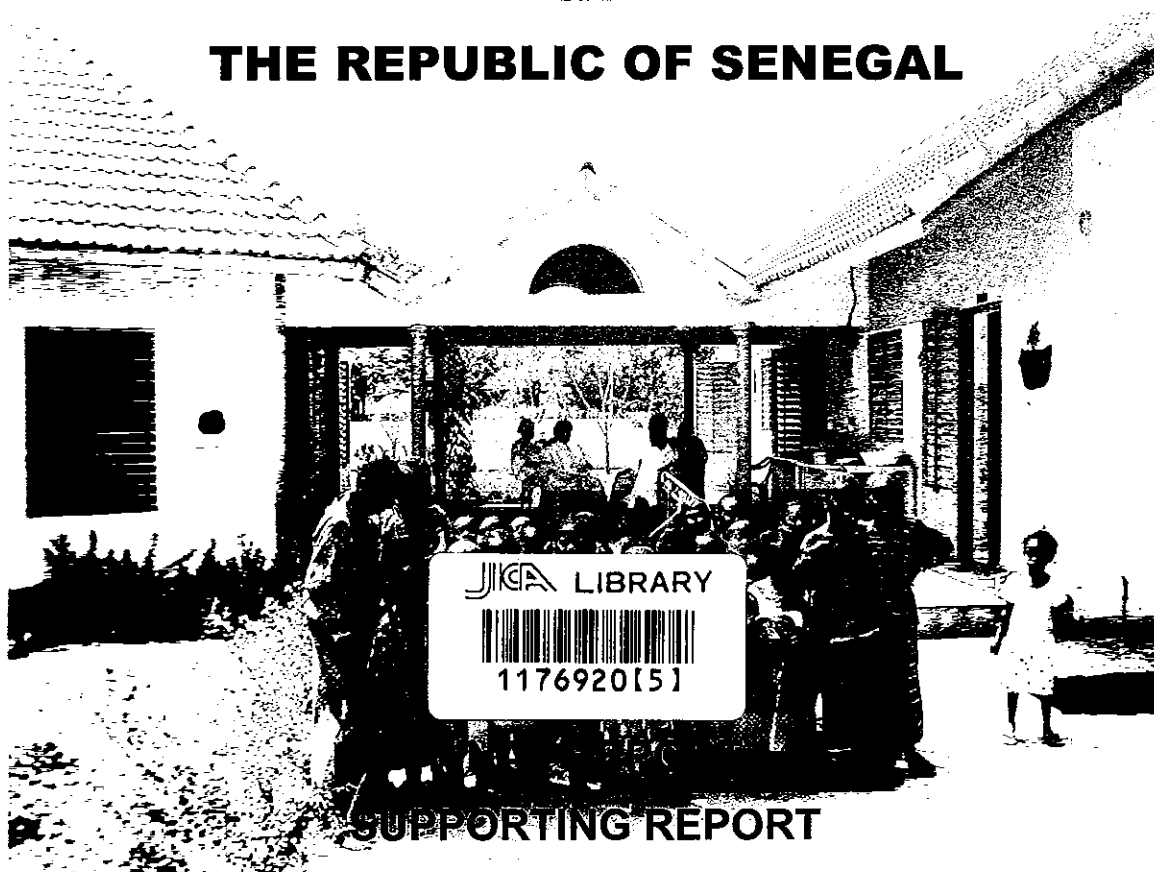


JAPAN INTERNATIONAL
COOPERATION AGENCY

NATIONAL AGENCY OF CASE
DES TOUT-PETITS (NACTP)
THE REPUBLIC OF SENEGAL

**THE STUDY
ON
THE IMPROVEMENT OF ENVIRONMENT
FOR EARLY CHILDHOOD
IN
THE REPUBLIC OF SENEGAL**



August 2004

KRI INTERNATIONAL CORP.

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**JAPAN INTERNATIONAL
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**FINAL REPORT
SUPPORTING REPORT**

AUGUST 2004

KRI INTERNATIONAL CORP.

FINAL REPORT

SUMMARY REPORT

MAIN REPORT

SUPPORTING REPORT

DATA BOOK (MANUALS)



