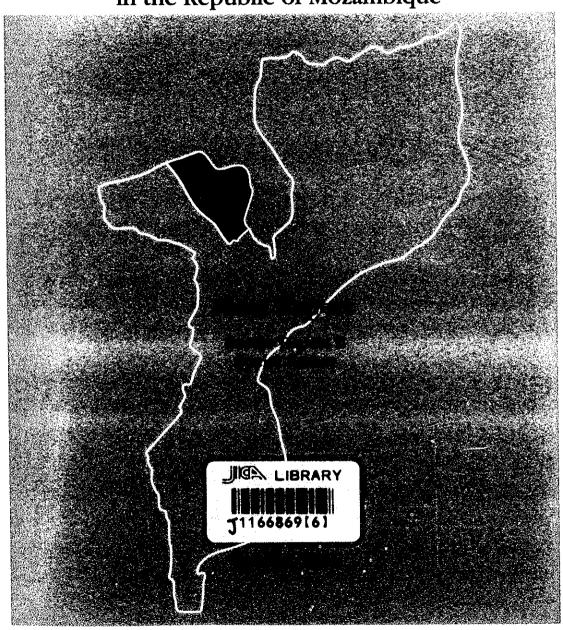
Japan International Cooperation Agency (JICA)

Zambezi Valley Development Authority
The Republic of Mozambique

The Study on the Integrated Development Master Plan of the Angonia Region in the Republic of Mozambique



RECS International Inc. Sanyu Consultants Inc.

S	SF
J	R
01-	142

Japan International Cooperation Agency (JICA)

Zambezi Valley Development Authority
The Republic of Mozambique

The Study on the Integrated Development Master Plan of the Angonia Region in the Republic of Mozambique

Final Report Sector Report 2 Social Sector

October, 2001

RECS International Inc.
Sanyu Consultants Inc.

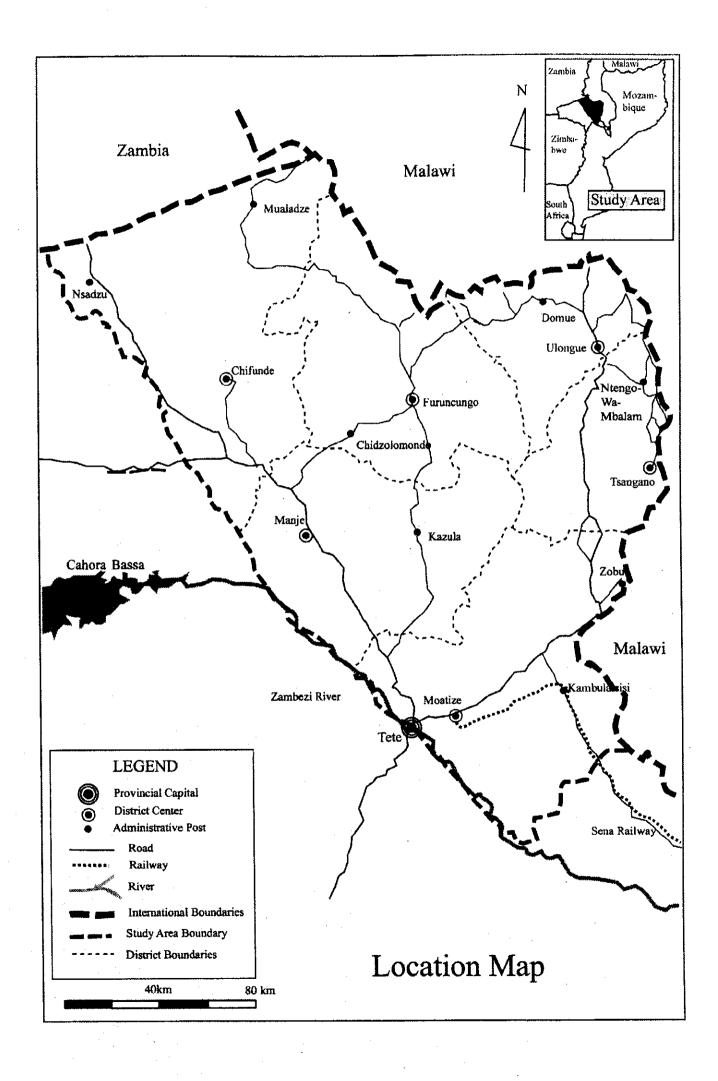
1166869[6]

List of Reports

•	
Volume I	Executive Summary Report
Volume II	Master Plan Report
Volume III	Sector Report 1: Economic Sector
	(1) Agriculture
	(2) Mining
	(3) Industry and Small and Medium Business
	(4) Trade and Services
Volume IV	Sector Report 2: Social Sector
	(1) Education and Training
	(2) Public Health Development
	(3) Community Development and Participatory Approach
Volume V	Sector Report 3: Environment
Volume VI	Sector Report 4: Infrastructure
	(1) Transportation
	(2) Telecommunication
	(3) Energy
	(4) Water Resources
Volume VII	Sector Report 5: Administration, Finance and Institutions
Volume VIII	Project Report
•	(1) Project Profiles

(2) In-Depth Studies

•



Abbreviations

ADM Airport Authority of Mozambique ADP Accelerated Demining Program

ADPP/DAPP Development Aid from People to People
AIDS Acquired immune deficiency syndrome

ANE Road Authority

ARA Regional Administration of Water
ARC Action for the Rights of Children
ASPS Agricultural sector program support

BAD African Development Bank

BADEA Arab Bank for African Development
CAIA Agro-Industrial Complex of Angonia
CCAP Church of Central African Presbyterian

CCF Cease-fire Commission
CFM Port and Railway Authority

CIDA Canadian International Development Agency

CIDAC Centro de Informação e Documentação Amílcar Cabral (Amílcar Cabral

Center of Information and Documentation)

CIDC Canadian International Demining Center

CPI Investment Promotion Center

DANIDA Danish International Development Assistance

DAs District Administrators

DNA National Directorate of Water EDM Electricity of Mozambique

EIA Environmental impact assessment FRELIMO Mozambique Liberation Front

GDP Gross domestic product
GNP Gross national product

GPZ Gabinete do Plano de Desenvolvimento da Região do Zambezi

(Zambezi Valley Development Authority)

GRDP Gross regional domestic product

HALO Trust Hazardous Area Life-Support Organisation Trust

HCB Cahora Bassa Hydropower Corporation

HI Handicap International

HIV Human immuno-deficiency virus

IDB Inter-American Development Bank

IDPs Internally displaced persons
IMF International Monetary Fund
INE Institute of National Statistics
IRC International Rescue Committee

ISCOS Istituto Sindacale per la Cooperazione allo Sviluppo

IVA Value added tax

JCI Japan Consulting Institute

JICA Japan International Cooperation Agency

LAM Mozambique Air Lines

LWF Lutheran World Federation

MARD Ministry of Agriculture and Rural Development

mCel Mozambique Cellular

MEDDS Mechem Explosives and Drug Detection System

MIAF Mozambique National Household Survey on Living Conditions

MICOA Ministry of Environmental Action Coordination

MINED Ministry of Education

MIPF Ministry of Planning and Finance
MLTC Mozambique Leaf Tobacco Company

MMRE Ministry of Mineral Resources and Energy

MOH Ministry of Health

MOTC Ministry of Transport and Communications

MPF Ministry of Planning and Finance

MPWH Ministry of Public Works and Housing
MTLC Mozambique Tobacco Leaf Company

NACP National AIDS Control Program

NDI National Demining Institute
NGO Non-government organization

NHS National Health System

NMCC National Mine Clearance Commission

NORAD Norwegian Agency for International Development

NPA Norwegian People's Aid

NRC Norwegian Refugee Council

OD Origin-destination

ODA British Overseas Development Administration

ONG National Directorate of Geology

ONUMOZ United Nations Operation in Mozambique

OPEC Organization of Petroleum Exporting Countries

PAR Participatory action research

PARPA Action Plan for Reduction of Absolute Poverty

PHC Primary health care

PLA Participatory learning and action

PRA Participatory rural appraisal

PROAGRI National Program of Agrarian Development

RA Rural appraisal

RENAMO Mozambique National Resistance

RRA Rapid rural appraisal

S/W Scope of work

SAC Survey Action Center

SCS Special Clearance Services

SIDA Swedish International Development Agency

SLP Sena line program

TDM Telecommunications of Mozambique

UNDAF United Nations Common Development Assistance Framework

UNDP United Nations Development Program

UNHCR United Nations High Commission for Refugees

UNICEF United Nations Children's Fund

UNIDO United Nations Industrial Development Organization

UNOHAC United Nations Office for Humanitarian Assistance Coordination

WVI World Vision International

ZMM-GT Zambezi-Malawi-Mozambique Growth Triangle

The Study on the Integrated Development Master Plan of the Angonia Region

Sector Report 2: Social Sector

Part 1: Education and Training

Contents

			Page
Chapter	1	Overview	1-1
_	1.1	Educational System in Mozambique	1-1
	1.2	Organizational Structure	1-2
	1.3	Distribution of Institutions in Tete Province	1-2
		1.3.1 Primary schools	1-4
		1.3.2 Secondary schools	1-6
•		1.3.3 Professional and technical schools	1-7
		1.3.4 Teacher-training schools	1-8
		1.3.5 Extra-school education and training facilities	1-8
Chapter	2	Existing Conditions of Education and Training	1-9
F	2.1	Educational Background	1-9
		2.1.1 Literacy	1-9
		2.1.2 Levels of education	1-9
	2.2	Existing Conditions of School Education	1-10
		2.2.1 Enrollment	
		2.2.2 Educational attainment	
		2.2.3 Educational environment	1-25
		2.2.4 Teachers	1-29
Chapter	3	Constraints	1-34
	3.1	Societal Factors	1-34
		3.1.1 Low educational level and low literacy of the local adult	
		population	1-34
•		3.1.2 Low perceived value of education	1-34
		3.1.3 Societal force against women's education	1-35
	3.2	Limited Access	1-35
	•	3.2.1 Lack of schools	
		3.2.2 Imbalance between urban and rural areas	
		3.2.3 Lack of educational opportunities for women	
		3.2.4 Low Quality	1-39
		3.2.5 Limited future opportunities	1-41
Chapter	4	Developmental Strategy for Education and Training	1-43
	4.1	Community Involvement in Educational Development	1-44
		4.1.1 Promotion of awareness for the importance of education	
		4.1.2 Community participation in school facility improvement	
	4.2	Expected Role of Tete Provincial Directorate of Education	1-45
		4.2.1 Need for assessing late entrants and returnee students	1-46

		4.2.2 Strengthening adult education centers 1	-46
	4.3	Institutional Reforms of Local Training Institutes 1	.47
•		4.3.1 Strengthening professional/technical schools 1	-48
		4.3.2 Need for strengthening IMAP 1	-49
	4.4	Current Efforts at Local Training Institutes 1	-50
		4.4.1 On-the-job training program at Martyrs of Wiriyamu Industrial and Commercial School	-50
		4.4.2 Income-generating off-campus practicum at Dom Bosco	
		Professional School 1	-51
Appendix			-53

List of Tables

Table 1.1	Primary and Secondary Schools in Tete, 1997-99	1-4
Table 1.2	Percent Changes in the Number of Primary Schools in Tete, 1995-2000	1-4
Table 1.3	Full/Partial EP1 Schools by Province, 1996	1-6
Table 1.4	Number of Complete Primary Schools in Tete, 1997-2000	1-6
Table 1.5	Literacy Rates by Area, Sex and Age Group - Tete, 1997	1-9
Table 1.6	Levels of Education Completed by Area, Sex and Age Group Over the	
	Age 15 – Tete, 1997	1-10
Table 1.7	Enrollment Rates by Sex, Area and Level of Education - Tete, 1997	
Table 1.8	Enrollment Rates at Primary Schools by Province, 1998	
Table 1.9	EP1 School Enrollment in Tete by District, 1997-1999	
Table 1.10	EP2 School Enrollment in Tete by District, 1997-1999	
Table 1.11	Percent Changes in Primary School Enrollment in Tete, 1995-1999	
Table 1.12	ESG1 School Enrollment in Tete, 1997-1999	
Table 1.13	ESG2 School Enrollment in Tete, 1997-1999	1-14
Table 1.14	Percent Changes in Secondary School Enrollment in Tete, 1995-1999	1-14
Table 1.15	Professional/Technical and Teacher-Training School Enrollment in Tete, 1997-1998	1-16
Table 1.16	Basic Level Professional/Technical School Enrollment by Field, 1997-1998	1-16
Table 1.17	Professional/Technical and Teacher-Training School Enrollment in Tete by Institute	
Table 1.18	Student Ages at Professional/Technical and Teacher-Training Schools in Tete by Institute	
Table 1.19	Pass and Repetition Rates in Primary Education by Province, 1998	
Table 1.20	Pass and Repetition Rates in Primary Education – Tete, 1999	
Table 1.21	Pass and Repetition Rates in Secondary Education – Tete, 1999	
Table 1.22	Primary School Dropout Rates and EP1-EP2 Transition Rates by Province, 1998	
Table 1.23	Primary School Dropout Rates and Transition Rates – Tete, 1999	
Table 1.24	Secondary School Dropout Rates – Tete, 1998 (1997) and 1999	
Table 1.25	EP1 Graduation Rates by Province, 1994	
Table 1.26	EP2 Graduation Rates for Male Students in Tete Province, 1998-1999	
Table 1.27	Teacher-to-Student Ratios at Primary and Secondary Schools in Tete	
Table 1.27	by District, 1999	1-26
Table 1.28	Teacher-to-Student Ratios at Professional/Technical Schools and IMAP in Tete, 2001	
Table 1.29	Classroom-to-Student Ratios at EP1 Schools in Tete by District, 1997-	
Table 1.30	EP1 Classrooms by Construction Material and District - Tete, 2000	
Table 1.31	EP1 Schools without Desk/Lavatory in the Study Area, 1996	

