



**IDENTIFICATION of APPROPRIATE
CONSERVATION MEASURES for SITES of
BOTANICAL INTEREST in the COMMUNAL
LANDS of the ZAMBEZI VALLEY, ZIMBABWE:
THE INITIAL CONSULTATION PROCESS**



Rob Cunliffe

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**Consultant's Report Prepared on
Behalf of the Zambezi Society**

Rob Cunliffe

October 1996

Biodiversity Foundation for Africa
P.O. Box FM 730
Famona
Bulawayo
Zimbabwe

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SUMMARY

This study comprises the second part of an ongoing project by the Zambezi Society, the overall goal of which is to ensure the conservation of a variety of areas of botanical interest within the Zambezi Valley. The initial phase of the project involved the identification, survey and description of 82 potential communal land sites (Timberlake 1996), and these were categorized into low, medium or high priorities for conservation.

The purpose of this study was, firstly, to present the results of the initial phase to the Rural District Councils of the six districts within which these sites occur (Mount Darwin, Centenary, Guruve, Kariba, Gokwe North and Binga Districts), and to discuss the possibility of conserving these sites. Based on the assumption that the effective conservation of these sites will be directly dependent on the full participation and support of the people living in close proximity to the various areas, the second objective was to devolve the process of discussions to the community level and, through doing so, to try and develop conservation and management plans for the high priority sites within each district.

Provision was made for two trips to each district. The initial visits, during which the results of the first phase were presented to the relevant Rural District Councils, were carried out during July 1996. Based on the positive responses received, follow up meetings and site discussions were held in each district during September 1996.

The process of community consultations was taken furthest in Gokwe North District. Here a community meeting was held to discuss the sidaga grasslands of Site 11b, the outcome of which was that the Kamakuyu community agreed to try and identify a suitable area for conservation purposes. For three other districts (Mount Darwin, Centenary and Binga), specific plans have been made for holding additional community meetings, and requests have been forwarded to the Zambezi Society for the provision of funding to proceed with these. In Kariba and Guruve Districts the need for additional meetings has been agreed upon, but not yet planned in any detail. The least progress was achieved in Guruve District, mainly because of the large number of sites here and the fact that two visits were insufficient to make much of an impact.

Participants at the various district meetings largely comprised council executive officers (including Campfire managers), councillors and local technical officers. The need to involve the traditional leadership was recognized by all six councils but, as yet, only achieved within Mount Darwin, Centenary and Gokwe North Districts. In particular, the Muzarabani Rural District Council (of Centenary District) have decided that the best way to achieve the conservation of the seven sites within their district, will be through handing over this project to the traditional leadership and encouraging the development of appropriate customary laws. Through doing so, the traditional authorities will be able to assume full responsibility for the implementation and enforcement of any such rules.

The process of consultations was not taken far enough to achieve the development of management plans for any of the sites. However, the progress to date has been encouraging and it is concluded that the best way to proceed with the development of appropriate conservation measures for the various sites, is to continue with further community meetings.

During such meetings it will be important to clarify the form of conservation that is envisaged here. Unlike previous approaches, which have been characterized by exclusion and the loss of

access to resources, this initiative is based directly on the central concepts of the Campfire programme, of full community participation, support and empowerment and, also, the sustainable utilization of resources. Thus, it is anticipated that the local farmers themselves will have a central role in identifying specific boundaries for the conservation areas; establishing rules governing the use of these area and penalties for any infringements of these rules; and also enforcing these rules. Emphasis will also be placed on ensuring that any conservation areas continue to function as useful and productive components of the local landscapes. This can be achieved through: allowing as many uses of these areas as possible to continue, providing these are not inconsistent with conservation goals; encouraging additional appropriate forms of use, particularly any that will enable the generation of income (such as tourism developments); and possibly linking conservation initiatives to alternative development works within the adjacent areas.

Attention is also drawn to the technical and financial inputs that will be required to ensure the continuation of this project. Nine recommendations are made, concerning making information available, networking and extending the project to include the adjacent state land areas. The major recommendation is that, based on the encouraging results obtained during this phase of the project, the process of community meetings should continue to be supported and developed.

1. INTRODUCTION

From 1988 to 1991 a vegetation survey of the communal lands of the north and west of the country was carried out by the National Herbarium in Harare. The major product of this exercise was a vegetation map and accompanying description of the various vegetation types (Timberlake, Nobanda & Mapaire 1993). A secondary output was a short report identifying and briefly describing 90 sites considered to be of particular interest for plant conservation (Timberlake *et al.* 1991). These sites were identified on the basis of four criteria: (1) rarity within Zimbabwe, (2) high plant species diversity in a relatively small area, (3) wide variety of habitats in a relatively small area, and (4) relatively undisturbed condition or a particularly good example of a more widespread vegetation type.

During 1995, the Zambezi Society (a local non-governmental organization concerned with conservation issues within the Zambezi Basin), became interested in trying to stimulate the implementation of some form of conservation measures for these sites of botanical interest. A project proposal was subsequently drawn up for this purpose, in conjunction with the Biodiversity Foundation for Africa.

The proposed study entailed two phases. The first part, comprising a re-examination of the various sites, was completed by Timberlake in April 1996. The resulting report (Timberlake 1996) identifies and provides details of the current status of each site, including the vegetation composition and any changes that have occurred since 1991 and, based on biodiversity criteria and also degree of threat, categorizes each site into one of three levels of priority for conservation.

The present study concerns the second phase of the project. This portion comprised a consultation phase, the object of which was to initiate a process of dialogue, firstly, with the relevant Rural District Councils and then, later, with specific local communities. The purpose of these discussions was to identify appropriate conservation measures for some of the high priority sites, and to evolve proposals for a subsequent implementation phase. The actual terms of reference for this component were as follows:

1. To provide the relevant Rural District Councils with copies of Timberlake's report, concerning the first phase of the project, and to present these results to them.
2. Through discussions with council representatives, to explore the potential for the implementation of measures to conserve, protect and utilize the sites identified as high priority areas.
3. Based on the approval of the various councils, and with their collaboration, to recommend options for the future management of the high priority sites, and to consolidate these recommendations into practical plans, for a possible further implementation phase of the project.

The remainder of the report gives a brief outline of the method adopted (Section 2), details of the progress achieved within each district (Section 3) and, thereafter, a discussion of these results (Section 4), together with brief recommendations for future activities (Section 5).

2. APPROACH

The various sites of botanical interest, identified during the previous phase of this project (Timberlake 1996), are spread across six districts. Together, these cover part of the Mid-Zambezi Valley (Mount Darwin, Centenary and Guruve Districts), and also part of the Sebungwe region to the south of Lake Kariba (Kariba, Gokwe North and Binga Districts). From the outset it was assumed that the successful conservation of the identified sites would be directly dependent on the full participation and support from the communities living in close proximity to the various sites. However, the respective Rural District Councils (RDCs) were identified as being the appropriate local authorities with whom to initiate the process of consultation within each district.

Provision was made for two trips to each district. The purpose of the initial visits was to present the findings from the first phase of the project to the respective RDCs, to discuss the interests of the Zambezi Society, and to seek a mandate to continue with the programme. Thereafter, during the follow up meetings, it was attempted to develop specific plans as to how to go about identifying and developing appropriate conservation measures for various of the high priority sites within each district.

3. DISTRICT REPORTS

Initial visits to the six Rural District Councils, at which reports and maps from the first part of the project were presented, handed over and discussed, were conducted during July 1996. For each district, irrespective of the various people spoken to, the response obtained was strongly enthusiastic and supportive, and the quest to continue the process of negotiation was strongly endorsed. In all cases council officials agreed to discuss the phase one results with other relevant district officials and institutions. In order to facilitate the exposure of the project at the district level a two page summary was prepared for each district, ten copies of which were left with each council for subsequent distribution to relevant personnel.

During August and September 1996, each district was visited for a second time. The purpose of these meetings was to continue discussions, particularly with regard to the high priority sites, and to try and define plans for the actual development of appropriate conservation measures for these sites. The contents and results of these various discussions, for each district, are presented below.

3.1 Mount Darwin District

Two sites of botanical importance were identified within Mount Darwin District (Table 1). Site 30a comprises a strip of alluvial woodland stretching for some 10 km along the Mukumbura River and continuing to the west into Muzarabani District. The second site (Site 37) is situated along the Zambezi escarpment and covers some 100 km² of the Mavuradonha mountains.

During initial discussions district officials agreed that there was a strong need for the introduction of conservation measures, and that local communities should be fully involved in the development of any conservation activities, and were generally enthusiastic about the proposed project. The Acting District Administrator drew attention to the recent trend of giving people increased responsibility for management of local resources. It was also pointed out that the council was currently investigating the possibility of initiating a Campfire programme for the district, and that this project would fit very well within this initiative.

It was further agreed that efforts should initially be concentrated on the high priority Mukumbura alluvial area, particularly since the threat of disturbance is far greater here than for the Mavuradonha escarpment woodland. There was some confusion as to exactly what Site 30a looked like on the ground and what type of vegetation occurs there and, as a result, it was suggested that a field trip to the Mukumbura River would comprise an essential next step towards identifying conservation measures for this site.

3.1.1 Site Visit to Mukumbura Alluvial Woodland

The site visit to the Mukumbura River was conducted on 10 September 1996, with 10 participants, most of whom comprised district officials (Table 2). This area forms part of Kaitano Ward (Ward 1). The councillor for this ward was informed of the meeting and invited to attend, but failed to turn up on the day. Consideration was also given as to whether Chief Chiswiti, under whose jurisdiction this land falls, should also be invited but it was decided that it would rather be preferable to examine the area first before approaching the Chief on this matter. Most of the deliberations were conducted in Shona, with abbreviated translations into English for my benefit. The following points were raised during the discussions.

Danger of Anti-Personnel Mines

Parts of the site still contain antipersonnel mines which were laid down during the liberation war of the 1970s. In this vicinity, the mines are apparently confined to the strip of land between the border road and the Mukumbura River, which is precisely where Site 30a is located. Indeed, the virtual absence of cultivation within this area over the last 20 years seems to be directly related to the continued persistence of these mines here.

