

Warta CIMU

Special Issue:

Rebuilding the Future—Practical Advice on School managed Rehabilitation



Foreword

This special issue of *Warta CIMU* has sprung from work carried out by the Central Independent Monitoring Unit in monitoring the School Improvement Grants Program (SIGP), but it incorporates knowledge gained from several other projects that have tried to achieve similar goals. This effort has also received contributions from a number of other projects managed under the Directorate General for Primary and Junior Secondary Education in the Ministry of National Education, namely the West Java Basic Education Project, the Junior Secondary Education Project and the Early Childhood Development Project. It has been written with three broad audiences in mind:

Central program planners and policy makers — In central government ministries concerned with the funding of education and schools, representatives of donor organizations and lending agencies that support education improvement efforts.

Government officials and interested civil society groups who will implement the program at the province and district levels — Provincial and district level government officials and members of district Education Boards, who may be called on to administer school improvement and rehabilitation programs at the local level.

School Committees and community groups — Community leaders, school officials and NGO staff

The issue is divided into three sections:

An introduction to school and community-led school renovation and construction — This presents central level project managers, donors and lending agencies with a broad overview of school renovation programs and community-based school renovation programs in particular. It notes how they differ from traditional programs and sets out their advantages and disadvantages.

Advice for project management — This offers practical guidance for project management at the central and local level. It centers on key questions that managers will need to answer in order to be able to implement a program effectively and that interested civil society groups will need to focus on in order to exercise oversight.



Local craftsmen replace the roof and veranda at SD Ketanggan 1 in Batang District, Central Java. These repairs were funded by the School Improvement Grants Program.

C o n t e n t s

Foreword

An introduction to school and community-led school renovation and construction.

- The need for school renovation programs

Advice for project management

- What are the project objectives?
- How is the project going to operate?
- Who will be in charge?
- What kind of technical advice will be needed?
- How do you ensure transparency and value for money?

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- CIMU is the *Central Independent Monitoring Unit* of the Scholarships and Grants Program and the School Improvement Grants Program in Indonesia. This special report is the fifth in a series of reports contracted by the World Bank to examine specific issues related to these Programs. This report is based on a paper prepared by Nigel Wakeham using information from CIMU.
- The findings and views expressed in this publication do not necessarily reflect those of the government of Indonesia or the donors who have contributed to these programs.

Advice for school committees and the community — This was written specifically for schools and community representatives who will implement school renovation and improvement activities. It sets out checklists that can help schools and communities identify and achieve their goals.

An introduction to school and community-led school renovation and construction

The need for school renovation programs

The present need for school renovation programs has been caused by two main factors: the initial poor construction of schools and the lack of adequate maintenance after construction.

In the past, central or local government has renovated run-down schools using building contractors and civil works consultants selected through a bidding process and supervised by the ministry of works. This process has often suffered from marked-up and prices for goods and services, and has led to poor quality construction and renovation.

Budgets for school operation and maintenance provided by government have generally been inadequate and schools have given low priority to facilities maintenance. Lack of spending on maintenance increases the problems caused by the poor quality of the initial construction.

Community-based school renovation programs

Responsibility for renovation is increasingly being transferred to schools and their local communities because of the corruption and inefficiency in the usual arrangements and because of moves towards school-based management.

There are several arguments to support school or community-led rehabilitation. Firstly there is the argument that renovation will cost less if contractors, with their profit margins and overheads are cut out. Secondly, there is the belief that opportunities for corruption will be reduced. Thirdly, there is the view that the quality of the workmanship improved because local artisans will be responsible for the work managed by the school or community who should have more interest in obtaining good quality work and reducing corruption.

The differences between community-based programs and traditional programs

Traditional programs use contractors to carry out the work and civil works consultants and/or ministry of works personnel to supervise it.

Community or school-based school renovation programs use local builders or craftsmen and laborers managed by a school committee to carry out the renovation work.

A school or community committee can usually manage small-scale renovations but it will probably require technical assistance to manage and supervise large-scale renovations or construction.

Advantages and disadvantages of community-based school renovation and construction programs

Advantages

- the school and community have more control over what work is carried out at the school
- the school and community also have more control over the quality of the completed work
- community-based programs generate local employment
- the cost of renovations should be reduced because the contractor's overheads and profit are removed
- opportunities for corruption are reduced
- more local ownership of and thus responsibility for the completed buildings
- increased local capacity to carry out similar projects in the future

Disadvantages

- school staff and local communities will probably lack the skills to manage and supervise large scale renovation work without some kind of technical assistance
- the cost of technical assistance and supervision will be higher than in a traditional program because the contractor's role in supervising the work will have to be replaced
- the quality of the completed work may be (but will not necessarily be) lower than that carried out by a contractor, because of a lack of technical knowledge or project management experience
- the work could take longer than if carried out by a contractor

Advice for project management

There are a number of issues that anyone involved in a community-based program or project will have to address during planning and implementation.

What are the project objectives?

The principle objective of the project in civil works terms should be to achieve good quality renovation or construction of school facilities at a minimum cost. Community-based renovation and construction seeks to do this by involving local communities, labor and craftsmen in the design and implementation of the project from the very beginning. The rationale for this is to increase the sense of local ownership both of the process and the completed facilities through community participation. This is done by closely involving the school and community

A further objective might be to provide facilities for community use as well as for educational purposes but it must be clear to all involved from the beginning that this is the case.

How is the project going to operate?

The nature of the project objectives will influence how the project operates. Many school renovation programs provide grants of a standard size to schools regardless of their level of need. The role expected of the school community is essentially one of planning and spending the funds allocated. Other programs allocate funds on the basis of proposals generated by the schools themselves. The process of putting together bids requires an additional set of skills, which may not exist in many communities. Such a demand or needs-led allocation process also requires there to be systems and mechanisms in place for appraising competing bids and making informed decisions.

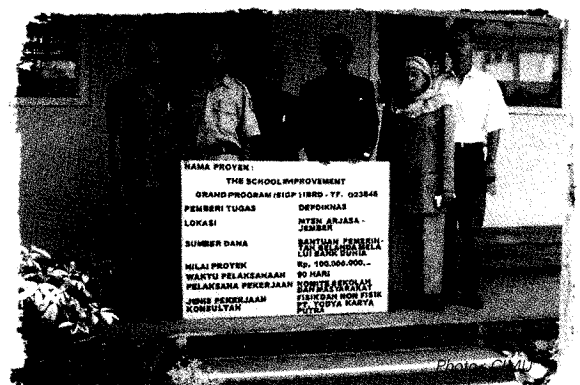
Who will be in charge?

As the term indicates, school-led rehabilitation puts the school in the driver's seat. This means that schools must be free to choose what and how to spend the funds that are made available to them for renovation works.

At the school level, a committee will have to be formed to take charge of the work. In Indonesia, School Committees should now exist and there is a great deal of sense in using the existing structures, co-opting members and forming sub-committees as appropriate. The head teacher is an obvious person to include. It is often helpful to include at least one member with some knowledge of construction, such as a local builder or foreman. If renovation is on a large scale or if the school plans to construct new facilities, then the committees will probably require some form of technical assistance to help them manage and supervise the work.

The process of selecting members of the committee needs to have the support of the community, so it follows that it should be organized as openly as possible, through public meetings and involving school staff, parents and community members. Involvement of the community in decisions concerning what will be renovated or built and how facilities can or cannot be used once work is complete, is equally important.

Management is not simply about being in charge. It brings with it responsibility and accountability. The School Committee is primarily accountable to the community it represents, but since it is spending public money, it also has a responsibility to those in the management superstructure of the project of program supplying the funds. There will inevitably be rules and reporting requirements to follow and managerial oversight will need to be established in the project management structure. The crucial point, however, is that those in the superstructure exist in order to provide services to the schools and communities. Often in the past, participation in school rehabilitation projects has been regarded primarily as opportunities for income supplementation. The shift in mentality required from rent-seeking to service should not be under-estimated.



The school committees, which should now exist at every school, include school staff, parents and community members. These committees can take charge of the work.

What kind of technical advice will be needed?

Large-scale school renovation and construction will require technical oversight by competent civil works professionals to make sure that things move along as planned and minimum building and health and safety standards are met. There is a definite correlation between the amount of technical assistance available to schools and the final quality of the work. The chances of obtaining good quality buildings without good quality advice are small.

It goes without question that civil works consultants need adequate qualifications and experience if they are to offer sound and credible advice to school committee members. They should also have experience with community-based projects as well as an understanding of local customs, culture and social norms. They should appreciate the need for documentation that is simpler and easier to understand than that required for traditional contractor-managed work.

Choosing the means by which technical advice or supervision is made available is an important consideration for project managers. In most rehabilitation projects, the civil works consultants have been appointed centrally, through a process of competitive bidding. Procurement rules may preclude any other method of appointing such consultants, but it is worth considering whether an alternative arrangement is possible. School-based management implies that schools should take the lead, within budget limits, in buying in whatever services it requires. There is no apparent reason why this should not also apply to technical supervision. There may be problems for schools in remote areas finding suitably qualified professionals, let alone contracting them, but this difficulty could be overcome if the project identified a suitable panel of consultants whose time the schools could purchase.

It has been common practice in recent education improvement projects that include school rehabilitation for these consultants to be appointed by central project management. Their role is to advise and assist schools and crucially, to provide assurance that renovations and new construction follow safety standards and building regulations. This is a very important role, but it should be recognized that it could cause some confusion as to who is really in charge and who is ultimately responsible for the successful completion of the school renovations. Logically, the School Committee is in charge and bears responsibility. The consultants act in an advisory capacity. However there may be occasions when the wishes or actions of the School Committee run counter to the professional judgement of the consultant. The project should put in place some supervision mechanisms by which such differences can be resolved.



Civil works consultants can help schools with prioritize their work, prepare cost estimates and complete other important tasks.

Civil works consultants can perform a number of important tasks including:

- ✓ Providing detailed surveys of each location for both renovation and site work.
- ✓ Preparing detailed cost estimates for each location. These estimates should be based on site surveys, priced schedules of materials and estimates of labor costs. They should not be based on contractor prices.
- ✓ Helping schools prioritize their work, and trying to ensure that school committees concentrate on the work specified in the project guidelines.
- ✓ Preparing simple schedules of materials (not bills of quantities) that school committees and construction supervisors may use to order supplies.
- ✓ Monitoring finances to ensure that the funds for renovation or construction are properly expended and accounted for.
- ✓ Verifying whether school efforts have achieved good value for money and were cost-effective.

Project managers will have to ensure that in areas where the sites are dispersed or where communications are difficult, the numbers of consultants should be increased in order that all sites receive adequate supervision and

management. All should have their own transport to carry out their duties properly; they should not have to rely on public transport.

In addition to the oversight provided by civil works consultants, it is also worth considering the establishment of an independent body that communities can contact if they perceive any irregularities or corrupt activities.

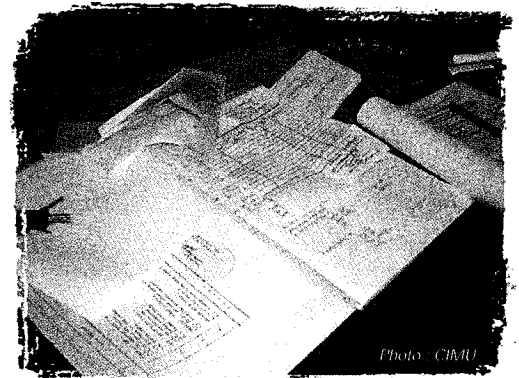
How do you ensure transparency and value for money?

The construction process is prone to corruption. Corrupt practices by officials distort development efforts and create disillusionment. It is therefore important to consider ways to discourage corruption and encourage transparency and accountability.

The use of community participation in school construction and renovation projects can reduce the opportunities for corruption, and encourage both transparency and accountability. The establishment of school committees to manage things is a valuable first step, but this in itself may not be sufficient to ensure that processes are transparent and that misuse of funds does not occur. Collusion and corruption can occur at all levels of project management. School committees can be dominated by individuals or small groups that do not reflect the interests of the community as a whole and who manipulate the project for their own benefit.

There are a few ground rules to safeguarding projects from misuse:

- ✓ The school committee should open a special bank account for the project in the name of the school with at least two signatories.
- ✓ All financial transactions should be simple and transparent. School Committees should keep detailed accounts of all transactions and payments, and ensure that more than one person is required to approve expenditures.
- ✓ The community should be kept informed about the budget, the procurement process for obtaining materials and labor and the amounts being spent. This can be done through open meetings and through the erection of a notice board in a conspicuous position on the school site. Information on funds flows, the names of the people entrusted with the money and project progress should be updated regularly.
- ✓ There should be independent scrutiny of project finances. In some school renovation projects this role falls to the civil works consultants. It is imperative therefore that the appointment of the consultants themselves is free from corruption.
- ✓ It is essential that schools ensure their cost estimates for construction or renovation work are accurate. This will guarantee that surplus funds are not available during implementation, a situation that can encourage corrupt practices. To accomplish this, the school committee, with help from civil works consultants, where appropriate, need to prepare detailed schedules of work and materials, and cost these schedules using actual materials and labor costs, not standardized unit costs.
- ✓ There should be management oversight and monitoring to provide assurance that public funds are being safeguarded.
- ✓ Create a clear and direct way for people to report any suspected misuse or corruption. This mechanism must exist outside the framework of program management so that community members can report irregularities or attempts at corruption. This will entail the development of independent complaint investigation and adjudication systems and structures.
- ✓ The project must also impose real sanctions against people who engage in corrupt activities.



School Committees should keep detailed accounts of all transactions, and ensure that more than one person is required to approve expenditures.

How do you plan and prepare for success?

Large-scale school renovation or construction projects take time. Preparation is all important. Generally at the start of a project there is time to get detailed plans in place, but rarely are schools involved at a sufficiently early stage. The initial lag time can be put to good use for project preparation and planning if the schools can be identified early in the process. They can then decide which buildings will be renovated or constructed. They can,

with technical support, carry out site and building surveys and prepare design and working drawings, site drawings, schedules of materials and cost estimates. Adequate preparation in these areas is a key to ensuring efficiency and value for money once the actual renovation and construction activities begin.

What renovations can you afford?

At the beginning of renovation or construction it is important to establish parameters describing the work that can be carried out, the likely budget for each category of work and the appropriate quality standards.

The preparation process will also entail the drawing up of accurate and detailed budgets for each location. These budgets should include the cost of necessary site works and costs for needs such as water supplies and toilets. Budgets should not be based upon contractors' estimates for construction or bills of quantities designed for contractor-managed projects.

Site conditions at the project schools will vary greatly. Various expenses including the cost of materials, transport and the water supply situation will vary from one site to another. Budgets for construction and renovation work must reflect all these factors and are therefore likely to vary accordingly at different schools. A detailed cost analysis will aid the preparation of accurate and detailed budgets for the renovation and construction work at each school.

How do you build constructive participation from the community?

Not all communities will view the rehabilitation of their school with equal enthusiasm, particularly if there will be financial or resource costs they have to contribute. They often need to be convinced of the benefits that will accrue. There are several things that can be done to promote constructive community participation.

For a start, communities need as much information as possible. They should be fully informed about the amount of work and time that will be required of them. They also need a clear picture of their roles and responsibilities as well as the nature and amount of materials and labor that they will have to provide. It is often assumed that communities will contribute by clearing sites or providing free labor services. These assumptions have to be made explicit, as do any responsibility the community will have to take on for managing and maintaining the buildings at the end of the project.

Community members will also need to know how the program will impact their lives. People will only participate in renovation activities if they have time and if doing so will not compete with their livelihoods. Community-led programs need to consider constraints on peoples' time. Factors that will have an impact on the availability of labor, such as the farming cycle must be kept in mind. The division of labor within families may also be important, if certain family members are taken away from normal activities. The effect on different age groups may be significant if for example parents are forced to rely on their children for to undertake daily routine activities while they work on school buildings. This may have an impact on the existing school attendance patterns and may result for example in girls being withdrawn from school for child-care or other domestic duties, or boys being withdrawn to take over some of their father's productive activities

It is important to acknowledge that most projects will be directed to the poorest sections of society and it will usually be necessary to pay people to provide labor. Subsistence farmers for instance cannot be asked to leave their farms for long periods without pay as they will have to buy the food that they would otherwise grow. The project should include a system of paying for labor from the start. This system should pay adequate attention to gender norms and ensure that neither men nor women are unduly advantaged compared to the other. However, it is reasonable to expect communities to make some contribution. In many parts of Indonesia there is a tradition of community labor and assistance in demolishing dilapidated buildings and clearing sites may well be willingly provided.