Table 1.32	Number and Gender Composition of Primary School Teachers by Province, 1998
Table 1.33	Number and Gender Composition of Secondary School Teachers by Province, 1998 1-31
Table 1.34	Number and Gender Composition of Professional/Technical School Teachers by Province, 1998
Table 1.35	Number and Gender Composition of Teachers at Professional/ Technical and Teacher-Training Schools in Tete, 2001 1-32
Table 1.36	FP-Trained EP1 Teachers by District - Tete, 1999-2000 1-32
Table 1.37	Enrollment at Full and Partial EP1 Schools by Province, 1996 1-36
Table 1.38	Number of Complete Primary Schools in Tete, 1997-2000 1-37
Table 1.39	School Dispersion in Tete Province and the Study Area, 1999 1-38
Table 1.40	School Enrollment and Gender Composition in the Study Area 1-38
	List of Figures
Figure 1.1	Chronology of Formal Education
Figure 1.2	Organizational Chart of the Ministry of Education (MINED) 1-3
Figure 1.3	Changes in the Number of Primary Schools in Tete, 1995-1999 (2000) 1-5
Figure 1.4	Changes in the Number of Secondary Schools in Tete, 1995-1999 1-7
Figure 1.5	Changes in GER and NER at EP1 schools, 1992-1999 1-11
Figure 1.6	Changes in Primary School Enrollment in Tete, 1995-1999 1-13
Figure 1.7	Changes in Secondary School Enrollment in Tete, 1995-1999 1-15

Appendix

Appendix 1	School Enrollment in Tete Province by District, 1995-1999	1-54
Appendix 2	Teachers at EP1, EP2 and ESG1 Schools - Tete, 1995-1999 (2000)	1-57
Appendix 3	Primary Schools and Secondary Schools in the Study Area (Composite), 1999	1-59
Appendix 4	Number of Local Residents Who Complete Education at Adult Education Centers in Tete, 1995-1999	1-60

Sector Report 2: Social Sector

Part 1: Education and Training

Chapter 1. Overview

1.1. Educational System in Mozambique

The educational system in Mozambique consists of pre-school and school education, both constituting formal education, and extra-school education, i.e., informal education. Its structure is summarized as follows:

- (1) Formal education
 - 1) Pre-school education (under age 6): kindergartens and nursery schools
 - 2) School education (age 6 and above):
 - i) General education (grade 1-12)
 - Primary (grade 1-7):

EP1 (first level / grade 1-5)

EP2 (second level / grade 6-7)

Secondary (grade 8-12):

ESG1 (first cycle / grade 8-10)

ESG2 (second cycle / grade 11-12)

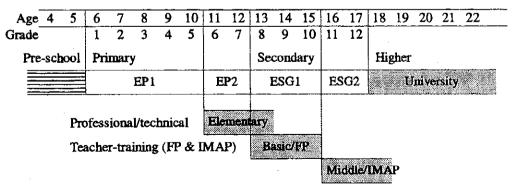
ii) Higher education:

Universities (5-7 years)

- iii) Professional and technical education:
 - Elementary (3-4 years / completion of EP1 prerequisite)
 - Basic (3-4 years / completion of EP2 prerequisite)
 - Middle (3-4 years / completion of ESG1 prerequisite)
- iv) Other: adult education, distance education, special education, teachertraining (FP centers and IMAPs), vocational education
- (2) Extra-school education: literacy training, cultural schools, and other

The chronology of formal education is schematically presented in Figure 1.1.

Figure 1.1. Chronology of Formal Education



Source: Based on The Study Report on Reconstruction Assistance for Mozambique, ECFA, 1998.

The academic year begins in February at primary and secondary schools as well as professional/technical schools but in August at universities. It ends in December at primary and secondary schools, in late November or early December at professional / technical schools, and in July at universities. By and large, public education is predominant regardless of the levels of education. Private education, though on the rise in the recent years, is mostly confined to such urban areas as Beira of Sofala and Maputo city and Matola of Maputo.

The legal reform of 1992 declared primary education to be compulsory; however, in reality there still is no compulsory education in Mozambique today. Due to serious shortages of adequate educational facilities and to other socio-economic constraints, it was, and still is, impossible for a considerable portion of school-age children nationwide to receive primary education. Likewise primary education is, by law, supposed to be provided free of cost. Yet, the national budget for education has been just barely enough to pay for teachers' salaries, and part of schooling costs, including textbooks and facility maintenance, must be covered by fees collected from students' families.

1.2. Organizational Structure

Education in Mozambique is under the jurisdiction of the Ministry of Education (MINED), which is assisted by the National Institute of Educational Development, the Institute for Teacher Improvement and the Educational Projects Management Office. At the local level, every province has its directorate of education, whose director is appointed by the Minister of Education in consultation with the governor of the province. Under it are district directorates of education, which supervise day-to-day matters concerned with general school education in their respective districts. The director of each district directorate of education is selected by the governor of the province, with opinions and assessment of the director of the provincial directorate of education reflected in the appointment. Figure 1.2 shows the organizational structure of education in Mozambique.

1.3. Distribution of Institutions in Tete Province

As of 1999, in Tete province, there were 605 first-level primary (EP1) schools, 31 second-level primary (EP2) schools, nine first-cycle secondary (ESG1) schools, two second-cycle secondary (ESG2) school, three professional/technical schools, and two teacher-training schools. In 2001, a new professional/technical school opened in Tete city. As in most other provinces, there is no college or university in Tete. Table 1.1 shows the number of primary schools and secondary schools in the 13 districts of Tete from 1997 to 1999. In addition to these schools in the formal education system, Tete province has four privately owned special training institutes, two agricultural training centers, and adult education centers in several districts.

Minister of Education National univ.: National univ.: Minister's Cabinet Pedagogical Univ. (UP) Eduardo Mondlane Univ. (UEM) Vice Minister of Education Educational Secretary National Council of Higher Education Projects General Management Office Coordinator Council Planning Adminis-Human Consultative Council tration & Directorate Resources Finance Directorate Directorate National General National Primary Institute for Inspection National National School Technical Secondary Education Institute for Teacher Social Education Education Directorate **Educational** Welfare Improve-Development Directorate Directorate Directorate ment Center of Assessment and Legal Dept. National School Material Documentation Certification Dept. Distribution Company Provincial Directorates of Education District Directorates of Education

Figure 1.2. Organizational Chart of the Ministry of Education (MINED)

Source: ECFA, The Study Report on Reconstruction Assistance for Mozambique, March, 1998.

Table 1.1. Primary and Secondary Schools in Tete, 1997-99

		Primary schools						Secondary schools					
		EP1			EP2			ESG1			ESG2		
District	'97	'98	'99	'97	'98	'99	'97	'98	'99	'97	'98	'99	
Angónia	104	109	115	5	6	6	2	3	3	0	0	0	
Cahora Bassa	23	31	35	2	2	2	1	1	1	0	0	0	
Changara	61	67	80	3	3	- 3	1	ı	1	0	1	1	
Chifunde	17	20	20	0	1	1	0	0	0	0	0	0	
Chiúta	5	26	43	1	1	1	0	0	0	0	0	0	
Macanga	31	37	38	1	1	1	0	0	0	0	0	0	
Mágoè	16	18	22	1	2	2	1	1	1	0	0	0	
Marávia	24	27	31	1	1	1	0	0	0	0	0	0	
Moatize	34	40	52	2	3	3	1	1	1	0	0	0	
Mutarara	49	60	70	3	5	4	1	1	1	0	0	0	
Tete City	18	21	21	7	6	4	1	2	1	1	1	1	
Tsangano	42	45	48	2	2	2	0	0	0	0	0	0	
Zumbo	21	22	30	0	1	1	0	0	0	0	0	0	
Total	445	523	605	28	34	31	8	10	9	1	2	2	
Study Area	251	298	337	18	20	18	4	6	5	1	1	1	
Share (%)	56.4	57.0	55.7	64.3	58.8	58.1	50.0	60.0	55.6	100	50.0	50.0	

Source: Tete Provincial Directorate of Education, 2000.

1.3.1. Primary schools

In Tete province, there were 605 EP1 schools and 31 EP2 schools in 1999. Of the total of 636 primary schools in 1999, 121 were in Angonia, the largest number of schools among the 13 districts, followed by 83 in Changara, 74 in Mutarara, 55 in Moatize, 50 in Tsangano, and so on. As seen in the table, the number of EP2 schools is disproportionately small compared to EP1 schools (about 1/20). This, however, is not confined to Tete but also true in other provinces. There are but only a few private primary schools in Tete. In 1995, only six private primary schools, two EP1 and four EP2, were found in the entire province.

The number of primary schools in the province has increased substantially in recent years though the number of EP2 schools dipped from 1998 to 1999. Percent changes in the number of primary schools in Tete province from 1995 to 1999 (2000) are presented in Table 1.2.

Table 1.2. Percent Changes in the Number of Primary Schools in Tete, 1995-2000

		1995-96	1996-97	1997-98	1998-99	1999-2000*
EP1	Province	+9.8	+7.7	+17.5	+15.7	+6.0
	Study Area	+6.4	+8.2	+18.7	+13.1	n.a.
EP2	Province	+42.9	+40.0	+21.4	-8.8	n.a.
	Study Area	+62.5	+38.5	+11.1	-10.0	n.a.

^{*} According to Tete Provincial Directorate of Education, the number of EP1 schools in 2000 is 641. Yet, district data were not available.

As of 1999, about 56% of the primary schools in the province were located in the Study Area; 337 EP1 and 18 EP2 schools of the total of 605 EP1 and 31 EP2 schools. This percentage falls about 4% below the Study Area's share of the provincial population (i.e., 62% as of 1997). Changes in the number of primary schools in Tete province and the Study Area for the past several years are presented in Figure 1.3.

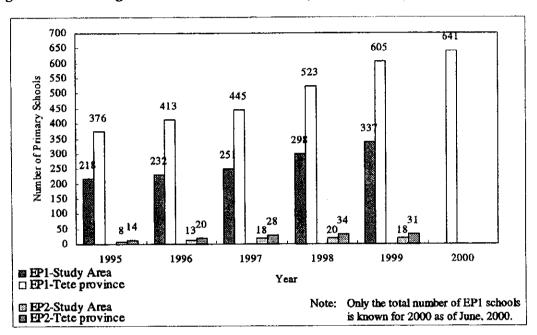


Figure 1.3. Changes in the Number of Primary Schools in Tete, 1995-1999 (2000)

It should be noted that not all the first five grades are taught at every EP1 school. As of 1996, 64.5% of the EP1 schools in Tete province offered only part of the five grades (Table 1.3). In 1996, Tete province was ranked 4th from the bottom in the percentage of full EP1 schools at only 35.5%, falling short of both the national average at 41.8% and the average of the central provinces at 39.3%. According to UNDP/UNHCR, of the 23 EP1 schools surveyed in Chifunde, Chiuta and Macanga, 17 (73.9%) were partial schools in 1996.

As for complete primary schools that offer all the seven grades (EP1 and EP2), their number is even smaller. The percentage of complete schools in Tete was around only 4% from 1997 to 1999 (Table 1.4). In 2000, still only 32 out of the total of 641 primary schools, i.e., 5.0%, were complete schools.

Table 1.3. Full/Partial EP1 Schools by Province, 1996

	•	No. of full/partial EP1 schools							
Region	Province	Total	Full	%	Partial	%			
North	Cabo Delgado	540	226	41.9	314	58.1			
	Nampula	903	246	27.2	657	72.8			
	Niassa	350	124	35.4	226	64.6			
Central	Manica	227	153	67.4	74	32.6			
	Sofala	248	146	58.9	102	41.1			
	Tete	423	150	35.5	273	64.5			
	Zambezia	1,226	385	31.4	841	68.6			
South	Gaza	464	218	47.0	246	53.0			
	Inhambane	427	265	62.1	162	37.9			
	Maputo	192	130	67.7	62	32.3			
	Maputo City	85	84	98.8	1	1.2			
M	ozambique	5,085	2,127	41.8	2,958	58.2			
Northern provinces		1,793	596	33.2	1,197	66.8			
Cent	ral provinces	2,124	834	39.3	1,290	60.7			
South	em provinces	1,168	697	59.7	471	40.3			

Source: MINED, Educational Indicators, Primary Education, 1997.