The distribution of mines within the border strip is not, however, ubiquitous. About half way between the border road and the Mukumbura River there is a narrow strip which is virtually continuously mined, apart from certain specific gaps such as the well-used track along which we drove in order to reach the Mukumbura River. The location of this strip is marked by remnant steel fence posts. Additional mines are believed to have been laid randomly between the border road and this line of mines, thus preventing safe access to all the southern portion, but not to the north. It is essential that local advice is sought before venturing anywhere to the north of the border road.

Uncontrolled Settlement

Much to the surprise of district officials, a number of families were observed to be establishing homesteads within the proposed conservation area, just to the east of the Musingwa River on the portion of land situated between the Mukumbura River and the area containing mines. Apparently these settlers, comprising a total of 12 households, had started building houses and clearing fields here about two months ago. Water is obtained from the Mukumbura River, in which the water table was observed to be less than one metre beneath the surface of the sandy river bed. A herd of about 30 cattle was also seen grazing along the banks of the Mukumbura River. Much of the border strip had recently been burnt, apparently in order to encourage the detonation of any mines that had worked their way to the soil surface. Further to the west, but still within Mount Darwin District, a further 15 families were reported to have also settled recently along the Mukumbura River.

One of the new settlers, Mr Mukoponi, was invited to join the discussions. He related how he had come to this area from elsewhere in the district, but initially had moved to Mount Darwin District from somewhere near Gokwe. His main reason for settling here was the ready availability of good arable land, coupled with extreme land pressure in the area from which he had just moved.

Permission to settle here had apparently been obtained from the local headman, although according to the district officials he is not recognized as being a legitimate headman. No authority was sought from either Chief Chiswiti or the Pfura Rural District Council. It is likely that the local councillor was aware of this development, and it was suggested that this may be the reason why he failed to attend the meeting.

Much of the days discussions were devoted to debating the fate of these new settlers. Apart from the elected councillor (Mr Machaya), all the other district officials were extremely unsympathetic towards these people and were adamant that they should return to their former homes with immediate effect. Reasons put forward as to why these people should not be allowed to settle here included the arguments that: since council had not sanctioned this development it was illegal; such unplanned settlement was not acceptable; during the MNR bandit incursions of the 1980's the border zone had proved to be very difficult to defend against hostile incursions; the presence of anti-personnel mines in the adjacent area still poses a very real threat to both humans and livestock; it is against the policy of the Department of Veterinary Services to keep any cattle to the north of the tsetse fly target barrier (which here is situated just to the south of the border road); cultivation along the Mukumbura River would lead to undesirable erosion and siltation of the river; it might, in the future, be possible to develop irrigation here; and because of all these reasons the Pfura RDC would not be prepared to provide any services, such as schools, within this area.

The Acting District Administrator, Mr Mbetsa, concluded that, with immediate effect, all settlers to the north of the border road should return to wherever they had originated from. Later, on our way back to Mount Darwin we visited Chief Chiswiti to discuss this matter and Mr Mbetsa asked the Chief to please make sure that the settlers did in fact relocate as required. Even if this settlement within the proposed conservation area can for the moment be prevented, it is clear that this remains a very real threat and possibility for the future.

Boundary Dispute

District officials from both Mount Darwin and Centenary Districts mentioned that there is some dispute concerning the positioning of their mutual boundary within this region. The official district boundary follows a minor tributary of the Mukumbura River called the Chiwonde River. The root of the conflict appears to be that this administrative boundary is not consistent with the traditional boundary between Chief Chiswiti of Mount Darwin District and Chief Kasakete of Centenary District.

Precise details of this dispute were not confirmed. However, around Kaitano (some 15 kilometres to the south) it has apparently lead to heated arguments as to who is entitled to cultivate what land, and obviously similar conflicts could arise concerning the alluvial woodland area along the Mukumbura River. Mr Chisanduro, the Chief Executive Officer (CEO) of the Muzarabani RDC, reported that he had recently raised this issue at a provincial level, and had received assurance that the matter would be investigated with the purpose of sorting it out for once and for all. However, irrespective of political directives the situation on the ground is likely to take quite some time to resolve, if indeed any acceptable agreement can be arrived at.

Fencing

The need to fence the proposed conservation area was discussed, and a number of the district officials expressed support for this idea. Given that the nearby fence delineating the area containing anti-personnel mines, which was constructed in the early 1980s, has been completely vandalized, it is highly questionable as to whether fencing around the conservation site would

be at all sustainable. However, it is possible that the local community might support the resecuring of the mine field and thus provide an avenue for some fencing within this area.

Potential Land Uses

The participants at the meeting seemed to be set on the idea that the area should be secured for conservation and not used for any other purposes. Alternative suggestions concerning less extreme approaches, such as conserving only a portion of the identified site, or else allowing certain non-destructive forms of land use within the conservation area, such as grazing of livestock or the gathering of wild fruits, were not met with much enthusiasm.

The possibility of developing irrigation here, using water extracted from the sands of the Mukumbura River, was also discussed. Agritex officials were uncertain as to whether the alluvial soils found here would be suitable for irrigation, and suggested that a land use planning exercise might be necessary.

Gold Panning

It was reported that some gold panning is being carried out along the Musingwa River, but further upstream on the portion closer to the escarpment. Although these activities are quite distant from the proposed conservation site, it does raise the possibility that exploitable levels of gold might also be located within the alluvial deposits along the Mukumbura River. Any panning for gold here would clash directly with the use of the area for conservation purposes.

3.1.2 The Way Ahead

Meeting participants all agreed that the next step in developing a conservation project along the Mukumbura River should be to discuss the idea with the adjacent community. For this purpose two workshops were identified as being necessary: an initial meeting to discuss the idea with the relevant traditional authorities (the traditional custodians of this land) and, thereafter, a second and much larger workshop to discuss the concept with members of the adjacent community. One of the objectives of the second meeting would be to try and develop a local management plan outlining the future use for the area.

These workshops could be organized by the council, in conjunction with the District Administrator's office. Assistance was requested from the Zambezi Society to cover the costs of the two meetings, and also to send a representative to participate in the discussions. Potential costs, comprising transport and field allowances, are outlined in Table 3, and amount to some \$1,100 per meeting. It was felt that it would not be necessary to provide any food. However, for the second meeting I suspect that this might be unavoidable, in which case about \$600 more would be required.

The district officials felt that, because of the threat of further settlement here, there was a need to proceed with these community meetings as soon as possible, and thus requested that this proposal should be given speedy consideration. Having ordered the eviction of the new settlers it was considered to be important to be able to show that something was going to be done with the land. In particular, it was felt that if people were allowed to establish any crops here it would not be possible to remove them until after the crops had been harvested at the end of the season.

In conclusion, it was felt that this site meeting had been extremely constructive, that the general concept was worthy of full support, and that the proposed community meetings should now be held as soon as possible, assuming that the Zambezi Society will be in a position to make the required funds available.

3.1.3 Aerial Photograph Study

Following the site visit to the alluvial woodlands along the Mukumbura River, a cursory examination was made of two sets of aerial photographs for the area (1:25,000 scale), dating from 1973 and 1993. In 1973 the area in the vicinity of the confluence of the Mukumbura and Musingwa Rivers, and continuing to the west up to the Chiwonde River (thus covering the entire alluvial portion within Mount Darwin District), was heavily disturbed by dense settlement and cultivation. Further to the west, within Centenary District, the alluvial area appeared relatively undisturbed, apart from one small settlement and two limited areas of fallow fields. On the 1993 photographs, the previously cultivated alluvial areas now show dense woody regrowth, possibly of *Acacia tortilis*, whereas the previously undisturbed portions appear to be little changed from before, the predominant vegetation type here still being a relatively open woodland.

Irrespective of any human activities, the vegetation of the undisturbed alluvial areas shows considerable variation, presumably due factors such as different ages of alluvium or different soil textures. This diversity enhances the importance of this area for conservation purposes.

Clearly, these findings are of considerable relevance to the identification of a suitable area for conservation purposes along the Mukumbura River. In this respect, it is suggested that a much more thorough and detailed aerial photograph study, supplemented by field observations, should be conducted.

3.1.4 Other Sites

Virtually no consideration has been given, as yet, to Site 37 within the Mavuradonha mountains. Due to the steep, broken and rocky terrain here, the threat of disturbance to this area is much lower. Furthermore, being a much larger area it impinges on six different wards, thus making it far more complicated to deal with. Four of these wards (Ward 3 Gomochigango, Ward 4 Chiswiti A, Ward 5 Senga and Ward 6 Musingwa) are situated mainly within the valley portion of the district but along their southern boundaries extend up into the escarpment area, whilst the remaining two (Ward 8 Nohwedza and Ward 11 Pachanza) are located to the south behind the escarpment region. The bulk of this area apparently falls under Chief Chiswiti, with only the extreme southern portion falling under a separate chieftainship.

3.2 **Centenary District**

Seven sites of botanical importance were identified within the communal lands of Centenary District (Table 4). These sites comprise: four areas of alluvial forest situated along the Musengezi River, between the escarpment and the confluence of the Musengezi and Utete Rivers (Sites 27a - 27d); a remnant site of tall mopane woodland located to the north of Muzarabani Irrigation Scheme (Site 29a); alluvial floodplain woodland along the Mukumbura River (Site 30a), and one of the escarpment gorges within the Mavuradonha Wilderness Area (Site 36d). Four of these sites are considered to be of high priority for conservation purposes.

An initial meeting was held with council officials at Muzarabani on 10 July 1996, at which it was decided that the project was worthy of support and should be pursued. It was argued that in order to achieve the effective conservation of the various sites it would be essential to gain the support of the traditional leaders of the district and, furthermore, that the best way of protecting these areas would be through invoking customary controls, rather than working through any of the existing council or state institutions.

It was anticipated that the traditional leadership, who are well aware of how rampant tree cutting has become, the problems of deforestation, and of the difficulties of trying to control this, would

be supportive of the project. Accordingly, it was decided that a Chief's meeting should be called, at which this project should be presented and discussed with the traditional leadership of the district.

