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An Evaluation of the Self-Help Action Plan for Education (SHAPE)

**A Report to the
Ministry of Education
Lusaka, Zambia
and SIDA
March, 1993**



June 1995

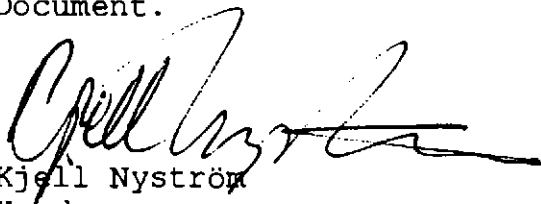
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FOREWORD

SHAPE, the "Self-Help Action Plan for Education", is an innovative primary education program which is designed to provide inputs to effective educational development at school level. The programme has been inspired by the philosophy of education with production and aims to develop among teachers, their pupils and the surrounding communities a commitment to the school and the integration of theory and practice in the school.

An evaluation of the SHAPE programme was carried out in 1993. The evaluation was commissioned by the Swedish International Development Authority (SIDA) and the Ministry of Education, Zambia.

The evaluation report was not published immediately upon completion because although it was of great interest to the parties involved, it did not include enough background information to make it interesting for other readers. However, in 1994, the MacMillan Press Limited (London and Basingstoke) published the proceedings of an international conference, held at the London University Institute of Education in 1991, on innovative education programmes in developing countries*. MacMillans and the editors have kindly given their permission for the SHAPE chapter to be included in this Education Division Document. We are most grateful to them for their permission as the SHAPE chapter gives an excellent background to the evaluation report which is the first part of this Document.



Kjell Nyström
Head
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* Angela Little, Wim Hoppers and Roy Gardner (ed.s) *Beyond Jomtien: Implementing Primary Education for All* 1994. The MacMillan Press Ltd, London and Basingstoke.
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Part one

An Evaluation of the SHAPE project

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The team would like to give special thanks to one of its own members, Mr. Manasseh Nkamba, who, at considerable sacrifice to his regular work at the Ministry of Education, proved both an insightful colleague and an invaluable organizer of the myriad of logistical and administrative details which had to be resolved to make the evaluation possible.

Immediately after presenting a draft of this report to the Ministry of Education in Lusaka, we learned of the death of the person most responsible for putting it in place, Gunilla Rosengart. We deeply regret that this report will never be put to her clear, penetrating scrutiny -- and to her questions which were always able to cut through the jargon of academics and donor agents alike and move directly to the core of the issue. For her constant commitment to the improvement of education around the world, we dedicate this report to her memory.

Sheldon Shaeffer, Team leader
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EXECUTIVE SUMMARY

I. Introduction

The Self-Help Action Plan for Education (SHAPE), an innovative primary education program in Zambia supported largely by the Swedish International Development Authority (SIDA), was launched in 1986. The program was designed to provide the necessary inputs to make the process of school-based educational development more effective and self-sustaining and to enhance the capacity of schools and colleges for self-help in professional and material terms through the development of resource work and production work. The program is based on the philosophy of "education with production" and aims to achieve the integration both of theory and practice, greater collaboration between the school and the community, and the utilization of production for material and pedagogical benefits.

The overall objective of the evaluation team was to analyze critically the development of SHAPE as a basis for making decisions on the future direction of the program. The evaluation took place from February 15-March 26, 1993, and included:

1. the examination of documents related to the history and development of SHAPE;
2. field visits to over 40 primary schools and primary teacher training colleges, district education offices, and provincial offices in 18 districts spread over five provinces of the country; and
3. interviews with Ministry of Education officials, members of the SHAPE Secretariat, staff of the University of Zambia, and representatives of the Zambian National Union of Teachers (ZANUT) and several donor agencies.

II. Organizational Structure and Development

The physical and operational organization of the SHAPE program as it has developed in the last five years is particularly complex. It has worked within the principal line unit of the Ministry (the Inspectorate) but in a semi-autonomous manner, with even greater autonomy in regard to the administrative side of the Ministry. These complicated relationships have changed in various ways over the years as the result both of bureaucratic pressure and of practical experience.

The SHAPE structure includes a variety of institutions and activities. **SHAPE policy committees** interpret SHAPE policies and handle matters of personnel and discipline. The **coordinating committees** plan and implement specific SHAPE programs and make and manage budgets. The 16-member **Secretariat** at the national level collectively arrives at decisions, with each member focusing on a particular area (e.g., home economics, industrial arts, agriculture, INSET), making plans and a budget for national-level programs in that area, and coordinating regional activities and budgets based on proposals from individual provinces. These, in turn, are meant to be developed from proposals and input from lower levels of the system. Policy committees, created at several levels of the system, have led to some

confusion and considerable delay in decision-making, the flow of resources, and implementation.

A few **model schools** identified by SHAPE in various districts and zones of the country are meant to be centres of good SHAPE practice. The role of these schools, though often well-equipped and active, remains quite unclear as to their role in regard to other schools in their area. **Zone centre schools** are chosen on the basis of accessibility to them by other schools in the zone. Such schools are often able to organize very useful various INSET and materials development activities. They should play a role in aggregating school development plans into zone plans, but they have generally not yet been able to provide this kind of leadership.

The animators behind this structure are a large variety of **specialized teachers and coordinators**. Resource teachers are the main SHAPE coordinators at school level. INSET coordinators manage all activities involving teaching-learning in their schools. Zone coordinators -- for INSET and production work -- coordinate SHAPE activities at zone level. This hierarchy of animators seems generally to be effective and motivated.

School development plans are meant to be produced at the school level by the coordinating committee, then passed to zone centres and the district level for approval and possible funding. Evidence that this happens is limited. Quite systematic workplans have been developed, but feedback from the top is rare and criteria for selection from among them are not clear.

The mode of **vertical information flow** within SHAPE has been top-down in nature, from national to lower levels, sometimes even selectively bypassing certain levels to go directly to the school and zone levels. Rarely does information flow from schools up to the national level.

A possibly very useful part of this extensive network of structures, a **SHAPE Secretariat newsletter**, does not yet exist. Very little **horizontal exchange of information** about SHAPE activities takes place.

The SHAPE structures that exist are generally effective in transmitting the SHAPE message and approach to various regions and lower administrative levels of the country. They have also been useful in implementing programs for other parts of the Ministry. This is partly because they have ensured some decentralization of authority within the educational structure. But this process is still somewhat limited, and the balance between central initiatives and local self-help is not completely clear as districts and sometimes zones and schools are often required to follow centrally (Secretariat) determined programs and plans.

Recommendations:

1. **The Policy Committee at the national level should be streamlined.** To make the committee structure more effective, it is necessary to:

- **reduce the number of committee members;**

- dissolve policy committees at all levels except the national level;
- ensure that the coordinating committees at all levels be responsible for both planning and implementing SHAPE activities; and
- incorporate PEOs at the provincial level and DEOs at the district level into the coordinating committees.

2. The SHAPE Secretariat should be reduced in size. The Inspectors remaining should be seconded to it so that they can become full-time planners and executors of SHAPE.

3. The original SHAPE method for allocating funds in response to local initiative should be followed more rigorously.

4. The development of model schools and zone centres should be accelerated.

5. Newsletters at and to various levels of the system, especially from the Secretariat, should be developed.

III. School and Community

The evaluation team found that relationships between communities and schools are generally positive. The nature of these relationships, however, is now threatened by the generally poor economic state of the country. Where there is cooperation, community members help in production work, particularly in industrial arts and agriculture. Certain production activities, such as agriculture and home economics, would not be possible without community support.

The functions of PTAs are usually limited to infrastructure development and fundraising activities. PTAs do not seem to be involved in issues relating to teaching and learning, these items apparently being left to SHAPE committees.

Some schools are closer to their communities now than in the past, before SHAPE, but this cannot easily be attributed to SHAPE's efforts. It has placed relatively little emphasis on the building of stronger school-community partnerships.

Recommendations:

1. SHAPE should put greater emphasis on the development of stronger community-school partnerships.

2. SHAPE should also encourage the more systematic and planned involvement of community members in a wider variety of activities, including the design of school development plans.

IV. Finance and Resource Flows

A detailed description of the financial arrangements and resource flows to SHAPE (from Stockholm to Lusaka to provinces and districts) is provided in Chapter 2. The flows are complex and cause frequent delays, but a number of new approaches and training activities are being put in place to reduce the complexity of the process and speed the flow.

The present arrangement regarding resource flows to the provincial and district levels and for special projects is best described as a rigid, top-down allocation process rather than voluntary budgeting in a program meant to nurture participation, local initiative, self-reliance, and flexibility. Quarterly financial resources come as flat, across-the-board, project-tied allocations. District SHAPE committees do not have a mandate or scheme to determine systematically the schools or zones that exhibit initiative. Zone or school development plans, accompanied by supporting budgets, are rare.

The procurement, distribution, maintenance, and retention of tools and various kinds of learning equipment are critical issues. Their loss, destruction through vandalism, and theft in schools and on the way to schools create large difficulties for the system.

With regard to vehicles, motor-cycles, and bicycles and a more general transportation policy, several issues must be resolved including the control and use of transport, criteria for their provision at different levels, and responsibility for running and maintenance costs.

With the improved management of scarce resources under the current emphasis on accountability in public affairs, and with more government resources committed to primary education) in future, more public funds should be available for non-salary items such as the provision of teaching materials in schools. Many of these promised new resources could be used as government counterpart funds to SIDA support.

In many schools, revenue from production units may be the major source of funds for school improvement activities. But in some schools this process may be threatened by inadequate accounting procedures, unclear accountability of funds, and vague criteria for the allocation of funds among competing demands.

Major Recommendations:

- 1. An experienced and qualified financial manager should be appointed at a senior level at the Ministry of Education.**
- 2. Once SIDA funds are in the Ministry account, direct bank-to-bank transfers to provincial headquarters) should be made.**
- 3. A pilot scheme for direct transfers of funds to districts should be introduced in two provinces.**
- 4. Purchasing procedures for production items, learning equipment, etc., should be simplified.**

5. Program-related accountants at all levels should be systematically trained, especially those of PEOs and DEOs still using Provincial Accounting Units (PACCU).

6. The transportation policy of SHAPE in districts and zones should focus on motor-cycles and bicycles respectively. Transport management should be part of SHAPE management training.

7. The spirit of locally designed budgeting at school, zone, district, and provincial levels should be reinforced.

8. The SIDA condition concerning a satisfactory audit before further funds can be transferred should be re-negotiated.

9. Donors and GRZ should aim at gradually shifting more and more resources to district, zone, and school levels.

V. Education with Production

The concept of education with production (EWP) in the SHAPE program refers to the integration of the theory of production with its practice. Engagement in productive work is meant to lead to the application of practical skills and knowledge in schools and the interaction of production with the rest of the curriculum, both practical and academic. The expected outcomes of such EWP include pedagogical, learning outcomes; economic benefits to the pupils and the school; attitude changes concerning productive and manual work; and social outcomes in removing barriers between the school and the community.

EWP is closely linked to Zambia's post-independence history. It is deeply embedded in the education system and is largely appreciated by primary school teachers and pupils alike. The Ministry of Education and SHAPE attach importance to EWP as a learning and training strategy and as a source of income essential to many schools.

However, it has proven difficult to ensure a desirable balance between production and academic work. In addition, a number of abuses exist in terms of misused profits and the exploitation of pupil labor. In general, although SHAPE has done much to encourage the development of practical subjects and production activities in schools, it has not yet been able to make more efficient the practice of EWP or to define clearly the proper balance between pedagogical and economic benefits.

In general, the scope and range of production activities is very wide at school, district, and college level. Each production component has a variety of activities and products. A number of schools are engaged in quite innovative production activities, but the sharing of such information is limited.

The team found evidence of the impact of production work on pupils. Many teachers believe pupils are learning useful skills. The attitude of pupils towards production has changed for the better. But systematic research on such effects does not exist.

Many schools have tended to emphasise production activities that can generate badly needed school income. They are responding to economic/financial hardships and to the need to be self-reliant. But school and college staff need better training in entrepreneurial and business skills so that production work can be organized and more efficiently.

The linkage between production unit activities and classroom subjects was evident in only a limited number of schools. This linkage depends to a large extent on the initiative of the teachers concerned. Constraining factors in this regard, especially for Home Economics, have been the lack of tools and other raw materials and the lack of appropriate teaching materials and teacher training. Integration of theory and practice in productive work is more often taking place at the level of the three practical subjects.

In general, pupil participation is limited to active production. Project identification, planning, and management are usually done by teachers.

Although performance in EWP has tended to vary among schools, districts, and regions, by and large the program has had an important impact. Regrettably, very little useful evaluation of EWP performance is being carried out at any level.

Recommendations:

1. **SHAPE should provide further support in the area of education with production.**

2. **A tracer study of Grade 7 school leavers in rural areas should be undertaken to investigate the usefulness and utilization of EWP skills by pupils after leaving school.**

3. **Schools should be encouraged to be more innovative in EWP pursuits.**

4. **SHAPE should support a short-term pilot scheme in tools production.**

5. **SHAPE should more systematically develop guidelines, curriculum materials, and training activities to refine the practice, and correct the abuses, of EWP in schools, including:**

- (a) **the selection of appropriate production projects;**
- (b) **how to combine production work with academic lessons;**
- (c) **the proper balance among extra-curricular production work, practical subjects, and academic work;**
- (d) **the budgeting, managing, and accounting of production activities; and**
- (e) **production skills.**

VI. Desk Repair

The Desk Repair project was started with the aim of giving new status to manual work among pupils, of giving them an opportunity to take part in the repair of their own desks and to learn something in the process, and of providing an effective way to help resolve the shortage of usable desks. Many teachers spoke highly of such work because it has developed a new sense of responsibility among pupils. Where teachers gather to repair desks in selected schools, a sense of community may also be established among them. However, the project has been faced with numerous practical problems. Some schools contract desk repair to outside labourers. Many schools do not have tools or workshops to undertake desk repair work. Because money for repairs tends to arrive late at schools, they cannot plan their work properly. Also, desk repair money is often spread equally around several schools in a district so that the impact on any one school is limited. Finally, teachers complain of being overtaxed as they do much of this work in their spare time.

The team could not get any reliable records on the Desk Repair project as most of the schools visited do not keep accurate records. But it would appear that the Desk Repair project in its present form is economically inefficient and expensive to run. It is not certain, however, that any other method of desk repair would be any more efficient. The advantages of the method now in use and the lack of a creditable alternative appear to make necessary the continuation of the current program.

Recommendations:

1. **SHAPE should abandon the existing arrangement in desk repair in which resources are spread equally over several schools.**
2. **SHAPE should ensure the rapid transmission of funds for desk repair and more consistent accounting for desk repair costs.**

VII. Resource Work: Professional and Materials Development

The term "resource work" refers to those activities organized by teachers, through self-help, using local resources, for the purpose of improving the quality of education. It includes:

1. **Professional development and support** focused on schools and zones and organized by the teachers themselves.
2. **Curriculum and materials development** through the adaptation of curricula and the design and production of teaching and learning materials based on local knowledge and conditions.

The primary method for such resource work is the structure of resource banks, rooms, and centres and their supporting resource teachers and INSET and production coordinators at all levels of the system. Such resource centres are meant to serve as places to explore new methods of teaching, identify and organize INSET needs, undertake research and evaluation,

hold periodic review and planning meetings, give demonstration lessons, provide a base for advisory professional support services, and create teaching materials and aids.

The evaluation team found that a considerable amount of school-based, self-help professional development and support activities is occurring at the school, zone, and district level and that a limited amount of teaching and learning materials is being developed through these activities. Resource centres, however, are not being developed as systematically or as rapidly as demand requires, and the consistent, creative use of these facilities and of the materials produced in them is limited.

Useful outcomes of SHAPE resource work include:

1. **Annual or quarterly school plans;**
2. **School- and zone-based seminars and workshops;**
3. **The development of various kinds of resource centres;**
4. **The overcoming of the isolation of schools and teachers;**
5. **The building of initiative, self-reliance, and a greater feeling of autonomy;**
6. **The development of teaching and learning materials; and**
7. **A genuine sense of the need for, and the sustainability of, resource work and of professional development activities.**

In general, the evaluation team found quite a remarkable level of knowledge about, interest in, and activities supportive of SHAPE resource work despite SHAPE having been developed in an economically and politically difficult period and despite it explicitly not holding out the hope of large transfers of cash or kind to schools and zones. SHAPE's message of building a systematic and supportive human (rather than physical) infrastructure, and of strengthening the **demand** for further professional development and school improvement has wrought considerable changes in teacher attitudes and skills.

But problems with SHAPE's resource work remain, including:

1. **Limited resources, especially at lower levels of the system.**
2. **Confusion over the nature, use, and criteria for the construction of resource rooms and centres.**
3. **Inadequate reinforcement of the basic SHAPE message.**
4. **Inadequate and largely uncreative use of the centres and materials developed.**
5. **Inadequate knowledge concerning the impact of SHAPE resource work.**

6. The random planning and implementation of foreign training and study tours.

The team found evidence that SHAPE's message about the gender neutrality of practical subjects (i.e., girls taking Industrial Arts and boys, Home Economics) is understood by some teachers. In addition, teachers were aware of gender-sensitive curricula. In other words, some of the sensitization work of SHAPE has been accomplished. But this awareness was neither widespread nor reflected consistently in practice.

Recommendations:

- 1. Further resources should be made available for selected INSET activities at the school and zone level.**
- 2. A more systematic scheme for the development of resource centres should be created, and more funds, supplementing local initiative, should be provided rapidly for their construction.**
- 3. Professional development through SHAPE, and a position in the SHAPE structure, should be more explicitly recognized in the career structure and promotion process of the Ministry.**
- 4. Foreign travel should be limited to more focused and intensive study tours and attachments. More study tours should be organized within Zambia.**
- 5. SHAPE will need to clarify the essential messages it wishes to transmit about gender issues and strengthen further the skills of those meant to transmit it.**

VIII. Monitoring, Evaluation, and Research

The monitoring, evaluation, and research aspects of SHAPE were planned from the beginning of the program to play the constructive role of providing information for the continuous improvement of the various components of SHAPE. These three activities are expected to take place from the national SHAPE Secretariat, through provinces, teacher training colleges, districts, zones, schools, down to the classroom and are extremely important to the further development of its message and approach. Unfortunately, they also constitute one of the greatest weaknesses of the program.

In SHAPE, monitoring, evaluation, and research are generally regarded as top-down accountability processes and as "one-off" external activities instead of as continuous, in-built, reflective management mechanisms.

The SHAPE monitoring philosophy assumes the existence of basic interest and skills, adequate personnel and resources, a research-minded Ministry, available transport, and avenues for the analysis and use of monitoring and evaluation data.

Some of these conditions exist to some extent, and some have been nurtured through monitoring and research activities and funding. But there has not yet been a systematic

identification of the desired processes or outcomes to be assessed, the indicators to use in assessing them, the instruments for collecting data, or the methods needed for its analysis.

One exception is the institution of regular monitoring tours at the national level. But the tours remain studies at single points in time and can thus only be a supplement to a well-designed, executed, documented, and usable system of continuous monitoring at all levels.

A few attempts have been made by SHAPE officials to implement research activities. These include seminars on the need for research as well as courses designed to actually "teach" the rudiments of basic educational research. But the implementation of research was patchy, with only a few good reports distributed in a very limited fashion.

At the primary school level, the idea of stimulating classroom teachers or SHAPE resource teachers to undertake simple practitioner-based research never took off.

Recommendations:

1. The national SHAPE Secretariat, with the assistance of experienced practitioners at UNZA and the FINNIDA-funded **Zambian Educational Research Network (ZERNET)**, should develop a systematic policy on the monitoring, evaluation, and research component of SHAPE.

2. SHAPE must design a system of continuous monitoring at all levels. Monitoring tours should be improved by including a built-in follow-up system; widening the circulation of tour reports; and covering all provinces with equal zeal.

3. SHAPE should develop basic and relevant monitoring targets, indicators, instruments, and procedures.

4. SHAPE should create a small but effective research implementation team. As part of its initial assignment, the team should carry out one or more important research tasks as listed in the full report.

5. SHAPE's research and evaluation activities should not substitute for the routine examination and assessment work of the Ministry.

6. Simple guidelines for monitoring, evaluation, and basic research should be worked out for teachers.

IX. The Goals and Implementation Strategies of SHAPE

In terms of SHAPE's short-term goals, it has been able:

1. To mobilize additional resources through productive activities.
2. To orient the education system to the production of goods and services.

But it must apply greater effort:

3. To integrate educational training and production.
4. To develop more practical, relevant curricula.
5. To teach pupils "survival skills".
6. To integrate gender issues and special education into the system.

SHAPE has also developed a number of rather longer-term, more general outcomes it expects from its work. These include:

1. To enable schools to become better able to serve their communities and the nation. Such an objective is too general and unmeasurable for the team to assess.
2. To build self-reliance and initiative in all aspects of resource and production work. There appears to be a remarkable spirit of self-reliance and self-help in many schools, zones, and districts.
3. To enable teachers to exercise individual and collective responsibility for their professional development. There is a similarly remarkable demand for such development from individual teachers and a remarkable sense of collaboration across schools and teachers.

In order to achieve these goals and objectives, SHAPE has adopted two general implementation strategies.

1. Transmitting a message rather than money

From its inception SHAPE saw its task as the development of a supportive infrastructure and the transmitting of a message of self-reliance; professional development; decentralized, school-based reform; and the greater participation in education by a large range of interested actors. SHAPE therefore decided not to transfer money to schools, not wanting to kill the very self-reliant spirit which it was trying to foster. Thus, a considerable percentage of funds provided to SHAPE went to the top of the system for the building of its infrastructure and the transmission of its message.

The message has been quite successfully sown; schools and teachers visited by the evaluation team invariably knew of SHAPE and its activities. The message may not have always borne fruit in equal volume, however. Some regions and some levels of the system have proven more fertile than others. But in general the system has been sensitized to the utility and necessity of a self-reliant, school-based innovation strategy.

2. Conflicting dissemination strategies

The second general strategy of innovation refers to how SHAPE's support, both moral and material, was meant to be distributed and disseminated through the system. The original idea was to reward those institutions, through supplemental funding, which showed initiative

and self-reliance and developed activities and proposals for resource and production work. Pressure eventually began to build for the distribution of materials more or less equally to many schools, districts, and provinces. SHAPE then began to develop the idea of multiplying its impact through zone centres and model schools. But their development has been slow and unsystematic.

Yet another strategy of dissemination is "positive discrimination" in favour of more "deprived" regions and schools. Again, however, the identification of such areas has not been done systematically or with clear criteria.

Recommendations:

1. The system should be further inundated with the SHAPE message.
2. SHAPE should establish a more systematic process to identify and reward local initiative.
3. SHAPE should establish a more systematic system for mapping the need for resource centres and model schools and assessing local initiative for their development.
4. More of the available transport funds should be directed at the school and zone level (with bicycles) and at the district level (with motorcycles or appropriate vehicles).
5. More resources should selectively be made available to deserving schools, zones, and districts.

Perhaps the most difficult question facing SHAPE at the moment is the issue of integration into the Ministry. Further integration is now sought -- in theory, by all partners: the Ministry, the donors, and SHAPE itself. The problem is that no one seems to have examined carefully the various options and timetables available. The irony is that integration is a non-issue at the lower levels of the system where SHAPE is the Ministry and the Ministry is SHAPE.

Various models of integration are available. These include:

1. Keeping SHAPE somewhat separate and semi-autonomous within the Ministry.
2. Integrating SHAPE into a more autonomous, perhaps even independent, Inspectorate.
3. Integrating SHAPE into the mainstream Ministry.

Recommendations:

The evaluation team does not have a specific recommendation in this regard but assumes that the third option is most likely. It sees advantages of the integration of SHAPE into the Ministry: bringing the whole status and force of the Ministry behind the SHAPE structure and approach and suffusing the SHAPE message throughout the administration. But

the team also sees serious disadvantages: a loss of flexibility and resources to the administrative side of the Ministry, a loss of focus on self-reliance and on the reward of self-help and initiative resources, perhaps even a decline in the importance of productive activities and practical subjects in the system.

