registers. Other frequently used record keeping tools for both primary and secondary levels included the progress book and the stock book. The discipline book is minimally used in the primary schools as indicated by the ratings in all the three points of the evaluations. It may be because its use depends on occurrence of discipline problems at the schools and that the administrator only, keeps the discipline record book.

At the secondary school level the percentage of teachers who sometimes or often or always used registers increased slightly from 93.7% at the baseline to 94.8% at the mid point and further to 96.4% during post evaluation. Overall secondary schools improved in usage of registers, stock books and discipline records.

(5) Teacher Satisfaction and Motivation

At the primary school level the percentage of those satisfied with their performance increased slightly from 92.3% at the baseline to 93.2% at the mid point and further to 95.9% at post evaluation. Those satisfied with the capability of their colleagues increased from 87.8% during mid-point to 94.2% during post evaluation. Increases were also registered in percentages of teachers who were satisfied with school support and GoM support as well as school rules. Decreases were registered in those who were satisfied with financial rewards. This is an indication of continued dissatisfaction of teachers with their financial status mainly caused by delayed and meager salaries.

At the secondary school level there were appreciable increases in the percentage of teachers who agreed that they were satisfied with their own performance, the performance of their colleagues, school support and school rules. Those who said that they were satisfied with GoM support decreased slightly at the mid point and increased a little bit at post evaluation although in both cases the differences were minimal.

(6) HIV/AIDS

The percentage of teachers showed that the level of HIV/AIDS awareness was very high increased at post pilot evaluation in Nkhata-bay, Ntchisi, Machinga, Thyolo and Nsanje, although Thyolo produced mixed results. At the same time, the percentage of teachers said that the level of HIV/AIDS awareness was also drastically increased to 14.8%. These increases in awareness demonstrate that somehow people are receiving the messages. At the primary level the percentage of teachers who agreed that HIV/AIDS is covered in many subjects increased significantly by 14.1% at the post evaluation while those who agreed that HIV is learnt from other sources increased appreciably by 5.3%.

At the secondary school level the percentage of teachers agreeing that HIV/AIDS is covered in many subjects increased at post evaluation by 8.0%, while those agreeing that HIV is learnt from other sources increased slightly by 1.6%. It would appear that at both primary and secondary school levels, sources of information about the HIV/AIDS pandemic remained confined to the curriculum although in some schools, there are HIV/AIDS clubs which supplement the curriculum on HIV/AIDS issues.

(6) Gender Awareness

For all the districts, there are very marked increases in the perception of teachers in terms of how they thought boys and girls were being treated in manual work. In all cases, over 85% of the teachers strongly agreed with the fact that boys and girls were treated equally in manual work. The post pilot project report (see the NIPDEP Reference Documents) includes Table 4-14, which provides information regarding the gender sensitivity in the curriculum. The ratings by the teachers in terms of gender sensitivity of the curriculum indicated a tremendous increase at the post evaluation compared to the baseline and mid-point evaluation for all the districts. It is obvious from the ratings that the new curriculum is gender sensitive. In terms of gender awareness, the majority of teachers in both primary and secondary schools in post evaluation agreed that boys and girls were treated equally in classroom participation, individual help as well as in assessments of their work. Sixty-two percent of the teachers sampled, strongly agreed with the fact that gender awareness in the sampled schools is well taken care of.

7.2.4 Results of the Focus Group Interview

The focus group analyses examined processes and outcomes and addressed these indicators in two ways. The group classification is shown in Tables 7-4 and 7-5. First, the analysis was based on aggregation of sample primary and secondary schools by district. The second was to aggregate scores on the basis of sample schools participating in similar pilot activities. In this second analysis an attempt was made to examine correlations of inputs, processes and outcomes. In this analysis group one (1) is the control group and results will be compared to each of the five pilot groups. Results are summarized below:

(1) Analysis by District for Primary and Secondary

In all cases, the number of indicators that increased by one or more between baseline and post project were two times more than or as many as the number of decreases. This shows

that managers perceive that the quality of their schools as measured by changes in processes has improved in many more ways than has decreased.

The number of indicators that were ranked as high average or above average (score of 3 or more in a range from 0 to 5) in all cases increased from baseline to post pilot (Nsanje = 7 to 11; Thyolo = 9 to 10; Mchinji = 4 to 13; Machinga = 6 to 13; and Ntchisi = 7 to 12). With N equaling 14, all managers indicate that most of their school processes are performing at high average to above average level. Almost no indicators were ranked as zero at anytime.