3.2.1 Meeting with Traditional Leaders

The most important traditional leaders for the district comprise Chief Chiweshe who lives above the escarpment and is also the Chairman of the Muzarabani RDC, Chief Hwata of Gutsa Communal Land, and Chief Kasakete and Headman Muzarabani of Muzarabani Communal Land. These four were all invited to a meeting at Muzarabani on 01 September although, in the event, only Chief Kasakete was able to attend. Other participants comprised Mr Mhene, the Chairman of the District Wildlife Committee, and the three council officials listed in Table 5.

The purpose of the meeting was declared as being to discuss whether or not to support the conservation of the identified sites of botanical interest, and if so how to proceed so as to ensure their effective conservation.

Following considerable discussions it was agreed that the project was worthy of strong support and that the best approach to achieving effective conservation measures for the identified sites would be through developing and implementing customary laws under the guidance of the traditional leaders and spirit mediums. In essence this would entail declaring these sites as sacred areas, with specific laws guiding their utilization. Responsibility for the enforcement of these rules would fall to the traditional leadership.

Various sacred sites already exist within the district, although no one at the meeting had any comprehensive view as to the location, status or significance of all such sites. Different sites were said to have different regulations concerning access and utilization of the natural resources. For example, it is permitted to drink water from certain sacred pools but not others, whilst at some sites the grazing of livestock is allowed whereas at others it is forbidden.

Numerous examples were given as to how violations of sacred sites, such as the opening of fields and the cutting of trees, had now become common, and Chief Kasakete acknowledged that this was of serious concern to the traditional leadership. Suggested reasons as to why this was happening included: ignorance, excessive land pressure, the need for wood and poles, and also reduced respect for the traditional leadership. Interestingly, it was stated that the offenders included both longer term residents as well as new immigrants to the district.

This initiative to conserve sites of botanical interest, through declaring them as sacred areas, was seen as providing a good opportunity for enhancing the power and stature of the traditional leaders, and also for attempting to reassert and strengthen customary controls over existing sacred areas. It was thus recommended that the project should be broadened to include the conservation of existing sacred areas and sites of historical importance, as well as the botanical sites.

The process of establishing a particular site as a sacred area would involve a community meeting, to be convened by the appropriate Chief, at which certain rituals would be performed by a spirit medium. Once such rituals had been performed it was felt that people would strongly respect the relevant area. As regards the subsequent use or management of the area, it would be up to the spirit medium to indicate the precise extent of the site, stipulate what activities would be allowed or forbidden there, and outline appropriate penalties for any transgressions of these rules. The policing of these rules and collection of fines would be carried out by the local Sabhuku, although the ultimate responsibility would lie with the relevant Chief.

It was recognized that the establishment of sacred areas was not necessarily the best approach for all the proposed botanical sites. For example, for the alluvial strip along the Mukumbura River, which comprises a relatively extensive area, some form of land use planning exercise would probably be more useful than simply trying to declare the whole region a sacred site. (The problem of the boundary dispute with Mount Darwin District was also acknowledged in this respect). However, particularly for the small alluvial forest patches (Sites 27a-d), it was decided that this was an appropriate approach, and because of the high priority of these sites that this was the route to concentrate on for the moment.

Meeting participants were unanimous in rejecting the idea that the Muzarabani RDC should seek to pass any bye-laws concerning the conservation of the proposed botanical sites. It was felt that the conservation initiative should be seen as a community effort and coming with the full support of the traditional leaders, rather than something that was being imposed by the council. For this reason it was suggested that the passing of bye-laws would actually be counterproductive to the conservation of the identified areas, rather than having any constructive effect.

Mention was made that the re-establishment of control over existing sacred areas might possibly require the eviction of a limited number of people who had settled or established fields in these areas. Meeting participants strongly recommended that any such evictions should be handled in an extremely sensitive manner, so as to cause the minimum of disruption both to the people concerned and also the surrounding communities.

In order to further relieve pressure on conservation areas a suggestion was put forward to try and establish small woodlots or plantations in the vicinity of the protected areas, which could serve as alternative sources of poles to the conservation sites. Although this proposal was not discussed in detail, it was felt that: the idea was worth pursuing, that it would require technical assistance, and that it should be incorporated as an integral part of the Zambezi Society's conservation initiative, rather than being separated out and considered as a completely different project (for which alternative funding would then need to be sourced).

The implications of declaring the botanical sites to be sacred areas, as regards the possibility that tourists will want to visit these places, was also raised and discussed. It was not anticipated that this would cause any major problems, although tourists would be required to respect the same customary controls, such as the giving of snuff, that applied to anyone else wanting to visit the areas. The traditional customs to be followed by visitors to any particular sacred site are laid down by the relevant spirit medium, and it is a responsibility of the traditional leadership, particularly the relevant Sabhuku, to ensure that these are adhered to. Monetary payments were not seen as being appropriate.

3.2.2 The Way Ahead

It was again agreed that this project should be given full support, and furthermore that the general approach described above, of working through the traditional leadership, should be followed. The following activities were identified as comprising the next steps in this process.

Inventory of Sacred Sites

A comprehensive inventory of all existing sacred sites within the district was identified as being necessary for the formulation of any further plans. Fortunately, Mr Phanuel Rupiya of Mahuwe (Guruve District) has already been commissioned to do precisely this, under a joint study by World Wide Fund for Nature (WWF) and the Zambezi Society. Rather than trying to duplicate this work it was agreed to wait for Mr Rupiya to complete his study, which should be done by

the end of October. On hearing that funding for completion of this work was not guaranteed, the meeting participants strongly requested that the Zambezi Society should make every effort to ensure that the necessary resources were made available to Mr Rupiya, to enable him to complete his studies as scheduled.

District Workshop

Once the listing of existing sacred sites is made available, the next step should be to hold a workshop with the traditional leaders of the district in order to discuss the sacred sites and also the various sites identified as being of botanical importance. The product of this workshop would be the identification of sites at which it is required to perform ceremonial rituals, either to reaffirm existing customs or else to establish new sacred sites.

This workshop would probably be held at Muzarabani, in which case the total cost, essentially comprising travel and food expenses, was estimated to be between \$1,500 and \$2,000 (Table 6). It was agreed that it would not be necessary to budget for field allowances for any council officials involved in the exercise. As regards transport, the Muzarabani RDC would make a vehicle available at a cost of \$3 per kilometre.

Ceremonial Rituals at Specific Sites

Following the workshop with the traditional leaders it is envisaged that a series of community meetings will then be held, in order to perform ceremonial rituals at the various sites identified during the above exercise. Council officials would have no part in this process other than as interested observers.

It was initially suggested that community members themselves should meet all the costs of these ceremonial meetings, as this would serve to reinforce their sense of ownership or identification with the project, and help prevent the process being viewed as simply another council imposed initiative. However, on further consideration it was felt that some assistance would probably be required to meet transport costs (\$3 /km) and the purchasing of a beast (c. \$1,200), which together amount to a total of some \$2,500 to \$3,000 per meeting (Table 6). All additional expenses, such as maize and rapoko, would be met by the community members themselves. It was suggested that provision would be required for the holding of up to 10 such meetings.

Development of Woodlots

Little consideration was given as to the specific actions required for the establishment of small woodlots in the vicinity of conservation areas. It was felt that technical assistance would be required in this respect, possibly through the Zambezi Society or else, perhaps, the Forestry Commission. However, once such plans have been made, it is proposed to seek assistance from the Zambezi Society for the provision of the necessary finance to proceed with their implementation.

Reporting

Mr Cunliffe was tasked with reporting back to the Zambezi Society and putting forward a proposal detailing the financial support required to continue with this process. Chief Kasakete undertook to inform the other Chiefs about this project, whilst Mr Chisanduro agreed to present the project to the full Muzarabani RDC.

3.2.3 Conclusion

Following the Chief's meeting at Muzarabani everyone seemed filled with a sense of excitement at having contributed to the establishment of a really meaningful and worthwhile project. The

close spirit of cooperation clearly evident between the council officials and the traditional leaders was particularly encouraging, as is the fact that this project should directly strengthen the role and powers of the traditional leaders, rather than erode them which is the eventual outcome of so many "development" projects.

3.3 Guruve District

Guruve District contains more sites of botanical interest (44, Table 7) than the other five districts put together (38). These sites are spread across nine of the eleven wards that make up the valley portion of the district, and a number of them are considered to be of national conservation significance. Given the abundance of sites here, it is logical that a much greater effort should have been put into Guruve than any of the other districts, but as it turned out the effort expended here was if anything less than elsewhere. It should also be noted that the Guruve RDC is currently undergoing a major financial investigation, which so far has resulted in the suspension of a number of officials, including the CEO.

3.3.1 Initial Meeting With Council Officials

Initial meetings were held with the Mr Sezani (the Acting CEO) and Mr Kanyemba (the Council Chairman) at the Guruve RDC offices, at Shinje Business Centre, on 10 July (Table 8). Both participants were of the opinion that the project was interesting and definitely worthy of support. Mr Sezani agreed to present the project at the next ICA and council meetings. The following points were raised during the discussions.

Harvesting of Indigenous Timber

A controversial proposal has been developed for the establishment of a sawmill at Muzarabani, the purpose of which will be to exploit the supposed indigenous timber resources of the communal lands of the mid-Zambezi Valley, including Dande Communal Land of Guruve District. It was agreed that if this development did go ahead, no cutting should be permitted within any of the proposed sites of botanical interest.

Mid-Zambezi Valley Rural Development Project

During the late 1980s the Mid-Zambezi Rural Development Project was implemented over the southern portion of Dande Communal Land. This involved a major reorganization of all existing settlements, including the redefinition and allocation of residential, arable and grazing areas. The manner in which this was done was extremely insensitive, and the exercise as a whole comprises a classic example of a centrally conceived, top-down project. As a result, people within this region now tend to be highly sensitive to the imposition of any new development plans, and this needs to be borne in mind as regards this exercise concerning the establishment of botanical conservation areas.

Implementation of Irrigation Schemes

Plans exist for the implementation of several major irrigation schemes within Dande Communal Land, using waters stored in dams further upstream on the Dande and Manyame Rivers. Although the specific plans were not examined during the course of this study, it can nevertheless be anticipated that their implementation would have considerable repercussions for a number of the proposed conservation sites.

