



School/Community Links in Environmental Education

**A Review of the factors of
success in the Chongololo
Clubs of Zambia**

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in the Chongololo Clubs of Zambia**

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**Prepared by
Bruce K Downie
PRP Inc
Victoria, B C**

**With the field assistance of
Shadreck Nsongela
Environmental Council of Zambia
Lusaka, Zambia**

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Table of Contents

Executive Summary	1
1 Introduction	
1 1 Background	2
1 2 This Study	3
2 Study Design	
2 1 Regions	5
2 2 Contacts	7
2 3 Interviews	7
2 4 Sampling	9
3 Interview Results	
3 1 Mfuwe	10
3 2 Choma	14
3 3 Kitwe	18
3 4 Lusaka	20
4 Characteristics of Effective Environmental Education Programs	
4 1 Profile	23
4 2 Participants	23
4 3 Lasting Impressions	24
4 4 Leadership	25
4 5 Information	25
4 6 Complementarity	26
4 7 Community Links	27
4 8 Tangible Contributions	28
4 9 A Cooperative Approach	28
Appendices	
Appendix 1 Opportunities for Program Strengthening	30
Appendix 2 Additional Contacts	37
Appendix 3 School Data Tables	38

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Bruce Downie
Victoria, B C

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Executive Summary

Zambia's Chongololo Clubs have been operating in elementary schools across the country for over twenty-five years. They represent a program of environmental education that has stood the test of time and has continued to be an important force in reaching out to young people with a message of environmental conservation. They have also had a positive effect on community awareness of conservation concerns.

The intent of this review was to determine which features of the program were critical to its success, so that new initiatives for environmental education could be mounted in other African countries with the insight gained from the Zambian experience.

In order to determine the major factors contributing to the program's success, a school review was conducted in selected regions of Zambia. Mfuwe, representing an area associated with a major national park, Choma, representing a rural area focused on agriculture, Kitwe, representing the industrial centres of the Copperbelt, and Lusaka, representing a major urban area. Within each region a number of schools were identified, and interviews were conducted with club leaders, students and members of the community.

The interviews addressed the logistical aspects of the program, its structure, membership, activities, difficulties, directions, and links with, and impact on, local communities. They also investigated the participants' understanding of the environment and environmental issues. It was on the basis of these interviews that the consultants reached conclusions regarding the program's operation and the factors most significant to its success.

On the basis of the data gathered, nine factors were identified as important attributes of the Chongololo program. These factors are considered critical areas for program success and should be addressed in the development of other environmental education programs where community outreach and raising environmental awareness are important objectives. The nine factors are: (1) the widespread recognition and profile of the program within the school system, (2) the targeting of young people as the primary audience, (3) the creation of long lasting impressions through significant events or activities, (4) an ongoing process of inservice training and leadership development, (5) the development and dissemination of information and student resources, (6) the development and delivery of complementary programs through other media such as radio, (7) the development of direct contacts with community members to increase general environmental awareness, (8) the reinforcement of learning through application in practical, tangible contributions, and (9) the development of links with related community organizations.

1. Introduction

1.1 Background

Zambia's Chongololo Clubs were established in the early 1970's as part of a public education effort aimed at changing the attitude of community resistance to the establishment and development of national parks. The ecological focus of the program stemmed from the increasing problem of poaching in areas around the parks. Local hunting practices were seen as responsible for species depletion. The National Parks Department was a major partner in the establishment of the CC program. The Department had initiated training programs for scouts and communities in response to the poaching issue, and in the schools they joined with the Wildlife and Environmental Conservation Society of Zambia (WECSZ) to bring funding and expertise to the establishment of the CC program. Other efforts were operating simultaneously. For example, the Lupande Rural Development project was initiated in the late 1960's, promoting agricultural activities as an alternative to traditional hunting. Eventually, the National Parks Department began to focus its efforts on the community conservation initiative and broke away from the CC program.

What distinguishes the WECSZ initiative, however, is the fact that this represents a grassroots volunteer effort to mount and sustain a very significant national environmental awareness program in conjunction with the schools. The program was developed and continues to be supported by the non-profit organization (WECSZ) which, by raising its own funds and working with other partners and contributors, has managed to build and sustain the program. Leadership in the schools and organizational support from the national office in Lusaka and branch offices around the country, is supported by volunteer contributors working to help other Zambians appreciate and care for their natural environment.

The CC has always maintained a strong emphasis on the wildlife values of national parks. As nature study clubs, they have focussed on wildlife, knowing the wildlife of Zambia and recognizing the importance of its protection. Materials such as monthly magazines for students, as well as teacher support guides, were developed around these themes. The target audience was the upper elementary school level. Grades 4 - 7. In the early years of the program, learning materials were prepared to correspond to each month a student could expect to participate in the club, from the beginning of grade 4 through to the end of grade 7. Thus, the materials could be reprinted and reused on a four-year cycle without being repeated for an individual student. Magazines are reproduced in a standard A4 format on regular bond paper. Once information has been copied onto both sides of 2 double sized sheets, the sheets can be folded once to A4 size and stapled for convenient use.

The magazines are produced in black and white and are liberally illustrated with pen and ink drawings. The contents include activities, puzzles and the regular cartoon feature "The Adventures of Mr Chongololo". The writing style and reading level of the text is generally suitable to the upper primary grades. However, because the materials are in English and the subject is rather technical, the vocabulary will definitely stretch the club members, especially younger students and those whose English skills are not consistent with their grade level. The magazines present information on a wide variety of Zambian plants, insects, reptiles, amphibians, birds and mammals. Individual species are described and information is given on identification features, life cycle, habitat, behaviour and relationships to other plants and

animals. There is also some discussion of habitat issues and the functioning of ecosystems.

As companion documents to the children's magazine, the WECSZ also produces and distributes club leader guides for each issue. Similar in format to the magazines, but with illustrations limited to the more technical drawings, the guides offer more detailed information and explanations geared to an adult audience. The magazines and leader guides are sent to active clubs as a package, so that club leaders can use and distribute the magazines to the students at their discretion.

A number of years after the club's initial establishment, a new dimension was introduced. A radio program was developed for weekly broadcast. As a complement to the magazine materials, it too targeted upper primary school students, but its medium enabled it to reach an even wider audience. Like the magazine, the radio program builds on three fundamental characteristics: membership in a club, focus on learning about the plants and animals of Zambia, and the character Mr Chongololo. Listeners are encouraged to join the Chongololo Club of the Air by writing in to the WECSZ. Conversations with Mr Chongololo are a regular feature, in which the hosts and Mr Chongololo explore the plants and animals of different habitats, and a theme song offers an easily recognizable signature for the program. As with the magazines, the WECSZ developed and recorded an initial series of programs which could be replayed on a long term cycle. Updating the radio programs is a much easier and less costly proposition than updating the printed materials.

In the mid 1980's the WECSZ undertook a review of the Chongololo initiative to determine the strengths and weaknesses of the program. The major concern which arose from the review was the gap left by the program after elementary school. Students had no follow-up program to maintain their interest in secondary school. In response to this need, a similar network of Conservation Clubs was formed in secondary schools throughout the country.

While Chongololo Clubs are widespread, it is difficult to know exactly how many are active. Clubs are required to register their affiliation with the WECSZ annually, so that it is possible to send out materials, however, communications are difficult and the current club list is inevitably inaccurate.

1.2 This Study

The purpose of this study is to investigate the school-community linkages forged by the Chongololo school program initiatives. Analyzing why these links are successful will help to identify the characteristics which are most critical to the effectiveness of these school based, youth environmental clubs. These characteristics, exemplified by the CC program, can be viewed as effective lessons which will be helpful in developing new environmental programs elsewhere in Africa.

This project is supported by the Education Office of the Africa Bureau of USAID, as part of the GreenCom project. The Zambia Study Coordinator, Bruce Downie, was assisted in the review by an In-country Coordinator, Shadreck Nsongela. Together they developed an approach to the review and implemented it within the framework provided by GreenCom. Mr Brad Strickland, of USAID, played a key advisory role in the approach to the study, and he

participated in the initial field design and data gathering

The Wildlife and Environmental Conservation Society of Zambia sponsors the CC's of Zambia. The Society's interest and involvement in the review was critical to its success. Members of staff and the Executive Committee contributed information, opinions and insights concerning the program's history and operation. While enthusiastic regarding the importance and success of the CC's, they were also candid about the strengths and weaknesses of the program. Individual staff members in various regions of the country assisted the consultants in identifying and contacting schools and provided logistical support for the review process.

Naturally, during the course of the review it was possible to identify areas where the program would benefit from new or strengthened activity, or from the application of increased resources. Attention to these needs was of particular importance to the WECSZ and their partners, who want to expand the program and increase its impact in communities throughout the country.

2. Study Design

2.1 Regions

While the Chongololo Club program originally focused on national park areas, the program has expanded to a nation-wide initiative with a broadly based interest in raising young people's awareness of the natural environment. For the purposes of this review, it was considered important to sample schools with widely varying environmental contexts. To this end, schools were selected from three different regions of Zambia. The Mfuwe area was chosen as an area with a strong wildlife and tourism focus, adjacent to South Luangwa National Park (SLNP). Another rural area, Choma, was selected for its strong relationship to agricultural production. The third area selected was Lusaka, as representative of the urban context.

In the initial design and consultation phase in Lusaka, representatives of the WECSZ expressed a strong interest in having their relatively active environmental education program in Kitwe included in the study. While time and resources for the study were already fixed and limited, the consultants made an effort to initiate some contact in this region of the country. Kitwe is the major city of the Copperbelt of Northern Province and reflects an urban setting based on mining. It thus provided an interesting complement to the three study areas originally identified.

Mfuwe

The Mfuwe area is a dispersed agglomeration of villages adjacent to the SLNP and within the Lupande Game Management Area (GMA). The SLNP is one of Zambia's premier wildlife areas, with a significant tourism industry. Major infrastructure development in the early 1970s has facilitated tourist access, with an airport, a 20 km tar road from the airport to the park boundary, a bridge over the Luangwa River, and all weather roads into the park. A number of tourist lodges have been established over the past 30 years, and hunting concessions operate in the GMA.

The Mfuwe area was one of the original target areas for the establishment of the Chongololo Club program because of its connection with the SLNP. As a result, CC's have a long history in the area and benefit from considerable support. Many of the tourist lodges have become actively involved in local community development, particularly through school sponsorship. The lodges have been keen to encourage conservation education and have provided knowledgeable support to the Chongololo Clubs, as well as offering access to the park for local students.

The Mfuwe area is quite remote with very poor roads and limited access from Chipata, 130 km to the east. Schools are widely dispersed, and many are very poorly supplied, have difficulty attracting and maintaining teachers, and experience very difficult communications.

A donor sponsored project, the Luangwa Integrated Resource Development Project (LIRD), has been operating in the valley for many years. It supports national park development and operation, as well as broader community development. Related to this study project, the LIRD has recently initiated a significant public conservation education effort throughout the area, including some support for the Chongololo Club program.

Choma

Choma is a regional service centre in Southern Province, along the main highway between Lusaka and Livingstone. Its location provides links to both the Zambezi (Lake Kariba) to the southeast and to Kafuwe National Park to the northwest, although the distance to either makes the links tenuous at best for most residents of the area. Choma has developed as a service centre for agricultural enterprises primarily engaged in the production of tobacco and beef. A number of large commercial farms surround the city, along with some smaller local enterprises.

In addition to the dominant agricultural industry, government and private sector interests have focused on forestry. A government forestry research centre and a major forest reserve north of the city reflect the concern for deforestation and the value of maintaining significant areas of natural and productive forest. A few game ranches have also developed in the area, largely in conjunction with other farming activities.

Another aspect of the context for this review in the Choma area is the presence of the Choma Environmental Conservation Centre (CECC). This is an NGO officially formed in 1992 to undertake community education in environmental conservation. In 1994 the organization turned its attention to agro-forestry/reforestation with the initial support of UNDP, working with women's groups, teachers and community leaders.

Kitwe

Kitwe is the largest urban centre in the Copperbelt, a major mining area of Northern Province. The copper mines in this region are a long standing economic foundation for the country. Currently, extremely low copper prices on the international market have reduced the contribution of the industry to the foreign exchange income of the country. In addition, following a nationwide effort to privatize industries which were formerly owned and operated by the state, the mines have been put up for sale. This has placed a burden on the communities during a difficult period of transition when employment is insecure and economic viability is uncertain.

As a result of the history of the area, Kitwe has grown as a service centre for the mining operations of the region and provides all the urban functions in support of this major industrial enterprise.

Lusaka

The capital city, Lusaka, is by far the largest and most diversified urban centre in Zambia. It exhibits all the characteristics, both amenities and problems typical of cities of its size in southern Africa. It is the centre for national activities in all sectors, especially government, and is the focal point for transportation, communications, and finance within the country.

Typically, unemployment is high and living conditions are poor, especially in the suburbs. Maintaining residential services is difficult, given the city's limited resources and the growing population.

2.2 Contacts

Within the constraints of time and resources, efforts were made to expand as fully as possible the breadth of this inquiry into Zambian environmental education programs. Four different sectors were identified as offering potentially different perspectives based on the nature of their involvement with the program. The four sectors are (1) the providers of the program (i.e. the WECSZ), (2) the club leaders, (3) students participating in the club, and (4) community members connected with schools where clubs are active. It was considered important to explore all these perspectives in order to gain a comprehensive view of the program and its strengths.

Special note should be made of the sector identified as "club leaders". It was the intention of the study to focus the school contacts on the club leaders themselves (referred to as club Patrons in the school setting), but at the same time include the school administrators and other interested teachers. Staff participation varied widely from one school to another. In many cases administrators were keen to be involved in the process, while in others they simply deferred to the club leader. In most cases other teachers participated in the interviews, either as assistant club leaders or simply out of interest.

It is important to be clear about the term "club leader". In all cases, club leaders are teachers within the school who take on additional responsibility for assisting students in club activities. Usually such leadership is voluntary, and the teachers choose CC because of their own particular interests and backgrounds. Sometimes, though, where there are no teachers with a compelling interest in this area, a club leader may have taken on the task reluctantly, or even been assigned the responsibility. Whatever the particular circumstances of the appointment, all club leaders were members of the school staff.

In addition, a sense of the broader context of environmental education was gained through contacts with a variety of related organizations and individuals working at a regional or national level. Organizations such as the Ministry of Education, the National Parks Department, the Department of Forestry, the Choma Environmental Conservation Centre and the Luangwa Integrated Resource Development Project were contacted in order to determine what efforts were being made within their programs to address community environmental education and what links they maintained with the CC program.

2.3 Interviews

The review was conducted through interviews with representatives from each of the four sectors described above. The general approach to each interview focused on four topic areas: structure and administration of the CC program, perceptions of the environment and issues and solutions in local areas, links between community and school programs, and strengths and difficulties of local CC's.

A number of factors influenced the implementation and effectiveness of the interviews. In the first place, the breadth of the interview meant that considerable time was needed to address the wide range of relevant topics. Combined with this was the need to explain the nature of the review and develop some level of understanding and rapport with the people being interviewed. The approach by such obvious outsiders at times made communications restrained and difficult, especially where there was a feeling of inadequacy with respect to the questions being asked, or

a lack of familiarity with the language and concepts of environmental education. A great deal of flexibility was needed to move with the direction of the conversation and build on topics of interest to the participants. These factors resulted in relatively long interviews in which it was often necessary to be selective about the topic areas that could be addressed. The interviews tended to be about an hour in length, and although within that time some aspects may not have been covered, to go beyond this length was felt to be less productive.

Although, ideally, individual interviews may have provided a more precise measure of the understanding of environmental conservation and the response to the CC program, this approach was not always feasible, for three reasons. First, it was necessary to be sensitive to the interests of the participants. Typically, they wished to involve as many people as possible in the process of the review. This was particularly true for the student groups, but also for teachers and administrators connected to the program. The consultants' visits were seen as opportunities to encourage and support the CC program, and involving as many people as possible was considered the most effective way of achieving that. While the consultants indicated an interest in keeping numbers manageable (i.e. student groups of 12 - 15), that was not always responded to. In the end the consultants accommodated whatever approach was taken by the school leaders.

A second reason for moving away from individual interviews involved the comfort level of the participants. There was obvious discomfort at being questioned by outsiders concerning a topic which was not necessarily an area of strength. By allowing other individuals to participate in the interview the pressure of individual performance was diminished, and people were able to contribute more freely. This was most noticeable among the students but was a factor among community members as well. Where community members did not have the benefit of being a part of a group, the interviews were often difficult and progress with many concepts was very slow. It should be noted that community contacts varied according to the circumstance. In village areas, small groups of adults from the village of one of the student club members were interviewed as a group. In urban settings, the consultants accompanied a small number of students from the club back to their homes and interviewed the parent(s) in each household separately.