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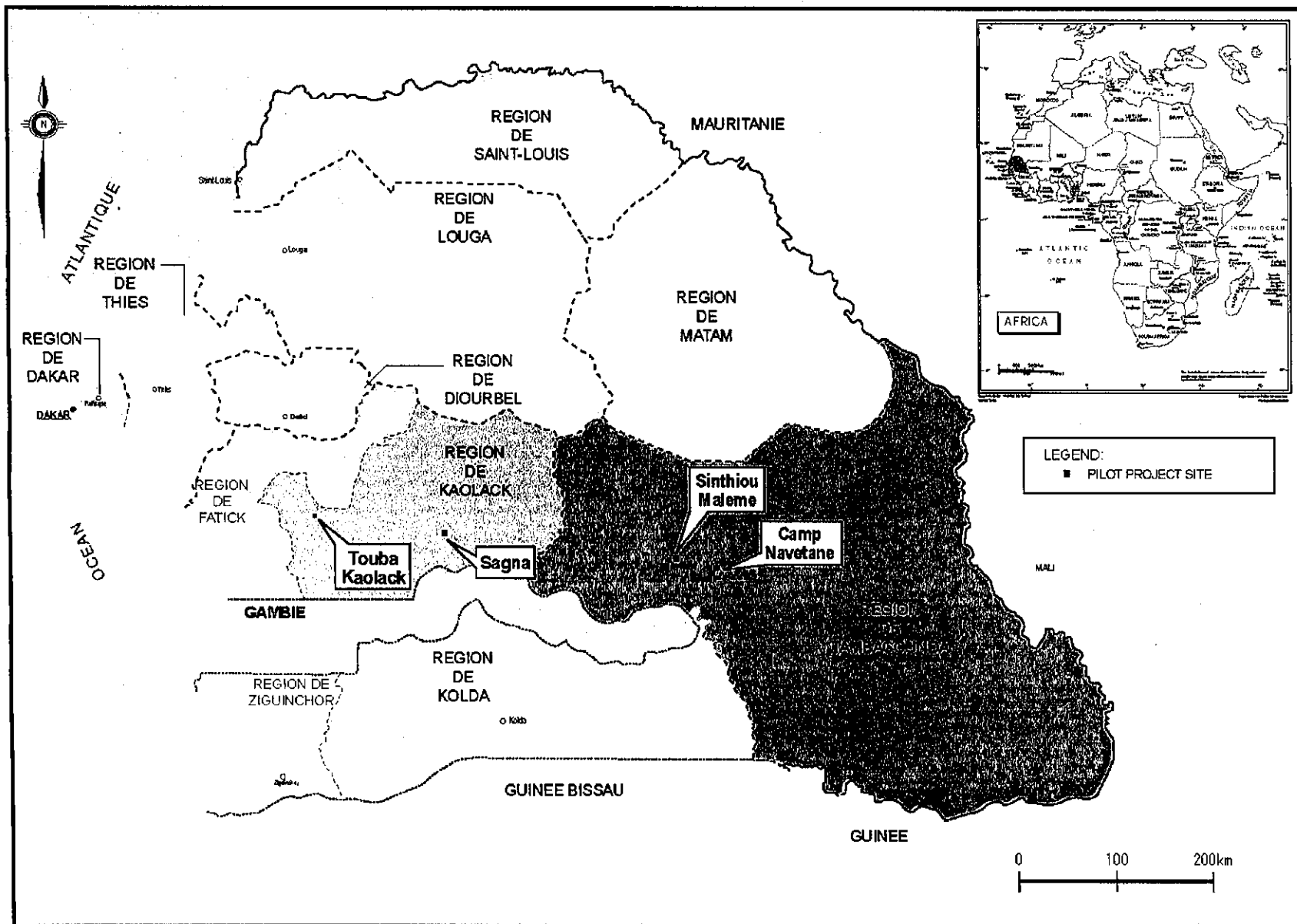
Exchange Rate

(as of August 2004)

US\$1=¥110.45

US\$1=FCFA534.08

FCFA1 = ¥0.21



LOCATION MAP

**THE STUDY
ON
THE IMPROVEMENT OF ENVIRONMENT
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**FINAL REPORT
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Abbreviations and Acronyms

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Abbreviations and Acronyms

ABE	Agricultural-based enterprise
ADEA	Association for Education Development in Africa
ADPES	Association pour une Dynamique de Progres Economique et Social
AEMO	Action Educative en Milieu Ouvert
AGETIP	Agence d'Execution des Travaux d'Interet Public
AI	Academic Inspection
AIDS	Acquired Immunodeficiency Syndrome
AIPED	International Association for the Struggle against Poverty and for Development
APE	Parent Association
ARC	Agents Relais Communautaires
ARI	Acute Respiratory Infections
ARPEM	Regional Nursery School Teacher-parents Association
ASC	Agents Sanitaire Communautaires
BCG	Bacillus Calmette-Guérin Vaccine
CBO	Community Based Organization
CCF	Christian Children's Fund
CEDAW	Conventions on the Elimination of All Forms of Discrimination against Women
CEM	Junior High School
CE1	Second Year of Primary School
CE2	Third Year of Primary School
CFPPC	Private Catholic Preschool Training Centre
CHU	Centre Hospitalo-Universitaire
CIDA	Canada International Development Agency
CM1	Fourth Year of Primary School
CM2	Fifth Year of Primary School
CI	Introductory Course
CIDA	Canadian International Development Agency
CLM	Cellule Nationale de Lutte contre la Malnutrition
CNC	Community Nutrition Centers
CNFTMH	National Center of Technical Training for Hospital Maintenance
CNP	Community Nutrition Programme
CP	First Year of Primary School
CPRS	Centres de Promotion et de Réinsertion Sociale