Tsetse Fly and Foot and Mouth Control Activities

The Department of Veterinary Services has plans concerning both the eradication of tsetse fly and the control of foot and mouth disease, which are to be implemented within this portion of the Mid-Zambezi Valley. A major component of the tsetse fly control activities will be the use of

target barriers, whilst under the foot and mouth control programme it is planned to erect a fence through the area, the purpose of which will be to ensure the separation of buffalo from cattle. The implementation of either of these activities can again be anticipated as having major impacts for a number of the proposed botanical sites.

CIRAD Biodiversity Conservation Project

Attention was drawn to the fact that the French NGO CIRAD, in conjunction with the Zimbabwean Ministry of Environment and Tourism, are just starting up a three year biodiversity conservation project within three wards of the district. It was felt that this project would present good opportunities for collaboration concerning the development of community based conservation areas in these wards.

Economic Viability

Concern was expressed that in the absence of any tangible benefits from the proposed botanical sites, it would probably be difficult to maintain the strong community support that would be necessary for their survival. Various possibilities whereby economic benefits could be realized through the utilization of the natural resources of the proposed conservation areas were discussed.

Finance to Implement the Project

The need to hold a series of ward workshops was identified as probably being the best way in which to proceed with this project. However, the Acting CEO (Mr Sezani) was quick to point out that the council did not have the necessary funds to undertake any such meetings, and asked whether the Zambezi Society would be in a position to assist in this respect.

3.3.2 Further Discussions with CIRAD

Further discussions have since been held with Mr Kleitz of CIRAD, who has confirmed that the implementation of conservation measures for sites of botanical interest, would be entirely consistent with their objectives concerning biodiversity conservation and the sustainable development of their study area (Wards 2 = Chisunga, 3 = Neshange B, and 4 = Chiriwo). Together these three wards contain 10 of the proposed botanical sites, including sites 26a, 26p, and 28a which are of national importance. Within these wards, CIRAD have agreed to support the necessary process of community consultation required for the development of appropriate conservation measures for the various sites. Plans as to how to proceed with this are to be drawn up in conjunction with the Zambezi Society.

3.3.3 The Way Ahead

Specific activities for furthering the development of conservation measures for the botanical sites within Guruve District have not yet been mapped out. The CIRAD initiative effectively divides the district into two, their project area and the remainder of the district. Plans for community meetings within Wards 2, 3 and 4 will soon be drawn up, and probably started during December using funding from CIRAD. For the remainder of the sites the Zambezi Society has decided to go ahead with a parallel series of community meetings, although plans for these have yet to be established. Because of the number of wards and sites involved, this will necessarily require a relatively high investment of time and thus resources.

3.4 Kariba District

Within Kariba District nine sites of botanical interest were identified (Table 9). These areas comprise: a patch of dry deciduous forest and thicket near Tiger Bay (Site 17); three small sites of kloof or gully woodland within the Mapongola Hills (Sites 20a-c), and an additional one along the sandstone escarpment at Siakobvu (20d); two areas of tall mopane woodland (Site 22a within

Mola A Ward and Site 22b in Gatshe Gatshe Communal Land); and two areas of alluvial woodland (Site 23b along the Sengwa River and Site 23c in Gatshe Gatshe).

The most important of these sites is the cathedral mopane woodland at the base of the Rukovo Hills within Mola A Ward. This is one of the best remaining sites of mopane woodland anywhere within the Zambezi Valley and, as such, has been identified as being of national importance. It is also under great threat from expanding cultivation, with a considerable proportion having been cleared over the last five years (Timberlake 1996). The other high priority site is the dry forest and thicket community in the vicinity of Tiger Bay and Kipling's Camp (Site 17).

3.4.1 Initial Meeting

An initial meeting with council officials was held at Siakobvu on 16 July (Table 10). At this time Mr Mashua, the Acting CEO, expressed willingness to work with this project and stressed the need to adopt a community approach in order to develop appropriate conservation measures. It was decided that initial efforts should be concentrated on the cathedral mopane woodland comprising Site 22a. It was also agreed that a follow up meeting should be convened, for the purpose of visiting the site in the field and also holding discussions with traditional and other local leaders. Mr Musonza, the Campfire Institutions Officer, was identified as being the best person through which to organize the necessary community consultations.

As regards the various other botanical sites, Mr Mashua pointed out that none of these were currently facing any immediate major threats. He also undertook to make sure that the protection of these sites should be incorporated into any current or new development activities being carried out within the district. In particular, there is a major land use planning exercise currently being carried out throughout the district, under funding from the European Union. The Agritex staff involved in this operation underwent a training course with Mr Timberlake earlier this year, and have been fully briefed about the various sites of botanical importance. Thus, it is anticipated that the final land use plans, once they are drawn up, should include adequate provision for the continued existence of the proposed botanical sites.

3.4.2 Site Visit to Mola Cathedral Mopane Woodland

Further discussions were held at Siakobvu on 02 September. Since the previous visit Mr Mashua had made a concerted attempt to inform both councillors and various developers within the district as to the existence of these sites of botanical importance. Although there had not yet been any full council meetings, the project had been discussed with a number of councillors on an individual basis.

As regards business operations within the district, the greatest concern here is a timber harvesting project which an Harare based company called Army Tree is proposing to carry out. Army Tree have previously been running a salvage operation, based at Sampakaruma, supposedly utilizing trees that are felled by farmers as they clear new fields. However, in an attempt to expand their operations they are now trying to establish an agreement with the council that will allow them to retrieve various tree species, but particularly mukwa, *Pericopsis*, *Burkea*, *Azelia* and *Kirkia*, from a large part of the district. The proposed harvesting areas apparently do impinge on or include some of the botanical conservation sites but, according to Mr Mashua, the council has yet to sign any contract in this respect, and all the botanical sites will be explicitly excluded from any such agreement.

Other people with whom Mr Mashua had spoken included representatives of Shearwater, who are currently building a new tourism camp known as Kipling's Camp, and the manager of Tiger

Bay, both of which operations are situated in the immediate vicinity of Site 17. The two organizations had both been instructed that there were to be no further disturbances caused to the deciduous thicket and forest communities adjacent to their respective camps.

Unfortunately, despite a confirmed arrangement the Institutions Officer (Mr Musonza) had been forced to alter his schedule to attend a workshop in Harare. This put paid to the idea of holding any discussions with the local leadership during this trip. However, it was decided to still proceed with a site visit to the cathedral mopane woodlands within Mola A Ward (Site 22a), and this was done together with the District Forest Officer, Mr Manhando.

Within Site 22a we witnessed widespread burning, and a considerable number of new fields in the process of being cleared. The major crop being grown here is cotton. The rapid expansion of cotton production in this area is apparently being stimulated through considerable subsidies, particularly as regards the provision of tractors for the ploughing of fields, and also of cheap transport for moving the cotton to the nearest market. Without these subsidies the viability of growing cotton here is likely to be highly marginal if at all.

Despite the considerable clearing that has already taken place within Site 22, there is probably still a sufficiently large undisturbed area to enable the identification of a suitable conservation area, as long as this is acted upon reasonably soon. However, Mr Mashua felt that it would be premature to try and identify any conservation area until such time as the final recommendations arising from the European Union land use planning exercise have been drawn up.

As regards this land use planning initiative, despite considerable efforts to fully involve local communities within the planning process, it appears that this project is still looked upon with some suspicion and as comprising an externally based intervention for which there was little or no need in the first place. Such suspicions relate to the dramatic relocations experienced by many of the people living in this area following the construction of Lake Kariba. Furthermore, there is as yet no guarantee that there will be any implementation of the land use plans once these have been produced, nor that anyone will actually stick to the plans even if they are implemented.

Brief visits were also made to the Tiger Bay deciduous thicket (Site 17) and three of the gully woodland sites, namely sites 20b and 20c along the main road to Bumi Hills where it passes through the Mapongola Hills, and Site 20d at Siakobvu. The tourism developments at Tiger Bay and Kipling's Camp clearly do impinge on the Site 17 thicket community, but to only a limited extent. The designation of clear physical limits for any further expansion would greatly reduce the potential for additional disturbances here.

At Site 20b there is a small spring which is heavily utilized by wildlife, including elephant and buffalo. Given the proximity of this site to the Siakobvu - Bumi Hills road, should this ever be upgraded there would probably be significant disturbances to the site, unless adequate precautions were taken. The same applies to Site 20c.

Mr Mashua was adamant that the woodland site below Siakobvu (Site 20d) could easily be guarded against any further disturbances, and that no actions were required in this respect. However, unless a specific plan is put in place it is likely that impacts resulting from factors such as further construction work (buildings or roads); cutting of trees; cultivation of vegetables; and the dumping of rubbish, are likely to continue to occur.

As regards the two conservation sites within Gatshe Gatshe Communal Land (Sites 22b and 23c), it is relevant to note that the residents here are composed entirely of recent settlers and, as a result, there are no recognized traditional leaders. Furthermore, since there are also no agricultural activities here at present, there is also no immediate threat of clearing to either of the sites.

3.4.3 The Way Ahead

Following the second trip to Kariba District, little progress appears to have been made as concerns the development of conservation measures for the cathedral mopane woodland site in Mola A Ward. Discussions have not yet progressed beyond meetings with district officials, who seem convinced that any further activities should await the presentation of the European Union land use plan. However, it would probably still be worthwhile to discuss the possibility of going ahead and starting the process of community negotiations with the Institutions Officer, Mr Musonza.

Minor communication activities that should be pursued include the following: to establish and maintain regular contact with Mr Heywood, who is based at Siakobvu, in order to keep abreast of any developments concerning the land use planning process; to initiate contact with Army Tree in order to sensitize them as to the importance of the various botanical sites within the district; and to get in touch with the managers of both Tiger Bay and Kiplings's Camp in order to stress to them the importance of preventing any further disturbances to the thicket community in this area.

3.5 **Gokwe North District**

Six sites of botanical interest were identified within Gokwe North District (Table 11). Site 11b, comprising the sidaga grassland area to the southeast of Sengwa Coal Mine, was identified as being of national conservation significance and thus the highest priority site within the district. The remaining sites comprise a patch of diverse kloof woodland along the Sengwa gorge (Site 10e); a second area of sidaga grassland just to the north of the Sengwa Mine (Site 11a), a single occurrence of deciduous forest within the wildlife corridor (Site 16j); and two patches of alluvial woodland along the Busi River within Simchembu Ward (Sites 23a and 23d).