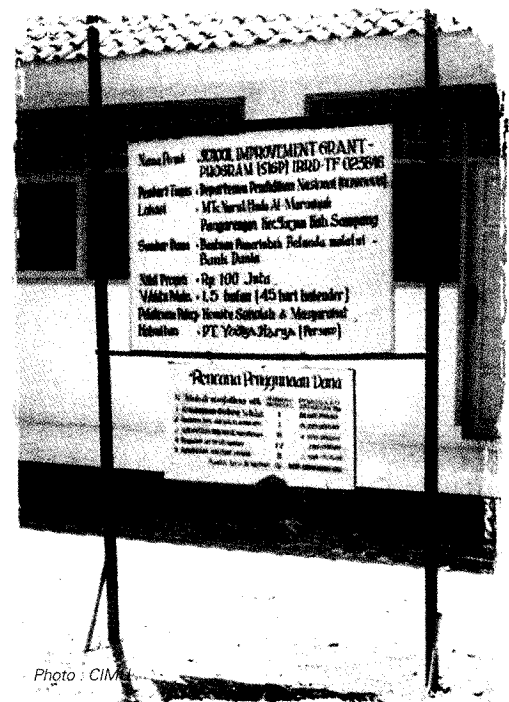


Photo: CIMU

Schools can help keep the community informed about the project by erecting a school notice board in a conspicuous place. These notice boards should list important information and should be updated regularly.



Photo : CIMU

Schools should avoid using expensive materials. For instance, veranda floors and walls that are finished with glazed tiles are attractive, but costly. This money could probably be better spent elsewhere.

better spent elsewhere. If schools or communities require this standard of finish, they should be prepared to pay for it themselves.

School facilities should be simple and economic to construct and easy to maintain. Construction methods should be simple to understand and familiar to both the community members and the artisans who work on the project.

How can you encourage good building maintenance habits?

Maintenance of school facilities must be considered from the very beginning of the project in order to protect in the long term the large sums of money that will probably be spent on renovation or construction. It is likely that government will not be able to provide sufficient funds for school maintenance and the responsibility for maintenance will increasingly be transferred to schools and committees.

Training for school staff and communities in both maintenance techniques and in raising funding for maintenance would both therefore be useful. This section lists a few things that the project can do to encourage schools and communities to maintain either new or renovated school buildings.

Community involvement from the very beginning of the project Involving the community from the very start can increase feelings of ownership and thus raise the degree to which the community will feel responsible for maintenance once buildings are complete. One way of doing this would be to allow the community to use the buildings for purposes other than traditional education.

What kinds of minimum building standards should you set?

Any school rehabilitation project will need to set down guidelines that clearly state expected quality standards. These standards will cover existing Ministry of Education requirements and local building codes as well as applicable health and safety regulations. They should however, be flexible enough to allow for differing needs at different schools and ensure that buildings and materials are suited to their intended use and to local climatic conditions. There are compelling arguments in favor of using locally available materials as much as possible.

Cost considerations are also important. School committees should avoid using materials that will lead to high construction costs or long-term maintenance costs. For instance, veranda floors and walls that are finished with glazed tiles are very attractive (although there is a safety issue with glazed floor tiles used externally) but they are also very expensive and this money could probably be

Minimum construction standards — some further considerations

Building orientation — All new buildings should be properly oriented to avoid sun penetration during school hours. Buildings should also have large roof overhangs where necessary to protect windows from sun penetration.

Water supply — All schools should have a dependable water supply. The budget should provide sufficient funding for a dependable water supply whether it is a deep or shallow well with a pump, a connection to a village supply or a gravity feed supply. Electric pumps should not be used if at all possible.

Student toilets — Appropriate, functioning toilets are a necessity for all schools. If sufficient water is available then pour-flush toilets can be provided with water tanks and either a piped water supply or water brought by buckets. If water is not available then ventilated pit latrines can be built apart from the main school buildings.

Placement of sanitation and wells — The minimum distance between a septic tank and soakaway and a well should be 15 metres and should preferably be 30 metres to avoid any contamination of the well. If the site is very wet then the septic tank should be raised and rendered internally and externally and a 'mound or transpiration' soakaway should be used.

Electricity — A decision will have to be taken as to whether to provide an electrical installation. These installations are very expensive and are rarely fully used. Primary schools for instance are usually only used in the mornings when electricity is not required for lighting. Then the provision of a complete electricity installation can hardly be justified unless the schools are used for other activities in the evenings. The money spent on electricity installation could probably be better spent on renovating additional schools. If schools are to be used in the evenings for community activities then one or two classrooms only could be wired for lighting or solar powered installations could be considered.

A simple maintenance manual One of the most useful contributions that civil works consultants can make in any renovation project is to prepare a simple maintenance manual to cover the day-to-day operations of the school, such as general cleaning, cleaning of toilets, clearing of drains, checking roofs for leaks, checking doors and windows for operation, etc. The manuals should also offer guidance on rectifying common faults. One member of staff could be made responsible for maintenance. In Indonesia this could be the penjaga, the school security officer who usually lives on site and whose responsibilities are minimal at present. The manuals would include simple instructions on:

Inspections that can be carried out regularly by designated members of the school committee. The maintenance manual should contain inspections check lists with preventative maintenance actions that should take place at weekly, monthly and yearly intervals.

Weekly action lists that cover preventative maintenance actions such as general cleaning while also keeping an eye open for obvious problems, such as termite trails.

Monthly inspection lists containing longer check lists, including: inspecting and trimming trees or bushes close to the buildings; checking roofs and gutters for leaves; checking for termites or nesting insects; checking that doors, windows, locks etc. all operate; checking that toilets, wash-basins, taps, and wastes are in working order; checking that storm-drains are not blocked; checking that light fittings are working; and checking that furniture is in good order.

Annual inspection lists would include items such as: checking the roof for leaks, damage or rust; checking gutters, down-pipes and storm-drains for damage or blockage; checking all exposed roof timbers and fascias for paint finish and rot; checking ceilings for water damage and sagging; checking floors for cracks or damage; checking walls for cracks or damage; checking windows, doors, frames and hardware for faults and damage; checking the electrical system for faults; checking water supplies for leaks; checking the whole sanitary installation, septic tanks and soakaways for faults, blockages or damage.

Maintenance records to be kept in order to document faults, fixes and expenses. Records of maintenance inspections, actions taken to rectify faults and the costs of putting them right should be kept. A system should be put in place for reporting more serious problems that cannot be dealt with by the school alone.

Maintenance handbooks – a closer look

An interesting model that might be followed is that of an EC-funded primary school renovation project in Vanuatu that was implemented in the 1990s. In this project, before renovation of any school started, the community was informed that once the renovation was complete the school would be handed over to them and would become their responsibility. They were told that the school could be used for community purposes but the community would have to provide for running and maintenance costs. A maintenance handbook was developed for the schools and workshops were given at each school in using the handbook, maintaining the school facilities and in raising funds to pay for maintenance. An NGO with experience in community development was involved with the project throughout the process and the project seems to have been successful.

Another example of a simple maintenance manual was produced by a primary school project in Andhra Pradesh in India for use by teachers. Its cartoon illustrations of basic maintenance tasks and simple checklists could be used as a model manual for school staff.

A sample illustration based on a maintenance manual used in India

BASIC PREVENTATIVE CARE DOES NOT REQUIRE VAST TECHNICAL KNOWLEDGE. IN MOST CASES IT ONLY NEEDS COMMON SENSE.



WITH REGULAR CARE, POSSIBLE DAMAGE TO SCHOOL BUILDINGS CAN BE SPOTTED AT AN EARLY STAGE BEFORE IT BECOMES SERIOUS.

Advice for the school committee

This section was written for schools and community representatives who will implement school renovation and improvement activities. It describes some of the issues that schools and communities need to think about, and provides ideas that can help them identify and achieve their goals.

Taking charge

Renovations can vary considerably in size ranging from small scale efforts that can be managed or financed by the school through its own resources and donations from the community, to larger scale projects that require funding from an outside agency, as part of a larger program. Whether the renovations are large or small in scale, the same management unit can be responsible for implementation-this will usually be the School Committee.

The composition, mode of selection and functions of School Committees are outlined in law (No. 044/U/2002). This specifies, amongst other things, the number of community members and their positions. Community members should hold the key positions of chairperson and treasurer.

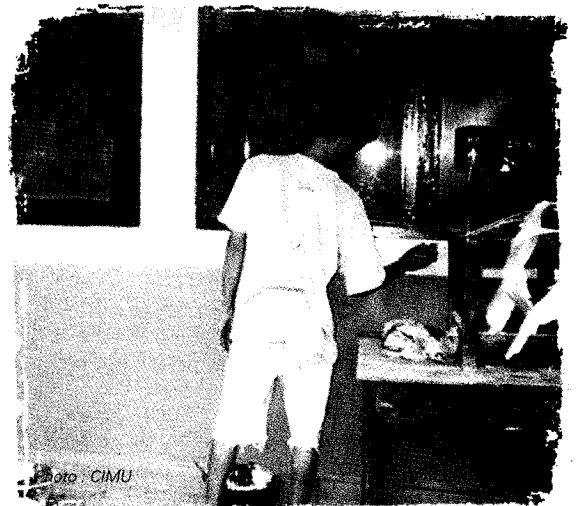
For rehabilitation projects it is important that relevant persons are co-opted. The head teacher will obviously have to be involved and it may be helpful to include some class teachers. It is recommended that the School Committee should form a small technical sub-committee or technical team to manage the work. If possible the chairman of this team should be an experienced local builder, craftsman, foreman or someone with experience in construction.

The School Committee will be responsible for defining the work, establishing a budget, hiring labor and procuring materials. It will also need to keep an eye on progress to ensure that work is done on time and to agreed standards. When the renovation work is complete, then the School Committee should manage the ongoing maintenance and repair of school facilities.

Considerations for small-scale renovation

If the renovation work is small in scale and can be managed and financed by the school and community, then the School Committee will define the objectives, the budget and the time frame for the work, raise any necessary funds and hire the workers. Minor renovations such as re-laying roofing tiles, re-laying floor tiles to a classroom, repainting a building can be easily managed and supervised by the School Committee. There are a number of steps that need to be followed.

1. The Committee should prepare a simple document describing and quantifying the work. For example: "Paint the interior and exterior walls and ceilings with two coats of white vinyl emulsion. Paint one three-classroom building overall size 22 x 7 metres, walls 2.8 metres high with one coat white gloss paint. Paint three hardwood panel doors and 18 hardwood top-hung windows including all inside and outside surfaces and frames."
2. The Committee then has to decide how best to get the work done. They can either ask members of the community to carry out the work on a voluntary basis, employ members of the community or hire a local builder. If community members carry out the work, especially if they are paid, then great care must be taken in their selection. To ensure transparency and to avoid any disputes later they should be selected or elected publicly and their names and the amount that they will be paid should be agreed. The Committee will then have to purchase materials, acquiring three quotations, as is normal practice.



The school and community can manage and finance small scale renovations like repainting a building.

3. If it is agreed that a builder should carry out the work the Committee can start by collecting quotations from three local builders or artisans. If the builders have sufficient financial resources then they should quote for both supplying the materials and carrying out the work. If the builders do not have the resources then the Committee should purchase the materials and enter in to a labor-only contract with the selected builder or artisan. The technical committee should evaluate the quotations and make a recommendation to the main committee.
4. When a quotation has been accepted, a simple contract should be signed between the Committee and the builder. The contract should state the work to be carried out, the amount to be paid to the builder and the time the work should take. Payment intervals will have to be agreed and a small retention sum should be held back when the work is complete to cover any remaining defects.
5. When the contract has been signed the work can proceed and the Committee (especially any members with construction experience or expertise) will have to monitor and supervise the work to ensure that it is finished on time and to the required quality standards. Accurate records of all payments made and all materials used are essential to assist in monitoring renovation costs and to avoid mismanagement, misuse and theft
6. The technical team should report back to the main Committee on the progress of the work and on all payments made. The main Committee should keep the community informed of progress. Posting regular updates of progress and payments on the school notice board is a good way of doing this.

Considerations for larger scale programs

Even though the same management and accounting principles apply to both small-scale and large-scale renovation or construction projects, larger projects entail some extra considerations. The most significant among these will derive from the conditions attached to the funding. The way the school's renovation project will be implemented will be affected by the source of finance, any restrictions that apply to the sort of works that can be funded and the administrative, supervisory and reporting requirements that accompany the funds.

Initiating the school project

The School Committee is in a key position for identifying the school's renovation needs. For this the Committee will rely, to a greater or lesser extent, on the head teacher. He or she will know what requires repairing or replacing, what works and does not work, how many pupils and teachers the school has and therefore what the school requires in terms of renovations or new facilities. From this knowledge the head teacher can make a preliminary list of required work or the new facilities that are needed.

In order to make the process as transparent as possible and to generate support, community involvement should be sought at an early stage. The School Committee should organize a series of public meetings to discuss the proposed project with the school community. One objective of these meetings is to discuss the role of the school and community within the project and the practical steps that need to be taken. Another is to try and instil a sense of community ownership of and responsibility for the school and its facilities when the project is complete.

The first meeting is a good place to discuss ideas for school renovation and the School Committee should encourage the community members present to debate of these ideas. At this stage the budget for the renovation or construction will probably not be known. An outcome of the meeting would therefore be a 'wish-list' of all the needs of the school. Two things are important, however. Firstly, there are likely to be certain restrictions on what can and what cannot be funded and secondly, it is very unlikely that the money available will cover all the items on the "wish-list." This means that the meeting will have to produce not just a list, but a prioritized list of the schools needs.

When the budget is known and the cost of the various works has been estimated, the School Committee should convene a second meeting to draw up a short list of the works that it will be possible to carry out. The meeting should also decide or endorse the nominations of the Committee who will be involved in managing the project. With large scale renovation and construction programs it is particularly useful if one member of the management team has some technical knowledge (a local builder or foreman for instance) and is appointed as the day-to-day project manager.

Implementing the school project

The School Committee will manage the financial aspects of the project and will be accountable for their role. To ensure transparency and simplify financial arrangements, the School Committee should open a special bank account for this purpose. At least two members of the committee should sign for all withdrawals.

The Committee should draw up some simple rules governing who should be involved in financial transactions and how much authority they have to commit and spend the money. These rules should follow the principle that there should be a separation of commitment and approval and that at least two people should be involved in every transaction. The committee treasurer should keep detailed accounts and supporting receipts for all transactions and payments for materials and labor. It is likely that there will be a requirement that the School Committee should submit detailed accounts to a district committee or project management team each month.



The school committee should hold a series of public meetings to discuss the proposed project with the community at an early stage. This should help to make the process transparent and to gather support.

A notice board should be erected in a conspicuous position on the school site showing all funding received and providing a summary of progress and payments made. This should be updated regularly.

Implementation of the rehabilitation work will follow a similar pattern to that of the small-scale renovations. However, because the scale of the renovation work will be greater and there might also be new construction, the assistance of civil works consultants will be required. Ideally, the consultants should be appointed before the budget for the renovation or construction work is finalized. They should assist the School Committee in the prioritisation of the work necessary at the school and try and ensure that the School Committee concentrates on the work specified within the project guidelines.

One of the important contributions the civil works consultants can make is to help the School Committee understand what can and what cannot be achieved within the budget limits. If the Committee tries to do more work than the budget will allow, it will achieve low standards of construction. It is usually more cost effective to concentrate on doing one area of renovation well. This approach will require a minimum of maintenance in the future

The consultants should assist the School Committee and its technical team in finalising proposals. When these have been agreed, they can carry out detailed surveys and create detailed drawings for the buildings to be renovated or newly built. They can also provide the School Committee with schedules of materials, estimates of the labor required and the time it will take to carry out the work and cost estimates. The cost estimates should be based upon the actual local cost of materials and local labor rates.

Depending on the administrative arrangements associated with the funds, the School Committee will probably have to submit a document explaining the scope of the work and budget for approval by a district committee and/or project management. Once this is granted, the School Committee must decide whether to use either labor hired locally or a local builder. The scope of work will probably be too large to be carried out by voluntary labor from the community.

As with minor renovations, care must be taken in the selection of the individuals to be used as local labor. Consultants should assist the committee in deciding on rates or the amount to be paid for specific jobs (such as a lump sum to be paid when the foundations are completed and again for the walls, the roof, etc.). This should ensure that workers do not unnecessarily extend the time taken for completing a job because they are being paid by the day or the hour.

If local labor is used then the Committee will have to purchase materials. The consultants will provide schedules of materials showing the type and the quantity of material to be used. These should be used to obtain quotations (three wherever possible) for the supply and delivery of the required materials to the site.