Table 1.4. Number of Complete Primary Schools in Tete, 1997-2000

	1997	(%)	1998	(%)	1999	(%)	2000	(%)
Complete	17	(3.7)	24	(4.6)	24	(4.0)	32	(5.0)
Incomplete	443	(96.3)	495	(95.4)	569	(96.0)	609	(95.0)
Total	460	•	519		593		641	

Source: Tete Provincial Directorate of Education, 2000.

1.3.2. Secondary schools

The number of secondary schools in Tete remained more or less constant from 1997 to 1999. As of 1999, there are 11 secondary schools in Tete: nine ESG1 schools and two ESG2 schools. Of the nine ESG1 schools, Angonia has three and Cahora Bassa, Changara Moatize, Mutarara, Mágoè, and Tete city have one each. Of the two ESG2 schools, Changara and Tete city have one each.

About a half of the secondary schools in the province are located in the Study Area: five out of nine in 1997, seven out of 12 in 1998, and six out of 11 in 1999. There was only one ESG2 school in the province until 1997 in Tete city. Figure 1.4 shows changes in the number of secondary schools from 1995 through 1999.

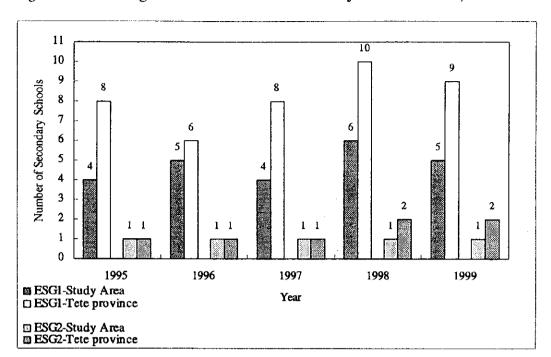


Figure 1.4. Changes in the Number of Secondary Schools in Tete, 1995-1999

1.3.3. Professional and technical schools

As of 2001, there are six professional/technical schools in Tete province. Of the six professional/technical schools, four are located in and around Tete city. They are: (1) Martyrs of Wiriyamu Industrial and Commercial school in downtown Tete city and its branch in Matundo, established in the 1973, which offers 3-year basic level programs in accounting and mechanics; (2) Matundo Industrial School established in 1981, which offers 3-year basic level electricity and mechanics programs; (3) Institute of Mines and Geology in Moatize, established in 1988 and operated in conjunction with the Ministry of Mineral Resources until 1990, which offers 4-year middle level programs in mine and geological engineering; and (4) Dom Bosco Professional School in Matundo, established in 2001 with funding from Catholic Church (Salesian Missions), which offers 2 to 3-year programs in carpentry, civil construction, auto-mechanic, tailoring, and metal works. In other districts, Changara has Fonte Boa Basic Agricultural School, originally established in Angonia and moved to Fonte Boa Mission in Changara in 1982, which offers basic level programs in agriculture.

Some of graduates from these schools (except for Dom Bosco Professional School, for there have been no graduates produced at this school as of 2001) go on to be further trained at professional/technical schools of higher levels in larger cities, including Beira, Maputo and Nampula.

1.3.4. Teacher-training schools

As of 2001, two teacher-training schools are found in Tete province, one in Chitima of Cahora Bassa and the other in Ulongue of Angonia. The one in Cahora Bassa is an FP center (Centro de Formação de Professores Primários / Primary Teacher-Training Center), which offers 3-year programs for EP1 teaching certificate. The school requires completion of up to the 7th grade in primary education for admission. The other teacher-training school in Angonia is an IMAP (Instituto de Magistério Primário / Institute of Primary Teaching), which offers 2-year middle level, primary school teaching certificate programs. The IMAP in Angonia was established in 1999 with funding from DANIDA Education, following the establishment of IMAPs in other neighboring provinces such as Sofala and Zambezia, to meet the growing demand for more qualified teachers in the province. The IMAP's admission requirements include entrance examination and completion of the 10th grade (ESG1).

1.3.5. Extra-school education and training facilities

There are two agricultural training centers operated by Tete Provincial Directorate of Agriculture and Rural Development, one in Angonia and the other in Changara. HCB, the company that owns and manages the Cahora Bassa Dam, also has its own training center for dam/electricity engineers in Cahora Bassa. In Tete city, there are three privately own technical training schools, one foreign language school and two computer training schools, which offer short and/or yearlong programs mainly for local adult residents. In Angonia, Cahora Bassa, Chiuta, Magoe, Moatize, Mutarara, and Tete city, there are adult education centers that offer remedial courses for local adult residents to complete primary and/or secondary education.

Chapter 2. Existing Conditions of Education and Training

2.1. Educational Background

2.1.1. Literacy

Compared to national literacy at about 40% (as of 1998, 40.5% or 42.3% depending on the source), only 33% of the people in Tete province are literate (as of 1997). That is, one out of three people over the age of 15 in the province cannot read or write (Table 1.5).

Table 1.5. Literacy Rates by Area, Sex and Age Group - Tete, 1997

		Age group								
Area	Sex	All≥15	15-19	20-24	25-29	30-39	40-49	50-59	60+	
Overall	Both	33.2	43.8	39.4	35.6	35.7	26.4	18.7	13.1	
	Male	50.0	56.9	56.3	53.6	56.9	46.1	34.2	23.2	
	Female	19.0	32.2	25.8	21.3	17.5	8.9	5.9	4.2	
Urban	Both	64.6	76.4	74.3	70.6	65.9	54.1	38.8	20.4	
	Male	80.1	82.8	85.2	85.0	86.0	78.3	62.4	38.9	
	Female	49.5	69.7	64.0	57.7	46.5	25.0	14.8	8.1	
Rural	Both	27.6	36.6	32.2	29.3	30.0	21.8	16.2	12.2	
	Male	44.1	50.5	49.8	47.5	51.0	39.8	30.2	21.7	
	Female	13.9	24.5	18.8	15.2	12.4	6.6	4.9	3.6	

Source: INE, II Recenseamento Geral da População e Habitação 1997 Indicadores Socio-Demográficos -

There are three trends in literacy at both the national and provincial levels. First, there is a noted gender difference in literacy. In Tete, the literacy rate among men is about 50% (or 36% depending on the source) whereas among women it is 19% (or 15%). The national literacy rate for men is 58% and for women 23% as of 1997. Second, literacy is much higher in urban areas than in rural areas. The literacy rate is about 65% among urban residents but about 28% among rural residents. Third, literacy is generally lower among older people than among younger people. In Tete, the literacy rate is only 13% among those who are 60-year old or older, followed by 19% of the 50-59-year old group, and so on.

2.1.2. Levels of education

The vast majority of people (84.1%) over the age 15 in Tete province have no formal education (Table 1.6). Also, the people in Tete do not have much schooling beyond primary education regardless of the gender or region. Further, people in urban areas are far more likely to receive and complete education than those in rural areas, and men are more likely to receive formal education than women.

Table 1.6. Levels of Education Completed by Area, Sex and Age Group

Over the Age 15 – Tete, 1997

					Level	of educat	ion comp	leted (%)		
Area	Sex	Pop.≥15	Literate	Prim.	Sec.	Tech.	C.F.P.*	Higher	None	Unknown
	Both	592,800	0.3	13.6	1.6	0.2	0.1	0.0	84.1	0.1
Overall	Male	272,300	0.4	20.4	2.7	0.4	0.2	0.1	75.7	0.2
	Female	320,500	0.2	7.7	0.7	0.1	0.0	0.0	91.2	0.1
	Both	90,900	0.5	36.3	7.0	1.0	0.3	0.2	54.1	0.5
Urban	Male	44,900	0.5	44.2	10.3	1.7	0.3	0.3	41.9	0.7
	Female	46,000	0.4	28.7	3.9	0.3	0.2	0.1	66.0	0.3
	Both	501,900	0.2	9.4	0.6	0.1	0.1	0.0	89.5	0.0
Rural	Male	227,400	0.4	15.7	1.2	0.1	0.2	0.0	82.4	0.1
	Female	274,500	0.1	4.2	0.2	0.0	0.0	0,0	95.4	0.0

*FP (Primary Teacher-training) centers

Source: INE, II Recenseamento Geral da População e Habitação 1997 Indicadores Socio-Demográficos - Tete.

2.2. Existing Conditions of School Education

2.2.1. Enrollment

Table 1.7 presents school attendance rates of Tete residents in 1997. The gross schooling rate, also referred to as gross enrollment rate (GER), is the number of students attending school of a given level over the population of the official age group apposite to the level. The net schooling rate, or net enrollment rate (NER), is the percentage of students who are attending school of the level appropriate for their age.

Table 1.7. Enrollment Rates by Sex, Area and Level of Education – Tete, 1997

		Gross	enrolln	nent rate	(GER)	Net	enrollm	ent rate (NER)
Area	Sex	Prim.	Sec.	Tech.	Higher	Prim.	Sec.	Tech.	Higher
Overall	Both	49.7	5.2	0.2	0.0	28.7	1.8	0.1	0.0
	Male	58.4	6.9	0.3	0.1	31.1	2.2	0.1	0.0
	Female	40.9	3.5	0.1	0.0	26.1	1.4	0.0	0.0
Urban	Both	98.2	21.0	1.1	0.2	56.3	7.5	0.4	0.1
	Male	106.3	25.4	1.6	0.3	58.0	8.4	0.6	0.1
	Female	90.0	16.5	0.6	0.1	54.6	6.7	0.1	0.0
Rural	Both	41.5	1.8	0.0	0.0	24.0	0.5	0.0	0.0
	Male	50.2	2.8	0.1	0.0	26.6	0.8	0.0	0.0
	Female	32.6	0.7	0.0	0.0	21.3	0.3	0.0	0.0

Source: INE, Il Recenseamento Geral da População e Habitação 1997 Indicadores Socio-Demográficos - Tete.

As apparent in the table, in 1997 only about three out of 10 primary school age children were enrolled in primary schools. The proportion of children attending their age-appropriate school drastically decreased to about only two out of 100 in secondary education and virtually zero in professional/technical and higher education. It can also be inferred from much greater GERs than NERs that a sizable portion of students was

over-aged at all the levels of education. Another point to be noted is that urban residents were far more likely to be attending school than rural residents.

(1) Primary schools

In 1998, of the 11 provinces in Mozambique, Tete was ranked 8th for EP1 and 7th for EP2 in the gross enrollment rate (GER) (Table 1.8). For the net enrollment rate (NER), Tete's ranking was the 5th for EP1 and the third for EP2. Changes in GER and NER in Mozambique and Tete over the period of 1992 through 1999 are shown in Figure 1.5.

Table 1.8. Enrollment Rates at Primary Schools by Province, 1998

			Gross e	nrollm	ent rate	(GER)			Net en	rollme	nt rate (NER)	
		EP	1 scho	ols	EP	2 schoo	ols	EP	1 schoo	ols	EP	2 schoo	ls
Region	Province	Total	M	F	Total	M	F	Total	M	F	Total	M	F
North	Cabo Delgado	62.4	77.0	48.4	11.3	16.3	6.3	38.3	44.3	32.4	0.5	0.6	0,4
	Nampula	61.2	75.3	46.8	10.3	14.4	6.1	35.0	40.0	29,9	0.9	1.1	0.7
	Niassa	68.0	79.4	56.4	15.3	21.7	8.9	48.1	53.4	42.7	1,4	1.8	1.1
Central	Manica	68.7	82.6	54.9	19.3	25.0	13.6	38.9	44.1	33.8	2.9	3.6	2.1
	Sofala	60.1	74.5	45.9	17.7	22.9	12.7	35.9	42.3	29.6	3.9	4.3	3.4
	Tete	67.1	78.3	55.8	15.9	19.8	11.8	44.5	49.3	39.7	3.0	3.7	2.4
	Zambezia	75.4	93.3	57.3	11.6	16.1	6.9	43.4	51.0	35.8	1.9	2.7	1.0
South	Gaza	114.2	120.2	108,3	27.3	28.5	26.1	56.6	57.0	56.1	2.4	2.2	2.6
	Inhambane	105.6	114.2	97.2	30.0	33.7	26.2	56.4	58.1	54.8	2,9	3.0	2,9
	Maputo	117.5	122.0	113.0	43.6	42.7	44.6	61.3	61.8	60.8	2.8	2,5	3.2
	Maputo City	113.0	115.9	110.1	62.1	59.1	65.2	65.8	65.8	65.8	8.3	7.2	9.4
Mo	ozambique	77.4	89.7	65.1	20.4	23.9	16.8	44.6	49.2	40.0	2.5	2.7	2.2

Sources: MINED, Direcção de Planificação - Levantamento Escolar, 1998; INE, Projecções Auiais da Poplulação Total, 1997-2020 (cited in INE, Estaticas e Indicadores Sociais Mozambique 1997-1998).

80.0 70.0 Enrollment Rate (%) 60.0 50.0 43.9 40.0 ×-40.2 $\times 37.8$ à∕33́.2 30.0 20.0 1992 1995 1996 1997 1998 1999 GER - Tete Year GER - National NER - Tete NER - National

Figure 1.5. Changes in GER and NER at EP1 schools, 1992-1999

There are two points of interest regarding the enrollment rates. First, as indicated by the national average NER lower than 50% at EP1 and 3% at EP2, the majority of students were older for the grades they attended. Second, there are marked differences in GERs and NERs between the southern provinces and the northern and the central provinces. Higher enrollment rates, particularly EP1 GERs exceeding 100%, in southern regions, namely Gaza, Inhambane, Maputo, and Maputo city, are presumably due to greater population densities and concentrations of children and to better access to primary schools in the southern provinces than in the northern and the central provinces.

