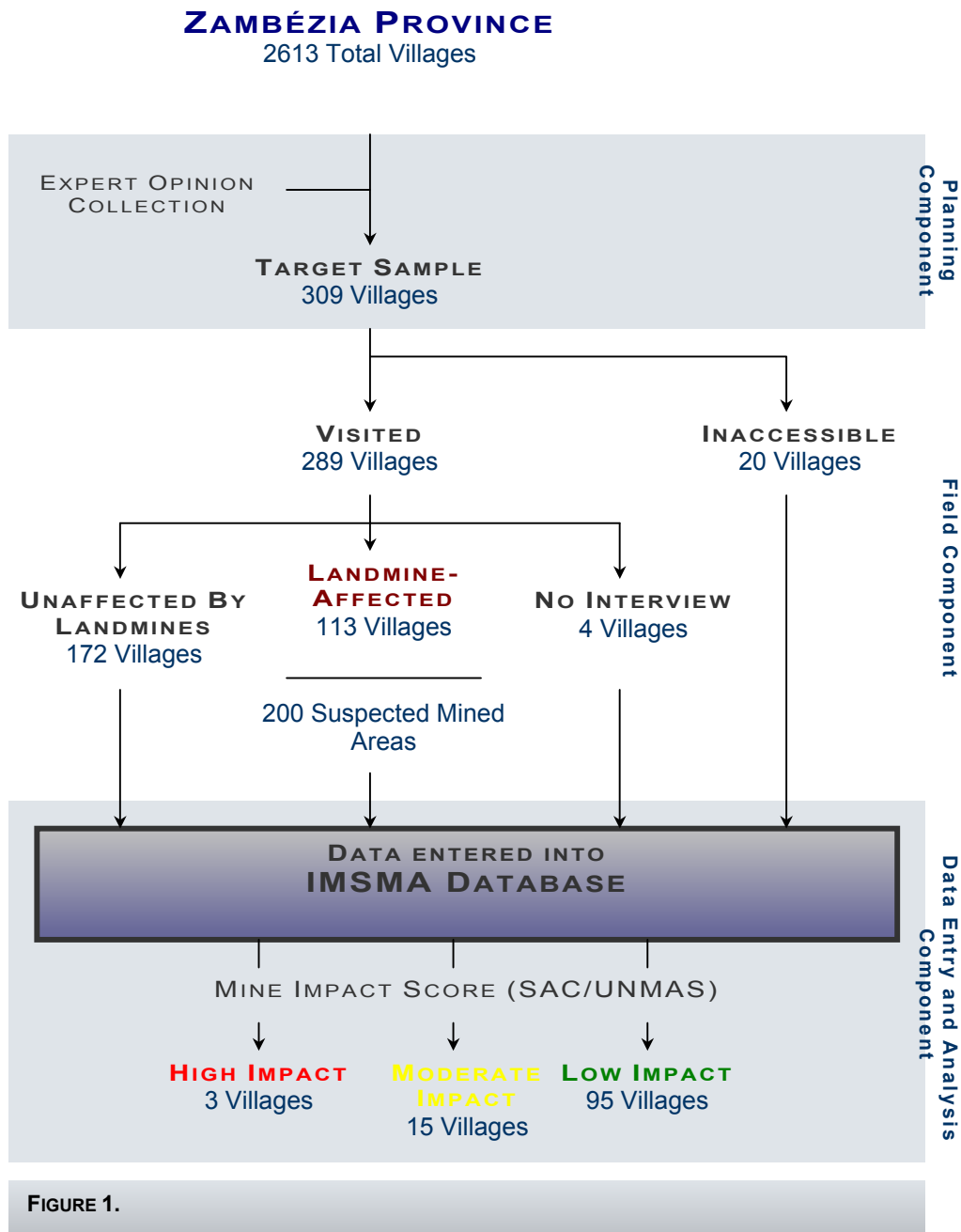


OVERVIEW FOR ZAMBÉZIA PROVINCE



The term “village” as used herein has the same meaning as the term “community” used elsewhere.

Schematic of process.



The Mozambique Landmine Impact Survey (MLIS) visited every District in Zambézia except Cidade de Quelimane and Inhassunge, which are considered by Mozambican authorities not to be landmine-affected, and Chinde, access to which is limited and baseline data for which are non-existent. Of the 289 villages visited, 113 identified themselves as landmine-affected, reporting 200 Suspected Mined Areas (SMAs). Four villages could not be found or were already visited under an alternate village name. Figure 1 provides an overview of the survey process: village selection; data collection; and data-entry into the Information Management System for Mine Action (IMSMA), out of which is generated the Mine Impact Score (Appendix I).