A third reason for moving away from individual interviews was that the review was intended to focus primarily on input and ideas on the CC program and its effectiveness in community links, rather than on a strict evaluation of individual understanding of concepts and issues. The reviewers wanted to know why the CC program was a success, and a wide sampling of opinions on the question was preferred to a more structured measuring of success indicators. A study based on success indicators may have been useful if it could have been accurately designed, but it was not possible within the time and budget constraints imposed by the current review.

As a result of the considerations noted above, the interviews took place with groups of widely varying sizes. Teacher/administrator groups ranged in size from 1-8, student groups ranged from 12 - 80, and community representative groups ranged from 1 - 20. As one might expect, even in large groups the number of individuals who actively participated throughout the discussion was actually quite small.

2.4 Sampling

Two issues with respect to sampling quickly became evident in the field. Time was a factor, because the length of interviews reduced the number of interviews possible, and because the remoteness of the schools restricted the number of groups which could be visited within a given time period. In addition, the protocols for visiting the schools, and the lead time necessary to make arrangements for the interviews, varied from location to location. This often necessitated two visits to the same school.

The second sampling issue concerned the difficulty of conducting parallel interviews in schools where clubs were in existence and in schools where they were not. The consultants met with teachers in schools where no clubs existed but it was felt to be unduly intrusive on the school program to conduct extensive interviews where there was no prior commitment to the program. It was felt that such an approach required different protocol arrangements with the school district, including advance warning of the schools. Such a procedure seemed impractical given the time constraints of the study.

It should be noted that throughout the areas surveyed, it was difficult to contact individuals to make arrangements for meetings. None of the schools visited had telephones. This meant that the consultants either met with teachers or administrators on one day and returned to the school another day, or the school responded spontaneously to the requests and accommodated the full program. In schools where there were clubs, there was enthusiasm to accommodate us. Much greater resistance was evident in schools that did not already have a Chongololo program.

3. Interview Results

A full record of the interviews conducted with club leaders, club participants, and community representatives and parents is contained in Appendix 3 of this report. Each interview record is structured according to the key topics of interest in the study. Because the interviews were very flexible, not all topic areas were addressed in each interview. The notes from each interview were reviewed and reorganized to fit into the standard form.

The following discussion of interview results is an attempt to highlight general trends and noteworthy ideas which surfaced in the interviews. The discussion reports on each region separately. No national summary is provided, since regional differences which might be lost in such a summary were seen to be both legitimate and significant.

The discussion of the interview results from each region is presented according to the following key headings:

- * **Contacts** how contacts were established and how many schools were visited
- * **Club Meetings** age range, meeting time, etc
- * **Students** understanding of conservation and related issues
- * **Club Leaders** understanding of conservation and related issues, background and training, relationship to the community, etc
- * **Club Activities** present activities, past events, trips, etc
- * **Desirable Club Activities** the wish lists of both club leaders and members
- * **Difficulties** problems experienced by the club as identified by both club leaders and members
- * **Community** understanding of conservation and related issues, relationship of the CC to the community, etc

3.1 Mfuwe

Schools

Seven schools were contacted during two separate visits to the area. The schools were selected in two ways. The first was as a result of their links with tourist lodges in the area. Many of the tourist lodges in the Mfuwe area have developed sponsorship links with local schools as a way of extending benefits into the community. These links are helpful to the schools, which benefit from financial support provided by the lodges and their clients for school improvement projects. The links also benefit the lodges by providing the opportunity for additional visitor activities and by demonstrating the flow of direct benefits from tourist activity.

to the communities. Three of the schools visited have long-standing direct links with major lodge operations in the area. Understandably, the three schools very close to the park were those with direct links to the tourist operators. The remaining four schools contacted were further from the park and had no such links.

The second means of selecting schools was on the basis of recommendations from community liaison officers with the LIRDP. The Public Relations, Education and Information Section provides support to school based conservation programs in the area through direct visits. They were asked to identify schools where clubs could be contacted for the purposes of this review.

In each of the schools contacted, the club leader and/or head teacher was interviewed. In five of the schools, students were interviewed. In three of the schools, community links were also made and interviews were conducted.

Club Meetings

The student membership in CC's generally reflected the expected grade levels targeted by the WECSZ. In a few instances younger students (Grs 1-3) were included in the club, and in other situations students in Grs 8 & 9 were also participating. Membership was open to all, but conflicts with other clubs and logistical considerations such as the distance to school, affected the actual numbers of students participating. Numbers ranged from 12 to 35 regular members.

Club meeting times were standardized in conjunction with other club activities in the school. One afternoon a week was typical, although some additional times were reported for special activities and on-going project responsibilities. Activities such as tending tree planting areas often involved the students on an almost daily basis. On the other hand, it is probable that in spite of the designated weekly schedule, some clubs did not meet as regularly as indicated.

Responses varied widely with respect to the Chongololo Club of the Air. Some students and club leaders indicated a keen interest in the program, while others identified limited access to radios and a weak signal during the daytime as reasons why they were unable to listen to the program. There were some reports of both leaders and students attempting to bring ideas from the programs into club time, although taping of programs for school use was difficult without the necessary equipment.

Students

The student interviews in this study area were very encouraging. Students were generally very knowledgeable and forthcoming. They demonstrated a good understanding of the links between various environmental factors (e.g. the link between tree cutting and erosion during floods), as well as a good knowledge of the impacts on the community of environmental changes (e.g. the effects of wildlife depletion on tourism revenue). They were similarly able to translate this knowledge into a good appreciation of future implications for both themselves and their community.

Enthusiasm was evident in the majority of the interviews, and strong personal connections to wildlife in particular were expressed. Beyond the wildlife issues, there was generally

considerable interest in the club and its broad conservation focus

Students also expressed a relatively strong connection to family and village. This context of small, closely linked communities seemed to be a factor in the students' common statement that their role in response to environmental problems and challenges was to tell or teach others rather than to become directly involved themselves. Perhaps, too, their recognition of the complex interrelationship of environmental factors contributed to the perception that solutions would require a cooperative effort on the part of a wide variety of people. There was little evidence from the student responses that parents were distant from, or disagreed with, the environmental conservation focus of the club, an attitude described by the club leaders, in contrast, as being common within the communities. The children were perhaps reluctant to express this information, or else the opposition comes from parts of the community beyond the students' immediate family.

Club Leaders

The club leaders in schools with established clubs were generally very aware of the environmental issues and needs of their area and the role of the club and its activities in promoting long term solutions. They were typically highly motivated and had a long-standing personal connection to conservation, as many had participated in CC's during their own elementary school education. They also demonstrated good sensitivity and connection to community issues and concerns.

At the same time, they were very aware of their inadequacies with respect to the potential of the club and its activity. They felt a need for instruction and support that would enhance their leadership capabilities. They recognized the critical need to motivate students and were actively seeking the means of achieving the best effort and participation from students.

There was considerable variation in the support from other organizations solicited by club leaders. Some leaders and administrators described active links with very positive results. Typically, the less experienced teachers had weaker community links.

Club Activities

Clubs in the Mfuwe area appeared to be very active. One consistent trend among the clubs was dramatic activity, and one school presented the consultants with a very effective production concerning wildlife conservation. Game drives were also mentioned frequently as activities which were a highly effective stimulus to student involvement in, and commitment to, the program. Not all clubs had the benefit of this experience, which tended to come with sponsorship from one of the local lodges.

Tree planting was a common activity aimed at improving school yard aesthetics, developing individual skills and responsibility, or earning income for the club. In addition, some clubs reported field studies focusing on a variety of local plant and animal species and communities. These studies varied in intensity from school yard explorations to long-term projects and reports on trips to adjacent park areas.

Desirable Club Activities

Most clubs indicated a strong desire to increase or improve activities that were already underway. Game drives, for example, were seen as a very important activity and one whose full potential had not been realized. More frequent drives would allow more students to participate and would enable more in-depth study of the animals. Clubs suggested video filming of such outings as another way of extending the experience as widely as possible throughout the school. Field studies were also identified as an activity which could be developed further.

Frequently, one of the top priorities for new activities was forming links with other clubs. Such links could be based on information exchange and/or competitions, along with social activities. Other new projects such as fish ponds or aquariums were identified, and it was recognized that in such ventures advice from experts would be valuable.

Difficulties

Club leaders identified the lack of teacher support and training as the dominant obstacle to club success. This commonly expressed problem was reflected again in a desire for greater interclub connections through the sharing of information and activities. Club leaders typically felt isolated and welcomed opportunities to gain some perspective on their own efforts and to receive some direction and advice.

The need for more written materials was the second major concern among club leaders, who were acutely aware that their knowledge and experience was limited. For students, this lack of resources was the most obvious difficulty limiting their ability to gain knowledge and explore issues. Both students and leaders also identified a lack of audio/visual materials. There was a strong sense that such materials could add to the learning experience of the club members, offer incentives to club participation, and provide added benefits to the larger school population. Finally, transportation was recognized as a factor limiting club activities such as game drives in the park and interaction with other clubs in the area.

Community

There was clearly a strong relationship between the people of the communities and the environment in which they lived. They identified a wide range of important issues including deforestation, increased human population, increased flooding, increased drought, fluctuations in wildlife populations, decreasing soil fertility, and new, more aggressive weeds. They had a corresponding array of suggestions for addressing these concerns. Respondents typically acknowledged many different sources for their awareness of issues and potential actions. These sources included wisdom from their forefathers, observation, community meetings, magazines, radio programs and so on. The recognition of school education programs, and specifically the CC, as one source of their knowledge was noteworthy. Some respondents were members of the CC themselves while others attributed ideas to their children's participation. Also, the CCOA was specifically mentioned as a source of information, along with other radio programs particularly of an agricultural nature.

Community members indicated strong interest and opinions regarding CC's but offered widely diverse viewpoints. On the one hand, some strongly supported the activities of the club and saw

potential for it to be more involved in community activities. On the other hand, there was a significant level of opposition to the views and attitudes associated with the CC and some reluctance on the part of community members to embrace the school's effort. This was seen as a challenge by some clubs and as a reason for a lack of development in the club program.

Regardless of the community participants' perspective on the clubs, issues around wildlife and agriculture dominated their view of the environment, reflecting the primary concerns of survival and food security. Many individuals participated in village action groups (VAG)--structures established to work towards greater community benefits from the effective utilization of natural resources. The groups are the result of the work of the LIRD and signify a move towards local involvement in decision-making and the allocation of collective revenues. Most club supporters in the communities saw the two efforts (VAG's and CC's) working together to educate people and change attitudes towards environmental issues.

3.2 Choma

Contacts

The WECSZ directed the consultants to Mrs Choongo, an active Society Coordinator in the Choma area. Mrs Choongo scheduled all the school meetings in the Choma area during the first visit, accompanying the review team during the investigations. For the second visit, she was joined by Mr Smart Dzikamunenga of the Choma Environmental Conservation Centre. With his knowledge of women's conservation groups in the communities and CC's in the rural schools, he was helpful in identifying appropriate schools to visit.

Ten schools were contacted during two separate visits to the area. In each of the schools contacted, the club leader and/or head teacher was interviewed. Of the ten schools, seven had established CC's, and in six of the seven schools with clubs, students were interviewed. In five of the schools, community links were also made and interviews conducted.

Two contacts in the wider community were significant to the data gathering in the Choma area. Mr Smart Dzikamunenga, in his role as the Coordinator of the Choma Environmental Conservation Centre, provided insight into a major effort of the Centre to establish and support women's conservation groups in the rural communities. Also, Mr Bruce Miller Sr (deceased September 1998), a local farmer and game rancher, and a long time member and former president of the WECSZ, was interviewed about his perspective on the environmental education activities of the area.

Club Meetings

Student membership in CC's varied somewhat from the expected grade levels targeted by the WECSZ. Some clubs extended the normal age range by including younger students (Grs 1-3). In one instance a junior club had actually developed focusing on this age range. In other situations, the pattern was more restrictive, limiting the club to members from Grs 6 and 7. Within the grade parameters membership was open to all, but conflicts with other clubs and logistical considerations, such as the distance to school, affected the actual numbers of students participating. There was also some indication that the national office had expectations concerning group size. In one case this was reflected in a membership fee and a membership

limit, while in another situation a fee was discussed but was not strictly applied. Numbers ranged from approximately 20 to 50 regular members.

Club meeting times were typically standardized in conjunction with other club activities in the school. One afternoon a week was typical although some additional times were reported for special activities. On-going project responsibilities, such as tending tree planting areas, often involved the students on an almost daily basis. On the other hand, it was assumed that in spite of the designated once a week schedule, some clubs did not meet as regularly as indicated.

There was little familiarity with the CCOA. Very few people listened either regularly or even intermittently. Limited access to radios and the weakness of the signal were significant factors in this, although some individuals reported listening to the program.

Students

The student interviews in this study area seemed to reflect a considerable difference between town and rural schools, however, the relative expedience of the club leaders may be of more significance than location in explaining this discrepancy.

Students in the town schools were generally knowledgeable and forthcoming. They demonstrated a good understanding of the links between environmental factors (e.g. the link between water pollution and disease), as well as a knowledge of local environmental issues (e.g. forest depletion and impacts of agricultural production). They were enthusiastic and demonstrated a significant understanding of environmental concerns beyond their own local area (e.g. wildlife issues), perhaps as a result of exposure to other areas through club trips.

Students in the rural schools of the area demonstrated a much less broad knowledge base and a limited ability to relate to issues and environmental relationships important in areas beyond their immediate surroundings.

Links with the family and community were not particularly strong in this region, for different reasons in town and rural settings. In the town schools, students indicated that they talked with their parents about the club, and parents for the most part supported this perception. However, the conversation seemed to address time commitments and financial support for participation, rather than learning content. Parents here were typically working in a variety of job settings which took them away from a direct relationship with the environment. In rural areas, where parents maintained this direct relationship with the environment, the weakness of the connection between club and community likely reflected the students' own limited environmental awareness and experience.

Club leaders

The club leaders in the three schools in Choma itself were exceptional. They were aware of both local and national environmental issues, were highly sensitive to the capabilities, interests and motivational needs of their students, were pragmatic in their approach to projects and activities and innovative and flexible in their educational techniques. They were personally motivated by a strong commitment to conservation and had a firm belief in the importance of the club and its activities in effecting long term solutions. One club leader had participated in a CC

in his own elementary school, while another had been selected and supported by the WECSZ for environmental education training outside the country. They all demonstrated a good understanding of community issues and concerns and knew how to connect with community groups and resources.

At the same time, these club leaders maintained a strong interest in improving their own performance for the benefit of the club and its activity, and they felt the need for continued support for themselves and their colleagues. They also recognized the critical need to motivate students and were actively seeking ways of eliciting the best effort and participation from students.

The club leaders in the rural area generally did not have the same level of experience as those in Choma. Many had previous experience as a member of a CC and were strongly committed to environmental conservation. However, they inevitably felt isolated and discouraged by the severe obstacles of poor resources and lack of support.

There was considerable variation in the support from other organizations solicited by club leaders. Some leaders described active links with very positive results. For example, some schools had made arrangements for transportation with local government departments so that their clubs could undertake field trips. In the rural areas, connections with the Department of Forests had resulted in contributions of seeds and seedlings for planting projects. Typically, the less experienced teachers had weaker community links.

Club Activities

Again there was a marked difference between clubs in the town of Choma itself and those in the rural areas when it came to club activities. Rural schools focused almost entirely on projects such as tree planting, an activity which improved school yard aesthetics, developed individual skills and responsibility, and earned income for the club. The tree planting project reflects a connection with the Women's Conservation Clubs of the area, however, the fact that the scope of projects was essentially limited to this activity reflects the schools' limited access to transportation and resources centred in Choma. Club members were also involved in classroom activities such as drama and artwork, again within the scope of their material resources and the leadership capabilities and knowledge of the leaders.

Schools in Choma were involved in a greater variety of activities. In addition to the tree planting and drama activities which they had in common with rural schools, club activities included garbage pit and fish pond projects, as well as field trips and field studies. The club had undertaken major outings to wildlife areas at Livingstone, as well as overnight camping trips, while local field studies were combined with picnics to farm areas and the Choma Dam. The radio program was also more easily accessed in town, and it contributed ideas and topics for the club's classroom and field activities.

Desirable Club Activities

Most clubs indicated a strong desire to increase, or improve on, activities which were already underway. Some clubs saw the development of nurseries, for example, as an important way of expanding the tree-planting program. The development of fish ponds was also frequently

identified as a desirable activity, although for many rural schools a poor or impractical water source would make such a project difficult. It was often noted that expert advice could be important in carrying out some of these more involved projects.

