

CHIMANIMANI NATIONAL RESERVE

MANAGEMENT PLAN

VOLUME I

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AGRICONSULTING S.p.A.

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1 Preface

1.1 *The management plan preparation process*

This management plan is the output of a work carried out in 2008-2009 by a multidisciplinary team composed by three international consultants and the Chimanimani National Reserve (ChNR) staff.

The work, more specifically, was about the *revision* and updating of the management plan prepared for the Chimanimani conservation area by Richard Bell in year 2000.

Objective of our work was to “obtain a revision of the existing Management Plan, using a participative methodology and where all the relevant stakeholders involved in the process of the management of the ChNR, as well as all of them functioning under the influence of the ChNR, are taken into consideration, and where all the relevant suggestions from the previous plans and the actual socio-economic and bio-ecological situations, are also included”¹.

The methodology we implemented for the planning process is based on the so-called participative approach, formalized in 2003 by the guidelines published by the World Commission on Protected Areas (WCPA) of IUCN². These are founded on the recognition that the “exclusive” and solely conservative approach used in the past to plan and manage all intervention in the field of conservation, shall now give space to the wider “inclusive” approach that can be summarized with the following points:

- Integration of conservation objectives with those of development and improvement of the living conditions of local people;
- Management based on a shared and consensual long term vision;
- Decentralization and redistribution of tasks and responsibilities;

¹ Extract from the “Terms of Reference of the consultancy for Revision of the Management Plan for the Chimanimani National Reserve (ChNR)”

² Thomas, Lee and Middleton, Julie, (2003). *Guidelines for Management Planning of Protected Areas*. IUCN Gland, Switzerland and Cambridge, UK. ix + 79 pp.

- Wide participation of all actors involved in the decision making process and co-management;
- Increasing the value of local know-how and culture;
- Management flexibility and adaptability;
- Integration in the national and International context.

This approach has been widely used worldwide in the past years, including in the other protected areas of Mozambique. This was also the approach used 10 years ago by R. Bell for the preparation of the first Chimanimani plan. Bell's plan was an innovative and inspired work, based on deep knowledge of the local reality, extensive consultations with stakeholders and the clear vision that the future of Chimanimani, the sacred "Mountains of the Spirits" of the Ndaou people, shall again be completely in the local people's hands.

Drafting the present management plan, it has been decided to maintain some parts of Bell's plan that we consider still relevant. Several recommendations included in that plan, still significant and up to date, are as well retained in the new plan.

The plan was prepared and drafted by the three international consultants, namely Andrea Ghiurghi, Stefaan Dondeyne and James Bannerman but also based on the direct contribution of other people:

- Mrs. Candida Lucas, Manager of ChNR
- Mr. Feijão Lucas, (formerly ChNR staff)
- Mrs. Ana Paula Reis, (formerly TFCA project)
- Mr. Eduardo Ndunguru, technician of the Manica province mining extension service

The work was temporally and conceptually divided in three phases:

1. Preparation phase

■ Study of Bell's management plan.

Being a revision of an existing plan, this was with no doubts the first step. Yet, this simple exercise was, in our case, not straightforward. One of the reason frequently mention for that

plan not having been implemented was that it was never completed. In fact, it consists of two volumes - the management plan and the annexes - but only one original paper copy of the first volume exists (from which several digital copies, often with missing parts, were produced). It was just impossible to find a copy of the annexes despite we spent considerable time searching the second volume in the TFCA, Tourism and Agriculture (the ministry formerly responsible of the protected areas in Mozambique) offices in Maputo: nobody had ever seen a copy of Volume 2. Yet the annexes contained important information and must have existed since they were quoted in other reports. One day, toward the end of our field work in Chimanimani we thought we finally bumped into a copy of the famous Volume 2. During our meeting in the village of Mahate with Mr. Simon Chimelela, Richard Bells' field assistant during his work in Chimanimani, he mentioned he had a copy of Volume 2 of the Plan in his house. We promptly asked him to get the copy for us, already enjoying for our luck. But when Simon returned from his house he had in his hands just a copy of Volume 1. We start thinking that Volume 2 might have actually never been drafted.

But the annexes, or at least some of them, in fact existed. Only they were very far from Mozambique. At the end of July 2009, when our field work was finished and we were already on the writing of the plan, we found out that Jessica Schafer, a researcher who worked for her PhD thesis in Chimanimani in 1999 and assisted Richard Bell in some of the field work, had a paper copy of the first 4 annexes. So in July 2009 she kindly scanned those copies and mailed them to us in Chimoio. Nevertheless, we have not been able to find annexes 5 to 11 of Bell's plan before the end of our work.

■ Collection and study of other available bibliographic information.

The bibliographic research work, on the other hand, was made easier by the fact that two of us (JHB and SD) worked in the Chimanimani area and Manica province for several years before this work. Most of the existing bibliography on Chimanimani was already collected in their personal records. Besides, in the previous years they conducted ecological and historical researches on their own, collecting thus their own new data on Chimanimani. Many of these valuable data are contained in the annexes of this plan.

- First public workshop.

A first public workshop was organized in Chimoio in November 2008. For this workshop we invited all local government representatives, traditional authorities, NGOs and private investors to inform them about the will of the MITUR and the TFCA project to prepare a new management plan for the ChNR and its buffer zone. During the workshop, along with a general presentation on the TFCA project and the ecological and cultural importance of Chimanimani as a conservation area, we introduced our team, the objectives of our work, the methodology and the proposed consultations and field work schedule, getting at the same time comments and suggestions from the participants.

2. Field data collection, stakeholders' consultation and presentation of the first management proposal

- Field visits.

Our objective was to acquire deeper knowledge of the area and to collect new ecological (plants species, birds, wildlife presence, vegetation structure), geographical (footpaths and vehicle tracks tracing, rivers, human settlements, land use) and human impact (gold mining, fires, agriculture) data. Most of these data, coupled with the already existing historical and ecological bibliographic data, are presented in the annexes of this plan.

- Consultation with key stakeholders.

This is the central part of the planning process. During two months we met with all stakeholders of Chimanimani: local leaders, private investors, government representatives at the provincial, district, *postos administrativo* and *localidades* levels, technicians working for development projects, NGOs and many local residents. We wanted to gather ideas and expectations from all persons and institution with an interest on the Chimanimani area. Most of all we wanted to comprehend the long term vision that the Chimanimani people had for their land and also what they do not want their land to become in the future. Their fears concerning constrained resettlements and alienation of land were quite a constant during most of the meetings.

A list of all the people met during the consultation phase and the minutes of all these meetings form a significant part of the annexes.

■ Public presentations of first management proposal.

The Sussundenga workshop was held in July 2009. At this workshop we presented the results of our field researches, the outcome of the consultations and, on the base of these findings, the main points of the management strategy we consider the most appropriate for ChNR.

At the end of our presentation the participants were divided into four work groups:

- Communities' "natural resources management committees" (*Comité de Gestão dos recursos naturais*)
- *Mambos* (Chiefs or *Régulos*) and other traditional leaders
- Local government representatives
- NGOs and private sector

Dividing the stakeholders into different groups made sure that all the different and sometimes contrasting points of view and interests could arise and be openly discussed there.

Each group was asked to give their comments on the presented management proposal and any other suggestion they considered relevant. The input of each group were written on large paper sheets, attached to the wall and presented to the audience by each group. Time for questions and comments was given after the presentation of each group. At the end a plenary debate was held, during which doubts were expressed and questions on specific subjects not tackled in our presentation were discussed. This was the occasion of publicly presenting the Reserve managers ideas on, for example: resettlement of people, conflicts with wildlife, relationships between people and the Reserve staff etc.

3. Drafting of the preliminary version and finalization of management plan

This phase was about the drafting of the preliminary version of the management plan. It ended at the beginning of October 2009 with the presentation in Chimoio of the draft plan to

the TFCA unit members. The final version of the plan was eventually delivered at the end of December 2009.

1.2 Purpose of the plan

This document is intended for future decision makers of the Chimanimani Conservation Area³ (CCA); not only managers therefore, but also to potential donors and, more directly and above all, to populations affected by its implementation. The plan aims at providing a strategic framework to coordinate, on this basis, the cooperation between the two sides in pursuit of the double objective of conservation and sustainable development of the CCA.

The plan, built from the achievements of the TFCA project and the reality highlighted by the consultants' mission, was developed using a transparent methodology, capable of promoting communication, building consensus and taking collective decisions.

General scope of the plan is to enable the Ministry of Tourism to achieve the long term objective of “protecting and preserving the ecosystem of the area”, as stated by the legal texts approved by the government of Mozambique in 2003 that sanctioned the creation of the Chimanimani National Reserve. The approach today generally accepted on the function of protected areas impose that further scope of the work is the development of a model of management entirely accepted from its very beginning by all stakeholders, particularly those living inside the conservation area, that will support the improvement of the living conditions of local people and the economic growth of the country.

The Management Plan will represent the tool in the hands of the MITUR, the Chimanimani management team and the local communities to rationalize the medium term objectives and strategy and to orientate the actions following a structured schedule. Once formally accepted, the management plan will represent the first legal instrument for the Chimanimani conservation area through which the interests, the needs and the expectations of local people will meet with the State's medium and long term objectives.