CRC	Convention on the Rights of the Children
CREA	Centre de Recherche Economiques Appliquées
CRESP	Centre de Ressources pour l'Emergence Social et Participative
CRF	Centre Regionale de Formation
CSEC	Commercial Sexual Exploitation of Children
CTNS	Cellule Technique Nutrition-Santé
CTP	Case des Tout-Petits
DANSE	Division de l'Alimentation et de la Nutrition Service
DEPRE	Department of Planning and Educational Reform of Ministry of Education
DEPS	Department of Preschool Education
DPT	Diphtheria, Pertussis and Tetanus Vaccine
EC	Early Childhood
ECD	Early Childhood Development
ECE	Early Childhood Education
ECPAT	End Child Prostitution, Child Pornography and Trafficking of Children for Sexual Purposes
EGM.BTV	Enterprise Generale De Mellugrie Batiments-TP-Vidange
EMIS	Education Management Information System
ENDA-TM	Environnement, Développement et Action dans le Tiers Monde
ENDSS	National School of Sanitation and Social Development
ENFEF	Ecole Nationale de Formation d'Economie Familiale et Sociale
ESIS	Enquête Sénégalaise sur les Indicateurs de Santé
FDEA	Femme, Developpement et Entreprises en Afrique
FENAPEM	National Federation of the Nursery school Teacher-Parents Association
FGM	Female Genital Mutilation
FP	Family Planning
GDP	Gross Domestic Product
GIE	Groupement d'Interet Economique
GMFC	Global Movement for Children
GNP	Gross National Product
GOJ	Government of Japan
GOS	Government of Senegal
HDI	Human Development Index
HIV	Human Immunodeficiency Virus
IBRD	International Bank for Reconstruction and Development
IDA	International Development Agency

IDD	Iodine Deficiency Disorders
IDE	Departmental Educational Inspections
IDEN	Inspection de l'Education Nationale
IEC	Information Education and Communication
IMCI	Integrated Management of Childhood Illness
IMF	International Monetary Fund
IMR	Infant Mortality Rate
ILO	International Labor Organization
IPEC	International Program for the Eradication of Child Labor
IRA	Infections Respiratoires Aigues
IUD	Intrauterine Contraceptive Devices
JICA	Japan International Cooperation Agency
LBW	Low Birth Weight
LDC	Least Developed Country
LMD	Program of Controlling Diarrhoeal Diseases
MAC	Maison d'Arrêt et de Correction (Detention and Correction House)
M/C	Management Committee
MCEL	Ministry of Civil Service, Employment and Labor
MCH	Maternal and Child Health
MEF	Ministry of Economy and Finances
MFSDNS	Ministry of Family, Social Development and National Solidarity
MH/FP	Maternal Health/Family Planning
MHP	Ministry of Health and Prevention
MICAH	Micronutrients and Health
M/M	Minutes of the Meeting
MMR	Maternal Mortality Rate
MOE	Ministry of Education
MOH	Ministry of Health
MOJ	Ministry of Justice
MPHC	Ministry of State owned built patrimony, Habitation and Construction
MPPHS	Ministry of Prevention, Public Hygiene and Sanitation
MSDNS	Ministry of Social Development and National Solidarity
MSH	Management Science for Health
NACTP	National Agency of Case des Tout-Petits (NACTP is the counterpart agency at the end of the Study. The Study started with MFEC(Ministry of Family and Early Childhood), which was taken over by

	MPECTP(Ministry of Preschool Education and CTP), then MECCTP(Ministry of Early Childhood and CTP)).
NGO	Non-Governmental Organization
NID	National Immunization Days
NMD	National Micronutrient Days
NSPE	National School for Pre-school Educators
HIPC	Heavily Indebted Poor Country
OPV	Oral Polio Vaccine
ORT	Oral dehydration therapy
OVI	Objectively Verifiable Indicator
PAC	Construction Programme for the Support to Urban Community
PAGPF	Projet d'Appui aux Groupements de Promotion Féminine
PAIN	Package of Integrated Nutrition Activities
PANE	Plan d'Action Nationale pou l'Enfance
PAMISEC	Curriculum Trial Supporting Project
PCIME	Integrated Management of Childhood Illness
PDEF	Ten-Year Education and Training Program
PDIS	Programme de Développement Intégré de la Santé et de l'Action Sociale
PEM	Protein-Energy Malnutrition
PEV	Programme National Elargi de Vaccination
PHC	Primary Health Care
PLP	Plan de Lutte contre la Pauvreté
PNC	Community Nutrition Programme
PNDS	Plan National de Développement Sanitaire et Social
PNF	National Plan for Training
PNLP	National Program for fight against Malaria
PNLS	Programme National de Lutte contre SIDA
PNSR	National Program for Reproductive Health
PRDE	Regional Educational Development Plan
PRN	Reinforced Nutrition Programme
PRSP	Poverty Reduction Strategy Paper
PTTS	Preschool Teachers Training School
QEFA	Quality Education for All Programme
RNDIPE	Réseau National pour le Développement intégré de la Petite Enfance
SAP	Structural Adjustment Program
S/C	Supervisory Committee

SIP	Sector Investment Program
SNAN	National Service for Food and Nutrition
SNES	National Service for Health Education
SNPE	Secrétariat National Permanent de la Petite Enfance
SOV	Source of Verification
SPP	Service Provision Points
STDs	Sexually Transmitted Diseases
TFR	Total Fertility Rate
UCAD	University of Cheikh Anta Diop
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	US Agency for International Development
U5MR	Under 5 Mortality Rate
VAD	Vitamin A deficiency
WFP	World Food Programme
WHO	World Health Organization

Unit

m	meter
km	kilometer
km ²	square kilometer
ha	hectare
kg	kilogram
%	percentage

Currency Unit

FCFA	Franc(s) de la Communauté Financière d'Afrique, West African Currency
US\$	US Dollar

***PART 1: SOCIO-ECONOMY AND CURRENT
SITUATION OF ECD***

**THE STUDY
ON
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IN
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PART 1: SOCIO-ECONOMY AND CURRENT SITUATION OF ECD

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CHAPTER 1 SOCIO-ECONOMIC SITUATION

1.1 Senegal in General

1.1.1 Population

Total population of Senegal was about 9.9 million in 2004. Average population density is 46 inhabitants/km². Annual growth rate of total population during 1990 to 1999 was 2.6%, which has similar trend in the Sub-Saharan countries. The ratio of urbanized population was 47% in Senegal. Annual growth rate of urban population continued to increase to 4.3% in 1999 though that of developing and least developed countries decreased. The demographic indicators of the Senegal are summarized in the following table together with those of developing countries.