Field trips and linking with other clubs were also high priorities for new activities. Such links could be based on information exchange and/or competitions, along with social activities.

Difficulties

Lack of financial support and the difficulty of raising funds, particularly in the rural areas, seemed to be the dominant obstacle to club success. Financial difficulties affected everything from equipment and supplies available for field trip transportation and projects, to learning materials for the students. Rural schools identified the lack of learning materials as a particular concern. Only very small numbers of magazines have reached these schools, usually through the Department of Education Office, and there is a desperate need for more, in these schools which do not have libraries. Schools also identified audio/visual materials as a desirable resource, while realizing that without power it would be difficult to take advantage of such equipment.

Rural teachers identified strong feelings of isolation, and indicated the importance of not only teacher support, but also specific training which would give them the knowledge and techniques to establish and run a CC.

Community

Community responses to the issues surrounding environmental conservation and the activities of the CC's were extremely varied. Some parents were highly knowledgeable and interested in the issues and their children's activities, while others were quite distant and less interested. In Choma, interested and knowledgeable parents tended to have a relatively broad view of environmental concerns, including the green house effect, industrial pollution, land degradation and water pollution. Parents in Choma reflected on past experience in rural areas and expressed concern for the place of agriculture in changing patterns of land use in the region. Land use, forestry and agriculture issues were prominent in the minds of parents in the rural areas, where the focus was on the immediate necessity of protecting land so that it would be productive for food and shelter.

Parental awareness differed between the people of Choma itself and those in the surrounding rural areas. People in town typically identified broader environmental issues and concerns and identified the media, books, and church activities and publications as some of their sources of information. Other sources more commonly shared with rural respondents included observation, experience, discussion with others. Education, and the CC program in particular, was identified as a source of information by some participants, although not consistently.

There was support, in both urban and rural areas, for the children's Chongololo Club participation as an important experience which extended the child's knowledge of the environment, but the club was rarely characterized as priority activity.

3.3 Kitwe

Contacts

It was at the request of the WECSZ that Kitwe was added to the list of study areas. Mr Kasula Chanda, the Environmental Education Coordinator with the WECSZ, was very helpful in establishing contact with the two schools which participated in the interview process.

Both schools had established CC's, and in each school the consultants held discussions with club members. In one school a number of staff members including the head teacher, the club leader, and assistant leaders also participated in an interview session. Two parents were interviewed in conjunction with one of the schools, and this modest link with the community was supplemented by contact with the Provincial Forestry Office, as well as the WECSZ itself.

Club Meetings

Student membership in CC's exceeded the expected grade levels targeted by the WECSZ, with one club extending the age range to include students in Grs 1-3. Membership was open to all and total numbers of participants were large: 55 in one school and 135 in the other. The larger group, however, was operating in a school where the total student population was 1700, with students coming in shifts. The number of teachers involved in the program was similarly large. Conflicts with other clubs still had an impact on the numbers of students participating, as a full range of club activities was offered.

In this area there was a significant connection with the CCOA. In fact, radio and television were identified as important sources of information.

Students

The students interviewed in this study area demonstrated a good understanding of environmental concerns at the local level. Their sense of the environment encompassed the neighbourhood, including plants, rocks, trees, houses and yards. The importance of the environment lay in the products it offered to people, products such as milk, meat, fruit, building materials and clothing.

Broader environmental systems and their interrelationships were not as well appreciated, although students understood links between certain environmental and social effects (e.g. the link between air pollution and disease), as well as local environmental issues (e.g. tailings, smog and litter). They were enthusiastic and interested in expanding their conservation knowledge and experience.

It was very difficult to gain any appreciation of the extent to which the club had created links to the family and community. The parent group interviewed expressed strong support for their children's participation and indicated that there was undeveloped potential for community links. The students, too, indicated a certain degree of openness with their parents about the club.

Club Leaders

It is difficult to generalize about club leaders in the Kitwe area, as only one extended interview was conducted. The club leaders in this school were very knowledgeable and very keen to develop a strong and successful club. They were aware of the environmental problems of their area and recognized the economic forces behind many of those problems, industrial mine wastes, for example, pollute the stream behind the school and affect the quality of the air.

The staff in this school seemed strongly committed to the program, generally motivated by personal experience with conservation clubs in secondary school and during their teacher training. Staff members interviewed suggested that while environmental science teachers are looked to naturally for leadership, in fact teachers from a variety of disciplines who are interested in the environment can offer strong leadership. Efforts are ongoing to educate fellow teachers regarding environmental concerns, and teachers involved with the club expressed a keen desire for workshops which would enable them to strengthen their program and benefit from the ideas of other groups.

These teachers also demonstrated a very good understanding of community interests and perspectives. Having experienced a lack of community support, which they relate to a lack of awareness, teachers have undertaken planting projects as a way of developing the CC profile.

Club Activities

Classroom activities, including lessons and quizzes, were common in these schools, and nature study seemed to be the main focus determined, primarily, by the materials available. Teachers expressed significant concern regarding the relevance of the CC magazines to their own environment and local experience. While study of the natural environment was interesting, they felt that they needed resources which could help their students understand the environment in which they lived.

Local project activities such as fish farming and tree planting supplemented classroom activities and contributed to fundraising and schoolyard improvement efforts. The teachers reported one field trip, but further club travel was limited by a lack of funds.

Desirable Club Activities

Field trips were identified as the most desirable new activity. Both students and staff wanted to travel to parks for wildlife viewing and to be able to appreciate aspects of the natural environment which were not locally accessible. Audio/visual programs and equipment were identified as ways of gaining similar experience.

There was also interest in expanding project activities. A stream rehabilitation project was suggested, and the development of nature trails was discussed. Others wanted to expand activities in the area of drama, dancing and poems, with the possibility of using these activities to build community awareness.

It was also suggested that twinning with other schools abroad would be an interesting and engaging way for students to gain an appreciation of other environments and of different ways of

addressing environmental problems. One further suggestion put forward was to encourage participation and motivate students with various forms of individual recognition, such as uniforms, T-shirts, certificates or badges.

Difficulties

Lack of financial support was identified as the dominant obstacle to club success, particularly as there were no resources for field trip transportation. Resources such as learning materials were also lacking, as magazines arrived only erratically, and participants indicated that new materials relating to the environmental problems of their own area would be helpful.

Community

It was found that at the time of the study the CC was making a significant contribution to the school environment, but its impact on the wider community was weak. A couple of explanations were offered concerning the apparent lack of communication between the club and the community. One explanation was that the club was relatively new in one of the schools and would become more widely known over time. Another observation was that the parents were typically uneducated, and that it was difficult in this context for the children to communicate the environmental message.

Community representatives interviewed perceived a general lack of environmental awareness on the part of the community at large, and suggested that a significant population of transient mine workers with little apparent interest in, or concern for, the environment contributed to this perception. At the same time, they indicated that there was a segment of the community interested in environmental issues and simply needing help to mobilize. Participants suggested a number of avenues for community involvement, including involving existing community theatre groups as partners in CC presentations, and bringing club awareness presentations to school open houses and PTA meetings. It was even suggested that supportive community based clubs be formed in parallel to the CC. While a lack of connection between the CC and community was apparent at the time of the study, there was a strong sense that there was potential for such a link, and that it would be important to develop ways for the club to reach out into the community.

3.4 Lusaka

Contacts

The consultants contacted five schools in Lusaka, all of which had established CC's. Club leaders were interviewed in each of the schools, and in four of the five schools discussions with club members were held. Parents associated with each school were also interviewed.

Schools were selected with consideration for convenience and availability of contacts. Because other areas visited during the study were given higher priority on the basis of travel commitments, the timing of school visits in Lusaka was not ideal, as it coincided with the transition from one term to another. Nevertheless, teachers were cooperative in accommodating meetings. It was also more difficult to conduct interviews with parents in Lusaka as, unlike in many of the rural areas, it was necessary to make appointments to meet after working hours. Because of time constraints, only one parent was contacted for each school.

Club Meetings

Student membership in CC's again varied from the expected grade levels targeted by the WECSZ, with two clubs extending the normal age range to include students from Grs 1-3. One club restricted its membership to only Gr 7's, while another included Grs 7-9 only. Within the grades identified, membership was open to all and the size of the groups was variable, the largest having about 30 members.

There was a strong connection with the CCOA. Most students listened at least periodically, and the club leaders and one of the parents had also listened and were familiar with the program.

Students

The students interviewed in this study area generally demonstrated an urban perspective on the environment. They tended to focus on pollution, but there was also recognition of deforestation issues and problems of water shortages. A broader sense of environmental relationships was not clearly articulated, although students identified some examples, such as the impact of deforestation on soil erosion. Factories figured prominently in the discussion of causes of environmental problems, as did the issue of litter disposal.

It was very difficult to gain an appreciation of the extent of club links with the family and community. Parents and children indicated openness and support for the program and the children's participation. However, larger community initiatives and impacts were not identified.

Club leaders

Club leaders of the CC' in these schools appeared committed to the project. Some had been CC members themselves and felt good about their continued involvement. They identified a range of environmental issues but, like the students, focused their attention on problems such as garbage and water pollution which were relevant to the urban context in which they lived.

Club leaders felt that not only an urban lifestyle, but also a lack of awareness, contributed to a lack of community interest and support, and they considered this an area which needed to be addressed.

Club Activities

Classroom activities were common in these schools and included lessons, discussions, poems, plays, songs, dances, drama, poster making, puzzles and quizzes. Project activities included tree planting and gardening.

Nature study was also important to some groups and involved a combination of classroom study materials and field trips. Materials provided for the program were considered very helpful by some, but distribution is an issue even in Lusaka, and participants indicated the need for a broader and more comprehensive set of materials. Other club activities included picking up litter and taking part in environmental events.

Desirable Club Activities

A variety of future activities were suggested. Field trips were a high priority, but were perceived as dependent on increased funding, as was the acquisition of more resource materials. Competitions were also suggested as an activity which would permit interaction with other clubs.

Other suggestions for future improvements included increasing the number of club leaders to provide adequate guidance and bringing in guest lecturers from partner organizations in environmental conservation.

Difficulties

Lack of financial resources was the main obstacle to club success identified by the participants. This lack was felt particularly in relation to transportation for outings and the acquisition of new learning materials. Magazines were received only erratically, and new materials relating to the environmental problems of urban centres were desired.

Club leaders also recognized the need for training workshops which would help them to provide better leadership. The lack of connection with, and support from, other environmental organizations was identified as a difficulty.

Community

The community representatives interviewed had a fairly high level of understanding of environmental concepts, conditions and concerns. They identified issues such as soil degradation and its impact on food resources, increasing drought, the potential extinction of certain animal species, the increasing accumulation of hazardous waste and illegal quarrying. The solutions proposed by community representatives seemed to reflect the urban context in which they live. Responses tended to focus more on teaching others about environmental impacts and remedies, changing government policies, and enforcing environmental regulations, than on direct actions such as planting trees, digging boreholes and stopping hunting.

Similarly, sources of knowledge identified by this group of participants reflected their relatively advanced education level and their urban community. The importance of media such as radio, television and magazines was emphasized, as well as special educational events such as workshops on environmental concerns. This group also identified personal observation and discussion with others, both peers and experts, as being important. Education, both in terms of the general curriculum and participation in programs such as the CC were also seen to be important. Some had been members of CC's themselves and others felt they benefited indirectly from their child's participation. Many parents indicated that CC activities gave rise to discussions at home of issues concerning, and attitudes towards, the environment. In this way, the CC was seen as an important factor contributing to the environmental awareness of both children and adults.

4. Characteristics of Effective Environmental Education Programs

The CC program is an excellent example of effective environmental education in the primary school context that has had a positive impact in the long term. The results of this review support this conclusion, and thus the CC program can serve as a model for other environmental education program initiatives.

The results of this study point to a number of specific characteristics that are crucial to the potential for school-based environmental education programs to bring about positive change in the wider community. The characteristics described below should be considered carefully in the development of new environmental education programs.

Logically, because of their importance to the program these very characteristics of success also point to areas where the CC program could be strengthened. This is not a contradiction. Rather, it underscores the importance of these aspects of the program. Increased effectiveness is dependent upon strong capability in these key areas.

4.1 Profile

The CC program has become an extremely well known name among elementary school clubs. It is so familiar that if schools do not have a Chongololo club, they feel they should have. In schools visited where there was no active club, they frequently had some recollection of club activity in the past, a teacher was remembered as having a particular environmental interest, or a grove of trees was identified as having been planted by a former club. In only one school did we need to explain the CC concept.

The movement of teachers throughout the educational system has had a positive impact on the club's profile. Teachers and administrators bring previous experience with successful clubs to new schools and encourage others to become involved. Many of the club leaders we interviewed had been involved with clubs at previous schools, and this recurring pattern seems significant to the continued success of the program. Administrators, in many instances, were also very familiar with the program and, having been club leaders at other schools in the past, encouraged and supported the program in their current posts. Administrators who are sympathetic to the program as a result of previous involvement can play a critical role in its ongoing success while, as was noted by some of the club leaders interviewed, a lack of administrative support can be extremely detrimental.

4.2 Participants

One of the strengths of the Chongololo program is the fact that it targets young children as its primary audience. This group is extremely important in the process of environmental education, because so many attitudes and lifestyle practices are formed at a very early age. Students' involvement in conservation activities in elementary school tends to lead to similar involvement in later schooling and indeed in their adult lives. The Chongololo program was a strong presence in the upper elementary school grades originally targeted (Grs 4 - 7). Every club we visited included at least a portion of this age group, while many included a broader range of students.

Typically, where older students attended the school, the club extended its membership into the higher grades (Gr 8 & 9). In some cases, early elementary grades were included as well, particularly Grade 3. In a number of cases, students as young as Grade 1 were included, and in one school a junior club was created for the younger students. This wide-ranging program encouraged participation at an early age and developed a strong presence for the club in the school.

The elementary school years are also important because they provide the only opportunity to reach the many students who do not go on to further education. Girls, in particular, are poorly represented in the senior levels of education, and yet they represent a segment of the population which is extremely important in dealing with environmental issues at the community level. It was encouraging to see girls so strongly represented in the clubs which were studied. While in many of the groups the boys tended to dominate the discussion, in others the girls obviously provided the leadership and initiative for the club. The consultants did not regularly record the ratio between the sexes in each club, as participation by girls had been a specific request when arranging meetings. However, considering the club size and the constitution of the group in each case, the percentage of members who were girls was estimated at about 35 - 40%.

Accessibility also affected the breadth of the CC participation. Generally speaking, the club was open to all students within the grade limitations identified. However, a small number of schools had identified a maximum number of participants. In only one instance did membership entail a fee, which may have been a deterrent to some. These restrictions were not intended in the original program, and generally schools embraced the policy of encouraging all interested students to participate.

Certain barriers to participation existed, however, which were not related to the policies of the program or the individual school. Often this was a matter of scheduling, as most schools had an identified a club time when all clubs met. Conflict with the activities of other clubs, as well as sports programs, influenced the membership of the CC. The other major factor limiting participation was the distance between home and school, which made it impossible for some students, particularly younger ones to stay after classes for club activities.

In policy and practice, the CC program reflects an effort to reach a very broad group of students at a critical stage in their education and development. This aspect of the program is considered to be crucial to its success.

4.3 Lasting Impressions

The Chongololo program has the capacity to attract students' attention to environmental issues at a critical stage of their development. Young children are impressionable and a strong positive experience can have a lasting effect on the attitudes and values they develop.

As well, the subject of wildlife, which formed the original base for the Chongololo program, is particularly appealing to children. Most young children are naturally fascinated by animals, and students interviewed repeatedly identified the desire to view, and learn about, wild animals as a reason for joining the club, or as a strongly desired activity. The CC has the opportunity to build on this anticipation and interest and to create significant and memorable experiences for club participants.

Club leaders often reported that it was a CC event from their youth (e.g. a trip to a park) that sparked their interest and led to a continuing commitment to conservation. In other cases, a particular individual demonstrating a strong commitment to, and knowledge of, conservation served as a model for the student. These stories illustrate the potential impact of the Chongololo club experience, and the CC program in Zambia is strong today largely because of the present school and student leaders who have been motivated by these kinds of experiences.

4.4 Leadership

The level of capability and commitment of leaders in the CC program is a result not only of formative childhood experiences, but also of training and opportunities later in their careers. Recognizing early on in the program the need for leadership training, the WECSZ had established a support network offering teacher workshops and training events. The results of this early effort are still visible in the current program among the experienced teachers who provide continued leadership.