If a local builder is to be used, then the consultants should prepare simple bidding documents consisting of the drawings and basic specifications. If the builder supplies materials he or she should also price the schedule of materials prepared by the consultants and give a price that is broken down by labor, overheads and profit. If the Committee supplies the materials then the contractor should only give a price for his labor, overhead and profit.

When prices have been obtained from the builders, the consultants should help the Committee to evaluate them and the Committee should decide who should be awarded the contract.

When a quotation has been accepted, the School Committee, with help from the consultants if necessary, should draw up a simple contract to be signed by the authorized signatories of the School Committee and the builder. The contract should state the work to be carried out, the amount to be paid to the builder (in tranches if necessary) and the time the work should take. When the contract has been signed the work can proceed. A retention sum should be held back to cover any defects that might remain when the work is complete.

The quality of work will depend largely on the amount and quality of supervision. This is primarily the responsibility of the School Committee, although much will depend on the diligence and day-to-day supervision of the technical sub-committee and the civil works consultants.

Regular meetings should be held between the builder (or workers if local craftsmen are being employed directly), the head of the technical team and the consultant to discuss progress and any problems. The head of the technical team should report back to the School Committee on these meetings and on progress.

Maintenance of school facilities

When renovation or construction is complete, regular maintenance will be important to keep future renovation to a minimum. The School Committee and school staff have a crucial role to play in maintenance and this should be emphasized from the very outset of the project. The school and the School Committee will probably have to assume most of the responsibility for raising funds and carrying out any necessary upkeep.

The civil works consultants' duties will include preparation of simple maintenance handbooks that the Committee and school staff can use. They can also train Committee members and staff in sound maintenance procedures.

In order to give on-going maintenance the importance it requires, one member of the School Committee and one member of the school staff should be given responsibility for raising maintenance issues with the School Committee and for carrying out facilities maintenance checks. □

Warta CIMU

The Central Independent Monitoring Unit



Issue 14 - August 2003



This head teacher stares at money that Dinas Pendidikan of Bungo District returned after having taken it from his school. Dinas Pendidikan eventually returned grant funds that it collected illegally from this and other schools in Bungo.

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Warta CIMU is published by the Central Independent Monitoring Unit to provide information and to share ideas on the implementation of the Scholarships and Grants Program and the School Improvement Grants Program in Indonesia. The findings and views expressed in this publication do not necessarily reflect those of the Government of Indonesia or the donors who have contributed to this project.

Foreword

Without much fanfare, the Scholarships and Grants Program (SGP) officially ended on June 30. The government continues to support basic education through the BKM/BKS (Bantuan Khusus Murid/Bantuan Khusus Sekolah) projects that channel funds from fuel subsidy savings to needy students and schools in much the same manner as the SGP. The second phase of the School Improvement Grants Program (SIGP) also continues though disbursements to some districts happened somewhat later than originally planned.

SIGP schools are now hard at work renovating school facilities and purchasing much-needed teaching and learning materials. This issue describes the condition of these schools prior to receiving grants. As grant implementation continues at SIGP schools, a number of irregularities have been noted. News updates highlights a few of the most recent investigations into alleged corruption. Other irregularities involve deviation from the guidelines such as the way that schools access their Bank BRI accounts, and in the level of service provided by School Construction Advisors. □

Success in Sinjai

SDN 173 Patohoni in Sinjai District has not only used its Rp.80 million School Improvement Grant to significantly improve the learning environment, but the school's success also demonstrates how efforts to make the grant implementation process open and transparent to the community can earn real rewards.



SDN 173 Patohoni used part of the grant to replace the roof and renovate three classrooms in this building.

Contributions from the community do not stop with building materials either. People in the surrounding community take an active interest in the school, and the community members who sit on the school committee have been actively involved in the planning and implementation of the grant. Many of these people have played a key role in socializing the news about the grant to students' parents and community members during village meetings or through religious groups.

Another key ingredient for success has been the school's notice board. This contains more than the source of the grant and the amount received, it is updated weekly with complete details about grant spending, and includes other valuable information such as the names of all school committee members, complete technical drawings for the planned renovation, and the agreement between the school committee and district committee (SPPB). The data on the notice board is backed up by accurate and detailed records which include a complete list of expenditures and withdrawals from the school account at Bank BRI.

Access to such detailed information has enabled the school committee to ask well-informed questions from the School Construction Advisor (SCA) who was assigned to assist the school with technical advice for preparation and managing renovations. Consequently, the school committee has drawn good advice from the SCA and achieved quality results that are likely to be long-lasting.

The grant has funded extensive renovations to school facilities. This includes a new roof and repairs for three classrooms, rehabilitation of three toilets and the conversion of an old teachers' housing block into a new library. All of this was achieved for Rp.65 million, a good value that was possible largely because of generous contributions of materials from community members.



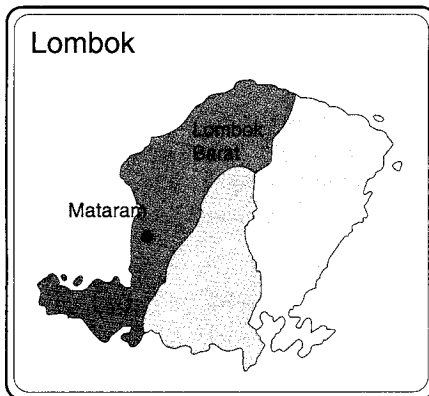
School notice boards should supply more than just the source of the grant and the amount that the school has received. SDN 173 Patohoni includes names of committee members, technical drawings and detailed information on spending that is updated every week.

Correction

On Page 16 of the last issue of *Warta CIMU*, April 2003, a table displaying data on "Merencanakan penggunaan dana peningkatan mutu sekolah" contained an error. The figure for "renovasi atau pembuatan *Warta CIMU* murid/guru" should say "renovasi atau pembuatan WC murid/guru." We apologize for this typing error. Schools do not pay for *Warta CIMU*, it is issued free of charge.

Investigation in Lombok Barat points to evidence of corruption

Head teachers and local community in Lombok Barat District have alleged that the district committee secretariat manager asked schools for a payment to secure a place on the list of schools that would receive School Improvement Grants. An investigation initiated by CIMU in April this year has gathered testimony from numerous informants in Lombok Barat who claim that schools paid anywhere from Rp.1.5 to Rp.5 million for a place on the list.



Informants requested that their identity be protected to prevent reprisals from higher officials. They were apprehensive about making statements and refused to sign written testimony for fear that this might have negative repercussions on their careers. Others were concerned that their school might be removed from consideration for assistance from other programs.

One school, SDN Montong Buwuh, did submit a complaint letter to a long list of stakeholders including the Bupati, key members of the district committee, and CIMU after it was dropped from the list of SIGP recipients without any explanation. The office of *Dinas Pendidikan* first considered the complaint baseless, but the action drew praise from the local *Dewan Pendidikan* (education board) which complimented the school for having the courage to come forward and openly discuss its grievances. The *Dewan Pendidikan* has received several anonymous letters of complaint (called *surat kaleng*) claiming that SIGP recipient schools were asked to make payments to district officials.

In response, the district committee in Lombok Barat invited parties to come forward with any evidence or testimony regarding the alleged payments, but unsurprisingly no one was willing to admit to having paid to ensure their school would receive a grant. Where CIMU has investigated other cases of abuse, hard evidence, such as receipts, has been scarce.

The district committee later asked several people to sign statements saying that they had never been asked to make payments to receive a grant.

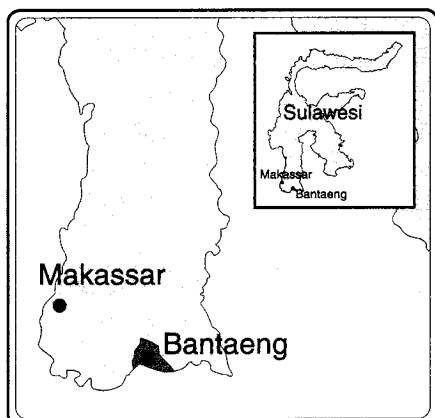
The matter has been referred to the Bupati and to the local audit office (*Bawasda*). As a result of these investigations, the district committee secretariat manager, a key official within district level program administration, has been replaced. The issue has become a topic of considerable public debate in Mataram. This may encourage scrutiny from the community and demand for greater accountability from local administration.

In a surprising twist to this story, the former secretariat manager has continued to pressure SIGP schools for payments, and 18 schools have admitted to paying him money even after he was removed from his position. The former secretariat manager seems to have deliberately chosen schools that are not part of the CIMU survey to avoid detection. So far, Dinas Pendidikan has not acted to prosecute him.

Termite prevention eats away at schools' decision-making

New evidence indicates that schools which have received School Improvement Grants in Bantaeng District in Sulawesi may have been pressured into contracting termite control services for inflated prices.

Every school that independent monitors visited in Bantaeng District signed agreements to confirm their order of termite control services with a company called PT Sucofindo. Some head teachers said that they signed the agreement after being visited by a company representative who told them that the Kepala Dinas wanted every school to purchase this service from PT Sucofindo. Other head teachers said that they agreed to sign up voluntarily.



Schools in other districts have purchased termite control services with no evidence of suggestion from the administrative hierarchy. In Pandeglang District for instance, a private company offered termite control services to SIGP schools, without any intervention from officials. In fact, every school that independent monitors visited in Pandeglang refused the services. Schools there have opted to use more affordable, homemade solutions to solve their termite problems.

Prices that schools in Bantaeng were quoted by the company may also have been inflated. When independent monitors contacted PT Sucofindo directly and posed as a school in another district, the company quoted a much lower price for the same services than the one given to SIGP schools in Bantaeng. Schools in other SIGP districts were charged

much lower prices. SIGP schools in Pandeglang, for example were quoted prices that were one quarter those given to schools in Bantaeng. The accompanying table compares the prices and services offered to SIGP schools in Bantaeng with those offered to non-SIGP schools.

It is clearly sensible for schools to consider protection from termites. However, the SIGP is based on the principle that schools will decide for themselves how their grant funds should be spent, without interference or outside pressures. The program also strives to ensure that schools will pay market prices for goods and services.

Price comparison for termite services

	Normal price	Price quoted to SIGP schools
Price to treat foundation (per square meter)	Rp.24,000	Rp.40,000
Price to treat roof/ceiling (per square meter)	free of charge	Rp.24,000

The suggestion that the Kepala Dinas wanted every school to contract PT Sucofindo for overpriced services is at best inappropriate. Legal or administrative action may be warranted if an agreement did in fact exist between officials in the district and outside contractors or if officials within Bantaeng District did in fact pressure schools to purchase specific goods or services.

Even seemingly innocent attempts to provide services for grant-receiving schools can involve fraud. The acquisition of termite control services is widespread among SIGP schools and problems with such contracts have been noted in a number of other places, such as in Donggala District in Sulawesi. Investigations are now underway in Bantaeng, Donggala and other districts to ensure that schools make spending decisions without outside pressures.

Signs of interference with school bank accounts persist in NTT and Sulawesi

A number of districts seem keen to exercise more control over the spending of grants than is specified by the Program guidelines. This generally takes the form of restrictions on schools' access to their grants—requiring schools to apply for permission to withdraw cash from their bank accounts or setting arbitrary limits on the proportion of the grants that can be accessed at one time. Such restrictions were found most recently in Manggarai and Ende Districts in NTT and in Boalemo and Banggai Districts in Sulawesi.

The motivation behind these practices may well be to limit the possibility of loss or wastage of funds, but they also create opportunities for corruption if permission letters come at a price.

The problem persists despite frequent warnings from the central Program Management Unit (PMU) to Bank BRI and articles in previous issues of *Warta CIMU* ("Bank BRI side-steps safeguards and introduces opportunities

for corruption" issue 13, April 2003). As a result of these earlier cases, the PMU has already asked Bank BRI to instruct all branch offices that restrictions on school bank accounts, such as limitations on the amount of funds that could be taken out at any one time or the requirement of approval letters prior to withdrawal, were not allowed. Somewhere along the way, that message did not get through. That these problems continue may suggest that it is time for much stronger action against banks and local officials that hamper schools' ability to manage their funds.

Kapuas—evidence of corruption

CIMU was asked to investigate allegations of corruption of SIGP 1 in Kapuas District. It was claimed that schools had to pay charges to the construction consultants employed to provide technical assistance and supervision to schools. It was also claimed that schools made payments to district and subdistrict education officials (*Dinas Pendidikan* and *Cabang Dinas*). CIMU deployed a team of five investigators from Jakarta to look into these allegations. From 7-13 April, 2003 the team visited 34 schools (roughly 30% of the SIGP schools in the district). Investigators interviewed head teachers and district committee members, examined school accounts and assessed facilities. Many of these schools were located in remote subdistricts and are more than 50 kilometers away from the district capital.

The CIMU investigators found it common practice for schools to give money to visiting officials and others.

Nineteen of the 34 schools CIMU visited (14 SD/MI level and 5 SLTP/MTs) admitted making payments to Construction Consultants, and officials of the district, subdistrict and provincial governments. Payments were also made to journalists, members of local NGOs and community leaders.

These payments were generally described as tokens of appreciation or contributions towards the costs of transport, meals and accommodation.

CIMU found 40 instances of such payments in the 19 schools that admitted making payments. Thirty-three percent of these payments went to Construction Consultants, 20% to representatives of NGO/s and journalists, 18% to subdistrict officials and 15% to district officials.

The total amount of money that these 19 schools paid to outsiders from School Improvement Grant funds was Rp.27,650,000. Thirty-five percent of this amount was paid to Construction Consultants, 30% to subdistrict officials, 21% to district officials, 7% to representatives of local NGOs and journalists, 2% to provincial officials, and 6% to a variety of other people.

Inaccessible schools in remote areas were more likely to pay visitors than those closer to the district capital. From the sample, there also seems to have been a correlation between the amount of money paid out and the remoteness of the schools. Ninety percent of the money paid out to visitors (Rp.24,750,000) from the sample schools was from SD/MI and SLTP/MTs that were located in remote areas (more than 50 kilometers away from Kuala Kapuas).

The practice of falsifying financial records was found to be very common among schools. In virtually all cases the completion reports that schools produced to record their expenditures exactly matched the expenditure plans (RAB) and did not necessarily describe how money was actually spent. As a result, the final accounts are an unreliable record of the expenditure that actually took place.

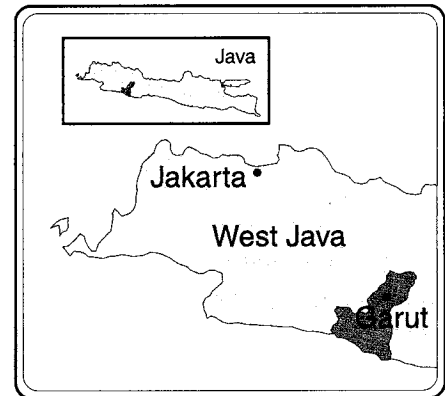
The investigation team also uncovered information on the procurement of textbooks organised by *Dinas Pendidikan*. Twenty of the 34 schools that CIMU surveyed had participated in a scheme that was centrally organised by *Dinas Pendidikan* to purchase of textbooks, reference books and readers using SIGP funds. Findings from the investigation indicate that schools were overcharged for these materials, and that the scheme did not provide value for money. There is a danger that local officials could have profited—a problem that has been found in other places where mandatory textbook procurement has occurred. It has been suggested that a similar scheme for purchasing school furniture existed in the district, but the CIMU team did not find evidence of this.

Garut—evidence of illegal payments

In July, a team of 14 CIMU investigators went to Garut District in response to new allegations of corruption in the SIGP made by Indonesia Corruption Watch and published in both Indonesian and Dutch media. The reports alleged that SIGP schools paid district committee officials as much as Rp.10 million per school.

The investigators visited all 98 schools that received a School Improvement Grant in Garut. To gather information they interviewed head teachers, district committee personnel and community members. The team also visited several schools that were not chosen to receive a School Improvement Grant.

The investigation has collected evidence of several related problems and these have been brought to the attention of the central Program Management Unit, the donors and to key stakeholders. These involved payments by schools to district and subdistrict officials, school construction advisors and others. The investigation also revealed mark-up in the prices recorded for items that schools purchased and insufficient financial documentation. Detailed findings from the investigation will be published soon and made available on the CIMU Web site (www.cimu.or.id). □



School Construction Advisors' performance lagging in some areas

Most of the schools that have received support from the School Improvement Grants Program (SIGP) are using at least part of this money to renovate classrooms and other school facilities. Long before schools received grants, the government contracted construction advisory firms to provide SIGP schools with technical assistance and advice from trained School Construction Advisors (SCAs) who help school committees to budget, plan and manage significant renovations.