Table 1.1.1 Demographic Indicators

	Population 1999		Population annual growth rate		Ratio of population urbanized	Average annual growth rate of urban population	
	(thousands)		(%)		(%)	(%)	(%)
	Total	under 5	1970-90	1990-99	1999	1970-90	1990-99
Senegal	9,240	1,596	2.8	2.6	47	3.7	4.3
Sub-Saharan Africa	595,336	101,806	2.8	2.6	38	5.1	4.7
Developing countries	4,776,909	537,673	2.2	1.7	48	3.9	3.0
Least developed countries	629,587	100,787	2.5	2.5	28	5.4	4.8

Note: The definition of developing countries and least developed countries is UNICEF's one.

Source: The State of the World's Children 2001, UNICEF

Table 1.1.2 shows population of children aged 0 to 6 years in 2000. Total population of children aged 0 to 6 years was 1,995,126 (20.8% of total population) in Senegal. The population of boys was 1,002,214 (50.2% of the total population), while that of girls was 992,912 (49.8%). Population of children aged 0 to 6 years was 687,756 in urban area and 1,307,370 in rural area. About one-third of the total population lived in urban area and two-third in rural area.

Table 1.1.2 Population of Children aged 0 to 6 Years by Age, 2000

Year	0	1	2	3	4	5	6	Total
Boys	158,619	149,018	139,174	137,031	132,460	138,936	146,976	1,002,214
Girls	159,866	135,016	133,257	141,727	139,553	136,858	146,635	992,912
Urban	101,881	102,919	92,858	101,228	86,672	97,517	104,681	687,756
Rural	216,760	181,044	179,512	177,506	185,311	178,356	188,881	1,307,370
Total	318,485	284,034	272,431	278,758	272,013	275,794	293,611	1,995,126

Source: MICS 2000

There are about 20 different ethnic groups in Senegal, Wolof (43% of the population), Pulaar (24%), Serere (15%), Diola (5%), Mandinka (4%) and the others. Wolof

language is now spoken by about 70% of the population, though French remains the official language and is used throughout the country. More than 90% of the population is Muslim, the remainder practices Catholicism and traditional beliefs.

1.1.2 Economic Condition

With a GDP per capita of US\$ 522 (1999), Senegal is one of the poorest countries of the world. According to its HDI (0.423), established by the UNDP, Senegal ranks 145 out of 162 countries, i.e. among the “Low development countries” and even below the HDI average for Sub-Saharan Africa (0.467). In February 2001, Senegal was included for the first time in the list of Least Developed Countries (LDCs), drawn by the UNCTAD.

The economic crisis of the 80’s, characterized by dramatic declines in formal sector activity and by longer-term trends (population growth, land degradation, low rainfall, declining world commodity prices), plunged the country into a severe, and prolonged economic recession, reflected in a progressively weaker growth rate (even negative in the late 80s) and a gradual decrease in GNP per capita.

In order to overcome the crisis, the government adopted in 1990 a strict Structural Adjustment Program (SAP), which was complemented with an Emergency Plan in 1993. At the same time, a substantial devaluation of the CFA franc (by 50%) was aimed at improving the region’s international competitiveness and balance of trade.

These economic measures brought about that GNP per capita was US\$ 610 in 2001, which was relatively higher compared to that of in the Sub-Saharan countries. Annual growth rate of GNP was 0.9% and was slightly improved during 1990 to 1999 compared with that during 1965 to 1980. Annual rate of inflation was quite stable in the developing countries. That of inflation during 1990 to 1998 was 6%.

Table 1.1.3 Economic Indicators

	GNP per capita	Annual growth rate of GNP		Annual rate of inflation
	(US\$)	(%)		(%)
	2001	1965-80	1990-99	1990-98
Senegal	610	-0.5	0.9	6
Sub-Saharan Africa	503*	2.8	0.1	54
Developing countries	1222*	3.7	3.3	67
Least developed countries	261*	-0.1	2.2	102

Date: * 1999

Source: The State of the World's Children 2001, UNICEF

Economic structure of Senegal is summarized in the following table. Total GDP of Senegal was 3,380 billion FCFA in 2001, which showed an average annual growth rate

of 6.5% during 1996 to 2001. The economy relies mainly on the tertiary industry (51% of total GDP) followed by the secondary industry (21%) and primary industry (20%). The share of commerce sector was largest among the tertiary industry with the share of 26.1%.