This aspect of the program has been severely curtailed since the mid 1980's, as a result of funding limitations. At the current time, efforts to support club leaders are few and uncoordinated, generally limited to specific opportunities and supported by special funding sources. Still, even on an intermittent basis, such workshops and events are extremely important and are recognized by leaders as critical to their success with the clubs. In spite of funding limitations, these activities are encouraged by the national and branch levels of the WECSZ.

Some current, branch level initiatives offer important examples of initiatives to support club leaders. In Kitwe, the WECSZ facilitates sessions in conservation education during teacher training programs. In Choma, workshops involving club leaders in the area have been held, and more are planned. The national office has also identified key leaders within the program and has, with help from other agencies, supported their training at environmental education centres outside the country. Clearly, there is an ongoing need for a support program for Chongololo leaders. The broadly applied teacher training element was a significant asset to the program and should be recognized as an integral part of its success.

4.5 Information

Perhaps the greatest strength of the program is the information produced by the WECSZ for club use. The CC magazines were developed as a complete program to be used on a monthly basis over the span of a student's involvement with the club. Companion teaching materials were also developed and distributed with the magazines. Affiliated clubs were to receive materials based on the number of students registered in the club each year, following the payment of a nominal fee. The fee (1000K per club) was designed more to ensure that a club existed than to provide income for the national program.

The information produced by the WECSZ was pivotal to the success of the program in three ways. First, it was important because little else was available to the schools in the way of educational materials. Desperate as most schools were for any learning materials, a program such as the CC could be assured that their publications would be widely and thoroughly read, if they were successful in providing them in sufficient quantities to the schools. Indeed, one

teacher explained that the magazines they received were valuable for their versatility, as they were used not only for the club, but also for science class and for reading comprehension in English classes

Teachers reported that the materials were appropriate to the students' level and that the children appreciated them very much. Both the format and content were considered good, although several teachers suggested that some more detailed information would be helpful. In some cases teachers wanted to see additional topics covered which would be of particular relevance to the individual club. While recognizing the importance and appropriateness of what was provided, they wanted also to identify areas where expanding the scope of the information would be helpful to the clubs.

The third important feature of the educational materials was that they were consistent in schools across the country and helped to reinforce the national identity of the club, reflecting the mandate and direction of the organization. Each club, through the standardized curriculum, could identify with other clubs throughout the country and feel themselves part of a larger system and community of students. Not only is this sense of belonging important, but such a framework also gives the conservation message a more authoritative voice than it would have through individual, independent clubs. Of course, the interest in broadening the material and bringing in locally relevant issues is a concern for the WECSZ in its need to clearly articulate its direction and vision. However, such interests need not diminish the strength of the basic messages that serve to identify nationally the conservation focus of the WECSZ and the CCs.

4.6 Complementarity

As an additional source of information, the WECSZ also established the Chongololo Club Of the Air. Like the CC magazines, the radio initiative targeted an audience of students in senior elementary schools, and a full slate of programs was developed to address a wide variety of topics. The WECSZ has received a considerable amount of positive feedback on the programs, and perhaps the greatest indication of their success can be seen in the number of listeners, among them community members interviewed during the present review, who have accepted the invitation extended at the end of each program to join the CCOA. While recognizing the program's success, participants noted that broadcasting the program in local languages would be helpful to community people who did not understand English. Broadcasting in one local language is already being done, but lack of funds has limited development in this area.

There were two main lines of comment on the CCOA. First, the program is highly appreciated by those who listen. Some clubs reported using the topics and information presented on the program in their regular club meetings, and a few leaders indicated that students brought questions to school from what they had heard on the radio.

The second response, however, was that the program was not readily accessible, either because of poor reception or limited access to radios, and the majority of clubs contacted during the review did not listen to the program. There was a significant difference between students in urban areas and those in rural areas with respect to this issue. In areas where access to the program was difficult, many clubs wanted to be able to tape the programs and provide access to them for all students. It is apparent that the CCOA presents material effectively and complements the CC magazines as the basis for the school based club program. The challenge is

to ensure that the programs are available as widely as possible for students to reap the maximum benefit

4.7 Community Links

Links established between Chongololo clubs and the communities are an important measure of success of the program, and were thus an important aspect of the review. Clubs linked with the communities in a variety of ways. Interview participants reported a number of activities which directly involved community members. Fundraising projects were one example, where the club members participated in the preparation of a product such as garden produce or tree seedlings and then sold the goods to raise funds for the club. Through this direct contact with the community, the club was able to inform people of some of the group's conservation activities and the uses to which funds would be put. Such community awareness is a foundation for many other forms of community contact.

Many groups identified drama as another significant form of community contact. In this way, students delivered a direct conservation message and educated the public about the principles underlying the group's activities. For a number of groups not currently engaged in a dramatic program, it was a high priority for future activities. In the course of the review, a number of students in various clubs presented dramatic sketches and poems as examples of their activity. One club in the Mfuwe area performed an excellent dramatic sketch which presented the experience of a CC member going home and finding that her parents did not appreciate the understanding she was gaining through the club. However, after a community meeting on environmental issues, the parents changed their attitudes towards wildlife and became strong supporters of wildlife conservation.

Community improvement projects were also identified as ways CC's connected with their communities. One school club had undertaken neighbourhood clean-up effort to address the problems of litter. Most clubs had not yet extended such efforts into the community at large, but were beginning with their own school community. Activities such as developing garbage pits and cleaning up litter in the school grounds was beginning to have a broader impact on community awareness.

Another important example of a club's impact on the community was the concrete task of planting trees. One school reported that this activity was extended beyond the schoolyard to students' homes. Club members had planted trees at school and took seedlings home to plant as well. The above examples indicate a variety of ways in which the clubs were creating awareness in the community and seeking to make a difference in the lives of people.

In addition to the community linkages developed through specific projects and activities, the flow of information from the CC members to their parents and friends in the community is also very important. While there was some reluctance on the part of some students to talk to their parents and others about the club and the things they were learning, most students were pleased to be able to share their knowledge and experiences with others. They even identified it as one of the concrete things they could do to address some of the environmental problems within their communities. Community representatives responded even more positively to such sharing of information and indicated a strong interest in hearing what their children were learning and experiencing in the club. They recognized this as one way of broadening their own knowledge.

of the environment

4.8 Tangible Contributions

Involvement in concrete expressions of conservation principles reinforces environmental education in an important way. Another of the program's strengths which was clear in the majority of the clubs studied was the involvement of members in making a tangible positive contribution to the environment around them. Most clubs demonstrated that they were making a difference either on the school grounds or in the community. Typical examples of these activities, as described above, included tree planting programs, garbage pits and litter campaigns, vegetable gardens, and fish ponds. While such activities can involve important links with the community, they are also indications of the individual success of the clubs. Students are able to put conservation values into practice and gain a sense of the impact they can have. Classroom learning becomes more real, and such group activities it can be a fun and memorable parts of the students' club experience.

Participation in concrete tasks establishes a model which reinforces the value of doing something about an issue, rather than simply talking about it. Club members consistently talked about wanting to influence the community so that people would take action for environmental improvement in response to identified problems. By participating in environmental stewardship activities themselves, the students gain first-hand appreciation of the commitment and energy that action requires. This experience will be very valuable as they later take their places as adult community members with increased responsibility for local environmental issues.

The club's concrete activities can also be a source of pride. Participating in a group that seeks to address environmental problems through constructive action is an excellent way for students to feel good about themselves and the work they are doing. The satisfaction which comes from involvement in group projects not only builds students' self-confidence and can lead to life-long participation in conservation activities.

4.9 A Cooperative Approach

In reviewing the CC program it is important to maintain a realistic set of expectations. This is an environmental education initiative for children in the elementary school years. The objective of the program is to educate a new generation of Zambians in a way of thinking about the environment that will allow them to make a constructive difference. This is clearly a long term goal, children do not change the world on their own, but helping them to change their attitudes today will allow them to make an important difference in the future.

It is important to recognize that the most effective environmental education for young people does not address this group in isolation. Children are strongly affected by their society, and they will learn new attitudes more readily if they see that adults around them accept and support them as they change. Correspondingly, adults will change their attitudes more readily if they see that it has a positive effect on their children and their children's future. A measure of the success of the environmental education program, therefore, is whether it is stimulating an attitude of openness to change in the wider community. Are there other local initiatives working for conservation and change in the way resources are being managed? How are the efforts of the

CC's and community organizations and initiatives coordinated and integrated, so that the effects of both will be more meaningful and widespread?

It was reassuring to see many of the clubs reviewed connected so closely to other organizations in the community. Such connections not only strengthened the club but also benefited the partner organization. A significant example is the relationship between tourism operators and schools in the Mfuwe area. The operators and the CC's share a common interest in environmental conservation. The operators can offer extensive knowledge and have the means to support club activities and initiatives. In return, the schools provide the operators with an important link to the community, which demonstrates their commitment to community development and is of interest to their clients. This relationship has been strongly developed in three of the schools visited, and it makes a significant difference to the success and attractiveness of the clubs. Another prime example of a direct community relationship is the interaction between CC's and Women's Conservation Clubs in the Choma area. The groups share common principles and support each other in projects and activities, forming an important link between the students at school and their parents in the community. Groups which share experience and common goals assist each other in maintaining efforts for change.

Significant links with the public arise from the very structure of the Chongololo program. In the first place, the program is the product of a non-profit, publicly based society, which means that the initiative has come from the people of Zambia and continues to be supported by them. From the development of materials and radio broadcasts, to the teachers in the classrooms, all aspects of the program are realized by volunteers giving of their time and energy to achieve goals in which they believe. In turn, these volunteers have sought out support from various organizations and corporations.

At the local level as well, clubs reach out to the public for support for their activities. Links with other community organizations or with government agencies have allowed the use of a Department of Agriculture vehicle for club outings, and have resulted in a contribution of seedlings from the Department of Forestry in the Choma area. Other benefits might include lessons by individuals knowledgeable about aspects of environmental conservation such as, for example, the visits of the LIRDPS scouts to clubs in the Mfuwe area. Most clubs were interested in the opportunity for expanding these links and considered it a high priority for improving the strength of the club's program.

These examples of cooperation indicate a healthy program. Where club leaders feel comfortable and knowledgeable, they naturally extend themselves to take advantage of all available resources. When they are unsure or insecure, there is a tendency to focus inward. It should be the objective of a program to build the capacity of classroom leaders to a level where they feel comfortable extending the activities of the club into the community. The CC program is only one modest contribution to promoting greater environmental conservation awareness and action throughout the country, but it is extremely effective in conjunction with a variety of other organizations and initiatives involved in working for change.

Appendix 1: Opportunities for Program Strengthening

1. WECSZ Support

The Chongololo Club program was selected for this review because of its success for over twenty five years in developing and encouraging environmental conservation among the young people of Zambia. Inevitably, a review such as this will also discover areas of the program which warrant attention. Typically, in a program of this magnitude and with such widespread success, resources become an issue when the sponsor is a volunteer organization faced with increasingly difficult economic conditions. However, awareness of the specific needs, based on concerns identified by people working directly with the clubs, can help in establishing clear areas of priority in which the WECSZ could increase action on a national scale.

Discussed below are a number of areas identified by people directly involved in the program as matters of concern requiring action. These program participants had a clear understanding of the difficulty of accomplishing these goals due to the resources required. However, with a sincere interest in improving the program, they wanted to strengthen and expand the impact of the clubs in their area and truly felt that they couldn't accomplish this on their own. Often what the leaders needed most was confidence--confidence in their own ideas and creativity. Some club leaders seemed uncertain about what to do, or afraid to act on their own ideas, and needed reassurance. Moral support from the WECSZ seems a logical way to boost confidence, energize volunteers and encourage positive action. Of course, there are also specific needs for additional resources in the form of funding and materials, as well as for new leadership training programs.

The people contacted in this review were committed to the ideals of the Chongololo program and believed in its capacity to influence environmental thinking and practices in their communities. It is with this background of support and commitment in mind that the following opportunities for growth and strengthening within the program are identified.

1.1 Strengthen Leadership

Nothing is more important than the quality and commitment of the people who are working with students and delivering the environmental message. These are the people who can bring the program to life and carry it on in spite of difficult times when resources are few and administration is stretched. They are also the local public face of the program, and it is through them that communities, government and business will see the WECSZ. In this position, they have the most direct opportunity to establish cross-sector linkages between the WECSZ and other organizations within their communities. Thus, it is critical to the success of the program and to the credibility of the WECSZ that these individuals are as fully prepared and energized as possible.

In the past, the WECSZ sponsored workshops where club leaders could come together, not only to discuss the content of the program, but also to develop leadership and organizational skills. These support events have been curtailed due to lack of financial resources. They are desperately needed, however, and could produce a very large return for the program if they were reinstated.

Regional workshops are likely the most cost effective means of reaching the most teachers with limited resources. Groups should be kept to a workable size (perhaps 15) and could include both existing club leaders and those teachers interested in establishing clubs in their schools. Three main subject areas are recommended for discussion, based on the results of the program review.

a) Content/Information

For many teachers some general familiarization with the content of the CC program would be very valuable. This is especially true for teachers thinking of starting a club, and those with limited experience in the program. It is not essential to focus entirely on the CC program materials. The goal rather, is to encourage a broader view of environmental conservation. This will give club leaders a strong base of environmental knowledge from which to build individual club programs. The WECSZ is actively promoting a move to broaden the focus of the organization to address important links between youth, the environment, development and health in Zambia.

The second important area of discussion in this category is club activities and management. These items are closely linked to content discussions because they are the means by which content is conveyed. In this discussion, contributions from existing clubs are extremely important. Teachers will be able to relate to the experiences of others working in their area who face the same kinds of circumstances and concerns that they do.

b) Networking

A major objective of the workshops should be to develop links among the participating teachers in a given region. Awareness of the people involved and activities being undertaken in schools in the region helps to develop a network of support and provides opportunities for partnerships among club leaders. Such links also offer the possibility of developing a system of support where less experienced club leaders could draw on the experience of others.

c) Experiential Learning Techniques

Another topic that warrants attention in leadership workshops is the development of teachers' capabilities with experiential learning techniques. The school system currently follows a traditional lecture/questioning style of instruction. The CC's provide an important opportunity for students to explore and learn about the environment around them in different ways. Both students and teachers identified the need to generate interest and enthusiasm for learning as part of the club activity. The teacher can play an important role in this by exploring new approaches to learning. This means moving out of the classroom and into a different mode where the natural explorations of the children can guide the learning process. This requires the teacher to adapt to new approaches to leadership, and these workshops can be critical in introducing, exploring and supporting the adoption of such techniques.

1.2 Materials

A second major area in which the program could potentially be strengthened concerns the materials available to clubs. The existing materials are highly valued by the teachers and students, but most reported that access to these materials was difficult. The WECSZ also recognizes that the costs associated with production and distribution of the materials are now extending beyond the limits of the Society's resources. However, this is such an important aspect of the program that new mechanisms must be found to increase production and strengthen the distribution process. It will be necessary to develop new partnerships that can bring more resources to the program, as well as a new distribution procedure that will be more reliable and cost efficient.

Comments on the program materials were generally positive. A number of people, however, expressed interest in expanding the present scope of materials, both in terms of subject areas and in terms of the level of detail. A review and revision of program materials would be timely and could stimulate, in conjunction with other support initiatives, a revitalization of club activities. In conjunction with this review, it might be wise to reconsider the target audience, given the wide range of ages currently involved in club activities.

A similar review and revision of complementary program materials (radio programs, posters, etc.) would be appropriate in conjunction with the review of the regular printed materials. In particular, making tapes of the radio programs available to clubs where students don't have easy access to the radio program would be a positive step. Students and teachers in the clubs visited also identified a desire for video materials on topics of interest. The WECSZ could undertake to review and gather materials in sufficient quantities to supply video programs to clubs on a loan basis. Another suggestion was that clubs have access to resources which would allow them to videotape activities and outings in their area, so that others could benefit from their experience. This could not only provide excellent opportunities within a school or district but could also feed into a network where clubs across the country could share their experiences with other clubs through an exchange of video tapes. The WECSZ is a logical clearing house for this kind of national exchange.

1.3 Links Among Clubs

Promoting links among the CC's could enhance the club program in many ways. Connections with other groups could reduce the feeling of isolation that often develops in small clubs where there is little contact with other areas or other activities. Links can also provide incentives for members to participate and to take on, and achieve, more within the club. They tend to provide added encouragement for a long term commitment to environmental conservation because of the increased significance attached to various activities.