Expert Opinion Collection formed the basis for the selection of villages. Information from 23 Official Interviews, data from organizations active in the Province (HALO Trust, Handicap International) and from the National Demining Institute (DITERS Database) served as a basis for preparing a target list of 309 villages to be visited throughout the Province.

Village Survey Questionnaires were administered in every village found to be landmine-affected to a total of 946 Interviewees. The vast majority of Interviewees (73%) had occupations in agriculture, fishing and related activities, followed by manufacturing, mineral exploration/extraction and the service industry. All age groups were well represented. Thirty-one per cent of Interviewees were aged from 15 to 29 years, and 37% aged from 30 to 44 years. The remaining one-third was accounted for by Interviewees older than 44 years or of unknown age. Women participated in 44% of group interviews.

Provincial summary indicating number of CIDC village visits, population and reported Suspected Mined Areas and victims.

District	Villages		Population	Mined Areas and Victims		
	Affected Villages	Unaffected Villages	Affected Population	Number of SMAs	Victims in Last 2 Years	Total Victims
ALTO MOLOCUE	6	14	9,927	11	0	1
GILE	7	14	11,118	10	3	10*
GURUE	11	9	19,784	23	4	17
ILE	8	15	17,283	17	0	32
LUGELA	14	3	12,938	31	1	48
MAGANJA DA COSTA	8	18	13,639	13	0	15
MILANGE	11	16	19,224	25	1	36
MOCUBA	9	8	16,040	17	0	31*
MOPEIA	7	5	10,112	9	10	40
MORRUMBALA	9	27	15,930	13	3	29
NAMACURRA	6	1	9,370	9	1	12
NAMARROI	7	9	8,893	8	0	18
NICODALA	3	13	2,885	4	0	7
PEBANE	7	20	4,384	10	0	4
Total	113	172	171,527	200	23	300

* Minimum value: certain communities could not report the precise number of victims

TABLE 1.

Table 1 summarises the principal findings for Zambézia by District. A further breakdown by village in each District visited can be found at Appendix II.

Landmine-affected villages were identified in each District visited and were most numerous in the Districts of Lugela (14), Milange (11) and Gurue (11), all of which also reported the highest number of SMAs with 31, 25 and 23 respectively. Lugela District and Milange District also reported above-average numbers of total victims, while that for Gurue District was slightly below the District average. Several Districts, including Ile, Mopeia, and Morrumbala, that reported fewer landmine-affected villages nevertheless reported above-average numbers of total victims. Lugela, Milange, and Gurue Districts all reported landmine victims within the two years preceding the MLIS. Mopeia District, which had relatively few landmine-affected villages and SMAs, reported 40 victims, ten of them within the two years preceding

the MLIS, accounting for 43% of the total number of victims during that period. The potentially affected populations in the Districts of Lugela, Milange, Gurue and Mopeia accounted for 36% of the total potentially affected population.

VICTIMS AND IMPACTS

VICTIMS

In total, 74 of 113 (65%) landmine-affected villages reported a total of at least 300 victims since the beginning of the Independence Struggle (two villages could not specify the number of victims). Victims from six villages, each with at least 10 reported victims, accounted for 106 of 297 (35%) of the total victim tally for the Province.

Twenty-three landmine victims were reported from eight villages during the two-year period preceding the MLIS, of whom six were killed and nine injured. Information on the type of wound was not available for the remaining victims. The village of Chimuara in Mopeia District reported ten victims during that period due to a single accident, but no information was available about the age, sex or activities of those victims. Additional information was available for 12 recent victims: nine (75%) were males of varying ages; eight were engaged in collecting food or water at the time of the accident; and three were engaged in farming activities.

IMPACTS ON RESOURCES AND INFRASTRUCTURE

Figure 2 displays the number of villages in Zambézia with blocked access to roads, infrastructure (bridges, airstrips, railroads, and powerlines), services (educational, cultural, and health facilities) and a variety of resources (water, cropland, pastureland and non-agricultural land).

Blockage impacts on resources were reported as follows, in descending order of frequency: cropland (81 of 113 villages, or 72%); non-agricultural land (used for hunting, gathering fruit and medicinal plants, and collecting firewood and building materials; 27 of 113 villages, or 24%); and water for purposes other than drinking (14 of 113 villages or 12%). Eight (7%) villages reported blocked access to drinking water, and no villages reported blocked access to pasture.