What is important is that greater integration be negotiated under a number of conditions including the following:

- 1. Implementing more complete decentralization within the system.**
- 2. Clarifying and sharpening the essential message, tools, approaches, and practices of SHAPE.**
- 3. Integrating SHAPE structures and positions into the Inspectorate.**
- 4. Ensuring a stronger and more high-profile role for primary education and for in-service professional development within the Inspectorate.**
- 5. Integrating SHAPE funds into the Ministry's budget, but under certain proven financial conditions.**

The final issue of importance is that of **sustainability**. At one level, the evaluation team thinks that this is not an issue. Everywhere we went, we were assured that resource work and production work, professional and materials development, would continue even if SIDA funding ended. But other concerns over sustainability exist. First is the possibility of further economic decline and political instability in the country. A second lies at the higher levels of the system. When the structure and activities of SHAPE receive very little attention in either the new policy document for the future of primary education in Zambia or the new educational rehabilitation loan of the World Bank, this can be seen as a threat to SHAPE's sustainability. It is in just such a situation of indifference and inattention that it becomes even more important for SHAPE to reinforce its message, identify its essential components, clarify its approaches, and develop a systematic method to assess the variety of outcomes it desires. If it did so, it would be better able to work in the context of the new "focus on learning", to assist the implementers of this new focus to disseminate it throughout the system, and to use to even better advantage the additional funds to primary education committed (but not yet provided) by the Zambian government.

CHAPTER 1

INTRODUCTION

The Self-Help Action Plan for Education (SHAPE), an innovative primary education program in Zambia supported largely by the Swedish International Development Authority (SIDA), was launched in 1986. The program was designed to provide the necessary inputs to make the process of school-based educational development more effective and self-sustaining and to enhance the capacity of schools and colleges for self-help in professional and material terms through the development of resource work and production work. The program is based on the philosophy of "education with production" and aims to achieve the integration both of theory and practice, greater collaboration of the school and the community, and the utilization of production for material and pedagogical benefits.

The specific objectives of the program have been:-

- (a) To enable teachers to exercise individual and collective responsibility for their professional development.
- (b) To enable teachers to develop a variety of productive activities in the school in order to broaden the educational experience of the pupils and bring benefits to schools through self-reliance.
- (c) To enable schools to become better able to serve their communities and the nation.
- (d) To build self-reliance in all aspects of resource work and production work in order to reduce dependence on the state in the teaching profession.
- (e) To encourage development-oriented activities in schools through the integration of education training and production.
- (f) To improve the quality and relevance of education through better skills training and the provision of resources.
- (g) To orient education institutions towards the production of goods and services in order to serve their communities better.
- (h) To continue providing school leavers with survival skills.
- (i) To integrate SHAPE activities into the ordinary educational planning activities and systems of the Ministry of Education.

A. The context for the evaluation and its terms of reference

In carrying out this evaluation, the team had to take account of the fact that its objective was to make a critical analysis of the development of SHAPE as a basis for making decisions on the future direction of the program. Emphasis was to be laid on the issues of if, when, and in which way various components of SHAPE might be integrated in the regular school administration and as part of the new education policy of Zambia (Focus on Learning, 1992).

The team was a diverse group which included four Zambians from the University of Zambia, the Inspectorate, and the Planning Division of the Ministry of Education; none had been closely associated with SHAPE previously. The two non-Zambians included one, from Ghana and the Institute of International Education in Stockholm, with extensive experience in similar SIDA-related evaluations; and another, most recently at the International Institute for Educational Planning in Paris, familiar with the development of educational innovations in Africa and Asia.

The terms of reference for the evaluation team included examining the following areas:

1. education with production: curriculum development on the philosophy of interaction between theory and practice
2. staff development, including:
 - (a) resource work and in-service education on different levels (school-based teacher centres, zone centres, etc.);
 - (b) teachers' individual and collective responsibility for their professional development; and
 - (c) teacher training colleges (pre-service and in-service) as focal points in promoting the development of the program
3. organizational structures, efficiency and development, including:
 - (a) the balance between central initiatives and local self-reliance in a decentralized concept;
 - (b) the strategy of support on different levels;
 - (c) SHAPE coordinating committees as support to local activities;
 - (d) the flow of resources
4. links between schools and the community: a new partnership between parents and schools?
5. monitoring, evaluation, and research (from national down to classroom levels)

6. desk repair with special emphasis on cost-efficiency

B. Methodology

The evaluation took place from 15th February to 26th March, 1993, and is based on:

1. the examination of documents related to the history and development of SHAPE;
2. field visits to primary schools, primary teacher training colleges, district education offices, and provincial offices; and
3. interviews with Ministry of Education officials, members of the SHAPE Secretariat, staff of the University of Zambia, and representatives of the Zambian National Union of Teachers (ZANUT) and several donor agencies.

Prior to the first meeting of the team on 15th February, individual members worked separately by studying various reports available to them. The first week of the evaluation was devoted to studying more materials, interviewing the most important actors involved with SHAPE, gaining a common understanding of the definition and activities of SHAPE, and preparing a checklist of issues to guide subsequent interviews and visits (see Appendix 1). The checklist was tested in schools around Lusaka during of the second week in order to ascertain its clarity and usefulness.

The third and fourth week were spent visiting almost 40 primary schools, five teacher training colleges, and several district and provincial offices in five provinces and 18 districts (see Appendix 2). These were chosen both purposively, to ensure a selection of various kinds of basic schools, model schools, and zone centres, and at random from schools (rural and urban, poor and of better quality) located within the selected districts. It was not possible to sample community members systematically in this study, but team members were able to talk to parents who happened to be at the schools visited.

During the fifth and sixth week of the evaluation, general conclusions were reached, further interviews were held in Lusaka, team members prepared the individual chapters assigned to them, a draft report was prepared and discussed within the team and with the major actors related to SHAPE (the Secretariat, the Ministry, and SIDA), and a final report was presented to the Ministry of Education and SIDA.

This study was not meant to be a representative, national survey of SHAPE achievements; neither time, resources, nor the programmatic needs of the moment made such a survey possible. We were less concerned with precise measurements of SHAPE outcomes than an examination and analysis of SHAPE processes and structures. For this we wanted to see a mixture of schools, including those with successful SHAPE activities and those without, in a variety of rural and urban contexts. Efforts were also made to determine if the general conclusions reached through the visits to the schools selected could be considered generally valid for other schools and regions. Thus, interviews were carried out with 25 headteachers from all provinces of the country during a training program at NISTCOL and, at a Ministry seminar in Lusaka, with the provincial educational officers and inspectors from

provinces not covered in the visits. Team members also asked district and zone officials whether conditions observed were similar to, better than, or worse than those of other schools in the area. While we cannot guarantee the absolute validity of the findings across all schools and districts of the country, we do believe that they represent a fair cross-section of school type, quality, and context.

The report consists of chapters concerning the following issues

1. **SHAPE organizational structure and development (including relations between the school and the community);**
2. **finance and resource flows;**
3. **education with production (including desk repair);**
4. **resource work and professional and materials development (including a brief section on gender issues);**
5. **monitoring, evaluation, and research; and**
6. **the goals and strategies of SHAPE.**

CHAPTER 2

ORGANIZATIONAL STRUCTURE AND DEVELOPMENT

In certain respects, SHAPE is all things to all people. Among the dozens of people interviewed for this evaluation, it was variously defined as a structure, a strategy, a description, a process, and a state of mind. In the world of educational innovation, two things attempted by SHAPE stand out as particularly interesting. The first is the philosophy and approach of self-help, self-reliance, and bottom-up initiative. The second is the rather complex human and organizational infrastructure built to support it.

The physical and operational organization of the SHAPE program as it has developed in the last five years is particularly complex. This chapter will discuss the structure and development of this organization, its effectiveness, and recommendations for further improvement. The particular role of parents and the community in SHAPE will also be discussed.

A. The Structure of SHAPE

Large organizations generally have two basic operational functions: the line and the staff. Line structure and personnel represent the functions for which an organization was created. In educational bureaucracies these functions (in which the Inspectorate is heavily involved) include areas such as teaching and learning, student assessment, research, and formative and summative evaluation. Staff structure and personnel represent the functions dealing with the auxiliary or support services of the organization. This includes administrative and technical aspects, from budgeting and planning to the payment of salaries and the organization of transport.

The hierarchy of most educational bureaucracies places the line function below the staff function, and movement up the ladder usually involves switching from the line (teaching) function to the staff (administrative) function. Because the administrators essentially control all the resources in an organization, this function often seems to be more important than the line function. It is this inherent conflict in organizations that creates friction between the operations of line and staff personnel. Real goals may get displaced and administration becomes an end in itself.

SHAPE's organizational structure and development have been especially complicated in this regard. It has worked within the principal line unit of the Ministry (the Inspectorate) but in a semi-autonomous manner, with even greater autonomy in regard to the administrative side of the Ministry. It cooperates with the regular organizational structure of the Ministry, using Ministry personnel and physical infrastructure, but it focuses on professional, line activities which often go beyond even those of the Inspectorate. These already complicated relationships have changed in various ways over the years as the result both of bureaucratic pressure and of practical experience. This is the context (explored more thoroughly in Chapter 7) in which the variety of structures and activities now generally recognized as "SHAPE" have been developed.

The first set of structures includes **SHAPE policy and coordinating committees** at national, regional (province), district, and sometimes (contrary to SHAPE policy) the zone and school levels. (See Appendix 3 for the SHAPE organizational structure chart as of May, 1992.) In some cases these committees had existed before 1987 as Reform Committees or Production Committees.

The policy committees interpret SHAPE policies and handle matters of personnel and discipline. The coordinating committees plan and implement specific SHAPE programs and make and manage budgets. Both committees monitor and evaluate these activities. The policy committees meet infrequently, the more executive coordinating committees more often.

Membership in these committees is usually based on position and status. Thus, Provincial Education Officers (PEOs), District Education Officers (DEOs), zone coordinators, and heads of schools are often members of the policy committees, as well as some members (such as the chairperson) of the PTA at the zone level. Most grade leaders and subject teachers (e.g., for Industrial Arts and Home Economics) are members of the coordinating committees. They are usually nominated by heads of schools or the DEO/PEO at their levels. In some areas, problems of appointing zone coordinators from among senior teachers created problems of lack of cooperation from heads of schools. This has been solved in many cases by electing such coordinators from among the headteachers themselves.

Organizational development at the national level has gone through considerable change. Originally only the Coordinating Committee of the SHAPE Secretariat functioned at the national level. Later, due largely to the desire to increase cooperation with the mainstream of the Ministry, a high-level Policy Committee chaired by the Permanent Secretary, was formed. The function of the Policy Committee at this level is to formulate policy covering all major aspects of the SHAPE program. The Committee is supposed to meet regularly, but due to the level of people involved, meetings are frequently postponed or cancelled as many members are unable to be present.

The 16-member Secretariat at the national level, composed largely of principal and senior inspectors, is a "working" secretariat, collectively arriving at decisions, and with each member (or pair of members) focusing on a particular area (e.g., activities in home economics, industrial arts, agriculture, INSET), making plans and a budget for national-level programs in that area, and coordinating regional activities and budgets based on proposals from individual provinces. These, in turn, are meant to be developed from proposals and input from lower levels of the system.

The SHAPE committee structure and line system have been used by other units of the Ministry for a variety of purposes: as a channel of communication, for the distribution of books and materials, for the organization of district and regional seminars and meetings, and for implementing other donor-funded activities such as the Child-to-Child program. And the central administration has used SHAPE structures and facilities (especially its vehicles at provincial and district level) for its routine administration.

Lower down in the system a variety of other structures exist. **Subject committees** serve to plan and improve teaching of all subjects offered in the schools. This has ensured

that not only practical subjects but also other subjects have become the concern of the SHAPE program.

A few **model schools** have been identified by SHAPE in various districts and zones of the country. These are meant to be centres of good SHAPE practice (often in a particular area such as industrial arts). They are therefore schools which have particularly good physical structures and teaching staff able to implement SHAPE plans and programs and so become "models" for other schools to emulate.

Although there are not many model schools in the country, the evaluation team visited several such schools (e.g., Kafue's Nangongwe Primary School, Mufulira's Ipusukilo Primary School and Kabwe Urban's Lukanga Primary School). These schools, though often well-equipped and active, did not know that they were considered 'model schools' and therefore were unclear as to their role in regard to other schools in the area.

Zone centre schools are chosen on the basis of geographical location -- in other words, easy accessibility to them by other schools in the zone. Such schools, which may also be model schools, can serve as desk repair centres or distribution centres for books from the Ministry and can organize various INSET and materials development activities for schools in the zone. In order to do this, they should have resource rooms or "banks" for the storage and retrieval of learning materials. These schools should also play a role in aggregating school development plans into zone plans in order to request additional support from the district and provincial levels. This rarely happens, however, as schools and zones seem often to implement SHAPE plans determined at higher levels of the system. Zone centres have therefore generally not yet been able to provide the kind of leadership envisaged by SHAPE except in the development of INSET activities such as short seminars on new methods of teaching.

The animators behind this structure of schools and committees are a large variety of **specialized teachers and coordinators**. Resource teachers are the main SHAPE coordinators at school level. These often include INSET coordinators and production coordinators, sometimes assisted by subject teachers and grade leaders. The INSET coordinators' role is to manage all activities involving teaching-learning in their schools. They often chair all SHAPE meetings at school level. Zone coordinators -- for INSET and production work -- were originally chosen from among resource teachers in schools comprising the zone. Now many are elected from among school headteachers. Their role is to coordinate SHAPE activities at zone level.

Ideally, **school development plans** are meant to be produced at the school level by the coordinating committee, then passed to zone centres and the district level for approval and possible funding. Some may then be sent to the provincial level and finally to the Secretariat for support of special projects. Evidence that this happens is limited. Quite systematic workplans might be developed, but the few schools visited by the team which sent plans up the system never got feedback from the top about their proposals. It was also evident from the field that schools generally did not know why some (often smaller) schools had obtained more support from SHAPE (e.g. sewing machines, cookers, etc.) than others. Thus, plans made at the school level now often remain there and get implemented, if at all, with community support and local funding.

While the administrative section of the Ministry has been able to use the SHAPE structures at district and zone levels to efficiently monitor staffing levels and enrolments and effect transfers and replacements of staff, the structures have not been as useful with respect to SHAPE's own **vertical information flow**. The mode of communication within SHAPE has been top-down in nature, from national to lower levels, sometimes even selectively bypassing certain levels to go directly to the school and zone levels. Rarely does information flow from schools up through the other levels to the national level. Thus, while schools know about local activities organized by the Secretariat, the PEO might remain uninformed, and neither s/he nor the Secretariat may know of the school and zone plans gathering dust at these levels.

A final and very useful aspect of this extensive network of structures could be a newsletter binding it all together. But, unfortunately, a **SHAPE Secretariat newsletter** does not exist. Some schools and districts do produce pamphlets on local SHAPE activities which they sell to other schools (e.g. Lukanga Primary School's 1990-91 newsletter on SHAPE activities), and attempts have been made to start a national or provincial newsletter. But at the moment very little **horizontal exchange of information** about SHAPE activities (e.g., about innovative production activities or learning materials, about outlines of INSET courses) takes place. Teachers generally know **about** the SHAPE message (its philosophy, structure, etc.), but they do not always know **what** it is doing in terms of its various components and activities.

B. Analysis

The SHAPE structures that exist are generally effective in transmitting the SHAPE message and approach to various regions and lower administrative levels of the country. They have also been useful in implementing programs for other parts of the Ministry. This is partly because they have ensured **some decentralization of authority** within the educational structure to lower levels of the system. Such systematic transferring of decision-making power and funds to lower levels, however, is still somewhat limited, and the balance between central initiatives and local self-help is not completely clear as districts and sometimes zones and schools are often required to follow centrally (Secretariat) determined programs and plans which are the ones which receive funds. The challenge now is to make the various SHAPE structures even more effective so that they serve better the purposes for which they were created: the strengthening of self-reliance and of school-based development plans for production work and resource work. This implies that the further devolution of authority should be encouraged.

Doing this would be in line with another important SHAPE approach: the idea of support to schools and communities that show more scope for self-reliance and creativity in pursuing Ministry/SHAPE goals. This idea has been somewhat de-emphasized recently due to pressures from within the system for the more equitable distribution of SHAPE resources and attention.

One problem in this regard is that, partly as a result of appeasing the administrative section of the Ministry, policy committees have been created at several levels of the system. These, in combination with the already complex structure of committees and positions in

SHAPE, lead to some confusion and considerable delay in decision-making, the flow of resources, and implementation.

Another issue in terms of structure concerns the critical position of model schools and zone centres. In a country such as Zambia, where good educational practice is hard to find and (given problems of finance and geography) even harder to nurture, models of better practice, relatively accessible to more average schools, should be developed. The role of such models and of their resource centres will be discussed further in Chapter 5.

A final issue concerns integration. Coordination between SHAPE and the Ministry is evident due to the utilization of Ministry structures and personnel. But the precise location of SHAPE in the Ministry is not clear and has tended to shift over time. As mentioned above, at times SHAPE functions semi-autonomously; at others it is seen as being part of the line unit of the Ministry (the Inspectorate). And its relations with the administrative side of the Ministry, though now improved, are still somewhat problematic. Discussion of the further integration of SHAPE within the Ministry is found in Chapter 7.

Recommendations:

1. **The Policy Committee at the national level must be streamlined** in order to allow decisions to be made efficiently without unnecessary discussion and delay. Coordinating committees would also be more efficient if they were of more reasonable size. To make the committee structure more effective, it is necessary to:

- **reduce the number of committee members** to levels where the committees can be functional;
- **dissolve policy committees at all levels except the national level.** The provincial, district, zone, and school levels do not require policy committees (in fact, SHAPE never requested that such committees be established in zones and schools);
- **ensure that the coordinating committees at all levels be responsible for both planning and implementing SHAPE activities; and**
- **incorporate PEOs at the provincial level and DEOs at the district level into the coordinating committees** in order to guarantee that they are not left out of SHAPE decision-making and to make the Ministry fully informed of SHAPE activities in the region. In the absence of the chairperson of the coordinating committee, this responsibility should be delegated to the relevant inspector in charge of primary schools.

2. **The SHAPE Secretariat should be reduced in size**, with one representative from each of the relevant inspection areas (INSET, Agriculture, Home Economics, Industrial Arts) and an accountant. The Chief Human Resources Development Officer should serve as a consultant to the Secretariat. **The Inspectors remaining on the Secretariat should be seconded to it so that they can become full-time planners and executors of SHAPE in**

their respective areas. This recommendation should be taken into account by the upcoming ODA-funded study on the re-organization of the Ministry.

3. The original SHAPE method for the allocation of funding in response to local initiative should be followed more rigorously so that schools (and other institutions of the system) which produce "good" projects and development plans get more support than those that do not. Information concerning the selection criteria for SHAPE support to self-help plans should be widely disseminated. Headteachers and coordinators will also need to get special training in the development of such plans. This suggestion implies an increased workload and responsibility for SHAPE committees at relevant levels and finally at the Secretariat to screen and approve or reject these plans in time for zones and schools to revise or change them. But they also need to be advised about reasons for the failures of their proposals.

4. The development of model schools and zone centres as essential part of the SHAPE/Ministry structure should be accelerated. This requires greater clarity as to their roles and the criteria for their selection and more formal recognition of their status. This also requires either a re-distribution of SIDA funding or the soliciting of other donor support for the development of such centres.

5. There can never be too much information in a system, especially at its usually neglected lower levels. Newsletters at and to various levels of the system, especially from the Secretariat, should be developed as a means of disseminating useful information about what the Secretariat is planning and doing and about local activities (e.g., materials development or production work, school-community collaboration) and particularly interesting innovations. An alternative would be a "SHAPE section" in Orbit magazine. The essential point is to use the written media to "sell" the SHAPE message more systematically and widely and to increase even more the sense of "community" among those involved in SHAPE-related work. (Other media, such as newspapers, radio, television, and videos, could also be useful in this regard.)

SCHOOL AND COMMUNITY

This section provides a brief assessment of the relationship between the school and community in Zambia. Primary schools are often located in compounds where their pupils live. Because of the daily interaction between the home and the school, the latter is always visible to the community and society at large. Thus, both school successes and failures are well-known to society, sometimes with disastrous consequences (as when teachers are attacked because large numbers of grade 7 pupils do not make the cut off point to grade 8). The SHAPE program envisaged closer links between the schools and their surrounding communities as they engaged in numerous self-reliance activities.

The self-reliance approach has very often been applied at the school and community level as seen in the numerous schools built on a self-help basis and the number of desks made by community members and donated to schools. Moreover, because the Ministry's budget to primary schools has always been smaller compared to those allocated to higher and secondary education, government inputs to schooling at this level are few (which is one of the reasons for the higher social returns to investing in education at this level). As a result, parents and communities are often asked to contribute money, goods, and labour to the school. The SHAPE program wanted further to strengthen the partnership between schools and communities under the structures it provided, working through PTAs and other cooperatives.

The evaluation team found that relationships between communities and schools are generally positive. The nature of these relationships, however, is now threatened by the generally poor economic state of the country. Relations can deteriorate easily, especially if (as often happens) community members steal produce from agro-units; schools may need to harvest prematurely to gain any profit. Vandalism and theft of school property, including teaching aids, also occur. This can be attributed both to the lack of a feeling of ownership of, or identity with, the school on the part of the communities as well as to the poor economic environments surrounding schools which often seem to portray affluence in the midst of poverty.

Where there is cooperation, community member participate in school activities in a number of ways. They sometimes help in production work, particularly in industrial arts and agriculture. We saw evidence of this where community members were requested to give practical lessons in making sieves and cow-hide stools, and in giving advice on growing trees such as oranges. In some cases, however, those who gave lessons demanded payment and therefore were not asked again to help.

Certain production activities, such as agriculture and home economics, would not have been possible without community support. Parents provide most of the hoes and rakes and sometimes seeds for agricultural work. But when parents need to use the implements themselves, there can be a scarcity of agricultural implements, and pupils are then unable to participate in production work.

In home economics parents provide cloth and sometimes needles used in sewing lessons. Those who do not bring such supplies from home do not actively participate in the lessons. Although home economics is often budgeted for by the Ministry, the distribution of

supplies and funds is erratic and not based on school requests. Moreover, no textbooks are available, even to home economics teachers. Community support to this subject can be requested in the form of community members teaching pupils how to make certain dishes or how to sew and knit practical items using local materials.

In general, although pupil participation in practical subjects (especially Industrial Arts, which is locally assessed) lends itself to assessment by non-teachers such as community members who have been involved in the teaching, such people are not usually asked to help assess teaching and learning in practical subjects.

Few cooperatives as such exist, although in some schools PTAs are divided into specialized committees, according to skills and interest, which draw up plans for fundraising activities. Such PTAs even have bank accounts separate from SHAPE accounts; these have sometimes been used by NGOs and other donors such as EEC and FINNIDA for various development activities.

The functions of PTAs are usually limited to infrastructure development and fundraising activities for projects such as wall-fences and desk-building. In one school visited, however, PTA members also took turns guarding the school compound against vandalism and theft. Very active PTAs meet often, and membership to executive boards depends largely on personal interest and socio-economic status. PTAs do not seem to be involved in inducting new teachers into the teaching profession or in helping to train teachers in locally-relevant skills and knowledge, these items apparently being left more to SHAPE committees.

Some schools are closer to their communities now than in the past, before SHAPE, but this cannot easily be attributed to SHAPE's efforts. This points to the relatively little emphasis placed by SHAPE on the building of stronger school-community partnerships or community involvement in schools, either in production or resource work or in the development of self-help school development plans.

It is difficult to say whether SHAPE's failure to forge this new partnership has made schools fare more poorly than they otherwise would have done or if it has made them work harder to improve schools as many have always done. Some would argue that SHAPE's neglect of community involvement worked for the better as the greater financing by SHAPE of community/school relationships might have killed their initiatives. It is also possible to argue that with increased economic hardships nation-wide, the willingness to support schools on the part of communities has not been matched by their ability to do so. If so, it is prudent to expect that those schools and communities that have done well without much SHAPE support might have done even better with it.

Recommendations:

1. SHAPE should put greater emphasis on the development of stronger community-school partnerships, especially in more economically disadvantaged parts of the country. This might be done through the training of teachers and headteachers in promoting parental and community participation in schools. Some incentives (such as "food for work") might be required in some cases to encourage such participation.

2. **SHAPE should also clarify guidelines for how the community can be more effectively involved in the design of school development plans.** Criteria for the support of such plans should include the extent to which they focus on strategies for strengthening existing community-school organizations and utilizing them more effectively.

3. In addition, because community members resent being involved in school only when schools are in trouble, **SHAPE should encourage the more systematic and planned participation of community members in a wider variety of activities,** including the assessment of school needs, the design of school budgets and plans, and the teaching and assessment of practical work.