Individual clubs, regional groupings of clubs and the WECSZ nationally might consider some of the following suggestions for increasing efforts to establish broader links and collaborative events for CC members and leaders.

a) Regional/National Events

Regional or national events could be organized which would bring together participants from clubs around the country. These events could be competitive in format or of a festival nature and could be hosted on a rotating basis by clubs in different regions. They could encourage as much participation from clubs as possible or function as rewards for selected students. Such events would provide an opportunity for the WECSZ to contact leadership in the CC program (both students and teachers) and there should be efforts to provide as much support and encouragement as possible to those attending these events.

b) Club Exchanges

Utilizing the central office of the WECSZ as a coordinating base, a program could be established to put clubs in touch with others throughout the country with interest in exchange trips. Resource people, logistical support from cooperating agencies and private sector interests would be very helpful in stimulating such activities among clubs.

c) Links to Secondary Schools

Efforts need to be made on a regional basis to create stronger links between the CC's and their counterparts at the secondary school level. Continuing the efforts made in elementary school with ongoing environmental conservation education is an important reinforcement of the early stage of learning. Regional events to bring clubs together should include opportunities to have secondary and elementary students interact. Valuable encouragement could be given to graduating elementary school students in the form of information about the related club at the secondary level, and the name of the sponsoring teacher. Secondary school teachers could likewise be informed of students graduating from the elementary level who have been involved with the CC, so that they can be individually encouraged to continue such involvement.

d) Links to Teacher Training Schools

Special mention is made here of teacher training schools because of the importance of familiarizing the broadest possible segment of the teacher population with the CC program and the need for environmental conservation education. The WECSZ has made some effort in that area in the past, and continues to do so in some regions of the country, however, there is much that can be done in this regard. Typically, the WECSZ has planned events or workshops for teacher trainees as part of their program. While these efforts are good, additional initiatives might be considered. For example, interested trainees could be included in regional workshops for club leaders, they could be invited to volunteer or participate at national or regional events, volunteers could come as assistants to regular club activities and programs, they could assist in the development of a roster of teachers nation-wide with interest and/or participation in environmental conservation, providing the WECSZ with an invaluable tool for contacting a key audience in support of the CC program.

1.4 Links to Communities

Throughout the review, the consultants received many ideas and suggestions for ways to strengthen the links between the CC's and the communities of which they are a part. Many individuals and groups were keen to create new ways of supporting one another's interests, and they appreciated what the children in the CC program could contribute. A few very specific and noteworthy suggestions presented to the consultants are briefly described below.

a) Parent Advisory/Participation Committees

Many parents were interested in becoming more closely linked to the school program. Some suggested that parent advisory committees might be formed to assist the school in developing the program and providing related opportunities for the children. Some parents wanted to become more directly involved in the program, so as to take advantage themselves of the learning that was taking place. They suggested having the club meet in each of the surrounding villages in turn with the program open to adults. Others suggested that open house days, events, or meetings could be organized in which the children would present their activities and learning (through drama, poetry, displays, etc.) to the whole community.

b) Cooperative Projects

Parents also suggested specific ways in which existing adult groups, with complementary objectives, could cooperate with the CC's. One suggestion was to participate in joint projects, where both groups could exchange ideas and work to achieve common goals. Joint events targeting community awareness were identified as another possibility.

c) Agreements for Support

In most communities there are agencies or private sector interests closely aligned with the CC program. While teachers are aware of many of these connections, they typically have neither the time, access, nor experience to develop the kinds of relationships with these groups that could significantly enhance their program. They need assistance in this regard. Sometimes school administrators have the inclination and opportunity to assist in this way, but often this opportunity goes untapped. Key people within the community who are supportive of the program, or regional or national representatives of the WECSZ, could lend important assistance in this area. Agreements could be reached to address a variety of needs, depending on the specific situation of the clubs in the area: e.g. transportation, seedlings, expertise for direct instruction or advice on projects, or financial support for club activities or trips.

d) Regional/National Events Sponsorship

Support can also be developed at a regional and national level. It is possible that high profile competitive or festival events, bringing together students and teachers from different parts of the country, could obtain sponsorship from private sector interests. There is a definite opportunity to garner support from many companies who would be

pleased to enhance their public profile by hosting CC events. Developing this sort of interest and creating the kinds of events that would attract sponsorship would require effort on the part of the WECSZ's national office. However, once the program was begun the benefits to the CC's and to the WECSZ could be significant.

1.5 Society Profile

Over the course of the review, many suggestions were made regarding the profile CC program. For students and teachers, the profile of the club was important, and potential rewards to the school and to individuals were seen as a motivation for student participation. Some suggestions for increasing motivation through enhanced profile included individual student certificates, badges, uniforms, and T-shirts.

However, it is also important to consider the profile of the WECSZ as the coordinator and sponsor of the program. It is the consultant's view that this dimension is being largely overlooked, to the detriment of the Society. The CC enjoys widespread recognition, but there is little recognition of the role of the WECSZ in the program, or of the WECSZ itself. This is unfortunate, because the organization needs support among the general public in order to maintain and strengthen programs like the CC's. The heightened profile of the WECSZ is also necessary among the present CC membership, so that they know that there is the opportunity for life-long association with this conservation organization. National and regional events, as discussed above, are one way of increasing the profile of the WECSZ. Maintaining a profile in the community through the recognition of active individuals (perhaps CC leaders in the school) is another way. Also, the design of materials for CC members and for general use should be used to increase the visibility of the Society.

2 External Support

The WECSZ has a significant stake in the CC program and has a tremendous opportunity to make it pay greater dividends to the profile and sustainability of the organization. However, the Society is also in need of support in order to make such investments for long term benefits. In the short term, there are a number of key areas where external support could greatly assist the WECSZ at a time when its resources are stretched to the limit. This support would make a significant difference in the delivery of environmental conservation education in Zambia and would at the same time establish a support structure that could be maintained by the WECSZ.

The areas identified below have been discussed in this report previously both as areas of strength in the existing program and as areas of opportunity for increased growth. The program is clearly a valuable effort in environmental education and one that can continue to grow with the right support. The particular areas highlighted here are considered the most appropriate opportunities for agencies and interests beyond the WECSZ to become involved in short term assistance. There are three areas where such support is considered most valuable.

a) Community Partnerships/Links/Support

In developing partnership and financial support agreements, external organizations can offer a considerable depth of experience which has not been developed within the

WECSZ International connections, and the profile that external organizations could bring to such agreements would be valuable to the WECSZ Sponsorships for national and regional events should also be a high priority since such profile can stimulate major undertakings and garner a high level of resource backing for the program At the same time, partnerships need to be developed at the community level for the benefit of individual clubs

b) Leadership Development

It is difficult to develop leadership in environmental conservation education when the level of expertise in the country is relatively low Training, especially in the area of experiential learning as it applies to environmental education is a crucial element which could profitably be obtained from external sources It will be important, however, to develop a program which builds the capacity, within Zambia, to sustain the ongoing task of training environmental educators, once a critical threshold of experience has been reached

c) Material Development Partnerships/Sponsorships

The development and publishing of materials is an expensive and time consuming aspect of any program Partnering with similar organizations locally and in other countries can allow for a more efficient use of resources in the production of materials Cooperative ventures also attract greater interest on the part of potential sponsors, since the impact of the assistance is more widespread External organizations could play a useful role in developing such partnerships and identifying the sponsors who could be associated with the production of environmental education materials

Appendix 2: Additional Contacts

During the course of the study, the consultants met with a host of individuals and groups who freely contributed their time, ideas and experiences. While it was not possible, logistically, to record the names of all those involved, this in no way diminishes these contributions to the study. Where possible, the names of school staff and parents have been included in the data tables of input (see Appendix 3). Listed below are the names of others whose interviews are not recorded in the tables, since they were external to the school based review.

The consulting team offers sincere thanks to all participants, named and unnamed.

Choma

Roselyn Choongo
Bruce Miller Sr
Emma Miller

Kitwe

Kasula Chanda

Lusaka

Mwape Sichilongo
Charles Akashambatwa
Margaret Thompson
WECSZ Board of Directors
Arnold Chengo

Mfuwe

Jenis Boje
Issac Nyirenda
Gebriel Masaku
Kelvin Chola
Augustine Bwalya

Appendix 3: School Data Tables

District Choma

School Adastra Primary

	Club Leader	Club Members	Parent Group	Parent
Name/Numbers	Mrs Halusonga	12 6 Gr 6 6 Gr 7	4	1
Education				
Club membership	30 told membership should be 25 (only 25 pamphlets) enroll 100 first 30 to pay 500K/member			
Club day	Wednesday			
Period of club existence	started 1991 club was on paper but never functioned			
Affiliation to WECSZ	affiliated this year			
Describe environment		conservation keep look after protect (animals trees plants our surroundings) environment all these things people too importance of resources trees (fruit shade hold soil oxygen) animals (meat manure for crops milk skins) water (can t survive without it) clean environment for health	place where you live surroundings (buildings yard place) should protect environment because it is important to us we depend on it for everything keep environment clean	the whole world animals plants very important to the way we live as human beings wildlife important e g Livingstone keep animals in park tourism brings income to Zambia animals for food
Environmental change		cutting of trees garbage being left everywhere (diseases) air pollution (industries) burning of grass killing animals	villages have changed now bare have cut all the trees for firewood new rivers have developed from the resulting soil erosion used to be lots of fruit now less don t produce like they used to animals have disappeared my grandfather was a hunter now can t even find a rabbit sanitation improving, pit latrines in most villages food supply is unpredictable dependent on rainfall drought is more frequent	long ago encouraged the killing of animals now there are game rangers to protect wildlife crime has increased natural resources are OK today compared to long ago forest reserves farms things are in good shape
Are changes good or bad		bad	bad	mostly good

Causes		people don't understand	people changing the environment hunting the animals removing the trees and habitat better sanitation has resulted from improved organization rainfall is good where there are lots of tall trees where trees are gone rainfall is a problem	
Future prospects			a continuation will get worse	bright future if we look after it properly
Actions for improvement		protect water from pollution dig pits for rubbish tell people what needs to be done	need more information for people education authorities (Forestry Dept) need to make a concerted effort at public education need to talk about the issues more so it becomes a part of us plant fast growing tree species need some kind of authority enforcing change grow a mix of trees protect Zambian trees	
Who should act				
Information sources		learn in school (CC) see things ourselves read in books		
Raising community awareness				programs and ads on TV videos adults can get interested if there are activities
Raising student awareness				introducing CCs in schools encouragement by adults
Chongololo radio program		most listen to program parents also listen	one used to listen but radio isn't working	got her daughter a radio so she could listen to CCOA
Materials	good materials especially for upper levels difficult for younger ones received in a batch for two years			

Club activities	<p>lessons from pamphlets</p> <p>orchard planting, weeding, digging other plants as well as trees uses and how we should care for them</p> <p>used to have a nursery</p> <p>used to garden vegetables practical applications fundraising</p> <p>games poems programs for fundraising</p> <p>outings to Livingstone Miller s picnics</p>	<p>like learning about animals & plants (nature)</p> <p>like going out on field trips (traveling)</p> <p>like seeing animals (especially those I ve never seen)</p>		
Desired activities				
Club difficulties	<p>sometimes the children drop off constant need to attract outings do it will take others who are interested also</p> <p>students don t want classroom situation</p>		parents can be effective motivators	
Potential improvements		need more books		
Interest/Incentive	<p>pamphlets sparked her interest</p> <p>she was in drama clubs at school</p>			
Previous membership				
Discussion with parents		<p>talk to parents</p> <p>parents encourage them ask about activities in the club</p>		
child s participation			<p>a very good program for young children will build responsibility</p> <p>yes children report at home</p> <p>enjoy the conversation lets them know how the children are doing</p> <p>one didn t know about the club</p>	<p>child shares with parents</p> <p>support her participation</p> <p>want her to learn more</p>

	Club Leader
Name/Numbers	B Malabwa V Mapulanga
Education	
Club membership	20 by interest
Club day	Wednesday
Period of club existence	started in 1994 formed on the basis of teacher interest teachers looked at educational needs not being addressed in the curriculum (practical elements) club not active yet changes in staff present club leader recently took over--not yet heavily involved new leader for the club will be assigned
Affiliation to WECSZ	
Describe environment	
Environmental change	tree loss
Are changes good or bad	bad
Causes	
Future prospects	
Actions for improvement	planting of trees protection from soil erosion
Who should act	
Information sources	
Raising community awareness	impact of the club creates interest among other students teachers and community
Raising student awareness	impact of the club creates interest in other students teachers and community
Chongololo radio program	
Materials	suffered from a lack of materials books and magazines wildlife an important knowledge area materials good for that
Club activities	classroom activities poems CC magazines tree planting around the school orchard nursery greenhouse (former club leader initiated these) targeted tree planting and tree protection because of the demonstrated need and interest had some support from Forestry Dept for nursery work

Desired activities	field trips would like to visit other clubs and see how they are doing
Club difficulties	restricted by landowner regarding project activities
Potential improvements	need some seminars for teachers new plant species
Interest/Incentive	
Previous membership	headmaster a former member assistant club leader no former connection
Discussion with parents	
child s participation	

	Teachers
Name/Numbers	
Education	
Club membership	
Club day	
Period of club existence	used to be clubs not now club would be a good idea sure there would be student interest
Affiliation to WECSZ	
Describe environment	
Environmental change	environment in reasonably good shape cutting trees is a problem burning of grass
Are changes good or bad	
Causes	
Future prospects	destructive of other aspects of environment such as animals and insects
Actions for improvement	environmental education important
Who should act	
Information sources	
Raising community awareness	some communities are concerned and aware most are not relying on ECZ community based clubs are helpful (CECC) meet and spread the word appreciate the support of experts need a constant flow of information magazines radio programs
Raising student awareness	curriculum has integrated environmental content
Chongololo radio program	
Materials	
Club activities	
Desired activities	

Club difficulties	
Potential improvements	teachers not committed to it didn't know how really need teacher workshops teachers willing but need help to get started
Interest/Incentive	
Previous membership	
Discussion with parents	
child's participation	

	Club Leader
Name/Numbers	B Malabwa V Mapulanga
Education	
Club membership	20 by interest
Club day	Wednesday
Period of club existence	started in 1994 formed on the basis of teacher interest teachers looked at educational needs not being addressed in the curriculum (practical elements) club not active yet changes in staff present club leader recently took over—not yet heavily involved new leader for the club will be assigned
Affiliation to WECSZ	
Describe environment	
Environmental change	tree loss
Are changes good or bad	bad
Causes	
Future prospects	
Actions for improvement	planting of trees protection from soil erosion
Who should act	
Information sources	
Raising community awareness	impact of the club creates interest among other students teachers and community
Raising student awareness	impact of the club creates interest in other students teachers and community
Chongololo radio program	
Materials	suffered from a lack of materials books and magazines wildlife an important knowledge area materials good for that
Club activities	classroom activities poems CC magazines tree planting around the school orchard nursery greenhouse (former club leader initiated these) targeted tree planting and tree protection because of the demonstrated need and interest had some support from Forestry Dept for nursery work

Causes			animal habitat is being destroyed less fertile land because of decreased rainfall results from tree cutting
Future prospects		without addressing problems we could die animals become extinct	not good we will die if things don't improve
Actions for improvement		encourage people to stop cutting trees plant trees teach your friends talk to your parents and other people	must look after the environment don't cut trees look after water protect young planted trees laws to restrict tree cutting feed to increase production
Who should act			
Information sources		learning at school CC learn at home advertisements	
Raising community awareness	women's group is active tree planting, sewing, fish farming, gardening for the benefit of women sustainability (stand on their own) women are the most vulnerable if there is drought or problems men go away to work leave the women in difficult circumstances		others may join in when they see the good things the club is doing lead by example education is important in community & in schools share knowledge in the club to take to others
Raising student awareness	club activities a benefit to the whole school other students want to join when they see the materials the club members have		
Chongololo radio program		1 student indicated listening	no
Materials	got materials this year materials are good students enjoy them (common birds trees etc) would like more materials don't like to repeat		
Club activities	tree planting 307 trees last year increasing to 800 sale of trees to community didn't seem to work marketing the problem transferred trees to other schools and commercial farms vegetable growing but security a problem can't employ a guard work in conjunction with women's group		planting trees weeding, watering use for building supplies grow fish for home consumption make table cloths to support the club
Desired activities	field trips see what others are doing visit commercial farms plantations		

Club difficulties	we are not heard because we are in the rural areas rural people are suffering	need funds for trips books very few	
Potential improvements			
Interest/Incentive	very interested in agriculture attended workshop hosted by WECSZ had some knowledge before but not much	wanted to know what the club was doing wanted to learn beyond science class wanted to see animals how they live wanted to learn to plant know the importance of trees wanted to learn how to protect the land	teach each other how to sew to learn things we don't know to be able to raise fish chickens and to garden better
Previous membership	both club leaders were members of CC CC taught us about nature what God has given us and how we are to look after it		
Discussion with parents	children will extend the information to the community e.g tree planting community people are coming to ask for trees because they want to plant		
child s participation			yes encourage the children

* At this school a major community event was planned for our arrival School had been canceled for the day and a number of community leaders had been invited to attend including village headmen Women s conservation groups were also in attendance and performed a drama which demonstrated the importance and practicality of their club Members of the CC also presented poems they had prepared for the event In conjunction with other students they had prepared tours to demonstrate to the visitors the activities and needs of their groups

	Club Leader	Club Members
Name/Numbers	Mr Halupumbu Head Teacher Mr Tembo Deputy Head Ms Waluka	approx 50
Education		
Club membership	50 Gr 1 7 many more are interested	
Club day	Wednesday	
Period of club existence	only a few months	
Affiliation to WECSZ	not yet affiliated form completed while we were there	
Describe environment		air soil water trees insects birds animals people
Environmental change		trees being cut down and wasted water being wasted and polluted by latrines grass being burned at the wrong time of year burning eliminates new tree growth animals being killed and their habitat is being destroyed
Are changes good or bad		bad
Causes		people don t understand the importance of conservation
Future prospects		not good unless we make changes our health will suffer and our resources will disappear
Actions for improvement		correct people we see doing things wrong, e g burning, tree cutting educate people on how to manage resources
Who should act		
Information sources		CC

Raising community awareness	community doesn't have the knowledge only 2 places to draw water (11 villages) now relying on rivers and they are drying up people don't know what to do	club can go to meet with people in villages use drama poetry etc
Raising student awareness		
Chongololo radio program	1 had heard the program	no one listens
Materials	some Action magazines came from Ministry of Education office very few materials rely on own experience	Orbit CC magazines and Action
Club activities	teach what conservation means and what to do about it to improve and protect natural resources apply what we have learned planting trees	tree planting
Desired activities	teach villagers about tree cutting and killing of animals	fish pond trips
Club difficulties	water problems borehole not functioning	materials not enough financial support to work on projects
Potential improvements	need support for tree planting program, water and seeds	
Interest/Incentive	club leader was in CC have an interest club leaders selected	to learn how to conserve nature because I want my children to experience a healthy environment to protect wildlife and plants
Previous membership		
Discussion with parents	encouraging students to talk at home	yes
child's participation		

* At this school a large group of children and community members had gathered for our visit. The senior headman was also introduced. Five village women's conservation groups presented songs and dances as well as displaying some of their products.