³ Chimanimani Conservation Area, is the totality of the “Chimanimani Reserve” plus the “Buffer Zone”

Planning of a protected area is a process that does not end with the elaboration of a management plan, but continue along the stages of its implementation, the monitoring and the feedback evaluation, to adapt to changes of conditions and new objectives. The next years of management of the ChNR will be crucial in order to create the necessary conditions to achieve the long term objectives of the Reserve: this means that Reserve's authorities and local population shall be committed in constructing together the common long term vision of Chimanimani.

1.3 Acknowledgements

Firstly, we would like to thank the members of the TFCA unit in Maputo especially, Dr Bartolomeu Soto, Dr Afonso Madobe, Alessandro Fusari and Madyo Couto for the assistance that they provided during the preparation of the management plan.

We would like to thank Dr. Jessica Schafer for locating some of the annexes to Richard Bell's Management Plan that could not be located in Mozambique and forwarding them to us.

Mike Froude, of Mutare, for information obtained on the food security study.

The staff of the National Parks in Zimbabwe: Mrs. Cheron Musakwa director of the Mutare regional office and Mr. David Booker Mupungu, Area Manager of Chimanimani National Park.

In Chimoio the Santos-Lindegaard family for their hospitality; Andrew Kingman and Milagre Nuvunga of MICAIA who helped with information, especially regarding the Nhabawa and Mpunga areas; Sr. António Consul of ORAM for providing photocopies of the delimitation reports; Sr. Eduardo Ndunguru, technician of the Manica province mining extension service for information on *garimpeiros* and mining in the Chimanimani Area.

All the various Government official who granted interviews in Chimoio are thanked, they are individually listed in Appendix 6.

MITUR staff in Manica, especially Dona Candida Lucas, the Reserve administrator, Julio Salario Chironda and the various fiscais who went out of their way to help and guide us in the field.

The former administrator of the reserve Dra Ana Paula Reis, who was able to provide much background information.

A great deal of help was provided by the *Administradora* of Sussundenga District, Sra. Mariazinha Niquice, her staff, including *Chefe de Postos* and the *Chefes de Localidades* of the Dombe, Muoha and Rotanda Administrative areas.

All the *régulos* in the ChNR, especially *Régulo* Mussimua who took time to show us the Chinyadembue Zimbabwe near his village.

The “Guides of Nhahedzi” who went to the mountains with members of the team and the association of *garimpeiros* of Tsetsera.

All of those others who gave us of their time granted interviews and who are also listed in Appendix 6.

Finally we would especially like to thank all the local people living in the ChNR who helped us in one way or another and to whom this plan is dedicated.

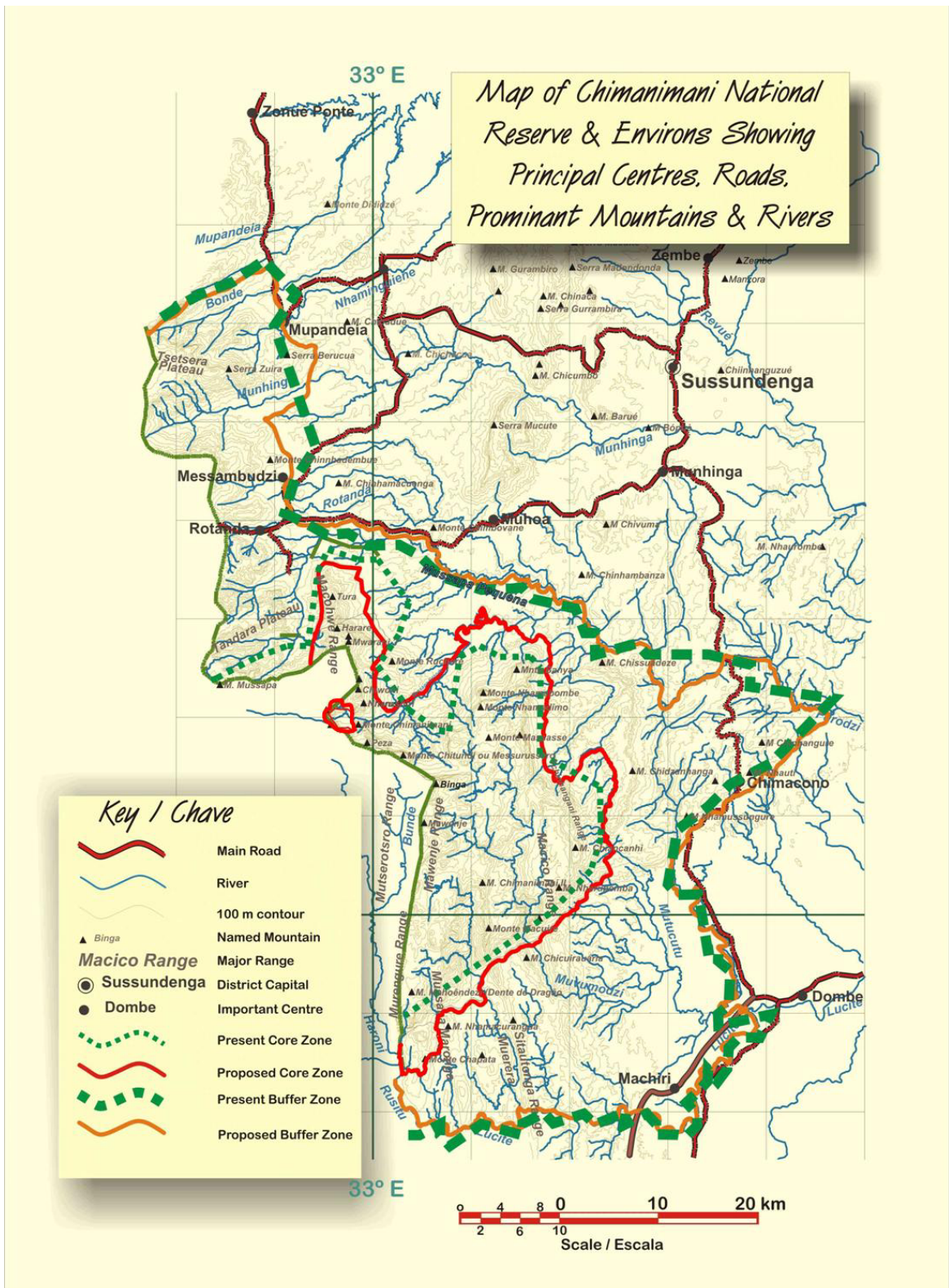
2 Abbreviations/Acronyms

ACTF	<i>Área de Conservação Trans-Fronteira</i> – See TFCA
ADIPSA	<i>Apóio as Incentivas Privados no Sector Agrário</i>
AGT	<i>Associação dos Garimpeiros de Tsetsera</i>
AMBERO	Ambero Consulting Gesellschaft mbH
ARPAC	<i>Arquivos do Património Cultural, Ministério da Cultura</i> (Dealing with Cultural & Historical Matters)
CCA	Chimanimani Conservation Area, it means here the sum of the Chimanimani Reserve (ChNR) plus the Buffer zone, as per definitions given in the Decree 34/2003 creating the Reserve.
CdG	<i>Comité de Gestão/</i> Community Natural Resources Conservation Committee
CDS-RN	<i>Centro de Desenvolvimento Sustentável dos Recursos Naturais</i>
CEF	<i>Centro Experimental Florestal</i> / Forest Research Station, Sussundenga
ChNR	Chimanimani National Reserve / <i>Reserva Nacional de Chimanimani</i>
CLUSA	Cooperative League of the United States of America
CNP	Chimanimani National Park (Zimbabwe)
DECA	<i>Desenvolvimento e Comercialização Agrícola</i> (Devel. & Commerce of Agriculture)
DINATUR	National Directorate of Tourism
DPA	<i>Direcção Provincial de Agricultura</i> / Provincial Directorate of Agriculture
DSS	Decision Support System. System based on a holistic approach to guide the decision making process of the Reserve managers using indicators through a specifically built system diagram of Chimanimani.
DUAT	<i>Direito de Utilizo e Provimento de Terra</i> / Right to Use Land
FRELIMO	Ruling Political Party in Moçambique
GoM	Government of Moçambique / <i>Governo de Moçambique</i>
GTZ	German Technical Cooperation
HCB	<i>Hidroeléctrico de Cahora Bassa</i> /
IAC	<i>Instituto Agrário de Chimoio</i>
IFLOMA	<i>Indústrias Florestais de Manica</i> (Forestry Company)
ISPM	<i>Instituto Superior Politécnico de Manica</i>
ITC	<i>Iniciativa para Terras Comunitários</i> (Initiatives for Communal Lands project)
KSM	<i>Associação Kwaedza Simulai Manica</i> (NGO & community broker for ChNR)
MICAIA	NGO & Community Broker (Micaia Foundation) and private investor (Eco-Micaia)
MICOA	<i>Min. Para a Condenação da Acção Ambiental</i> (Ministry of Coordination on the Environment)
MITUR	<i>Ministério do Turismo</i> / Ministry of Tourism
MOU	Memorandum of Understanding
NORCONSULT	Consulting Company for Infrastructures in the ChNR