More than half of the Senegalese population lives on agriculture, even if this sector only accounts for 11% of the country's GDP. The informal sector also employs large numbers of people, although it is beginning to show signs of saturation for lower-skilled jobs. The official unemployment rates do not reflect the reality, given that 37.2% of the inactive population is made of self-declared "pupils or students" even if they do not attend any school. Underemployment is as common as underpaid jobs, a situation that forces 23% of the labor force to undertake more than one economic activity.

Table 1.1.4 Economic Structure of Senegal

Sector	GDP (billion FCFA)			
	1996	% of Total GDP	2001	% of Total GDP
Primary Industry	489.5	22.9%	658.8	19.5%
Agriculture	261.1	12.2%	373.6	11.1%
Livestock	155.0	7.3%	200.7	5.9%
Fishery	47.0	2.2%	54.2	1.6%
Forestry	26.3	1.2%	30.3	0.9%
Secondary Industry	460.7	21.6%	702.5	20.8%
Mining	20.3	1.0%	32.4	1.0%
Oil	18.5	0.9%	37.0	1.1%
Energy	52.6	2.5%	78.3	2.3%
Public works	85.8	4.0%	149.0	4.4%
Other Industries	283.6	13.3%	405.9	12.0%
Tertiary Industry	1,185.5	55.5%	1,724.0	51.0%
Transport & Telecom	246.2	11.5%	397.4	11.8%
Commerce	625.4	29.3%	881.7	26.1%
Other Services	314.0	14.7%	444.9	13.2%
Non-Commercial Services	236.1	11.1%	295.6	8.7%
Family	30.8	1.4%	37.1	1.1%
Administration	205.2	9.6%	258.4	7.6%
Total GDP	2,135.7	100.0%	3,380.9	100.0%

Source: DPS of Ministry of Economy and Finance

Concerning debt, Senegal was one of the first six Heavily Indebted Poor Countries (HIPC) to have reached in June 2000, their "decision points" under the Enhanced HIPC Initiative framework, thus qualifying for US\$ 800 million in debt service relief by IMF and the World Bank. Notwithstanding debt service still represents 5.0% of GDP, a higher figure than public spending in education (3.7%) or in health (2.6%).

1.2 Kaolack and Tambacounda

1.2.1 Administrative Districts

Both Kaolack and Tambacounda regions, the target areas for the Study, compose of three Departments as shown in the following table. Under the Department, Kaolack has 10 Arrondissements, which includes six Communes and 41 Community Rurals. Tambacounda has 13 Arrondissements, which includes three Communes and 35 Community Rurals.

Table 1.1.5 Administrative Districts

Region	Kaolack	Tambacounda
Department	3	3
Arrondissement	10	13
Commune	6	3
Community Rural	41	35

1.2.2 Population and Land Area

Table 1.6 shows the population and land area in Kaolack and Tambacounda. Kaolack has a land area of 16,010 km² (8.1% of total national land), while Tambacounda has 59,602 km² (30.3%). Total population in 2001 was 1,128,128 in Kaolack (11.5% of total national population) and 530,332 in Tambacounda (5.4%). The population density is higher in Kaolack (70.5/km²) compared with that in Tambacounda (8.9/km²) and the national average (49.8/km²). Most of the population, 71% of the population in Kaolack and 82% in Tambacounda lived in rural area.

Table 1.1.6 Population and Land Area of Kaolack and Tambacounda

Region/Year	1988	1999	2000	2001	Land Area (km ²)
Kaolack	805,859	1,074,177	1,100,939	1,128,128	16,010
(rural area)		772,887	790,072	807,456	
Tambacounda	383,572	505,924	518,040	530,332	59,602
(rural area)		419,916	426,558	no data	
Senegal		9,302,162	9,582,542	9,802,775	196,720

Source: 1988 Census and MFEC

Total population of children aged 0 to 6 years was 255,365 in Kaolack and 129,899 in Tambacounda as shown in the following table. The share of the children population was relatively high, 23.2% in Kaolack and 25.1% in Tambacounda compared with the national average (20.9%). The population by sex was almost same in both regions.

Table 1.1.7 Population of Children aged 0 to 6 Years in Kaolack and Tambacounda (2000)

Region	Kaolack			Tambacounda			Senegal
	Boys	Girls	Total	Boys	Girls	Total	Total
Population	126,062	129,303	255,365	64,782	65,117	129,899	2,000,726

Source: MICS 2000

Structure of ethnic group is quite different between Kaolack and Tambacounda. Wolof is a major group (62%) followed by Pular (19%) and Serere(11%), while Pular (46%) is a major one followed by Manding (17%) and Sarakhole (11%) in Tambacounda as shown in table below.

Table 1.1.8 Rate of Population by Ethnic Group (%)

Ethnic Group	Wolof	Pular	Serere	Bambara	Manding	Autres	Sarakhole	Total
Kaolack	62.4	19.3	11.8	2.4	0.5	3.6	0.0	100
Tambacounda	8.8	46.4	3.1	3.2	17.4	9.9	11.2	100

Source: RGP 1988

1.2.3 Regional Industry

Agriculture including livestock breeding is an important industry both in Kaolack and Tambacounda. Both regions have a potential to develop agricultural production, but the cultivated land was limited, 58% of the available cultivated land in Kaolack and only 2% in Tambacounda in 1992.