3.5.1 Initial Meeting With Council

Initial discussions concerning this project were held with Mr Chino, the CEO for Gokwe North RDC, at the council offices at Nembudziya on 18 July. Mr Chino expressed strong interest in the project and undertook to discuss it at the next full council meeting and also with the Natural Resources Committee. He also emphasized the need for this initiative to be strongly community based.

It was agreed that initial efforts towards developing appropriate conservation measures for the botanical sites should be targeted at the high priority sidaga grassland area (Site 11b). Mr Chino proposed that the best approach to adopt here would be to hold a community meeting at which the issue could be discussed with local farmers.

3.5.2 Kamakuyu Community Meeting

A follow up meeting was organized and held on the 16 September at the sidaga grassland site, with about 45 farmers from the surrounding Kamakuyu Vidco in attendance. Other participants included the CEO (Mr Chino), the councillor for Nenyunka Ward (Mr Mkandla), the Chairman of the Natural Resources Committee, Chief Nenyunka, the Agritex Extension Worker for Nenyunka Ward and also Mr Mutaki from WWF (Table 12). The meeting was chaired by Mr

Chino and Mr Mkandla. Discussions were held in Shona, with Mr Mutaki providing brief translations for my benefit. Following presentation of the project, it was then fully discussed and debated by the community members. The major points arising from these discussions are presented below.

Local people were clearly somewhat confused as to exactly what it was that we were interested in conserving. Was it the soil or the plants, the trees or the grasses? Once it had been clarified that it was the grassland vegetation itself, and thus the land on which it occurs, that was of particular interest, people then queried the purpose of conserving this area and how they could expect to benefit from doing so.

The farmers pointed out that over the last few years there had been an enormous expansion of agriculture, to the extent that most of the area has now been cleared for cultivation. Thus, people seemed uncertain as to whether there were any remaining areas that might be considered appropriate for conservation purposes. Fears were also expressed as to the possibility of someone's field being identified as the necessary land for conservation.

Eventually it was suggested that there might be a suitable small area, somewhere around the headwaters of one of the minor watercourses draining from the grasslands. Apparently there is a small dam there, and it was suggested that through setting aside this area for conservation purposes the catchment of the dam would also be protected. It was agreed that this site should be inspected on the ground.

Having thought about the identification of a possible area, people then started to think about what would be required in order to achieve the successful conservation of the area. Particular concern was expressed as to the common occurrence of "random" fires, and the feeling that these might be extremely difficult to control. Other than controlling fires, no further progress was made in terms of actually identifying practical measures or activities that would need to be implemented.

5.5.3 The Way Ahead

The Kamakuyu meeting was summed up by Mr Chino who concluded that the community now understood the project concept and were receptive to the idea, but needed some time to examine the situation on the ground in order to see if a suitable area could be identified. It was agreed that this process should be directed by Mr Mkandla, the ward councillor, together with Mr Tafireyi, the local Agritex Extension Worker. It was planned that these two should walk the entire area, consult closely with the local farmers and, through doing so, try and identify a suitable site.

Assuming that an appropriate site is identified, a request will then be forwarded to the Zambezi Society to come and inspect the area on the ground. Further assistance will also be required as concerns the development of a practical plan detailing what would need to be done to secure the area, and also how it should then be managed. It is possible that WWF could also help in this respect, particularly through their local project officer, Mr Mutaki, who is currently based within Nenyunka Ward.

5.5.4 Other Sites

As regards the other sites within the district, it was decided that discussions should be initiated with the relevant communities, but that this could be handled at the district level and without any further assistance from the Zambezi Society at this stage. In particular, Mr Mkandla undertook to initiate discussions concerning Sites 10e, 11a and 16j, all of which are also located within Nenyunka Ward, whilst for the two alluvial woodland sites within the neighbouring Simchembu

Ward (Sites 23a and 23d), Mr. Chino undertook to convene a ward meeting at which to discuss their possible conservation.

Kausiga Alluvial Woodland

Prior to the Kamakuyu meeting described above, both C. Mackie and R. Hoare suggested that consideration should be given to including the area of alluvial woodland situated at the junction of the Kausiga and Ume Rivers as an additional site for conservation purposes. Accordingly, after the Kamakuyu community meeting, a brief visit was made to this site and on the basis of this very cursory assessment it appears that this suggestion definitely warrants serious consideration.

The Kausiga site comprises some 10 km² of alluvial deposits of various ages, covered by an open woodland vegetation. Huge specimens of *Acacia albida* are probably the commonest trees. The area forms part of the wildlife corridor linking Omay Communal Land to Chizarira National Park, and thus is free of any settlement. The only developments here comprise a small tented hunting camp, and a system of target traps implemented by the Tsetse Control Branch, but apart from these the alluvial woodlands appear to have been little disturbed by people for a considerable period. However, the younger *Acacia* trees show considerable recent damage caused by elephants.

If one were to consider a slightly larger area than just the alluvial system, it would be possible to also incorporate a patch of deciduous thicket/forest community on sand, mopane woodland on mudstone soils, a sandstone escarpment area and, above this escarpment, miombo woodland, thus giving a wide variety of vegetation types within a relatively small area.

3.6 Binga District

Fifteen sites of botanical interest were identified within Binga District (Table 13), comprising: 5 sites of deciduous thicket or forest situated to the east of the district (Sites 5a-d and 6); 3 sites of deciduous *Guibourtia* woodland (Sites 7a-c); the mixed deciduous woodland of Binga Hill (Site 8); four sites of woodland along the Chizarira escarpment (Sites 10a-d); Chaba vlei (Site 15), and a nearby piece of gorge woodland (Site 31). Site 7a was identified as being a national priority for conservation, this being the only remaining viable example of such *Guibourtia* woodland throughout the country (Timberlake 1996).

3.6.1 Initial Meeting With Campfire Manager

Discussions concerning the development of appropriate conservation measures for the botanical sites were initiated at a meeting at the Binga RDC offices on 17 July. The CEO identified the Campfire Manager, Mr Lunga, as being the best person to deal with this project.

Mr Lunga expressed strong interest in this initiative, but stressed the need for full community participation. At his suggestion a follow up meeting was planned with the aims of: discussing the overall project with a wider range of district officials, examining a couple of the proposed conservation sites in the field, and then identifying the best way to proceed with community negotiations.

3.6.2 Manjolo Field Visit

On the 19 September a follow up meeting was held at the Binga RDC offices, and then afterwards we visited the high priority *Guibourtia* woodland site near Manjolo (Site 7a). Participants included two representatives of the Binga RDC (Campfire Manager and Planning and Development Officer), three councillors (Saba/Lubanda, Tyunga and Manjolo Wards), two technical district officials (District Forest Officer and Natural Resources Officer) and a

representative of Tree Protection and Food Security, this being a local NGO (Table 14). The main points of discussion are outlined below and further details are contained in the minutes of the meeting compiled by Mr Lunga.

Community Participation

The need to "speak to the people" about this project was emphasized, and also the concept that the local community should be fully involved in any subsequent development of conservation areas. It was queried whether the Zambezi Society would be able to provide funding for the required process of negotiations, to which I replied - yes, it would be.

Identification of Sites

People were not clear as to exactly what areas or vegetation types the different sites referred to, nor how they were going to be able to identify these sites on the ground. However, with the assistance of the District Forest Officer, it should be possible to broadly identify the target site or vegetation type in most cases and, moreover it should not be necessary to try and delineate exact boundaries until much later in the process of community negotiations.

Conflict With Existing Land Uses

It was pointed out that some of the botanical sites shown on the maps would be likely to contain fields or even homesteads, and that the declaration of these sites as conservation areas would directly conflict with the existing forms of land use. In answer to this query, it was pointed out that the actual identification of conservation areas would be done in conjunction with the local community, rather than as a desk study that would then be imposed on the ground situation.

What Would the Benefits Be?

The question of benefits was also raised and, particularly, how it would be possible to convince someone to conserve an area when he wanted to open up a new field there.

What Activities Would Be Permitted?

Consideration was also given as to what activities might be appropriate and allowed within the conservation areas, and which forms of use would need to be forbidden. This led to the important recognition that the conservation areas needn't, by any means, be complete exclusion zones for the adjacent communities.

Potential Sensitivities

The meeting participants also identified several cautionary aspects that should be borne in mind when initiating community negotiations in this region. The first of these was that amongst the Tonga people, due to the disastrous consequences resulting from the construction of Lake Kariba and the loss of the Zambezi River ecosystem, the actual name of the Zambezi Society was likely to raise certain expectations or suspicions, and thus influence people's perceptions of the organization.

Secondly, attention was drawn to the problem of NGO fatigue. Apparently, a number of NGOs have been guilty of coming to the district, presenting supposedly wonderful project proposals, and then disappearing back to the big cities, never to be heard from again. The result of this has been to make people a lot more skeptical and wary about getting involved in and supporting any new development projects.

3.6.3 Field Notes

It was apparent that the *Guibourtia* woodlands of Site 7a and its immediate surrounds have recently suffered extensive clearing for fields, and that this process is still continuing. However, there did appear to still be a suitably large area to enable the establishment of a viable conservation area.

Within new fields, numerous *Guibourtia* trees (or mungonya trees as they are called in Tonga) were observed to have been left uncut. Apparently this is due to the extreme hardness of the trees which acts as a considerable deterrent to felling. Another tree species that is frequently left in fields here is *Boscia salicifolia*, which was reported to be protected under customary law and also used for various charms.

The soils on which the *Guibourtia* woodlands occur are deep, well drained and relatively fertile, hence the strong demand for their use for crop production. The remaining woodland areas, which have not yet been cultivated, were reported to support a dense grass cover and to be used for the grazing of livestock. Although the area inspected had recently been burnt, beneath the *Guibourtia* trees it was still possible to make out an open shrub layer, dominated by *Combretum elaeagnoides*, and judging from the thoroughness and severity of the burn, the grass layer must have been extremely well developed.