CHAPTER 3

FINANCE AND RESOURCE FLOWS

As discussed above, the idea of SHAPE as it has evolved within the Zambian educational system has multiple objectives. Carrying out these objectives involves a series of project-oriented actions: reflection, planning, targeting, budgeting, resource transfers, field activities, accounting, monitoring and evaluation, feed-back, re-direction, and further action. To be able to carry out these actions effectively requires a proper understanding of the nature and sources of the major inputs of SHAPE, both financial and non-financial, and the development of an efficient and effective "flow" of these inputs. SHAPE's major inputs come from three broad sources:

1. funding from SIDA -- 37,143,000 Swedish crowns since 1987 -- and from NORAD -- 2,600,000 Norwegian crowns in 1987-88 (for details of the SIDA funding, by year, category, and utilisation rates, see Appendix 4);
2. funds from the Government of the Republic of Zambia (GRZ) earmarked for primary schools; and
3. self-help resources at the school-parent-community level.

A. The nature and flow of SIDA funds to SHAPE

In the annual review meeting between SIDA and the Ministry of Education, officials discuss and review SHAPE implementation progress. They agree on general SHAPE plans and a macro-budget for the coming year, showing four quarterly sub-divisions. SIDA's Development Cooperation Office (DCO) in Lusaka then advises SIDA headquarters in Stockholm to transfer funds in Swedish crowns, based on quarterly progress meetings, through the Swedish Central Bank to the Ministry account at the Zambia National Commercial Bank (ZNCB) in Lusaka. The Lusaka DCO then informs SHAPE that such a transfer has been requested.

SIDA transfers to the Ministry in Lusaka are based on the agreed minutes of the annual review, including the requirement that the previous year's expended accounts are properly audited and documented by the Auditor General according to the laws of Zambia. This *audit report conditionality*, seemingly sensible in terms of its accountability implications, is apparently a powerful pre-condition for the release of SIDA funds, even though SIDA, in its Specific Agreement with GRZ, promises to utilize as far as possible the ordinary public implementing channels operative in Zambia. These, however, do not always operate in accordance with the needs and timetables of outside donors. In other words, if the Auditor-General, as a semi-autonomous institution with its own operative schedules and plans, cannot complete its audit of SIDA funds in a timely fashion, SHAPE activities should not suffer as a result.

Once SIDA funds finally reach the Ministry/SHAPE account at the Zambia National Commercial Bank, the Ministry (SIDA) accountant, upon a written advice based on approved

plans, writes out cheques to all Provincial Education Officers, based on the quarterly allocations endorsed by the SHAPE Secretariat and specifying the major items to be funded. Each PEO is contacted by telephone, letter, or verbal message to come to Lusaka to collect the province's cheque. The PEO or an accredited representative is expected to collect the quarterly SHAPE cheque from Lusaka in person for security reasons. Direct bank-to-bank transfers to the regions are at present never used. This physical cheque collection procedure can also mean a delay in implementation time of sometimes up to three weeks.

When the funds are in the Ministry provincial account, the PEO in turn prepares quarterly cheques for district SHAPE committees and teacher training college based upon a disbursement allocation plan prepared by the SHAPE Secretariat that comes with the provincial cheque. It is common practice for PEOs to demand financial returns on how the previous quarter's allocation was used (and hence financially retired) before cheques are released. There are instances where DEOs claim they have correctly returned financial documents to provincial Ministry accountants, but the latter deny receipt of such papers. Such occurrences, though not very frequent, cause unnecessary delays in the flow of approved financial funds from the provincial level to the district. District Education Officers, once in receipt of their district SHAPE cheques, proceed to allocate them to the various SHAPE projects and zone and school activities.

Provincial Accounting Units (PACCU) were created in the provinces in the Second Republic ostensibly to centralize, quicken, and safeguard payments from the public chest under conditions of economic stringency. Paradoxically, however, owing to the very large number of public departments that need to be serviced, the terribly long payment delays and serious bank reconciliation problems that result under such a manual, make-shift, financial operating system seem to wipe out completely all planned initial benefits. Some provincial educational officers are at present doing their provincial and district disbursement of SHAPE funds on their own, outside the bewildering PACCU network just described. Other PEO establishments, notably Eastern and Southern, probably for lack of qualified accounting staff, still hand over their provincial SHAPE cheques to PACCU to administer on their behalf with all the frustrating delays and reconciliation difficulties involved. Much useful implementation time would be gained if all PEOs were strengthened with adequate accounting staff so as to make it possible to avoid using PACCU.

B. Issues arising from the fund flow pattern

Delays from a variety of causes (slow transfers from Stockholm, delays in inter-bank transfers in Lusaka and in the movement of funds to the provinces, inadequately information in budget requests and reports) have meant that SIDA funding in any one year has not always been fully utilized (see Appendix 4). This was especially true in 1992 when, from SIDA's side, the previous year's expended SHAPE funds were not audited in time in line with GRZ-SIDA Specific Agreement conditions. Thus, new transfers for 1992 were delayed several months. Therefore, one vital indirect link in the smooth flow of top-down SHAPE funds is the agency responsible for conducting scheduled and regular external auditing of expended SHAPE funds, the Auditor General. Interviews conducted by the evaluation team at the Auditor General's Department revealed problems of: (i) shoddy or, very often, completely non-existent pre-auditing work by the Ministry's own internal audit section; (ii) poor training regarding the proper way of keeping simple SHAPE accounts for school projects and at zone,

district and provincial levels, hence making external auditing work extra difficult and time-consuming; and (iii) the large number of public departments that the under-staffed and under-financed provincial Auditor General's offices have to audit within specified time periods.

This analysis opens up certain needs in regard to the SHAPE auditing process: (1) training regarding accounting procedures at lower levels of the system; (2) the use of reputable private local chartered accountants (competent in public accounting procedures) for external auditing and financial accounting advice; and (3) mutual Ministry-Auditor General cooperation schemes, with auditor training packages, that can strengthen the two public establishments while enriching and streamlining Ministry-SHAPE and related activities. Some accountant management training has already started in this respect in the Ministry.

Asking PEOs or their accredited representatives (often with transport problems) to collect signed cheques every quarter from Lusaka is workable perhaps for provinces very close to Lusaka, but certainly not very convenient for distant provinces such as Western and Northwestern. A faster alternative method, apparently already agreed to but not fully implemented, would be to request the Zambia National Commercial Bank to make direct bank transfers to the lower levels (province or district), provided the Ministry/SHAPE Secretariat as well as the recipients of the bank transfers can be informed as quickly as possible and the transfer method protected from possible abuses and fraudulent practices.

Administratively, what PEOs actually do with regard to the top-down SHAPE resource flow is to collect bulk sums from the Ministry headquarters in Lusaka and spend time re-distributing such SHAPE funds according to a rigid disbursement schedule over which they have no control. One obvious question which comes to mind is this: Why cannot SHAPE funds be sent directly to stipulated district SHAPE accounts with adequate and compulsory written back-up information to DEOs, District Primary School Inspectors, the PEO, and Senior Inspectors in the provincial office? The idea here is to gain in implementation time, respect the PEO's position in the Ministry structure, and get districts more interested in the management of SHAPE resources (and hence better placed to competitively and resourcefully find ways to augment such district-level funds).

Some SHAPE documents describe it as a semi-autonomous program within the Zambian Ministry of Education. Looked at from that angle, SHAPE engages in a wide variety of organizational and coordinating activities that can be described as target-focused or project-oriented. In principle, therefore, SHAPE's income generation, funding, and budgeting procedures ought to be time-, target-, and project-conscious. This implies a specific budget agreed upon by the key parties involved in implementation.

At present, SHAPE prepares yearly budgets indicating quarterly allocations at the national, provincial, and district levels. This is always done after yearly activity review sessions where key implementers are represented. But the time, enthusiasm, and effort put into such activity reviews and bottom-up budgeting sessions are not matched by the quarterly SHAPE resources actually received from the Ministry/SHAPE Secretariat. The present arrangement regarding SHAPE-SIDA fund flows to the provincial and district levels and for special projects can probably be best described as a rigid, top-down allocation process rather than voluntary budgeting in a program meant to nurture participation, local initiative, self-reliance, and flexibility. Thus, quarterly financial resources come as flat, across-the-board,

project-tied allocations, for activities such as training, monitoring, and desk repair, with districts having thirty schools receiving the same amount as districts with over forty or sixty schools.

The assumption probably is that district SHAPE committees or inspectors will re-allocate such flat amounts on the basis of zone or school self-reliance and initiative. But such district-level re-allocation does not happen often because: (a) the in-coming funds are project-tied (and the suggested projects might not necessarily coincide with the priorities of highly self-motivated schools); and (b) the selection criteria for such allocations based on merit are not clear. Thus, the district SHAPE committees do not have an acceptable mandate or scheme to determine systematically the schools or zones that exhibit the kind of self-initiative that SHAPE wants to promote. Partly as a result of this, perhaps, zone or school development plans, accompanied by supporting budgets, are rare. (For an exception, see the proposed quarterly program for a school in Katete District in Appendix 5.)

C. Direct, non-financial resources from the SHAPE Secretariat

Direct, non-financial resources from the national SHAPE Secretariat to provinces, districts, zones, training colleges and schools can be described under four headings: miscellaneous production items, learning equipment and kits, transport items, and petty spare parts.

1. Miscellaneous production items

Under this grouping can be listed incubators, hammer mills, live oxen, welding machines, wheelbarrows, watering cans, axes, hoes, and others.

2. Learning equipment and kits

This includes items such as typewriters (102), duplicating machines (72), steel cabinets (40), overhead projectors (10), etc. Also counted are items such as electric cookers and sewing machines for Home Economics, as well as tools and technical kits for Industrial Arts.

3. Transportation items

Items under this heading include (as of late 1992) bicycles (497), motor-cycles (56), small engine boats (2), and motor-vehicles (39).

4. Petty spare parts

These include a limited collection of spare parts for the transport items; for example, tires for vehicles and motor-cycles, tubes, and spark plugs.

With regard to learning equipment, tools, and kits, the popular opinion in the field is that either they are distributed more or less equally across schools or that they are based on requests that come from the bottom upwards after a district inspector has made sure (following a visit to a school) that there exists at least a qualified teacher and a protective infrastructure to safeguard relatively expensive items, such as sewing machines, from

vandalism. Such initial scrutiny of school-level requests, however, should also sometimes be used to re-adjust priorities in terms of actual pupil and teacher needs. As an example, a good supply of effective blackboard paint to keep classroom blackboards usable during lessons is probably more advantageous than a brand new electric cooker that is seldom used or that gets stolen a few days after its acquisition.

In regard to these kinds of tools and various kinds of learning equipment, their procurement, distribution, maintenance, and retention are critical issues. Their loss, destruction through vandalism, and theft in schools and on the way to schools create large difficulties for the system.

Bicycles and motor-cycles also were part of the initial SHAPE package, supplied by the SHAPE Secretariat for use by SHAPE coordinators at zone and district levels respectively. Concerning motor-vehicles, districts were informed (apparently by the SHAPE Secretariat) that they could qualify for a SHAPE vehicle at the district level if they locally raised a specified sum of Kw 25 000 - Kw 50 000 to signify their readiness to service and maintain the vehicle. Many districts managed to raise the initial cash deposits, but only a few districts were lucky to actually receive a vehicle. Again, criteria for this selection were neither clear nor consistently applied.

In principle, SHAPE bicycles, motor-cycles, and vehicles are supposed to be under the control of SHAPE zone coordinators (bicycles) and district inspectors (motor-cycles and vehicles) and used exclusively for SHAPE-related activities, although with permission from the designated controlling officers, they could also be used for indirectly-related SHAPE activities such as conveying salaries to teachers.

With regard to vehicles, motor-cycles, and bicycles and a more general transportation policy, the following issues must be resolved in light of whatever decisions are made concerning the future relationship between SHAPE and the rest of the Ministry:

1. **the control and use of transport, especially motor vehicles.** This needs to be worked out clearly between SHAPE and other Ministry staff. This will ensure that the transportation policy for key top Ministry officials in provinces, teacher training colleges, and districts can be firmly and persistently implemented so as to deflate possible clashes of interest over vehicles provided by SHAPE;
2. **criteria for the provision of vehicles** at different levels of the system;
3. **who should employ a qualified driver** for such vehicles;
4. **the feasibility of a comprehensive vehicle insurance policy** (against accidents and theft) for SHAPE vehicles;
5. **who is responsible for: (1) routine running and maintenance costs, and (2) major maintenance and repair costs.** Presumably the principle of self-help should compel most levels to the system to provide a large percentage of the costs of routine expenses.

D. Complementary funds from GRZ to SHAPE

One heavy load emanating from the vast public educational system, which is practically the sole responsibility of the Government as it is in most other African countries, is the payment of monthly salaries and allowances. This recurrent expenditure consumes a large chunk of budgeted state funds for education, and the primary or basic education level of the system is no exception. It is hoped, however, that with the improved management of scarce resources under the current emphasis on accountability in public affairs, and with more government resources committed to education (especially to primary education) in future, more and more public funds will be available for non-salary items such as the provision of more and better teaching materials in schools. Many of these promised new resources could be used as GRZ counterparts funds to SIDA support. Already in this year, some 20% of the Ministry's allocation for materials to schools and teachers, and a similar percentage of the budget for the Inspectorate's work, are being provided to SHAPE for its activities.

E. Self-help resources at school/college and community levels

The foundation of SHAPE is at the school and community level. In terms of continuous petty revenue generation, it is at this level that a fair share of the self-help activities of the program takes place. Resources at this level come from diverse sources including: (a) surpluses from school production unit activities, (b) PTA contributions, (c) occasional pupil and teacher contributions in-kind and in petty materials, and (d) special school levies and one-off contributions. Even though there is some evidence in both low-income urban areas and in rural areas that not many parental resources for SHAPE activities can be expected in future, owing to general economic austerity, the evaluation team found that the idea of self-revenue generation for school improvement has come to stay. In many schools, such revenue -- especially from production units -- may be the major source of funds for school improvement activities.

But in some schools as well, this process may be threatened by inadequate accounting procedures, unclear accountability of funds, and vague criteria for the allocation of funds among competing demands. Thus, in periods of economic recession and spiral inflation, only innovative, management-effective, and cost-conscious ventures can survive, and the spirit of self-reliance in schools can only endure if it also adapts in similar fashion to more efficient school management. Looked at from that angle, revenue generation and control in schools, as an indirect adjunct to pupil learning through production, must be made even more systematic, transparent, and accountable.

Recommendations:

- 1. An experienced and qualified financial manager should be appointed at a very senior level at the Ministry of Education to help in financial planning, forecasting, coordinating, and managing with special reference to SHAPE activities, the Ministry's current Planning Unit, and other related donor-funded educational programs. This kind of boost could help promote a healthy and forward-looking spirit of financial and budgetary planning and management as against the current practice of routine accounting.**

2. **SIDA should be encouraged to continue with the fund transfer practice it has already embarked upon; that is, transferring quarterly SHAPE funds directly from the Swedish Central Bank to the Ministry account at the Zambia National Commercial Bank without having to pass through the central Bank of Zambia.**

3. **Once SIDA funds are in the Ministry account at ZNCB, direct bank-to-bank (Lusaka to provincial headquarters) mail transfers should be made, thus crediting the official Ministry provincial bank accounts managed by PEOs directly. This means that the present slow system of writing cheques at the Ministry and waiting for PEOs or their accredited representatives to collect them in person should be discontinued. However, to make sure that the direct bank transfer system is not fraudulently abused, both the national headquarters accountant and the bank which does the transfers should immediately forward details of the transfer to the respective PEOs. Such details should be submitted to the next quarterly progress meeting between SIDA and the Ministry.**

4. **A pilot transfer scheme direct to districts should be introduced in two provinces where SHAPE is very active whereby straightforward mail transfers of approved SHAPE funds can be made directly into DEOs' official accounts with accompanying documentary information to: (a) the respective DEOs concerned and (b) the PEOs in charge of the two provinces for their information. After a two-year operating period, this system of direct transfers should be evaluated, and a further decision taken depending on the results.**

5. **At all levels, including the Ministry headquarters and the SHAPE Secretariat, all paying banks should be informed in writing that only authorized signatories to SHAPE cheques should be allowed to draw money from SHAPE accounts. Under no circumstance should SHAPE funds be shifted to other non-SIDA Ministry projects unless such shifts have been previously discussed in the national SHAPE Policy and Coordinating committees and workable arrangements for prompt refund have been made. Even then (and such resource shifts should in practice be discouraged for obvious reasons), only authorized signatories to SHAPE cheques ought to sign the cheques, and not through special *ad hoc* arrangements to SHAPE bankers.**

6. **The evaluation team is of the opinion that a large number of the critical conclusions of the Auditor General's report concerning SHAPE accounts deal with irregular procedures regarding the recording and retirement of allocated funds. While some of these irregularities could be the result of deliberate action, many appear to be the result of ignorance on the part of officials concerned. Thus, program-related accountants at all levels (national, provincial, and district) should be systematically developed through study tours and training (in areas such as bookkeeping and materials control), and national offices should be equipped with computers, printing machines, and fax services. Such accountants should also be protected from arbitrary transfers to other departments by the Ministry of Finance.**

7. **Based on the findings of the Auditor General's report, we believe it is necessary to simplify purchasing procedures for production items, learning equipment, etc. Thus, in all bulk purchases of SHAPE materials, the process of competitive bidding should be observed. A special effort should be made to examine and then resolve problems of loss and destruction related to the procurement, distribution, maintenance, and retention of such items.**

8. PEOs and DEOs still using Provincial Accounting Units (PACCU) should have their accounting staff trained as soon as possible so as to make it possible to de-link all SHAPE financial operations from PACCU by 31st December 1993.

9. The transportation policy of SHAPE in districts and zones should focus on motor-cycles and bicycles respectively. However, owing to the geographical vastness of many school districts in the country, appropriate vehicles (e.g., Suzuki's) could still be provided for SHAPE work in deserving districts, but conditions of allocation through self-help should be well spelt out to ensure fairness while avoiding confusion and charges of favouritism. Transport management should be part and parcel of SHAPE management training for resource teachers, coordinators, inspectors, DEOs and PEOs. Any money saved with a more modest transportation budget should be re-directed to the provision of teaching and learning materials at lower levels of the system.

10. District coordinating committees should be encouraged to discuss and submit to headquarters proposals concerning whether, and under what conditions, users of bicycles and motorcycles might own these items while still using them for SHAPE work. Such a policy might ensure greater personal accountability and care for such vehicles.

11. The spirit of locally designed budgeting at school, zone, district, and provincial levels should be reinforced so that approved (top-down) budgets reflect previous practical self-help endeavours based on local self-initiative, instead of the present equal-across-the-board distribution system. In this way, the idea of simple school improvement plans and budgets should be introduced in all schools, and headmasters should be trained in how to make them, emphasizing a workable balance between educational outcomes and revenue generation.

12. At the national SHAPE Secretariat, major budget categories should be more explicitly defined in order to convince SIDA how major request figures are arrived at. It might also be useful to have a brief discussion with SIDA-Ministry regarding how the problem of budgeting for inflation can be tackled at various levels.

13. The SIDA condition concerning fund transfers -- that without a satisfactory audit, no further funds can be transferred -- should be re-negotiated in such a way that, even though the spirit of financial accountability is not sacrificed, a continuous flow of funds is not jeopardized.

14. As an irreversible principle of SHAPE's policy of serving levels where the action is really concentrated, the future distribution of donor and GRZ funds should aim at gradually shifting more and more resources to district, zone, and school levels. This principle should apply to resources ear-marked for both recurrent as well as capital investment activities, and all future national SHAPE budgets should show this shift in simple appended tables.

CHAPTER 4

EDUCATION WITH PRODUCTION

The concept of education with production (EWP) in the SHAPE program refers to the integration of the theory of production with its practice. Engagement in productive work is meant to lead to the application of practical skills and knowledge in schools and the interaction of production with the rest of the curriculum, both practical and academic. The expected outcomes of such EWP are several:

1. pedagogical, learning outcomes in terms both of practical knowledge and of problem-solving, planning, and entrepreneurial skills;
2. economic benefits to the pupils and the school from the sale of finished products;
3. attitudinal changes related to pupils' opinions concerning productive and manual work; and
4. social outcomes in terms of removing barriers between the school and the community and between intellectual and manual workers.

EWP as an ideology, philosophy, policy, and practice is closely linked to Zambia's post-independence history. It is deeply embedded in the education system and is by now well understood and largely appreciated by primary school teachers and pupils alike. Teachers, especially, are very much aware of the reasons why the Ministry of Education and SHAPE attach importance to EWP as a learning and training strategy and as a source of income essential to many schools.

However, it is often difficult for the system and for individual schools to find methods that can ensure a desirable balance between production and academic work. In addition, a number of abuses can enter into the process in terms of misused profits and the exploitation of free pupil labour. In general, although SHAPE has done much to encourage the development of practical subjects and the implementation of production activities in schools, it has not yet been able either to refine and make more efficient the practice of EWP or to define more clearly the proper balance between pedagogical and economic benefits.

A. Production work

EWP takes place in three broad operational frameworks: in the practical subjects (Industrial Arts and Home Economics), in Production Units (related to these two subjects and including agricultural activities), and in Creative Arts. In general, the scope and range of production activities is very wide at school, district, and college level. Activities can be categorized into practical and textbook-based production activities and those not explicitly dealt with in current textbooks. Active institutions have tended to have a good mix of the two. Today, agricultural and industrial arts activities appear to dominate the production scene. These have had an advantage over Home Economics largely because of the availability of

production facilities. For many years Home Economics -- the "Cinderella" of practical subjects -- has suffered a lack of equipment and materials. SHAPE's intervention with the provision of home economics equipment (mainly a limited supply of sewing machines and cookers) has not been large enough to reverse the current critical situation. Consequently, many schools cannot offer Home Economics to a larger group of pupils.

Similarly, because not all primary schools received FINNIDA tool boxes and because few schools still have these boxes intact due to theft and loss, many schools have found it very difficult to undertake even simple maintenance and school repair work. Schools without tools should be encouraged to improvise as much as possible with the assistance from schools with tools. Schools might also adopt a creation of a school maintenance and production tool box as one of their short-term projects; flattened pieces of iron can make simple but efficient hammers, and simple screwdrivers, rakes, and hoes can be locally designed and made.

Each production component has a variety of activities and products. In agriculture the activities range from common pursuits such as growing maize and beans to the more adaptive and specialized production of kenaf, cotton, and cashewnuts. It was surprising to note, however, that none of the schools actively engaged in agricultural work had included methods of food storage and preservation (drying or salting) as part of food production and security processes. Industrial arts, too, undertakes a wide variety of production activities. Many industrial art products are intended for school use. These include brooms, board dusters, mathematical instruments and objects, and rulers. Where production resources are adequate, schools have also been able to make a range of items for sale. Although severely handicapped by lack of equipment, home economics teachers have kept up efforts to produce whatever they can with whatever means; this is often limited to items such as pillow cases and scones and fritters. It would appear, however, that many schools have reached the limits of reasonable improvisation in this regard.

The team noted with great interest that a number of schools are engaged in some quite innovative production activities for which there are no written reference materials. Some examples are: making glue from fresh cassava tubers or from styrofoam and petrol, making wire toys, etc. Transmission of knowledge and skills in these activities is still done through oral instruction and practical demonstrations. Therefore, the sharing of such information is severely limited. There is need to capture and document this knowledge and these skills more methodically. The SHAPE Secretariat, colleges, and teachers should make an attempt to document these non-textbook-based activities/innovations and share such information as widely as possible.

The team found evidence in many schools of the impact of production work on pupils. Many teachers (and some pupils) believe pupils are learning useful production skills. They were also quick to point out that the attitude of pupils towards production (manual work) has changed for the better. They said there is noticeable enthusiasm for, and commitment to, production work. Some teachers mentioned less absenteeism from production work and a greater willingness to work in these units on weekends. A combination of honest counselling and the realities of life after school appears to have succeeded in making pupils adopt a more positive attitude. But systematic research on such effects of production work does not exist.

B. Emphasis in EWP

It would appear that many schools have tended to put more emphasis on production activities that can generate badly needed school income. This should be put into the current economic context of schools as well as of SHAPE's objective of promoting self-reliance. Today many (and in some cases, most) school activities are funded locally from production work, and for many schools few other sources of funds exist. It is therefore difficult and unfair to condemn schools which seem to put more emphasis on profit gain. Many schools are responding to economic/financial hardships and to the need to be self-reliant. Besides, where profit-making production activities are well organized, there should be opportunities for pedagogical gains. Unfortunately, many teachers are not trained in the skills needed to make this possible.