ORAM	<i>Associação Rural de Ajuda Mútua</i> (Moçambican NGO working with Rural Communities)
PA	Protected Area / <i>Area Protegida</i>
PAMBERI	Moçambiçan NGO working in Darue area Dombe
RENAMO	Former Rebel Movement & Opposition Party in Moçambique
RNC	<i>Reserva Nacional de Chimanimani</i> / Chimanimani National Reserve
SDAE	<i>Serviços Distrital Actividades Economias</i>
SPER	<i>Serviços Provincial de Extensão Rural</i>
SPFFB	<i>Serviços Provincial de Florestas e Fauna Bravia</i> – Forestry & Wildlife
SPGC	<i>Serviços Provincial de Geografia e Cadaster</i> / Land and Survey Dept
TFCA	TransFrontier Conservation Area
UCAMA	<i>União Provincial dos Camponeses de Manica</i> (Union of smallholders of Manica)
UEM	<i>Universidade Eduardo Mondlane</i>

3 Glossary

<i>Baixa</i>	Lowland wetland
Buffer Zone.....	Outer zone of ChNR, see also <i>Zona Tampão</i>
<i>Chefe de Povoação</i>	Traditional Village Headman
<i>Chefe de Grupo</i>	Group Village Headman / Sub Chief
<i>Chefe de Posto</i>	Administrador of <i>Posto Administrativo</i>
ChiManyika (ChiManica).....	Shona dialect spoken in the north of ChNR
<i>Chimwenjes</i>	Armed Bandits in ChNR ca 1993 - 1995
ChiNdau.....	Shona dialect spoken in the south of ChNR
ChiTewe (ChiTeve).....	Shona dialect spoken to the east of ChNR
<i>Circunscrição</i>	A medium sized in Colonial times
<i>Comité de Gestão</i>	Here conservation Committee
<i>Companhia de Moçambique</i>	Concession Company in Manica e Sofala 1891-1940
<i>Dambo (Tando)</i>	Wetland / Swamp
<i>Fiscal/fiscais</i>	Here ranger/s in ChNR
<i>Garimpeiros</i>	Small-scale artisanal miner often illegally so
<i>Localidade</i>	Locality areas (under <i>Posto Administrativo</i>)
<i>Machamba</i>	Farm or field
<i>Mambo</i>	Shona term for Chief
<i>Mantende</i>	Another name for village headman
<i>Mão de obra</i>	Labour workers
Mocambique Company.....	See <i>Companhia de Moçambique</i>
<i>Mutoro</i>	Swampy Area in <i>Dambo</i>
<i>Nhamassango</i>	Term for Ndau or Tewe <i>mambo</i> lit. Lord of the Forest
<i>Post Administrativo</i>	Secondary Division of District
<i>Regulado</i>	Chieftainship; <i>regedoria</i> was Colonial usage
<i>Régulo</i>	Chief
<i>Rusvingo</i>	Walled enclosure dating to Great Zimbabwe State period
<i>Sabhuku</i>	Village Headman, lit. ‘one who holds the tax book’ ex Zimbabwe but used in parts of ChNR
<i>Sadunbu</i>	Group Village Headman
<i>Saguta</i>	Village Headman
<i>Samusha</i>	Village Headman (Manica)
<i>Swikiro</i>	Spirit Medium linked to a <i>regulado</i>
<i>Zona Tampão</i>	Buffer Zone
<i>Zona de Vigilância</i>	Original PA proposed by Dutton and Dutton in 1974



4 Introduction

Why Chimanimani?

Long ago it was realized that the Chimanimani Mountains Rivers and plateaux possessed a unique landscape and environment astride the frontier between Zimbabwe and Mozambique⁴. The Chimanimani Mountains are an area of great natural beauty and contain some of the most magnificent and breathtaking mountain scenery in the whole of south east Africa. They rise out of the hot tropical plains of Mozambique at about 200m above sea level to the cool temperate mountains and plateaux often up to 2000m, with numerous rivers and stream tumbling down the hills and valleys to the plains below. Monte Binga at 2436m being the highest mountain in Mozambique.

The mountains consist of several ranges - or *cordilheiras* - as they are often called in Mozambique. These run from north to south and are interspaced with several rocky or grassland plateaux as well as deep gorges with misty evergreen forests clinging to their sides with striking waterfalls along the course of the various rivers that have gouged them out.

The ranges straddle the Zimbabwe Mozambique border between the Mussapa Pequena River in the north to the Lucite in the South⁵. They form part of a bigger range of mountains that stretch from the Lupata Tete area along the borders of Mozambique and Zimbabwe, which includes, the Nyanga Serra Chôa Ranges, mountain ranges around Manica, Vumba, Tsetsera, Tandara and the various ranges in the Mossurize Chipinge area. The main ranges in the main Chimanimani Mountains are listed below in a simplified form;

- The Mutserotsero Range in Zimbabwe in the west;
- The Mawenge Range more or less along the international border and including Monte Binga with the Murengure Range, including Dragon's Tooth (or Mahoêndezi), to its south separated from the latter by the Saddle Pass;
- The Macico Range to the east of the Muvumodzi River with the Sitautonga range to the south of it;
- The Tchinyangani Range to the west of the Zomba area;
- The Mucohwe range to the north of the Mussape Gap.

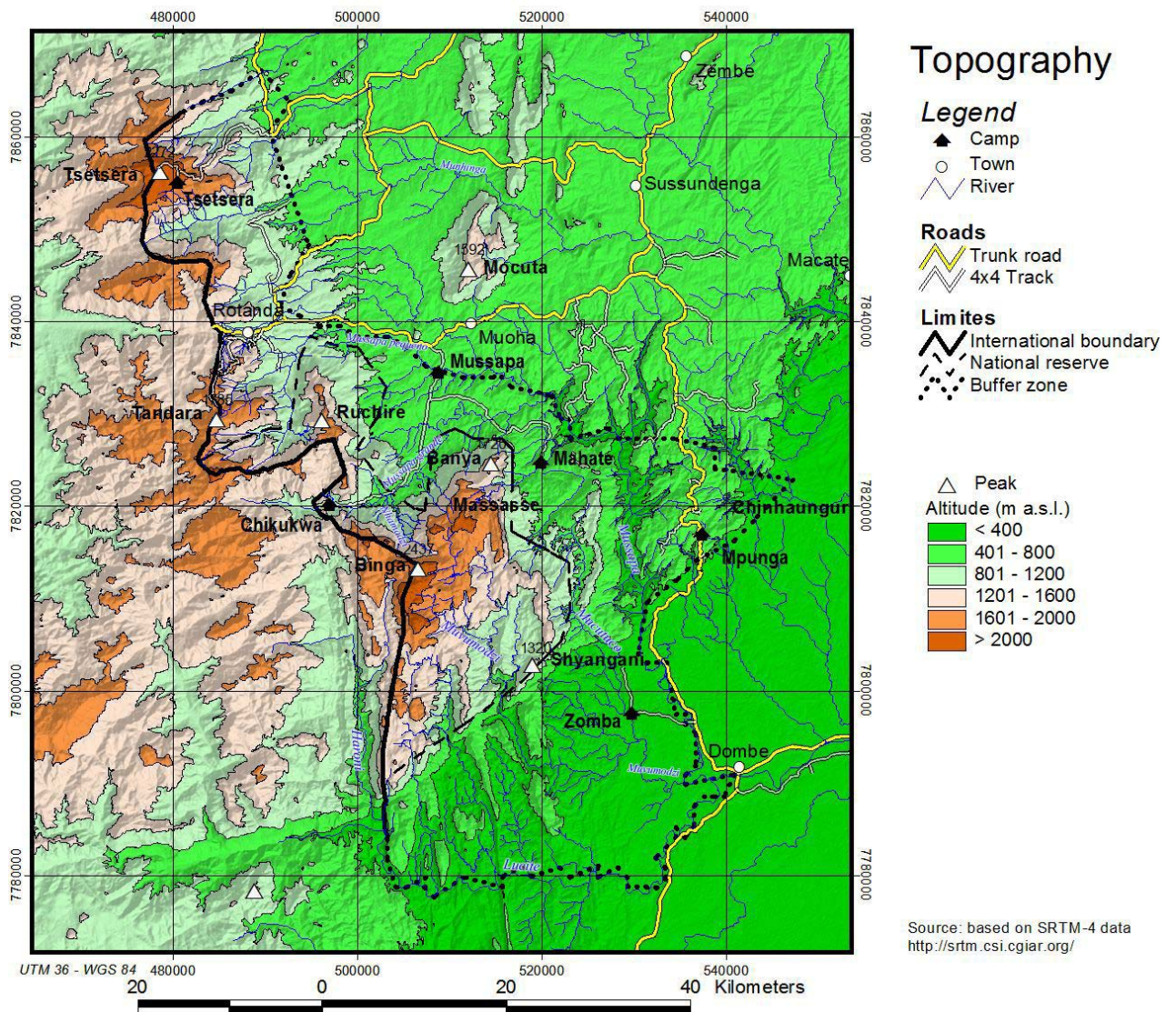
⁴ Although political fact of life, which cannot be changed, the frontier is not a natural one in either human, linguistic, ecological and geographical aspects.

⁵ One range actually crosses the Lucite and runs south to the Búzi River in southern Mossuriz District.