The occurrence of fires was reported to be an annual event. Attention was drawn to the apparent lack of young *Guibourtia* trees, and it was suggested that this might partly be a consequence of the frequent burning regime, and possibly also the grazing of livestock. Should a conservation area be established here, it will be necessary to address these concerns regarding regeneration in a far more rigorous manner.

3.6.4 The Way Ahead

Following the site visit the group mapped out the following activities as being the next steps required in the quest to establish a conservation project here.

Firstly, Mr Lunga should discuss the project with Chief Sikalenke, and also with the councillor for Sikalenke Ward, since the site straddles the boundary between Manjolo and Sikalenke Wards.

Thereafter, Mr Lunga should arrange a community meeting, to which key community leaders, farmers from the area surrounding the proposed conservation site, and the various district officials present at this first site visit (Table 14), should all be invited. The purpose of this meeting would be to persuade the local community that this idea is worth pursuing, and also to identify how this should best be done.

As regards the Zambezi Society, their role in this process will be to provide the necessary funding for the proposed community meeting, and also to send a representative to participate in the discussions. The anticipated total cost of this meeting would be about \$1,300 (Table 15), half of which would be required for transport and the other half for food. It would not be necessary to provide any field allowances for the various district officials attending the meeting.

No plans were made at this stage as concerns any of the other proposed conservation sites.

3.6.5 Other Sites

Following the visit to the *Guibourtia* woodland site near Manjolo, the team returned to Binga for an inspection of the Binga hot springs and also the deciduous woodland on Binga Hill (Site 8).

Outside the Binga Rest Camp, the public portion of the hot springs was observed to be in a very dilapidated condition. Infrastructure, such as the former fence, changing rooms and pool, has been completely degraded; the area is covered with litter; and in a number of places the natural springs have been blocked by rocks and pebbles. Apparently, in earlier days these hot springs were of considerable traditional significance, but this has largely been eroded away and they are now mainly used as a public washing place. Council officials expressed concern as to the degradation of this important natural resource, and it was suggested that consideration should be given as to the formulation of appropriate conservation and development measures for this site.

From the hot springs the tour continued to Site 8, comprising the deciduous woodland on top of Binga Hill. This extends for some five kilometres between the present urban area and Masumu fishing camp. The slopes of the hill are rocky, but on top the soil is very sandy and of reasonable depth. The woodland flora here appears to be quite diverse and certainly worthy of conservation.

The whole area had just recently been burnt, and this had caused the collapse of numerous big trees. Other disturbances observed here included: roads, powerlines, littering, the dumping of garbage and rubble, and the removal of sand for building purposes. The biggest threat, however, must be the likelihood of urban expansion, particularly of the Binga residential area. In this respect, rumours are currently circulating as to the possibility of a multi-billion dollar investment within the district, which amongst other projects would include the construction of a major (300 bed) hotel, an airstrip suitable for jet aircraft, and the upgrading of the Binga-Karoi road to tar. Should these developments materialize, they would result in a rapid and massive expansion of Binga town, thus threatening Site 8, (and would be likely to impact on various of the other conservation sites too). Given this potential threat, consideration should be given to upgrading the priority of Site 8, for if conservation measures are not put in place here fairly soon, it is likely that in the not too distant future the opportunity will be foreclosed.

4. DISCUSSION

The previous phase of this project resulted in the identification and description of the various sites of botanical importance (Timberlake 1996), and the goal of the overall initiative is to achieve the effective conservation of these areas. In stark contrast with most conservation programmes previously seen in the country, there is broad consensus that the best way to succeed in this effort will be through ensuring full community participation and support, and instead of trying to alienate the areas from adjacent communities to rather encourage the local people to assume responsibility for the management and maintenance of these sites. Thus, the purpose of this second phase of the project was to initiate a process of discussions with relevant communities in order to catalyse their participation and support, and so pave the way for the identification and implementation of actual conservation measures.

Discussions have now been started within each of the six districts currently covered by the project, and the responses so far have been extremely encouraging. It appears that at the district level there is widespread recognition of the problems of environmental degradation and the need for the implementation of conservation measures, and because this project is perceived as possibly being of assistance in this respect it is considered to be worthy of support. Thus, virtually all the people spoken to so far have been very receptive to the project concept, and have expressed a strong commitment to furthering its development.

4.1 Evaluation of Results

Three main objectives are spelt out in the terms of reference: (1) presenting the results to the RDCs, (2) investigating the potential for developing conservation plans, and (3) actually defining management plans for sites of high priority.

4.1.1 Informing the Rural District Councils

The first objective, concerning the presentation and discussion of results of the previous phase to the six RDCs, was achieved during the initial visits to each district. There were two important reasons for doing this. Firstly, it resulted in a mandate to continue discussions with district officials, and through them with the actual target communities, thus preparing the way for the subsequent identification and implementation of management measures for the various botanical sites. Secondly, it provided a means of feeding this information about the botanical sites into any new development plans or projects within the districts, hopefully with the result that any potential impacts to them can be minimized or avoided. The importance of incorporating conservation concerns into development plans was highlighted by Timberlake (1996), in the previous phase of the project, and is discussed further below.

Incorporating Conservation Concerns Into the Planning Process

There are two major forms of threat to the proposed sites of botanical interest. The first comprises destruction by local farmers, through actions such as clearing for agriculture. These issues are being tackled through the community discussions which comprise the main thrust of the project.

The second form of threat arises through the implementation of new development activities and projects, such as the harvesting of indigenous timber within Omay Communal Land, or the erection of the proposed foot and mouth control fence within Dande Communal Land. Such developments are typically conceived and drawn up outside of the districts, with little or no concern as to their potential impacts on local communities. Although informing the RDCs should make it more difficult for developers to proceed with any projects that would impact directly on the botanical sites, there is much more that can be done in this respect. In particular, there is a need to ensure that this information is exposed to as wide an audience as possible, both within the district and outside.

As part of the present study, in order to facilitate awareness at the district level, a brief summary of the botanical sites within each district was prepared. Ten copies of this, together with maps showing the location of these sites, were given to the respective RDCs for distribution to other local officials. An improvement on this approach would be to produce a similar summary statement in the local language, and make a greater number of these available for local distribution.

Outside the districts, a complementary strategy to ensure that these results are fed into the planning process would be to identify and directly inform any potential developers, such as Army Tree within Omay Communal Land. This would necessarily require keeping abreast of plans for any new developments within the six districts. A similar effort could be directed at relevant government ministries, particularly those that are responsible for the implementation of rural development works, such as roads, dams, irrigation schemes, land use plans and resettlement exercises, or else involved in the conservation of natural resources.

Consultant's reports, due to their limited availability, are never widely read. Thus, further and important exposure of these results should be obtained through publishing them somewhere

within the scientific or development literature. Press releases are also most effective in this respect.

4.1.2. Feasibility of Conserving Priority Sites

The development of conservation and management plans for the various sites will require certain technical inputs, some of which are discussed by Timberlake (1996), or briefly mentioned elsewhere in this document. The feasibility of actually implementing any such plans will, however, be directly dependent on achieving the support and participation of the local communities at each project site. During the current study a start has been made in this respect, but the results obtained so far are not yet adequate to assess the feasibility of conserving even a single site. To do so must await further progress with the community consultations.

Nevertheless, the results to date have been extremely encouraging for all six districts. The process of discussions has been taken furthest for the sidaga grassland site (11b) of Gokwe North District. This comprises one of the most seriously threatened of all the areas and, due to high agricultural potential, has already been heavily disturbed. Yet despite this, the surrounding Kamakuyu community have expressed willingness to work with the project, and are now giving serious consideration as to the identification of a suitable site for conservation purposes.

It should also be pointed out that the efforts to date have not given equal nor even comprehensive coverage to all the high priority sites. The least progress has been recorded for Guruve District, mainly because of the large number of sites here and the fact that the two visits provided for were not sufficient to make much impact. Yet even here the process has been started and plans are being made for its continuation.

4.1.3 Management Plans for Priority Sites

The third objective concerned the recommendation of management options or plans for the high priority sites. Once again this cannot be done until the process of consultation has progressed further down the line, and the local communities have started to get more involved.

4.2 Establishing Community Support

The process of negotiations has not progressed far enough at any site to be able to confidently say that the project has adequate community support there. The general approach adopted so far has simply been to go and meet with council representatives, and through them to set up and hold site specific community meetings (only one to date). However, there is a need to start thinking more carefully about this process and how it can be refined.

District officials have generally been quick to affirm their commitment to the project, and it seems that it will also be relatively easy to obtain some statement of support from local communities. However, it does not necessarily follow that this will translate into genuine practical support, whereby communities actively seek to conserve the sites in question, and the challenge of how to secure this level of commitment still remains. In this respect, a number of relevant points that have emerged during the course of this study are discussed below.

4.2.1 Institutional Setting

Communities do not operate in a vacuum, but rather in a system of complex interacting social organizations. Gaining the support of the various local institutions, through involving them and working together, is likely to be critical to eventually achieving support for the conservation sites.

For each district, the initial contact has been established through the relevant RDC, and this seems to have worked extremely well. Council officials have in turn discussed the project with their councillors and also various sub-committees such as Natural Resources Committees or, particularly, Campfire Committees. This project has many similarities to the Campfire concept, and there has been some excitement as to how this initiative can assist in extending Campfire to plant resources, the need for which has been recognized for some time but with little practical work actually having been done as yet.

Other participants whom council officials have identified as being necessary to consult with during these initial discussions, have been representatives of the District Administrator's Office, and also the various government organizations that offer technical support at the district level, such as Agritex, the Department of Natural Resources, the Department of Veterinary Services and the Forestry Commission. As far as this project is concerned, the most relevant of these personnel appear to be the District Natural Resources Officers and the District Forest Officers, the support of whom will be of great assistance to the further progress of the project.

Role of Traditional Leaders

All six councils have recognized, to a greater or lesser extent, that the traditional leaders need to play some role in the process of community consultations. In three districts (Mount Darwin, Centenary and Gokwe North) traditional leaders have already been included during the initial discussions. However, except for Muzarabani, the control of the project within each district still rests firmly within the grasp of the respective council. The approach adopted by the Muzarabani RDC, of working directly with the traditional leadership to develop customary laws for the conservation of the various botanical sites, provides an interesting contrast to the other districts, and may well prove to be a more robust and socially acceptable method.