Giving schools technical expertise

Even though school committees manage their renovations together with involvement of local communities and hire experienced local craftsmen to carry out construction, most schools need technical advice in engineering and building construction. Construction consultant advisory services were therefore contracted by the government to help schools in this capacity. This service was also added to ensure that all renovations meet local safety and building standards. The government has arranged to pay each firm directly so that construction advisory services are provided free to schools—consultants are not to request or receive any payment from the recipient schools that they assist.

The PMU contracted nine firms covering ten geographic regions, to provide qualified, experienced technical consultants for every school that receives a grant. Each of these firms is responsible for hiring qualified consultants, for ensuring that their employees know what they have to do and that they do their job well.

Preparation

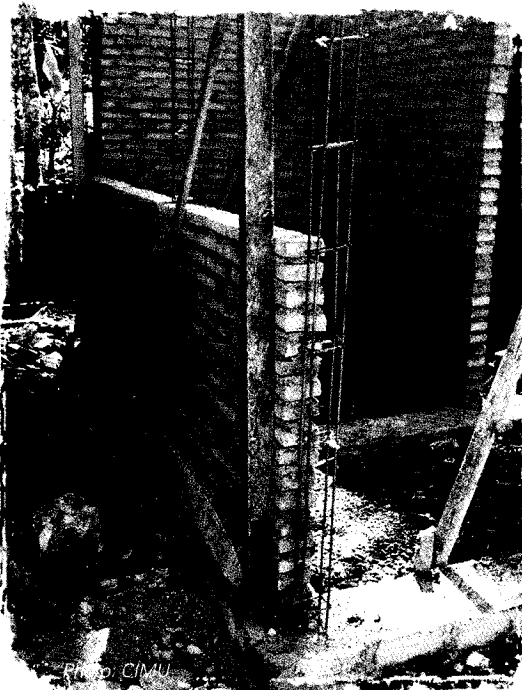
School Construction Advisors were contracted to help schools prepare and plan how they would use their grants. This involves conducting site surveys, helping prepare sensible budgets that reflect local market prices and completing detailed technical drawings.

In general, school committees seem to appreciate the inputs that SCAs have made and in some places such as NTT and NTB, the SCAs have made useful contributions to the preparatory work that schools have done prior to grant receipt. However, in other areas, SCAs have not made a significant contribution to the preparatory work. In Pacitan District for example, SCAs had not conducted site surveys or assessed the condition of school buildings before renovation at any of 14 schools that independent monitors visited in late June. In each of these examples, SCAs had not prepared the technical drawings that schools were using, instead these were prepared either by school staff or by members of the technical teams. One of the problems is that many schools may not have known that they were to receive free assistance with these tasks. In one case the school committee had paid an outsider Rp.300,000 to prepare drawings and proposals. These outputs lacked detailed information on important features such as foundations and they frequently omitted sizes of columns, beams and concrete reinforcement.

Some schools would have benefited from sound advice during the planning phase and specifically with a review of priorities for proposed rehabilitation. At several schools for instance, there was no plan to address inadequate numbers of toilets but other less important items were included. One school that urgently required substantial roof repairs decided to ignore this problem and spent the money on painting walls and ceilings. In some cases, school committees did not receive expert advice and assistance from an SCA in preparing the budget.



Poor quality concrete is easily identified. Advisors should be able to point it out and correct it during construction.



The construction for these toilets uses inadequate column sizes and the reinforcement for concrete is too small. A School Construction Advisor should be able to prevent problems like these.

Bad advice during construction

There are also conspicuous problems with some of the advice that SCAs have given—or not given—to schools once rehabilitation work has started. Although schools appear to have been very enthusiastic in their work, in a number of places, SCAs seem to have had little impact on the quality of materials or workmanship. At many of the schools visited in Pandeglang District for instance, the steel reinforcement bars used in concrete columns and beams was found to be of an insufficient diameter. The reinforcement for columns and beams in small buildings is usually specified as being 12 millimeters but in all of the schools visited nine, eight and even six millimeter reinforcement was used instead. The use of such inadequate reinforcement is probably unsafe in most cases, but SCAs had not commented on the use of inadequate reinforcement at any of the schools where the problem was noted.

At some schools, the size of the freestanding columns seemed inadequate for the height of the columns and the loads being taken. In some cases, columns have been reduced to the thickness of the wall, which together with the small size of reinforcement can make the structural strength of the columns

doubtful. In other places, the position of columns is unsound in that columns do not line up, beams do not occur on column lines and roof trusses are not built over columns.

Many schools have a cantilevered roof that extends over a verandah. This feature is most often constructed of wood, however in a few cases schools have constructed these cantilevers of reinforced concrete that uses insufficient reinforcement. Even if the rest of the workmanship is of good quality, such poorly reinforced concrete cantilevers may not be able to support the weight of a tiled roof, particularly when tiles are wet after rain. The head teachers at several schools that were built this way said that the SCA never commented on the size of reinforcement used in concrete cantilever beams.

In several districts, SCAs have been accused of asking school committees for money. Consultant services are to be free at the point of delivery, and consultant firms were told that their employees are not to receive or request any payment (including in-kind contributions) from the schools that they assist. Such allegations are treated very seriously. In Timor Tengah Selatan District, two SCAs accepted payments from schools, one of Rp.2.5 million, and another of Rp. 4 million. The school committee told the Secretariat Team Manager who informed the PMU and the Firm was



In some cases, schools have constructed concrete cantilevers with inadequate reinforcement. These should be checked and where necessary, strengthened if they are found unsafe for the loads that are imposed on them.

School Construction Advisor responsibilities at a glance

School Construction Advisors were contracted to provide technical assistance and advice on renovation and construction to school committees who will manage the work. To do this, the SCAs will make at least four visits of at least four hours to each school. During the preparation phase, they are expected to:

- Conduct a complete site survey and assess the condition of school buildings before rehabilitation.
- Help the school committee prepare and revise the renovation and construction aspects of the school's detailed grant proposal.
- Produce and revise technical drawings to be used in school rehabilitation and ensure that school technical teams understand them.
- Assist the school committee in completing and revising detailed budgets for renovation work.
- Assist the school committee in completing and revising a time schedule for renovation work.

During the actual renovation phase, SCAs are expected to:

- Ensure that all renovation and construction is carried out according to safety requirements and regulations.
- Ensure that workmanship and materials are of high quality and cost effective.
- Assist the school committee and technical teams as requested.
- Maintain a photographic record of each school to document the process of rehabilitation.
- Sign off the work when complete to verify that rehabilitation has met safety standards and local building regulations.

School Construction Advisors are also expected to ensure that all required reports are produced and submitted to the appropriate parties on time.

School Construction Advisors' performance lagging in some areas

warned immediately. Both SCAs paid the money back immediately and were issued a reprimand from the firm that hired them. Allegations of similar payments have surfaced in other districts such as Garut where SCAs have demanded payment from schools where they have provided their services.

Organizational problems

Individual consultants are not always to blame. Several organizational weaknesses within the contracted firms have left some schools with construction advisors who are underqualified and insufficiently trained. The personnel deployed, for instance, are often not those whom the firms initially proposed for the job. In Jayawijaya for example, only three of the fourteen SCAs are those who were named in the contract. The tendency is for substitutes to be younger and less experienced. Seven of the fourteen consultants working in Jayawijaya do not have sufficient qualifications. Forty percent of the SCAs in the 12 grant receiving districts in NTT have never supervised building construction.

Some SCAs may not have performed well because they were unaware of their responsibilities. Some firms did not provide sufficient training for SCAs and did not inform them about the Program and their duties. Many SCAs did not receive complete terms of reference for their work and many seem to have only a hazy idea of Program guidelines.



Photo: CIMU

School construction advisory services have been contracted by the Program Management Unit to help head teachers and technical team leaders plan and manage renovations (left). They have also been provided to ensure that renovation work meets local safety and building standards. Visiting schools like this one in Kuningan District while renovation is underway to check reinforcement within columns is part of this job (right).

Conclusions

Construction advisory services are necessary to ensure that school renovations undertaken under the SIGP are safe and efficient. Poor performance from consulting firms and their employees can have an adverse effect on Program outcomes. These services are also an expensive part of the Program so it is important that the firms be held accountable to the terms in their contracts. Given that the contracts are short-term, quick intervention from program management is essential to make certain that the SIGP runs according to plan.

It is not all bad news. Numerous schools have benefited tangibly from the guidance that they have received from School Construction Advisors. Many school committees have expressed their appreciation for the assistance that some SCAs have provided. SCAs are working well in Ogan Komering Ilir (OKI), Musi Banyu Asin, Lombok Barat and Lombok Tengah Districts. Yet, firms have to be managed effectively so that they and their employees perform well.

CIMU will continue to monitor to ensure that central program management is fully appraised with up-to date information on SCA performance. For now, the problems identified in these examples provide a watch list of things that people who administer the SIGP in districts and schools can monitor to ensure that schools receive the support and advice that SCAs were contracted to provide. □

Overlapping grants—do some schools deserve to be helped twice while others are overlooked?

The Scholarships and Grants Program (SGP) and the School Improvement Grants Program (SIGP) have demonstrated that schools can manage grants effectively. They have provided a model which has become more widely used by other projects. As grant funding becomes more ubiquitous, management at the center and within districts is faced with the increasingly difficult task of coordinating this assistance to schools. Recent findings from the SIGP highlight the difficulties in coordinating efforts of different programs that provide grants to schools.

The value of school grants

This devolution of decision-making to the schools is also a key feature of the SIGP. Grant funding for the SIGP works on the principle that schools understand their own needs better than outsiders. By providing schools with resources and a certain degree of freedom in choosing how to spend the money, those needs can be addressed more efficiently than through an approach that employs centralized procurement. The approach is also intended to reduce delays and leakage because schools have a greater incentive to ensure that money is used appropriately. This increased efficiency has been well documented in countless schools that have received grants and used them correctly.

While it is clear that grant programs can work well, they must be managed and coordinated well to ensure that funds are properly targeted at the most deserving schools. Coordination is necessary to ensure that funds are used efficiently and that overlap between different funding sources is avoided. Otherwise, assistance from several projects can be unintentionally provided at the same recipients. The current situation is somewhat disordered. Good coordination is the crucial element that is missing.

Single school—multiple grants

SIGP guidelines say that district committees should select the poorest and most distressed schools, but they also say that the schools must not have received assistance in excess of Rp.30 million from any other source within the past two years. The rationale for this criterion is to spread scarce resources efficiently among those schools that have limited support while preventing overlap with other projects.

Independent monitors visited 421 SIGP schools in all 60 SIGP recipient districts during April and May 2003, and found that 24% of them had received funds from other sources worth Rp.30 million or more. The proportion of SIGP schools that had received other grants was higher among junior secondary schools than among primary schools.

In some districts the problem is pronounced. One example is Donggala District in Southeast Sulawesi where nearly every SLTP has received a grant from *Imbal Swadaya* or another program within the past two years. In some of these, grants were worth as much as Rp.45 million. *Imbal Swadaya*, which is funded out of central government resources (APBN), has provided private junior secondary schools (and *Pondok Pesantren Salafiah*, a type of traditional religious school) across the country with grants of Rp.30 million that was to be matched by

Overlapping grants—do some schools deserve to be helped twice while others are overlooked?

equal resources from the local community. *Imbal Swadaya* continues to provide support and is only one of many programs that have given grants to schools in the past two years.

Part of the problem was that program management did not take into account that *Imbal Swadaya* was giving grants to just about all SLTP in the Donggala. The Central Program Management Unit (PMU) set fixed numbers of primary and secondary schools to receive SIGP grants. In some areas such as Donggala, the district committee found it difficult to identify junior secondary schools that had not received other grants. A more flexible approach would allow district committees to reallocate grants from SLTP to potentially more needy primary schools.

Donggala is a small illustration of the difficulty that both the center and districts face in establishing a clear picture of the money that is being directed toward schools.

The management challenge

The task of administering education is complicated by the transition to a more decentralized model. At the district level, the management teams that allocate grants to schools need to know which schools have received assistance and how much assistance has been provided. Within an increasingly decentralized approach to education management, central ministries can play a useful role. By increasing the coordination between various efforts to support education, assistance can be better directed toward those schools and districts that are in greatest need of support. The central ministries can do more to ensure that information flows two ways so that district government staff, who are increasingly responsible for deciding which schools will receive support, know what they are doing.

The task is further complicated by the fact that responsibility for education is shared between several different ministries. This creates problems whenever one agency does not know about the efforts of another. Complex administrative arrangements coupled with poor interagency communication can lead to the duplication of effort wherein some schools receive assistance from multiple sources while other equally deserving schools receive none.

There is one thing that needs to happen: the creation of a comprehensive database of all grant recipient schools in the country. This would be a big help in making selection of grant recipient schools more efficient. This is something that must be done at the center, though it would be equally useful if districts maintained their own databases. Such tools would certainly increase efficiency in targeting those schools most in need of support. □

A selection of projects that have provided grants to schools in the recent past

Grant funding has been a feature of the SGP and SIGP. Other sources of financial support for schools managed from both the central and regional levels include:

- **BKM/BKS** (*Bantuan Khusus Murid/Bantuan Khusus Sekolah, funded by the Government of Indonesia*)
- **SLTP School Quality Improvement Project** (*Proyek Peningkatan Mutu SLTP, funded by the ADB and World Bank*)
- **Decentralized Basic Education Project** (*Proyek Desentralisasi Pendidikan Dasar, funded by the ADB*)
- **Junior Secondary School Systems and Standardization Development Project** (*Proyek Penembangan Sistem dan Standar Pengelolaan SLTP, funded by the ADB*)
- **Junior Secondary School Facilities Improvement Sub-project** (*Bagian Proyek Peningkatan Fasilitas dan Pemberdayaan SLTP, funded by the Government of Indonesia*)
- **Basic Education Improvement Project** (*Proyek Peningkatan Pendidikan Dasar, funded by the Government of Indonesia*)
- **Broad-Based Education Sub-project** (*Bagian Proyek BBE, funded by the Government of Indonesia*).



IMU is currently undertaking a study of financial management and control in schools that aims to produce simple models, based on good practices, that can be easily understood and replicated. As an introduction to this study, *Warta CIMU* examines some of the issues involved.

The School Improvement Grants Program (SIGP) was designed with several features that increase transparency to limit opportunities for corruption. The prime responsibility for managing the grants lies with school committees. By giving each school committee control for grant spending, the Program aims to strengthen its capacity to manage the budget, make financial decisions and promote local ownership, making it less likely that money will go missing.

These approaches are based on the premise that since it is the school and the surrounding community that will benefit most from the Program, it has an incentive in ensuring that the money is spent wisely and is not allowed to disappear. In order for financial oversight to be effective the management of finances has to be transparent both within the school committee and to the wider school community.

Within each school, SIGP accounts are managed by the school committee and not by a single individual. The Program requires that two signatures be used to authorize any transaction, so that no one individual can have complete discretion over the school's grant funds.

Community oversight requires socialization so that the community is aware of the grant and understands its purpose. The SIGP stipulates that each school should hold a public meeting to inform the community about the grant. This is a prerequisite for other transparency measures to work, but the process does not end there. The community must also have access to information about spending after a school receives the grant and begins to spend the money. That is why schools have been required to create notice boards on which information about the grant is made available to the public.

Despite these measures, during the first year of the SIGP, some schools failed to record details of their expenditures in their accounts. Those that did use cash books did not always keep receipts for purchases made and other supporting documents. CIMU has documented numerous cases of devious bookkeeping practices employed to hide the actual uses of grant monies. These include recording fictitious transactions, listing inflated prices for goods, and failing to record discounts and bank interest.

District committee conducts special training for school treasurers in Pacitan

After their first round of monitoring, the Pacitan district committee found that many school treasurers did not understand how to record and report grant spending as required by Program guidelines. This is likely because most school committee treasurers did not attend school committee training and were unaware of their responsibilities in recording and reporting financial information. The problem made it difficult for schools to complete necessary reports and make financial information available to the public. At the time that the district committee conducted its first round of monitoring visits, many schools had completed up to 40% of their renovation but had still not completed any of the required reporting forms.

The district committee chose to meet the problem head on and held a training workshop in May for school treasurers from every SIGP school in the district. The workshop was paid for with local government funds (*dana pendamping* derived from APBD funds). The workshop reviewed each form and tried to review solutions to common reporting problems. The school treasurers who attended the training said that by the end of the workshop they knew how to administer school finances.

It is likely that similar problems may exist in other districts. In the case of Pacitan, it was fortunate that district committee monitoring was able to identify the problem in time to take corrective action. The district committee also demonstrated its commitment to ensuring that the Program runs smoothly by planning and funding a training workshop. This may be a useful model for other districts where schools may need additional support in keeping good financial records.