"Profits", or cash from production sales, are meant to be kept in a school bank account. The headteacher and one or two production coordinators are usually the signatories of the account. This arrangement tends to vary from one school to another. Evidence from the field suggests that what schools call profit has to be treated with caution. Most of the schools do not have any proper method of bookkeeping so that records are poorly kept and expenses inadequately detailed. Where attempts have been made to calculate real profit, a number of important costs, such as labour costs, have been omitted. School and college staff need better training in entrepreneurial and business skills so that production work can be organized and accounted for more efficiently.

It is the practice of many schools to pool money from all production components into one account. Cash from production sales is used for many purposes, but mainly to support local allocation deficits. The team found that INSET seminars have been the most frequent beneficiaries from school production funds. Many schools try as much as possible to decide on the use of this money democratically, with a committee sanctioning allocations from this fund. However, the degree of democracy in this matter tends to vary from school to school.

C. Production units and classroom subjects

The linkage between production unit activities and classroom subjects was evident in only a limited number of schools. Some teachers have used products from agricultural activities and industrial arts production to support mathematics teaching. Oranges, bananas, and woodwork pieces have been used in teaching some mathematics topics. Others have pupils sew maps of Zambia on pillowcases and towels. The team found that the achievement of this linkage depends to a very large extent on the initiative of the teachers concerned; there is no consistent or formal relationship between production work and classroom subjects. Constraining factors in this regard have been the lack of tools and other raw materials which could support an effective linkage and the lack of appropriate teaching materials and teacher training. As pointed out earlier, there are still a number of production activities that have no reference to classroom subjects.

Integration of theory and practice in productive work is more often taking place at the level of the three practical subjects: Industrial Arts, Home Economics, and Agriculture. In these subjects pupils are taught basic principles, theories, and ground rules before going to the benches, fields or homecraft rooms to make an attempt to apply the theoretical knowledge

gained in the classroom. A curriculum and syllabus exist for these activities. Separate times have been set aside for theory and practical work within the school timetable. For those production activities that are outside or have no close relationship to the three practical subjects, the problem is to find a means to include them into the school curriculum.

So far the Curriculum Development Centre has been minimally involved in work pertaining to EWP curriculum development. Its concentration in this area has been on the three practical subjects. It may be wiser to leave the situation of non-curriculum-based production activities as they are because the primary school curriculum is already stretched. There are several competing interests in the curriculum from diverse sources such as health, nutrition, environment, and wildlife conservation. It is not possible to include everything in the school curriculum. What schools need is a better and more effective arrangement which could ensure that pupils benefit from both curriculum and non-curriculum-based subjects and activities.

D. Production facilities

Most of the schools the team visited have some production facilities in industrial arts or home economics or both. The facilities are fairly modest with only basic tools and equipment in most cases. A major production obstacle faced by many schools is the lack of tools and equipment. Home economics appears to be the hardest hit. This situation has forced many schools to seek maintenance and school repair assistance from well-equipped schools. The Desk Repair project under SHAPE has suffered setbacks and disruptions because of this problem. Unless SHAPE works out a strategy which can help schools acquire more tools and the necessary basic equipment, the spirit and program of self-reliance face a serious prospect of collapsing. Schools should therefore be encouraged to adopt the acquisition or production of tools and equipment and the rehabilitation of old production facilities as key self-help projects.

E. Participation in production

The main participants in school production work are teachers and pupils. Rarely have schools involved community members in direct production work. Schools do not have the kind of facilities and organizational arrangements that would allow extensive participation by community members. However, community members have supported school production work through various forms of contributions such as materials and money.

In general, pupil participation is limited to active production. Project identification, planning, and management are usually done by teachers. There is a need to familiarize older pupils with elements of planning, budgeting, accounting, and decision-making.

F. Performance and achievement

Although performance in EWP has tended to vary among schools, districts, and regions, by and large the program has had an important impact. The positive attitude among pupils towards production work, and the high spirit of self-reliance among teachers, are the most significant signposts in EWP achievements. The challenge to the SHAPE Secretariat

is to ensure that these achievements are firmly reinforced through new measures of support and more carefully crafted guidelines -- not necessarily through monetary assistance.

Regrettably, the team noted that very little useful evaluation of EWP performance is being carried out at any level. Attempts to evaluate performance in schools by the teachers themselves has so far been too unsystematic and too elementary to be useful to the effective planning and reorganization of production work. The research and evaluation background among teachers and college lecturers is very weak, if not absent in most cases. This has left activities such as EWP without any proper appraisal.

Recommendations:

1. EWP activities and the spirit of self-reliance in schools are very important in the life of most primary schools in Zambia today. The initial benefits of such activities are very evident in the majority of schools visited. **SHAPE should provide schools and colleges further enabling support in EWP.** Support should be selective and well targeted (for example, to well-designed proposals in home economics) to ensure that external support from SHAPE in whatever form does not kill local initiatives.

2. **A tracer study of Grade 7 school leavers in rural areas should be undertaken** to investigate the retention, usefulness, and utilization of EWP skills by pupils in life-after-school.

3. **Schools should be encouraged to be more adaptive and innovative in EWP pursuits.** In rural schools, especially, more attention should be paid to the making of a basic set of tools and to training pupils in additional skills such as food storage and preservation and the planning and managing of production activities.

4. One of the major problems facing EWP graduates is the lack of effective continuity in applying their skills after leaving school because of a lack of tools. This is particularly acute in rural areas. **SHAPE should support a short-term pilot scheme in a few schools in tools production for school leavers and for the schools themselves.**

5. **SHAPE should encourage schools to use more of their production time on making learning materials.** This aspect has so far been neglected. Poor rural schools may need initial material support to allow them to begin such work.

6. **SHAPE should more systematically develop guidelines, curriculum materials, and training activities (pre-service and in-service) to refine the practice, and correct the abuses, of EWP in schools.** This includes:

- (a) guidelines for the selection of appropriate production projects in differing physical and economic environments;
- (b) materials which demonstrate how to combine production work with academic lessons from other parts of the curriculum;

- (c) **guidelines concerning the proper balance among extra-curricular production work, curricular practical subjects, and academic work;**
- (d) **guidelines concerning the budgeting, managing, and financial accounting of production activities and the calculations required to determine correctly the activities' profits; and**
- (e) **training programs in production skills and in familiarizing teachers and coordinators with the above guidelines and materials.**

One possibility in regard to the last point would be to examine the possibility of having teacher training colleges provide very short courses for teachers and coordinators in practical subjects during holiday periods. This would encourage teachers at the school level and would also cater to the large number of teachers who have never had any production-oriented courses since their original pre-service training. This would require that the colleges themselves be upgraded to a level of acceptable practice and conceptualization in education with production.

DESK REPAIR

The Desk Repair project was started with the aim of giving new status to manual work among school pupils, of affording pupils an opportunity to take part in the repair of their own desks and to learn something in the process, and of providing an effective way to help resolve one of the major problems of the Zambian educational infrastructure -- the shortage of usable desks. Therefore, emphasis in this project is placed on the social, pedagogic, and economic objectives of participating in repair work.

Many teachers spoke highly of the importance of allowing pupils to participate in desk repair, and it is an activity that gives SHAPE a high profile. It is believed that this practice has developed a new sense of responsibility among pupils. Many pupils can now carry out simple repairs on desks with minimum supervision from teachers. Where teachers gather to repair desks in selected schools, a sense of community may also be established among them. However, the project has been faced with numerous practical problems.

Some schools contract desk repair to outside labourers, thereby losing any of the potential social and pedagogical impact of the program on teachers and pupils. Also, a number of schools do not have tools or workshops to undertake desk repair work. Consequently, such schools take their desks to other centres for repair. Although such schools are usually allowed to send their teachers and some pupils to participate in repairs, the exercise becomes economically expensive in terms of time and transport arrangements. Cases of schools losing some of their desks at desk repair centres are not uncommon. Because money for repair materials tends to arrive late at schools, they have often not been able to plan their work properly. This also makes repair work expensive due to inflation. Also, desk repair money is often spread equally around several schools in a district so that the impact on any one school in a given year is limited.

It was also observed that schools do not have a sustained work program because of the erratic supply of materials. Where materials procurement has been centralized, there have been cases of schools receiving a disproportional supply of timber and other accessories. Schools have complained about the practice of buying materials for them by the DEO's office. This denies them a chance to plan and shop around as they see fit with the actual money given. Finally, while appreciating the value of desk repair work, teachers have complained of being overtaxed as they do much of this work in their spare time. Consequently, some of the teachers want to be paid for the job.

The team could not get any reliable records on the Desk Repair project as most of the schools visited do not keep accurate accounts records. It was therefore difficult to establish how much it costs schools to repair a desk. All the information the team could get from its visits was that the Kw 35,000 each school receives for desk repair can be used for about 22 desks; this figure has now gone slightly down due to rising prices. A study by the Ministry for 1991 indicated that widely different accounting and reporting procedures made the average cost per repaired desk vary among provinces from Kw 350 to Kw 1500. Even in the absence of reliable economic data, it would appear that the Desk Repair project in its present form is economically inefficient and expensive to run. But it is not certain that any other methods of desk repair would be any more efficient. The educational, economic, and social advantages

of the method now in use and the lack of a creditable alternative for supplying the required desks in many Zambian schools appear to make necessary the continuation of the current program.

Recommendations:

1. **SHAPE should abandon the existing arrangement in desk repair in which resources are spread equally over several schools in a district so that a few desks can be repaired for each school. It would be more cost-effective to take one school at a time and do a comprehensive desk repair job -- and even more effective if such work could be done at the selected school. The pupils in other schools would still have the opportunity to practice desk repair in their industrial arts subjects (if tools are available). We recommend also that schools without tools be assisted to raise money to buy or make tools for production and desk repair activities.**

2. **SHAPE should ensure the rapid transmission of funds for desk repair and more careful and consistent accounting for desk repair costs at the school, zone, and district levels.**

CHAPTER 5

RESOURCE WORK: PROFESSIONAL AND MATERIALS DEVELOPMENT

A. Concept and structure

The term "resource work" -- derived somewhat clumsily from the 1977 Education Reform document's references to resource teachers, resource centres, and resource schools -- refers to those activities organized by teachers, through self-help, using local resources, for the purpose of improving the quality of education. It includes two processes:

1. **Professional development and support.** This is meant to be focused on schools and zones and organized by the teachers themselves through INSET workshops and seminars and the use of different kinds of resource centres and of "human resources" (such as INSET coordinators, subject coordinators, and resource teachers) at various levels of the system. This also includes the training and development of SHAPE-related personnel, from members of the SHAPE Policy and Coordinating committees down to headteachers.

2. **Curriculum and materials development.** This is the adaptation of curricula and the design and production of teaching and learning materials, with a particular focus on the development of production activities and the integration of these activities with other subjects in the curriculum. This work is meant to be done in an improvised, self-help fashion, based on local knowledge and adapted to local conditions.

The primary method for such resource work is the structure of resource banks, rooms, and centres and their supporting resource teachers and INSET and production coordinators at all levels of the system. In theory, schools have resource "banks" or rooms and coordinators which serve their own teachers; zone centres have resource rooms serving teachers, headteachers, and community leaders in the zone; district centres serve a variety of district, zone, and school personnel; and regional centres, often in teacher training colleges, serve regional and district-level personnel. Such resource centres are meant to serve as places for teachers and other education personnel to meet, explore new methods of teaching, identify and organize INSET needs, monitor professional and production activities, undertake research and evaluation, hold periodic review and planning meetings, exchange experiences, give demonstration lessons, provide a base for advisory and consultative professional support services, and create teaching materials and aids.

Such resource structures and work are meant to produce a number of outcomes:

1. to encourage improvisation in the development of materials and the adaptation of curricula, using the local environment;
2. to encourage interaction among teachers themselves and with headteachers, inspectors, and members of communities; and
3. to improve teacher knowledge of subject matter and teacher competence in teaching methods.

B. Achievements

The evaluation team found that a considerable amount of school-based, self-help professional development and support activities is occurring at the school, zone, and district level -- with important positive effects on the teaching cadre -- and that a limited amount of teaching and learning materials is being developed through these activities. Resource rooms and centres, however, are not being developed as systematically or as rapidly as demand requires, and the consistent, creative use of these facilities and of the materials produced in them is still limited.

Discussion with inspectors, headteachers, and teachers revealed a number of useful outcomes of SHAPE resource work, especially those related to INSET. These include:

1. **Annual or quarterly school plans for INSET** (and sometimes for production activities) developed by a number of school SHAPE committees and personnel;
2. **School- and zone-based seminars and workshops** for updating teachers in new knowledge (e.g., the new English primary course, teaching in multigrade schools), upgrading them in subject-specific teaching skills and materials development, informing them about professional issues (e.g., conditions of service, educational administration), and orienting them to the SHAPE structure and approach. In the best of cases, schools invite workshop participants from the schools in the zone and seek resource persons from nearby secondary schools, private schools, and local education offices. Short courses at the school and zone level are usually paid for from local funding (often from the profits of production work); courses at the district level are usually funded by a combination of local resources and district funds derived largely from school levies or national SHAPE allocations;
3. **The development of various kinds of resource banks, rooms, and centres.** A creditable effort is being made in many schools to put a resource "bank" somewhere in the school where teaching aids and other items produced in the three practical subjects are kept - ranging from a locked desk in a headteacher's office, to a spare room in the school, to a more elaborate group of rooms and workshops at the district or regional level. Some of these were quite well-organized and obviously well-used as places for keeping and lending textbooks and other aids and for developing materials; others were no more than "visible storage" for dusty and rarely-used materials.
4. **The overcoming of the isolation of individual schools and teachers.** School and zone resource work leads to a sharing of what teachers have done, often with input from active headteachers and from outside resource persons. It seems to have brought teachers together as a community so that there is a more collaborative approach to their teaching;
5. **The building of self-help, initiative, self-reliance, and a greater feeling of autonomy,** with less dependency on actions and initiatives from higher up in the system;
6. **The development of teaching and learning materials** as a common component of the INSET program. Creative work has gone into such materials, and teachers have produced wall charts, maps, templates, clocks, electrical boards, letter and number sets, etc.

For reasons of security, however, these are often not easily available (e.g., being kept instead in teachers' houses) and apparently not very often (or creatively) used.

7. A genuine sense of the need for, and therefore the sustainability of, such resource work and of professional development activities. When asked what might happen if SHAPE funding dried up, teachers invariably replied that since their resource work was so little dependent on such funding, it would survive.

One other outcome of this professional development work can be seen higher up in the system, where a variety of seminars, study tours, and foreign training programs have attempted to educate and sensitize PEOs, principals of teacher training colleges, and other officials of the central Ministry to SHAPE's structure and approaches. Despite such efforts, however, it appears that SHAPE is better understood, internalized, and supported at the school and zone level than in the higher echelons of the Ministry.

In general, the evaluation team found quite a remarkable level of knowledge about, interest in, and activities supportive of SHAPE resource work, especially in the area of INSET and the professional development and support of teachers. This is remarkable for two reasons. First, SHAPE has been developed in an economically and politically very difficult period of Zambia's history when many serious distractions -- notably, the need to survive -- have dominated the lives of primary school teachers. To devote "unnecessary" time and effort to SHAPE work has therefore not been easy for many of those involved. Secondly, SHAPE has explicitly **not** held out the hope of large transfers of cash or kind to schools and zones. It has focused instead on building an infrastructure of professional development and on transmitting a "message" of self-reliance, self-help, and school-based educational improvement.

Despite (or perhaps because of) this lack of promised material reward, considerable professional and materials development work has taken place. In comparison to many school improvement reforms elsewhere in the world -- which more often start by improving **supply** (schools, textbooks, teacher certification) -- the team feels that SHAPE's focus on transmitting a message, building a systematic and supportive human (rather than physical) infrastructure, and, ultimately, strengthening the **demand** for further professional development and school improvement has, in its relatively short life-span, wrought considerable changes in teacher attitudes and skills.

C. Continuing problems

This having been said, however, many problems with SHAPE's resource work remain. These include:

1. **Limited resources**, especially at lower levels of the system, to respond to the considerable demand engendered through the SHAPE program, especially in rural areas.
2. **Confusion over the nature, use, and criteria for the construction of resource rooms and centres.**

3. Inadequate reinforcement of the basic SHAPE message at different levels of the system and in various regions of the country. There remains a shortage of relevant manuals and guidelines and a need for more explanatory seminars and workshops and additional physical follow-up in the field.

4. Inadequate and largely uncreative use of the centres and materials already developed. Many of the myriad functions of resource rooms described earlier in this chapter are barely touched by those already established, and many of the materials developed appear seldom used in classroom teaching.

5. Inadequate knowledge concerning the ultimate impact of SHAPE resource work on teaching and learning in the classroom and on pupil knowledge, skills, and attitudes.

6. The rather random planning and implementation of foreign training and study tours, with little transparency in the selection process, unclear rationales for the choice of programs and candidates, and inadequate reporting and follow-up of the completed programs.

D. Gender issues

Issues related to gender affect many aspects of SHAPE but will be dealt with here because of their close relationship with curriculum development. The team found evidence that SHAPE's message about the gender neutrality of practical subjects (i.e., girls taking Industrial Arts and boys, Home Economics) was understood by some teachers in the system. In addition, teachers were aware of the idea of gender-sensitive curricula. In other words, some of the sensitization work of SHAPE has been accomplished. But this awareness was neither widespread nor reflected consistently in practice.

SHAPE has been given the role of developing gender-related training in the context of the new education rehabilitation loan from the World Bank; to do this effectively, it will need to clarify the essential messages it wishes to transmit in this regard and strengthen further the skills of those meant to transmit it.

Recommendations:

1. Further resources should be available for selected INSET activities at the school and zone level. Funds should be provided to the district and/or regional level for allocation to schools and zones based both on the presentation of annual plans for resource work and professional development and on evidence of matching (self-help) funds. Such plans should be part of longer-term staff development policies and might also be part of broader school improvement proposals developed among school personnel and PTAs.

2. A more systematic scheme for the development of resource rooms and centres should be created, and more funds should be provided rapidly for their construction, again supplemental to local initiative. Donors interested in contributing to the further improvement of Zambia's education system could usefully invest in such construction. But clearer definitions must be established for the roles of resource centres at various levels of the system (national, college, district, zone, and school), and clearer criteria must be

developed for the kind of centre required at each level (e.g., a resource room or small resource centre in each rural zone, a large centre in each urban district).

3. Professional development through SHAPE, and particularly a position in the implementation of such development (e.g., as zone coordinator, resource teacher, etc.), should be more explicitly recognized in the career promotion process and the career structure of the Ministry. Participation in the SHAPE infrastructure should lead more explicitly to a variety of non-financial rewards; e.g., a smaller teaching load, more rapid promotion, and provision of transport for zone and district resource work. Thus, for example, proven resource teachers or zone coordinators could be promoted to become headteachers in schools and zones requiring more dynamic leadership in SHAPE-related activities. Ultimately, the more important SHAPE posts should become part of the Ministry establishment, with some modest financial reward, thus broadening a currently rather narrow career structure.

4. Further reinforcement of the SHAPE message should be carried out to ensure more consistent and creative use of SHAPE materials in the classroom in the support of more child-centred learning. This should include the re-printing and extensive distribution of the basic SHAPE guidelines, better defined and more extensive coverage about SHAPE in pre-service and in-service training courses (e.g., pre-service teacher training at colleges, the headmaster training planned at UNZA through the new World Bank loan), and more field-based follow-up by district and zone officials and training-college tutors. A special effort should be made to sensitize further the critical actors in education reform at the central level - members of the regional and national policy committees, university lecturers and researchers, and training college principals.

5. Foreign travel should be restricted to more focused and intensive study tours and attachments. Criteria for the selection of participants should be clearer, the selection processes more transparent, and the lessons learned more effectively disseminated. **More study tours, especially for zone coordinators and resource teachers, should be organized within Zambia, from areas weak in SHAPE implementation to stronger areas.**

6. In further preparation for its own work in the area of gender, and particularly in light of its training activities through the World Bank loan, SHAPE will need to clarify the essential messages it wishes to transmit about gender issues and strengthen further the skills of those meant to transmit it. It should try as well to ensure more equal gender balance in its own operational structure.

CHAPTER 6

MONITORING, EVALUATION, AND RESEARCH

The monitoring, evaluation, and research aspects of SHAPE were planned from the beginning of the program to play the constructive role of providing information for the continuous improvement of the various components of SHAPE. These three activities are expected to take place from the national SHAPE Secretariat, through provinces, teacher training colleges, districts, zones, schools, and down to the classroom.

Monitoring systems within educational programs are based on a theory about how schooling inputs (teachers, pupils, texts, facilities) lead to schooling outputs (knowledge and skills, graduation and continuation rates). Talking in terms of inputs and outputs does not necessarily imply that school processes are being neglected. In fact, the current focus in education is to try to define **school climate** as a multi-dimensional concept and to examine the effects on schooling of factors such as pupil-teacher interactions, teacher morale, parental involvement, and norms and expectations of high achievement. This way of thinking presumes that pupil outcomes are largely determined by family influences and pupil experiences at school, and that the latter are shaped by teacher knowledge and skills, curricular content, classroom practices, and the school organizational structure and how it operates -- in short, school and local environments.

By definition, innovations in education attempt to change some or all of these factors. Looked at from this angle, the monitoring, evaluation, and research activities of SHAPE at classroom, school, zonal, district, and national levels -- which are supposedly examining such factors -- are extremely important to the further development of its message and approach. Unfortunately, they also constitute one of the greatest weaknesses of the entire program.

The 1992 SHAPE provincial report of Copperbelt Province has a component under the section on problems which reads:

"Lack of funding hampered progress regarding monitoring and evaluation.
Inaccessibility to SHAPE transport contributed to poor performance" (page 27).

Similar comments on monitoring and evaluation exist in the annual reports of most other provinces and districts visited by the evaluation team. Apart from the direct messages which these comments contain, the statements also reveal that monitoring, evaluation, and research are regarded:

1. as top-down accountability processes within SHAPE programs; and
2. generally speaking, as "one-off" external activities instead of as continuous, in-built, reflective management mechanisms that should be undertaken by key players at all levels of the SHAPE system, involving teachers, headmasters, coordinators, college staff, and school inspectors.

A. Monitoring, evaluation, and research: How do they relate?

Researchers and practitioners in education, as in many other fields, have been engaged in a debate regarding the distinction among monitoring, evaluation, and research. For our purposes, **monitoring** is a process of watching periodically the progress of a program or project with the intention of identifying trends, strengths, weaknesses, or irregularities in order to take timely corrective action. Every effective program requires monitoring as a regular built-in component, and not as a whimsical occasional appendage or after-thought whose execution depends on the availability of personnel, time, or resources.

Evaluation is the determination of a thing's value. In education, it is the formal determination, for example, of the quality, effectiveness, or value of a program, project, inputs, product, or process. The basic rationale for evaluation is that it provides information for future action. Its primary justification is that it contributes to the "rationalization" of decision-making. Unless an evaluation gains serious hearing when program decisions are made, it has probably failed its major purpose.

By **research** is meant systematic inquiry aimed at increasing the power to explain, predict, and control events. All three of these actions involve relationships between events or between variables. Thus, research concerns studies which are designed primarily to add to the general body of knowledge through systematic and sustained enquiry and which are planned and self-critical, aimed basically at **understanding**.

Because effective educational innovation rarely comes from central authorities alone but rather grows locally as a means of meeting local needs, all levels of the SHAPE system are supposed to be engaged in one form or another of simple research. Different types of monitoring, evaluation, and research activities have been planned for every phase of SHAPE. Some are meant to be carried out by the beneficiaries of the program (for example, teachers); others by SHAPE officials, college tutors, and local university lecturers; and yet others by external SIDA-Ministry consultants.

B. Monitoring

SHAPE's guiding initial documents provide the following reasons, among others, for monitoring the various components of the program:

- to identify the weaknesses and constraints in the process of implementing the program and initiating remedial action;
- to use the information collected to plan future developments of the program;
- to improve record and accounting books, learning aids, and instructional procedures and processes;
- to check on the proper utilization of resources such as money and equipment;
- to provide feedback to administrators, planners, teachers, and coordinators in improving the program;

- to reinforce the supply of materials for teaching;
- to build a guiding data base on school production activities as well as usable data on pupil assessment and pupil progress; and
- to evaluate the motivation and attendance of participants in various SHAPE activities.