Table 1.1.9 Agricultural Land in Kaolack and Tambacounda

Region	Kaolack	Tambacounda
Available cultivated land (ha)	1,151,135	4,912,320
Cultivated land (ha)	671,866	122,460

Source: DAT 1992

Major agricultural products are groundnuts as cash crop and millet as dairy staff in both Kaolack and Tambacounda as shown in the table below. Productivity of those products in Kaolack was higher than that in Tambacounda because agricultural infrastructure in Kaolack was well constructed compared with that in Tambacounda.

Table 1.1.10 Agricultural Product in Kaolack and Tambacounda

Region	Kaolack 2000/01			Tambacounda 1999		
	Area (ha)	Production (t)	Kg/ha	Area (ha)	Production (t)	kg/ha
Ground nuts*	267,155	317,169	1,187	64,343	84,588	760.6
Cotton	1,851	880	475	8,229	4,937	599
Millet	220,974	234,817	1,063	42,665	34,929	818
Sorghum	30,446	25,602	841	55,369	52,147	941
Maize	20,139	26,477	1,315	18,777	19,038	1,013
Niebe	8,707	3,483	400	1,791	1,090	608

Note: * including ARB type of ground nuts

Source: DRDR-KK and Agriculture Service, October 2000

Livestock breeding such as cattle, sheep and goat is active using wide grassland, that is important for local farmers to get cash income in both Kaolack and Tambacounda as shown in the table below. Local farmers raise also poultry to get cash income and eggs for nutrition of children in the garden.

Table 1.1.11 Number of Livestock

Animals	Cattle	Sheep	Goat	Horse	Donkey	Pork	Poultry
Kaolack*	307,480	646,379	538,908	100,000	85,605	10,409	1,914,491
Tambacounda**	686,055	1,132,160	876,423	21,744	47,152	no data	no data

Note: * 2000, **1999

Source: I.R.Elevage-KL

1.2.4 Poverty Condition

The following table shows the poverty condition in Kaolack and Tambacounda. Poverty population in Kaolack and Tambacounda is quite high compared with the national average. About 88% of total population was poor in Kaolack and 92% in Tambacounda. Among the poor, very poor population composes of about half of total poor population in Kaolack and Tambacounda, though the national average was less than 30%. Poverty rate for male was slightly higher than that of female in Senegal.

Table 1.1.12 Poverty Indicator by Region and Sex (%)

	Kaolack	Tambacounda	Male	Female	Senegal
Poor population	39.7	36.4	45.2	45.3	45.2
Very poor population	48.6	55.9	31.4	22.9	29.7
Total poor population	88.3	92.3	76.6	68.2	74.9

Source: Enquete sur la perception de la pauvreté au Senegal, 2001

More than 80% of the population in Kaolack and Tambacounda did not recognize any improvement on poverty condition during last five years as shown in the table below.

Table 1.1.13 Change of Perception for Poverty during 5 Years of 1996-2000 (%)

	Kaolack	Tambacounda	Male	Female	Senegal
(1) Improved	16.4	16.6	18.3	17.7	18.2
(2) Remained	13.3	9.3	12.4	14.9	12.9
(3) Became worse	66.9	72.9	65.3	61.6	64.6
(4) do not know	3.4	1.2	4.0	5.8	4.3
Total	100	100	100	100	100

Source: Enquete sur la perception de la pauvreté au Senegal, 2001

On the contrary, 66% of population in Kaolack and 72% in Tambacounda perceived that poverty condition was deteriorated.

The following table shows the satisfaction of household condition. Local population in Kaolack and Tambacounda express quite low satisfaction of their household condition for health care and education even compared with the national average. The satisfaction rate is quite low both for health care and education in Kaolack.

Table 1.1.14 Satisfaction of Household Condition (%)

	Kaolack	Tambacounda	Male	Female	Senegal
(1) Food consumption	10.6	14.1	20.0	26.5	21.3
(2) Accommodation	15.0	36.8	25.8	34.8	27.5
(3) Cloth	12.9	14.6	23.9	31.7	25.4
(4) Health care	7.7	14.5	18.5	23.7	19.5
(5) Education	14.9	28.0	27.8	30.7	28.4
(6) Income	4.4	5.9	13.3	19.4	14.5

Source: Enquete sur la perception de la pauvreté au Senegal, 2001

Local population has priority for tackling poverty. Major priority sectors expected in Kaolack are reduction of consumer price (18%), health (16%) and youth's employment (14%), while those in Tambacounda are health (15%), food sufficiency (15%) and youth's employment (12%). The education sector and the health sector are conceived as important sectors for tackling poverty both in Kaolack and Tambacounda. There is no much difference between male and female regarding the priority sectors.