Improvements in year two

The guidelines for the second year of the SIGP were improved to address these problems and they now include specific directions about recording discounts, administrative costs and bank interest. Reporting forms have also been simplified and made more useful to schools and to district administration.

Improving guidelines is an important step, but enforcing these directives is just as important. Requiring schools to make information about expenditures and prices publicly available can be an effective deterrent against corruption. Community members generally know what materials should cost and can tell if there is a discrepancy between what the school paid and fair market price. Requiring schools to publish the details of financial transactions gives communities a chance to spot trouble and complain when expenditures do not match real prices for goods and services.

Availability of information alone may not be enough. Communities can only use information to prevent misuse of funds if that information is presented in a format that is easy to access and understand. During the first year of the SIGP most schools created school notice boards, but these rarely included more than the name of the

Minimum requirements for financial management and control in schools

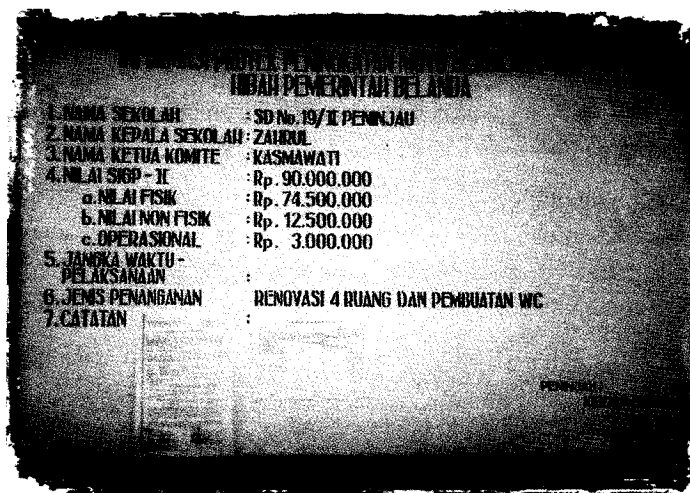
To comply with the required minimum standards for transparency and accountability schools should operate in accordance with established accounting principles. These include obligations to:

- **Publish a list of all the individuals who have authority to commit funds and approve payments and the financial limits to their authority.**
- **Ensure that there is a separation of authority i.e. that the same individuals do not both commit funds and approve payments.**
- **Make sure there is more than one signatory to each withdrawal from the school bank account and to each transaction.**
- **Record actual expenditure incurred rather than unit costs or planned expenditure.** There is a common practice of making accounts resemble plans, rather than record what actually occurred.
- **Keep a complete record of expenditures that includes all related supporting documentation such as receipts and invoices.** Entries in a cash book are not enough by themselves—receipts from vendors are essential evidence of payments and prices.
- **Use genuine receipts issued at the time of transaction.** Another common but irregular practice is the holding of blank receipts from suppliers, which can be filled with whatever information best suits the interests of the individual completing the accounts.
- **Record all financial information including interest received on the school bank account, and all discounts on goods that are purchased.** Schools should also record payments that they make to officials, consultants or other parties whether formal or informal.
- **Complete all the required reporting forms included in the guidelines.** Each of the forms in the guidelines was designed not only to facilitate reporting to district committees and thereby help them to manage the program, but also to help schools stay organized.
- **Keep funds in the school account until needed.** Money is best kept in the bank until needed to pay for goods or services, it is risky to keep large sums of cash at the school or with individuals. The guidelines prohibit money from being transferred to personal accounts.
- **Keep all financial records in a place that is accessible by more than one person.** In some cases, head teachers have kept all financial records in their homes, making it impossible for anyone else to review them. Records should be readily available to more than one person.

Bookkeeping and financial management—guidance for schools and districts

project, the source of funds and the grant size. Very few schools used their notice boards to publicize up to date information about spending and prices paid. The information made available was rarely updated and was insufficient to ensure that the decisions about the management of funds were transparent. Full public disclosure to ensure that the process of grant spending is accountable requires the identification of the individuals with financial authority for committing expenditures and approving payments. It also requires details of the amounts and timing of cash withdrawals, the prices paid for goods and services, progress made in implementing physical plans and planned spending. This has to be provided in an accessible form and kept up to date on a regular basis.

Making information available to the public in a clear format is easier said than done. One essential requirement is good bookkeeping and financial management—skills that some school personnel have not yet acquired. Head teachers are rarely confident financial managers. School treasurers did not attend the training that was provided for school committees under the Program. Many have limited understanding of what is required of them in terms of maintaining financial records and reporting on grant spending to the district committee. In some cases, those in control of finances may receive benefits from bank interest, informal payments or kickbacks from suppliers, which they would prefer to conceal. □



School committees are required to provide notice boards in order to provide information on the grant to the community. The hope being that this will give community members an understanding of the program's purpose and make them aware of how grant funds are used. In fact, most notice boards do little more than list the name of the project, the source and total amount of funds in the grant.

The condition of SIGP schools prior to grant implementation

The School Improvement Grants Program (SIGP) was established to help the country's poorest and most distressed schools by providing them with grants that will allow them to make significant improvements to the learning environment. Exactly what do the nation's poorest and most distressed schools look like inside? CIMU visited 435 of the 2875 schools that were selected to receive School Improvement Grants from February through April in each of the 60 districts that receive grants. The survey offers a glimpse at the conditions inside these schools before school improvement activities began.

Conditions that affect the learning process

Building conditions affect the learning process. At many SIGP schools, the learning environment is disrupted by problems that result from poor building conditions. About 10% of schools ask students to go home whenever it rains, usually because the roofs are in disrepair and leak. Classroom lighting was inadequate in 21% of schools, due either to the absence of electricity or to improper building construction. About 31% of schools reported that classroom temperatures were too hot to provide comfortable and productive learning environments.

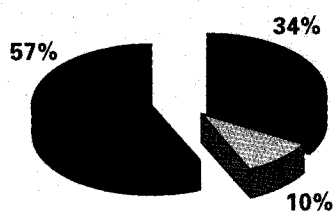
All of these problems influence the learning process. Uncomfortable classrooms have an impact on student achievement.

Water supply

The existence of a school water supply is important not only for cleanliness of school facilities but also for the personal hygiene of students and teaching staff. A school water supply supports school toilet facilities. The survey found that 63% of primary schools and 35% of junior secondary schools in the sample do not have a supply of water. Even when water supply is available, it did not function properly at about 10% of the schools surveyed.

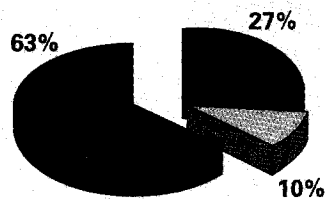
Availability of water supply

Availability of water supply in primary and junior secondary schools combined (n=435)



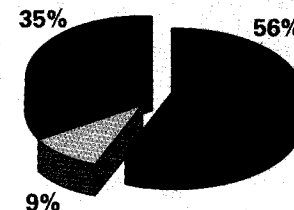
■ Not available

Availability of water supply in primary schools (n=337)



■ Available & functioning

Availability of water supply in junior secondary schools (n=98)



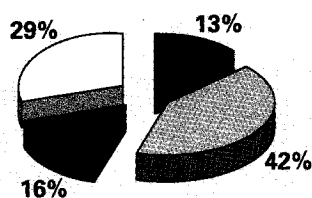
■ Available but not functioning

Toilets

Students attend school for four to six hours a day, so the availability of school toilets is important to meet students' biological needs. SIGP guidelines state that where facilities are not available, a portion of school grants should be used to renovate existing toilets or to provide new ones. Furthermore, separate toilets should be provided for boys and girls.

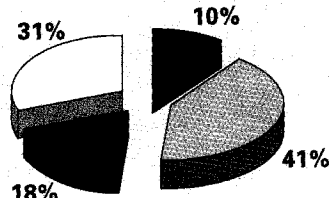
Availability of toilets

Availability and condition of toilets at primary and junior secondary schools combined (n=423)



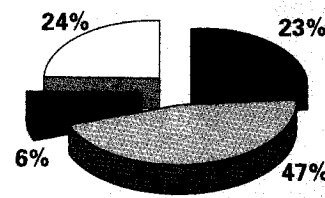
■ Good condition

Availability and condition of toilets in primary schools (n=337)



■ Fairly damaged

Availability and condition of toilets in junior secondary schools (n=86)



■ Badly damaged

□ Not available

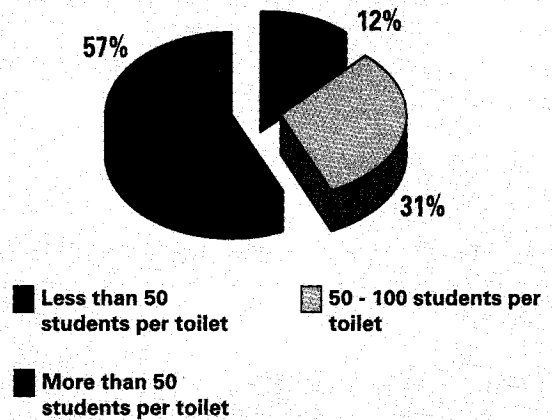
The survey found that 29% of SIGP schools in the sample have no toilet facilities. The situation is worst in primary schools where 31% of the schools visited lack toilet facilities. The absence of toilets leads to lost learning time because students and teachers must leave school grounds to relieve themselves. Students and teachers in 37% of schools reported using neighborhood toilets.

The condition of SIGP schools prior to grant implementation



This meter high bamboo fence is all the privacy that students have when relieving themselves at SLTP PGRI 3 Abung Barat. Such an arrangement can discourage girls' attendance.

Ratio of students per toilet (n=192)



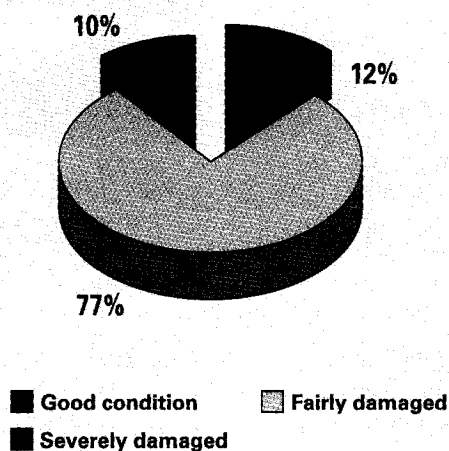
Toilets must be provided in adequate numbers to meet student needs. The Government's minimum standard is no more than 50 students per functioning toilet. Only 12% of the schools that have functioning toilets met or exceeded this standard.

The proportion of toilets in good condition at the primary school was considerably lower than that at the secondary school level. The percentage of toilets in badly damaged condition was three times higher at primary schools than at junior secondary schools. This forces students to wait in long queues for working toilets.

The provision of separate toilets for girls can have a significant impact on their school attendance. The survey found that 67% of schools in the sample did not provide separate toilets for girls. Primary schools were less likely to provide separate toilets for girls than secondary schools.

Building conditions

School building conditions (n=422)



Students in SDN Kadu Agung Barat 3 take their lessons in this severely damaged classroom. The ceiling is in a state of total disrepair not only making this classroom impossible to use during rains, but also putting students at risk if any more of the structure should collapse.

Warta CIMU

Special Issue:

A Study of School Construction Advisory Services



School Construction Advisors like the one pictured here (third from left), have helped school committee technical teams, like this one at SD Gmit Oemofa in Kupang, successfully renovate 2875 schools in 60 districts with assistance from the School Improvement Grants Program.

Foreword

This special study assesses the delivery of Construction Advisory Services under the second phase of the School Improvement Grants Program (SIGP) and evaluates the contribution that this made towards the objectives of the program.

Individual school construction advisors have provided much-appreciated help to schools that often had no prior experience in managing large-scale renovation projects themselves. School committees voiced their thanks often during the interviews conducted during this study. However, the system of providing construction advice through centrally procured advisory services had shortcomings. There may be better ways of ensuring that school buildings are rehabilitated safely and cost-effectively. This special issue compares the services that were provided with those that were expected and comes to some conclusions about their quality and value for money. It then considers different ways by which schools can receive quality technical assistance in the future.

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CIMU is the *Central Independent Monitoring Unit* of the Scholarships and Grants Program and the School Improvement Grants Program in Indonesia. This special report is the sixth in a series, each of which examines specific issues related to these Programs. It has been contracted by the World Bank. This report is based on a paper prepared by Nigel Wakeham, Mahargianto, Suluh Adiwibowo and other CIMU staff.

The findings and views expressed in this publication do not necessarily reflect those of the government of Indonesia or the donors who have contributed to these programs.

Introduction

SIGP was an Indonesian Government program that was funded by a grant from the Royal Netherlands Government. It was designed to improve the quality of the teaching and learning environment in many of the nation's neediest schools. The first phase of the School Improvement Grants Programme (SIGP 1) was implemented during the 2001/02 school year. The second phase of the School Improvement Grants Programme (SIGP 2) was implemented during the 2002/03 school year and grants were provided to a total of 2,875 of the poorest primary and junior secondary schools in 60 of the poorest districts in the country. The schools had considerable discretion in deciding on what they wanted to spend the funds, but most of them spent the majority of the funds on school renovations.

In the past, school renovations were usually managed by the local offices of the Ministry of Public Works (PU) and carried out by local contractors. This system did not generally produce very good results: funds were often misappropriated by contractors, there was insufficient supervision of the work by PU and the resulting renovations were therefore not of a high quality. In many cases the schools required further renovations after a short period of time.



School committees formed technical teams, like the one shown here, to manage renovation work carried out by local craftsmen and labor. Members were to be selected from the local community. The move was intended to strengthen local ownership of the renovation process and thereby produce better results.

There has been a move therefore in a number of projects to hand over the responsibility for managing school renovations to the schools themselves and for the work to be carried out by local craftsmen and labour, it being felt that local ownership and responsibility for the renovations would produce better results than the previous system.

This approach was adopted by SIGP 2. Technical teams formed by the school committees that were set up under the SGP programme managed the renovation work carried out under SIGP 2. In most cases, the members of the technical teams were selected from the local community and the work was carried out by local craftsmen and labour employed by the school committees.

While evidence from other projects shows that school-managed renovations are cost-effective and can produce high standards of workmanship, it was

recognised by government that the school committees and technical teams did not necessarily have the construction expertise to manage the renovation works and required additional technical advice and assistance. This expertise would be needed to replace the role of the contractor in managing the work and the role of the engineers of Dinas PU in supervising it. It was also recognised that while school-managed renovations could promote a greater sense of ownership, technical assistance was required to ensure that quality and safety standards were maintained.

The government therefore contracted civil works consulting firms to provide the necessary expertise to the schools. The consultancy services were to be advisory in nature. The services were to be free to all schools in the programme and the consultants were specifically barred from receiving or requesting any payments, including payments in kind.

The Program Management Unit (PMU) based in Jakarta procured consulting firm services centrally during both the SIGP 1 and the SIGP 2. This study focuses on the services provided only under SIGP 2, when the services were clearly defined to both the consulting firms and the schools as being advisory in nature. For the consulting contracts, the programme was divided into ten regional contract packages and nine consultancy firms were eventually appointed (one firm won two contract packages). The work of the firms was supervised by engineers based in the PMU in Jakarta and monitored by staff of the Central Independent Monitoring Unit (CIMU), some of whom are based in Jakarta and others based in the regions.

Contracts for Construction Advisory Services

Ten geographically discrete contracts were tendered at specified costs. The contracts were awarded to nine firms. The contracts were to be six months in duration, a period that was to include training and mobilisation.