Primary school enrollments for 1997 through 1999 in the 13 districts of Tete are presented in Tables 1.9 and 1.10 (cf. also Appendix 1). Percent changes in primary school enrollment in Tete province in Table 1.11. Figure 1.6 shows the changes in primary school enrollment in Tete province and the Study Area from 1995 to 1999.

As indicated in the tables, the total EP1 enrollment increased by almost 16% from 171,433 in 1997 to 198,843 in 1998, and the total EP2 enrollment has increased steadily by about 1,000 annually from 1997 to 1999. By district, in 1999 Angonia had the largest EP1 enrollment of 31,520, followed by Moatize 28,609, Changara 27,123 and Tete city 25,737, while Chifunde had the smallest enrollment of 4,404 students. As for EP2 enrollment, Tete city had 5,531 students enrolled in 1999, more than twice as many as Angonia and Moatize that had the second and third largest enrollment of 2,116 and 2,013, respectively. The gender composition of primary school enrollments is about 70% male and 30% female for EP1 and 76% male and 24% female for EP2. The percentage of female students was generally constant at around 30% across the 13 districts for EP1 enrollment. However, for EP2 enrollment, the percentage is almost as small as 10% in Chifunde and Mutarara.

Table 1.9. EP1 School Enrollment in Tete by District, 1997-1999

		l	997				1	998			-	1	999		
District	Total	Male	(%)	Fem	(%)	Total	Male	(%)	Fem.	(%)	Total	Male	(%)	Fem.	(%)
Angónia	31,507	22,009	(69.9)	9,498	(30.1)	33,100	22,845	(69.0)	10,255	(31.0)	31,520	21,636	(68.6)	9,884	(31.4)
C. Bassa	12,342	8,627	(69.9)	3,715	(30.1)	14,079	9,771	(69.4)	4,308	(30.6)	13,740	9,455	(68.8)	4,285	(31.2)
Changara	23,778	17,704	(74.5)	6,074	(25,5)	28,187	20,179	(71.6)	8,008	(28.4)	27,123	19,283	(71.1)	7,840	(28.9)
Chifunde	4,018	2,853	(71.0)	1,165	(29.0)	4,316	3,082	(71.4)	1,234	(28.6)	4,404	3,167	(71.9)	1,237	(28.1)
Chiúta	2,674	1,937	(72.4)	737	(27.6)	6,159	4,552	(73.9)	1,607	(26.1)	6,567	4,790	(72.9)	1,777	(27.1)
Macanga	8,348	5,864	(70.2)	2,484	(29.8)	10,762	7,528	(70.0)	3,234	(30.0)	11,096	7,646	(68.9)	3,450	(31.1)
Mágoè	6,179	4,244	(68.7)	1,935	(31.3)	6,546	4,473	(68.3)	2,073	(31,7)	7,636	5,207	(68.2)	2,429	(31.8)
Marávia	5,272	3,736	(70.9)	1,536	(29.1)	5,676	4,010	(70.6)	1,666	(29.4)	5,931	4,162	(70.2)	1,769	(29.8)
Moatize	20,602	14,672	(71.2)	5,930	(28.8)	27,332	19,292	(70.6)	8,040	(29.4)	28,609	20,061	(70.1)	8,548	(29.9)
Mutarara	16,597	13,109	(79.0)	3,488	(21.0)	18,871	14,630	(77.5)	4,241	(22.5)	18,966	14,604	(77.0)	4,362	(23.0)
Tete City	22,926	15,663	(68.3)	7,263	(31.7)	24,391	16,560	(67.9)	7,831	(32.1)	25,737	17,398	(67.6)	8,339	(32.4)
Tsangano	13,350	9,461	(70.9)	3,889	(29.1)	14,502	10,115	(69.7)	4,387	(30.3)	15,041	10,378	(69.0)	4,663	(31.0)
Zumbo	3,840	2,770	(72.1)	1,070	(27.9)	4,922	3,554	(72.2)	1,368	(27.8)	5,328	3,767	(70.7)	1,561	(29.3)
Province	171,433	122,649	(71.5)	48,784	(28.5)	198,843	140,591	(70.7)	58,252	(29.3)	201,698	141,554	(70.2)	60,144	(29.8)
Study Area	103,425 60,3%	72,459 59,1%	(70.1)	30,966 63.5%	(29.9)	120,562 60.6%	83,974 59.7%	(69.7)	36,588 62.8%	(30.3)	122,974 61.0%	85,076 60.1%	(69.2)	37,898 63.0%	(30,8)

Source: Tete Provincial Directorate of Education, 2000.

Table 1.10. EP2 School Enrollment in Tete by District, 1997-1999

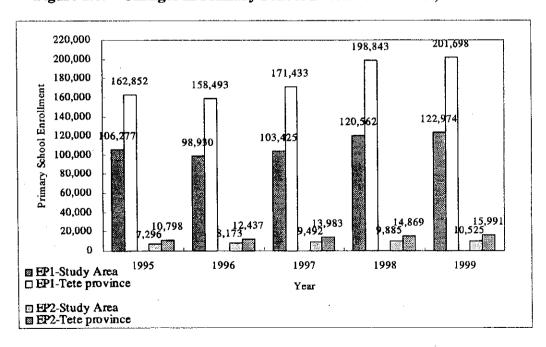
			1997					1998					1999		
District	Total	Boy	(%)	Girl	(%)	Total	Воу	(%)	Girl	(%)	Total	Boy	(%)	Girl	(%)
Angónia	2,047	1,585	(77,4)	462	(22.6)	1,945	1,476	(75.9)	469	(24.1)	2,116	1,580	(74.7)	536	(25.3)
C, Bassa	1,545	1,100	(71.2)	445	(28.8)	1,549	1,102	(71.1)	447	(28.9)	1,744	1,239	(71.0)	505	(29.0)
Changara	1,659	1,356	(81.7)	303	(18.3)	1,781	1,416	(79,5)	365	(20.5)	1,879	1,483	(78,9)	396	(21.1)
Chifunde	0	0	n.a.	0	n.a.	48	45	(93.8)	3	(6.3)	102	90	(88.2)	12	(11.8)
Chiúta	173	139	(80.3)	34	(19.7)	273	230	(84.2)	43	(15.8)	242	203	(83.9)	39	(16.1)
Macanga	205	174	(84.9)	31	(15.1)	213	170	(79.8)	43	(20.2)	216	177	(81.9)	39	(18.1)
Mágoè	440	332	(75.5)	108	(24.5)	372	269	(72.3)	103	(27,7)	461	346	(75,1)	115	(24,9)
Marávia	119	105	(88.2)	14	(11.8)	199	165	(82,9)	34	(17.1)	226	173	(76.5)	53	(23.5)
Moatize	1,516	1,138	(75.1)	378	(24.9)	1,628	1,204	(74.0)	424	(26,0)	2,031	1,492	(73.5)	539	(26.5)
Motazara	728	648	(89.0)	80	(11,0)	969	817	(84.3)	152	(15.7)	1,022	917	(89.7)	105	(10.3)
Tete City	5,216	3,605	(69.1)	1,611	(30.9)	5,414	3,683	(68.0)	1,731	(32.0)	5,531	3,797	(68.6)	1,734	(31.4)
Tsangano	335	275	(82.1)	60	(17.9)	364	287	(78.8)	77	(21,2)	287	233	(81.2)	54	(18.8)
Zumbo	0	0	n.a.	0	n.a.	114	94	(82.5)	20	(17.5)	134	109	(81.3)	25	(18.7)
Province	13,983	10,457	(74.8)	3,526	(25.2)	14,869	10,958	(73.7)	3,911	(26,3)	15,991	11,839	(74.0)	4,152	(26.0)
Study Area	9,492 67.9%	6,916 66.1%	(72.9)	2,576 73.1%	(27.1)	9,885 66.5%	7,095 64.7%	(71.8)	2,790 71.3%	(28.2)	10,525 65.8%	7,572 64.0%	(71.9)	2,953 71.1%	(28.1)

Source: ibid.

Table 1.11. Percent Changes in Primary School Enrollment in Tete, 1995-1999

······		1995-96	1996-97	1997-98	1998-99
EP1	Province	-2.7	+8.2	+16.0	+1.4
	Study Area	-6.9	+4.5	+16.6	+2.0
EP2	Province	+15.2	+12.4	+6.3	+7.5
	Study Area	+12.0	+16.1	+4.1	+6.5

Figure 1.6. Changes in Primary School Enrollment in Tete, 1995-1999



The Study Area accounted for 60-61% of the provincial EP1 enrollment from 1995 to 1999, which falls slightly below its share of the provincial population at 62% as of 1997. On the other hand, the Study Area's share of the provincial EP2 enrollment was about 66-68%. The Study Area's larger share of EP2 enrollment is primarily due to the concentration of EP2 schools in Angonia, Moatize and Tete city.

(2) Secondary schools

The districts in Tete province that have ESG1 schools are Angonia, Cahora Bassa, Changara, Magoe, Moatize, Mutarara, and Tete city. There are only two ESG2 schools in the entire province as of 1999, one in Tete city and the other in Changara, which opened in 1998. Tables 1.12 and 1.13 present ESG1 and ESG2 enrollments in these districts from 1997 to 1999 (cf. also Appendix 1). The changes in secondary school enrollment in the province and the Study Area for 1995 through 1999 are presented in Table 1.14 and Figure 1.7.

Table 1.12. ESG1 School Enrollment in Tete, 1997-1999

			1997					1998					1999		-
District	Total	Maie	(%)	Fem.	(%)	Total	Male	(%)	Fem.	(%)	Total	Maie	(%)	Fem.	(%)
Angónia	693	563	(81.2)	130	(18.8)	1,025	847	(82.6)	178	(17.4)	1,187	934	(78.7)	253	(21.3)
C. Bassa	609	443	(72.7)	166	(27.3)	698	520	(74.5)	178	(25.5)	766	570	(74 <i>A</i>)	196	(25.6)
Changara	259	215	(83.0)	44	(17.0)	339	273	(80.5)	66	(19.5)	381	312	(81.9)	69	(18.1)
Mágoè	106	91	(85.8)	15	(14.2)	157	134	(85.4)	23	(14.6)	160	138	(86.3)	22	(13.8)
Moatize	n.a.	na.	n.a.	n.a.	n.a.	127	. 99	(78.0)	28	(22.0)	325	242	(74.5)	83	(25.5)
Mutarara	n.a.	ne.	D.B.	D.A.	n.a.	69	59	(85.5)	10	(14.5)	215	188	(\$7.4)	27	(12.6)
Tete City	3,145	2,216	(70.5)	929	(29.5)	3,413	2,376	(69.6)	1,037	(30.4)	3,656	2,541	(69.5)	1,115	(30.5)
Province	4,812	3,528	(73.3)	1,284	(26.7)	5,828	4,308	(73.9)	1,520	(26.1)	6,690	4,925	(73.6)	1,765	(26.4)
Study Area	3,838 79.8%	2,779 78.8%	(72.4)	1,059 82.5%	(27.6)	4,565 78.3%	3,322 77.1%	(72.8)	1,243 81.8%	(27.2)	5,168 77.2%	3,717 75.5%	(71.9)	1,451 82.2%	(28.1)

Source: Tete Provincial Directorate of Education, 2000.

Table 1.13. ESG2 School Enrollment in Tete, 1997-1999

			1997				·	1998	,				1999		
District	Total	Male	(%)	Fem.	(%)	Total	Male	(%)	Fem.	(%)	Total	Maie	(%)	Fem	(%)
Changura	ILA.	na.	n.a.	na.	D.A.	n.a.	D.A.	D.A.	n.a.	na.	15	12	(80.0)	3	(20.0)
Tete City	435	341	(78.4)	94	(21.6)	428	332	(77.6)	96	(22.4)	776	571	(73.6)	205	(26.4)
Province	435	341	(78.4)	94	(21.6)	428	332	(77.6)	96	(22.4)	791	583	(73.7)	208	(26.3)
Study Area	435 100%	341 100%	(78.4)	94 100%	(21.6)	428 100%	332 100%	(77.6)	96 100%	(22.4)	776 98.1%	571 97.9%	· ·· · · - · · ·	205 98.6%	

Source: ibid.

Table 1.14. Percent Changes in Secondary School Enrollment in Tete, 1995-1999

		1995-96	1996-97	1997-98	1998-99
ESG1	Province	+20.0	+32.6	+21.1	+14.8
	Study Area	+26.2	+26.6	+18.9	+13.2
ESG2	Province	*	*	*	*
	Study Area	+9.2	+1.6	-1.6	+81.3

^{*}There was only one ESG2 school in Tete city until 1998.