Table 1.1.15 Priority Sectors for Tackling Poverty (%)

	Kaolack	Tambacounda	Male	Female	Senegal
(1) Education	11.8	11.4	11.0	12.5	11.3
(2) Youth's employment	14.7	12.9	19.2	24.0	20.1
(3) Health	16.4	15.6	17.7	17.6	17.7
(4) Reduction of consumer price	18.1	10.6	18.3	21.1	18.9
(5) Accessibility to credit	7.1	7.7	6.9	6.7	6.9
(6) Increase of income for farm production	10.3	12.4	7.8	3.6	7.0
(7) Security	2.6	2.0	3.3	2.7	3.2
(8) Food sufficiency	5.6	15.3	7.1	6.9	7.0
(9) Transportation	4.7	9.5	5.9	3.5	5.4
(10) Others	8.8	2.7	2.7	1.3	2.5
Total	100	100	100	100	100

Source: Enquete sur la perception de la pauvreté au Senegal, 2001

CHAPTER 2 EARLY CHILDHOOD EDUCATION

2.1 Education in Senegal

2.1.1 Education System

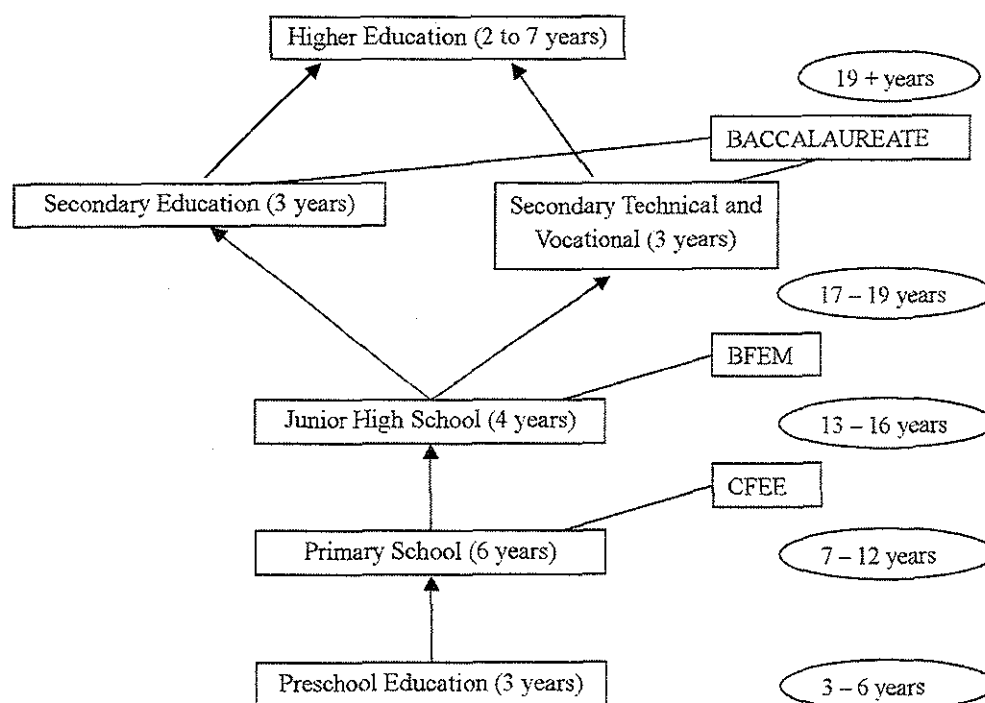
(1) Overall structure

The chart below indicates overall structure of the education system in Senegal:

- Preschool education
- Primary education
- General (Mainstream) secondary education
- Technical and vocational Secondary education
- Higher education

The age group, the duration, and the diploma corresponding to each level of the education are summarized below:

Figure 1.2.1 National Education System



Present situation of the each level on the education is briefly summarized below.

(2) Primary school

Preschool education aims at preparing a child to benefit from primary school education under the most favourable conditions. It means to get children between 7 and 12 to know the basics; reading, writing, knowledge of their environment and useful and indispensable principles to live within the community. The primary school contains introductory course (CI), first year of primary school (CP), second year of primary school (CE1), third year of primary school (CE2), fourth year of elementary school (CM1) and fifth year of primary school (CM2). Being considered as a priority sub sector, primary education developed substantially these last years. Enrolment of children in first year primary school increased from 187,256 in 1995 to 244,374 in 1999 with 6.9% annual growth rate.

Table 1.2.1 Distribution of Newly Registered Children in Introductory Course (CI)

	1995/96	1996/97	1997/98	1998/99	1999/00
Boy	99,954	104,970	102,140	101,184	125,805
Girl	87,302	94,396	91,711	88,918	118,569
Total	187,256	199,366	193,851	190,102	244,374

Source : MOE

However, it should be noted that the enrolment ratio among girls remains low. The enrolment rate of among girls is higher than the national average in Tambacounda while the rate in Kaolack is far below the national average.

Table 1.2.2 Gross Enrolment Ratio of Primary School

	1990/1991			1999/2000		
	Boys	Girls	Average	Boys	Girls	Average
Dakar	105.0	88.7	96.60	88.9	83.6	86.25
Diourbel	35.6	20.1	27.60	44.9	36.1	40.42
Fatick	56.7	40.2	48.60	57.1	51.6	54.46
Kaolack	48.7	28.5	37.90	48.6	40.0	44.25
Kolda	58.1	25.6	42.20	91.5	61.1	76.82
Louga	47.2	25.1	37.00	63.5	48.7	55.94
St-Louis	60.3	44.3	52.20	76.2	74.2	75.18
Tambacounda	44.3	25.0	34.70	88.2	64.6	76.32
Thiès	71.4	51.1	61.30	74.1	65.2	69.63
Ziguinchor	115.0	85.6	101.00	105.6	92.1	99.14
SENEGAL	68.0	49.0	58.50	73.5	63.0	68.30

Source: MOE

In primary school, the percentage of repeaters is between 10.5% in CI and 15.7% in CMI. The highest percentage of repeaters is identified in CM2, that could certainly be explained by the fact that a competitive exam have to be taken to promote to first grade of junior high school. Generally, the percentage of female repeaters is higher as compared to males, whatever the education level. In addition, the rate of female

repeaters is progressively increasing between CI and CM2 (10.7% against 29.9%).