Contract "package"	Districts	Consulting firm	Cost of contract (Rp)
1. Papua	Jaya Wijaya, Merauke	PT. Pramathana Konsultan	1,137,742,000
2. Maluku	Maluku Tengah; Pulau Buru; Maluku Tenggara Barat; Maluku Tenggara	PT. Bina Karya	1,020,456,000
3. Lombok, Sumba & Flores	Lombok Barat; Lombok Tengah; Sumba Barat; Sumba Timur; Ende; Manggarai; Sikka	PT. Saka Adhi Prada	1,223,750,000
4. NTT	Alor; Flores Timur; Kupang; Lembata; Timor Tengah Selatan; Timor Tengah Utara, Belu	PT. Saka Adhi Prada	824,917,500
5. East Java	Pacitan; Pasuruan; Probolinggo; Bangkalan; Pamekasan; Bondowoso	PT. Pusat Pengembangan Agribisnis (PPA Consultants)	1,130,408,800
6. Central Java and West Kalimantan	Brebes; Grobogan; Wonogiri; Banyumas; Purbalingga; Tegal; Sintang	PT. Widha Konsultan	1,123,469,500
7. West Java	Garut; Kuningan; Cianjur; Sukabumi; Lebak; Pandeglang	PT. Jaya CM	1,124,342,400
8. South and Southeast Sulawesi	Mamuju; Bantaeng; Jenepono; Selayar; Sinjai; Buton; Muna	PT. Karya Utama Citramandiri	1,113,809,500
9. North and Central Sulawesi	Boalemo; Banggai Kepulauan; Banggai; Morowali; Poso; Donggala	PT. Multi Area Conindo (South Sulawesi branch office)	1,047,167,000
10. Sumatra	Bungo; Tebo; Lampung Utara; Way Kanan; Musi Banyu Asin; Ogan Komering Ilir	PT. Paracipta Konsultan	568,525,000
Total			10,324,587,700

The consultancy firms were to provide:

- A management structure that provided for the supervision, training and quality assurance of the staff employed.
- Sufficient numbers of appropriately qualified staff, provided with adequate means of transportation. These include:

A Project Team Leader (PTL) to be based in the region covered by the contract.

Consultant Coordinators (CCs) to supervise the work of around ten SCAs.

School Construction Advisors (SCAs) to advise between five and ten school committees each throughout all stages of the work from preparation to completion.

- Specified reporting mechanisms.
- Administrative structures that would ensure that the contracts were complied with, that reports were delivered on time and that staff received their salaries and allowances on time so that services were not disrupted.

A Project Team Leader The PTLs were to provide a point of contact for the PMU, manage and coordinate the work of the SCAs, conduct visits to schools in all districts under his/her supervision and ensure that his/her firm fulfilled all the terms of their contract. There were no professional qualifications defined for the PTLs but they were to have at least 10 years experience in managing construction contracts.

Consultant Coordinators The CCs were to manage their team of SCAs. CCs were to ensure that all SCAs fulfilled the terms of the firm's contract, that they conducted their activities in a timely manner and visited their schools an adequate number of times. They were also to accompany each SCA on at least two of their school

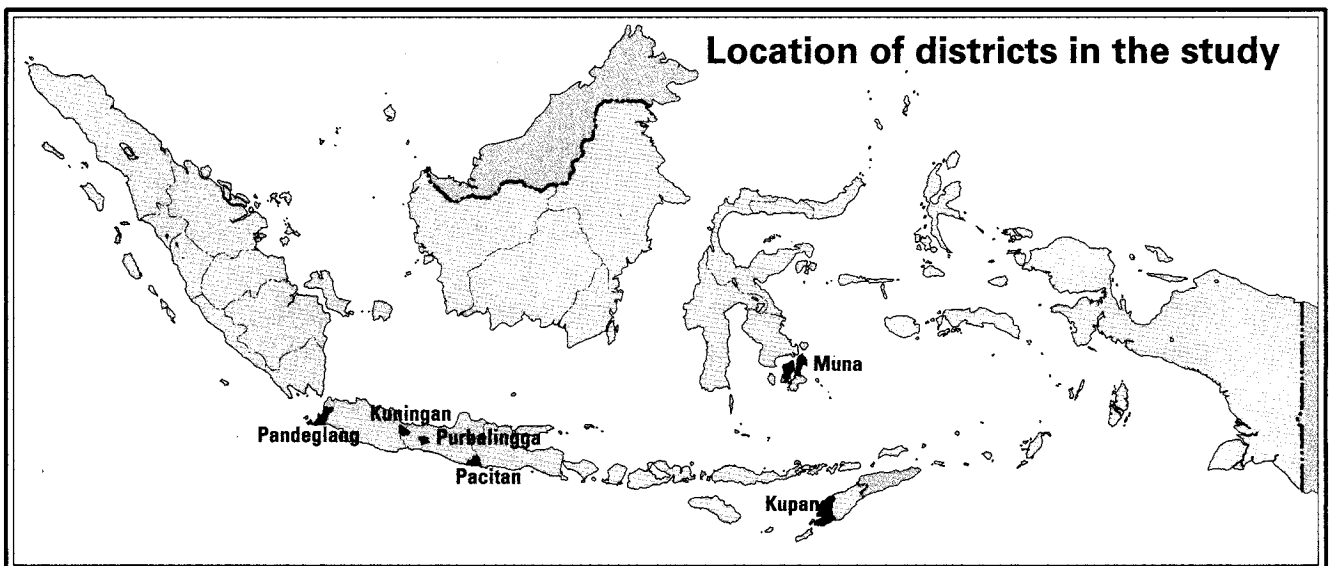
visits and investigate any problems regarding the performance of the SCAs. There were no specific professional qualifications defined for the CCs but they were to have at least 5 years experience in supervising construction projects in rural areas.

School Construction Advisors The role of the SCAs was the most important in that it was they who had to provide the technical assistance and advice on the renovation work to the school committees. Contracts specified the ratio of schools per SCA; there were supposed to be one SCA to ten schools in Java and Sumatra, one SCA to five schools in Irian Jaya and Maluku Provinces and one SCA to eight schools in all other areas. The SCAs were required to visit each school a minimum of four times during the course of the renovations; more if the works were complex. They were required to provide assistance to the school committees in conducting surveys, preparing and revising proposals, preparing technical drawings and budgets and ensuring that the renovations were carried out according to safety requirements and local regulations. The SCAs were to have either a degree in architecture or civil engineering plus two years experience in building construction or a certificate in building from a polytechnic plus at least six years experience in building construction.

The study

The objectives of this study were to provide an assessment of how well the construction advisory services have been delivered; of how effective in particular the SCAs have been in carrying out their work and whether the SCAs' contribution has had an impact on the final quality of the renovation work. It draws lessons from the manner in which the firms were contracted, the performance of the consultants and provides guidance on ways of providing technical assistance to schools in future programmes of this kind.

The study combined a detailed investigation in four districts carried out by engineers from CIMU with more wide-ranging data collected by the Regional Independent Monitors (RIMs) from all the districts covered by SIGP 2. The detailed study was carried out over a six-month period between March and October 2003 in Kuningan District in West Java, Purbalingga District in Central Java, Kupang District in East Nusa Tenggara and Muna District in South East Sulawesi. Visits were also made to Pacitan District in East Java and Pandeglaag District in Banten to assess the work of the civil works consultants there. (*See the accompanying map*)



The detailed study examined the management structure of the civil works consultants in the four districts. Most schools included in the programme in these districts were visited at least twice: once during the renovation process to assess the performance of the consultants and once when the renovations were completed to assess the quality of the completed renovations. All members of the civil works consultants' teams were interviewed

about their roles and responsibilities. School committees and their technical teams were interviewed about the performance of the consultants.

Relevant data were taken from the school monitoring visits conducted by the RIMs, who undertook five separate rounds of visits three of which were to a sample of 430 schools. The RIMs carried out their assessment of the quality of the renovations and of the construction advisory services during these visits and also canvassed the opinions of the school committees and school communities on the contribution of the SCAs.

Findings

The findings from the study are organized into three themes. The first of these examines whether the consultants and firms did what was expected of them. In other words, how well did the firms and individual civil works consultants comply with their terms of reference? The second theme explores how effectively the consultants carried out their role and examines their influence on the quality of completed renovations. Finally, the study looks at the overall cost of providing technical assistance to the schools.

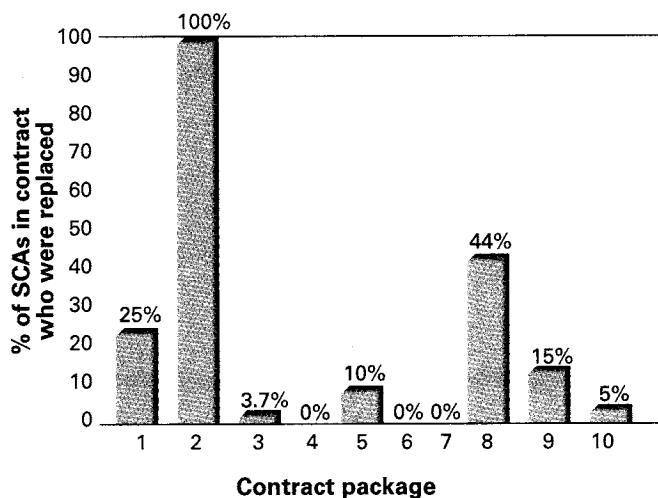
How well did the consultant firms perform against their Terms of Reference?

Staff qualifications and experience

The numbers of staff at each position were defined in the contracts and the firms provided adequate numbers of consultants. The study found that the consulting firms, with the exception of the firm hired for contract 1, provided staff with the relevant qualifications. No qualifications were defined for the PTLs in the terms of reference but in all regions, they were engineers with a professional qualification (Ir. or ST). Similarly no qualifications were defined for the CCs either, but most of them were also engineers with professional qualifications (*Insinyur Ir.* or *Sarjana Teknis ST*, both of these qualifications denote a university graduate in engineering).

However the study did find that most of the SCAs were inexperienced. In the four districts studied in detail, 57% of the SCAs were under 30 years of age and 48% did not have the required two years minimum experience of construction work. In NTT Province, nearly 40% of the SCAs had no experience of supervising construction work and 54% had not lived or worked in the district to which they were assigned.

Replacement of School Construction Advisors



Replacement of staff named in proposals

All of the consulting firms were required to name the staff that they were going to use in their proposals. This is an important point as the staff named in the proposals (and their qualifications) were part of the criteria used in selecting the firms. Some firms substituted these proposed staff with different people. The accompanying chart shows the degree to which the consulting firms substituted personnel after they submitted their proposals.

It could be argued that if the replacement staff had the correct qualifications then there should not be a problem. However, where large numbers of staff were replaced the firms may have had no real intention of using the staff named in their proposals.

Staff salaries and allowances

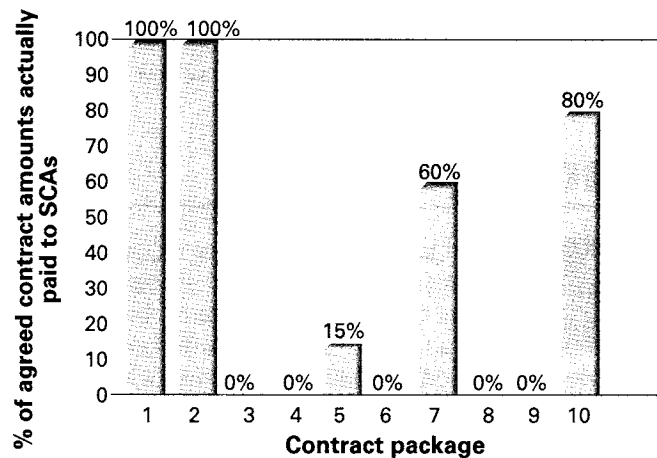
Although not set out in the consultants' terms of reference, the salaries and allowances for all staff were detailed in the consultants' bids. It is of interest therefore to compare the salaries and allowances actually paid to those contained in the proposals.

Only two firms paid all of their staff the salaries contained in their bids and these salaries were all considerably lower than those in the other eight contracts. Neither of these two firms paid all of the transport allowances contained in their bid (see accompanying chart: *Transport allowances paid to School Construction Advisors*). Two other firms paid lower salaries than those contained in their bids, but did pay the transport allowances in full.

The differences in the actual rates of remuneration paid from the proposed rates and the variations in rates amongst contracts raises a number of contractual issues. Firstly, it is clear that the firms pursued commercial practices that disadvantaged their staff. The firms that paid lower rates presumably saw this as a way of increasing their profits over and above the margins allowed in the contract (see accompanying table: *A comparison of proposed and actual salaries paid for consultant services*).

Transport allowances paid to School Construction Advisors

Only two of the ten contracted firms paid their School Construction Advisors the full amount of the transport allowances.



A comparison of proposed and actual salaries paid for consultant services

The discrepancy between salaries proposed in the firms' contracts and salaries actually paid to individual consultants meant that some staff, particularly those working most directly with schools, were paid far less than the firms initially indicated.

Contract Package	Salaries per month in rupiah/millions					
	PTL		CC		SCA	
	Proposed salary	Actual salary	Contract salary	Actual salary	Contract salary	Actual salary
1	6	6	3.5	2.0	2	1.2
2	4	3.5	2.5	2.25	1.75	1.65
3	7.8	4	6	4.55	3	2.2
4	8.2	4	6	6	3.1	2
5	5	4	4	2.45	3.2	1.4
6	4.5	4.5	3.4	3.4	2.4	2.4
7	6.5	6.5	3.75	3.5	1.75	1.1
8	7.4	4.5	4.75	2.85	2.54	1.8
9	7.45	4.5	4.8	2.85	2.65	1.6
10	3.5	3.5	2.1	2.1	1.4	1.4

Note: "Proposed salary" refers to the amount of salary proposed by firms and agreed as the basis for contracts with the government.

Secondly, it can be assumed that low rates of remuneration had a negative impact on the motivation of staff. Equally damaging to morale was the delayed payment of SCA and CC salaries, which CIMU witnessed in a number of locations.

Thirdly, the non-payment of transport allowances directly affected the ability of construction advisors to carry out their tasks properly. The intention was that each SCA would be supplied with a motorcycle that they would use to visit schools, many of which are not accessible by car. In fact, none of the SCAs in the four districts in the detailed study received transport allowances. They had to use public transport (paid for by themselves) or drive their own motorcycles (again with petrol paid for by themselves) to visit school sites. In such circumstances it is difficult to see how the expected standards of service could be provided.

Staff training

Each contracted firm was required to train its staff. To facilitate that process, the PMU held a two-day training workshop in March 2003 for the PTLs from all the consulting firms, with the exception of that for contract 1 which had not been appointed at the time. The consulting firms then held their own internal training sessions for CCs and SCAs for two days in March or April 2003. This internal training took place for contract 1 in mid-June. The PTLs ran these training sessions, and representatives from the PMU or CIMU attended most of these workshops.

However, not all the CCs and SCAs attended the training sessions. There were absentees during the training arranged in contract packages 2, 4, 5, 6 and 8 and significant absences among staff for contract 10 where only three out of 19 showed up.

Even for those who attended, the sessions did not provide sufficient time for trainers to supply participants with all the relevant briefing material. In the four districts examined in the detailed CIMU study for instance, few SCAs had received their complete terms of reference and these had a number of mistakes that could have led them to misunderstand their responsibilities.

School Construction Advisor duties

The consultants' terms of reference set out the responsibilities of the SCAs. The SCAs were supposed to have been appointed in time for them to be present at the training of the school committees, an opportunity that would have helped them develop a better understanding of the programme. However, the delays in appointing the consultants meant that the training of the school committees had been finished before consultants were appointed.

There were several discrete and critical activities that consultants were supposed to carry out, namely: prepare proposals for school renovations, survey existing facilities and material prices, prepare technical drawings, prepare budgets and workplans, assist with the management and supervision of renovations, and to write reports on

The pursuit of narrow commercial objectives

In Pacitan, the SCAs received salaries that were lower than those specified in the contract and were paid late. To make matters worse, they did not receive any travel or other allowances and had to use their own motorcycles for transport and pay for their own petrol.

The CCs had similar problems. They too were paid late and received a salary that was lower than that specified in the contract. The firm instructed the CC to make only two visits to the district and did not provide him with transport even though he was based in another district. He was paid Rp.110,000 a visit to cover his expenses no matter what the duration of the visit and when he visited schools he had to travel with the SCAs on their motor-cycles.

Neither the CC nor the SCAs received a detailed explanation of their duties. In fact, this was a significant shortcoming on the part of the consulting firm.

Defining needs

The terms of reference specifically stated that the SCAs were expected to discuss school proposals with school committees to help prioritise needs and make recommendations, however the study found schools that proceeded with renovations that seemed blatantly inappropriate.

One school in Pacitan for instance, urgently required major roof repairs. This problem was ignored and instead, money was spent to paint walls and ceilings. In such cases, the SCA should have questioned the merits of such rehabilitation during the proposal preparation phase. None of the schools in Pacitan considered that the SCAs had provided any meaningful assistance in the preparation of proposals.

their school visits. They were also expected to attend meetings of the technical teams and school committees and to assist the Committees in deciding what renovations if any they wanted to carry out.



Many school construction advisors used their own motorcycles to visit schools located in remote areas that are unreachable by car.

Equally important, SCAs were to survey local building material prices to help schools budget effectively and avoid over-spending or being unable to complete renovations. A building material price survey was only carried out at just over half (55%) of the sample schools. This might account for the inappropriate budget plans reported at some schools (see *Defining needs* on page 7). Among SIGP schools in NTT, only 41% of SCAs carried out a survey of building material prices, but some used standard unit costs as determined by local government, which are not always accurate.