Blockage to roads was reported by 26 of 113 villages (23%), followed by blockage to infrastructure points (19%) and services (8%).

Twenty villages (18%) reported seasonal variation in the severity of impacts: ten reported greater severity when the soil is burned and prepared for planting; five reported greater severity during harvest periods; and five reported greater severity during the rainy season. The vast majority of villages (93 of 113, or 82%) reported that there was no particular season during which landmines had a greater impact on their village.

Number of villages reporting blockage impacts by type

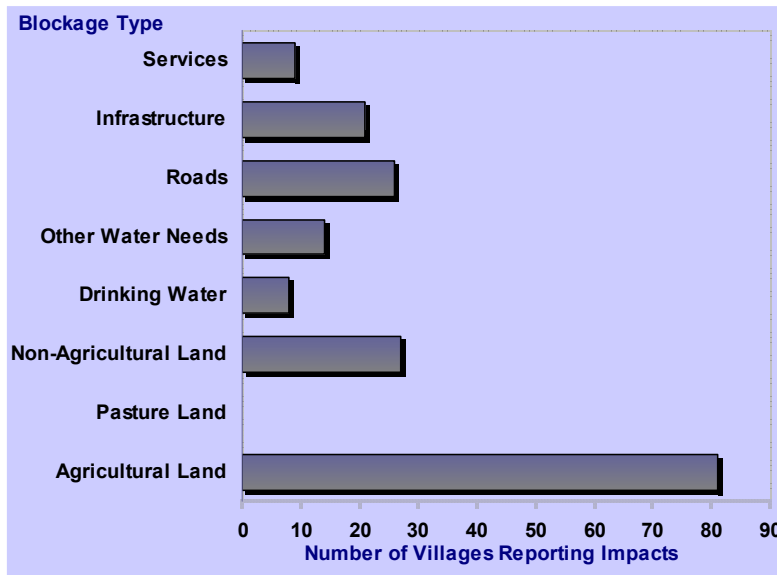


FIGURE 2.

For 79 of 113 (70%) villages, more than one half of Interviewees reported that they worry a great deal about the presence of landmines, while for the remainder of villages (30%), the majority of Interviewees worry a little or not at all. In total, 802 of 946 (85%) Interviewees reported that they worry about landmines in their village, of whom 596 (63%) reported that they worry a great deal. Overall, 729 of all Interviewees

(77%) reported that the presence of landmines changes their behaviour.

MINE IMPACT SCORE

The Mine Impact Score developed by the Survey Action Centre and the United Nations Mine Action Service distils a number of important variables (presence of landmines/UXO, blockage impacts and recent victims) into a single index that permits comparisons among villages. The weights used by the CIDC to generate the scores can be found at Appendix I.

Except in the improbable event that large numbers of recent victims (victims reported within two-year period preceding the MLIS) are widespread, the Mine Impact Score assigns a large number of villages to the low-impact category. The need has therefore been expressed in Mozambique for a tool that would assist in establishing priorities among those low-impact villages. Some alternative indices are discussed in the national report.

Three villages in Zambézia fell into the high-impact category (Figure 3), two of them (Morrumbala and Mopeia) in the western portion of the Province, and one (Gurue) in the north. A total of 15 moderately impacted villages were identified, five of which were found in Lugela District. The aggregate population of the highly and moderately impacted villages totals over 34,000 persons. Low-impact villages, of which there were 95, were found to be dispersed throughout the Province.

Of the 113 landmine-affected villages, 37 (33%) identified the impacts as becoming more severe with time, while 25 (22%) reported the impacts as becoming less severe with time.

Map of Zambézia Districts illustrating the distribution of group interviews and their Mine Impact Score.