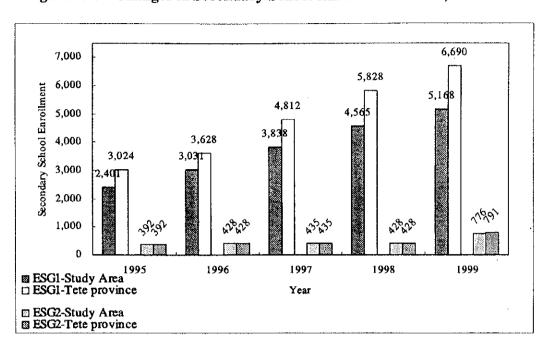


Figure 1.7. Changes in Secondary School Enrollment in Tete, 1995-1999

As shown in the tables, the provincial ESG1 enrollment steadily increased during the period, by 21.1% from 4,812 in 1997 to 5,828 in 1998 and by 14.8% from 1998 to 6,690 in 1999. The district with the largest ESG1 enrollment ion 1999 was Tete city with 3,656, which is more than three times as many as Angonia that had the second largest enrollment of 1,187. The gender composition of ESG1 enrollment in 1999 was 73.6% male and 26.4% female. The percentage of female students was the largest in Tete city at 30.5% and the lowest in Mutarara at 12.6%. As for ESG2, the total enrollment decreased somewhat from 435 in 1997 to 428 in 1998 but increased by over 80% from 1998 to 791 in 1999 although the enrollment was still very low. The gender composition of ESG2 enrollment in 1999 was close to that of ESG1 enrollment with about 73.7% male and 26.3% female.

The Study Area's share of the provincial secondary school enrollment was 77.2% for ESG1 and 98.1% for ESG2 in 1999. The extremely high percentage for ESG2 is attributable to the fact that the ESG2 school in Changara, newly established in 1998, had very small enrollment.

(3) Professional/technical and teacher-training schools

Enrollment data of the professional/technical schools and teacher training schools in Tete province and the Study Area for 1997-1998 are provided in Tables 1.15, 1.16 and 1.17. Note that there were four professional/technical schools in Tete province until 2000, of which three are of basic level, consisting of Fonte Boa Basic Agricultural School in Cahora Bassa, Matundo Industrial School and Martyrs of Wiriyamu Industrial and Commercial School in Tete city, and one is of middle level, Institute of Mines and Geology in Moatize.

Of the teacher-training schools, one is the FP (Primary Teacher-Training) center in Cahora Bassa and the other the IMAP (Institute of Primary Teaching) in Angonia.

Professional/technical school enrollment has increased considerably from 812 in 1997 to 1,048 in 1998 and to 2,001 in 2001 at basic level institutes, and from 36 in 1997, to 61 in 1998 and 100 in 2001 at the middle level school. It is interesting, though not unexpected, that female enrollment was much higher than male's in the commercial curriculum (offered at Martyrs of Wiriyamu Industrial and Commercial School). On the other hand, in engineering and industrial curricula, the fields of which are traditionally male dominant, female students were almost nonexistent. In contrast, at teacher-training schools, the composition of male and female students much more equal, albeit the imbalance is present.

Table 1.15. Professional/Technical and Teacher-Training School Enrollment in Tete, 1997-1998

			1997			1998	•
	Level	Total	Male (%)	Fem. (%)	Total	Male (%)	Fem. (%)
Professional/technical	Basic	812	673 (82.9)	139 (17.1)	1,048	866 (82.6)	182 (17.4)
	Middle	- 36	36 (100)	0 (0)	61	58 (95.1)	3 (4.9)
Teacher-training	FP	513	318 (62.0)	195 (38.0)	533	310 (58.2)	223 (41.8)

Sources: Tete Provincial Directorate of Education, 2000;

Estaticas e Indicadores Sociais Mo ambique 1997-1998.

Table 1.16. Basic Level Professional/Technical School Enrollment by Field, 1997-1998

			1997					1998		
Field	Total	Male	(%)	Fem.	(%)	Total	Male	(%)	Fem.	(%)
Agriculture	0	0	n.a.	0	n.a.	142	122	(85.9)	20	(14.1)
Commercial	212	79	(37.3)	133	(62.7)	234	77	(32.9)	157	(67.1)
Industrial	636	630	(99.1)	6	(0.1)	733	725	(98.9)	8	(1.1)

Source: Estaticas e Indicadores Sociais Mo ambique 1997-1998.

Table 1.17. Professional/Technical and Teacher-Training School Enrollment in Tete by Institute

Level	Institution	Year	Total	Male	(%)	Fem.	(%)
Basic	Dom Bosco Professional School*	2001	100	78	(78.0)	22	(22.0)
	Fonte Boa Basic Agricultural School	2001	212	n	.a.	n.	a.
	Martyrs of Wiriyamu Industrial & Commercial School	2001	710	472	(66.5)	238	(33.5)
	Matundo Industrial School	2001	979	931	(95.1)	48	(4.9)
Middle	Institute of Mines & Geology	2001	100	93	(93.0)	7	(7.0)
FP (Cer	nter for Primary Teacher-Training)	1998	533	310	(58.2)	223	(41.8)
IMAP (Institute of Primary Teaching)	2001	143	82	(57.3)	61	(42.7)

*Waiting for accreditation by MINED as of June 2001.

Sources: JICA Study Team, June 2001; Tete Provincial Directorate of Education...

Ages of students at training schools in the Study Area in 2001 are presented in Table 1.18. As apparent from the table, the average student age is much older than would normally be at professional/technical schools: about five years older at basic level schools and eight years at the middle level school. There is only one school (i.e., Martyrs of Wiriyamu Industrial and Commercial School) at which the age of youngest students corresponds to the normal age to start the level of education. The range of students' ages is widest at the IMAP between 17 and 36.

Table 1.18. Student Ages at Professional/Technical and Teacher-Training Schools in Tete by Institute

Level	Institution	Year	Average	Min.	Max.
Basic	Dom Bosco Professional School*	2001	19	15	24
	Martyrs of Wiriyamu Industrial & Commercial School	2001	n.a.	13	20
	Matundo Industrial School	2001	18-19	15	n.a.
Middle	Institute of Mines & Geology	2001	25	18	n.a.
IMAP (I	nstitute of Primary Teaching)	2001	22	17	36

Sources: JICA Study Team, June 2001; Tete Provincial Directorate of Education...

2.2.2. Educational attainment

In this section, the following indices are used to assess general academic performance of students at primary schools and secondary schools in Tete province and the Study Area.

- Pass rate: The number of students who pass their grades at the end of a school year, divided by the number of students enrolled at the beginning of the school year.
- Repetition rate: The number of students who fail to pass their grades by the end of a school year, divided by the number of students enrolled at the beginning of the school year.
- Dropout rate: The percentage of students who withdraw from school by the end of a school year.
- Transition rate: The number of students who enter in the first grade of one level of education (e.g., EP2) for the first time at the beginning of a school year, divided by the number of students who completed the last grade of the previous level (e.g., EP1) at the end of the previous school year.
- Graduation rate: Percentage of students who complete a given level of education within its normal length of time (e.g., five years in EP1 and two years in EP2).

(1) Pass rates and repetition rates

Primary schools

Table 1.19 presents pass rates and repetition rates at primary schools in Mozambique in 1998. As shown in the table, Tete province's standings relative to the other provinces in

terms of primary school pass rates and repetition rates in 1998 are summarized as follows.

- 1) Tete's overall pass rate for EP1 at 70.4% was the 2nd highest (male 72.8% the 3rd highest and female 53.3% the 4th).
- 2) Tete's overall pass rate for EP2 at 62.1% was ranked 4th (7th for male at 62.5% and 3rd for female at 53.3%).
- 3) Tete's overall repetition rate for EP1 at 23.3% was the 3rd lowest (male 22.1% the 3rd lowest and female 24.9% the 2rd lowest).
- 4) Tete's overall repetition rate for EP2 at 22.8% was the 2nd lowest (both male 21.6% and female 25.2% the 2nd lowest).

Table 1.19. Pass and Repetition Rates in Primary Education by Province, 1998

	Province	Pass (%)							Repetition (%)						
Region		EP1			EP2			EP1			EP2				
		Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.		
North	Cabo Delgado	69.3	72.0	65.0	60.5	60,9	59.5	24.5	23.2	26.7	35.8	35.1	37.8		
	Nampula	66.8	70.2	61.3	58,1	58,9	56.3	25.3	23.7	28.0	30.1	28.9	32.9		
	Niassa	70,4	73.1	66.5	72.2	72.4	71.5	22.5	21.1	24.5	19.5	19.0	20.8		
Central	Manica	68.1	70.0	65.3	60.8	62.2	58.0	26.5	25.2	28.5	32.1	30.1	35.8		
	Sofala	71.8	73.5	68.9	60.1	63.1	54.9	23.1	21.7	25.4	31.0	28.5	35.3		
	Tete	70.4	72.8	67.0	62.1	62.5	61.4	23.3	22.1	24.9	22.8	21.6	25.2		
	Zambezia	60.6	63.7	55.4	55.0	56.0	52.7	28.0	26.4	30.7	32.7	31.1	37.1		
South	Gaza	67.5	67.4	67.6	65.9	68.8	62.7	30.3	30.5	30.1	28,8	26.6	31.2		
	Inhambane	66.2	67.1	65.2	58.9	62.1	54.6	30.7	30.5	31.0	33,9	32.7	35.5		
	Maputo	63.7	63.5	64.0	60.3	64.4	56.2	31.8	32.1	31.5	34.1	31.4	37.0		
	Maputo City	65.7	64.9	66.5	62.5	64.2	60.9	31,3	32.5	30.0	34.2	32.0	36.3		
M	ozambique	66.4	68.3	63.8	60.9	62.6	58,5	27.4	26,3	28.9	31.5	29.5	34,4		

Sources: MINED, Direcção de Planificação – Levantamento Escolar, 1998 (cited in INE, Estaticas e Indicadores Sociais Mozambique 1997-1998).

Primary school pass rates and repetition rates in Tete province in 1999 are given in Table 1.20. As seen in the table, the following can be said about the primary school pass rates and repetition rates in Tete province in 1999.

- In Changara, Chiuta and Maravia, the sum of EP1 pass rates and repetition rates exceed 100%, indicating that there was a sizable number of students who enrolled after the school term started in these districts. (The data source confounds transfer or returnee students and late entrants.)
- 2) Pass rates vary considerably from district to district with the highest EP1 pass rate in Chiuta at 84.9% and the lowest in Zumbo at 51.2%, and with the highest EP2 pass rate in Chifunde at 69.6% and the lowest in Mutarara at 51.0%.
- 3) Although female students were less likely to pass than male students in EP1 across all the districts in the province (64.9% vs. 68.0%), the opposite was the case in EP2 with

female students slightly more successful at passing than male students (61.4% vs. 60.9%) and in seven out of the 13 districts in the province.

- 4) Close to three out of 10 students failed to pass their grades at primary schools.
- 5) Female students were more likely to repeat their grades than male students at primary schools, except at EP2 in six out of the 13 districts in the province, in which male students' repetition rates were higher than female students'.
- 6) The Study Area's EP1 pass rate (65.6%) is slightly lower but its EP2 pass rate (62.9%) slightly higher than the provincial average (67.1% and 61.0%, respectively).
- 7) The Study Area's EP1 repetition rate (26.4%) is slightly lower but its EP2 repetition rate (29.6%) slightly higher than the provincial average (27.1% and 29.1%, respectively).

Table 1.20. Pass and Repetition Rates in Primary Education - Tete, 1999

			Pass	(%)					Repetit	ion (%))		
District	EP1				EP2			EP1			EP2		
	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	
Angónia	53.9	54.8	52.1	57.1	56.4	59.3	24.4	23.8	25.6	32.3	31.3	35.4	
C. Bassa	75.4	75.7	74.7	63.9	63.6	64.6	24.3	24.0	25.0	28.0	27.9	28.3	
Changara	71.1	72.0	68,8	53.4	54.9	47.7	29.6	28.6	32.0	37.9	36.3	44,2	
Chifunde	66.9	67.3	66.0	69.6	66.7	91.7	26.4	25.6	28.6	9.8	11.1	0.0	
Chiúta	84.9	86.6	80.2	71.9	70.9	76.9	25.2	23.2	30.4	14.0	14.8	10.3	
Macanga	63.4	64.1	61.8	68.5	68.9	66.7	28.4	27.8	29.8	11.1	13.0	2.6	
Mágoè	65.7	67.0	62,9	57.7	59.2	53.0	33,4	32.1	36.2	24.3	24.6	23.5	
Marávia	71.7	73.6	67.0	65.0	63.0	71.7	30.4	29.4	32.7	16.8	17.3	15.1	
Moatize	68.9	69.7	67.0	53.0	55.2	47.1	29.4	28.5	31.5	44.2	43.2	47.1	
Mutarara	68.2	69.8	62.7	51.0	50.3	57.1	26.6	25.6	30.3	15.4	14,9	19.0	
Tete City	71.1	70.9	71.5	67.7	67.3	68.7	24.5	24.6	24.2	25.6	26.2	24.3	
Tsangano	67.4	68.4	65.1	67.9	69.1	63.0	27.1	25.9	29.6	18.5	17.6	22.2	
Zumbo	51.2	52.3	48.4	63.4	66.1	52.0	25.6	24.7	27.8	24,6	21.1	40.0	
Province	67.1	68.0	64.9	61.0	60.9	61.4	27.1	26.3	28.8	29.1	28.7	30.5	
Study Area	65.6	66.3	64.0	62.9	62.8	63.1	26.4	25.7	27.8	29.6	29.5	29.9	

Source: Calculated based on data provided by Tete Provincial Directorate of Education, 2000.