The Mussapa gap itself is the largest natural route through the mountains lying in the valley of the Mussapa Grande along an east-north-east axis. This narrows to a deep ravine just before the Zimbabwe border called Chimanimani, after which the whole mountain range has been subsequently called. From time immemorial it has been the main route through the mountains used by traders, migrants as well as local people. The route went on into Zimbabwe to the watershed between the Mussapa Grande and the Nyanyadzi Rivers and down the latter into the Save Odzi Valley and onwards to the main Zimbabwean plateau.

Hydrography of Chimanimani

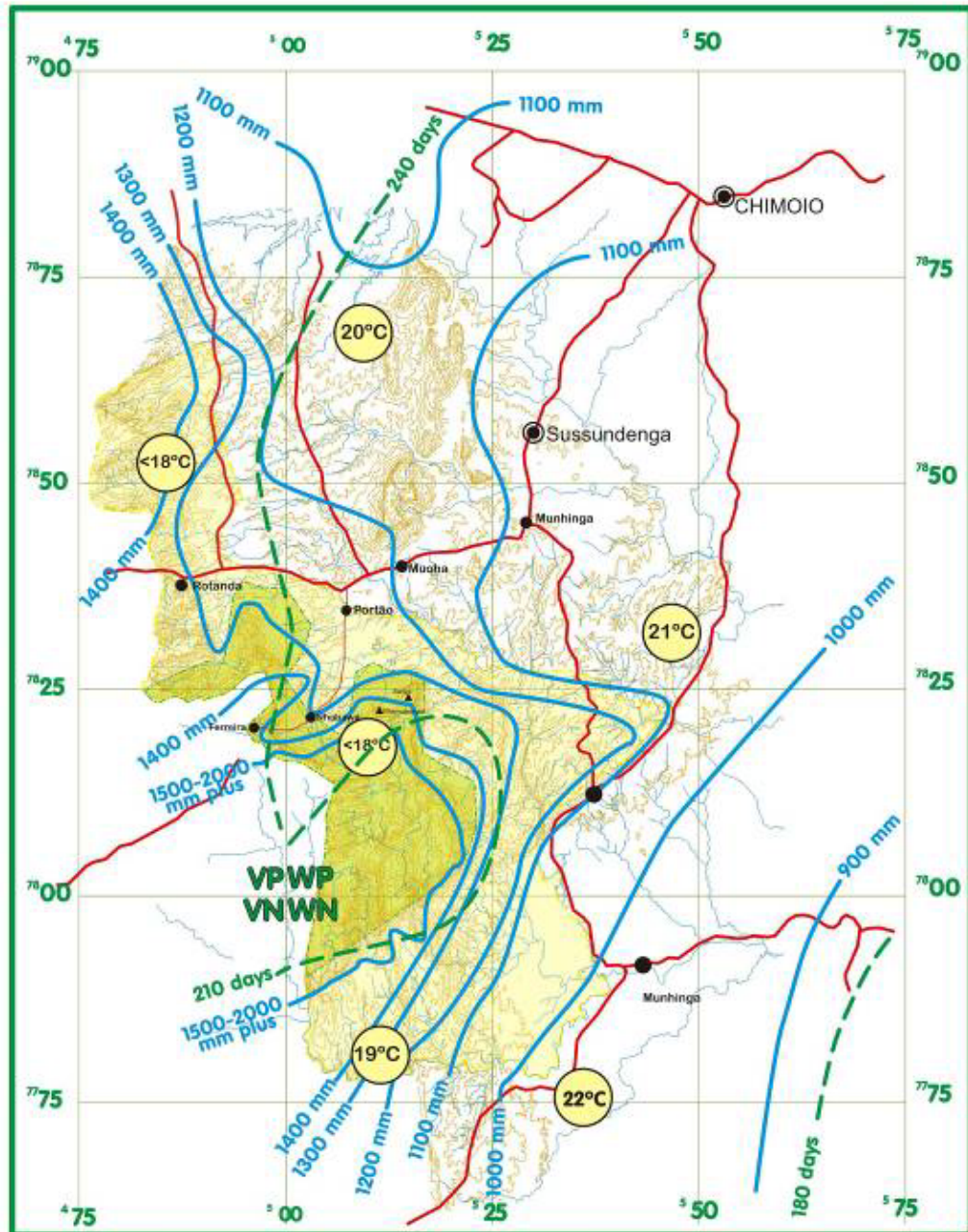
The whole of the area lies in the basin of the Búzi River System and is the source of the majority of the flow of that river. The south and centre of the mountains are drained by the Lucite and the Mussapa Grande, and their tributaries, the Muvumodzi, the Mutucutu, the Muerera, the Maronga Mussapa, the Mukurupini, the Mussapa Pequena, the Rotanda and the Munzira amongst others. In the north several rivers flow northward into the Chicamba Dam and thence the Revue, which in turn flows into the Búzi; namely; the Munhinga, the Nhaminguene, the Bonda, and the Mupandeia. All the rivers rise from the mountains as clear fast flowing unpolluted rivers even though, in the last years, the Lucite and its major tributary the Haroni have seen serious pollution with red silts as the result of alluvial gold mining activities, principally inside Zimbabwe.



Climate

The climate in the mountains and foothills varies from being generally humid tropical to temperate. The mean average temperature varies from 22°C in the south east lowlands to less than 18°C on the high mountains. Over 1500m moderate to severe frost can be experienced on the high mountains and plateau. The main rainy season normally starts in late November and lasts until late March but some rain can be experienced throughout the year over the high mountains and foothills. No accurate rainfall figures exist from the mountain and escarpments but by extrapolating rainfall figures from similar areas in Zimbabwe the rain

Mean Average Rainfall and Temperature Chimanimani



jhb Sept 2009

- 22°C Mean annual temperature
- Isohyets of mean annual growing period (days)
- Isohyets of mean annual rainfall
- Core Zone - Zona de Conservação
- Buffer Zone - Zona Tampão

should be between 1 500 mm to 2 000 mm plus (see Appendix 2 for more details on the climate of the area).

Agro-ecological Zones and vegetation

Four major agro-ecological zones occur in the TFCA. These are:

- Zone I High rainfall mountainous area
- Zone II High rainfall plains
- Zone III Escarpment and steep Mussapa valley
- Zone IV Moderate to low rainfall areas

Zone I is subdivided into Ia Mountains and foothills Ib Alluvial valleys, Zone II is subdivided into IIa undulating plateau area with fertile soils, IIb undulating plateau area with hydromorphic soils, Zone III has no subdivisions and Zone IV is divided into IVa gneissic plains, IVb Lacustrine deposits, IVc Lucite Mussapa alluvial soils. A fuller account is given in Appendix 2

Floristically the mountains form part of the Afromontane ecoregion, which extends from Ethiopia to South Africa but also has some links with the Cape flora of South Africa. The area contains a number of endemic, or near endemic, plants, birds, and reptiles. More specifically Chimanimani falls within the Eastern Zimbabwe montane forest-grassland mosaic ecoregion also described by White as the Afromontane centre of endemism⁶ (the list of plants of Chimanimani is given in Appendix 4 and 5).