The primary function of School Construction Advisors was to provide technical assistance and advice that would help school committees manage and supervise renovation and construction.

Preparing budgets and work plans The SCA was expected to assist schools in the preparation of budgets and work plans. Results of these efforts varied and were effected by the timing of consultant mobilisation.

The picture from the RIMs findings shows that SCAs prepared budgets in about 60% of schools. In many cases the preparation of budgets predated the mobilisation of the construction consultants. In some schools however where the budgets were developed by technical teams, the SCAs later revised them. In Kupang and Muna, the SCAs provided all or most of the schools with a budget for the proposed renovations. In Purbalingga however SCAs prepared very few budgets and in Kuningan only 18% of schools had budgets that were provided by the

Preparing proposals SCAs were supposed to have been appointed in time to assist the school committees in the preparation of their proposals for school renovations. In Kupang and Muna, the SCAs assisted with the preparation of most proposals but in Kuningan and Purbalingga the SCAs only assisted a few schools in completing this task. In at least eight districts the SCAs were not mobilised in time to assist schools with proposals.

Surveying existing facilities and material prices SCAs were to survey existing school buildings to identify needs so that schools could plan rehabilitation effectively. Evidence from monitoring shows that SCAs carried out the required surveys of existing facilities and that they discussed the work required to renovate the school with the school committee, but at some schools they did not carry out the survey until just before or even after the renovation work had started. In these cases, it is difficult to see the use of carrying out a survey.

Equally important, SCAs were to survey local building material prices to help schools budget effectively and avoid over-spending or being unable to complete renovations.

Preparing drawings SCAs were to prepare technical drawings that were specific to each school. These are used to help the builders understand exactly what needs to be done. It would seem that many SCAs arrived in the field too late to provide technical drawings of adequate quality for many schools. Information derived from regular RIM monitoring suggests that SCAs provided drawings for about 60% of schools. In Kupang and Muna the SCAs provided nearly all schools with technical drawings for the renovations. In Kuningan however, no drawings were prepared (the SCAs felt that the school committees should produce the drawings even though it was in the SCAs' terms of reference to do so). In Purbalingga only 20% of schools had drawings provided by the SCA.

Even where drawings had been provided by the SCAs, these were often inappropriate because they were standard drawings and not specific to the actual school. One SCA interviewed stated that he had only two weeks to prepare surveys, drawings, budgets and work plans for ten schools and that he would have required twice this time to do the work properly.

SCA. It is important to recognise that many consultants had very little time to produce the budgets for all of the schools that they advised. The period from when they were appointed to when work started at the school sites was in some cases as short as seven days and was nowhere longer than 27 days.

Several schools encountered budgetary problems that might have been avoided if expert advice had been provided at the right time. Some schools in Pacitan budgeted too much money for the amount of work they planned to do and there were fairly large amounts of money left over when rehabilitation was complete. Others worried that they would not have sufficient funds to complete the work. In all cases the school committees would have benefited from assistance in budget preparation.

In Kupang and Purbalingga all schools received a work plan from the SCA. In Muna the majority of the schools received work plans but in Kuningan only a few schools received work plans from the SCA.

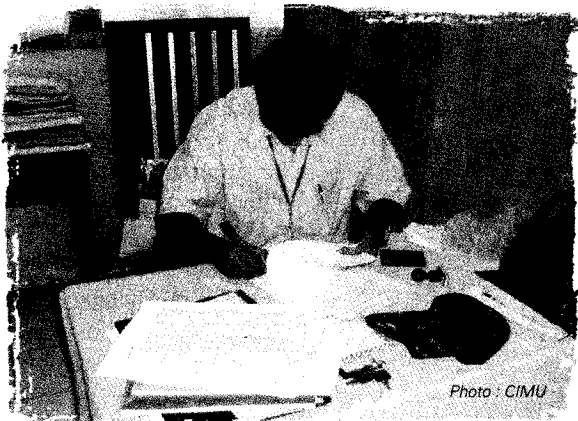


Photo: CIMU

School committee members often found it difficult to prepare progress reports and appreciated the help they received from SCAs in completing them.

Assisting with the management and supervision of renovation work The main role of the SCAs was to provide technical assistance and advice to the school technical teams during the renovation work. The amount of technical assistance that was actually given varied greatly.

In Kupang and Purbalingga, more than 50% of the schools felt that the SCAs had assisted with technical problems that arose during renovation, but in Kuningan and Muna, the proportion was smaller. These findings are corroborated by similar findings from the larger sample. The majority of the school committees felt that the greatest contributions from the SCAs were in assisting with administrative and reporting tasks such as the production of the budget plan, the work plan and SIGP reports and in producing technical drawings. Few schools reported that the SCAs helped to resolve problems on site.

School committees generally appreciated the work that SCAs did, but few felt that the SCAs made a decisive contribution

that was responsible for a higher quality of renovations. They all seemed to think that the inputs of local skilled labour and foremen were crucial factors.

Reporting The process of reporting on progress was one area where the SCAs made a notable contribution to schools' activities. The SCAs were supposed to help school committees prepare progress reports and it would appear that SCAs' help in this task was much appreciated by school committee members who were unfamiliar with this type of reporting. Committees generally seem to have regarded assistance with the preparation of these reports as being the greatest contribution the SCAs made.

The SCAs were also supposed to write their own reports on each school visit that they made, copies of which were to be left with the school committees to keep them informed. This did not happen in any of the four districts selected for this special study apparently because the terms of reference that the SCAs received did not ask them to. They did however write progress reports for their CCs.

In NTT all SCAs wrote an initial report on their schools but only 41% gave a copy to the school committees. There is no information on whether they wrote any subsequent visit reports.

Making the rounds

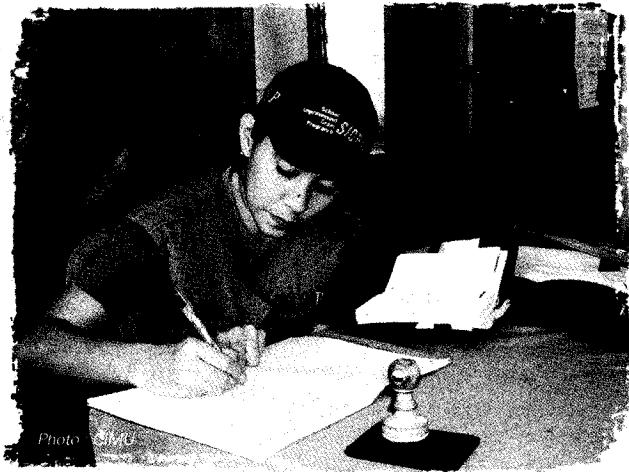
The consultants in Pacitan District included three SCAs (all S1 civil engineers) who each administered either 10 or 11 school renovations. The CC (also an S1 civil engineer) was however based in Pasuruan District, some 260 kilometres away, and he also had 7 SCAs and 76 schools in that district to monitor.

The SCAs made the requisite number of visits to their schools but these typically lasted only an hour or two, not for the four hours specified. The CC had only visited Pacitan once at the time of the monitoring visit and this was for a coordination meeting with the District Committee and the SCAs. He had never visited any of the school sites.

At the time of the study, the Project Team Leader had not visited the district at all—even though the renovation progress was well under way at that stage. He had not made any apparent attempt to ensure that consultants were carrying out their duties or that the firm was fulfilling the terms of the contract.

School visits

Minimum contact hours were set down in the terms of reference of the construction advisors. The PTL in charge of each contract package was supposed to conduct visits to schools in each district to supervise the work of the SCAs and to obtain first hand knowledge of the progress of the work. The CCs were supposed to make two visits to schools with each of the SCAs under his or her authority to check on the inputs of the SCAs and to verify progress of the work. The SCAs were required to visit each of the schools for which they were responsible a



School Construction Advisors like the one shown here were to visit each school at least four times during grant implementation and to document their observations and recommendations in schools' guest books. They were also to write formal reports on each school visit that they made.

minimum of four times for simple renovations and more if the renovations were more complex. The first visit was supposed to take place before the renovations started and the other visits were to take place during and at the end of the renovation work. Each visit was supposed to last four hours.

The study undertaken in Kuningan, Purbalinga, Kupang and Muna did not find any evidence to suggest that the PTLs visited schools. The CCs however made more than the requisite number of visits to schools together with their SCAs. The SCAs in these districts made more visits to their schools than their contracts demanded, in some cases up to six visits a month. A similar picture emerges from the larger sample monitored by the RIMs. Eighty percent of SCAs made more than 4 visits. Less than 9% made fewer than the required four visits. These were concentrated in Maluku and Papua Provinces where travel and access difficulties could account for the lower number of visits.

Unprofessional conduct

The SIGP 2 was created with a number of features designed to make the program corruption resistant, some specifically to reduce pressure placed on schools to provide portions of the grants to outsiders. For this reason, consultants' terms of reference and other documents explicitly stated that "consultant services are free at the point of service delivery, and consultants are not to receive or request any payment (including in-kind contributions) from the recipient schools that they assist."

Despite this message, there have been instances of unprofessional conduct by consultants. These have been documented by CIMU and the following examples are illustrative:

In Sumenep, East Java Province, school committees were pressured to pay an SCA Rp.3 million and schools were required to obtain letters from the SCA in order to collect money from their bank accounts.

In Brebes, Central Java Province, an SCA arranged the purchase of termite control services at inflated prices from a contractor for five schools that he advised. Much of the overcharge was later returned to schools.

In Banggai, Central Sulawesi Province, nine schools admitted paying money to SCAs and district and sub-district officials.

The giving and accepting of gifts for services rendered is a tradition in Indonesia. Delays in the payment of salaries and allowances by the consulting firms may partly explain—if not excuse—the actions of those consultants involved in nefarious dealings with schools. For the most part, SCAs were responsible and the problem was limited to a few individuals. However, the guidelines for SIGP 2 and the terms of reference for the consulting firms were explicit on the subject of extra-contractual payments and firms should be held liable for misdeeds carried out by their employees.

How effectively did consultants perform?

As part of its regular program of school monitoring, CIMU has collected two sets of data on the quality of construction under SIGP 2. Both provide a useful picture of the quality of completed facilities. The first set was collected while renovation works were in progress and describes the quality of materials and workmanship. Observations were made and recorded, based on a standardized checklist from 440 schools across 53 districts. Construction

materials were graded on a scale: poor, moderate, good and very good. Analysis of these data indicates that nearly 90% of schools used materials whose quality was categorized as "good" or "very good". Workmanship was classified as poor, moderate and excellent. In 72% of schools, workmanship was regarded as "excellent". Generally, the quality of work in progress was higher in junior secondary schools than in primary schools. This may be because of the generally higher quality of skills, particularly management expertise, available to secondary schools. It may also reflect relative states of dilapidation. Primary schools on the whole required more thorough renovation. The money available had to stretch further.

Schools were visited again after or very close to conclusion of work to monitor the quality of rehabilitation. Data from 396 schools was analysed to assess the finished result from three different perspectives. Firstly the quality of rehabilitation was assessed in its own right—*how good was the finished work?* Secondly, an assessment was made of the value for money of the renovations—*how much was achieved with the money in relation to what could have been achieved?* Thirdly, the renovations were assessed in a whole school context—*how much did the renovations contribute to improving the teaching-learning environment?* Clearly these are difficult concepts and open to interpretation, since the results are based on the perceptions of the observers. However, keeping these caveats in mind, the results are broadly in line with the findings of the previous work-in-progress survey as can be seen in the following table.

The vast majority of schools achieved good quality of renovations — the grants have made a positive contribution to school environments

Each of the three categories was ranked on a four-point scale. These observations were collected by CIMU after or very close to the conclusion of rehabilitation work.

Category	Very Good	Good	Acceptable	Poor
Quality of rehabilitation work	13%	43%	33%	11%
Value for money	14%	34%	30%	22%
Contribution to the school environment	10%	34%	33%	23%

Note: These findings are based on data collected from 396 schools.

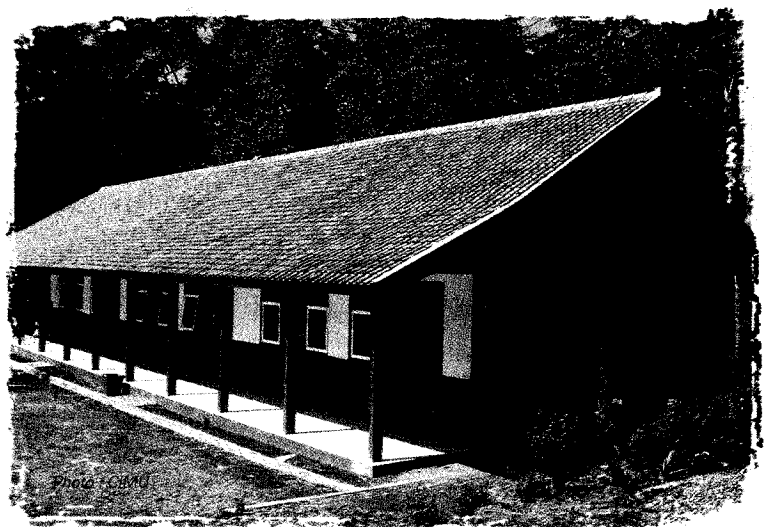
These results support the idea that school-managed rehabilitation can produce creditable results, one of the fundamental premises on which SIGP is founded. However, they do not describe the effectiveness of the construction advisory services. In the schools under the supervision of any one SCA quality of rehabilitation could vary widely. Quality therefore depended less on the skills or efforts of the SCAs than on other factors.

SCAs were not necessarily the most influential factor in determining the quality of outcomes of completed rehabilitation. In Kupang, Kuningan and Muna Districts, both CIMU staff and school committees felt that the SCAs most significant input was in assisting with administrative and reporting requirements, such as the production of budgets, technical drawings, work plans and reports.

CIMU staff shared a similar opinion in judging that the SCAs' contribution had not been a significant factor in determining the superiority of school-managed renovations over renovations carried out by contractors. They thought that any improvement was due more to the contribution of local skilled labour and foremen.

The construction advisors cannot be said to have provided an assurance that quality and in some cases, safety standards were fully met.

Monitoring noted problems related to renovation quality and structural safety that SCAs should have picked up and prevented. These included the kinds of problems noted in the accompanying box "Recurring difficulties in structural quality and safety."



SDN 2 in Cilaja, Kuningan District demonstrates how school managed renovations can produce good results.

What were the costs of providing construction consultant services?

The provision of construction advice to each of the 2875 recipient schools has not been cheap. The total cost of providing construction consultant advisory services for the SIGP was Rp.10,324,587,700 (or roughly US\$1.2 million).

The accompanying table "*The cost of providing technical assistance*" sets out the comparative costs of providing construction advice for all of the contract packages. The costs of providing advice varied widely. Even though the average renovation cost per school is similar, it can be seen from the table that the cost of providing consultants, and particularly the cost per SCA, varied widely.

The cost of providing technical assistance

The average renovation cost per school was similar, but the average costs of providing consultant advice per school varied widely from one contract to another.

Contract package	Total construction cost	Number of schools	Average cost per school	Total cost of each contract	Consultants cost as % of construction cost	Number of SCAs	Average cost of consultant advice per school
1	6,033,400,000	84	71,800,000	1,137,700,000	18.9%	25	13,500,000
2	14,306,200,000	193	74,100,000	1,020,500,000	7.1%	37	5,300,000
3	25,373,700,000	362	70,100,000	1,233,800,000	4.9%	42	3,400,000
4	15,366,300,000	219	70,200,000	824,900,000	5.4%	27	3,800,000
5	29,442,400,000	399	73,800,000	1,130,400,000	3.8%	39	2,800,000
6	30,304,500,000	395	76,700,000	1,123,500,000	3.7%	39	2,800,000
7	32,879,200,000	432	76,100,000	1,124,300,000	3.4%	43	2,600,000
8	18,340,600,000	262	70,000,000	1,113,800,000	6.1%	43	4,300,000
9	23,651,200,000	325	72,800,000	1,047,200,000	4.4%	40	3,200,000
10	15,279,300,000	204	74,900,000	568,500,000	3.7%	20	2,800,000

*Note: Total construction costs are estimates generated by CIMU.
All costs in Rupiah.