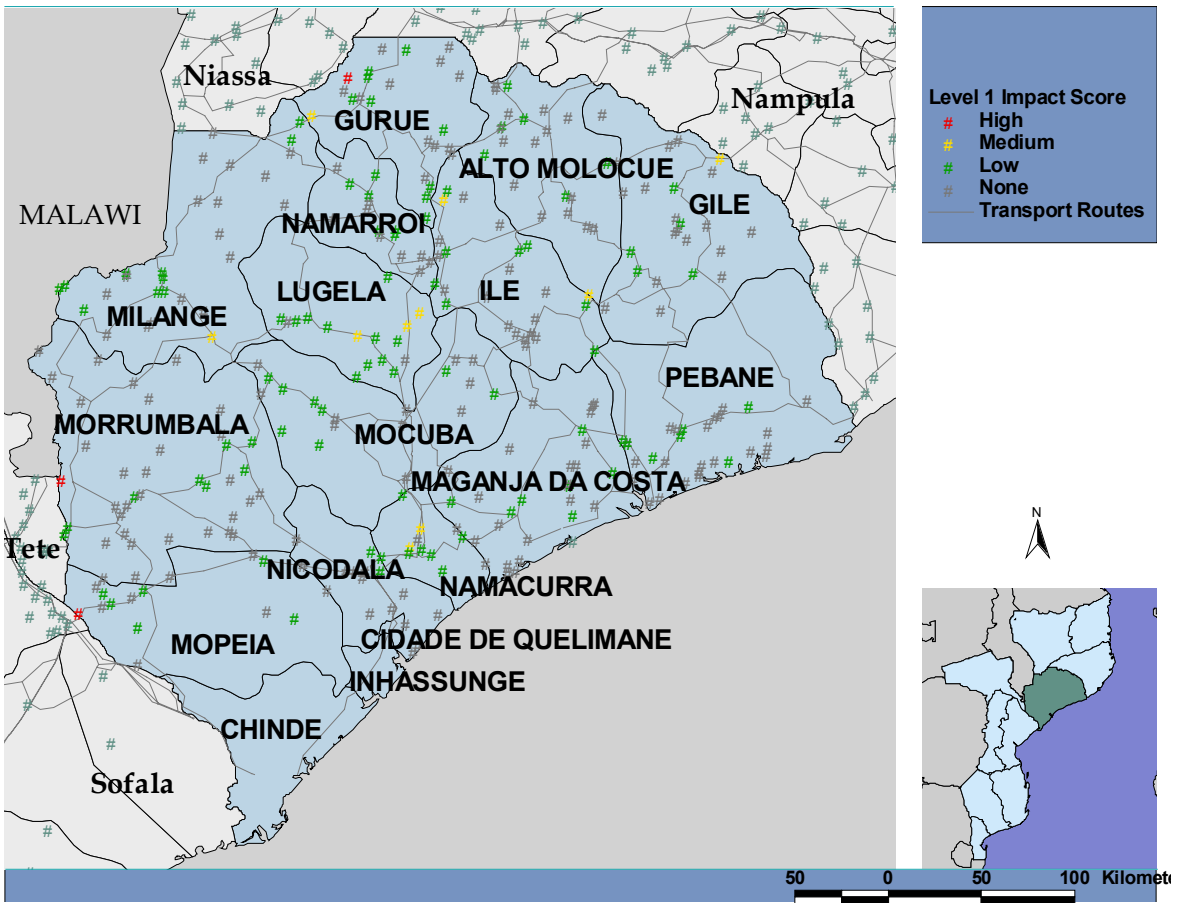


FIGURE 3.

MINE CONTAMINATION

DISTRIBUTION OF SUSPECTED MINED AREAS

Figure 4 illustrates that landmine contamination is generally concentrated along major transport routes in the central Districts of Lugela and Mocuba, and along the borders with Tete Province (Mopeia and Morrumbala Districts) and Niassa Province (Gurue District). SMAs also appear to be highly concentrated around the District capital of Namacurra.

Map of Zambézia Districts and administrative centres, illustrating the distribution of Suspected Mined Areas.