Secondary schools

Pass rates and repetition rates at secondary schools in Tete province as of 1999 are shown in Table 1.21. The following can be inferred regarding the pass rates and the repetition rates at secondary schools in Tete province and the Study Area in 1999.

 ESG1 pass rates were over 100% in two out of the seven districts, and the sum of ESG1 pass rates and repetition rates exceeded 100% in five out of the seven districts. This indicates that there was considerable influx of students who enrolled after the school year had started.

- 2) The pass rates and repetition rates were greater at ESG1 schools (76.0% and 35.2%, respectively) than ESG2 schools (58.7% and 29.8%, respectively). This implies that many of the students who enrolled late passed their grades but a considerable portion of them also failed to pass their grades.
- 3) The likelihood of ESG2 students' passing their grades was much lower than ESG1 students (58.7% vs. 76.0%).
- 4) At ESG1 schools, female students were less likely to pass their grades than male students (71.9% vs. 77.5%).
- 5) At the ESG2 school in Tete city, female students were more likely to pass their grades (79.5% vs. 51.8%) and less likely to repeat their grades than male students (16.1% vs. 35%).
- 6) The Study Area's overall ESG1 pass rate (70.0%) was below the provincial average (76.0%).
- 7) The students at the ESG2 school in Tete city were much more likely to pass (59.1% vs. 33.3%) but also more likely to repeat their grades (30.0% vs. 20.0%) than the students at the ESG2 school in Changara.

Table 1.21. Pass and Repetition Rates in Secondary Education - Tete, 1999

		,	Pass	(%)			Repetition (%)					-	
District	ESG1			ESG2			ESG1			ESG2			
	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	
Angónia	84.4	87.3	73.9	n.a.	n.a.	n.a.	41.6	39.1	51.0	n.a.	n.a.	n.a.	
C. Bassa	105.6	106.3	103.6	n.a.	13.8.	12.8.	26.0	26.8	23.5	n.a.	n.e.	n.a.	
Changara	67.5	67.6	66.7	33.3	33.3	33.3	22.3	23.1	18.8	20.0	25.0	0,0	
Mágoè	126.3	130.4	100.0	п.а.	n.a.	0.8.	34.4	31.2	54.5	n.a.	n.a.	n.a.	
Moatize	71.7	71.9	71.1	n.a.	n.a.	n.a.	24.0	23.6	25.3	n.a.	n.a.	n.a.	
Mutarara	92.1	95.7	66.7	n.a.	n.a.	n.a.	44.9	43.6	51.9	n.a.	n.a.	n.a.	
Tete City	65.2	64.9	65.8	59.1	51.8	79.5	36.8	36.4	37.8	30.0	35.0	16.1	
Province	76.0	77.5	71.9	58.7	51.5	78.8	35.2	34.4	37.2	29.8	34.8	15.9	
Study Area	70.0	71.0	67.5	59.1	51.8	79.5	37.1	36.2	39.4	30.0	35.0	16.1	

Source: Calculated based on data provided by Tete Provincial Directorate of Education, 2000.

(2) Dropout rates and transition rates

Data on dropout rates presented here should be observed with caution. To obtain the number of dropout students, the data sources (MINED and Tete Provincial Directorate of Education) simply subtracted the number of students remaining at the end of the school year from the number of students enrolled at the beginning of the school year. Neither data source takes into account those students who enrolled late during the school year, thereby deflating dropout rates to some extent.

Primary schools

Dropout rates and EP1-EP2 transition rates at primary schools in Mozambique in 1999 are shown Table 1.22. As shown in the table, in 1998, of the 11 provinces:

- 1) Tete's overall EP1 dropout rate at 12.0% was the 2nd highest (male 11.5% and female 12.7%, both the 2nd highest);
- 2) Tete's overall EP2 dropout rate at 10.5% was the 3rd highest. However, while male's dropout rate at 12.1% was the highest, female's at 7.6% was the 3rd lowest; and
- 3) Tete's overall EP1-EP2 transition rate for 1997-1998 at 83.0% was ranked 4th (4th for male at 82.8% and 7th for female at 83.3%). However, the overall transition rate for 1998-1999 fell almost by 10% to 73.4% (4th highest for male at 71.1% and 3rd lowest for female at 78.2%).

Table 1.22. Primary School Dropout Rates and EP1-EP2 Transition Rates by Province, 1998

			D	ropout	rate (%	b)			EP1-E	P2 tran	sition ra	ate (%)	
			EP1			EP2		19	97-199	8	19	98-199	9
Region	Province	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.
North	Cabo Delgado	11.4	11.2	11.6	12.5	11.2	15.8	85.7	82.6	94.4	74.7	69.2	90.3
	Nampula	6.9	7.2	6.4	5.0	3.6	8.5	83.4	82.9	84,5	84.8	83.5	88.2
	Niassa	11.2	10.9	11.7	10.7	9.7	13.4	102.8	102.0	104.7	98.2	97.9	98.7
Central	Manica	8.8	9.1	8.5	9.2	7.3	12.8	74.3	71.5	80.3	82.0	81.5	83.0
	Sofala	5.1	5.2	5.0	7.7	8.2	6.8	81.1	78.8	85.3	71.6	70.1	74.3
	Tete	12.0	11.5	12.7	10.5	12.1	7.6	83.0	82.8	83.3	73.4	71.1	78.2
	Zambezia	12.4	12.1	12.8	8.6	8.6	8.6	75.5	72.5	84.0	75.2	73.6	79.5
South	Gaza	5.9	6.3	5.5	8.1	7.7	8.6	76.1	75.5	76.8	77.8	76.4	79.4
	Inhambane	4.6	4.9	4.3	6.6	5.8	7.7	68.9	67.6	70.6	71.5	71.0	72.2
	Maputo	4.2	4.3	4.1	5.6	4,9	6.2	62.1	61.3	63.0	77.5	72.7	82.9
	Maputo City	2.0	2.0	2.0	5.5	2.9	7.9	85.0	83.4	86.6	87.6	85.5	89.7
М	Mozambique 7.9 8.1 7		7.6	7.4	6.7	8.4	78.1	76.9	80.1	79.0	77.0	82.2	

Sources: MINED, Direcção de Planificação - Aproveitamento Escolar, 1997 & 1998; ibid., 1998 & 1999 (cited in INE, Estaticas e Indicadores Sociais Mozambique 1997-1998).

Table 1.23 presents primary school dropout rates and EP1-EP2/EP2-ESG1 transition rates for 1999 in Tete province. Note again that dropout rates are only an approximation to the actual dropout rates due to non-inclusion of late entrants in the calculation of the dropout rates. Thus, negative dropout rates should be ignored. Also, the EP1-EP2 transition rates provided in the table are only for male students. Nevertheless, the following can be observed from the table.

- 1) The overall dropout rate was slightly higher among girls than boys at EP1 schools (6.3% vs. 5.7%) but lower at EP2 schools (8.1% vs. 10.5%).
- 2) Dropout rates varied widely from district to district (0.3-23.2% for EP1 and 2.8-33.7%

for EP2).

- 3) EP1-EP2 as well as EP2-ESG1 transition rates varied widely from district to district (e.g., 33.1-103.0% for EP1-EP2 and 54.2-126.7% for EP2-ESG1 for 1998-99).
- 4) The EP1-EP2 transition rate was higher in the Study Area than in the province as a whole (e.g., 91.6% vs. 79.4% for 1999-2000).
- 5) The EP1-EP2 transition rate was high in Angonia (101.6% and 93.8%), Tete city (96.3% and 100.4% and Zumbo (90.7% and 103.3%), and low in Tsangano (33.1% and 50.3%).
- 6) The EP2-ESG1 transition rate was higher in the Study Area than in the province as a whole (e.g., 79.5% vs. 72.8% for 1998-99).
- 7) The EP2-ESG1 transition rate was high in Angonia (123.2% and 112.3%) and Tete city (86.8% and 86.1%) and low in Changara (44.8% and 54.2%) and Mutarara (50.0% and 54.6%).

Table 1.23. Primary School Dropout Rates and Transition Rates - Tete, 1999

		D	ropout r	ate (%)		2 101.6 93.8 112.3 88 1 83.2 26.3 71.1 78 1 55.3 59.6 54.2 52 3 71.8 83.5 n.a. n. 8 54.1 75.1 n.a. n. 8 53.2 98.0 n.a. n.				
		EP1			EP2		EP1	-EP2	EP2-1	ESG1	
District	Total	Male	Fem.	Total	Male	Fem.	1998-99	99-2000	1998-99	99-2000	
Angónia	21.7	21.4	22.3	10.5	12.3	5.2	101.6	93.8	112.3	88.1	
C. Bassa	0.3	0.3	0,4	8.1	8.5	7.1	83.2	26.3	71.1	79,4	
Changara	-0.7†	-0.7†	-0.8†	8.7	8.8	8.1	55,3	59.6	54.2	55.6	
Chifunde	6.6	7.1	5.3	20.6	22.2	8.3	71.8	83.5	n.a.	n.a.	
Chiúta	-10.1†	-9.9†	-10.6†	14.0	14.3	12.8	54.1	75.1	n.a.	n.a.	
Macanga	8.1	8.0	8.4	20.4	18.1	30.8	53.2	98.0	n.a.	n.a.	
Mágoè	0.9	1,0	0.9	18.0	16.2	23.5	74.8	99.6	126.7	86.9	
Marávia	-2.1†	-3.1†	0.3	18.1	19.7	13.2	82.7	78.0	n.a.	n.a.	
Moatize	1.7	1.8	1.5	2.8	1.7	5.8	63.6	91.8	54.7	75.2	
Mutarara	5.2	4.6	7.0	33.7	34.8	23.8	103.0	76.5	54.6	62.4	
Tete City	4.4	4.5	4.3	6.7	6.5	7.0	96.3	100.4	86.1	78.5	
Tsangano	5.6	5.6	5.4	13.6	13.3	14.8	33.1	50.3	n.a.	n.a.	
Zumbo	23.2	23.0	23.8	11.9	12.8	8.0	90.7	103.3	n.a.	D.A.	
Province	5.9	5.7	6.3	9.8	10.5	8.1	78.0	79.4	72.8	69.3	
Study Area	8.0	7.9	8.2	7.5	7.6	7.0	80.2	91.6	79.5	72.1	

^{*}Only data for male students obtained. †There were more students at the end of the school year than at the beginning due to students who enrolled after school had started.

Source: Tete Provincial Directorate of Education, 2000.

Secondary schools

Since data on ESG1-ESG2 transition rates are not available, only dropout rates are discussed for secondary education. Table 1.24 shows dropout rates at secondary schools in Tete province. From the table, the following may be inferred or concluded.

1) As indicated by negative dropout rates in one district in 1998 and four districts in 1999,

- a considerable number of students entered schools after the school year had started (see also the previous section of pass rates and repetition rates).
- 2) The overall dropout rate was greater for female students than male students at ESG1 schools (13.5% vs. 8.6%) but lower at ESG2 schools (e.g., 5.3% vs. 13.7% in 1999).
- 3) Compared to the provincial average, ESG1 students in the Study Area were slightly more prone to drop out of school in 1998 (11.2% vs. 9.9%).
- 4) The ESG2 students in Tete city were much less likely to drop out of school than those in Changara in 1999 (10.8% vs. 46.7%).

Table 1.24. Secondary School Dropout Rates - Tete, 1998 (1997) and 1999

			ES	G1		-			ES	G2		
		1998			1999			1997*			1999	
District	Total	Male	Fem.	Total	Male	Fem.	Total	Male	Fem.	Total	l Male	Fem.
Angónia	11.3	12.2	7.3	-26.0†	-26.3†	-24.9†	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C. Bassa	3,6	3.8	2.8	-31.01	-33.2†	-27.0†	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Changara	14.5	13.6	18.2	10.2	9.3	14.5	n.a.	n.a.	n.a.	46.7	41.7	66.7
Mágoè	10.2	9.0	17.4	-60.61	-61.6†	-54.5†	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Moatize	6.3	5.1	10.7	4.3	4.5	3.6	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Mutarara	-37.7†	-40.7†	-20.0†	-36.71	-39,4†	-18.5†	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Tete City	11.4	9.2	16.4	-2.0†	-1.3†	-3.6†	3.7	3.5	4.3	10.8	13,1	4.4
Province	9.9	8.6	13.5	-11.2†	-11.9†	-9.1†	3.7	3.5	4.3	11.5	13.7	5.3
Study Area	11.2	9.8	15.0	-7.1†	-7.2†	-6.9†	3.7	3.5	4.3	10.8	13.1	4.4

^{*}Since data of 1998 are missing, data of 1997 are presented. †There were more students at the end of the school year than at the beginning due to students who enrolled after school had started. Source: Tete Provincial Directorate of Education, 2000.