An initial guiding document of SHAPE states:

"Monitoring a resource program, for example, should be undertaken by INSET coordinators, SHAPE committees at all levels, officials of the Ministry, and beneficiaries of the program" (Guidelines on Planning and Implementation of Resource Work; page 29).

Some aspects of SHAPE that initial guiding documents encourage to be monitored include:

- the preparation, production, and distribution of instructional materials;
- meetings, in terms of their frequency and attendance;
- transportation (including its appropriate use or otherwise), accommodation, and food during planned SHAPE activities;
- provision of resource persons and the quality of their work;
- financial aspects of the program; and
- the functioning of the SHAPE organizational structure.

Various procedures and methods were proposed for carrying out these monitoring activities; namely, simple observations, personal interviews (structured and unstructured), discussion sessions, questionnaires, on-the-spot field visits, and quarterly and annual reports.

C. What happens in practice in the context of SHAPE?

The above SHAPE monitoring philosophy assumes that the following contexts, facilities, or expertise exist or could be gradually developed in the education system:

1. basic interest and skills regarding monitoring, evaluation and research at different levels: classroom, school, zone, district, province, college, university, and Ministry;
2. adequate personnel, resources, and avenues for frequent and effective training programs and upgrading seminars geared towards not only how to do research and evaluation but also what to do with the results and data collected;

3. simple materials such as record books, monitoring charts (standardized where desirable), checklists, and printed guidelines;
4. a mainstream Ministry culture which allows time for, or recognizes time spent on, systematic educational evaluation and research;
5. materials, money, and transport always available for zonal, district, and provincial monitoring tours; and
6. at all levels, avenues for the analysis, discussion, and use of monitoring and evaluation data.

To be fair to SHAPE implementation processes, some of the above conditions actually exist to some extent, and some have gradually been nurtured through monitoring and research activities and funding. A number of teachers and college tutors reported using a variety of methods to evaluate SHAPE activities, ranging from site visits to individually designed checklists or other instruments. But the overall culture, skills, and facilities for monitoring, evaluation, and research have simply been too weak and spotty throughout the system, particularly at school level, to use to reasonable advantage; hence, this component remains the weakest aspect of SHAPE. In other words, there has not yet been a systematic identification of the desired processes or outcomes to be assessed, the indicators to use in assessing them, the instruments for collecting necessary data, or the methods needed for its analysis.

One exception should, however, be mentioned. This is the institution of monitoring tours at the national level (SHAPE Secretariat-Ministry-SIDA). These have been relatively regular, thanks to better transportation and funding arrangements at this level. Some members of the SHAPE Secretariat have actually visited over 90% of the school districts in Zambia, a highly commendable achievement. Reports from such monitoring tours often have sections on: (a) the aims of the monitoring tour, (b) the composition of the touring team, (c) the places visited and specific duties carried out, (d) detailed notes and comments on events and observations, (e) general impressions, and (f) specific recommendations.

But it must be remembered that however well planned and executed, monitoring tours still remain special studies at single points in time. They are not more than cross-sectional, data-collecting activities from a small SHAPE window of time. Such tours can thus only be a supplement to a well-designed, executed, documented, and usable system of continuous monitoring at all levels. This, unfortunately, is weak and incomplete for it comes mainly in the form of annual reports and periodic reviews at various levels, following categories that often change from year to year, and thus does not reveal documented trends that are amenable to systematic corrective action.

D. Research endeavours within SHAPE

A few enthusiastic attempts were made by SHAPE officials in the past to implement the research plans or blueprints described at the beginning of this section. These include seminars on the need for research as well as courses designed to actually "teach" selected participants the rudiments of basic educational research. A few of the teaching hand-outs used

on these courses are of considerable quality. Most, however, are sketchy, highly abstract, and probably of little use either to beginners having a first taste of research or to more experienced researchers needing practical advice on the design of specific studies.

The implementation of research plans was also patchy, with only a few good reports being cyclostyled and distributed in a very limited fashion. Many of the early teachers' college tutors chosen to serve as a nucleus of the scheme were poorly selected, with most coming on a "you-too-can-join" basis, with little reference to the tutor's research interests, self-motivation, or personal career plans. Some useful information was gained from a few of the college-run studies and from their synthesis, but more recent research projects have produced little of use to the program.

"It is teachers who, in the end, will change the world of the school in the interest of the child, by UNDERSTANDING it" (Lawrence Stenhouse, *Research As A Basis For Teaching*, London: Longman, 1985).

At the primary school level, the idea of stimulating classroom teachers or SHAPE resource teachers to undertake simple practitioner-based research never took off. In principle, the basic argument for placing practising teachers at the heart of simple educational research within SHAPE stems from the fact that teachers are in charge of classrooms. Classrooms are the ideal laboratories for the formulation and testing of educational theory and the evaluation of educational practice. To researchers whose interests lie in naturalistic observation and understanding, the teacher is a powerful potential participant observer in classrooms and schools in terms of the study of effects of new materials, styles of teaching, and other environmental influences on children's learning.

A teacher, however, must know what to do, for most would lack confidence in carrying out research. A classroom teacher lays the foundation of his/her capacity for research by developing appropriate self-monitoring strategies. The most serious impediments to the development of teachers as researchers within SHAPE include a lack of: (a) motivation owing to the absence of both an encouraging context and a local-level research culture ; (b) effective training, feedback, and continuity; (c) time, especially under present conditions of financial stringency; and (d) supplementary resources.

Recommendations:

1. **The national SHAPE Secretariat, with the assistance of experienced practitioners at UNZA and the FINNIDA-funded Zambian Educational Research Network (ZERNET), should develop a systematic policy on the monitoring, evaluation, and research component of SHAPE.** The policy should show, among other things, broad and specific objectives, activities, planned target groups, a division of responsibilities, suggested funding and calendars, required training programs and equipment, and dissemination channels. Draft copies of this policy should be circulated for discussion and feed-back at provincial, district, and zonal levels.

2. SHAPE should distinguish between: (a) one-off monitoring tours which are relatively popular at various levels, but which are, in fact, still only cross-sectional and static snap-shots at specific points in time, as against (b) continuous monitoring mechanisms and

their documentation, analysis, and use with regard to key SHAPE activities. The two types of monitoring are not synonymous. **SHAPE must therefore design a well-developed system of continuous monitoring at all levels** which can evolve into a management information system usable for continual corrective actions and decision-making. Thus, while the current zeal regarding monitoring tours at the national level ought to be continued, institutionalized, and emulated at the provincial, district, and zonal levels, it should be improved in the following ways:

a. **Improve the monitoring tour reporting format to include a built-in follow-up system.** For example, a tour report recommendation may read: "There is the need to re-supply this important district Industrial Arts resource centre with certain types of basic technical tools if desk repair is to succeed." Such a recommendation ought to be accompanied by an action plan such as the following:

ACTION BY WHOM?	WHEN?	REMARKS
1. School PTA, with Dist. Coord. Committee	Next meeting	
2. District Coord. Committee	Next district budget session	
3. Etc.	Etc.	

b. **Widen the circulation of tour reports.** Copies of the expanded reports should be sent to the heads of all schools, colleges, and resource centres visited, as well as to the respective district and provincial coordinating committees. The idea is to allow the reports to serve as useful guides towards remedial action, as well as inputs for future planning and budgeting exercises.

c. **Plan to cover all provinces with equal zeal.** This point is self-explanatory, for the relative lack of visits to certain provinces (e.g., Western) is all too often easily explained away under the excuse of bad weather or inadequate transport. Frequent top-level visits can sometimes stimulate local actors to action.

3. With input from the grassroots level, **SHAPE should develop basic and relevant monitoring targets, indicators, instruments, and procedures** regarding the process and outcomes of SHAPE in the field, at various levels. It is better to monitor a few key outcomes and indicators properly than to spread one's efforts thinly over a wide, unrelated spectrum of variables. These indicators should reflect various factors, including:

- a. coverage: "Are the persons served the same as those meant to be targets?"
- b. quantity: "Are the proper amounts of output being delivered?"
- c. quality: "How good are the materials being developed or the teaching being delivered?"

- d. fiscal or financial accountability: "How efficiently and honestly are resources being used?" and
- e. legal accountability: "Are relevant SHAPE and Ministry regulations being observed?"

The above analysis and suggestions apply equally to monitoring and evaluation activities at the provincial, district, and zonal levels.

4. Within the blueprint of the new research policy recommended above, **SHAPE should create a small but effective research implementation team** to re-launch the SHAPE research program on a pilot basis, for three years. The research should cover a small and manageable geographical area, with a carefully selected working team that includes interested classroom teachers, SHAPE resource teachers, coordinators, a few pre-service teachers under training, college tutors, and UNZA and ZERNET researchers. The research team should present a working plan and a budget with provisions for training programs, fieldwork, analysis, equipment, printing, discussion seminars, and the dissemination of results.

5. As part of the its initial assignment, **the team should carry out one or more of the following important research tasks.** The remainder, and perhaps others of equal importance, should be worked into its three-year program:

- a. tracer studies on the impact of practical school subjects on school graduates, particularly in rural areas;
- b. tracer studies on the impact of SHAPE resource work on classroom teachers;
- c. assessments of the interaction between production work and the school curriculum;
- d. analyses of the role and impact of district and zone resource centres and of resource teachers and coordinators;
- e. studies of financial self-sufficiency in districts for resource work and INSET and of the sustainability of SHAPE activities at school level;
- f. descriptions of community involvement in school resource work, production, and governance; and
- g. an in-depth analysis, using different research methodologies, on the nature and causes of vandalism in schools and what can be done to lessen its occurrence.

6. **SHAPE's research and evaluation activities should not substitute for those of the Ministry.** In other words, it is the Ministry, through strengthened planning, research, and examination units, that should be responsible for the development of management information systems and examination systems concerning quantitative indicators of the system's facilities,

personnel, and outcomes. SHAPE's efforts should therefore be directed to issues of process, impact, context, and the reasons for the success or failure of particular activities.

7. Since schools are the *raison d'être* of all SHAPE activities, **simple guidelines for monitoring, evaluation, and basic research should be worked out for teachers and used during pre-service and in-service training courses.**

CHAPTER 7

THE GOALS AND IMPLEMENTATION STRATEGIES OF SHAPE

The goals, processes, and implementation strategies of SHAPE are sufficiently complex and of sufficient interest to the nature of educational innovation in general that a separate chapter is being devoted to their examination. The chapter should serve also as a summary of some of the achievements, weaknesses, and future choices of SHAPE.

A. Specific, short-term goals

Although the goals and objectives of SHAPE appear in somewhat different form in different documents, and have been added to in recent years as other areas (gender issues, special education) have been placed under SHAPE control, it is possible (though not easy) to pick out a number of more short-term goals and more general, longer-term objectives. The short-term goals and the evaluation teams's judgment regarding the extent of their achievement are as follows:

1. **To mobilize additional resources through productive activities.** This has clearly been achieved in many schools. Such resources, even very limited amounts of cash, are often the major source for school-based professional and materials development activities.

2. **To orient the education system to the production of goods and services.** This clearly has been done and was useful, probably even necessary, in the early days of SHAPE when it served to nurture and systematize many of the productive activities begun earlier. The task now, however, appears to be the contrary -- how to orient the production activities of the school to the pedagogical needs of the system.

3. **To integrate educational training and production in schools.** In reference to the above statement, this goal has been less well accomplished. The proper balance between the pedagogical and economic aspects of production and the integration of production processes and skills with the rest of the curriculum have not been adequately achieved.

4. **To develop more practical, relevant curricula and higher-quality education.** The achievement of this goal is still in doubt. More practical, relevant educational materials have been developed and more knowledge and different skills have been transmitted to teachers, but whether these have yet been translated into more locally adapted curricula and different teaching behaviours in the classroom is not clear.

5. **To teach pupils "survival skills".** Many teachers believe that pupils have gained more positive attitudes toward manual work, and anecdotal evidence shows that even the rather basic work skills learned in practical subjects and production activities have been used by some students to earn a living after leaving school. But such evidence is not at all systematic.

6. **To integrate gender issues and special education into the system.** Although some teachers now have some knowledge of gender issues, such as the right of both boys and

girls to take all practical subjects, SHAPE does not yet appear to have been systematically very active in this area -- and even less so in special education.

B. Long-term outcomes

In addition to these somewhat more specific and shorter-term goals, SHAPE has developed a number of rather longer-term, more general outcomes it expects from its work. These include:

1. **To enable schools to become better able to serve their communities and the nation.** Such an objective is too general and unmeasurable for the team to assess.

2. **To build self-reliance and initiative in all aspects of resource and production work.** Although not consistently achieved at all levels and throughout all regions of the country, the evaluation team believes that there is a remarkable spirit of self-reliance and self-help in many schools, zones, and districts.

3. **To enable teachers to exercise individual and collective responsibility for their professional development.** Especially in relation to the current external environment, there is a similarly remarkable demand for further development from individual teachers and a remarkable sense of collaboration across schools and teachers in educational development activities.

Recommendation:

Quite apart from the extent to which each of these goals and objectives has been achieved, the evaluation team believes that, in its further phases of development, **SHAPE must more carefully and less ambiguously define a shorter, more specific set of short-term goals and longer-term objectives.** This should be done in light of annual targets to be established in the context of a more systematic monitoring and evaluation process.

C. Implementation strategies

In order to achieve these goals and objectives, SHAPE has adopted two general implementation strategies. These are of particular interest both to the process of further educational reform in Zambia and to the world of educational innovation in general.

1. Transmitting a message rather than money

From its inception SHAPE has seen itself as a long-term development **process** rather than either a source of recurrent funds or a producer of concrete, easily measurable outcomes. It wanted to develop a means of improving schools, attaching itself to reform-minded parts of the Inspectorate in the process, by identifying, protecting, nurturing, coordinating, systematizing, and monitoring school-based, teacher-focused, self-reliant educational innovations. It therefore saw its task as the development of a supportive infrastructure (policy and coordinating committees and resource centres, resource teachers and coordinators) and the transmitting of a message throughout the system of self-reliance; professional development; decentralized, school-based reform (so that "what can be handled at a lower

level should be carried out at that level"); and the greater participation in, and therefore ownership of, education by a large range of interested actors.

SHAPE therefore decided **not** to transfer money to schools, believing that, in the foreseeable Zambian future, there would not be a lot of government resources provided to schools and therefore not wanting to kill the very self-reliant spirit which SHAPE was trying to foster. Thus, a considerable percentage of funds provided to SHAPE went to the top of the system for the building of its infrastructure and the transmission of its message to levels below. This included funding for the Secretariat and its various training activities, overseas programs and study tours, research and monitoring, transport for the central and regional levels, etc. -- this all to help develop, in "concentric" circles and a cascade fashion, the network, skills, guidelines, key resource inputs, and moral support necessary to develop and sustain the SHAPE approach. The process adopted to do this was meant to be adaptive, flexible, and based on practical experience and on local implementation capacity and available resources -- and was meant ultimately to introduce into SHAPE and into the Ministry (at that time, Ministries) new modes of more collegial and more innovative management behaviour.

The message has been quite successfully sown; schools and teachers visited by the evaluation team invariably knew of SHAPE and its activities (even if they did not always see certain activities as explicitly "SHAPE"). The message may not have always borne fruit in equal volume, however. Some regions and some levels of the system have proven more fertile than others. But in general the system has been sensitized to the utility and necessity of a self-reliant, school-based innovation strategy. SHAPE, the Ministry, and its donor supporters (especially SIDA) deserve praise for being willing to support the development of these rather intangible but probably ultimately more important and sustainable outcomes.

2. Conflicting dissemination strategies

The second general strategy of innovation refers to how SHAPE's support, both moral and material, was meant to be distributed and disseminated through the system. The original idea, following the generalized and universalistic transmission of the message to all schools and levels, was to respond to requests from below; in other words, to reward those, through supplemental funding, who showed initiative and self-reliance and developed activities and proposals for resource and production work. This was meant to go hand-in-hand with continued efforts to spread the "message" and nurture self-reliance and initiative in more conservative and marginal parts of the system.

Partly because it was not always clear what criteria were being used for these "rewards" or the reasons for selection, and partly because of the normal political and administrative desire for the more equitable distribution of scarce goods (especially within a program supposedly "national" -- and not a pilot project -- in nature), pressure eventually began to build for the distribution of materials (transport, desk repair funds, watering cans, typewriters) more or less equally to many schools, districts, and provinces.

Unable to respond as freely to initiative as it desired, but realizing as well that the equitable distribution of resources would not achieve the long-term goals of SHAPE, its officials began to develop the idea of multiplying the impact of SHAPE through zonal centres and model schools -- places chosen (respectively) because of geographic centrality and

excellence in a particular area of work. These were places where extra resources could be provided to develop centres of good SHAPE practice (e.g., resource centres) and the transmission of a "pure" SHAPE message. Again, partly because of resistance from those levels of the system and those areas of the country seemingly neglected by this strategy, partly because of unclear criteria and processes for the selection of such centres and model schools, and partly because of a lack of resources, the development of such zonal centres and model schools has been slow and unsystematic.

Yet another strategy of dissemination -- potentially also in conflict with the original SHAPE strategy -- has recently been discussed; namely, "positive discrimination" in favour of more "deprived" regions and schools. The idea here is to ensure that such areas receive extra packages of resources, extra seed money, and extra attention through visits, study tours, and training programs. Again, however, the identification of such areas has not apparently been done systematically or with clear criteria.

Recommendations:

The choice of the most appropriate strategy of SHAPE implementation in a further stage of work is complicated due to the variety of options and pressures and the limitation of funds. We recommend the following:

1. **The system should be further inundated with the SHAPE message**, reinforced from top to bottom, with special focus at the central and regional levels of the Ministry, in teacher training colleges, and in marginal regions of the country. "Positive discrimination" should focus more on "warming up" those with potential (e.g., by transferring proven resource persons and coordinators to neglected and marginal areas) rather than blanketing them with extra resources.

2. **A more systematic process should be established to identify and reward initiative.** Schools and zones should be more clearly guided on how to prepare annual work plans, improvement proposals, and special projects; processes should be established to ensure the rapid vetting, evaluation, and funding of these proposals at district and/or provincial levels (not via the SHAPE Secretariat); and more funds should be provided to support successful proposals. Feedback must then be given in regard to proposals not selected.

3. **A more systematic system for mapping the need for resource centres and model schools and assessing local initiative for their development should be established.** More funds should be sought from SIDA and other donors for the building of such centres -- in other words, for matching demand with greater supply.

4. **To aid in further dissemination, more of the available transport funds should be directed at the school and zone level (with bicycles) and at the district level (with motorcycles or appropriate vehicles).**

5. **In general, therefore, more resources should selectively be made available to deserving schools, zones, and districts.**

D. Integration

Perhaps the most difficult question facing SHAPE at the moment is the issue of **integration**. At the beginning of SHAPE, for various reasons, it was attached rather loosely to the Inspectorate, through the participation of like-minded inspectors, and became its particularly effective and efficient semi-autonomous arm -- so effective that it has been given a variety of Ministry and donor projects to disseminate and manage. Such autonomy, however, led to conflicts and abuses -- the bypassing of the administrative side of the Ministry, conflicts over the use of SHAPE resources (most notably related to the local "cargo cult" of the vehicle), jealousies among those inspectors "in" SHAPE and those not, even difficulties for the individual inspector in balancing work done under two different "hats" (that of SHAPE and that of regular inspection work).

These conflicts have led to a series of compromises or "bendings" in SHAPE's original structure and strategy; e.g., headteachers replacing ordinary teachers as chairs of local committees and the establishment of policy committees at all levels of the system in order to bring administrators into SHAPE. Although such compromises may have gained support for SHAPE among those newly included in the system, they also resulted in a loss of flexibility, of speed in implementing SHAPE activities, and of free access to SHAPE resources.

Even further integration is now sought -- in theory, by all partners: the Ministry, the donors, and SHAPE itself. The problem is that everyone seems to have a somewhat different definition of integration and no one seems to have examined carefully the various options and timetables available. In other words, what should be integrated (structure and management? committees and positions? resources? planning and budgeting processes? activities and programs?) and how (and when) might this best be done?

The irony is that integration is a non-issue at the lower levels of the system. Many inspectors now see no difference in "SHAPE work" and "Ministry work", and many headteachers and teachers don't even make that kind of distinction. To them, SHAPE is the Ministry and the Ministry is SHAPE. This is not necessarily the case, however, at higher levels of the system.

Various models of integration were discussed with the evaluation team. These include:

1. **Keeping SHAPE somewhat separate and semi-autonomous**, seeing it as an effective, efficient, and rather parallel structure within the Ministry, charged with the implementation of a variety of (mostly donor-funded) innovations and programs approved by the Ministry.
2. **Integrating SHAPE into a more autonomous, perhaps even independent Inspectorate**, thereby clarifying its role (and strengthening the Inspectorate's role) in professional, as opposed to administrative, matters.
3. **Integrating SHAPE into the mainstream Ministry**, probably in a gradual, "withering away" process, until its activities, budgeting and planning processes, structure, resources, and flexible, innovative strategies are part and parcel of the Ministry.

Recommendations:

The evaluation team does not have a specific recommendation in this regard. It considers the first option rather unlikely, the second perhaps desirable but not immediately feasible, and the third most likely. It sees advantages of the integration of SHAPE into the Ministry: in the best of cases, bringing the whole status and force of the Ministry behind the SHAPE structure and approach and suffusing and internalizing the SHAPE message throughout the administration. But the team also sees serious disadvantages: a loss of flexibility and resources to the administrative side of the Ministry, a loss of focus on self-reliance and on the reward of self-help and initiative given the political and bureaucratic pressure for the more equal distribution of scarce resources, perhaps even a decline in the importance of productive activities and practical subjects in the system -- activities which have social utility, could have greater pedagogical benefit, and are financially necessary for many schools in the country.

What is important, we think, is that greater integration, whenever it occurs and however quickly it happens, be negotiated under a number of conditions which might help to meld SHAPE into the Ministry without drowning it, keeping the SHAPE structure intact and its approach somewhat "pure", and reinforcing both through both the professional and administrative sides of the Ministry. Such conditions should include the following:

1. **Implementing more complete decentralization within the system**, so that lower levels of the system have more administrative and financial control and autonomy. This would allow them to implement more independently the school and zone development plans being encouraged by SHAPE.

2. **Clarifying and sharpening the essential message, tools, approaches, and practices of SHAPE** (e.g., the nature of self-reliance, the process of developing and funding school-based innovations, the role of resource centres and model schools, the refinement of education with production, the integration of production with the rest of the curriculum, the collaboration of school and community) -- rather than the less essential such as (perhaps) special education and desk repair. This would clarify what core components and lessons of SHAPE need to be retained no matter what kind of administrative integration is implemented.

3. **Integrating SHAPE structures and positions into the Inspectorate.** The message, the ideas of SHAPE will be sustained in the Ministry only to the extent that its organizational and human infrastructure enters into the Ministry. This would mean that the various SHAPE committees, centres, resource persons, and coordinators would be provided a place in the Ministry hierarchy and career structure. SHAPE-related work would also become part of the routine job descriptions of regular Ministry personnel, especially Inspectors at all levels of the system.

4. **Ensuring a stronger and more high-profile role for primary education and for in-service professional development within the Inspectorate.**

5. **During a gradual transition period, integrating SHAPE funds into the Ministry's budget**, but under proven financial conditions, stringently tested procedures, and workable

financial practices, in order to ensure financial accountability, transparency, speed, and effectiveness.

E. Sustainability

The final issue of importance is that of sustainability. On the one hand, the evaluation team thinks that this is not an issue. Everywhere we went, we were assured that resource work and production work, professional and materials development, would continue even if SIDA funding ended -- largely because most of SIDA's money was never visible to schools anyway and because the message of SHAPE, supported by SIDA, has been largely internalized at the bottom of the system.

But other concerns over sustainability exist. First is the possibility of further economic decline, with rising prices, falling real wages of teachers, and perhaps increased theft and vandalism. Innovation requires at least a minimum of economic stability, and further economic or political problems might make the further dissemination and reinforcement of SHAPE difficult to maintain.