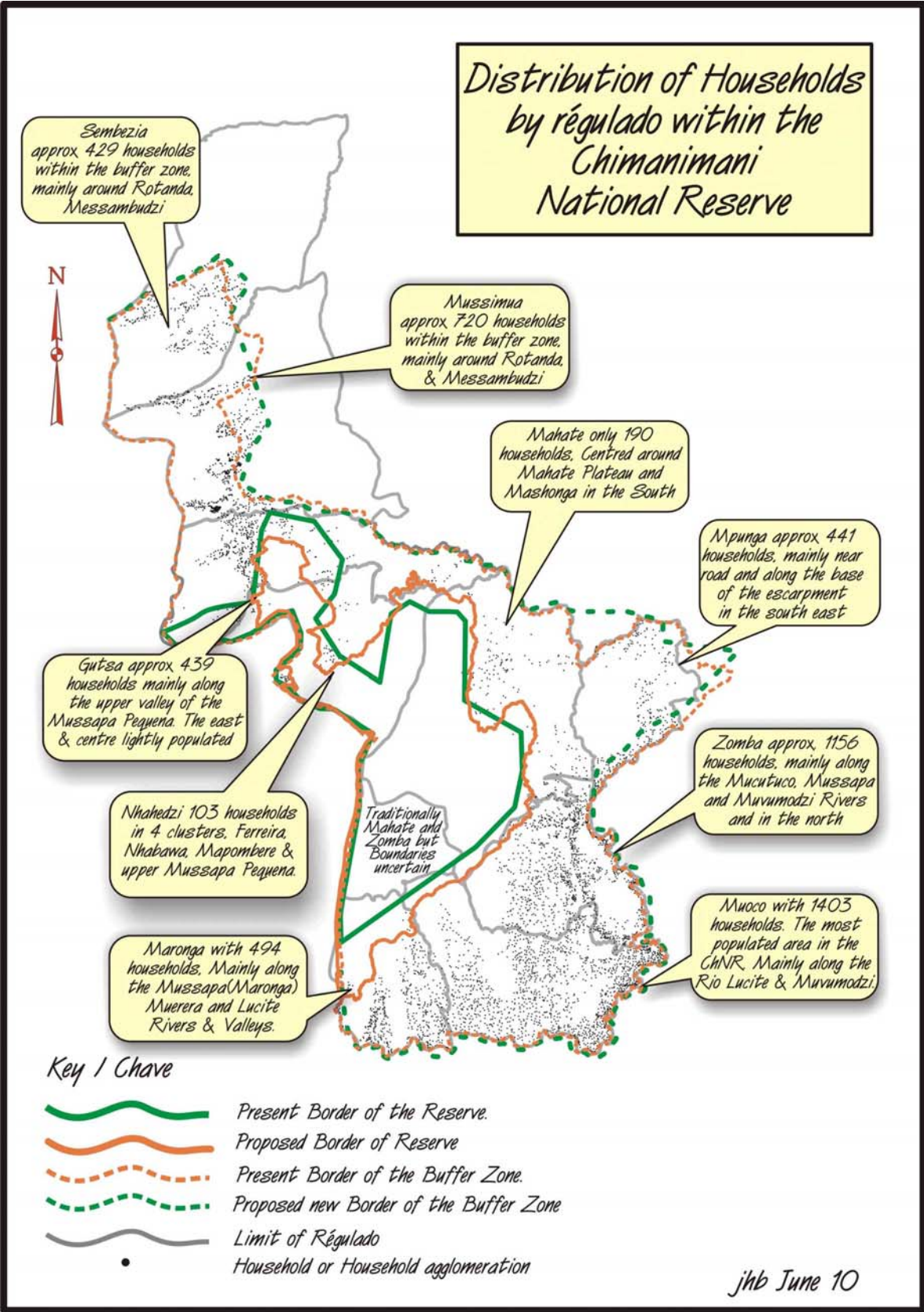
History and human settlements

The mountains have a long history of human settlement dating back to the Stone Age. The people from that time have left many delightful rock painting, depicting hunting scenes and ceremonies in shelters and caves in the mountains on both sides of the border. Later, they formed, in turn, parts of the Zimbabwe, Manica, Rozvi and Sanga Shona states. The region is dotted with ruins dating to the time of the Zimbabwe culture in the 14th and 15th centuries, many of them unrecorded. The area also lies along several trade routes which linked the various Shona states to the Swahili ports on the Sofala Coast at Old Sofala, Chiloane, Buene and Mambone.

⁶ White, F. 1983. The vegetation of Africa, a descriptive memoir to accompany the UNESCO/AETFAT/UNSO Vegetation Map of Africa (3 Plates, Northwestern Africa, Northeastern Africa, and Southern Africa, 1:5,000,000). UNESCO, Paris

The main mountain ranges are home to the Ndau-speaking people in the south and centre while in the north are found Manica-speaking communities. The population do not live in the high mountain ranges and plateaux but in the surrounding foot hills and Valleys. Here irrigation is practiced using furrows which take the water out of the rivers to the fields where wheat, barley and vegetables are grown. The history and the cultural aspects of the area are covered more fully in Appendix 1.

Distribution of Households by régulado within the Chimanimani National Reserve



5 Background to the Chimanimani NR and TFCA project

In Zimbabwe the land that now constitutes the Chimanimani National park was originally held by Chikukwa of Sangueme and Ngorima of Sahodi but was alienated soon after the occupation of Rhodesia in the 1890s by the BSA Company and handed out to mainly Afrikaans farmers, who came from South Africa.

Much later the Government acquired these farms⁷ from their owners. When the Chimanimani National Park (CNP) was formed in 1949 by the, then, Southern Rhodesian Government, quite a number of local people were evicted from the newly constituted park.⁸

From the first half of the 20th century the Chimanimani Mountains attracted a number of eminent botanists and ecologists, Rendle and Engler and Swynnerton in about 1910, Henkel in 1931, Wild in 1951 and Goodier and Phipps in 1961. The later two compiled checklist of the vascular plants of Chimanimani and carried out a vegetation survey of the Chimanimani Mountains.⁹ Other work was carried out on the birds and mammals of the Chimanimani Mountains by Jackson¹⁰ in 1973 and by D.J. Broadley on reptiles and amphibians

Throughout the early days people who visited the park often wandered far on the Mozambican side and many of the features such as waterfalls acquired common English names, for example Martin Falls (probably after a Martin who had farm in the Bundi Valley, now in the CNP). On the Mozambique side of the border there was also thought in the late colonial area of establishing a protected zone around the Chimanimani Mountains. As early as 1953 the *Chefe de Posto de Mavita* referred to the need to protect “*a majestosa cordelheira de Chimanimani*”. In 1953 the Forest Reserves of Moribane, Mpunga and Maronga were proclaimed by *portaria* 8469 of the 22 July 1953. However, it was not until the final stages of the colonial era that the process of establishing a protected area commenced.

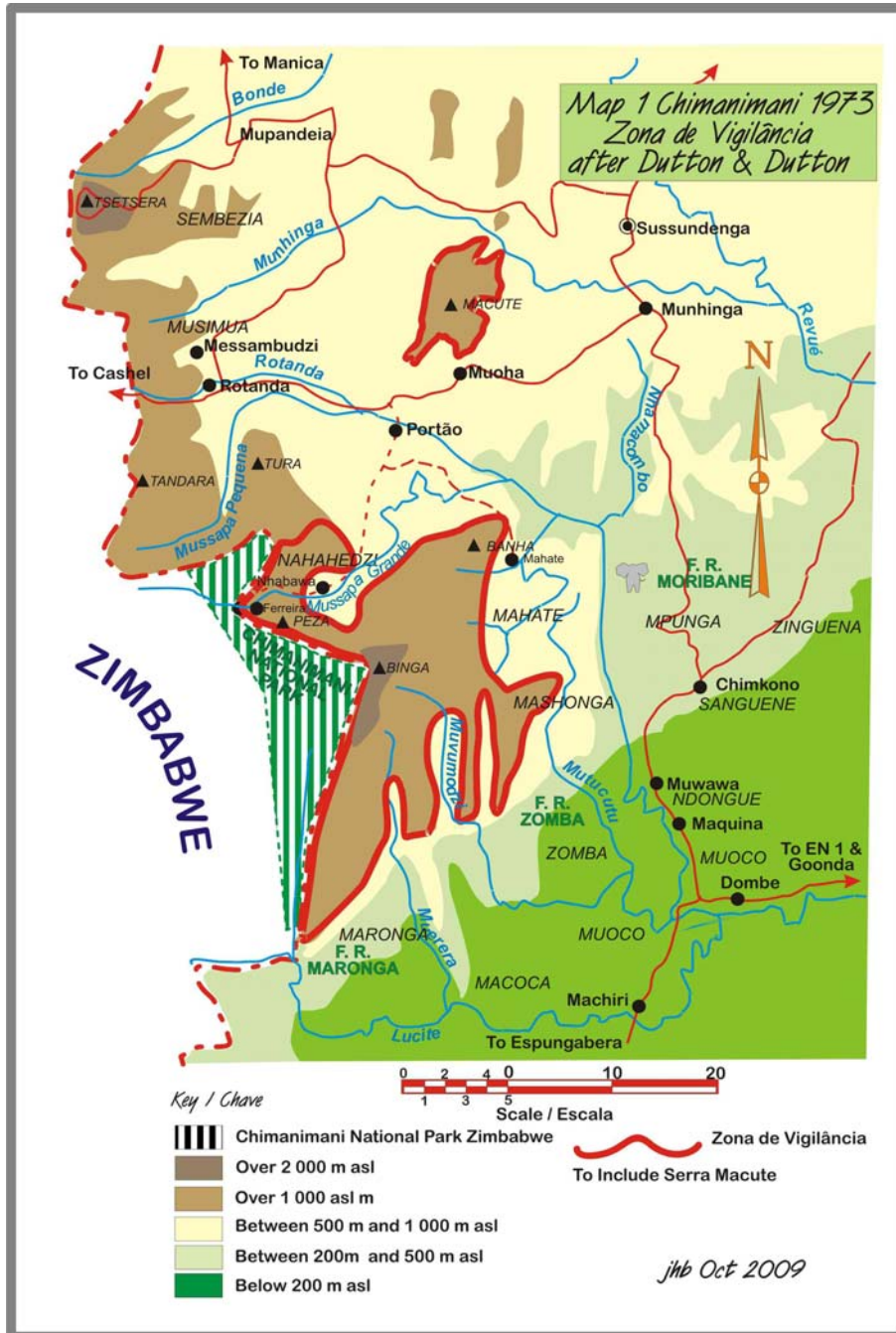
⁷ According to old maps the names of some of them were Dunblane, Chamois, The Corner and Stonehenge.

⁸ Due to that, there is still feeling of uneasiness among local people, on both sides of the border, concerning protected areas and on the Mozambican side some people are still concerned that there will be evictions in the ChNR.

⁹ See Goodier R., Phipps J.B. (1962), ‘A Revised checklist of the Vascular Plants of Chimanimani Mountains’, *KIRKIA*, Vol 1 pp. 44-46; Goodier R., Phipps J.B. (1962), ‘A preliminary Account of the Plant Ecology of the Chimanimani Mountains’ *Journal of Ecology*, Blackwell Scientific Publications, Oxford-

¹⁰ Jackson H.D. (1973). ‘Records of some Birds and Mammals in the Central Chimanimani Mountains’, *NOVTATES*, Durban, Vol. IX, Part 20 pp 291-305

In 1969 the Natural Resources Board of Rhodesia was asked to look into the possibility of establishing a joint National Park on the Mozambique-Rhodesian border; according to Hatton and Rocha.¹¹



“This was discussed at the inaugural meeting of SARCCUS in Pretoria in September 1969 (paragraphs 8.4 and 8.5 refer to this discussion). According to the Ministry of Lands (February 1970) inter-Government negotiation was taking place in the form of the

¹¹ Hatton and Rocha (1994). Maputo

“Mozambique/Rhodesia Forest and “Veld” Fire Control Committee”. A strip 50m in width was to be maintained on either side of the border with no forest activity therein. A fence line had been erected along the border by Veterinary Services during the East Coast Fever outbreaks but it was noted that by 1969/70 the fence was not effective in controlling stock movement. By 1970 fire guards were considered essential to protect “large areas under forestation in the vicinity of the border” (J.E. Robinson, Director of National Parks in 1970).”