Other institutions that may have a greater or lesser influence at the local level include ward and village structures, as represented by their respective ward and village development committees, and also farmers groups, savings clubs and church organizations.

Valuable support can also be gained from external institutions, particularly NGOs, that are based outside of the district. Apart from WWF, little attempt was made during this phase to make contact with such groups, although it would probably be useful and productive to do so. Another organization that is apparently doing complementary work that may well be of relevance to this programme is ZIRRCO (Zimbabwe Institute of Research and Religion for Conservation), based in Masvingo.

4.2.2 Concept of Conservation

Two of the most frequent questions raised by people during discussions were: Why should these areas be conserved, and how will we benefit from this? These concerns need to be squarely addressed and an important part of doing so will be to clarify exactly what is being meant by conservation here. The most prevalent perceptions at present seem to centre around exclusion from, or loss of access to resources, as epitomized by phrases such as: "Keep out" or "Don't cut trees" and "don't kill the animals". It is essential that this attitude should be broken down and that people should be made to understand that this is not what is being aimed at here.

Conservation Areas as Productive Units

Emphasis needs to be placed on making the proposed conservation areas as useful, productive and valuable as possible to local communities, whilst at the same time maintaining their biodiversity value. There are a number of ways in which this can be achieved.

Firstly, rather than excluding people from the proposed botanical sites, emphasis needs to be put on enabling the continuation of as many different uses as possible, as long as these are not incompatible with the maintenance of the constituent plant communities. Examples of activities that could possibly be promoted include: collecting fruit, vegetables and grains; the collection of plants for medicinal purposes, cutting of grass for thatching; grazing of livestock; harvesting of special timber species; collecting of dry wood for firewood; limited harvesting of poles; keeping of bees; and utilization of insect and other animal resources. The aim is that each area should come to be perceived as being a productive part of the local farming system, in which case it should be reasonably easy to gain support for its continued conservation.

Secondly, the viability of the proposed conservation areas will be considerably enhanced if ways can be devised of generating money from them. A number of possibilities have been raised in this respect, mainly concerning various options for attracting tourists, and these should certainly be given serious consideration. However, as a word of caution, the experience of other tourism developments implemented under the Campfire programme, such as the Mavuradonha Wilderness Area of Centenary District and the Sanyati Lodges of Hurungwe District, indicate that such developments often require both considerable capital investment and also a prolonged period of time before they start generating sufficient revenue to even cover their costs. There is a need for full transparency here and any unrealistic raising of expectations should be avoided.

The third possibility for enhancing the economic benefit of these conservation areas would be to link them to other developments in the adjacent areas. In a sense this is what is being planned in Muzarabani, where a request has been tabled for the establishment of woodlots adjacent to the proposed conservation areas. Within the Mukumbura alluvial woodland strip, conservation could perhaps be linked to the development of some micro-irrigation project. With some creative thinking numerous possibilities will be apparent, but any actual groundwork should only come later once conservation areas have been clearly identified and agreed to by the relevant communities.

There are many other reasons to conserve, such as developing a sense of pride in having custodianship of something special, for which it is more difficult to attach an economic value. These factors should also be emphasized, in order to assist in gaining support for the implementation of the proposed conservation areas, but consideration needs to be given as to how to present them in a meaningful manner.

Loss of Access to Resources

As mentioned above, people tend to associate conservation with loss of access to resources, rather than any form of utilization or productivity. In this respect, a commonly expressed fear was: "What will happen if my land is identified as being the necessary site for conservation"? To remove such fears it is essential to get local people to understand that it is they themselves who will identify acceptable boundaries for the any conservation area, and also establish the rules governing the future use of the land, and the enforcement of those rules. Thus, although the project may initially be seen as being an external intervention, this attitude needs to be completely turned around, to the point where people instead see it as being entirely their own project, possibly with some assistance being sought for its implementation.

Common Property Resource Management

The conservation projects developed under this initiative, being within communal land, will almost certainly entail some form of group ownership and management. Clarke (1994) draws attention to certain general conditions that need to be fulfilled in order for any such "common

property resource management" projects to be successful, and which are likely to be directly applicable here:

- The boundary of the conservation area will have to be clearly defined and agreed upon by the community.
- Membership of the community has to be clearly defined.
- There must be a set of rules made and agreed upon by the community governing the use of the area, which state what use can be made of the area and what is forbidden.
- There must be penalties for infringement of the rules, as well as some mechanism for enforcing these penalties.
- The members of the community must benefit directly from the project.

These above points will need to be addressed in one way or another for each site, although the actual conservation measures are likely to differ considerably from one place to the next. As experience is gained it should be possible to flesh out and detail these factors more precisely, but in the mean time this should serve as a useful conceptual model with which to work.

4.2.3 Getting People Involved

The appropriate forum for discussing and resolving the above issues will be community meetings or workshops of one sort or another. At these meetings it is important that local farmers are given the opportunity to participate fully, explain their fears and to put forward and develop their own ideas. A potential threat to achieving this comprises domination by key personnel, particularly district technocrats, who can easily assume the role of telling people what is best for them and how they should go about doing it.

The sensitive facilitation of community meetings is thus likely to have an important influence as to the results obtained, and some careful thought needs to be given as to how this can best be done. In this respect, it probably makes sense to seek the advice of people or organizations who are already well experienced in this field, such as CASS (Centre of Applied Social Sciences, University of Zimbabwe), ENDA or perhaps Intermediate Technology. It would also be a distinct advantage for the facilitator to be fully conversant with the local language, which is obviously the correct medium for holding any such discussions.

4.2.4 Information Sharing

An additional input that will be required as the project develops is some form of regular communication, such as a monthly update. This will be necessary to keep in contact with the various districts and project communities, and to keep interest alive and the ventures moving. It will also serve as a means of sharing information and experiences between the different districts and projects. With a little thought, the development of an effective communication effort could probably result in a significant impact without requiring much in the way of resources to implement it.

4.3 **Technical Requirements**

Further technical inputs will be necessary for the resolution of a number of issues, as discussed below.

Need for a More Comprehensive View

Timberlake (1996) has already drawn attention to the need to extend this initiative to cover the other low to mid-altitude portions of the Zambezi basin, particularly the state land areas. This issue cropped up again during the present phase, with some people questioning the need to conserve certain of the communal land areas when there were reportedly similar sites already protected within adjacent state land areas. For example, is it worth pursuing efforts to conserve the Kamakuyu sidaga grasslands (Site 11b), which are heavily threatened and disturbed, given that similar sites are known to occur within Chirisa Safari Area and also further to the south within Gokwe South District? The answers to such questions must necessarily await a comprehensive examination of these areas, and apparently the Zambezi Society have already drawn up a proposal to do this work.

Incorporation of Additional Communal Land Sites

During this phase a number of additional sites were identified which are also likely to be worthy of conservation. Examples include: various sacred areas within Centenary District, the Binga hot springs, alluvial woodland along the Kausiga River in Gokwe North District, and the fossil forests of Guruve District. The possible inclusion of any such areas under this project should be considered with an open mind, particularly since these suggestions come directly from the districts themselves. On the other hand if any of the proposed botanical sites are found to have already been destroyed then perhaps these should be excluded.

Identifying Sites on the Ground

This phase of the study did not extend to defining the actual boundaries of any of the botanical sites on the ground. Local communities will play a central role in this process, but in doing so are likely to require some technical support from the Zambezi Society. As identified by Timberlake (1996), the provision of 1:25,000 aerial photographs would be of great assistance in this respect.

Development of Management Plans

The development of sound management plans for individual sites will similarly require a blend of community requirements and technical inputs, especially when it comes to deciding what uses can be made of the area and which activities should be forbidden. In particular, it will be necessary to spell out the likely influences of different activities on the potential for regeneration of the constituent plant species.

Development of a Database

As the project progresses there will be a need to develop some form of a database for the various sites, including the storage of information such as maps, survey results and progress reports. Given the large number of sites that have already been identified, this is likely to develop into an exercise of considerable proportions, and thus will require careful planning.

4.4 Future Inputs

Continuation of the project will depend on the provision of additional funding and expertise. The monies required to proceed with the current negotiations in the six districts are relatively minor, although the cost of sending a Zambezi Society representative to the various meetings must still be added. Several districts (Mount Darwin and Binga) have indicated that they would like to proceed with follow up meetings as soon as possible, in order to maintain the momentum of their projects.

As the community meetings continue and more sites are included, for example the various high priority sites in Guruve District, the required inputs will obviously escalate accordingly. Furthermore, discussions have yet to reach the stage of actually identifying specific conservation measures for any of the sites, but once such plans are made their implementation will require the outlay of additional resources. It seems that there will be a need to guard against the project escalating wildly and beyond the means to support it.

5. RECOMMENDATIONS

Recommendations that are specific to individual sites or districts, such as keeping in touch with the land use planning exercise in Omay Communal Land, which have been detailed under the six district reports (Section 3) are not repeated here.

1. A start has been made with the community negotiations, the results to date have been extremely encouraging, and the process should definitely be continued. This is the most important recommendation to result from this phase of the project. Particular effort should be put into Guruve District, where the bulk of the high priority sites occur, but little progress has been made as yet.
2. A regular form of communication with key participants in the six districts should be established, in order to keep the project moving smoothly and to facilitate the sharing of information between districts.
3. Written information should be made available, in the relevant languages, to local farmers and their representatives living within the vicinity of project sites and also district officials. This should include information on the background of the project, how it is envisaged as proceeding, and also an answer to the question, "Why conserve"?
4. Any potential developers or operators whose activities might impact on any of the identified botanical sites, should be sought out and made aware of the presence and importance of these areas.
5. The results of the initial survey (Timberlake 1996) should be published in a format that is more readily available to the wider scientific and development community.
6. An effort should be made to develop better linkages and share experiences with other relevant NGOs (WWF and ZIRRCO), and also with appropriate personnel within the relevant government departments (Forestry Commission, Natural Resources Board).
7. Specialist advice should be sought as concerns the facilitation of community meetings and workshops, and if necessary someone should be engaged to assist with this.
8. A consolidation phase, concerning the survey of the remaining low and mid-altitude portions of the Zambezi Basin, should be implemented.
9. Serious consideration should be given to including the various additional sites suggested under the six district reports, as part of this programme for the development of conservation measures.