A second concern over sustainability is more at the higher levels of the system. When the structure and activities of SHAPE -- apparently the most significant educational innovation in the country in the last decade -- receive very little attention in either the recently-published policy document for the future of primary education in Zambia or the new educational rehabilitation loan of the World Bank, this can be seen as a threat to SHAPE's sustainability. It is in just such a situation of indifference and inattention -- when the development of SHAPE is still somewhat dependent on the pleasure of top policy-makers and donors rather than being firmly integrated and internalized throughout (and funded by) the system -- that it becomes even more important for SHAPE to reinforce its message, identify its essential components, clarify its approaches, and develop a systematic method to assess the variety of outcomes (structural, economic, attitudinal, cognitive, behavioral, etc.) its desires. If it did so, it would be better able to work in the context of the new "focus on learning", to assist the implementers of this new focus to disseminate it throughout the system, and to use to even better advantage the additional funds to primary education committed (but not yet provided) by the Zambian government.

APPENDIX 1

CHECKLIST OF QUESTIONS FOR THE SHAPE EVALUATION

I. SCHOOLS - ZONES - DISTRICTS - REGIONS

Respondents: teachers, headteachers, resource teachers, coordinators, education officers, inspectors, college staff

ORGANIZATIONAL STRUCTURE AND DEVELOPMENT

A. What are the functions/roles of the **SHAPE implementing committees and policy committees**?

1. Who are the members? - their positions in the educational system, community, or school (e.g., resource teachers)
2. How do they become members?

B. What functions do **subject committees** serve?

C. How are schools chosen as '**model**' schools?

1. What do they do?
2. What does a successful **model school** look like? What are its characteristics?
3. How useful are they?

D. How do schools become **zone centres**?

1. What do they do?
2. What do they look like: resources, buildings?
3. How useful are they?

E. How do annual **school workplans/proposals** get produced?

1. How are they processed higher up the system (including up to the Secretariat)?
2. What are the results of such plans?

F. What **newsletters** about SHAPE are available?

G. Effectiveness

1. What kind of **communication** occurs within these structures: bottom-up, top-down, horizontal, vertical?
2. Have these SHAPE structures been effective/functional? If so, explain how. If not, why not? Suggest ways to make them more effective.
3. In your opinion, is the current SHAPE infrastructure the best arrangement? If not, would you suggest a different structure?

PROFESSIONAL DEVELOPMENT AND SUPPORT

A. What kinds of **professional/staff development and INSET** activities have been carried out at this level? (seminars, workshops, visits)

1. Why were they organized? (e.g., orientation of new teachers, updating of specific skills, upgrading of general skills, training for new roles)
2. Who decided they were needed?
3. Who organized them?
4. What was their content?
5. How much did they cost? How were they financed?
6. What role did resource centres, coordinators, and inspectors play in such activities?
7. What kinds of long-range training plans have been developed at this level? How were they developed?

B. What kinds of resource centres exist at this level?

1. What do they look like?
2. What do they do? For example:
 - organizing training/professional development
 - problem-solving, consultation, information, support
 - developing and reproducing materials and aids
 - lending books and materials
 - putting on exhibitions
 - scrutinising workplan proposals from schools
3. What do they achieve?
4. Do resource coordinators and subject resource teachers exist? What do they do? How effective are they?
5. How might resource centres and their personnel become more effective?

C. In SHAPE, professional development and INSET are meant to be planned and managed by teachers.

1. To what extent is this true?
2. To what extent is such professional development actually **school-based**?
3. Are **parents or the community** involved in any kind of training or professional support?

D. What have been the results of SHAPE professional development activities? How useful and effective have they been?

1. New knowledge of subjects?
2. New skills (in teaching, curriculum development, planning, organization)?
3. Additional resources?
4. New ways of thinking? More adaptable? More innovative?
5. New ways of acting? Greater initiative? Greater motivation?
6. Less professional isolation? More communication among professionals and peers?
7. What kinds of rewards and incentives have resulted from participation in these activities? Any advantages for career development?
8. Do people at this level now feel more responsible and autonomous? More self-reliant? More involved?
9. What has been the effect (if any) of SHAPE activities on:
 - the quality of classroom teaching and learning?
 - pupil outcomes (enrolment, attendance, achievement, attitudes, skills)?

10. Do you think these activities would continue without SHAPE funding or support? What could be done to keep them going if such funding and support were no longer available?
11. How might SHAPE professional development activities be made more effective?

RESOURCE WORK

A. Teaching materials

1. What does the concept of teaching material/aids mean?
2. What materials are teachers producing? Why?
3. How are these materials being used? Are they considered useful?
4. Is the community involved in producing these aids?
5. Do you (teachers) adapt the curriculum to local circumstances? How is this done? Do you think the resulting curricula are more practical and relevant?
6. How do teachers react to the idea of preparing teaching aids?
7. Is there any link between the production unit and the production of teaching aids?
8. In producing resource material, is the gender issue taken into consideration? Explain.
9. Are regional/district/zone/school resource centres/persons involved in curriculum development?
10. Have there been publications from SHAPE regarding curriculum guidelines? Are these useful?

EDUCATION AND PRODUCTION WORK

A. What is the range of production activities in the zone/district? What is the dominant production activity?

B. What is the nature of production work at the school?

1. What type of production work (unit) and subjects is your school undertaking presently?
2. Who participates in such work?
3. Is there any link between the production unit and practical classroom subjects?
4. Do you have sufficient tools for production work? Where do they come from?
5. Do you have sufficient storage facilities?
6. What does your school emphasize in production activities?
7. Have your teachers received any form of training to assist them in organizing and managing production work?
8. Are the social and educational objectives of production work being achieved? How?
9. Do you make any profits from production work? How are these profits used?
10. Who decides how the profits should be used?
11. Is the school P/W linked to other school P/W in the zone?
12. Do teachers evaluate P/W activities?
13. What problems does the production work unit face?

14. How can we improve the achievement of social and educational objectives of production work?
15. What have pupils learned from participation in production work activities? Knowledge? Skills? Attitudes? Entrepreneurial skills?
 - Are they involved in identifying, planning, implementing, and evaluating production activities?

B. What is the nature of desk repair?

1. How is it done? Who does it?
2. With what financing? For what profit?
3. With what kinds of outcomes? How cost-efficient is it?

SCHOOL AND COMMUNITY

A. Community Involvement: Can you describe the nature of the relationship between the school and the community in this area: friendly, cooperative, hostile, participatory?

B. Production Work

1. Do community members get involved in SHAPE production activities?
2. Do they teach practical subjects when asked?
3. Do PTAs or parents complement pupils' efforts in production unit work during vacation?
4. Do community members have any input in the assessment of teaching and learning, e.g., in practical subjects?
5. Do they provide equipment/materials? (e.g., hoes, rakes)

C. Professional development

1. Is the PTA involved in inducting new teachers into the teaching profession?
2. Do parents and the community get involved in resource work?

D. Organizational structure and change

1. Do parents/community organizations (e.g., PTAs, cooperatives) exist? What are their functions?
2. Which kind of people usually serve on the PTA executive board?
3. What has SHAPE done to strengthen these organizations?
4. Is the school/community relationship closer now than it was before? What are the indications of this?

FINANCIAL RESOURCES AND FINANCIAL FLOWS

A. PROVINCIAL/DISTRRICT/ZONAL LEVEL

1. Where do SHAPE funds come from at this level?
2. How are SHAPE funds used at this level?
3. Who is involved in BUDGETING for SHAPE funds?
4. WHEN and HOW is budgeting done at this level?
5. What suggestions can you make to improve (a) SHAPE budgeting in general? (b) SHAPE budgeting at this level?

6. How readily do you receive funds for already approved SHAPE activities at this level?
7. What suggestions would you give to make the present flow of approved provincial SHAPE funds more efficient?
8. How can the SHAPE coordinating bodies at this level encourage the voluntary building up of local funds for SHAPE activities so as to gradually strengthen the spirit of self-help?
9. How can financial return procedures be quickened at this level so as to expedite financial flows and auditing arrangements?
10. What kind of equipment and materials have been supplied by SHAPE for activities at this level? What needs for further equipment and materials will there be in future?

PROVINCIAL LEVEL: What experiences have you had with the Provincial Accounting Unit (in relation to **speed and accuracy**) of approved financial disbursements?

DISTRICT LEVEL: How are school accounts handled and used at this level?

B. SCHOOL LEVEL

1. Where do SHAPE funds come from?
2. How are the SHAPE activities funded at the school level?
3. How are school accounts regarding resource work kept?
4. How are school PU accounts kept?

C. PTA/COMMUNITY LEVEL

1. What kind of financial contribution does the PTA/community make to the local primary school?
2. How does the school account **financially** for financial resources received from the local PTA/community?
3. Are PTA/community-to-school financial resources (a) regular? Explain briefly; (b) adequate in relation to school SHAPE needs?
4. Which kinds of contributions can the PTA/community make (other than financial) to help make primary education more relevant to local needs and contexts?

D. TEACHERS/PUPILS

1. Are school pupils and teachers sometimes requested to make financial contributions to school SHAPE activities?
2. If yes, to which kinds of SHAPE activities are such contributions directed?

MONITORING, EVALUATION, AND RESEARCH

A. SCHOOL LEVEL

1. Is there any monitoring and evaluation of SHAPE activities in your school?
2. If yes, who carries out the monitoring and evaluation of SHAPE activities? How are they carried out?

3. If you and other teachers take part in monitoring and evaluating SHAPE activities, have you been properly guided or trained for such work?
4. If no monitoring and evaluation of SHAPE activities goes on in your school, what are some reasons for this?
5. How often do external monitors and evaluators from the zone and district level come to visit your school in a term?
6. What activities in the school have teachers in your school evaluated recently?
7. What did you monitor, or what did you want to find out in your recent evaluation?
8. What should be done to improve monitoring and evaluation of school activities by teachers?
9. What kind of monitoring and evaluation system should be developed on SHAPE activities (e.g., resource work and production work) at the school level?
10. What kind of monitoring and evaluation system might be developed on community-school SHAPE activities?

B. ZONAL/DISTRICT/AND PROVINCIAL LEVELS

1. Are any monitoring and evaluation of SHAPE activities done at the zonal, district, or provincial levels?
2. If yes, what is monitored and evaluated? And by whom? If no, why not?
3. Which kinds of zonal, district, or provincial staff are involved in monitoring and evaluation?
4. What kinds of monitoring and evaluation do such staff do?
5. What kinds of questions are asked?

RESEARCH (*Applicable at the various levels: Teacher/school/national institutions/zones/district/provincial, etc*)

1. Is there any research activity going on at this level on any aspect of SHAPE activities? If yes, on what topics? Who is conducting it? If no, why not?
2. What can be done to stimulate research on suitable SHAPE activities at this level?
3. Which research topics would you consider relevant to begin with?
4. What kind of training is provided to such researchers? By whom?

II. NATIONAL LEVEL

(Respondents: Ministry personnel, SHAPE Secretariat members, university personnel, donor agency staff, and others)

ORGANIZATIONAL DEVELOPMENT

A. What are the functions of the Policy Committee and Secretariat?

1. How do they work?
2. Have their functions changed over time? For good or bad?
3. How often do they meet?
4. How effective have they been? Explain, with examples.

5. Suggest ways to improve their functioning. (Who should be members? What should their functions be? How should their effectiveness be measured? Could the functions of the Executive Secretary best be divided in some way?)

B. Describe how effective relevant Ministry of Education units have been in support of SHAPE activities?

C. How much coordination, if any, is there between the Ministry of Education and SHAPE?

1. What are the decision-making/planning processes in the Ministry with respect to SHAPE?
2. Where is SHAPE located in the Ministry of Education hierarchy?
3. Where should it eventually be? What role should it eventually play in the Ministry?
4. Can SHAPE, as an entity, be sustained, even when donor funding has ended? If so, how?
5. Should it be more or completely integrated in the Ministry?
 - If so, how?
 - What aspects should be integrated?
 - What would be the expected outcomes of such a structure?

D. Describe the extent of decentralization in the organization/infrastructure of SHAPE?

1. What activities are devolved? delegated?
2. How has decentralization affected:
 - the development of the SHAPE infrastructure
 - communication within SHAPE
 - coordination of SHAPE and Ministry activities
 - the relevance of SHAPE activities
 - the financing of SHAPE activities
3. How effective is the resulting decentralized structure?
4. Suggest ways in which this process could be improved.

E. How can different donor activities in basic education be better coordinated in Zambia?

PROFESSIONAL DEVELOPMENT AND SUPPORT

A. How are SHAPE approaches and materials handled in pre-service training? At TTC's? At UNZA?

B. How are such approaches and materials used, if at all, in in-service training at teacher training colleges and NISTCOL?

C. What kinds of training/professional development have been carried out within the Ministry of Education? For TTC staff? For SHAPE personnel? For other MOE personnel? For UNZA staff?

D. How are candidates for study tours and overseas training selected? How clearly defined are the objectives of such activities? What has been the result of such activities? To what extent are those selected still involved in SHAPE?

E. To what extent is there:

1. a systematic staff development plan for MOE/SHAPE staff?
2. an integrated system of professional support (e.g., among pre-service and in-service courses, CDC, the Inspectorate)?
3. a link between SHAPE and the World Bank-funded staff development activities?

F. What should SHAPE's role be in the development of such plans and systems?

RESOURCE WORK

A. Is there meant to be decentralization of curriculum development? How does this work? What are the results?

B. In devising curricula, are issues related to gender and to the disabled taken into consideration?

C. What is the role of various central institutions (e.g., the CDC) in the development of SHAPE materials? To what extent is curriculum development integrated with the principles of SHAPE?

D. How could the process of curriculum development be improved?

PRODUCTION WORK

A. How do the theory and practice of productive work relate to each other? Does productive work have an intellectual dimension?

B. What is the correct balance among the economic, pedagogic, and social outcomes of productive work? Is this balance likely to change under the Third Republic? What might be the implications of this for SHAPE?

C. How can the process of productive work be improved?

FINANCIAL RESOURCES AND FLOWS

1. Kindly describe the present normal stages through which funds flow from SIDA to MOE-SHAPE at the macro-level.
2. How satisfactory is the current financial flow arrangement in terms of: (a) accountability; (b) expediency; (c) speed?
3. What suggestions can you make to improve upon present normal arrangements?
4. Which kinds of **technical reasons** can be applied by (a) SIDA, (b) National Treasury/MOF, and (c) MOE to delay the disbursement of otherwise approved SHAPE funds at various levels?
5. What can be done by MOE-SHAPE to avoid the application of such **technical reasons**?

6. What kind of financial accounting system do the partners GRZ and SIDA decide upon in their Major Agreement documents?
7. Is there room for negotiation for "more flexible but expedient" financial accounting systems that could probably serve the objectives of SHAPE better?
8. How can regular financial returns and auditing of SHAPE accounts be expedited in future?
9. How much of GRZ funds were actually spent to augment SHAPE funding in 1992? How much of GRZ funds to SHAPE are planned for 1993? And beyond?
10. How decentralized is budgetary control within SHAPE?
11. How are direct transfers of SHAPE central funds (or materials, or supplies) to individual institutions decided?
12. With reference to 1991, 1992, and plans for 1993, what percentage of SHAPE funds actually reached each level of administration in terms of school, zone, district, province, and national level?
 - How do these compare with planned allocations for each SHAPE activity level at the beginning of the year for the period 1991 and 1992?
13. What percentage of SHAPE funds in 1991, 1992, and 1993 has gone to each of SHAPE's major budget categories?
14. What percentage of SHAPE funds in 1991, 1992, and 1993 has gone to each of Zambia's provinces?

MONITORING, EVALUATION, AND RESEARCH

1. What role do national institutions like TTCs, UNZA, NISTCOL, or the National SHAPE Secretariat, etc., play in monitoring and evaluation with respect to SHAPE activities?
2. How are monitoring tours conducted? To what extent do monitoring tours and reports from various levels of the infrastructure serve as useful evaluation devices?
3. To what extent has the Secretariat established a regular, systematic monitoring process and research program for SHAPE? What guidelines, indicators, and instruments have been developed?
4. What role do national institutions like TTCs, UNZA, NISTCOL, etc., play in research and evaluation concerning SHAPE activities?
5. What kinds of research courses have been given? By whom? For whom? What kinds of research skills have been taught on such SHAPE research courses? How, if at all, have such research skills been disseminated?

APPENDIX 2

SCHOOLS AND COLLEGES VISITED

1. Mpezeni Park primary school	- Chipata
2. Kanjala basic school	- Chipata
3. Gondar primary school	- Chipata
4. Chipata Teachers College	- Chipata
5. Lundazi township basic school	- Lundazi
6. Msuzi basic school	- Lundazi
7. Sikatengwa primary school	- Lundazi
8. Katete basic school	- Katete
9. Mufulira Teachers College	- Mufulira
10. Ipusukilo primary school	- Mufulira
11. Lubambe primary school	- Chingola
12. Muzabwela primary school	- Chingola
13. Nangogwe primary school	- Kafue
14. Kasenje primary school	- Kafue
15. Musamba primary school	- Chilanga, Lusaka
16. NISTCOL- Chalimbana	- Chongwe
17. Chongwe primary school	- Chongwe
18. Namulonga basic school	- Mazabuka
19. Monze East basic school	- Monze
20. Nteme primary school	- Monze
21. Charles Lwanga Teachers Col.	- Chisekesi, Monze
22. Adastra primary school	- Choma
23. St. Patrick basic school	- Choma
24. David Livingstone Teachers Col.	- Livingstone
25. Kapiri primary school	- Kapiri Kabwe
26. Lukanda primary school	- Kapiri Kabwe
27. Lukanga primary school	- Kabwe
28. Broadway primary school	- Kabwe
29. Chibombo primary school	- Kabwe Rural
30. Green Acres basic school	- Kalomo
31. Choonga basic school	- Kalomo
32. Mwaata basic school	- Kalomo
33. Palmgrove basic school	- Livingstone Rural
34. Mukamusaba basic school	- Livingstone Rural
35. Mansanzu basic school	- Livingstone Urban
36. Holy Cross basic school	- Livingstone Urban
37. Livingstone basic school	- Livingstone Urban
38. Mujala primary school	- Mujala
39. Senkobo primary school	- Senkobo
40. Makoli primary school	- Makoli
41. Siggubu primary school	- Monze
42. Choma basic school	- Choma
43. St. Patrick's primary school	- Lusaka

PERSONS INTERVIEWED

MINISTRY OF EDUCATION HEADQUARTERS

Ms M. Nguvu	Permanent Secretary
Mr. F.K. Chelu	Chief Inspector of Schools
Dr. C.D. Mkangaza	Director C.D.C
Mr. M.D. Chanda	Assistant Director of Planning
Mr. J.M. Ngenda	Principal Inspector
Mr. L.Z. Mkamanga	Accountant (SIDA Capital Project)
Mr. P. Dans	SIDA Accountant
Mr. A.Y. Sinkolongo	Acting Principal Accountant
Mr. F.C. Mbulwe	Executive Secretary SHAPE
Mr. Chiputa	National Coordinator Agriculture (Inspector)
Mr. L.W. Musonda	National Coordinator INSET (Inspector)
Mr. Kaulule	National Coordinator Industrial Arts (Inspector)
Mr. Mwesa	Principal Inspector Teacher Training Colleges
Dr. Manchishi	Teacher Training Coordinator
Ms. F. Chisala	Acting Inspector Home Economics

PROVINCES/DISTRICTS/COLLEGES/SCHOOL

Mr. E.E. Lupobe	District Education Officer (Kafue)
Mr. Y.E.N. Kapika	Inspector of Schools (Kafue)
Ms. A. Mucheme	Senior Teacher Nangongwe Primary School
Mr. B.C. Chilufya	Lecturer (Chalimbana Inservice Training College)
Mr. B.H. Chisangano	Lecturer (Chalimbana Inservice Training College)
Mr. G. Kambaila	"
Mr. P.C. Chamoto	Continuing Education Organiser
Mr. F.L.Mbelemu	Deputy Principal - Charles Lwanga Teacher Training College
Mr. M.C. Sianjidinta	Industrial Art Lecturer - Charles Lwanga T.T.C.
Mr. T.H. Mungaila	Lecturer (Acting SHAPE Coordinator Charles Lwanga T.T.C.)
Mr. E. Musonda	DEO - Monze
Ms. M.M. Sikabanga	Inspector of Primary Schools - Monze
Mr. G.N.K. Musumali	PEO, Southern Province
Mr. B. Choola	Principal, David Livingstone Teacher Train. College
Mr. M. Akapelwa	Acting Inspector of Schools - Livingstone
Mr. E.L. Hamainza	District Inspector Coordinator, Mansanzu Basic School

Mr. P.A. Mutale	Senior Inspector of Schools (SIS) - Northern Province
Mr. B. Mulambya	P.E.O. Northern Province.
Mr. Mumpangwe	P.E.O. Luapula Province
Mr. K.H. Chimba	A/SIS Luapula Province
Mr. N.M. Kanyimba	A/PEO Western Province
Mr. C.M. Malumo	SIS Western Province
Mr. A.M. Ndabala	SIS North Western Province
Mr. L.G. Mate	P.E.O. North Western Province.
Mr F. M. Uteka	D.E.O, Katete
Mr W. M. Ngulube	Inspector Katete
Mr D.H. Bwalya	Deputy Principal - Mufulira T.T.C
Mr D. M. Mubita	Industrial Arts Coordinator, Muf. T.T.C
Mr L. H. Chisangano	SHAPE Coordinator Muf. T.T.C
Mr F. M. Wasamunu	Agro Coordinator Muf. T.T.C
Ms E. Milambo	Home Economics Coordinator, Muf. T.T.C
Mr M. Kashiwa	Senior Tr/Dist Insp Coordinator Muf.
Mr F. Chafwa	D.E.O - Mufulira.
Mr Malama	Inspector - Chingola
Mrs H. Nsemiwe	D.E.O - Kitwe
Mrs R. M. Mongeza	Inspector (Primary) Kitwe
Mr F. J. C. Kapatamoyo	P.E.O., Eastern Province
Mr J. Pelekamoyo	D.E.O, Chipata
Mr M. L. Bwali	E.O., Chipata
Mr P.T. Mfune	SHAPE District Coordinator
Mr R.J. Banda	Principal Chipata T.T.C.
Mr L.A. Phiri	Insp. Coordinator Chipata T.T.C.
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Mr B. B. Nkhoma	Inspector Lundazi
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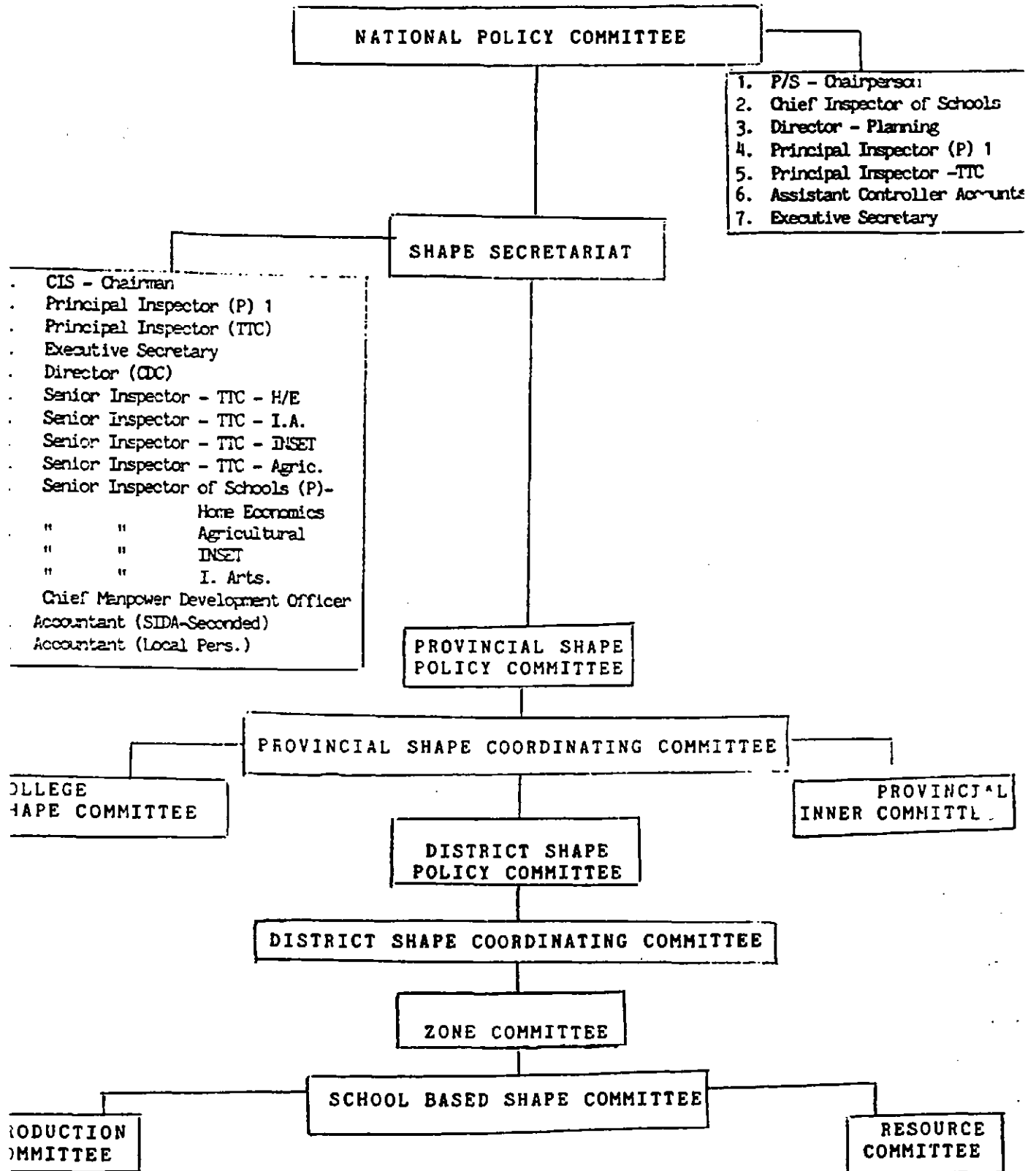
OTHERS

Mr B. F. Chisaka	Secretary for Research and Information ZANUT
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Mr F. Svenson	Internal Auditor Ministry of Finance

APPENDIX 3

M A Y , 1 9 9 2

SHAPE ORGANISATION STRUCTURE



APPENDIX 4

SIDA FUNDS IN SHAPE: 1987 - 1993

(Planned Budget Figures In SEK: '000)

YEAR	1987	1988	1989	1990	1991	1992	1993
Total per year	2 500	4 100	5 700	5 103	5 900	6 920	6 920
Cumulative Total		6 600	12 300	17 403	23 303	30 223	37 143

General Observations

- (a) By the end of December 1993, SIDA would have contributed SEK 37,143,000 into the SHAPE programme.
- (b) The planned budget figure for 1993, in Swedish Crowns, is almost three times the yearly total expenditure in 1987, the initial year of SHAPE.
- (c) The capacity of programme target groups to utilize funds effectively has improved considerably over the years. This means that, at present, if quarterly disbursements of funds are made on schedule, all planned budget estimates can likely be effectively used at the intended levels.