In 1973, as the result of a conference held at Sá da Bandeira (now Lubango, in Angola) and with the subsequent support of the Directors of Veterinary Services and of the Director of the Technical Services of Wildlife Drs. Fernando Cardosa Paisana and Dr. A. Rósinha, respectively a preliminary ecological study was carried out by T.P. Dutton and E.A.R Dutton with a view to identifying the natural limits for a future conservation area. The study was carried out in the Chimanimani area during March and the beginning of April in 1973 and the subsequent report was published in May of that year.

Dutton and Dutton recommended that that there should be three phases in the establishment of Chimanimani,

1. In the first phase a *Zona de Vigilância* above the 1 000 m contour be established to protect the flora and fauna of the area, with the help of the Rhodesian Department of Parks and Wildlife. Two local recruited game guards should be stationed in Dombe and Rotanda.
2. In the second phase the rationale behind the protection of the area was to be explained to the local people and they were to be involved in its administration. Two centres were to be constructed at the base of the mountains one in Dombe and another in Rotanda area. It was thought that tourism would increase with the end of the new tar road with high level bridges that was being constructed between Espungabera and the Dombe/Rotanda areas. A new border post had recently been opened near Rotanda. A percentage of all receipts coming from tourism and tourists to the area should be returned to local communities. Hunting was to be controlled and the natural state of the area was to be preserved and visitors should be encouraged to walk around the area. They pointed out that the Ndaou name for the ‘*Maciço*’ (the main and highest mountain range) that included Monte Binga was Mawenje and for these reason the name of the ‘park’ could be *Parque Nacional de Mawenje*.

3. In the third phase they recommended that the isolated Serra Mucute (they referred to it as Mocuta) should be considered as an addition to the park as it also had a unique flora and fauna and its plateau was unpopulated.
4. In the final phase they recommended that a research centre and a school for training and conservation awareness be established at Rotanda.

Short after this Mozambique became independent and with the turmoil caused by the Zimbabwe struggle for independence and the civil war all plans for the future of Chimanimani in Mozambique were shelved.

It was not until the 1990s that with the end of the civil war and with the new concept of Trans Frontier Conservation Areas that renewed interest in Chimanimani came about.

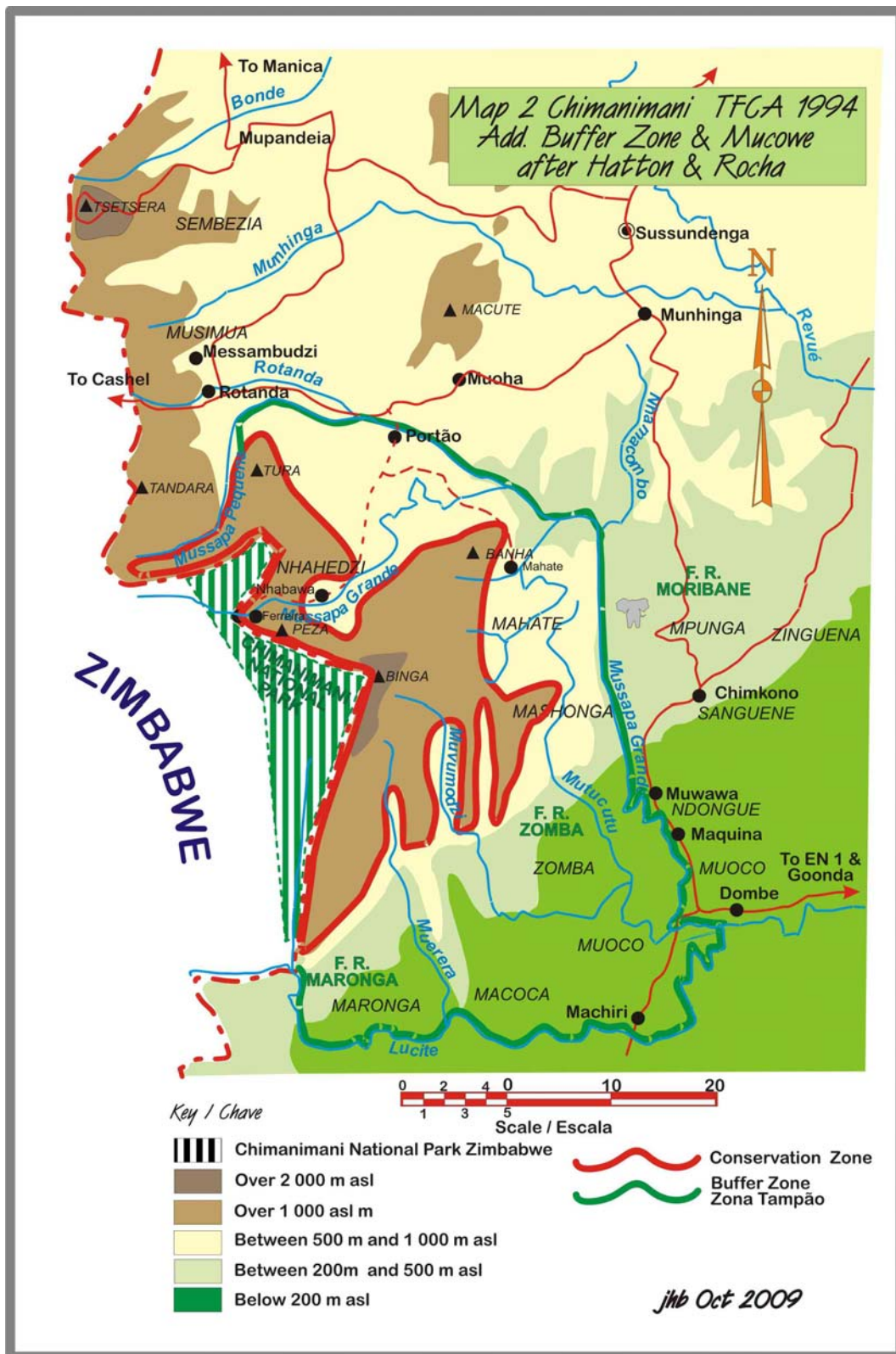
The first GEF (Global Environmental Fund of the World Bank) Preparatory Missions for a Transfrontier National Parks and Institutional Strengthening Project, in late 1991, considered the requirements for biodiversity conservation in general in a country emerging from many years of civil war, though with particular reference to the possibilities for establishing protected areas in frontier regions that could complement existing or proposed protected areas in adjoining regions of neighbouring countries. For its part the Mozambique Government made clear its support for such a project, provided that it could make a valid and sustainable contribution to rural development.

It was as a result of this that a feasibility study of The Chimanimani was carried out by Dr John Hatton and Mr Aurelio Rocha in 1994.¹²

They recommended *inter alia* that;

- A *Zona de Vigilância* above the 1 000 m contour be maintained but that the Transfrontier Conservation Area (TFCA) should include all the area between the Lucite and Mussapa Grande areas as a Buffer Zone. They also recommended that Serra Mucohe (next to the Corner in the CNP in Zimbabwe) to the north of the Mussapa Gap should be included in the protected area.
- The full participation of the local community at all levels with the TFCA.
- The securing of land-rights and resource use rights for the local communities as a prerequisite for community-based management.
- The establishment of parallel contacts between the relevant Mozambican and Zimbabwean Government Departments to develop a proposal for the setting up and administration of a joint TFCA possibly designated as a World Heritage Site.

¹² Hatton and Rocha, (1994), *op cit*.



The boundary included a substantial human population, particularly in the lowland triangle near Dombe, and it includes a large part of the lowland forest from the Mussapa River at Zomba to Maronga near the Zimbabwe border, but it did not yet include Moribane forest under régulo Mpunga.

Staff from the Provincial Services of Forestry and Wildlife (*Serviços Provincial de Florestas e Fauna Bravia* - SPFFB) with their district staff started working in the TFCA in 1995-96 and in that year the CEF, the Forestry Research Centre (*Centro de Experimentação Florestal*) started work in Moribane Forest.

In 1999 as the result of discussions held during a visit to the area of the Ford Foundation various changes were made to the boundaries of the TFCA. Firstly staff from the TFCA had already been working in the Tsetsera area, on an *ad hoc* basis, as it was an area of biodiversity and a plateau over 2000 m with large areas of montane forests on the escarpments surrounding the plateau. It was in the initial phase of the TFCA a much safer and accessible area than the centre and south where a certain amount of peripheral post civil war violence and banditry carried out by the *Chimwenjes* (armed bandits often demobilized soldiers/deserters) continued well after the end of the civil war. In due course this area together with the Rotanda area was incorporated into the buffer TFCA.¹³

Much of the area between the northern end of the main Chimanimani Ranges and the Tsetsera plateau has been planted to exotic pine and eucalypt plantations from the late 1950s onwards. As the result of this much of the original montane forests and grasslands no longer exist.