(3) Graduation rates

Available data on the graduation rate are scarce and limited only to primary education. Thus, only the graduation rate at primary schools is presented. Table 1.25 shows EP1 school graduation rates in Mozambique in 1994. Though the data are a little outdated and thus should be observed with caution, the following appear to be the case with regards to the EP1 graduation rates in Mozambique in 1994.

- 1) Regardless of province, the EP1 graduation rates were extremely low. Only about 7 out of 100 students completed EP1 education within five years in the Country as a whole. Even in Sofala province, where the rate was the highest, only about 13 out of 100 students did so.
- 2) Regional disparity in the EP1 graduation rate is apparent with the northern provinces generally lower than in the central and southern provinces.
- 3) The EP1 graduation rate in Tete province (8.6%) was the 3rd highest of the 11 provinces.

The EP1 graduation rate might have increased since 1994, and would likely be higher if those who take longer than five years to finish were included. MINED made mention in its Education Sector Strategic Plan 1997-2001 issued in 1998 that "barely 25 percent of students who enter the first grade [. . .] successfully complete the five grades of EP1." However, it is unclear whether the percentage includes only those students who complete EP1 education in five years or whether the rest of students would ever complete EP1 education.

Table 1.25. EP1 Graduation Rates by Province, 1994

Region	Province	EP1 graduation rate
North	Cabo Delgado	3.6
	Nampula	4.8
	Niassa	4.1
Central	Manica	7.2
	Sofala	12.7
	Tete	8.6
	Zambezia	3.7
South	Gaza	5.3
	Inhambane	10.3
	Maputo	7.6
	Maputo City	5.8
M	lozambique	6.7

Source: MINED, 1996 (cited in The Study Report on Reconstruction Assistance for Mozambique, ECFA, 1998).

EP2 graduation rates for boys in Tete province in recent years, based on data provided by Tete Provincial Directorate of Education, are presented in Table 1.26. Note again that the rates presented in the table also include returnee students who re-entered EP2 schools after some intervals and thus had taken longer than two years to complete EP2 education. Still the following may be said about EP2 graduation rates for boys in Tete province in the respective years.

- 1) Of the male students who entered the 6th grade in 1996 and 1997, 54.9% graduated from EP2 schools two years later.
- The EP2 graduation rate improved in all but one district (i.e., Cahora Bassa) from 1998 to 1999.
- 3) The degree of improvement in the EP2 graduation rate was greater in the Study Area as compared to the province as a whole between 1998 and 1999.

Table 1.26. EP2 Graduation Rates for Male Students in Tete Province, 1998-1999

	1996	1998	ļ	1997	1999		1996-97	1998-99	
District	Entered	Graduated	%	Entered.	Graduated	%	Entered.	Graduated	%
Angónia	612	285	46.6	665	377	56.7	1,277	662	51.8
C. Bassa	361	263	72.9	502	291	58.0	863	554	64.2
Changara	571	225	39.4	604	304	50.3	1,157	529	45,0
Chifunde	0	0	n.a.	45	26	57.8	45	26	57.8
Chiúta	137	44	32.1	122	63	51.6	259	107	41.3
Macanga	87	43	49.4	85	47	55.3	172	90	52.3
Mágoè	136	30	22.1	165	84	50.9	301	114	37.9
Marávia	104	32	30.8	72	37	51.4	17.6	69	39.2
Moatize	480	203	42.3	522	282	54.0	1,002	485	48.4
Mutarara	456	205	45.0	551	303	55.0	1,007	508	50,4
Tete City	1,699	984	57. 9	1,607	1,163	72.4	3,306	2.147	64.9
Tsangano	129	48	37.2	150	62	41.3	279	110	39.4
Zumbo	0	25	n.a.	51	17	33.3	-51	42	82.4
Province	4,772	2,387	50.0	5,141	3,056	59.4	9,913	5,443	54.9
Study Area	3,144	1,607	51.1	3,196	2,020	63.2	6,340	3,627	57.2

Source: Based on data from Tete Provincial Directorate of Education, 2000.

2.2.3. Educational environment

Efficiency in pedagogical conduct is affected by various physical and human factors within and surrounding educational environment. In this section, the status of quo of the teacher-to-student ratio and the classroom-to-student ratio at educational institutions in Tete province and the Study Area is presented. In addition, the conditions of teachers and school facilities are also briefly referred.

(1) Teacher-to-student ratio

Primary schools and secondary schools

Teacher-student ratios at primary and secondary schools in Tete for 1999 are shown in Table 1.27 (cf. also Appendix 2). There were 3,302 teachers at primary schools in Tete province with 2,908 EP1 teachers and 394 EP2 teachers, and were 207 (or perhaps more) secondary schools teachers with 184 ESG1 teachers and 23 ESG2 teachers (inferred) in 1999.

As shown in the table:

- 1) The higher the level of education, the lower the teacher-to-student ratio as the average ratio decreased from 1:69 for EP1 to 1:41 for EP2, 1:36 for ESG1, and 1:19 for ESG2.
- 2) Teacher-to-student ratios ranged from 1:62 in Angonia to 1:99 in Magoe at EP1 schools and from 1:15 in Magoe to 1:58 in Cahora Bassa at EP2 schools.
- 3) At secondary schools, the ranges of teacher-to-student ratios were between 1:15 in Magoe and 1:47 in Tete city for ESG1 and between 1:15 (inferred) and 1:19 for ESG2.

4) The decrease in the teacher-to-student ratio was greater from EP1 to EP2 and from ESG1 to ESG2 than from EP2 to ESG1.

Table 1.27. Teacher-to-Student Ratios at Primary and Secondary Schools in Tete by District, 1999

		Number o	f teachers		Т	eacher-to-s	tudent rati	OS
District	EP1	EP2	ESG1	ESG2*	EP1	EP2	ESG1	ESG2
Angónia	505	45	38	n.a.	1:62	1:47	1:31	n.a.
Cahora Bassa	207	30	17	n.a.	1:66	1:58	1:45	n.a.
Changara	395	43	14	1*	1:69	1:44	1:27	1:15
Chifunde	61	4	n.a.	n.a.	1:72	1:26	n.a.	n.a.
Chiúta	102	12	n.a.	n.a.	1:64	1:20	n.a.	n.a.
Macanga	147	7	п.а.	n.a.	1:75	1:31	n.a,	n.a.
Mágoè	77	30	11	n.a.	1:99	1:15	1:15	n.a.
Marávia	93	7	n.a.	n.a.	1:64	1:32	n.a.	n.a.
Moatize	386	47	19	n.a.	1:74	1:43	1:17	n.a.
Mutarara	280	32	7	n.a.	1:68	1:32	1:31	n.a.
Tete City	385	117	78	22†	1:67	1:47	1:47	1:19†
Tsangano	191	14	n.a.	n.a.	1:79	1:21	n.a.	n.a.
Zumbo	79	6	n.a.	n.a.	1:67	1:22	n.s.	n.a.
Province	2,908	394	184	23	1:69	1:41	1:36	1:19
Study Area (% share)	1,777 (61.1)	246 (62.4)	135 (73.4)	22 (95.7)	1:69	1:43	1:38	1:19

^{*}data not available, thus inferred from the number of students (n=15) / †according to INE data of 1998 Sources: Tete Provincial Directorate of Education, 2000; Estaticas e Indicadores Sociais Moçambique 1997-1998, INE.

Training schools

The number of teachers and teacher-to-student ratios at the five professional/technical schools and IMAP in Tete for 2001 are presented in Table 1.28. Note that the FP (Primary Teacher-Training) center in Cahora Bassa, one of the two teacher-training schools in Tete province, is not included in the table due to the unavailability of data.

Table 1.28. Teacher-to-Student Ratios at Professional/Technical Schools and IMAP in Tete, 2001

	Number	of teachers	Teacher-to	o-student ratio
Type of institute	Basic	Mid./IMAP	Basic	Mid./IMAP
Professional/technical	105	23	1:19	1:4
D. Bosco Professional School	20		1:5	
Fonte Boa Basic Agricultural School	15		1:14	
Matyrs of Wiriyamu Ind. & Com. School	27		1:26	
Matundo Industrial School	43		1:23	
Institute of Mines & Geology	_	23		1:4
IMAP (Institute of Primary Teaching)		13		1:11

Source: JICA Study Team.

The teacher-to-student ratio is relatively low across the schools. The two schools with the ratio higher than 1:20 have student enrollment much larger (namely, 710 students at Martyrs of Wiriyamu Industrial and Commercial School and 979 students at Matundo Industrial School) than the other schools.

(2) Classroom-to-student ratio at EP1 schools

As of 2000, there were 641 EP1 schools with 1,999 classrooms in Tete. Of the 13 districts in the province, Changara had the largest number of classrooms of 303, followed by Moatize with 263 and Angonia with 261 classrooms. On the other hand, the district with the smallest number of classroom was Magoe with 69 classrooms, followed by Zumbo with 74 and Chifunde with 84 classrooms. Table 1.29 shows the number of classrooms from 1997 to 2000 and classroom-to-student ratios from 1997 to 1999 at EP1 schools in Tete province.

Table 1.29. Classroom-to-Student Ratios at EP1 Schools in Tete by District, 1997-99

· [N	umber of	classroom	ns	Class	room-to-	student ra	atios
District	1997	1998	1999	2000	1997	1998	1999	2000
Angónia	400	436	206	261	1:79	1:76	1:153	n.a.
Cahora Bassa	81	96	102	114	1:152	1:147	1:135	n.a.
Changara	270	299	278	303	1:88	1:94	1:98	n.a.
Chifunde	56	54	49	85	1:72	1:80	1:90	n.a.
Chiúta	50	72	100	131	1:53	1:86	1:66	n.a.
Macanga	89	122	119	136	1:94	1:88	1:93	n.a.
Mágoè	57	57	93	69	1:108	1:115	1:82	n.a.
Marávia	52	59	67	91	1:101	1:96	1:89	n.a.
Moatize	176	217	257	263	1:117	1:126	1:111	n.a.
Mutarara	164	208	188	164	1:101	1:91	1:101	n.a.
Tete City	151	137	137	143	1:152	1:178	1:188	n.a.
Tsangano	126	138	140	165	1:106	1:105	1:107	n.a.
Zumbo	49	51	51	74	1:78	1:97	1:104	n.a.
Province	1,721	1,946	1,787	1,999	1:100	1:102	1:113	n.a.
Study Area (% share)	1,048 (60.9)	1,176 (60.4)	1,008 (56.4)	1,184 (59.2)	1:99	1:103	1:122	n.a.

Source: Tete Provincial Directorate of Education, 2000.

The following are observed.

- 1) The classroom-to-student ratio increased from 1:100 to 1:113 at the provincial level and from 1:99 to 1:122 in the Study Area between 1997 and 1999.
- 2) In 1999, Tete city had the highest classroom-to-student ratio at 1:188, which was almost three times as large as the lowest ratio of 1:66 in Chiuta.
- 3) The classroom-to-student ratio decreased only in five districts, Cahora Bassa, Macanga, Magoe, Maravia, and Moatize, between 1997 and 1999.

4) The increase in the classroom-to-student ratio from 1998 to 1999 was especially marked in Angonia and Tete city, particularly in the former due to a drastic drop of classrooms by over 50%.

(3) Conditions of school buildings/facilities

Primary schools

Construction materials used for primary school buildings in Tete province include cement, logs coated with traditional mortar made of clay and sand with thatched roof (called "pau-a-pique"), bricks, and clay. In 2000, of the EP1 schools/classrooms in Tete province 40% were constructed of cement, 33% pau-a-pique, 13% bricks, 4% clay, and 13% others. The number and percentage of EP1 classrooms constructed of these materials in the 13 districts of Tete province in 2000 are presented in Table 1.30.

Table 1.30. EP1 Classrooms by Construction Material and District - Tete, 2000

District	Total	Cement	(%)	Pau-a-pique	(%)	Bricks	(%)	Clay	(%)	Other	(%)
Angónia	261	98	(37.5)	34	(13.0)	60	(23.0)	1	(0.4)	68	(26.1)
Cahora Bassa	114	55	(48.2)	53	(46.5)	0	(0.0)	4	(3.5)	2	(1.8)
Changara	303	95	(31.4)	164	(54.1)	14	(4.6)	4	(1.3)	26	(8,6)
Chifunde	85	33	(38.8)	32	(37.6)	13	(15.3)	0	(0.0)	7	(8.2)
Chiúta	131	27	(20.6)	93	(71.0)	8	(6.1)	3	(2.3)	0	(0.0)
Macanga	136	41	(30.1)	54	(39.7)	15	(11.0)	18	(13.2)	8	(5.9)
Mágoè	69	28	(40.6)	33	(47.8)	8	(11.6)	0	(0.0)	0	(0.0)
Marávia	91	29	(31.9)	43	(47.3)	11	(12.1)	6	(6,6)	2	(2.2)
Moatize	263	120	(45.6)	4	(1.5)	67	(25.5)	8	(3.0)	64	(24.3)
Mutarara	164	78	(47.6)	40	(24.4)	18	(11.0)	24	(14.6)	4	(2.4)
Tete City	143	120	(83.9)	15	(10.5)	4	(2.8)	0	(0.0)	4	(2.8)
Tsangano	165	57	(34.5)	41	(24.8)	36	(21.8)	0	(0.0)	31	(18.8)
Zumbo	74	15	(20.3)	46	(62,2)	6	(8.1)	3	(4.1)	4	(5.4)
Province	1,999	796	(40.0)	652	(32.6)	260	(13.0)	71	(3.6)	253	(12.7)
Study Area	1,184	496	(41.9)	273	(23.1)	203	(17.1)	30	(2.5)		(15.4)

Source: Tete Provincial Directorate of Education, 2000.