	Club Leader	Club Members
Name/Numbers	F M Nang amba Head Teacher C Musebula Club Leader A Shamwaze Assistant Club Leader J M Kauka Assistant Club Leader R Kanene Assistant Club Leader	approx 35
Education		
Club membership	22 Grs 1 - 7 majority from upper grades	
Club day	Tuesday	
Period of club existence	as early as 1975 revived in 1996	
Affiliation to WECSZ	yes	
Describe environment		air soil water trees insects birds animals people
Environmental change	land use farmers don't know how to care for their land water in stream highly polluted from latrines and animals straying into stream burning of grass young trees are destroyed	trees being cut down and wasted water being wasted and polluted by latrines grass being burned at the wrong time of year burning eliminates new tree growth animals being killed and their habitat is being destroyed
Are changes good or bad		bad
Causes		people don't understand the importance of conservation
Future prospects		not good unless we make changes our health will suffer and our resources will disappear
Actions for improvement		correct people we see doing things wrong, e.g. burning, tree cutting educate people on how to manage resources
Who should act		
Information sources		CC

Raising community awareness	children can help parents drama with parents would be good	club can go to meet with people in villages use drama poetry etc
Raising student awareness		
Chongololo radio program		no one listens
Materials	only got CC magazines when they joined and a few books (3) from WECSZ some Action magazines from Ministry of Education	Orbit CC magazines and Acton
Club activities	lessons on trees land water tree planting 80 trees planted 67 surviving focusing on shade trees right now because they survive with less water	tree planting
Desired activities	fish pond orchard gardening (sources of income) domestic animals	fish pond trips
Club difficulties	gardens need chemicals soil not good no transport for outings parks are far away no water borehole is not working distance from town access to services and assistance is a real problem forgotten don t have a library lacking magazines for club no A/V equipment	materials not enough financial support to work on projects
Potential improvements		
Interest/Incentive		to learn how to conserve nature because I want my children to experience a healthy environment to protect wildlife and plants
Previous membership		
Discussion with parents	children can help parents	yes
child s participation		

	Club Leader
Name/Numbers	A K Mwali (senior teacher)
Education	
Club membership	
Club day	
Period of club existence	no club last four years former club leader transferred no staff member interested in taking on the club important but need a start
Affiliation to WECSZ	
Describe environment	rich in forest area also farmland further away local people lack an appreciation of the environment farming is the main activity mushroom gathering caterpillar gathering honey
Environmental change	felling more trees than they plant burning of trees some areas lost to settlement schemes streams silting up
Are changes good or bad	
Causes	forest operations and local cutting causing erosion and stream siltation
Future prospects	
Actions for improvement	trying to work with chiefs to control deforestation educating local people
Who should act	
Information sources	
Raising community awareness	chiefs are taking action good that leadership is working on issues Forest Dept sponsored a drama group public education
Raising student awareness	school based activities would be helpful
Chongololo radio program	
Materials	
Club activities	
Desired activities	

Club difficulties	
Potential improvements	incentives would be helpful trips to interesting places visits to other clubs
Interest/Incentive	
Previous membership	
Discussion with parents	
child s participation	

	Club Leader & Club Members
Name/Numbers	Ms Bridget Mungomba Assistant Patron
Education	
Club membership	because the club was just forming, we met with all the Gr 5 6 & 7 students in the school about 80
Club day	
Period of club existence	just establishing a club
Affiliation to WECSZ	not yet forms were completed during our visit
Describe environment	questioning was relatively brief and unfruitful care for the environment was recognized as the focus of the club examples of the importance of the environment and our dependence on it were presented and discussed very little awareness was evident in the group and even individual leaders on the subjects did not seem to be present the session was used mostly as an encouragement to the students to participate in the club
Environmental change	
Are changes good or bad	
Causes	
Future prospects	
Actions for improvement	
Who should act	
Information sources	
Raising community awareness	
Raising student awareness	
Chongololo radio program	no
Materials	materials were left with the school as a result of their affiliation registration some magazines posters books and calendars
Club activities	trees planted 2 years ago school garden and nursery
Desired activities	fish pond
Club difficulties	
Potential improvements	

Interest/Incentive	was in conservation club during teacher training, very interested
Previous membership	
Discussion with parents	
child s participation	

	Club Leader	Club Members
Name/Numbers	E Choongo	21 11 Gr 7 1 Gr 6 7 Gr 5 1 Gr 4 20 girls 1 boy
Education		
Club membership	45 members by interest usually don't ask for a fee because it would discourage some	
Club day		
Period of club existence		
Affiliation to WECSZ	no club at her school just started the club first then later affiliated with WECSZ	
Describe environment		things around us trees animals plants water important to protect living things so that those who are coming can see them environment produces things for us desks shoes clothes etc plants give us oxygen shade water critical for cooking and drinking a clean environment helps us be healthy
Environmental change		improvements planting of trees more shops school building improvements houses now (only huts before) electricity bad many animals killed many floods causing death more diseases crime wasting of water (taps and pipes are in bad repair) soil erosion
Are changes good or bad		
Causes		people do bad things because they don't know or understand
Future prospects		people will suffer in the future if we don't do something about these problems

Actions for improvement		<p>punish poachers educate people about the importance of animals</p> <p>pressure the council to fix water system</p> <p>soil erosion plant more plants make dams for water to water plants control cutting trees stop overgrazing, proper cultivation</p> <p>diseases bury garbage clean up market taps for water toilets need to be used refuse pits need to be provided and used covering food avoid burning (air pollution)</p>
Who should act		<p>everyone</p> <p>need to share ideas</p> <p>so much needs to be done big problems need cooperation equipment</p>
Information sources		<p>learning at school</p> <p>other people parents watching and imitating</p> <p>reading books</p> <p>hearing radio programs</p>
Raising community awareness	<p>connections with community write to parents concerning trips good parent feedback some parents come to ask about the club parents from other schools asking if they can join because not all schools have a club</p> <p>opportunity to connect as women s clubs meet at the schools</p>	<p>talk to people</p> <p>giving books to people to read</p>
Raising student awareness	<p>changes in student behaviour bit by bit more significant is the environmental awareness</p>	<p>joining CC</p>
Chongololo radio program		<p>yes occasionally</p>
Materials	<p>very good posters magazines pictures</p> <p>teacher resources</p> <p>books have not been published to address specific local problems e.g waste management water pollution</p>	

Club activities	<p>outings a little cost Choma museum Choma dam, Livingstone game park and museum Mukuni village Peter Green s farm Ministry of Agriculture supports trips club pays for gas & food sometimes camp out</p> <p>some fundraising</p> <p>orchard planted orange and guava trees vandals uprooted</p> <p>some quizzes classroom lessons</p> <p>field lessons explore and come back and discuss what they have seen</p> <p>environment day poems plays dances</p> <p>school and community activities esp women s clubs</p> <p>invite people from organizations in the area to speak to her club (Agriculture Health)</p>	
Desired activities		
Club difficulties		
Potential improvements	trying to establish a forum for teachers in her area	
Interest/Incentive	<p>at Livingstone previously didn t like the environment when she came here and felt she had to do something no club in Livingstone</p> <p>recognized and encouraged by WECSZ went for training in South Africa</p>	<p>to learn to keep the environment clean</p> <p>want to know what happens in my surroundings</p> <p>wanted to learn about environment</p>
Previous membership	no	
Discussion with parents		<p>yes they are interested and encourage us to learn more</p> <p>important to talk to your parents</p>
child s participation		

	Parent	Parent	Parent
Name/Numbers	1	2	2
Education		secondary school completion	
Club membership			
Club day			
Period of club existence			
Affiliation to WECSZ			
Describe environment	surroundings land trees etc very important because it provides us with so much e.g trees fruit firewood building material	the way we live everything God has created there is a need for us to conserve look after the environment	everything around us
Environmental change	concern and caring for the environment was not prominent when I was young, now there is concern e.g tree planting to replenish loss of trees	pollution water in Kafuwe River green house effect cutting of trees becoming a desert industrial plant nothing grows in the surrounding area	where she came from they care about the land but not here they don't know how overgrazing soil being degraded land being destroyed housing replacing crops lack of cleanliness in town wasted water industrial air pollution
Are changes good or bad		bad	
Causes	lack of education and awareness about the importance of a good environment		people don't care industry water system is in disrepair
Future prospects		bleak if pattern continues	things will get worse poor people can't afford to shop in stores will still cut trees
Actions for improvement		law has to change to protect curb growth population growing too fast	economy is bad hard to do things seedlings are available council should repair the water system farmers can make land more productive have the technology and chemicals need to teach people how to care for the land we don't know how

Who should act		we all should we can teach our children show by example for others in the community	
Information sources	CC leader D O activities at school	through experience observation through our church	observed
Raising community awareness	talking about it visiting with others training	need to help people in rural areas teach about tree growing, fire etc	education is good Agri Centre needs to become more serious and reach out to people how to grow crops how to look after animals personal contact extension officers books where we can learn
Raising student awareness		educational system is doing a good job now e g CC and this visit is a good example	teachers need to teach these things too we were not taught this in school
Chongololo radio program	usually listens to program	no	no
Materials			
Club activities			
Desired activities			
Club success			
Club difficulties			
Potential improvements			
Interest/Incentive			
Previous membership	was a CC leader previously (appointed by head teacher) not particularly interested	no club involvement grew up in the bush	
Discussion with parents	encourage him to tell us what he s learned will volunteer information also talks with friends about it at home	yes	doesn t share at home maybe too shy
child s participation	supportive	student very interested 2 older children also in CC appreciates daughter s caring and interest in animals	yes its good

	Club Leader
Name/Numbers	Mr Mailos Kadonsi
Education	trained in agricultural science
Club membership	50 students primarily in Grs 7 9
Club day	2 times a week
Period of club existence	2 years
Affiliation to WECSZ	yes
Describe environment	
Environmental change	environmental problems land pollution pesticides fertilizers garbage disposal water
Are changes good or bad	
Causes	
Future prospects	
Actions for improvement	use of organic pesticides and fertilizers digging of pits for waste
Who should act	
Information sources	
Raising community awareness	need to work increasingly with farmers take field trips to local farms have a parent involved in each activity of the club e g garbage disposal on the road to market boys helped local counselor to work on rehabilitation of streams
Raising student awareness	
Chongololo radio program	
Materials	CC magazines good
Club activities	field trips focus is wildlife and tourism—gets the children s interest like no other subject does fundraising activities sell produce drama poetry dances tree planting in conjunction with the Forestry Department hedge for school litter disposal pits for garbage

Desired activities	<p>grassing of non playing fields in school yard</p> <p>raising rabbits keeping birds</p> <p>haven t started working on water issues yet</p>
Club difficulties	<p>attitude of parents is bad they see extra time spent at school as being bad they need to see immediate results not future results</p> <p>sometimes administration doesn t understand or support the club</p> <p>finances can t do much without money for projects or activities</p>
Potential improvements	
Interest/Incentive	<p>won a competition in school free trip to national park came back and started a club in his school</p> <p>went to train at Nyamaluma in 1985 still using that material</p> <p>formed a tourism club at secondary school where he taught</p>
Previous membership	yes
Discussion with parents	students are children of farmers where the attitudes are bad and the problems are many not easy for them
child s participation	

	Club Leader	Club Members	Parents
Name/Numbers	Mrs P K Chwaya Head Teacher R J Chilufya Club Leader L M Jakancula Club Leader Mr M Chewe Club Leader P Mutmushi Club Leader J M Phiri Club Leader A Shakasungu Club Leader	20 6Gr 6 14Gr 7	2 Mr J Chawinga _____
Education			
Club membership	55		
Club day			
Period of club existence			
Affiliation to WECSZ	yes		
Describe environment		things that surround us trees houses flowers sky clouds air environment important because helps us to live (food water air trees) protects us trees important for oxygen firewood fruits wood for building animals are important for food (milk and meat)	
Environmental change		cutting down of trees killing of animals increasing waste/litter mines people die in accidents air pollution	
Are changes good or bad			
Causes			
Future prospects		without the benefits of environment we would die	

Actions for improvement		<p>keep animals in protected areas discourage poaching</p> <p>clean up litter put in rubbish pits</p> <p>tell our friends about what to do talk to others teach others</p> <p>plant new trees when we cut them down</p>	
Who should act			
Information sources		<p>teaching at CC</p> <p>our parents</p> <p>radio program</p>	<p>radio program</p> <p>magazines have come home this would help throughout the community</p>
Raising community awareness			<p>no influence of the club in the community yet the club is just beginning (past few years)</p> <p>community has little environmental awareness used to have parks provided by council they no longer exist</p> <p>lack of information</p> <p>local authorities capacity is dwindling community action not all that easy need to help the community mobilize theatre club already exists use these groups have done things as aids in schools markets clinics could have CC performing on a regular basis</p>
Raising student awareness			
Chongololo radio program		yes some listen also some parents listen	
Materials		<p>enjoy the magazines animals and trees</p> <p>need more magazines don t have enough material</p>	
Club activities			
Desired activities		<p>field trips financial assistance</p> <p>films</p>	
Club success			
Club difficulties			
Potential improvements		certificates uniforms	<p>certificate to club is fine but need some individual recognition to reinforce participation give a sense of pride and to attract others badges T shirt compare with other organizations e.g Guides</p> <p>video shows video player</p> <p>neighbourhood partnerships health centres have program to draw attention to importance of home environment take children to clinics and markets to clean up owners join in</p>

Interest/Incentive		to serve the environment for wildlife conservation	
Previous membership			
Discussion with parents			- yes but need to involve the parents more open houses PTA meetings
child s participation			participation is a good idea as parents we have seen degradation of the environment (cutting of trees drought) we lack the information about the importance of trees

	Club Leader	Club Members
Name/Numbers	V Monsa Club Leader	25 all Gr 5
Education		
Club membership	135 members Grs 1 - 7 1700 students in school	
Club day		
Period of club existence		
Affiliation to WECSZ		
Describe environment	urban main activities and industry mining not a natural environment lots of changes environment is our surroundings we depend on our environment e.g. food production	surroundings trees grass yard important to keep environment clean to prevent disease trees are important fruit wood oxygen etc animals are important (cows chickens) food meat milk shoes etc
Environmental change	environment affected by mines streams polluted waste disposal a problem used to have stream behind the school now it is just an oil slick trees along the stream, now most are cut contributed to the drying up of the stream in the past we just used to talk about problems recently took action to plant trees as a break for sulfuric acid emitted from the mine school won an award for its effort	environmental problems garbage air pollution (smog, dust) the mine is a problem in our environment heaps of stones (tailings) smell/smoke (SO ₂)
Are changes good or bad		
Causes		
Future prospects		
Actions for improvement		plant more trees when we cut them need places for litter which must be buried when full polluting cars should be impounded repaired and drivers fined care for animals we can teach others encourage our friends to learn like us encourage friends from other schools to join a CC or form one
Who should act		