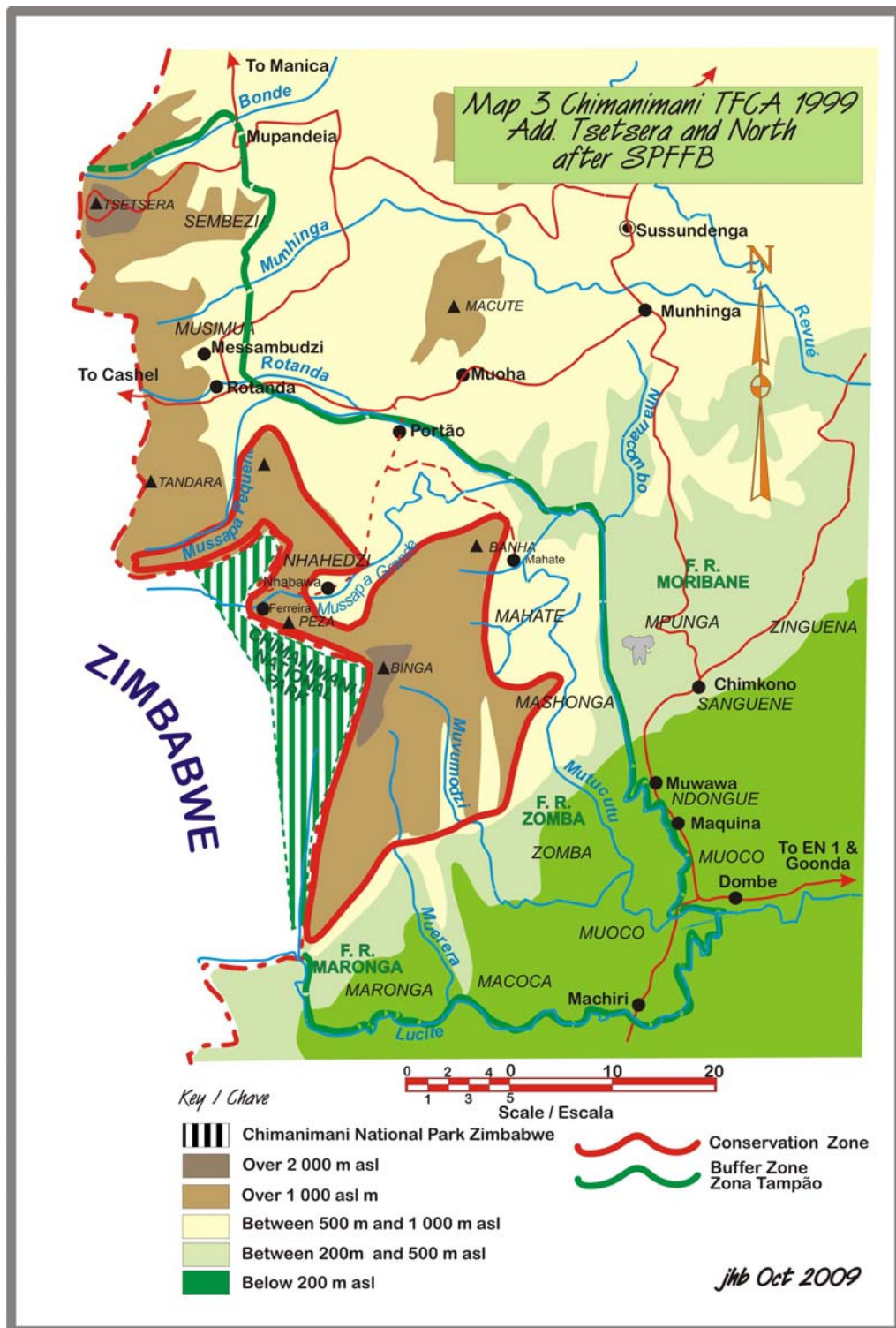
A workshop, held at the Motel Garuso on 2nd and 3rd of September 1999, addressed the question of the Chimanimani TFCA boundaries.

The key issues were:

- should the TFCA include Moribane forest and régulo Mpunga's area;
- And should the TFCA include the commercial plantations of exotic timber trees around Rotanda, run by IFLOMA?

As regards to Moribane Forest and régulo Mpunga's area; the conclusion of the workshop was that they should be included, on the grounds that the forest is important both biologically and for the spirits. However, it was also agreed that, since no representative from Chief Mpunga was present at the workshop, a delegation led by CEF should approach Chief Mpunga and determine his opinion on the point.

¹³ With the wisdom of hindsight this has caused problems inasmuch as it made the TFCA very large and difficult to manage with the available personnel. Perhaps Tsetsera should have been constituted as a separate protected area?



Regarding the IFLOMA plantations at Rotanda, Gutsa, and Messambuzi, the workshop concluded that the plantations should be included on the grounds that they represented a potential environmental impact on the area, and that they provided employment and other economic opportunities for the people of Chief Mussimwa.

Other matters agreed upon were that the remaining boundaries would follow those proposed by SPFFB prior to July 1999 (shown in Map 3). The exact boundaries in the area of Chief Mussimwa, for example, which *sagutas/chefes* should be included, would be decided later

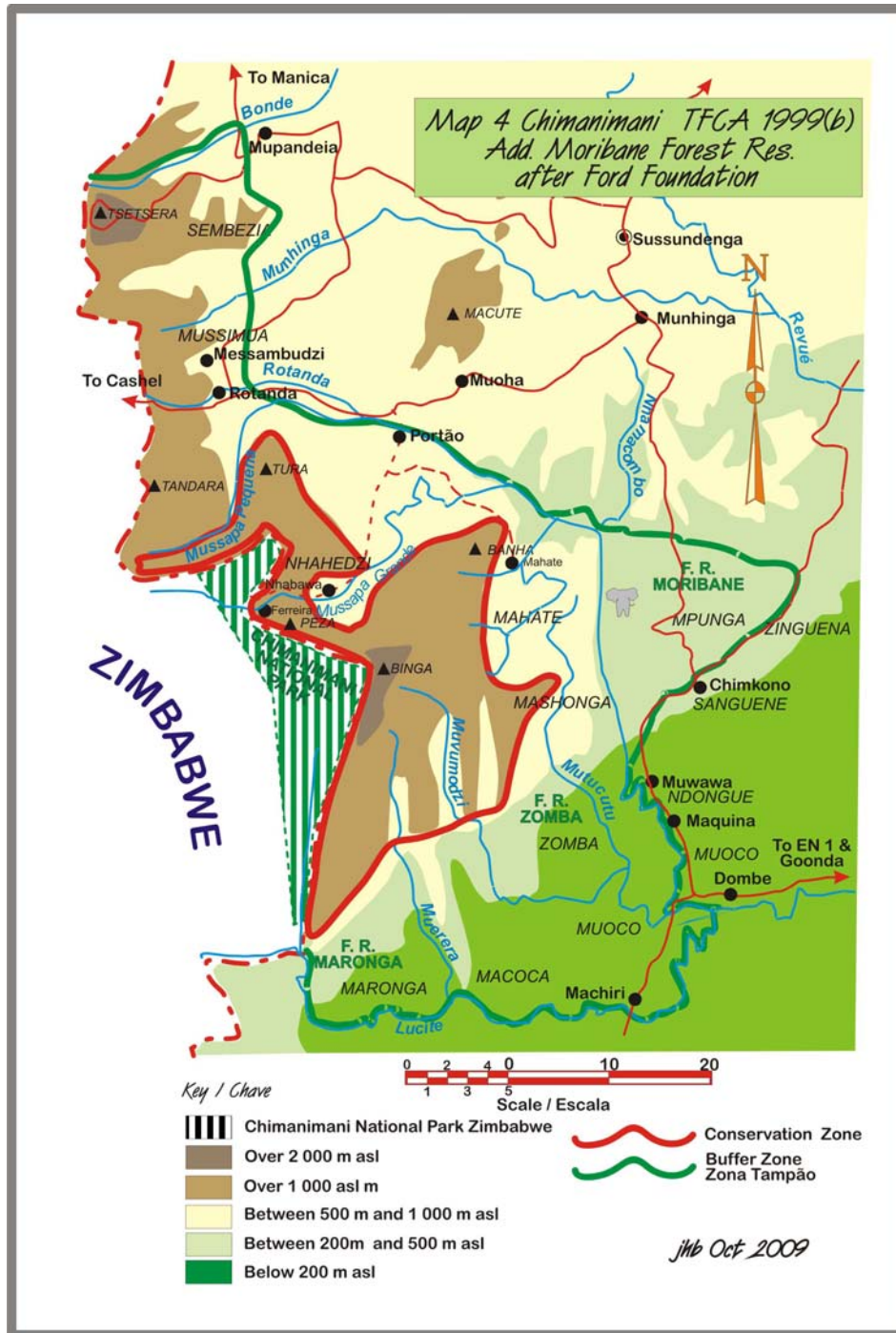
In 2000 a Management plan for the TFCA was compiled by Richard Bell, who had spent many years in Malawi working with protected areas and national Parks. Much of the present plan is based on Richards Bell's work. The plan consisted of a main report with 11 annexes. The annexes contained important information. Unfortunately, not all the annexes are now available and some had even to be obtained from Canada. This aspect is discussed elsewhere in this plan. Bell's report and recommendations were never implemented, neither was the proposal that a Nhakaedo Biosphere Reserve¹⁴ should be established.