SIDA'S CONTRIBUTION TO SHAPE BY CATEGORY: 1991 - 1993

Planned Expenditures In SEK: '000

	1991	1992	1993
National Secretariat/General	200	80	180
National Secretariat/Seminars	700	300	300
Staff Development/Overseas	300	450	600
Training in Regions/Colleges		1 000	1 000
Study Tours/Regions	200	300	195
Transport	1 140	1 440	1 300
Resource Centre Construction	300	350	500
Supp. Resource Work	400	400	400
Supp. Production Work	1 000	650	650
Monitoring (under research in 1991)		100	100
Research and Evaluation	100	100	100
Desk Repair	900	900	405
Special Education		50	50
Women in Development	60	80	420
SIDA Personnel	600	720	720
TOTAL	5 900	6 920	6 920

UTILIZATION PERCENTAGE OF SIDA FUNDS

(SEK)

Year	Allocation	Spent	Utilization Percentage
1987	2,500,000	1,831,184	73%
1988	4,100,000	4,245,000	104%
1989	5,375,000	4,434,000	82%
1990	5,103,000	3,616,000	71%
1991	5,900,000	4,447,448	75%
1992	6,920,000		

SP. NO.	TARGET GROUP	NO OF PARTICIPANTS	OBJECTIVES	RESOURCE PERSONS	DURATION	SOURCE OF FUNDING	CODE	VENUE
1	Pupils (boy)	5 Schools	Repairs & learning of skills involved in desk rehabilitation.	Industrial Art teachers at each sch.	One month	SHAPE K140,000	13	Selected school
2	Newly appointed teachers	30	Orientation to teaching -The role of Shape in schools -condition of service -Need for resourcefulness	D.E.O., I.O.S. INSET CO-ORD. Agric. Indus. Arts, H.E. coordinators	One Day	SHAPE K30,000	4	Omolo Mumba
3	District Co-ordinating committee & Policy Committee	25	Review the failures and progress of 1992 -Zone Reports -Work plan for second quarter.		One Day	SHAPE K20,000	4	Omolo Mumba
4	Zone Co-ordinators	15	-Planning for 1993 programme Review of failures and progress -Zone Projects	I.O.S, INSET CO-ORD All three production co-ordinators	One day	SHAPE SHAP K20,000	4	Omolo Mumba
5	Headmasters	30	-Problems facing SHAPE in schools -Attitudes towards SHAPE -Planning for 1993 School maintenance (DESK)	D.E.O. I.O.S INSET CO-ORD. All Production Co-ordinators	One Day	SHAPE K30,000	4	Omolo Mumba
6	ZONES & SCHOOLS <i>interviews</i>	6	-To check on SHAPE projects in schools and Zones -To check on the awareness of SHAPE	Two from Policy committee & 4 from District Cord. Committee	2 days	SHAPE K50,000	12	

APPENDIX 5
QUARTERLY SCHOOL INSET PLAN: KATETE DISTRICT

Part two

The Self-Help Action Plan for Primary Education (SHAPE) in Zambia

by

Frank Chelu and Fred Mbulwe

Extract from “Beyond Jomtien: Implementing
Primary Education for All”, 1994. This book is
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5 *The Self-Help Action Plan for Primary Education (SHAPE), Zambia*

Frank Chelu and Fred Mbulwe

1 Introduction

The land and the people

Zambia is situated in south-central Africa and is entirely landlocked. The total population of Zambia is estimated at around 8 m, giving an average density of only 10.6 per square kilometre. Most of the people today live near the railway lines and in provincial and district capitals. With 43 per cent of the people living in towns and urban centres, Zambia has one of the highest rates of urbanisation in Africa. Almost half of the population is now aged 15 or below. The present growth rate of the population is 3.5 per cent.

The economy

Zambia has the classic features of a dual economy. A large but diminishing population of adult Zambians are subsistence producers in rural and peri-urban areas and an increasing proportion of urban dwellers make their living on the margins of the formal sector of the economy. The latter is still dominated by the mining industry (chiefly copper but also cobalt, lead and zinc) which accounts for almost all of Zambia's foreign exchange earnings by value. Copper production provides about 90 per cent of the country's export earnings. The decline in

copper prices since 1971 has led to an emphasis on agriculture and related small-scale industries.

Zambia's gross domestic product, which rose rapidly after independence in 1964, declined very quickly after 1975. With its high dependence on mineral earnings Zambia was in no position to withstand the recession in the main export markets following the oil price crisis. Public borrowing was stepped up as severe constraints were placed on imports and government spending. Under IMF requirements food and fertilizer subsidies have been progressively reduced and direct and indirect taxes have risen. The prices of staple foods and other necessities have increased sharply, putting heavy pressures on the poor. GDP per capita in real terms is lower now than in 1970 or even at independence. Both public and private investment rates have fallen and formal sector wage employment has stagnated. It is unlikely to rise under present conditions, where the government's capital expenditure estimates have dropped by 40 per cent since 1982.

The education system

Since September 1982 there have been two ministries of education. The Ministry of General Education, Youth and Sport (MGEYS) is responsible for primary and secondary schools, special education, continuing education and educational broadcasting. The Ministry of Higher Education, Science and Technology (MHEST) has professional responsibility for teachers, colleges, technical education and vocational training and (less directly) the university. Basic education is divided into three stages:

- Lower basic Grades: 1–4;
- Middle basic Grades: 5–7;
- Upper basic Grades: 8–9.

Primary education covers the first two stages, while the third stage is covered by junior secondary schools. Senior secondary schools run from Grades 10 to 12. Some schools now provide full basic education from Grades 1 to 9. It is foreseen that eventually all primary schools will provide basic education (9 years). In this case every primary school will provide two additional years of secondary school education.

Educational administration

The Ministry of General Education, Youth and Sport (MGEYS) maintains professional supervision of the schools through its regional (provincial) and district officers. For financial and administrative purposes the provincial education officer is responsible to the provincial permanent secretary. For professional purposes the provincial permanent secretary is responsible to the permanent secretary of MGEYS. This two-way relationship has raised questions of responsibilities and is in the course of settling down. Meanwhile the MGEYS is trying to define and

monitor the qualitative performance of the school system. This is done through the school inspectorate and the Curriculum Development Centre (CDC) in collaboration with relevant sections in the Ministry of Higher Education, Science and Technology, especially the teacher training inspectorate and the teachers' colleges.

Educational performance

Since independence the goal of the Zambian government has been to provide primary education for all children and to extend universal primary provision to the junior secondary level as and when resources permit. In practice, under increasing budgetary stress, the rate of educational expansion has slowed to a little above the rate of population growth at the Grade 1 level, and somewhat better at the Grade 5 level, where rural lower primary schools are still being upgraded. As a result 91 per cent of Grade 4 children continue into upper primary school.

It is difficult to estimate the proportion of the primary school age group attending school in any year because birth registration is not enforced and age data are unreliable. It is almost certain that in some urban areas, Lusaka particularly, as many as 30 per cent of eligible children cannot find places in Grade 1. Elsewhere, in remote rural areas, some schools are half empty for lack of pupils. At present the gross enrolment rate for the 7-13 age-group is estimated at 88 per cent. However, due to the presence of many over-age children in the system the actual participation rate is much lower. A high rate of repetition, especially in Grades 4 and 7 where it is sanctioned by regulations, complicates the calculation. Within a generally equitable regional distribution, what emerges is a clear pattern: Lusaka and Copperbelt regions are substantially under-represented at the initial intake level whereas Eastern, North-Western and Western regions are particularly poorly represented at the Grade 5 level, in comparison with the national average.

The enrolment of girls has maintained a historical trend towards parity with boys. Girls enter school in almost equal numbers with boys, even in rural areas (in urban areas they even tend to have a slight edge), but they leave school earlier, especially in rural areas. By the secondary school stage the discrepancy is marked, despite positive discrimination being shown in the girls' favour in the selection examination for Grade 8.

In urban areas primary schools tend to be very large with overcrowded classrooms enrolling up to 60 students in the worst cases, whereas 40 is the official maximum and the national mean. As mentioned before, many rural classes are under-enrolled and schools tend to be small. The typical rural school has one stream only. Most primary schools in Zambia operate a double shift system at the lower primary level (Grades 1-4). In towns, three shifts a day are common at this level and two shifts at the upper primary level. Almost without exception all primary schools are day schools. Although at the national level there appear to be more than sufficient primary teachers, in many rural and urban

schools there is still a big shortage. The deficit is made up by the employment of untrained teachers (15 per cent of the total). There are striking differences between regions in this respect as well as in the proportions of women teachers employed and the teacher/pupil ratio.

Educational policy

By the mid-1970s the post-independence developments in education had generated a strong demand for a radical reassessment of policy, which was undertaken between 1974–77. The outcome of this activity was a comprehensive statement of policy, *Educational Reform: Proposals and Recommendations* (MOE, 1977) which remains the official statement of education policy and aspiration.

The reform is recognised as the first comprehensive effort by Zambians to review their inherited system of education and provide for their national needs. It endorsed the existing formal system of education as the most acceptable type for the Zambian public but expressed strong dissatisfaction with the quality of education offered in the schools and its unsuitability for the life which most school-leavers would lead. Thus a premium was put on qualities of innovation, resourcefulness, engaging the system of education in the real life of the community, in production as a system of learning, on self-help and improvisation and on participation by all sections of the educational enterprise in the task of re-shaping curricula and teaching materials.

Meanwhile, rapid advances on a broad front have been made in implementing some of the qualitative changes promoted by the new policy. The re-writing of curricula to reflect the 9–3 school structure has been undertaken by CDC, to be followed by the production of teachers' handbooks. The pace of implementation of the FINNIDA-aided practical subjects project in upper primary schools was stepped up, as was the support for special education under the SIDA ESSP. A new system of self-reliant school-based in-service training among primary school teachers has been set in motion with SIDA support.

2 The nature and scope of SHAPE

The initiation of SHAPE

During the early 1980s school-based in-service training activities were initiated in many parts of Zambia. Resource persons were identified who, together with school inspectors, established school-based teacher centres and organised resource activities at district and school levels. In this way much commendable work stimulated the interest of teachers in doing their own professional work to improve professional competence. The above activities were very much part of the implementation of the educational reform recommendations adopted in

1977. They were regarded as a necessary part of educational practice, with a view to broadening the context and relevance of learning, to encourage teachers to improve themselves professionally so as to take a greater role in educational development and to provide a better base for self-reliance in the schools and colleges. SHAPE, then, is a continuation of the work that had begun some years before.

The decision to introduce SIDA-supported in-service training of teachers, resource centres and production units was taken in 1985. Also in that year two expatriates were recruited by SIDA and worked with officials in the two Ministries of Education in preparing a project proposal which came to be known as 'Self-Help Action Plan for Education' (SHAPE) in 1986.

Objectives of SHAPE

SHAPE as a programme of support was designed to provide necessary inputs to help the process of school-based educational development and to enable it to become both effective and self-sustaining. The purpose of SHAPE is to enhance the capacity of schools and colleges for self-help in professional and material terms through the development of resource work and of production in agriculture, industrial arts and home economics. The programme is based on the philosophy of 'Education with Production' and aims to achieve teachers' participation, the integration of theory and practice, the school and community and the utilisation of production for material and pedagogical benefits. The specific objectives of the programme are:

- to enable teachers to exercise individual and collective responsibility for their professional development;
- to enable teachers to develop a variety of productive activities in the school in order to broaden the educational experience of the pupils and bring benefits to the schools through self-reliance;
- to enable schools to become better able to serve their communities and the nation;
- to build self-reliance in all aspects of resource work and production work to reduce dependence on the state in the teaching profession;
- to encourage development-oriented activities in schools through the integration of educational training and production;
- to improve quality and relevance in education through better skills training and the provision of resources;
- to orient education institutions towards the production of goods and services in order to serve their communities better;
- to continue providing school leavers with survival skills;
- to integrate SHAPE activities into the ordinary educational planning activities and systems.

Scope and location of the programme

The SHAPE programme focuses on primary education Grades 1 to 7 and basic schools from Grade 1 to Grade 9. The programme does not extend support to purely secondary schools. However, primary teacher training colleges participate fully in the implementation of SHAPE activities in schools, zones, districts and regions.

SHAPE, therefore, is being implemented by both Ministries of Education. In each of these it is very strongly associated with the inspectorate but it has also direct contacts with other professional wings within these Ministries, notably the CDC and the planning units, as well as with the Faculty of Education in the University of Zambia. The SHAPE office, as a co-ordination point, was first housed in the Ministry of Higher Education, Science and Technology as from January, 1987 to December, 1990. However, the need to integrate the SHAPE programme much more into the administration and management of basic education led to a transfer of the office to the Ministry of General Education Youth and Sport in January, 1991.

The concept of resource work

Resource work in the SHAPE programme refers to all activities organised by teachers themselves on a self-help basis using local resources to improve the quality of education. It refers particularly to activities for mutual professional support, such as workshops and seminars for an informal type of in-service training (INSET) and the local design and production of supplementary teaching and learning materials. The main objective of resource work is to provide the teachers with opportunities to plan, formulate, organise and run meetings, seminars, workshops, conduct research and to share ideas for the good of an improved education system.

The concept of resource work is derived from the educational reform document, which referred to 'resource teachers', 'resource centres' and 'resource schools'. Resource teachers were regarded as those who carry out innovations in curriculum development, educational materials and teaching methods in addition to their normal functions. At workshops teachers have the opportunity to discuss new methods, write new course materials and produce teaching aids to be evaluated by specialists, including those in the CDC and the university. A resource school is any school that carries out innovations in curriculum development, materials and methods of teaching.

SHAPE developed these concepts further on the basis of actual experience gained in schools during the intervening years. They are operating at school, zone (cluster of 5–10 schools) and district level. Also each school was designated as a 'teacher centre', i.e. as a location for mutual and joint professional activities among teachers. At the zone level a central school has this function for all schools in the zone, while at district level, a district resource centre, (DRC) can be

established to serve the needs of all teachers. Also teachers' colleges can make use of the DRC.

Education with production

The concept of 'education with production' in the SHAPE programme refers to the integration of theory with practice. Engagement in productive work is regarded as an opportunity to apply skills and knowledge that are a part of the institution's curriculum. The nature of production depends on various factors, such as the level which the students have reached, the content of the syllabus and the educational programme of the particular institution. Production should as much as possible interact with the rest of the curriculum, for example by linking the activity to concepts and techniques discussed in class and by giving pupils/students a chance to practise knowledge and skills using their own initiative, and taking direct responsibility for meaningful projects.

The integration of productive work in educational and training institutions has gained in importance during the 1980s. Although originally in the educational reforms document the pedagogical side was given greatest emphasis, because of the worsening economic situation and the consequent reduction in financial support to education, the economic purpose has been stressed more and more, particularly by administrators and politicians. Schools found it very difficult to respond adequately to this as they lacked both the technical knowledge and the resources to develop viable productive activities. Moreover, it was not clear as to how all this could be integrated into the curriculum. Yet, over time schools themselves discovered that such activities could help them reduce the damage to their schools caused by the economic decline. Teachers, parents and pupils became more and more engaged in small-scale construction and repair activities and developed agricultural projects to generate income. The SHAPE programme recognises this development and attempts to provide support and guidance so that production is realistic and serves achievable economic as well as educational goals.

Interaction between resource work and production

Improved productivity in school or college productive work can only come about if teachers improve their skills through resource work. Conversely, production, if carried out successfully, can generate finance at the school or college level which can be used for professional improvement as well as other institutional activities. Resource work and production work can, therefore, complement and reinforce each other. In order for various SHAPE committees to continue funding their own activities, efforts are being doubled in production work in all institutions of learning. This strategy will make it possible for schools/colleges to stand on their own feet upon withdrawal of donor funds.

Main components of the programme

The activities being spearheaded by SHAPE relate to various inputs that were considered necessary for capacity development and institution building, and these are:

Organisational development

SHAPE assists regions, colleges, districts, zones and schools to develop active SHAPE co-ordinating committees in accordance with guidelines issued. The other aim is to establish a national infrastructure through which teachers, administrators and inspectors could work together as colleagues in the planning and implementation of activities.

Curriculum development

The programme supports the design and production of supplementary teaching and learning materials at various levels.

Staff development

This deals with the training for field staff at various levels. In trying to develop field staff, the programme has taken into consideration the needs of the programme, individual needs and the needs of the system.

Monitoring, evaluation and research

Co-ordinating committees are assisted in developing monitoring instruments and procedures for local research and evaluation.

Material support

The programme gives assistance to committees with materials and equipment for resource work, tools for production, transport and financial support.

Activities in schools and colleges

As has already been stated, SHAPE aims to strengthen local capacity for improving the quality of education through the development of production and resource work in schools and colleges. All colleges/schools undertake:

Resource work

Schools and colleges organise activities for the purpose of developing professionalism among teachers. These activities take place in all school-based teacher centres and enable teachers to take the initiative in their professional development and create resources for learning and teaching.

Production work

In all colleges and schools there are likely to be one or more production projects in agriculture, crafts or home economics. Most of the work takes place outside school hours and involves all pupils. Some of the popular activities in schools are:

- vegetable and maize growing;
- light crafts;
- small livestock (especially in colleges).

Creation of resource facilities

A number of resource centres and resource rooms are being constructed in colleges, at district level and in individual schools. All primary schools develop learning and teaching resources which can be used for the entire institution.

Study tours

Schools and colleges undertake inter-school, inter-college, inter-regional study tours, as well as visits to counterpart organisations and programmes in other African countries. The aims of study tours are:

- to enable SHAPE officers to gain practical experience and skills in handling their own responsibilities;
- to identify good practices in INSET/resource/production work;
- to learn from other people's experiences;
- to enable officers with specific duties in SHAPE to observe and work with their counterparts in other parts of the world.

Desk repair

All schools are encouraged to undertake desk repairs in order to:

- prolong the life of furniture;
- improve seating facilities;
- provide opportunities for the application of skills in industrial arts.

Women in development and gender issues

This is a relatively new focus in the SHAPE programme. The main objectives are:

- to eliminate gender distinction from the curricula and educational materials utilised in the entire school system;
- to eliminate all negative sex role stereotyping in textbooks and portray women as important and serious figures in all fields;
- provide awareness for all those concerned with gender issues.

Major achievements of SHAPE

SHAPE has created an organisational structure in all parts of the country and in all institutions of learning. These structures have proved functional for developing greater professional responsibilities among teachers and encouraging local initiatives towards improvements in the quality and relevance of education. The zoning of schools has provided small schools with opportunities for interacting with other schools in SHAPE resource and production activities.

There are signs among lecturers and teachers that attitudes of professional dependency are on the decline. This has been revealed through increased improvisation and the ability to identify the potentialities of school environments for teaching purposes. An increasing number of colleges, districts and schools, through their committees, are now able to identify their own training needs and plan and implement suitable programmes accordingly. Provision of material assistance to field officers is already bearing fruit in terms of improved mobility and communication. There is a marked improvement in the willingness and ability of teachers/tutors, inspectors, administrators and community representa-

tives or local authorities to interact and work together for the benefit of educational development.

Production work has improved and many institutions are able to support their own resource and production activities. There is more evidence of self-reliance at school-community level. The Ministries of Education have recognised the importance of teachers' contributions to educational development and have found a meaningful way to respond to their needs for support and guidance through SHAPE.

Major disappointments

SHAPE as a programme has experienced a number of disappointments during its implementation. Notable among the problems have been:

- a) heavy workloads of field officers, especially inspectors who are spearheading the implementation of SHAPE;
- b) inadequate training among co-ordinators concerned with resource and production work;
- c) too many (donor-aided) programmes in the field competing for the attention of the same inspectors and teachers/tutors;
- d) role conflict among co-ordinators and administrators;
- e) lack of inspectors in some districts, hampering co-ordination and leadership at district committee level;
- f) lack of incentives/allowances for field officers shouldering extra programme responsibilities;
- g) many rural schools are very difficult to reach;
- h) frequent staff changes at various levels;
- i) friction/conflicts over use of resources of the programme; transport is a case in point.

3 Programme planning, implementation and sustainability

The SHAPE planning and implementation structure

The national co-ordinating committee as the executive team for the whole programme was called the National SHAPE Secretariat. This was given the task of introducing SHAPE in every primary/basic school and pre-service primary teacher training college. The National SHAPE Secretariat made provision for a representative from the University of Zambia (UNZA) School of Education, the Curriculum Development Centre (CDC), the National In-Service Training College (NISTCOL) and the Education Broadcasting Service.

Below the Secretariat are the regional committees with representatives from regional colleges and the provincial education office. These committees' main task is to initiate, co-ordinate and monitor SHAPE activities in the region.

Below the provincial/regional committees are the district SHAPE co-ordinating committees. Their task is similar to that of the provincial committees. At the sub-district level there are the zone and the school-based teacher centre committees.

The basic organisational principle in SHAPE has been that no separate project implementation structure would be created. All responsibilities were given to officers already serving at different levels in appropriate sections of the two Ministries of Education. Only for the posts of executive secretary and some supportive staff have some officers, most of whom were already in the system, been specifically appointed on secondment. In many cases the duties were an extra burden for the officers concerned, such as teachers or tutors who became co-ordinators for various activities or resource teachers. In other cases the project required a new interpretation of the conventional responsibilities of the officers concerned, especially those of inspectors. The SHAPE co-ordinating committees provided an infrastructure in which all sections within the ministries as well as outside bodies who had a direct concern with quality and relevance in education, could come together for planning and implementation of support activities. Since this supplementary SHAPE structure has a degree of autonomy of action one may speak of SHAPE having a semi-autonomous implementation structure, which operates at all levels.

The SHAPE organisational structure (Figure 5.1) has been accepted as a vehicle for implementing SHAPE activities and also other ministerial programmes funded by other donors such as Child-to-Child, Zambia Mathematics and Science Education Project (ZAMSTEP). Resource teachers representing these individual ministerial projects are members of SHAPE committees at various levels and enjoy assistance from SHAPE.