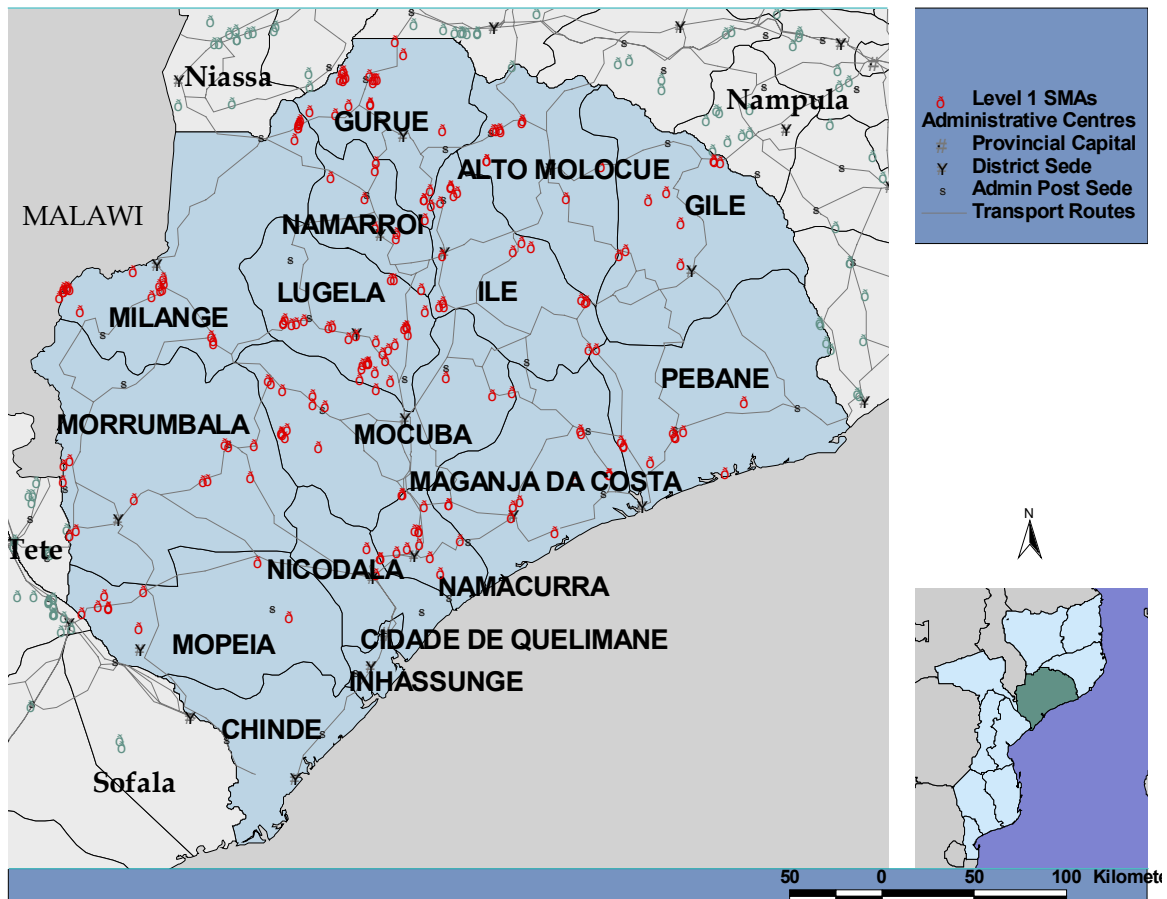


FIGURE 4.

Of the 113 landmine-affected villages reported in Zambézia, 56% reported a single SMA and 36% reported two or three SMAs. Nine villages identified four, five or six SMAs.

Information on the year in which landmines were first laid and the year in which they were last laid was reported for 54% and 46% of SMAs respectively. The vast majority of SMAs were created between 1982 and 1989, accounting for 94% of SMAs. Reported mine-laying reached a peak in 1986 when mines in 21 SMAs were first laid. The landmines in 37% of SMAs were last laid between 1986 and 1988 and in 39% of SMAs in 1992, which was the last year in which landmines were reportedly laid.

TERRAIN AND TYPES OF ORDNANCE

SMA were predominantly described as having a flat ground profile (68%). Mixed vegetation was reported as the most common vegetation cover, accounting for 49% of SMAs, followed by grasses accounting for 40% of SMAs.

Most commonly, SMAs were classified as being proximate to trails (15%) and roads (10%). Thirty SMAs (15%) were classified as former military installations.

Most SMAs (147 of 200, or 74%) were reported to have no marking (signs or fences) that would indicate the area to be landmine-contaminated.

Of 113 landmine-affected villages, two (2%) reported harbouring unexploded ordnance (UXO), and an additional 11 (10%) reported harbouring both landmines and UXO. The remainder consisted solely of landmines.

SIZE AND DISTANCE OF SUSPECTED MINED AREAS

Frequency histogram of various Suspected Mined Area sizes

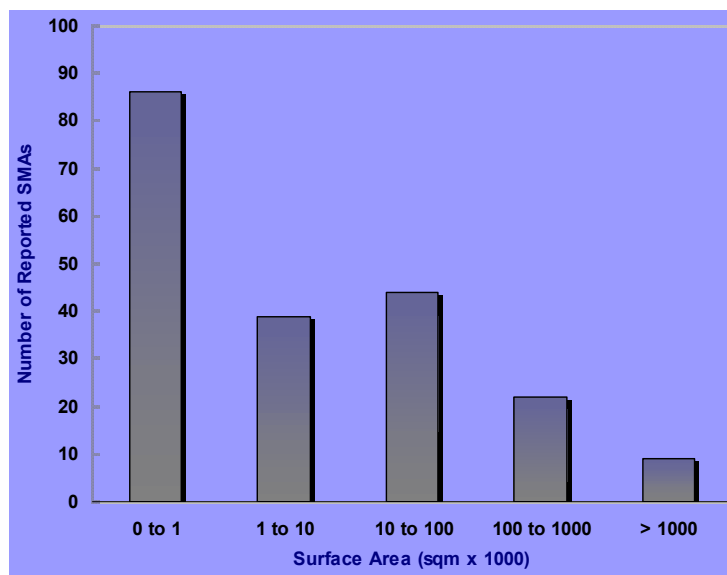


FIGURE 5.