INSET for teachers, head teachers and PEAs demonstrated the most erratic behavior. This is probably related to pilot activities assuming that target audiences received no in-service from other donors; therefore, the zero rating was used when no pilot activities were instituted for in service, and high rankings given by those where pilot activities included in service.

One group of indicators with the most consistent increase is for those indicators related to communication. In almost every case, post pilot results showed above average communications across the system, when at baseline communication was considered average or below. It demonstrates a significant improvement in vertical linkages as measured by communication.

In all cases, transparency was rated high average to above average, and in four cases, this represented a significant increase from the baseline scores. In one case, the indicator value stayed the same and in a final case, the value decreased.

Use of DEPs also showed a substantial increase. In four districts, the indicator scores increased significantly to well above average. In one case the score remained the same at above average, while in the final district, the score fell from above average to high average; however, it is unclear how schools and other managers were using the DEPs. Teachers' use of data collection tools increased significantly in most cases to high average and above, which may account for why data accuracy scores all increased to high average and above. This may also relate to why DEP use is high in the four districts.

For the most part, active school committees increased significantly to above average and much higher. Community engagement scores, however, were much more erratic. While some increased significantly, one decreased to zero which seems to be a significant piece of data and should be investigated further. In all but one district, use of the TDCs increased significantly, probably since pilot activities were often held at TDCs. In all cases the post pilot evaluation was well above average.

As suspected, scores for the quality of construction were erratic and probably related to those districts that received pilot funding for different construction activities.

(2) Analysis by Group for Primary

For group 6, in general, the predictions were not supported by the data except for the first and last predictions and in these cases only partially.

For group 5, results are mixed with achievement scores showing the most disappointing results. With teaching/learning process scores showing significant improvement and with high teacher competency, the low scores are inexplicable. It is assumed that HIV/AIDS and gender issues were not included in the teacher or head teacher INSET. Increased visits by

PEAs to schools could be attributed to their in service program. The erratic nature of the balance of indicators does not support the balance of predictions.

For group 4, there appear to be few changes in how teachers conduct teaching/learning and there were no major increases in learning even with high teacher competency as measured by teacher achievement test scores. The control group tends to support this. The public awareness campaigns seem to have had little impact on the indicators measured here. While absence and dropout rates moved in the predicted direction, the significantly increased repetition rate cannot be explained, especially since the control group rate dropped significantly.

For group 3, INSET appears not to have led to behavior change in the classroom and the provision of classroom furniture did not appear to have an impact on absence rates or other student outcomes. The control group performed much better overall than did the experimental group suggesting no relationship between interventions and improvement of processes and outcomes.

For group 2, results of the public awareness campaign are disappointing. Improvement of sanitation may have a relationship to absence rates, and this is the only positive prediction supported by the data. It is possible that the interventions have only a modest relationship with achievement which may be explained by the results.

(3) Analysis by Group for Secondary

For group 6, the experimental group results all acted as predicted while the control group showed erratic results suggesting there may be a relationship among input indicators and student absence.

For group 5, although in service, teacher competency and an increased number of textbooks should have improved achievement scores, this did not happen. Worse yet, scores are exceedingly low suggesting there might have been something wrong with the tests themselves.

For group 4, although teachers and managers perceive that accuracy of data has improved, this needs to be evaluated objectively. There was no outcome measure identified to do this. The introduction of new furniture does not necessarily account for why absence and attitude scores changed. For some reason communication indicators were not evaluated, even though evaluated at the primary level so no conclusions can be drawn regarding these relationships.

For group 3, since science testing was not conducted it was not possible to determine if kits might have any impact on learning. If math scores are used as a proxy, then the situation is extremely bad with respect to scientific learning. In fact, math scores across all six groups were very low, not one student demonstrating a grade of 50% or higher. There were an excessive number of students with a score of zero.

For group 2, most indicators behaved as predicted, with control group scores moving down rather than remaining stable. In-service for managers may have had a positive impact on community indicators. Since key measures for teachers were not useable (raw data not available) there was no way to investigate the possible relationship between manager in service and selected teacher outcomes.