The boundaries of both the Reserve and the buffer zone were subsequently defined by the Decree No. 34/2003. However this appears to have been done more as an office exercise, especially in regard to the core zone with straight lines drawn across maps between coordinates which several problems namely;

- The border did not follow natural features such as rivers, contours, watersheds or even traditional boundaries;
- The border was in cases quite unrealistic and included areas in the Reserve of no special biological or conservation value;
- Whole communities were unnecessarily included in the Reserve, especially in parts of the Gutsa and Nhahedzi areas.

New proposals for the boundaries of both the Reserve and the Buffer zone are proposed in this plan, where the boundaries follow more natural and populated areas have generally been removed from the conservation zone. Two communities in Régulo Nhahedzi's area — Nhabawa and Ferreira — originally inside the Reserve, will be left just outside the strict protection zone by the new limits, integrating them into community tourist activities, one of which is already underway at Nhabawa.

¹⁴ Nhakaedo means heritage in the Ndau dialect of Shona language



6 Objectives of the Chimanimani Conservation Area

6.1 Background

In 1999, R. Bell affirmed in his plan that: “Currently there is no clearly articulated or agreed set of objectives for Chimanimani”; he then proposed in the plan the following objectives as a starting point for discussion and negotiation:

- To improve the living standard of the people of the PNBR [*Proposed Nakaedo Biosphere Reserve, as the Chimanimani TFCA was proposed to be called*] through sustainable use of natural resources;
- To conserve and realise the spiritual, biological, economic and aesthetic values of the PNBR;
- To achieve the above while taking advantage of the opportunities offered by the location of the PNBR on the international border between Mozambique and Zimbabwe.

Bell’s management plan for the Chimanimani Conservation Area was never formally ratified and adopted: no further discussion and negotiation of the objectives was carried on and the area continued to be managed until present with no explicit long term objectives objectives.

6.1.1 The legal context about objectives of Protected Areas in Mozambique

The general framework of the management objectives for National Reserves in Mozambique and for Chimanimani in particular is given in the general and specific legal texts regulating the creation of the ChNR.

The Forest and Wildlife Act of 1999 gives general provision for the objectives of a National Reserve: “National Reserves are areas of total protection set aside for the protection of certain plant and animal species that are rare, endemic, threatened with extinction or in imminent decline and of fragile ecosystems such as wetlands, dunes, mangroves and coral reefs, as well as the conservation of the flora and fauna present in the same ecosystems”.

Decree num. 34/2003 creating the Reserve of Chimanimani also indicates the broad management objectives for area stating that: “Considering the ecological characteristics, the rich biodiversity and endemism of flora, the importance of Chimanimani massif as source of various rivers and the existence of mount Binga, the highest mountain of the country, it is necessary to protect the fauna and flora of the area”. It also states that the “Buffer Zone is created aiming at the multiple use of the natural resources within it”.

6.2 Objectives for the Chimanimani Conservation Area

6.2.1 Aim of the Chimanimani Conservation Area

The creation of the ChNR reflects three types of interests: environmental interests, socio-economic interests, political and institutional interests. These interests translate into *broad objectives* or aims of the protected area. In the national and regional context, aim of the ChNR is to contribute to:

- preserve the sources and watersheds of many important rivers of Central Mozambique;
- preserve the unique ecosystem representative of the Afro-montane ecoregion;
- preserve the biologic diversity of some of the most important and strategic parts of the remaining evergreen forests of Mozambique and Southern Africa;
- preserve the ancient cultural and historical heritage of Mozambique;
- preserve the cultural diversity of Mozambique;
- preserve the cultural and spiritual values of the Ndau people;
- the sustainable development of the Manica Province and the Sussundenga district.

Moreover, the Reserve contributes to fulfil the commitments made by the State in the framework of international conventions such as the African Convention for Conservation of Nature and Natural Resources (Maputo 2003).

6.2.2 Objectives of the Chimanimani Conservation Area

On the base of the current legal framework, the objectives proposed in the first plan and the ideas and opinion expressed by local stakeholders during the consultation phase of our work, the objectives for the Chimanimani Conservation Area are as follow:

- Prime objective of the ChNR is the one common to all Reserves as declared by the 1999 Forest and Wildlife Act of Mozambique, also reiterated in the Decree creating the Reserve:
 - “The protection of plant and animal species that are rare, endemic, threatened with extinction or in imminent decline and of fragile ecosystems”.

- After this general objective, we can recognize a series of specific objectives that are pursued by the Reserve:
 - a) The improvement of the living standard of local people through the creation of new livelihoods based on the ecotourism activity, the sustainable use of natural resources, the adoption of biological and mechanical conservations agriculture and the development of basic infrastructures;
 - b) The preservation, in a pristine state, of the unique landscapes of the Chimanimani highlands;
 - c) The preservation of the lowland and mid-altitude evergreen forests, which are among the most significant for the whole country;
 - d) The preservation of the water resource from the many rivers originating in the Chimanimani Mountains;
 - e) The preservation of the historical monuments;
 - f) The preservation of the spiritual landscape of Chimanimani;
 - g) The active involvement of local people in the management of the Conservation Area;
 - h) The informed management of the Reserve, on the base of decisions provided by a monitoring programme and scientific researches.

6.2.3 The vision for the Chimanimani Conservation Area

The vision that will guide the management of Chimanimani for the next years is built on eight main ideas:

- ❖ Within the next few years the Chimanimani Conservation Area will be managed by an enlarged and motivated Reserve staff. Management will entail regular meetings with the newly

created Management Board (*Conselho de Gestão da Área de Conservação - CGAC*): this will include all stakeholders and will meet at least twice yearly as well as whenever else necessary. Managers of the Chimanimani National Park in Zimbabwe will be invited to participate to the Board meetings and will be consulted for cross border issues, like law enforcement, wildlife and fire management, tourism development, exchanges of experience between the two staffs.

❖ New limits, that exclude people from the Reserve and include ecologically important areas, will be officially gazetted and demarcated on the ground, thus making them easily identifiable by local people and Reserve staff.

❖ Illegal activities in the Reserve will be under control through permanent presence of rangers and a well established patrolling system in the highlands, while selected goldpanner will be participating in a pilot study to assess the feasibility of driving gold panning in the Reserve to a legal, limited, socially and environmentally responsible artisanal mining. Poaching will be under control, reduced to a minimum, and will not concern large wildlife species. As a consequence, wildlife population will slowly recover, assuring the persistence of viable population of the larger species in the conservation area. Human-wildlife conflicts will be understood and *ad hoc* mitigation measures will be taken. The evergreen forest inside the Reserve will no longer be cut for agriculture and most of those in the buffer zone, particularly in Tsetsera, Tandara, Mahate, Maronga and Mpunga will be declared protected by local communities during the preparation of the Community Action Plans.

❖ Infrastructures will be developed, particularly access roads and river crossings, reserve headquarters, entrance gates and ranger posts. This will facilitate the management of the Reserve and will contribute to the development of tourism in Chimanimani.

❖ Tourism will be well developed: the logo, name and attractions of the Chimanimani Reserve will be known at the regional level and new camps will be opened and operated by private investors-local communities' joint-ventures. Other main infrastructures in the buffer zone, i.e. schools, health posts, bridges and roads, will be realized by the government to the benefit of the most underdeveloped communities of Chimanimani.

❖ Communities' leading roles in the management of the natural resources of the buffer zone will be recognised, formalised and strengthened. Land rights of communities will be secured: communities will be fully responsible of the sustainable management of their natural resources as they will now see it as their own responsibility rather than that of the government. Communities will adopt conservation measures and come to a sustainable use and management of the natural resources thanks to several incentives and alternative sources of income, such as ecotourism, community forestry, honey production, the sale of carbon credits, introduction of more intensive conservation agriculture.

❖ Chimanimani will be administrated on the base of informed management decisions provided by scientific researches and baseline data. A specific Decision Support System (DSS) will guide the process of planning the research and monitoring programme and will help storing the collected data in a systematic and functional manner. Researches will lead to better scientific insights and add to the international standing of the area.

❖ Finally, support and motivation of local communities to conserve the Chimanimani Conservation Area will increase through the proposed incentives and also an awareness programme carried out in collaboration with local schools and *Comité de Gestão* of each local community.

6.2.4 The general strategy to achieve the proposed objectives

Therefore, the strategies on which this management plan is based are:

- 1) Revision of the borders of the Reserve and Buffer Zone and creation of a new administrative structure (Programme 1)
- 2) Development of infrastructure and tourism (Programme 2)
- 3) Introduction of activities based on the sustainable use of natural resources, conservation agriculture and the creation of incentives for local people so that there are alternatives to the current unsustainable use of natural resources (Programme 3)
- 4) Research and environmental monitoring (Programme 4)
- 5) Introduction of a long term awareness programme (Programme 5)
- 6) Cross border coordination of specific activities (Chapter 7 of Volume 2).

These are presented in details in the Volume 2 of this plan.