Information sources		school CC TV radio
Raising community awareness	community not so interested just working at the mine community is transient didn't care in years past mines used to reward communities for environmental conservation efforts now it doesn't bottom line lack of community support related to lack of awareness community divided some interested others don't care products of tree planting is incentive economic problems compound the lack of action should establish community based clubs to encourage action there would be good support	
Raising student awareness		
Chongololo radio program	popular children like it and bring questions	yes parents call me to tell me the program is on
Materials	lower primary study insects and small animals CC magazines for Grs 6 & 7 focused on natural environment not relevant to our environment erratic supply of magazines need new materials	need more learning materials
Club activities	quizzes fish farming but only one species no resources cropping of fish sold to students and teachers fundraising for the club one successful trip in the past but money is a problem	tree planting and maintenance fish farming we have fun ask questions learn
Desired activities	need the input of experts new stream project supporters needed twinning with schools abroad video shows equipment workshops for teachers every year by WECSZ activities and planning need trips to reserve areas to experience and study natural environments	drama dancing poems trips to see wild animals making things
Club difficulties		

Potential improvements	<p>need to motivate schools that are showing interest</p> <p>funds for trips</p> <p>want nature trails but are restricted by fenced areas by the mune and compound houses</p>	
Interest/Incentive	<p>teachers volunteer by interest try to educate our fellow teachers</p> <p>environmental science teachers often pressed into CC leadership prefer teachers from a variety of disciplines who participate out of interest</p> <p>2 teachers were involved in conservation clubs at secondary school</p> <p>1 developed own interest radio</p> <p>trip at college (Nat Parks) college was important very helpful</p> <p>college in Central Province was a good place to encourage CC</p>	
Previous membership		
Discussion with parents	<p>most parents are not educated hard for children to communicate the environmental message</p>	
child s participation		

	Club Leader	Parent
Name/Numbers	H Kampwita	Gertrude Nkonde
Education		
Club membership	Grades 2 to 7 announcement made at the assembly for those interested to join	
Club day		
Period of club existence	before 1985 club inactive since 1989	
Affiliation to WECSZ	not affiliated	
Describe environment	things around me both living and non living	all that is around us e.g. trees, water, air, soil etc
Environmental change	garbage pile up and decreasing rainfall as well as increase in diseases	increased cutting down of trees leading to soil degradation which has led to decreased rainfall which has led to decreased food resources springing up of squatters illegal quarrying
Are changes good or bad	bad	bad
Causes	changing world and poor attitude by people towards the environment	poor management
Future prospects	problems increasing and future is uncertain there is need to do a lot to change what can be changed however some things cannot be changed and we have to accept the changing times	there are no indications that the situation is improving and the future is not promising
Actions for improvement	educate people to care for the environment	teach people on how to protect the environment and control environmental degradation plant trees
Who should act	everyone especially government departments responsible for managing the environment	everyone
Information sources	radio, newspapers, personal observations	news e.g. radio, television, reading magazines teaching and experience

Raising community awareness	seminars workshops and other environmental education campaigns	local authorities should strengthen law enforcement mass media should contain more environmental information interpersonal communication should be intensified to reach all remote areas and sensitize them
Raising student awareness	environmental education should be taught to all pupils environmental clubs should be supported both financially and materially	encourage clubs such as Chongololo
Chongololo radio program	sometimes	sometimes
Materials	none is available	
Club activities	picking up litter tree planting, reading magazines and discussions field trips (once went to Lilayi Lodge)	
Desired activities		
Club difficulties	lack of funding for field trips and lack of educational materials led to the poor morale among teachers and the patron and hence the disintegration of the club the club appears to be shaky judging from the fact that the club audience could not be constituted for interviews	
Potential improvements	improved funding and provision of environmental education materials would help revamp the club	
Interest/Incentive	determination developed as a new teacher interest in school club activities led to leadership of the club	interested because whatever happens in the environment affects us
Previous membership	no	no
Discussion with parents		
child s participation		I am happy

	Club Leader	Club Members	Parent
Name/Numbers	Mr Katamba	26	Stephene Kabanda
Education			
Club membership	30 comprised of Grs 7 8 and 9 time constraints prevent inclusion of lower grades		
Club day	Thursday		
Period of club existence	early 1990s		
Affiliation to WECSZ	yes		
Describe environment	everything making up our day to day life	our surroundings plants and animals around us things we use	people living in different situations
Environmental change	increase in uncollected refuse	increased air and water pollution cutting down of trees	loss of jobs leading to proliferation of street vending
Are changes good or bad	bad	bad	bad
Causes	poor attitude towards cleanliness inability to look at the negative aspect of the problem poor economy	factories charcoal production	poor state of the economy leading to folding of companies and loss of job opportunities
Future prospects	there is a likelihood of improvement with increased public awareness on the need for improved sanitation	things should change for the better	there is room for improvement with changed policies
Actions for improvement	improved environmental education and public awareness provision of dust bins and refuse removal facilities	stop cutting trees stop smoking factories stop throwing rubbish and unnating in water	change policies
Who should act	the community should take up the challenge	charcoal burners factory owners people	the government
Information sources	radio television and magazines	school reading, observation	discussions with people who have experienced the problems personal observation
Raising community awareness	improved awareness campaigns through posters brochures and interpersonal communication to reach everyone	educating everyone	take a practical approach by first identifying the environmental problems and the human factors solutions should be found by offering practical alternatives to be adopted by the concerned people
Raising student awareness	improved Chongololo and Conservation Club membership	teaching more conservation providing more materials for use in class and during club time	by teaching and involving pupils in practical environmental work
Chongololo radio program	yes	yes (three out of the group)	no
Materials	Chongololo and Chipembele magazines from the WECSZ the materials are inadequate		

Club activities	lessons songs poems quiz drama poster making and working puzzles		
Desired activities	plans are underway to plant a lawn		
Club difficulties	poor attendance is sometimes a major problem		
Potential improvements	increased number of leaders to provide adequate guidance increased club membership field visits more guest lectures by partner organizations provision of a variety of environmental education materials	field visits more magazines posters and other learning materials	
Interest/Incentive	interest developed during school time as a Chongololo club member	to learn more because education is life	yes
Previous membership	yes		no
Discussion with parents		yes and they encourage us	
child s participation			good idea

	Club Leader	Club Members	Parent
Name/Numbers	K Simumba		Victor Ngulube
Education			
Club membership	Grs 5 ù 7		
Club day	Friday		
Period of club existence	existed long before died down for some years and revamped last year		
Affiliation to WECSZ	not yet		
Describe environment	environment is a term which generally refers to things or everything around us	a place where you live or a place where you might be	everything that surrounds us
Environmental change	uncollected garbage is on the increase droughts and diseases have become common	pollution	droughts cutting down of trees extinction of some animals
Are changes good or bad	bad	they are bad	bad
Causes	negligence ElNino natural phenomena	people	human interests and activities such as tree cutting for energy land clearing for farming and hunting many animals
Future prospects	very uncertain	pollution will kill people rain will stop	problems are increasing if nothing is done there will be no natural resources left in future our future generations will not have enough environment to support them
Actions for improvement	be more responsible	tell everyone to look after the environment stop pollution cutting down of trees	should embark on environmental education campaigns look after plants stop killing many animals
Who should act	all the concerned people	Chongololo Club teachers other people	everyone should take the action
Information sources	books magazines the media as well as personal observations	school radio	participated in an environmental workshop on humans and the environment learning from people like you
Raising community awareness	radio television pamphlets and drama	environmental education	environmental education campaigns should be launched

Raising student awareness	establishment of well supported environmental clubs making sure that all classes teach environmental issues	more clubs films magazines	environmental education should be part of the curriculum
Chongololo radio program	yes sometimes	sometimes	no
Materials	nothing at the moment		
Club activities	reading, discussions and tree planting		
Desired activities			
Club difficulties	lack of Environmental Educational materials lack of sponsorship lack of incentives		
Potential improvements	supply of Environmental educational materials sponsorship of trips workshops and training courses for club leaders an allowance for club leaders	film shows visiting places	
Interest/Incentive	appointed		very much interested because the environment is very important as our life depend on it
Previous membership	no		no
Discussion with parents		yes	
child s participation			very happy

	Club Leader	Club Members	Parent
Name/Numbers	Mrs Matandiko		Ivy Zulu
Education			
Club membership	Grs 4 7		
Club day	Wednesday		
Period of club existence	more than 8 years		
Affiliation to WECSZ	not renewed this year		
Describe environment	our surroundings such as trees animals and buildings	the place around us and all in it	a place where we live and everything near us
Environmental change	increase in deforestation water pollution and global warming	change in rain patterns and weather cutting down trees	the environment was okay in the beginning but now it has changed due to improved lifestyles such that what was there is not there and what was not there is what is here
Are changes good or bad	bad	bad	most of them are bad
Causes	cutting down of trees and industrial activities	deforestation pollution	cutting down trees for farming, subsistence hunting commercial and sport hunting disposal of hazardous waste
Future prospects	the situation is getting bad and needs urgent attention	bad or poor future	if problems aren't controlled global warming and pollution will increase
Actions for improvement	awareness campaigns and enforcement of the law by organisations such as the Environmental Council of Zambia	stop cutting down trees stop throwing rubbish stop pollution	environmental awareness campaigns educating everyone about the environment its importance and influence on their life
Who should act	all of us to educate one another and the Environmental Council of Zambia to enforce the law	the government Lusaka City Council and people	everyone
Information sources	books magazines workshops newspapers celebrations such as World Environment Day World Water Day Tree planting day radio television and friends	school radio Chongololo club	participated in a number of environmental programs such as World Environment Day addressing pollution waste dumping, the environment and you
Raising community awareness	door to door campaigns	teaching everyone in the community	environmental awareness campaign
Raising student awareness	Chongololo and Conservation Club activities as well as teaching in the curricula	Chongololo club and teaching in class	Chongololo clubs and teaching
Chongololo radio program	when not gone to church	yes	yes
Materials	pamphlets magazines and some posters from the Wildlife and Environmental Conservation Society of Zambia they are suitable but inadequate		yes was a member

Club activities	reading, discussions tree planting, gardening, picking litter participating in environment celebrations		
Desired activities			
Club difficulties	lack of resources such as new learning materials to motivate club members lack of financial resources for field visits and excursions lack of support from environmental organisations		
Potential improvements		more books and magazines visiting national parks and other interesting places competitions	
Interest/Incentive	no incentive only personal interest		very much interested
Previous membership	no		yes was a member
Discussion with parents		yes and parents are happy	
child s participation			free to join any club of choice the club seems well organised the leader is very dedicated members are adequately knowledgeable on environmental matters

	Club Leader	Club Members	Parent
Name/Numbers	M Musumba (Ms)	12	Elijah
Education			
Club membership	Gr 7s only		
Club day	Wednesday		
Period of club existence	more than 4 years		
Affiliation to WECSZ	not yet		
Describe environment	the surroundings including plants and animals	our surroundings such as animals air water our homes grounds	things around us
Environmental change	deforestation and soil erosion has increased I get annoyed and concerned each time I see a truckload of charcoal	increase in air and water pollution drought leading to poor crop production cutting down of trees leading to soil erosion and shortage of oxygen	drought and heavy rains
Are changes good or bad	bad	bad	bad
Causes	cutting down of trees for charcoal	cutting down of trees is caused by construction charcoal and furniture production air pollution is caused by factories bush fires vehicles smoking water pollution is caused by draining rubbish and other dangerous chemicals in water urinating in water factories and sewers drought is caused by people using up a lot of water	natural factors
Future prospects	as long as law enforcement is poor the problem will continue as many depend on charcoal for cooking	bright as many are getting aware and taking care	not sure
Actions for improvement	educate people on tree conservation Conduct tree planting campaigns every year to replace those cut down	grow trees for own use build factories away from people ban smoking, don t light fires and keep fires away from danger	sink boreholes plant drought resistant crops
Who should act	all of us	ourselves	myself the community the Environment Council and donors
Information sources	learnt a lot as a member of the Chongololo club during school time reads a lot of environmental books and magazines listens to environmental programs on the radio	friends magazines advertisements radio	news general understanding and observation

Raising community awareness	conducting door to door campaigns	environmental education and awareness campaigns working together with the community by organising an environmental activity e.g. a cleanup exercise improving sanitary facilities e.g. provision of bins putting up signposts and ads	conducting environmental education campaigns
Raising student awareness	improving club activities and including environmental education in the school curriculum	practising as good environmental managers promoting Chongololo and conservation clubs teaching in class talking to one another	teaching, field visits video and film shows
Chongololo radio program	yes but not always	no rarely tune in to radio two	no
Materials	environmental magazines from WECSZ are suitable but inadequate for learning needs		
Club activities	studying magazines discussing fundraising activities gardening, tree planting	sketches poems plays songs dances lectures magazines and nature observations	
Desired activities		going out to places like the Mundawanga Zoo and Botanical Gardens more magazines introducing new things	
Club difficulties	lack of funding for field trips and inadequate environmental education materials there is need for more support from the national office in terms of materials finances for programmes teacher workshops and field trips pupils are very interested in field trips and facilitating these would raise the morale for club membership		
Potential improvements			
Interest/Incentive	interest developed during school time as a Chongololo club member	its fun to know more about plants and animals to take care of animals to know more about conservation to know more about society	yes because most of our activities are dependent on the environment
Previous membership	yes		no
Discussion with parents		yes encouraged by parents	
child s participation			no problem as I would like her to learn more

* The club performed a drama sketch based on the situation of a girl coming home from school and telling her parents about conservation ideas she was learning at the CC. The parents were furious because they did not have the same views and were inclined to go back to the school and complain. Instead, a friend invited them to a community meeting with a guest speaker and the parents went. The ideas presented at the meeting about wildlife and community benefits resulting from its conservation caused the father to proclaim he would no longer poach wildlife but would work towards effective conservation.