A vast range of SMA sizes were reported, from several reports of single UXOs to SMAs covering tens of square kilometers, the greatest being the village of Calavete in Milange District, reporting a SMA covering 45.9 km². Figure 5 shows the range of size estimates for the reported SMAs in Zambézia. Forty-three per cent of SMAs were reported to be less than or equal to 1000 m², many of which are mined infrastructure points.

Eighty per cent (80%) of SMAs were reported to occur within 4 km of the affected village and 95% were estimated to occur within 10 km. The most distant SMA was reported at a distance of 13.5 km from the affected village.

CONCLUSION

The principal findings of the MLIS in Zambézia are as follows:

- The District of Lugela reported the most landmine-affected villages, SMAs, and victims. The Districts of Gurue and Milange followed, although Mopeia District reported more victims than either of those Districts;
- Over 170,000 persons out of a total of 2,445,940 live in villages harbouring landmines, with almost 300 reported victims, 23 of whom were reported within the two years preceding the MLIS;
- Three villages were considered highly impacted and 15 villages were considered to be moderately impacted based on the Mine Impact Score;
- Blocked access to cropland is the most commonly reported impact of landmines on villages (72%).

APPENDIX I – MINE IMPACT SCORE WEIGHTS

Variable	Weight
Types of Ordnance	
Landmines	2*
Unexploded Ordnance (UXO)	1*
Blockage Impacts	
Rainfed cropland	2
Irrigated cropland	0
Fixed Pasture	2
Migratory pasture	0
Non-agricultural land	1
Drinking Water	2
Other water uses	1
Housing area was blocked	0
Roads	1
Other infrastructure	1
Victims	
Victims within last 24 months	2*

Weightings Assigned to Variables in Calculation of the Village Mine Impact Scores

Fixed Weights value cannot be changed

APPENDIX II – VILLAGE VISITS

LANDMINE-FREE VILLAGES:

District	Villages
MOCUBA	GUJA
	IMPOLIUA
	MANGANHA
	MARIHA
	MATEUS
	MEBUDONA
	MUGUVA
NAMAQUITA	
MOPEIA	CARDOSO
	MILONGUE
	MURRIUA
	NAMINGULO
MORRUMBALA	PUNDUMA
	BORDOMA
	CALULA
	CARICO
	CHOTAMA
	CUAGIA
	CUMBAPO
	GIDA
	INGOMUA
	LAMPATA
	MACHINDO
	MANECA
	MARTENE
	MIRANDA
	MUANDIUA
	NAMAREMA
	NAMBUI
	NHAZAZA
	NOFRE
	P.NEDUMBUA
	PISSO
	POMBA
	RAPOSO
	SABE
	SEMENTE
	VUNGATINTA
	ZAUARA
ZUNGUZA	
PEBANE	ALTO MAGANHA
	MAIAIA
	MALEMA
	MANAUANH/MARRAUANHA
	MAREQUELE/MURREGUELE
	MOALI
	MOEBASE
	MUCADA
	MUJAIANE
	MURIRIA
	MUTAGANE
	MUTUSA
	NABE
	NABIA
	NABIA/NAUAGA
	NABIZE
	NIBUGUNE
	NOGONHA/NAGONHA
	SANTA LAIL

District	Villages
ALTO MOLOCUE	CHAPALA
	CONANE
	ECOLE
	HERCULANO
	JULIAO
	METUTA
	MOHIUA
	MUANTAUA
	MUHIRRO
	MUNAVILIVA
GILE	MURICO
	MUTALA
	NAMACALA
	NAMUCOMA
	ILUTE
	INTORO
	KHATXELA
	MAMARROCANE
	MARECA
	MUHANO
MURIAMULI	
MILANGE	MUTXORA
	NAGONHA
	NAMIGONHA
	NAMURRA/NEGOVE
	NAQUISSUPA
	NICACALE
	PURY
	BELUA
	CAPINDO
	IMPOLIWA
NICODALA	LIGUDURO
	MBEDIUA
	MISIASSE
	MUGULIWA
	NAMALUMBE
	NAMBRUMA
	NANHENDE
	NEHIA
	PINDULA
	SUDE "1"
NICODALA	TEBO
	ZALIMBA
	ZULUMBA
	BORROMA
	ELUGA
	ILALANE II
	LICUARI
	MARUTANE
	MOLA
	MUCOCORA 2°
MUNDIMO	
NAMBILANE	
NANTA	
NUCELO-NOVO	
PALANE	
SUMINE	