The system of costing public sector construction projects in Indonesia breaks down activities into component tasks and sets out unit costs for each task. In traditional school building projects that use civil works consultants to design the buildings, prepare the working drawings and supervise the work of contractors, the standard fees allowed for by government are 4.25% of the estimated construction cost for the design work and 4.75% for supervising the construction giving a total fee of 9%. In comparison to these costs, the cost of providing consultants for SIGP 2 therefore would seem to be reasonable with the notable exception of contract package 1. It must be borne in mind however that the level of service that the consultants were contracted to provide was not as high as in traditional commissions. The SCAs had only to provide very basic drawings and were only contracted to make four visits to each school site (though in fact most made a lot more visits). Therefore the overall cost of providing the SCAs was actually quite high.

The cost of contract package 1 (Papua) in particular is extremely high when looking at the average cost of consultant advice per school, but this is of course a difficult province to work in, largely because transportation and communication are both unreliable and costly. Contract package 2 (Maluku Province), which consists largely of remote islands, is also difficult to work in and yet the consultant contract fees here were much lower than in Papua. This comparison raises a question as to whether the costs of contract package 1 were justified.

Recurring difficulties in structural quality and safety

SCAs were intended to prevent schools from carrying out rehabilitation or construction that would result in school facilities of poor quality or questionable structural safety. The visits to Pacitan and Pandeglang noted several types of problems that SCAs should have noticed and corrected with appropriate supervision and advice. These observations also reveal that CCs did not always provide adequate supervision of SCAs.

Reinforcement to concrete columns and beams: SCAs should have prevented schools from using reinforcement in concrete columns and beams that was insufficient. Reinforcement for columns and beams in small buildings is usually specified as being 12mm but in all of the schools visited, 7, 8 or 9mm reinforcement was being used. At many of the schools visited in Pacitan for this study, this reinforcement was being used for concrete cantilever beams supporting veranda roofs where the load from the roof is very high, particularly when roof tiles are wet. At one school 6mm reinforcement was being used in a toilet building for columns, beams and cantilever beams. The use of such small reinforcement must contravene the national code for reinforced concrete and is probably unsafe in most cases.

Size and position of concrete columns: The size of the freestanding columns to the veranda was at times inadequate (15 x 15cm) for the height of the columns and the loads taken. At this school (and at others) the position of columns was unsound in that columns did not line up, beams did not occur on column lines and roof trusses did not occur over columns. In other cases the columns were reduced to the thickness of the wall (approximately 11cms) and this together with the small size of reinforcement results in structural strength of columns that is very doubtful.

Structural safety: At some schools the safety of the school structure was questionable. In one case, an additional storey had been constructed on an existing single-storey building which was of questionable structural integrity. The design and the size of the reinforcement (8mm) were inadequate, the quality of construction left much to be desired and the first floor balcony was extended in a way that was structurally unsound.

Protection against subsidence and erosion: At school sites where soil was unstable (a problem that is usually well known among local communities) school buildings were sometimes badly cracked and should have had specially designed foundations to stop settlement.

Position of well: At some schools, new wells were dug very close to school toilets and pose a danger of contamination from wastewater.



This well is too close to the school toilets and septic tank (shown in the upper left of the photo), creating a risk of contamination that could threaten the health of students and the community.

Conclusions

The majority of the school renovations were carried out to a reasonably high standard, in most cases better than similar works carried out by contractors in the past and also in most cases at lower cost. In that sense, the SIGP achieved its objective of making significant improvements to the teaching and learning environments in recipient schools. The reasons for this level of achievement, however, do not appear attributable to the Construction Advisory Services which added only limited value.

This section explores problems in the way the services were implemented and identifies ways in which things could have turned out better. The next section looks at different options for providing necessary services.

In the course of monitoring, CIMU has come across many instances in which individual SCAs have worked selflessly and effectively. The number of visits to schools undertaken generally exceeded the minimum number specified in the firms' terms of reference and there is much anecdotal evidence that schools appreciated the inputs from SCAs. The consultants willingly carried on working despite delays in the payment of their salaries or reimbursement of expenses. The activities of SCAs in Lombok Barat, for instance, are examples of SCAs working with commitment beyond the call of duty. Similar dedication has been seen elsewhere.

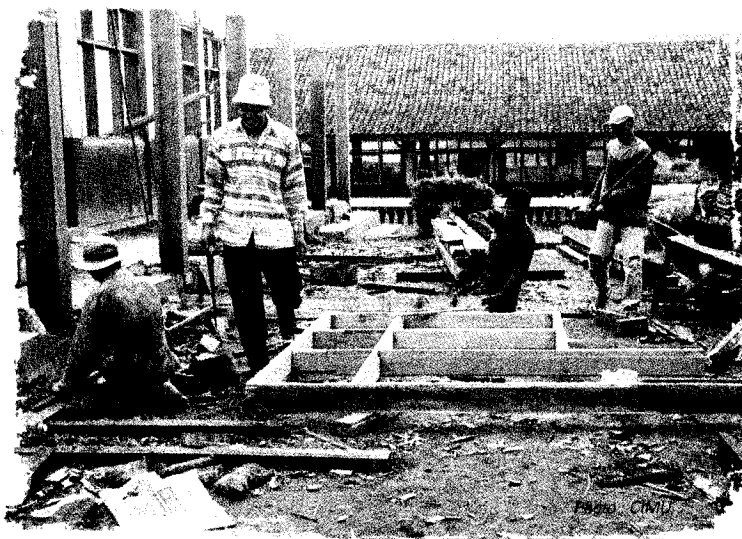
The actions of the consulting firms were not invariably governed by narrow profit motives. They showed remarkable flexibility to accommodate the vagaries in the timing of program disbursement and differential rates of progress amongst schools. Some firms kept staff in the field beyond the end of the contract period with no assurance that costs could be recouped. When six contracts were renewed in December, to assist with the completion of schools' rehabilitation activities, the relevant firms worked with alacrity to mobilise staff.

A number of problems in consulting firm service delivery have their origins in management practices that are common in the commercial environment of the industry. Such standard operating procedures in the industry may explain many of the firms' shortcomings. Although the consultant firms provided adequate numbers of staff, the quality of service provision was compromised in many ways. Most SCAs were young and had little experience managing construction projects. Their initial briefing was barely adequate. Fewer of them than expected had lived or worked in the district to which they were assigned. The high incidence of replacements for nominated personnel and the payment of salaries and allowances below those specified in the firms' bidding documents suggest that the pursuit of commercial interests were in conflict with service delivery.

The firms' management oversight was not strong enough. In many cases the firms did little to demonstrate their responsibility for the conduct of their staff or for the quality of the construction undertaken. Many Project Team Leaders and CCs did not make enough field visits to ensure that SCAs carried out the duties specified in their terms of reference. Consulting firm performance has to be judged against the contracts that they signed and the terms of reference contained in those contracts. Performance levels varied between different firms, but overall they could have done better.

Not all the problems identified with the Construction Advisory Services can be attributed to the consulting firms. There were problems too with the firms' contracts and the supervision of those contracts.

Contracts started too late and finished too early. Strict compliance with donor procurement requirements by the PMU meant that the process of contacting the firms overran the beginning of the program. Most construction consultants were mobilised too late to complete site surveys, costings and drawings. Crucially, they also missed the district and school committee training which would have provided valuable information and improved understanding. The consultant firms' contracts were lump-sum contracts and therefore difficult to extend or modify. Government contracting rules proved too rigid to the situation in which activities occur at different rates in 2,875 different locations. However, most



The diligent work done by local skilled labor, like the workers shown here at SDN Cijoho III, in Kuningan District, was one of the factors that led to successful renovations of good quality at SIGP schools.

programmes or projects of this nature suffer some slippage (as happened in SIGP1) and the contractual problem for SIGP 2 was predictable. More could also have been done to anticipate the need for contract extensions before the contracts actually ended.

Contract management by the PMU was somewhat timid. A more robust approach would have been to insist that firms supplied the services and personnel on which their contracts were awarded. It could also have been insisted that firms actually complied with the terms of their contracts. Instances in which the firms' actions actually impeded the provision of the required services, such as failure to ensure that SCAs had adequate means of transport, went unchecked.

To be fair, the PMU did realise the deficiencies in the performance of the consulting firms. In the case of blatant non-compliance in contract package 2 strong pressure was put on the firm to effect improvement. PMU cajoled other firms into doing better, but these actions were often too little too late. The government did not assert its pre-eminent rights as client in the relationship with the firms. The consultants' terms of reference referred to penalties for non-compliance, but these were not spelt out in detail. No money was withheld from firms where there were obvious performance lapses.

Despite diligent and effective efforts by individual SCAs, the contributions of the construction consultants were probably not a decisive factor determining the quality of finished renovations or compliance with safety standards. Generally, the SCAs were not appointed in time to assist the school committees with the preparation of proposals, surveys, drawings and budgets, and where they did, these were not always particularly useful. In numerous cases, SCAs signed off on school committee proposals that were over-ambitious or inappropriate without offering any comment. In places, budgets based on unit costs were not adjusted to actual material prices and standard drawings were supplied that were not applicable to the site where work was to be carried out. The quality of completed facilities was more a product of local skilled labour, and the management abilities of foremen engaged by the schools than of any contribution made by the construction advisers. SCAs gave very little assistance with the management of the work or in resolving technical problems on site. Where materials used were below specification, the SCAs did not appear to have the experience or the authority to persuade the school committees to use the correct materials.

The major contribution made by the consultants was in completing the administrative reporting requirements of the Program. This was a useful service, and one that should not be underestimated, because it relieved schools of much tedious, confusing and worrying work. It was certainly appreciated by the school committees, many of which required such assistance and lacked capacity to manage these administrative tasks effectively prior to the SIGP experience. However this was intended as a minor part of their function and not the main purpose of their existence, which was to provide technical guidance and ensure that minimum building and safety standards were met.

A way forward for future school-based renovation or construction programs



SIGP 2 was based on the premise that school rehabilitation could be achieved without contractors, but that expertise and technical supervision still needed to be provided. This is why a network of consultants was centrally contracted. However, it is now possible to review this experience and determine which services are actually required and how they can best be supplied.

The construction and/or renovation of schools using school committees or communities to manage the work is a fairly new concept in Indonesia. This new way of working requires new skills and shifts in mental attitudes. All parties involved need to learn how to execute such a model effectively. School committees have to learn how to project manage and supervise all the elements that are involved in construction projects. Schools have traditionally had a passive role in determining what happens. Inevitably there is variation in the degree to which they need help. Some will simply require assistance in understanding the regulatory processes and establishing minimum structural and safety standards. Others will need greater guidance to the extent that they will need help in prioritising their needs, defining the work to be done, estimating the amount of materials and labour required and how much they will cost, in ordering materials, in employing labour, as well as in managing and supervising the work.

Few civil works consultants have as yet, much experience of working on these kinds of projects and of providing appropriate technical assistance to school committees and communities and the performance of the civil works consultants in SIGP 2 should be seen in this light.

Contracting habits may also need to change. Government contracts, that are lump-sum, and based upon unit-costs are not suitable for school or community-based projects which require a great degree of flexibility. In this case the contracting arrangement constrained the achievement of government objectives.

This begs the question whether the solution lies in better management of the existing arrangements or whether the provision of technical assistance to the schools through centrally procured consulting firms is or is not an appropriate mode of operation. Certainly there are ways in which the SIGP 2 model could have worked better, but program management faced some formidable barriers.

The central procurement of consultants to provide technical assistance locally creates a situation in which consultants have no direct responsibility to the school committees that have received assistance and school committees are not able to hold the consultants to account if they do not fulfil their terms of reference. It is worth considering how necessary services can be supplied in a way that will better suit the nature of the new relationship that school-managed rehabilitation implies.

There are usually some members of the community who are skilled artisans, building foremen, builders, engineers or architects who can assist the school committee in carrying out the work. The experience gained through SIGP 2 and similar projects shows that one key to ensuring a good standard of construction is to engage the right person as construction coordinator (the *Kepala Pelaksana*) to head the school's technical team and manage the construction work. One alternative to the current model would be to develop the role of the *Kepala Pelaksana* so that this person can assume a number of the tasks currently entrusted to construction consultants.

The ideal candidate for such a post would meet the following specifications: he or she can be a local engineer, architect, builder or even a building foreman or skilled craftsman (a *Kepala Tukang*) and have many years of relevant experience in carrying out and/or managing construction work. A reputation of honesty, good standing in the community and an understanding of local culture, construction techniques and skills would also seem to be essential.



Key to success: identifying an experienced, knowledgeable and trustworthy coordinator or Kepala Pelaksana, like the one shown here at SDN Cijoho III in Kuningan, to manage construction and renovation work.

be insurmountable. It would also be necessary to ensure that appointees meet agreed minimum standards of qualification and experience through monitoring to ensure that the job is being done properly. This implies that professionally qualified staff should oversee school rehabilitation activities. The appropriate locus of this oversight would appear to be at the district level.

Under such an arrangement the district or province would review the qualifications, experience and standing of the selected person to ensure that they were capable of carrying out their designated tasks. Architects or engi-

For such a model to succeed school committees would have to be provided with the funds to hire *Kepala Pelaksana*, but this cost can be included in the cost of construction or renovation of each school. Such an arrangement would be much simpler, less expensive and more sustainable in the long run than procuring a firm of consultants to do the work.

The school committees would have to either advertise for a suitable person or if this was not feasible select and appoint a suitable person at an open public meeting. The school committees would be provided with standard terms of reference and simple contracts for the *Kepala Pelaksana* and standard fees would be set. These would be displayed at the school, as would details of payments when made.

There could be some quality assurance problems if this method of procurement of technical assistance was to be used. For example, it is not clear how to ensure that the *Kepala Pelaksana* hired is properly qualified, has the right experience and is able to provide the services required. It is also unclear how to be certain that he/she would actually perform in accordance with his/her terms of reference and contract. These problems would not however

neers at the district or provincial level could be positioned to do this. Logic might suggest these posts would be placed in the district public works department, but historical circumstance and practicality would suggest that the posts would be better occupied by consultants attached to the district implementation unit (District Secretariat in the SIGP 2 model) or the education board.

Other forms of assistance could be made available to help both the school committee and the *Kepala Pelaksana* in managing the work. These would include a set of sample drawings, schedules of materials and specifications, which schools could use to generate their own site-specific documentation.

MONE has in fact already produced new simplified designs for primary school facilities, together with illustrated construction, renovation and maintenance manuals that are simple, easy to understand and show the process of construction and renovation in a step-by step format complete with illustrations. CIMU has assisted in the production of the construction and maintenance manuals that are being produced under the Basic Education Projects. These could simply be reproduced and distributed to school committees and *Kepala Pelaksana* and can be used as models for future programmes implemented at district level.

A number of other considerations need to be factored in to ensure that this alternative arrangement for the provision of technical advice will work. An organised program of training is one essential ingredient. School committees need training in the management of construction projects, in keeping proper accounts and in producing reports. Training would also be one way to help school committees understand the need for school facilities maintenance and help them to develop and implement a school maintenance plan. It would also provide guidance in how to raise funds for maintenance.

Another factor that is sometimes forgotten in the rush to complete renovations is time. It is vital that schools are allowed sufficient time for preparation before starting renovations. Time is required for proposal preparation, surveys, drawings and other preliminary work necessary for the project to succeed.

Devolving the technical advice function to schools would seem to be a feasible option in some parts of Indonesia. However, there are some major impediments in the extension of this approach. Firstly, it cannot be assumed that qualified and experienced master craftsmen would be available to fulfil the enhanced tasks of the *Kepala Pelaksana*. Suitably skilled personnel are in short supply in many rural or remote areas. Those that are available tend to be busy doing other work. Many schools receiving SIGP 2 grants had difficulty finding *Kepala Pelaksana* who met the specifications set out in the guidelines.

Secondly, there is plenty of evidence to indicate that schools have struggled to manage building projects, particularly in maintaining proper accounts and complying with reporting requirements. Devolving responsibility for managing technical advice would impose greater burdens on school committees.

Thirdly, the arrangements for establishing district level coordination would have to be carefully worked out. The quality of human resources available to district administrations varies and as decentralization progresses, they have numerous other concerns. Care would have to be taken to avoid the creation of new bureaucratic structures and further opportunities for corruption.

There are undoubtedly strong arguments in favour of extending school-based management to include devolved procurement of technical advice. It is a feasible option for some schools now and a reasonable aspiration for all schools eventually. However, this may not be a practical solution for all schools now. The current arrangements involving centrally procured construction advisory services could be made to work much more effectively than they have in the recent past. The system is not perfect but in its design it has many good features. If implemented properly, at least in the immediate term, it may be a less worse solution than expecting schools to do everything for themselves. Just because it did not work particularly well is not necessarily a reason to scrap it and try something else that is untested—a case of "throwing out the baby with the bath-water." In the longer term however, devolved procurement of technical services is clearly an appropriate way forward and one that might be tried out in certain areas and evaluated before it might be applied nationally. □