	Club Leader	Club Members
Name/Numbers	F T Mapata (Assistant Coordinator) Benson Daka (Headmaster)	14 2 Gr 5 4 Gr 6 5 Gr 7 3 Gr 8 5 girls & 9 boys
Education		
Club membership	Grs 1 - 8 12 students by interest no restrictions distance from school prevents many from participating	
Club day	Thursday	
Period of club existence	since 1985	
Affiliation to WECSZ	yes	
Describe environment		the things around us animals insects birds fish trees soil water air importance of resources trees fruit wood shade animals tourism, water to grow plants fish drinking
Environmental change	inadequate food availability hunger is the big problem a lot of good land but need fertilizer no money for that	cutting of trees killing animals flooding crops soil erosion lack of food sanitation
Are changes good or bad	bad	bad

Causes	<p>most soils upland are exhausted and the only fertile soils are those along the river banks However many times the crops get washed away when the river floods leading to poor harvests Other factors include poor rainfall and the hot weather which affects work habits of people as they are forced to spend less time in the fields spend more time drinking than working</p> <p>most believe dumbo areas are fertile hard to convince people of appropriate lands to farm</p>	
Future prospects	as long as the poverty levels remain high the future is not promising	
Actions for improvement	<p>improve agricultural production through provision of fertiliser loans</p> <p>has been too much reliance on government relief food recently there has been very little relief changes will now have to be made</p>	<p>form a club to study and teach others</p> <p>stop cutting trees plant trees</p>
Who should act	farmers government and agricultural institutions	
Information sources		teachers parents magazines
Raising community awareness	<p>parents are very resistant difficult to change long held opinions we need to go as a group</p> <p>awareness campaigns through drama and poems</p>	
Raising student awareness	club is not enough more needs to be done	
Chongololo radio program	– no due to poor reception Besides the school has no institutional radios	some listen occasionally
Materials	<p>Action Orbit Chongololo</p> <p>some pamphlets from LIRD scout some from inspector intermittent through others</p> <p>none this year</p> <p>the materials are inadequate and not always suitable for all subjects of discussion need books for children want more detailed information</p>	some magazines CC and Action
Club activities	<p>poetry drama</p> <p>sketches</p> <p>lectures</p>	

Desired activities	<p>projects bee keeping, aquarium</p> <p>reaching out to communities</p> <p>field visits video shows visitation and guest lectures by environmental organisations e.g WECSZ LIRDP and Department of National Parks</p>	
Club difficulties	<p>apathy amongst students it is difficult inculcating a sense of conservation for wildlife in a people who have long believed that animals are God given for them to feed on</p> <p>most pupils come from far away places and it is difficult to keep them for club activities when they should be going home after classes</p> <p>offer of seminars to club patrons (Action) but didn't happen</p> <p>lack of materials for conducting club activities is another problem as most materials received are inadequate and not always up to date</p> <p>financial resources and lack of mobility limits the number of activities to be embarked on e.g tour to the National Park and other places of interest</p> <p>facilitation of desired club activities by outside experts would help improve club activities</p>	
Potential improvements	<p>books for children detailed information wall charts</p> <p>assistance for game viewing in park live in the valley but students don't know the animals and don't see them</p> <p>visits from scouts too few only one last term tend to meet with teachers not connect with students</p>	<p>support for projects</p> <p>transport to villages other clubs & park</p> <p>books on other environments as well as own</p> <p>orphan's fund to support students</p> <p>video camera and other a/v equipment</p>
Interest/Incentive		
Previous membership	<p>yes in CC in Chipata</p> <p>came game viewing in SLNP and developed interest in conservation since then</p>	
Discussion with parents	<p>parents are not receptive to club motives of wildlife conservation Historically the people of Malambo are meat eating people and teaching them not to kill the animals but just to keep them has proven to be difficult</p>	
child's participation		

	Club Leader	Club Members	Parents/Community	Parents/Community
Name/Numbers	Mr Chupa Headmaster Mr Sakala Club Leader	21 students	10 people	6 people
Education		2 Gr 3 6 Gr 7 rest Grs 5 & 6	2 none 2 Gr 2 1 Gr 4 1 Gr 5 2 Gr 7 1 Gr 9 1 Gr 12	4 none 1 Gr 6 1 Gr 9
Club membership	Grs 3 & 7 15 students (began with more) limited by other club participation			
Club day	Wednesday			
Period of club existence	2 years identified staff is new (no history in school)			
Affiliation to WECSZ	yes			
Describe environment		plants and animals water air		
Environmental change		disappearance of animals changes in plants fewer trees	agriculture flooding and loss of land frequency of drought increased animal populations increased hippos baboons elephants people have increased animal habitat has decreased and now crops are more affected water river used to flow year round and deep now shallow and seasonally dry soil more fertile long ago now dependent on fertilizers	have to gather firewood from further away settlements cause deforestation poaching, there are fewer animals floods frequent and bad sweeping away the crops river narrower more trees along the river drought more often different weeds more aggressive more people pressure on agricultural land trees decreasing (houses) animals have decreased elephants increased can't be controlled like other species for protecting crops populations increasing in park makes them move out here

Are changes good or bad		some good some bad		
Causes		people increasing numbers of people we own the wildlife we look after them	too much soil erosion soil becoming more compact prolonged growth of one crop population increase has limited cropland and now options are gone toxic chemicals kill fish	
Future prospects		if we don't look after our resources we will suffer not just the plants and animals firewood is becoming scarce clean water is an increasing problem	need to move to virgin land can't make shifts in the end there is no place to go have to have money to buy things instead	problems will continue
Actions for improvement		protecting animals better firewood management	reduce cutting of trees cut only branches reduce use of fire crop elephants when numbers sufficient don't use toxic chemicals plant trees especially fruit trees	should not be cutting trees branches no fires - plant more trees chemicals that kill fish should not be allowed health risk trees along the river should be kept to protect the soil conserving trees will keep rain and avoid drought - difficult to deal with weeds because of easy distribution and growth early burning not good just burn at end of dry season borehole needed build a dam across the river trees surrounding pans should not be cut they are for animals don't pollute water storage areas
Who should act		everyone		

Information sources			forefathers observation	a leader of CC a secondary school conservation club member geography classes public relations in LIRDP also village action group meetings magazines radio agricultural program
Raising community awareness	little community contact school supported by Kapani Lodge join with community programs of awareness (LIRDP) use drama	important for CC to communicate with the villages drama possibilities we could have meetings extension officer	have CC meetings in different villages instead of at the school so the adults can be involved	
Raising student awareness	wanting to develop the whole child who is able to appreciate and care for nature shown in results of testing student knowledge observed behaviours of students teaching their friends more students wanting to join less tree cutting near the park			
Chongololo radio program	sometimes talk about the content in the club			
Materials	CC magazines (irregular) Action magazines more detail but many of the same topics Both are useful and in other subject areas leadership by Scouts from LIRDP			
Club activities	tree plantation planting & managing game drives (supported by Kapani) study of plants insects and small animals around the school			
Desired activities	develop a school museum with trophies skins snails interclub competitions quiz drama trips		CC fair bring clubs together for an event competition of displays involve communities open house games food	

Club difficulties	resources to support activities irregularity of materials			
Potential improvements	need to sensitize teachers so that they can be effective support for leaders financial and logistical support for visits between clubs involve community members in the activities of the club broaden appeal of radio program to include community and use local languages audio & video tapes and equipment training for leaders	club museum audio visual equipment camera		would support and participate in club activities materials could come home visits by school children to the village
Interest/Incentive	boy scouts in school	game viewing to know about animals to learn how to conserve nature want a healthy environment see a lack of conservation in others and want to learn so we can teach		
Previous membership	no			none
Discussion with parents			yes	
child s participation			yes encourage young people to learn and discuss among themselves	

The school has one stream of classes from Grades 1 to 8 with a total population of approximately 180 pupils. The consultants met with teacher Mr. WS Chukwanga and were told that the school has no club due to inadequate staff. The three (Head teacher inclusive) who are there are overworked and cannot find time to dedicate to club activities.

	Club Leader	Club Members
Name/Numbers		
Education		
Club membership		
Club day		
Period of club existence		
Affiliation to WECSZ		
Describe environment		
Environmental change		
Are changes good or bad		
Causes		
Future prospects		
Actions for improvement		
Who should act		
Information sources		
Raising community awareness		
Raising student awareness		
Chongololo radio program		
Materials		
Club activities		
Desired activities		
Club success		
Club difficulties		

Potential improvements		
Interest/Incentive		
Previous membership		
Discussion with parents		
child s participation		

	Club Leader	Club Members
Name/Numbers	Mr J J Mwanza Head Teacher Mr K Mwanza Club Leader	26 13 girls 13 boys
Education	Grs 5 6 & 7	4 Gr 4 6 Gr 5 11 Gr 6 4 Gr 7
Club membership	35	
Club day	Wednesday other times for field studies	
Period of club existence	existing prior to arrival of current leader	
Affiliation to WECSZ	yes	
Describe environment		natural resources air soil animals trees grass water our surroundings
Environmental change	deforestation poaching	cutting trees makes desertification
Are changes good or bad	bad	
Causes		
Future prospects		no trees to block wind roofs will blow away without water we can't live need pure air to breath protecting animals means money visitors come to look at them important to protect animals for our children
Actions for improvement	scare away elephants from fields alternative food sources rearing goats pigs and more chickens demonstrate importance of tree management	
Who should act		
Information sources		

Raising community awareness	<p>library service of conservation materials</p> <p>connect students with elders in communities gather information from these connections history of conservation</p> <p>money coming from wildlife to community projects</p> <p>train VAG leaders need a workshop</p> <p>need to target women</p> <p>materials should be developed in local language</p>	
Raising student awareness	<p>library service of conservation materials</p> <p>connect students with elders in communities gather information from these connections history of conservation</p> <p>visiting international student groups 2 Australia 1 England stayed for 7 days</p>	
Chongololo radio program	<p>yes takes notes from radio program</p>	
Materials	<p>CC magazines good materials but late not enough copies</p> <p>Action Magazines comes as a package for a year</p> <p>use materials for English & Science as well</p> <p>LIRD support depending on availability of scouts</p> <p>taking notes from radio program</p> <p>are supported with supplies from tourist donations to the school</p>	
Club activities	<p>topics for learning soil plants animals etc</p> <p>research projects tasks identified children report make a summary together</p> <p>park trips</p> <p>bush walks around the school area</p> <p>tree planting, at school & home</p> <p>entertaining clients from sponsor</p> <p>drama shows plays poetry imitations traditional dances</p> <p>fundraising events</p> <p>park trips are good student incentives one every year</p>	

Desired activities	<p>more meetings with villages</p> <p>fish pond project</p> <p>getting together with other clubs (most other clubs only exist on paper and are not active)</p>	visiting the park
Club difficulties	<p>teacher training, there was supposed to be a workshop by Action but it didn't happen and no explanation</p> <p>need technical advice on fish pond</p>	
Potential improvements	<p>need an experienced program advisor</p> <p>coloured pencils and paints for artwork</p> <p>video camera to use in field</p>	
Interest/Incentive	both participated as secondary club members	
Previous membership		
Discussion with parents		
child's participation		

* The school has a total pupil population of 280 from grades 1 to 8 The total number of teachers is 5

The following questions were asked by club members

How can we improve the performance of our club?

Who benefit most from natural resources government or the common man?

What is the meaning of Canada?

How many legs has a chongololo?

Can natural resources finish and if so how can we avoid that?

What is the difference between Chongololo Club and the Conservation Club?

What is the source of soil?

What is the status of natural resources in Canada?

	Club Leader	Club Members
Name/Numbers	Mr M Nyrenda Mr M R Kawalika (Head Teacher)	- 8 members present
Education		
Club membership	30 students from grades 1 to 7	
Club day	Wednesday	
Period of club existence	do not know as found the club already in existence	
Affiliation to WECSZ	not renewed for the year	
Describe environment		- things like animals trees insects plants the school rocks soil water air and man
Environmental change	increase in tree cutting leading to deforestation people are practicing early bush burning as opposed to late burning	grass changing from green to brown trees fruiting too much rain in the rainy season many trees cut down never used to pay for water but are now paying
Are changes good or bad	deforestation bad early bush burning good	tree cutting is bad because we depend on trees for construction firewood charcoal doors desks fruits shade
Causes	tree cutting is done to clear land for crop production improved bush burning is a result of the awareness campaign by club members who have taken the message to their parents and influenced their actions	trees are being cut for use
Future prospects	promising--with increased awareness campaigns a few have started to realise the negative effects of deforestation but a lot more people need to be reached	
Actions for improvement	increased conservation education so as to influence people s attitudes towards tree conservation	stop people from cutting trees plant more trees

Who should act	club members and parents	us
Information sources		
Raising community awareness	calling parents to come together with their children to participate in conservation activities organised by the club	teach them about conservation go out and discuss with them matters of conservation use drama to raise awareness on dangers of tree cutting
Raising student awareness	teaching the importance of nature and how to practice conservation studying the Chongololo magazines	
Chongololo radio program	don't listen due to poor reception no facilities available for dubbing the program and playing back	don't listen
Materials	only the Chongololo magazine from the WECSZ is available the supply is inadequate and has turned out to be too monotonous there is need for variety	
Club activities	putting up a tree plantation to be used for conservation education in practice	video shows provision of magazines uniform for club members used to visit the National Park in the past but no longer do
Desired activities	introducing video shows and audio tape listening sessions facilities for video showing and audio tape playback can be accessed easily but it is difficult to acquire conservation tapes field visits to interesting places provision of a variety of educational materials e.g. Action Magazine visits and guest lectures by conservation organisations the club leader expressed disappointment at the lack of visits and encouragement to the club by LIRDPA and the Department of National Parks and Wildlife Service	
Club difficulties	lack of materials for conducting club activities only the Chongololo magazine is available magazine supplies are not only inadequate but also irregular as the club leader has to collect them from Lusaka	
Potential improvements		
Interest/Incentive	interest developed during school time when he was a member of the conservation club and this led him to volunteer to become a leader	to care about things to conserve nature to know how to grow plants to know about plants to conserve trees

Previous membership	1 year	
Discussion with parents	yes some parents encourage and teach their children about the importance of tree conservation	yes (half of the group)
child s participation		

	Club Members	Village Meeting	Village Meeting
Name/Numbers	19 6 girls 13 boys	3	5
Education		1 none 1 Gr 4 1 Gr 10	2 none 2 Gr 6 1 Gr 7
Club membership			
Club day			
Period of club existence			
Affiliation to WECSZ			
Describe environment	animals plants trees water air soil birds insects bacteria people village house fields		
Environmental change	some animals are not here any more some predators almost gone populations decreased different trees new species fewer local trees water plenty now because we have wells depends on the cycle and individuals perception use too much pollute water soil erosion affecting agriculture	rains used to be predictably Nov April now Dec Feb and irregular rivers running dry used to be able to hunt animals now government has stopped it many animals before now few trees are less now rainfall less firewood far away many more people (too many) lack of space for fields fields are further from home lack of rainfall hurting agriculture water is getting polluted now sell things at market no market before	few animals before now increased few trees now lot of rain before now less because of fewer trees water table is dropping not as much water on the surface animals not food just money and the women don't see the money
Are changes good or bad	animals disappearing means children won't know them agriculture difficult families will be poor can't support the number of people		
Causes	removing of top soil by erosion because of cutting of trees and grass water pollution washing near rivers bathing, latrines too near pesticides	people have killed trees agriculture improved because of technology people getting sick from overcrowding and using up water diseases	people stopped killing game so populations increased cutting for firewood depleted trees fewer trees thus less rain less rainfall thus less ground and surface water

Future prospects	<p>population will decrease shortage of food increase of diseases fuel shortage air pollution ground will be bare less rain because of loss of trees</p> <p>animals will die no foreign exchange (no tourists)</p>	<p>people will die if all the resources are finished</p> <p>employment in animals</p> <p>can't eat them by law so what else are they good for but foreign exchange</p>	<p>employment from tourism</p> <p>if resources depleted no tourists</p> <p>future generations will starve if agriculture is not maintained</p>
Actions for improvement	<p>planting trees</p> <p>teach people about conservation form village groups to share information</p> <p>stop killing animals punish poachers cooperate with rangers</p> <p>find good ways of farming</p> <p>avoid late burning</p> <p>cut branches no burning of trunk</p> <p>emigration</p>	<p>villages cooperate with NP to prevent poaching</p> <p>conserve animals brings foreign exchange</p> <p>stop careless cutting of trees stop burning tree to bring it down plant trees</p> <p>dig boreholes don't pollute water</p> <p>other families need to find other areas too crowded</p>	<p>avoid careless burning of grass early burning to preserve roots no burning of trees cut branches not trees don't cut all trees for field leave some</p> <p>conserve wildlife but need game control scare away from fields we must kill wildlife because they eat our crops we get tired of reporting and nobody comes animals are destructive they are killing animals in the park for game control but we don't get the meat contain the animals fence the park</p> <p>dig boreholes too many people are using same water sources</p>
Who should act			
Information sources	<p>from parents family working in tourism</p> <p>from teachers game scouts</p> <p>books and magazines</p> <p>CC radio program</p>	<p>parents & grandparents</p> <p>school</p> <p>radio programs</p> <p>magazines some most don't read</p>	<p>parents</p> <p>school</p> <p>radio</p>
Raising community awareness		more materials for those that would like to read	
Raising student awareness			
Chongololo radio program		yes have listened	
Materials			
Club activities			
Desired activities	<p>park tours</p> <p>meet with other clubs (quizzes exhibits)</p> <p>tree planting</p>		
Club difficulties	lacking pens books magazines		

Potential improvements	transport for meetings in villages and tours in park identification badges videos & camera resource people for club training for leaders	would like to have students come and teach in the village would like videos drama the way to support the club is to follow the direction of the students community support for celebration organize event far food space etc	would like to see drama group in village would like to learn more parents ready to teach others in village would like to have more materials magazines not worthwhile literacy is a problem need borehole
Interest/Incentive	to learn how to conserve our environment animals living things to improve standard of living know the animals life span foods how they live to learn new things how to plant trees the uses of living things		
Previous membership			
Discussion with parents		no not really	tired from work don t talk about things with students
child s participation		CC a good thing, children learn a lot	

This school has no club although they were previously registered with the WECSZ and had active leadership in the school a number of years ago

	Club Leader
Name/Numbers	S Manda Head Teacher J Kumwenda
Education	
Club membership	
Club day	
Period of club existence	there was a teacher here previously who was very interested and active now gone visit from LIRD P scout last term, left some notes on conservation and about wildlife club
Affiliation to WECSZ	previously affiliated a certificate on the wall of the office from 1985
Describe environment	
Environmental change	
Are changes good or bad	
Causes	
Future prospects	
Actions for improvement	
Who should act	
Information sources	
Raising community awareness	
Raising student awareness	
Chongololo radio program	
Materials	received materials from Lusaka as recently as June/98
Club activities	
Desired activities	
Club success	



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