District	Villages	
ILE	1° BAIRRO	
	MALALEIA	
	MANLA	
	MATACALA	
	MUHA	
	MUILANASSI	
	MULEVALA	
	MUNONA	
	NAMANDA	
	NAMIGONHA	
LUGELA	NAMURO	
	NIGULA	
	NIVILA	
	SEMELA	
	TESSIUA	
	MACUSE	
	NAMADOE	
	NANDOGO	
	MAGANJA DA COSTA	ILIMA
		MACUDANE
MANEIA		
MAPIRA		
MAPUTI		
MISSAL		
MOROLA		
MUCARRUA		
MUDARIUA		
MUNDULAI		
MURRAMELA		
GURUE	MURROGUIUA/BICICLETA	
	MUSSAIA	
	NABALANE	
	NAMITAGA	
	NAMUTETE	
	NHAFUBA	
	TAPATA	
	GOMOLE	
	IMPIRA	
	INCIZE	
MANLE		
MEPUAGIUA		
METOVOLA		
MUALA		
MUCOPOA		
NATOTA		
NAMACURRA	MPUESSAGOLE	
NAMARROI	CURIPE	
	ERAMUA	
	INLUGO	
	MADIA	
	MALEHI	
	MUSSISSI	
	MUTUELA	
	NAMIGONHANE	
	SAMORA MACHEL	

LANDMINE-AFFECTED VILLAGES:

District	Admin Post	Village	Village Population	Number of SMAs	Total Victims	Recent Victims	Mine Impact Score
ALTO MOLOCUE							
NAUELA							
		MUGEMA	1623	2	0	0	Low
		HAUELA	2086	4	0	0	Low
		COLOLO	2292	2	1	0	Low
		CAVALA	2615	1	0	0	Low
SEDE							
		MUGIUA	788	1	0	0	Low
		NOVAVANA	523	1	0	0	Low
GILE							
ALTO LIGONHA							
		INTXOTXA	710	1	0	0	Low
		REUA	2090	2	1	0	Low
		CAVARO	1688	3	5	0	Medium
GILE							
		GILE	1689	1	1	0	Low
		QUIRULE	1060	1	N/A	3	Medium
		UAPE SEDE	2254	1	0	0	Low
		NAPACALA	1627	1	0	0	Low
GURUE							
GURUE							
		LIOMA SEDE	4172	1	0	0	Low
		MUSSACULA	988	4	1	0	Low
		NIVAVA	2122	2	0	0	Low
		VAIA	2686	1	2	0	Low
		UACUA	2082	2	3	0	Low
		MOQUITA	749	6	3	3	High
		TETETE	1743	2	1	1	Medium
LIOMA							
		CURARE	3413	1	2	0	Medium
		IMPULA	306	1	4	0	Low
		MACUARO	229	2	1	0	Low
		NIPIVE	1294	1	0	0	Low
ILE							
ILE							
		1 DE JUNHO	1980	1	1	0	Low
		NAPUA	5334	2	4	0	Low
		MUGULANA	4037	1	0	0	Low
		CUDURIA	274	3	13	0	Low
MULEVALA							
		MURUA/MORRUA	1015	2	4	0	Low
		NAROPINO	946	2	0	0	Low
SOCONE							
		MACUNO 1B1	1901	2	0	0	Low
		MUZALA	1796	4	10	0	Medium