Strategies for implementation

The SHAPE programme was planned to be implemented by teachers and would allow certain functions and roles to be decentralised. An important principle in SHAPE is that of *decentralisation*. SHAPE committees are responsible for initiating appropriate resource programmes in accordance with local needs. At the district level and below activities are planned and implemented by teachers with assistance from inspectors and administrators. In this way teachers are given greater scope for the exercise of professional autonomy.

The general rule is that what can be handled at a lower level should be carried out at that level. In developing strategies for implementation, SHAPE considers *partnership* crucial to the success of the programme. In this case, teachers, lecturers, administrators, communities and donors are crucial partners in the programme. Partnership has also been encouraged within the committees themselves. The National Secretariat and other committees have been trying to operate as professional teams within which members bear collective responsibility for planning, management, and implementation. All responsibilities are shared between the members. Decision-making is collective and based on interaction and consultation.

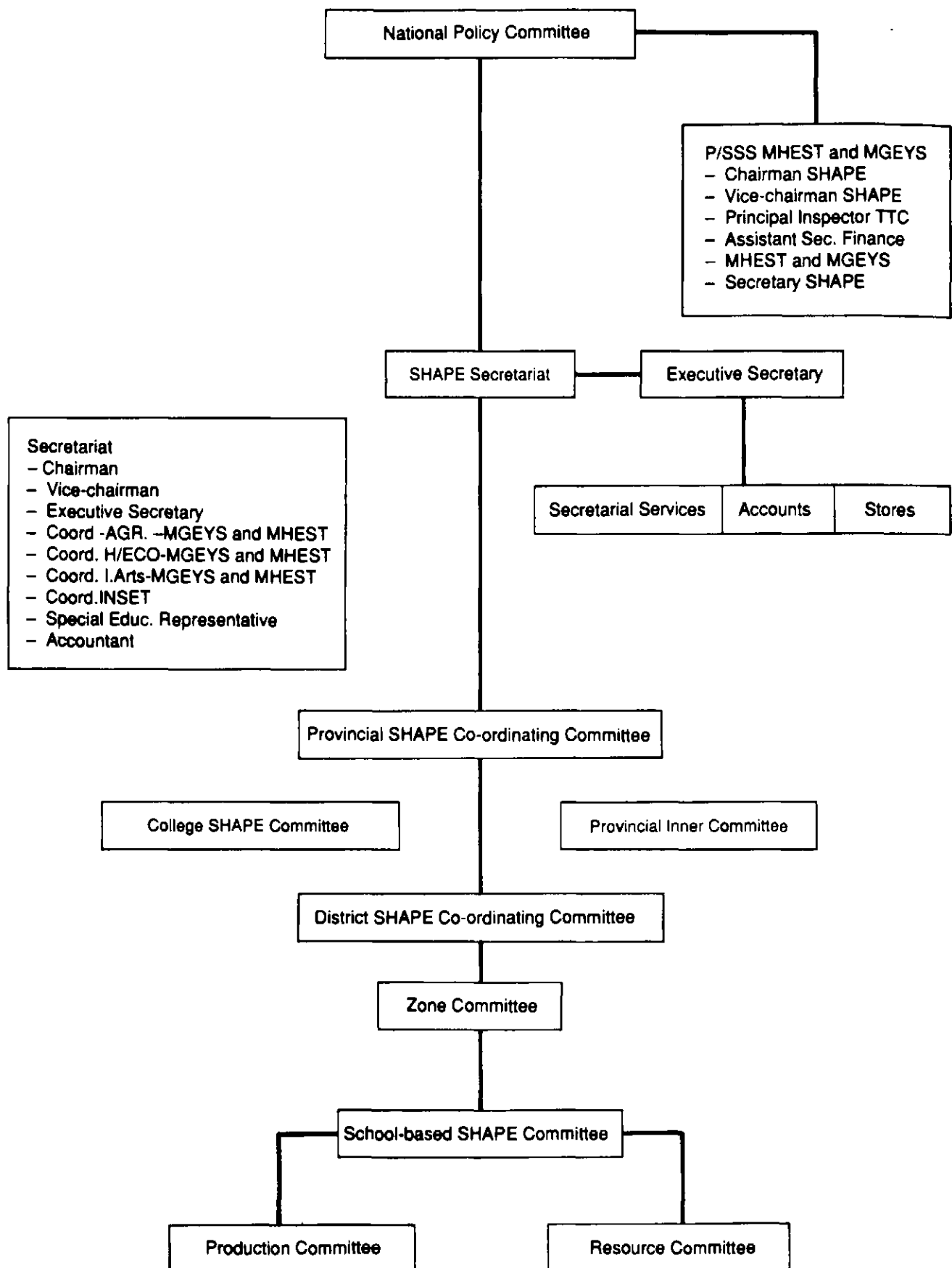


Figure 5.1 Organisational structure of SHAPE (1991)

Where constant attention has to be given to local problems in the quality and relevance of education, and support measures have to be adjusted to local conditions, there is a need for following an ***adaptive and learning-based approach*** to planning and management. Work-plans and procedures have been kept flexible and short-term, focusing on felt needs through activities that are manageable and that are based on local implementation capacity and available resources. Plans and strategies are adjusted on the basis of experience and negotiation. Briefly, the key features of implementation are:

- the programme is *field-based*;
- as far as possible it is planned and managed by *teachers*;
- the organisational structure is *decentralised and participatory*, thus facilitating professional growth among teachers;
- planning and management are *adaptive and learning-based*;
- the programme moves towards the establishment of an *effective network* of professional support services, linking the school base with the zone, district, regional and national levels;
- teacher colleges are considered to be the *hubs of INSET activities* in their regions. They have a key role in staff development for educational leadership, in research and development and in working with teachers to identify and communicate the best educational practice.

Each school has been regarded as a production unit, within which a variety of productive activities could be developed which are of an economic, educational, social and/or cultural nature. The selection of productive activities is governed by their potential educational value within the context of the curriculum, the availability of resources, the potential and interest of the teachers and the needs of the school and community.

Productive activities at college level serve especially as a demonstration of what is possible in primary schools, in terms of types of activities, technologies, organisation and management. Colleges are regional focal points for the development of productive activities and their role in education. They exercise this function through in-service training, curriculum development related to production and the exchange of ideas and experiences.

The overall guiding principle remains the exercise of self-reliance and resourcefulness by teachers, schools and colleges. Whatever resources become available from the Ministries of Education (from external and from internal sources) for the programme will be released only in support of self-help activities and as an encouragement to professional and institutional initiative. The major responsibility for the development of resource and production activities rests with the schools and the colleges. The National SHAPE Secretariat is responsible for assistance with staff training, curriculum development, monitoring and research. The Secretariat also responds to initiatives from the field and expressed needs for technical and material support. In turn it sets conditions so as to encourage self-development e.g. evidence of effort and commitment, matching local resources. This implies that for some time developments in districts and colleges may be uneven. In some areas and institutions the spirit of self-help has been at a low

level; or alternatively because of poverty very few local resources are available. Extra help is provided in such cases, particularly through training, joint planning, and provision of seed money so as to build up a basic local capacity.

In the subsidising of seminars and workshops in regions and districts, priority is given to meetings of resource teachers and other key education personnel. Training is organised in a concentric fashion. The Secretariat is responsible for the training of key personnel at the national and regional levels (training of teachers and of trainers). Regional committees organise training for district cadres. Similarly materials, equipment and transport are provided for regions, colleges and districts down to the zone level.

The process of implementation

During the process of implementation of SHAPE during late 1986 and early 1987 a number of awareness/information meetings were held in all regional and selected district centres. The first phase of the programme (1987–89), therefore, concentrated on putting into schools, colleges, zones, districts and regions a SHAPE organisation structure through which administrators, inspectors, lecturers, teachers and pupils could work together. The first phase was characterised by:

- establishment of committees at various levels;
- re-stating the purpose and principles of SHAPE in the light of experiences gained during regional information-sharing meetings;
- leadership training in regions;
- training of resource teachers in various subjects of the curriculum;
- exploring the potential for improving on-going activities and initiating new ones;
- production of guidelines;
- undertaking study tours to countries which were implementing similar programmes;
- making a start to support resource and production work in selected colleges, schools and districts.

A number of problems were experienced in that the programme was introducing new ways of thinking, new approaches to administration and management in education. Equally important and controversial was the encouragement of collective decision-making by teachers and their supervisors in the area of resource and production work. The concept of equality in decision-making by professionals with different status/positions caused problems of acceptability in that some supervisors wanted the delegation of duties to end at their own levels.

As a result of this some problems started cropping up: role conflicts emerged among SHAPE co-ordinators and those senior teachers who were not given additional responsibilities in the SHAPE structure; the workloads of co-ordinators who were also full-time teachers became heavier, while the heads of schools at which they were based felt the co-ordinators had divided loyalties;

there was also a lack of transport for co-ordinators during the initiation period of the programme; the appointment of co-ordinators in the early stages was *ad hoc*; participation by the School of Education at the University of Zambia became weak and diminished; the zone committees in which heads of schools were made members were chaired by ordinary classroom teachers who were appointed zone co-ordinators, most heads found it difficult to accept new leadership from those whom they considered to hold lower rank; finally, the National Advisory Committee, which had been appointed from among senior personnel in and outside the two Ministries of Education for the purpose of broader consultations, met twice during its life span and then stopped functioning.

As a result of problems and experiences gained, a number of adjustments have been made to the organisational structure. Zone meetings are no longer chaired by ordinary teachers. Instead one of the heads from the zone schools has taken the chair. The permanent secretaries of the two ministries are now involved in policy matters of the programme, the University of Zambia (School of Education) is much more involved in the programme, and education officers are now active participants in the programme.

An important modification has been introduced into the strategies for dissemination of the new approaches. At the start of the programme the strategy was to introduce SHAPE in every school and to respond to initiatives from the schools in terms of financial and material support. The strategy led to growth points being concentrated in certain areas which enjoyed special factors, such as qualified teachers, accessibility of the school, and an enabling environment. Research and monitoring findings soon revealed that developments in the implementation of SHAPE activities were becoming more uneven. Therefore in order to spread growth points evenly a re-demarcation of zone centres was carried out. In this case zone centre schools were to act as satellite or growth points for the dissemination of good practice. In some cases zone centre schools are the same as those designated as model schools.

To assist in determining the direction in which the programme should be moving efforts have been intensified to improve the monitoring skills of SHAPE personnel. The training in research skills for tutors of teacher colleges has been intensified. Finally the Secretariat has produced literature for the guidance of field personnel in monitoring.

Policy development in SHAPE

The National SHAPE Policy Committee was established at the end of 1990. The committee was set up as a response to problems experienced by the Secretariat in communicating with senior officials in the two Ministries of Education. The SHAPE Secretariat has also discussed ways of integrating the programme into the main activities of the Ministries and considered ways of making it possible for administrators and professionals to participate fully.

The Secretariat, together with administrators and professionals, has re-examined some missing links and role conflicts in the current SHAPE organisation

structures at various levels. The need to integrate SHAPE demands the involvement of permanent secretaries in policymaking. It is hoped that the policy committee would shorten the channel of communication between permanent secretaries and the Secretariat and provide the permanent secretaries with opportunities to participate in decision-making.

Integration and sustainability

During the second phase of the programme (1990–93) SIDA, as the principal donor, began to express concerns about sustainability. The agency supplied a large portion of the recurrent budget and this left doubts as to whether the government would be able to take over when support came to an end. During 1991 the SHAPE Secretariat and the National SHAPE Policy Committee discussed the following strategies:

A Integration

It was noted that during the first phase of the project (1987–90) the semi-autonomous management structure of SHAPE tended to shield the programme from the shocks of mainstream activities. This had been necessary in order to put the project into place within the shortest possible time. Against this background there is a need to proceed cautiously towards the integration of the programme into the mainstream structures and activities of the ministries. The assumption here is that in a careful process of integration SHAPE objectives, ideas and principles can slowly find greater acceptance within the ministries and thus have a greater chance of continuing to be a source and vehicle for renewal in education. Thus the main organisational objectives of the second phase are:

- to integrate activities of the programme into the mainstream;
- to make a start in terms of transferring some recurrent costs from SIDA to the government of Zambia; and
- working out other mechanisms for achieving sustainability.

B Sustainability

The view of the SHAPE Secretariat is that sustainability is not only a financial or an economic problem. The Secretariat regards the acceptance and effectiveness of the programme at the school level as the most fundamental aspect of sustainability. The key lies in the changes in the attitudes of teachers, pupils and other partners involved in education and the extent to which it is possible to develop a 'culture of innovation rather than the culture of maintenance of structure'. Once SHAPE activities have been internalised in schools, there is a greater possibility for activities being carried on without financial support from the national treasury.

4 Quality in learning

Quality as an aim in SHAPE

One of the main aims of the programme is to improve the quality and relevance of education. SHAPE is therefore a primary school improvement programme. In order to improve the quality of learning the programme encourages and continues to develop a cadre of resource teachers in all subjects as part of the general resource and INSET activities. Subject resource teachers are appointed by inspectors to support curriculum development in particular subject areas. These teachers are appointed on the basis of competence and proven knowledge in their subjects and have been given extra training by the programme. Through subject panels/committees training needs are identified and appropriate action taken.

The programme has therefore tried to improve and strengthen certain types of learning in order to achieve quality and relevance. These are:

- relating science, mathematics and languages more to the local environment;
- developing a wider variety of skills, e.g. literacy, numeracy as well as practical and problem-solving skills, etc.;
- developing individual potentialities, e.g. initiative, responsibility, creativity;
- developing positive attitudes, e.g. towards work, local cultural traditions, preservation of natural resources;
- developing a healthy balance of learning and working to suit individual interests and future needs.

Strategies

In order to encourage the above types of learning, school-based resource activities provide the necessary competencies for teachers in order for them to adapt the new methodologies which encourage enquiry among the pupils. The initiation of new ways of doing things in SHAPE has had a special effect on the roles of inspectors. The traditional role of inspecting and policing schools is being balanced with giving professional advice, collaborating with teachers in projects and monitoring. The national SHAPE team adopted the following strategies:

- improvisation (self-help production of learning and teaching materials);
- design and production of supplementary materials based on local knowledge (readers in local language, pamphlets on local economic activities);
- adaptation of parts of the curriculum to local conditions;
- scope for practical work as part of the curriculum and the running of production projects as extra-curricular activities;
- a more individualised approach to teaching and learning;
- involvement of pupils in desk-repair and self-help construction of classrooms or teachers' houses;
- a greater role of the community through parent-teacher associations.

The school-based teacher centres and district resource centres exist in order to advise and support individual teachers and all zones. The centres are meant to: run INSET and resource work activities; identify training needs; monitor professional and production activities; undertake research and evaluation; initiate as well as respond to needs of schools and individual teachers; hold review and planning meetings at the end of the year; hold monthly and termly meetings; offer a co-ordinated programme on in-service education and curriculum development; house and organise materials to support curriculum development work on agreed projects and curriculum areas; provide support and a local base for the work of various committees; facilitate teacher participation in professional work; provide a base for advisory and consultative and other professional support services; and offer appropriate help with audio-visual and reprographic facilities to schools in the districts.

Structure of resource centres

Resource centres in the SHAPE programme fall under four categories and are classified according to the functions which they perform as follows:

Category	Function
1 <i>National institutions</i> e.g. the University of Zambia (UNZA); the Curriculum Development Centre (CDC); the National In-Service Training College (NISTCOL)	These institutions perform experimental functions. They experiment with new materials, initiate new ideas, etc.
2 <i>Regional institutions</i> Regional teacher colleges	These perform training functions in the management of district resource centres and school resource rooms
3 <i>District institutions</i> District resource centres	These perform functions related to specific needs of teachers, such as basic materials and equipment
4 <i>School-level institution</i> Zone and school-based teacher centres	These provide opportunities for teachers to meet and discuss their problems

NISTCOL conducts advanced courses of one year duration and above for the upgrading of different categories of personnel, holds workshops, seminars and conferences on issues of national importance for personnel at all levels, and advises and supports the regional teachers' colleges in their role in INSET. If NISTCOL is strengthened through better staffing and physical facilities, the college would be in a position to carry out research and development work regarding school curricula, teaching/learning materials, methods, education with production as well as in resource work. In the future the college should also be able to

work out general strategies for INSET programmes for the professional development of education personnel throughout the country, including the exploration of distance education methods.

Regional pre-service teacher colleges play a vital role in the SHAPE programme. All teacher colleges are hubs of INSET activities in their regions and have a key role in staff development for educational leadership, in research and development and in working with teachers to identify and communicate the best educational practice. Therefore they:

- a) are responsible for conducting short courses for the purposes of upgrading and updating teachers;
- b) organise workshops and seminars for a variety of personnel within their regions;
- c) provide resource persons for participation in the work of teacher centres and resource centres;
- d) act as centres for information and advice for all education personnel in the region;
- e) as a result of the training provided by SHAPE for selected lecturers, colleges are now involved in carrying out research and development work in curriculum, teaching/learning materials, methods and in school production work.

There are still very few district resource centres because they depend on the availability of funds for construction of or the renovation of a suitable building in a central location. Several districts now use a structure that was built or rehabilitated on a self-help basis, with the participation of teachers, pupils and the community. The SHAPE Secretariat developed a basic design for new centres that contained spaces for meetings, production of materials, a small media centre, some offices and storage. The district centres have attracted considerable interest from teachers, inspectors and administrators.

In Zambia school-based teacher centres are generally a new concept and schools are seen as places where teachers work together and meet, not only for administrative reasons but also for professional co-operation and exchange. A central school in a zone performs the function of a teacher centre for the zone as a whole. Increasingly, larger schools, especially the zone centres, make use of a small physical facility where materials, some equipment, reference books are kept and which is referred to as a 'resource room'. Often this is actually the office of the deputy-head or a senior teacher. Teachers meet in a classroom where sometimes those who have walked from a more distant school also sleep.

Study visits

Study visits help to identify good practices in resource and production work in other parts of the country and outside Zambia. Study visits take place between schools, between districts and between region and also outside Zambia. The impact of these study visits has been noted in several areas. For example, mud desks were introduced as a result of visiting Ethiopia and a tailor-made course for agricultural co-ordinators arose as a result of study visits to Tanzania.

undertaken by the government to improve access. These include support for the community building of classrooms and the speeding up of the production and distribution of free educational materials for use by the schools. This is done under the SIDA/FINNIDA-funded Zambia Educational Materials Project (ZEMP). The result of this is that parental contributions to school materials are kept within affordable limits.

The current debate on women in development and gender issues has now become a SHAPE concern. SHAPE is strengthening and implementing policies that will improve the education for girls and remove every obstacle that hampers their active participation. It is hoped that through these quality improvement efforts focusing on gender issues, girls will be stimulated to remain in schools and benefit equally from all provisions. Together with other programmes by government aimed at upgrading primary schools, this in particular could help reduce the dropout of rural girls at the upper primary level, which is currently a major problem in basic education.

During 1990 SHAPE was given the responsibility of integrating special education into its activities in order to help improve facilities in schools and colleges for the disabled. Some progress has already been made by the co-ordinators responsible for this aspect of education.

Progress to-date in improving access and equity

Although access and equity are not direct responsibilities of SHAPE a number of successes have been noted in the following areas:

- a) SHAPE assistance in improving the furniture situation has helped to improve the physical learning environment in many schools;
- b) improvisation and adaptation have also contributed positively towards equity;
- c) more parents are becoming aware of the importance of education for women as opportunities for their advancement into higher positions improve;
- d) more girls are accepting the fact that they can advance at the same pace as boys;
- e) parents have become aware that girls are as valuable in the educational system as their sons.

However a number of constraints have been experienced in trying to improve access and equity. Problems have been encountered in the following areas:

- a) material resources are not enough to go round;
- b) there is still an uneven distribution of resources, partly because of the lower absorption capacity in many rural areas;
- c) in typically rural areas parents still tend to discourage their daughters from continuing with education after puberty;

- d) female students tend to laugh at male students who take traditionally female-oriented subjects like cookery or needlework;
- f) tradition tends to discourage female students from taking male subjects.

6 Resource mobilisation

External funding

The success of a programme like SHAPE depends on the effectiveness of resource mobilisation. Since the inception of SHAPE in 1987, the programme has depended to a great extent on donor resources. The major donor has been SIDA, which provides funds for expatriate personnel, production projects in schools and colleges, monitoring/evaluation and research, construction of resource centres, renovations in special education schools and alterations to physical facilities in pre-service college for the purpose of introducing special education, study tours, staff development, seminars/workshops, purchase and maintenance of vehicles for the programme, materials, equipment for agricultural production, materials and equipment for industrial arts, educational technology equipment and materials, and materials and equipment for home economics.

Apart from SIDA other agencies have given vital assistance, partly in terms of additional material support (NORAD, EC), partly in terms of technical support through resource persons (British Council). Inputs of agencies into other programmes have been important parallel developments, such as FINNIDA for the practical subjects project, EC for the Zambia Mathematics and Science Teachers Education Project (ZAMSTEP), and the SIDA-FINNIDA sponsored Zambia Educational Materials Project (ZEMP).

Local contributions

The Ministries of Education provide local staff to run the programme and pay their salaries. However, as indicated before, most of the co-ordinators in the programme are inspectors and combine their inspectorial duties with SHAPE activities. For the time being, the current executive secretary, two typists and two drivers are on full-time secondment to the programme.

It is important to note that most of the funds at college/school level are provided by schools themselves through fund raising on a self-help basis. In this case, production projects in schools and colleges are playing an important role in providing the funds required for various activities. Schools through production projects are contributing greatly towards expenses for INSET activities at district and zone levels. When schools send teachers from their schools to attend zone seminars, transport costs for teachers are met by individual schools. The same schools donate money for food for their participating teachers. Most of the vehicles donated to district and regional committees are maintained using dona-

tions from schools. Donations from schools are sent to district committees which in turn send part of the donations to regional and zone committees. At school level, local communities and individuals, including companies, contribute towards construction work at school level. This comes in the form of labour or cash.

Strategies and prospects for the indigenisation of funding

The continuation of activities after the withdrawal of donor funding will depend on funding from the Zambian government. The Ministries of Education have accepted in principle the inclusion of counterpart funding at national level in the 1992 estimates of expenditure. This will be achieved partly through the integration of SHAPE activities into the mainstream of education.

At the local levels, growth in production activities within institutions currently funded by the SHAPE Secretariat will enable schools/colleges to sustain their resource activities. Modest incomes from school production projects can sustain minimum amounts of resource work at school, zone, and district level. Several districts have already demonstrated that this can be done in a meaningful and effective manner. There are plans for the Ministry to set up a revolving fund for production activities.

The deployment of resources to schools with widely differing needs has been a source of concern. As outlined before, SHAPE responds to initiatives from the field and expressed needs for technical and material support. In turn, it sets conditions so as to encourage self-development. These include the mobilisation of matching local resources. Secondly, SHAPE has developed a decentralised system for carrying out responsibilities for funds and for materials and equipment. Assisted through training, the committees are learning to look after these resources, plan their deployment, monitor their utilisation and account for them to higher authorities.

Major bottlenecks in resource mobilisation

In the light of Zambia's economic decline, the government has come to resort more and more to the principle of cost-sharing in education. Communities are now contributing substantially to the basic education of their children. It has been calculated, for example, that parents contribute as much to primary education per head of population as the government itself (Kelly *et al.*, 1986). SHAPE has tried not to add an extra burden for the parents and community, but rather to develop other local sources of income, i.e. the schools themselves through their production activities.

It is uncertain to what extent communities and schools will be in a position to increase their financial responsibilities or even to maintain their present participation at the same level. However, other critical factors may be the degree to which parents and communities are given a chance to participate in the

management of the schools and in the development and implementation of the curriculum in the classroom. The role of leadership in creating conditions and mechanisms for real partnership in educational development will be crucial. SHAPE attempts to make a modest contribution by showing how this can be done.

The government is now trying to educate the people to support their own schools through the provision of resources on a self-help basis. It is also involved in finding ways to help different groups that have a role to play in educational development to organise themselves more effectively for this purpose. The SHAPE programme, with its emphasis on organisational development and capacity building is a clear example. There are parallel efforts to develop the structure of parent-teacher associations and give these a legal basis for carrying responsibilities in education. Much more attention is also being given to the non-governmental organisations and the role they could play in basic education.

7 Conclusion

In conclusion it must be stated that SHAPE is still evolving and needs continuous testing and verification in new and changing circumstances. The programme will therefore continue to respond to possibilities for new procedures that facilitate innovation, responsiveness and experimentation. It will further develop decision-making processes that join learning with action. The problems and achievements highlighted in this chapter are the result of an incremental, experimental and experiential learning process.

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