6. REFERENCES

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Timberlake, J.R., Nobanda, N., Mapaure, I. & Mabasa, L. (1991). Sites of interest for conservation in various communal lands of north and west Zimbabwe. Communal Lands Vegetation Survey, Report No. 1, National Herbarium, Harare.

7. LIST OF ABBREVIATIONS

CEO	Chief Executive Officer
CIRAD	International Cooperation Centre of Agronomic Research for Development
NGO	Non Governmental Organization
RDC	Rural District Council
WWF	World Wide Fund for Nature
ZIRRCO	Zimbabwe Institute of Research and Religion for Conservation

8. TABLES

MOUNT DARWIN DISTRICT

Table 1. Sites of interest for botanical conservation within the communal lands of Mount Darwin District (source: Timberlake 1996).

Site No.	Vegetation Type	Location	Priority
30a	Alluvial woodland	Mukumbura river	High
37	Escarpment woodland	Mavuradonha mountains	Low

Table 2. People with whom discussions were held within Mount Darwin District.

Position	Name
DA's Office (Mount Darwin)	
Acting DA	Mr F.S. Mbetsa
Assistant DA	Mr C. Jonga *
Pfura RDC (Dotito)	
Deputy CEO	Mr Mhuma *
Development Manager	Mr T. Chikumba
Council Chairman	Mr K. Banda *
Forestry Commission (Dotito)	
District Forest Officer	Mr B. Chiparange
Dept. Natural Resources (Mount Darwin)	
Natural Resources Officer	Mr A. Magande
Chairman, Mount Darwin ICA	Mr J. Machaya
Agritex (Mount Darwin)	
Extension Officer	Ms Chikumbirike
Extension Worker	Ms V. Hungwe
Dept. Veterinary Services	
Veterinary Officer	Mr N. Chimwetei
Farmers	
Longterm resident	Mr R. Jack
New migrant	Mr T. Mukoponi

* These people did not attend the Mukumbura River site meeting on 10 September 1996

Table 3. Anticipated expenses of community meetings to be held at Kaitano, Mount Darwin District.

Item	Cost
Transport Dotito to Mukumbura site = 103 km Return journey = 206 km @ \$3 per km	\$ 612
Field Allowances 10 officials @ \$45 per day	\$ 450
Total Cost	\$ 1062

CENTENARY DISTRICT

Table 4. Sites of interest for botanical conservation within the communal lands of Centenary District (source: Timberlake 1996).

Site No.	Vegetation Type	Location	Priority
27a	Alluvial forest	Musengezi River	High *
27b	Alluvial forest	Musengezi River	High *
27c	Alluvial forest	Musengezi River	High *
27d	Alluvial forest	Musengezi River	Medium
29a	Mopane woodland	Muzarabani C.L.	Low
30a	Alluvial woodland	Mukumbura River	High
36d	Escarpment gorge	Mavuradonha Wilderness Area	Low

* Sites 27a, 27b and 27c are identified as being of national importance for conservation.

Table 5. People with whom discussions were held within Centenary District.

Position	Name
Da's Office (Centenary)	
Assistant DA	Mr J. Chiobo *
Muzarabani RDC (Muzarabani)	
CEO	Mr L. Chisanduro
Campfire Manager	Mr K. Siziwa
Campfire Associate	Mr R. Diggle
Chairman, Wildlife Committee	Mr Y. Mhene
Traditional Leaders	
Chief Kasakete	Chief Kasakete

* Mr. Chiobo did not attend the Chief's meeting held at Muzarabani on 01 September, 1996.

Table 6. Anticipated expenses required for community meetings within Centenary District.

Activity	Cost
District Workshop	
Transport	\$3 per km
Food	
No allowances required	
Subtotal	\$1,500 - \$2,000
Community Meetings	
Transport	\$3 per km
Beast	\$1,200
Other costs to be borne by community	
Subtotal per meeting	\$2,500 - \$3,000
Woodlot Feasibility Study	
Costs to be established	???

GURUVE DISTRICT

Table 7. Sites of interest for botanical conservation within the communal lands of Guruve District (source: Timberlake 1996).

Site Number	Vegetation Type	Priority
26 a,f,p	Dry forest on sand	High *
26 b,e,g,n	Dry forest on sand	Medium
26 c,d,h,i,j,k,l,m,o	Dry forest on sand	Low
27 g,h,j,k,l	Riverine dry forest or thicket	High *
27 e,f,i,m	Riverine dry forest or thicket	Medium
28 a	Wooded bushland on sand	High *
28 b,c	Wooded bushland on sand	Low
29 b	Tall mopane woodland	High *
29 c,d	Tall mopane woodland	Low
30 b,d	Alluvial woodland	Medium
30 c	Alluvial woodland	Low
32	Salt spring	Medium
33 a,b	Low altitude miombo woodland	Medium
34 a,b	Riverine thicket	Low
35	Sarawanda Hills	Medium
36 e	Escarpment gorge	High
36 a,b,c	Escarpment gorge	Medium

* Sites identified as being of national importance for conservation.

Table 8. People with whom discussions were held within Guruve District.

Position	Name
Guruve RDC (Shinje)	
Acting CEO	Mr B. Sezani
Chairman, Wildlife Committee	Mr Z.R. Kanyemba
CIRAD Biodiversity Conservation Project	
Programme Coordinator	Mr G. Kleitz

KARIBA DISTRICT

Table 9. Sites of interest for botanical conservation within the communal lands of Kariba District (source: Timberlake 1996).

Site No.	Vegetation Type	Location	Priority
17	Deciduous thicket	Tiger Bay	High *
20a	Kloof woodland	Mapongola Hills	Medium
20b	Kloof woodland	Mapongola Hills	Medium
20c	Kloof woodland	Mapongola Hills	Medium
20d	Kloof woodland	Siakobvu	Medium
22a	Mopane woodland	Mola A Ward	High *
22b	Mopane woodland	Gatshe Gatshe	Medium
23b	Alluvial woodland	Sengwa River	Low
23c	Alluvial woodland	Gachegache River	Low

* Sites identified as being of national importance for conservation.

Table 10. People with whom discussions were held within Kariba District.

Position	Name
Nyaminyami RDC (Siakobvu)	
Acting CEO	Mr G. Mashua
Institutions Officer	Mr Musonza
Forestry Commission	
District Forest Officer	Mr J. Manhando
EEC Planning Team	
Project Manager	Mr D. Heywood
Biodiversity Foundation for Africa	Mr A. Sparrow

GOKWE NORTH DISTRICT

Table 11. Sites of interest for botanical conservation within the communal lands of Gokwe North District (source: Timberlake 1996).

Site No.	Vegetation Type	Location	Priority
10e	Gorge woodland	Sengwa Gorge	Low
11a	Sidaga grassland	Sengwa Mine	Medium
11b	Sidaga grassland	Sengwa Mine	High *
16j	Deciduous forest	Wildlife Corridor	Medium
23a	Alluvial woodland	Busi River	Medium
23d	Alluvial woodland	Sengwa River	Medium

* Site 11b has been identified as being of national importance for conservation.

Table 12. People with whom discussions were held within Gokwe North District.

Position	Name
Gokwe North RDC (Nembudziya)	
CEO	Mr A. Chino
Councillors	
Nenyunka Ward	Mr Mkandla
Chairman, Natural Resources Committee	Mr S. Gasura
Agritex	
Extension Worker, Nenyunka Ward	Mr T. Tafireyi
WWF	
Campfire advisor	Mr S. Mutaki
Farmers	c. 35 men c. 10 women
Biodiversity Foundation for Africa	Mr A. Sparrow *

* Mr. Sparrow did not attend the site meeting held at Kamakuyu on 16 September 1996.

BINGA DISTRICT

Table 13. Sites of interest for botanical conservation within the communal lands of Binga District (source: Timberlake 1996).

Site No.	Vegetation Type	Location	Priority
5a	Deciduous thicket	Sengwa Mouth	Low
5b	Deciduous thicket	Sengwa Mouth	Low
5c	Deciduous forest	Sengwa River	Medium
5d	Deciduous thicket	Sengwa Mouth	Low
6	Deciduous thicket	Siabuwa Hill	Medium
7a	Guibourtia dry forest	Manjolo	High *
7b	Guibourtia dry forest	Manjolo	Low
7c	Guibourtia dry forest	Milibizi	Low
8	Mixed deciduous woodland	Binga Hill	Low
10a	Escarpment woodland	Chizarira	Low
10b	Escarpment woodland	Chizarira	Medium
10c	Escarpment woodland	Chizarira	Low
10d	Escarpment woodland	Chizarira	Medium
15	Dam site	Chaba Vlei	Low
31	Gorge woodland	Chaba Gorge	Low

* Site 7a has been identified as being of national importance for conservation.

Table 14. People with whom discussions were held within Binga District.

Position	Name
Binga RDC (Binga)	
Campfire Manager	Mr L. Lunga
Planning and Development Officer	Mr S. Velani
Councillors	
Saba/Lunda Ward	Mr D. Munkombwe
Manjolo Ward	Mr T. Munkuli
Tyunga Ward (Chairman, Natural Resources Ctte)	Mr S. Muntanga
Forestry Commission	
District Forest Officer	Mr B. Mawire
Dept. Of Natural Resources	
Natural Resources Officer	Mr K.M. Mkwebu
Tree Protection and Food Security	Dr Titcher
Binga Development Association	Mr J. Chifamba *
Biodiversity Foundation for Africa	Mr A. Sparrow *

* These people did not attend the field meeting held at Manjolo on 19 September 1996.

Table 15. Anticipated expenses for the proposed community meeting to be held at Manjolo, Binga District.

Item	Cost
Transport From Binga to Manjolo. Return journey = about 100 km, @ \$6 per km (for a truck capable of carrying a large number of people)	\$ 600
Food For about 50 people 1 x goat 30 kg mealie meal, tomatoes, onions, oil, salt Hiring a cook	\$ 700
Total Required	\$ 1,300