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District	Admin Post	Village	Village Population	Number of SMAs	Total Victims	Recent Victims	Mine Impact Score
LUGELA							
LUGELA							
		DABANE	1897	2	0	0	Medium
		MUSSENGANE	573	1	4	0	Low
		CAJELO	110	2	23	0	Low
MANHAMADE							
		POUPE	934	3	1	0	Low
		NAMUTALANE	1184	1	0	0	Low
		MURRAMBALA	284	5	0	0	Low
		DABADULA	206	3	3	0	Medium
		TADANE	411	1	0	0	Low
		MUCOIA	1323	4	1	0	Medium
		TOLIUA	1947	1	1	1	Medium
TACUANE							
		MUCAMULA	1545	2	9	0	Medium
		NAMADEULA	99	1	0	0	Low
		CULIA/NABODE	552	2	4	0	Low
		LINIBUE	1873	3	2	0	Low
MAGANJA DA COSTA							
BOJONE							
		MUIA PAQUELIUA	2775	1	1	0	Low
		ALTO-MUTABIDE	1373	2	0	0	Low
MAGANJA DA COSTA							
		NAMITANGUIRINE	2999	1	1	0	Low
		MUTEUA	1243	2	0	0	Low
		CARIUA	2241	3	0	0	Low
MOCUBELA							
		MOCUBELA	1626	2	7	0	Low
		MURABIUA	Unknown	1	4	0	Low
NANTE							
		MONEIA	1382	1	2	0	Low
MILANGE							
MAJAUUA							
		TORROMUE	698	3	4	0	Low
		MAJAUUA	846	4	9	0	Low
MILANGE							
		PONDEANE	2594	1	3	0	Low
		NANGANHIRA/M	2297	1	3	0	Low
		SOMBUA	2273	1	2	0	Medium
		CONGONO	4209	3	7	0	Medium
		CALAVETE	879	1	3	0	Low
		TENGUA	1924	3	2	1	Low
MOLUMBO							
		CHISSAUUA	382	1	0	0	Low
		SEMO	1498	6	3	0	Low
MONGUE							
		CHIMDIO	1624	1	0	0	Low

CONTINUED ON NEXT PAGE

District	Admin Post	Village	Village Population	Number of SMAs	Total Victims	Recent Victims	Mine Impact Score
MOCUBA							
CIDADE DE MOCUBA							
		RIBIA	822	2	1	0	Low
MUGEBA							
		MUGEBA SEDE E	3322	1	1	0	Low
		MUOQUIUA	2735	2	N/A	0	Low
NAMAJAVIRA							
		MACHINGA	1263	2	6	0	Low
		MUCUILA	2894	1	0	0	Low
		CHIMBUA	1396	5	19	0	Low
		SINCONGO	1064	1	1	0	Low
		LIGUANGUA	1287	1	2	0	Low
		MACALANGE	1257	2	1	0	Low
MOPEIA							
CAMPO							
		JOSINA MACHEL	253	1	2	0	Low
		LUALA	2403	1	0	0	Low
MOPEIA							
		MARRUMA	1928	1	2	0	Low
		CHIMUARA	3457	1	31	10	High
		FARDO	455	1	0	0	Low
		CHERENE	845	3	2	0	Low
		N1ZERO	771	1	3	0	Low
MORRUMBALA							
DERRE							
		CHILO	4416	1	1	0	Low
		MAJARA	3582	1	0	0	Low
		DERRE	396	2	7	0	Low
		MECANECA	410	1	1	0	Low
MEGAZA							
		MEGAZA	1171	3	7	3	High
		NDAMBUEDA	3334	1	0	0	Low
		PINDA	1214	2	0	0	Low
MORRUMBALA							
		MARUNDO	1298	1	10	0	Low
		PITE	109	1	3	0	Low
NAMACURRA							
NAMACURRA							
		MAULATE	2039	1	3	0	Medium
		CAPAINA	1516	1	0	0	Low
		LIASSE	864	3	8	1	Medium
		MUTAKA	2144	2	0	0	Low
		MUIUA	854	1	0	0	Low
		MUGUBIA	1953	1	1	0	Low

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District	Admin Post	Village	Village Population	Number of SMAs	Total Victims	Recent Victims	Mine Impact Score
NAMARROI							
NAMARROI							
		MURAUANE	1265	1	2	0	Low
		MUALIA	1547	1	1	0	Low
		MAHOLO	1076	1	0	0	Low
		NATEPO	1242	1	5	0	Low
REGONE							
		MAQUIRINGA	2708	2	3	0	Medium
		MARRONGANE	Unknown	1	0	0	Low
		NAMARUA	1055	1	7	0	Low
NICODALA							
NICODALA							
		MAGAIO	817	1	1	0	Low
		DUGUDIUA	1317	2	1	0	Low
		PORTUGAL	751	1	5	0	Low
PEBANE							
MULELA MUALAMA							
		QUICHANGA	471	1	0	0	Low
		EHUCUA	487	3	2	0	Low
		PIPINE	375	1	0	0	Low
		CUTALE	821	1	1	0	Low
PEBANE							
		MITALE	934	1	0	0	Low
		IMPACA	695	2	0	0	Low
		NAPIQUIRISSE	601	1	1	0	Low

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