A UNDP/UNHCR study in 1996 found that of the 103 EP1 schools surveyed in Angonia, Chifunde and Macanga, 79 schools (76.7%) were without desks and 72 schools (69.9%) without lavatories (Table 1.31). In Angonia, 70 out of the 89 (78.7%) EP1 schools had no desks and 55 (61.8%) no lavatories. Of the four EP1 schools in Chifunde, three had no desks and one had neither desks nor lavatories. In Macanga, six out of the ten (60.0%) EP1 schools had neither desks nor lavatories. Also, EP1 schools in 12 out of the 21 localities of Chiuta, Moatize and Tsangano lacked desks, and 11 out of the 21 districts lacked lavatories. In the administrative posts of Domue and Ulongue in Angonia, a considerable number of EP1 schools (e.g., 30 out of the 54 schools in Ulongue) had no classroom buildings, and classes were held in the open air.

Table 1.31. EP1 Schools without Desk/Lavatory in the Study Area, 1996

District	Angónia	Chifunde	Chiúta	Macanga	Moatize	Tete City	Tsangano
EPI Schools	89*	4*	9†	10*	7†	n.a.	5†
With no desk	70	3	7†	6	5†	n.a.	0†
With no lavatory	55	1	7†	6	2†	n.a.	2†
No desk or lavatory	n.a.	1	7†	6	2†	n.a.	0†

^{*}According to Tete Provincial Directorate of Education, 104 in Angonia, 9 in Chifunde, and 23 in Macanga in 1996. †Number of district localities instead of the number of schools.

Source: UNDP/UNHCR, 1996.

Secondary schools

According to UNDP/UNHCR, one secondary school in Angonia did not have desks or lavatories in 1996.

Professional/technical schools

At Matundo Industrial School, most equipment used for students' practical training including lathes and other electrical devices, which were originally donated from the USSR and China some twenty years ago, are antiquated. Some pieces of equipment are not functioning properly or in disrepair. In face of the growing enrollment, the shortage of classrooms is also a looming problem. For Martyrs of Wiriyamu Industrial and Commercial School, basic classroom furnishings including desks, chairs, blackboards, and others is in short supply. The institute has been planning to establish courses in computer training and information technology. It submitted MINED the request for five computers in December, 2000, but the competition for allotment of computers is high among training schools. As of June, 2001, the institute is still in the waiting list. Institute of Mines and Geology is in need of laboratory upgrading. Laboratory equipment and precision devices necessary for students' practicum are seriously short in number and obsolete. The institute also needs to have its boarding facility upgraded.

All in all, professional/training schools in the Study Area share common problems associated with ill equipped facilities and lack of modern equipment. Dom Bosco Professional School and IMAP are the only two schools that have computers (though they are for use of directors and/or staff).

2.2.4. Teachers

(1) Number and gender composition of teachers

The number of teachers at primary schools, secondary schools and professional/technical schools in Mozambique in 1998 are shown in Tables 1.32, 1.33 and 1.34. As indicated in the tables:

1) At all the levels of education but EP1, teachers were concentrated in the southern

- provinces than in the northern and central provinces, especially at secondary schools and professional/technical schools.
- 2) The percentage of female teachers was disproportionately small regardless of the level of education (24.1% in EP1, 18.5% in EP2, 13.5% in ESG1, 19.5% in ESG2, and 12.7% in professional/technical).
- 3) Regardless of the level of education, the percentage of female teachers was higher in the southern provinces (46.9% in EP1, 25.6% in EP2, 17.9% in ESG1, 24.5% in ESG2, and 19.3% in professional/technical) than in the central provinces (15.9% in EP1, 15.2% in EP2, 9.9% in ESG1, 17.5% in ESG2, and 7.1% in professional/technical) and the northern provinces (13.1% in EP1, 9.4% in EP2, 8.1% in ESG1, 11.1% in ESG2, and 7.3% in professional/technical).
- 4) As for the percentage of female teachers, Tete was ranked 5th in EP1, 9th in ESG1, 5th in ESG2, and 10th in professional/technical.

Table 1.32. Number and Gender Composition of Primary School Teachers by Province, 1998

			EP1				EP2		
Region	Province	Total	Male (%)	Fem. (%)	Total	Male	(%)	Fem.	(%)
North	Cabo Delgado	2,421	2,225 (91.9)	196 (8.1)	224	212	(94.6)	12	(5.4)
	Nampula	5,559	4,812 (86.6)	747 (13.4)	527	458	(86.9)	69	(13.1)
	Niassa	1,952	1,593 (81.6)	359 (18,4)	275	260	(94.5)	15	(5.5)
Central	Manica	1,822	1,496 (82.1)	326 (17.9)	263	233	(88.6)	30	(11.4)
	Sofala	1,966	1,633 (83.1)	333 (16.9)	375	277	(73.9)	98	(26.1)
	Tete	2,861	2,242 (78.4)	619 (21.6)	359	321	(89.4)	38	(10.6)
	Zambezia	4,984	4,407 (88.4)	577 (11.6)	402	355	(88.3)	47	(11.7)
South	Gaza	2,375	1,262 (53.1)	1,113 (46.9)	345	277	(80.3)	68	(19.7)
	Inhambane	2,494	1,644 (65.9)	850 (34.1)	418	355	(84.9)	63	(15,1)
	Maputo	1,710	899 (52.6)	811 (47.4)	380	291	(76.6)	89	(23.4)
	Maputo City	2,369	948 (40.0)	1,421 (60.0)	788	513	(65.1)	275	(34,9)
Me	ozambique	30,513	23,161 (75.9)	7,352 (24.1)	4,356	3,552	(81.5)	804	(18.5)
Northern provinces		9,932	8,630 (86.9)	1,302 (13.1)	1,026	930	(90.6)	96	(9.4)
Cent	ral provinces	11,633	9,778 (84.1)	1,855 (15.9)	1,399	1,186	(84.8)	213	(15.2)
South	ern provinces	8,948	4,753 (53.1)	4,195 (46.9)	1,931	1,436	(74.4)	495	(25.6)

Sources: MINED, Direcção de Planificação - Aproveitamento Escolar, 1998 (cited in INE, Estaticas e Indicadores Sociais Mozambique 1997-1998).

Table 1.33. Number and Gender Composition of Secondary School Teachers by Province, 1998

			ESG1			ESG:	2
Region	Province	Total	Male (%)	Fem. (%)	Total	Male (%)	Fem. (%)
North	Cabo Delgado	113	109 (96.5)	4 (3.5)	25	23 (9 2,0	2 (8.0)
	Nampula	171	146 (85.4)	25 (14.6)	31	27 (87.1	4 (12.9)
	Niassa	101	99 (98.0)	2 (2.0)	16	14 (87,5	2 (12.5)
Central	Manica	79	69 (87.3)	10 (12.7)	17	13 (76.5	4 (23.5)
	Sofala	151	137 (90.7)	14 (9.3)	22	21 (95.5) 1 (4.5)
	Tete	132	121 (91.7)	11 (8.3)	22	18 (81.8) 4 (18.2)
	Zambezia	131	117 (89.3)	14 (10.7)	19	14 (73.7	5 (26.3)
South	Gaza	132	116 (87.9)	16 (12.1)	15	13 (86.7	2 (13.3)
	Inhambane	136	111 (81.6)	25 (18.4)	18	14 (77.8	4 (22.2)
	Maputo	185	169 (91.4)	16 (8.6)	25	22 (88.0) 3 (12.0)
	Maputo City	411	313 (76.2)	98 (23.8)	93	65 (69.9) 28 (30.1)
M	ozambique	1,742	1,507 (86.5)	235 (13.5)	303	244 (80.5	59 (19.5)
Northern provinces		385	354 (91.9)	31 (8.1)	72	64 (88.9	8 (11.1)
Central provinces		493	444 (90.1)	49 (9.9)	80	66 (82.5	14 (17.5)
South	nern provinces	864	709 (82.1)	155 (17.9)	151	114 (75.5	37 (24.5)

Sources: ibid.

Table 1.34. Number and Gender Composition of Professional/Technical School
Teachers by Province, 1998

Region	Province	Total	Male	(%)	Fem. (%)
North	Cabo Delgado	68	68	(100)	0 (0)
	Nampula	91	79	(86.8)	12 (13.2)
	Niassa	47	44	(93.6)	3 (6.4)
Central	Manica	53	50	(94.3)	3 (5.7)
	Sofala	163	147	(90.2)	16 (9.8)
	Tete	62	60	(96.8)	2 (3.2)
	Zambezia	73	69	(94.5)	4 (5.5)
South	Gaza	64	60	(93.8)*	4 (6.3)*
	Inhambane	74	67	(90.5)	7. (9.5)
	Maputo	74	58	(78.4)	16 (21.6)
	Марию City	248	186	(75.0)	62 (25:0)
Mozambique		1,017	888	(87.3)	129 (12.7)
Northern provinces		206	191	(92.7)	15 (7.3)
Central provinces		351	326	(92.9)	25 (7.1)
Southern provinces		460	371	(80.7)	89 (19.3)

*Sum of male % and female % > 100 due to rounding

Sources: ibid.

Table 1.35 presents the number and gender composition of teachers at professional/ technical schools and IMAP in Tete province in 2001. As shown in the table, the

percentage of female teachers is generally very small. Dom Bosco Professional School in Tete city and IMAP in Angonia, two most recently established professional/technical schools in the province, have relatively higher percentages. Notwithstanding, female teachers at these schools account only for about 15%.

Table 1.35. Number and Gender Composition of Teachers at Professional/Technical and Teacher-Training Schools in Tete, 2001

Type of institute	Total	Male	(%)	Female	(%)
Professional/technical	128	84+	:	6+	
D. Bosco Professional School	20	17	(85.0)	3	(15.0)
Fonte Boa Basic Agricultural School	15	n.a.	-	n.a.	_
Matyrs of Wiriyamu Ind. & Com. School	27	26	(96.3)	1	(3.7)
Matundo Industrial School	43	41	(95.3)	2	(4.7)
Institute of Mines & Geology	23	n.a.		n.a.	_
IMAP (Institute of Primary Teaching)	13	11	(84.6)	2	(15.4)

Source: JICA Study Team.

(2) Quality of teachers

Table 1.36 presents percentages of trained teachers at EP1 schools in the 13 districts of Tete province in 1999 and 2000 (cf. also Appendix 2). Trained teachers are defined here as those teachers who have completed seven years of formal education (up to EP2) and three years of pedagogical training at FP (Primary Teacher-Training) centers.

Table 1.36. FP-Trained EP1 Teachers by District - Tete, 1999-2000

·		1999		2000			
District	Total	Trained	(%)	Total	Trained	(%)	
Angónia	505	304	(60.2)	503	303	(60.2)	
Cabora Bassa	207	156	(75.4)	227	169	(74,4)	
Changara	395	205	(51.9)	424	217	(51.2)	
Chifunde	61	31	(50.8)	94	36	(38.3)	
Chiúta	102	47	(46.1)	134	66	(49.3)	
Macanga	147	72	(49.0)	176	76	(43.2)	
Mágoè	77	58	(75.3)	122	69	(56.6)	
Marávia	93	48	(51.6)	123	49	(39.8)	
Moatize	386	. 239	(61.9)	442	266	(60.2)	
Mutarara	280	119	(42.5)	292	114	(39.0)	
Tete City	385	313	(81.3)	400	309	(77.3)	
Tsangano	191	100	(52.4)	212	116	(54.7)	
Zumbo	79	35	(44.3)	79	35	(44,3)	
Province	1,777	1,106	(62.2)	1,961	1,172	(59.8)	
Study Area	2,908	1,727	(59.4)	3,228	1,825	(56.5)	

Source: Tete Provincial Directorate of Education, 2000.

As shown in the table, the percentage of trained teachers decreased by 2.4% province-wide and by 2.9% in the Study Area from 1999 to 2000. In both years, the percentage of trained teachers was lower in the Study Area than the provincial average (59.4% vs. 62.2% in 1999 and 56.5% vs. 59.8% in 2000). In 2000, Tete city had the highest percentage of trained teachers at 77.3%, followed by Cahora Bassa at 74.4%. On the other hand, the percentage of trained teachers was the lowest at 38.3% in Chifunde, which is less than a half of the percentage of Tete city. The decrease in the percentage was most marked in Magoe (from 75.3% in 1999 to 56.6% in 2000) and Chifunde (from 50.8% in 1999 to 38.3% in 2000).

As for the quality of teachers beyond EP1 education, pertinent data were obtained only for the middle level professional/technical school in Moatize. It was found that the majority of the teaching staff at Institute of Mines and Geology was seriously under-trained. Of the 23 teachers currently employed at the institute, 20 are its former students with only six-month or one-year training.