Table 1.2.3 Rate of Repeaters in Primary School

	CI			CP			CE1			CE2			CM1			CM2		
	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T
1995/96	11.0	11.4	11.2	10.9	11.6	11.2	12.3	13.2	12.7	12.2	13.4	12.7	14.9	16.5	15.6	29.5	31.4	30.2
1996/97	9.6	9.9	9.7	11.8	9.4	11.9	12.1	12.0	12.3	11.9	13.0	12.8	14.3	16.9	15.9	28.2	29.7	28.8
1997/98	10.0	10.2	10.1	10.8	10.8	10.7	12.7	13.3	13.0	12.1	13.0	12.5	15.2	16.7	15.0	28.1	29.5	28.7
1998/99	10.0	10.6	10.3	10.5	10.8	10.6	11.4	12.1	11.7	13.0	13.8	13.4	14.7	16.3	15.4	26.9	28.8	27.7
1999/00	10.8	11.3	11.0	11.4	11.4	11.4	11.6	12.1	11.8	12.1	12.8	12.4	15.9	17.9	16.8	27.5	30.2	28.6
Average rate	10.3	10.7	10.5	11.1	10.8	11.2	12.0	12.5	12.3	12.3	13.2	12.8	15.0	16.9	15.7	28.0	29.9	28.8

Source: MOE

The analysis of the gender distribution of the drop out rate in the primary school shows that number of girls is declining. The drop out rate among girls is 13.8% and 21.7% respectively for CE1 and CE2 that are the most affected grades, against 9.9 and 16.4 for boys.

(3) Junior high school

Junior high school is named as junior high school colleges (CEM) and includes four grades (from 1st year to 4th year secondary school). It is attended by children between with the age 13 and 16 years. In the year 2000, the transition rate between primary school and junior high school was 36.1%. Junior high school is the sub-sector where private schools are competitive to public schools (233 against 230 in 2000). There were respectively 52,783 and 142,229 students in private and public junior high schools. In the last year of junior high school, students have to take a diploma called BFEM. After graduating from junior high school, students enter either to senior high school or to technical education or vocational training schools.

(4) Secondary education (general senior high school)

It includes 3 grades. It comprises of literature option "L" divided into L1 and L2, and science option "S" divided into S1 and S2 dealing with either economic or experimental sciences or mathematics. In the year 2000, 53.3% of the students graduated from junior high school went to senior high school. Out of 116 high schools, 52 are public. Graduation is recognized by baccalaureate exam.

(5) Technical education and vocational training

The technical education and vocational training sub-sector comprises 8 technical high schools, most of which provide vocational training (trade, farming, industry and mining) and about one hundred training centres on farming, cattle breeding, fisheries

and cottage industry. In the year 2000, there were some 4,425 students in the technical education and vocational training schools, out of which, 590 attended private schools mainly specialized in commercial training. Recently, this education sub-sector has been characterized by a regular drop of the number of students.

(6) Higher education

Higher education comprises universities, institutions and colleges. Course periods vary from one school to the other. There is a certain tendency for those schools to promote collaboration with foreign universities in Europe and U.S.A. Since the beginning of the 90's, many private higher education schools have been established. Higher education is characterized by acute imbalance as regards the distribution of the number of students among the faculties. In the two national universities, 21% of the students are attending the faculties of medicine, pharmacy, economics and management, while 80% of the students attend arts faculty.

2.1.2 Preschool Education

Early childhood (0-6 years) represents 26% of the Senegalese population. This owed to high birth rate and significant reduction of infant and under-5 mortality. The total number of population in that age group was estimated at 2 million in the year 2000, out of which 850,000 are preschool age (3-6 years). The orientation law No 91-22 issued on February 16 1991 stipulates the objectives in terms of preschool education. It mainly aims at:

- Promoting local languages and cultural values among children, so that to consolidate their identity and prevent them from cultural alienation
- Promoting the development of their various psychomotor, intellectual and social aptitudes for them to develop their own personality and be prepared for school education
- Preparing young children who have not attained primary school education level yet for school life, using some appropriate methods.

Table 1.2.4 Regional Distribution of Children (0 – 6 years old)

REGIONS¹	BOYS	GIRLS	TOTAL
Dakar	228,175	224,926	453,101
Diourbel	74,912	82,640	157,552
Fatick	80,111	79,839	159,950
Kaolack	126,062	129,303	255,365
Kolda	77,651	73,186	150,837
Louga	65,162	63,592	128,754
St-Louis	100,514	97,954	198,468
Tambacounda	64,782	65,117	129,899
Thiès	135,980	125,473	261,453
Ziguinchor	48,838	50,882	99,720
SENEGAL	1,002,187	992,912	1,995,099

Source: MICS, 2000

There are three types of preschool institutions, including day nurseries (garderies), nursery schools (écoles maternelle), kindergartens (jardins d'enfants) and available for early childhood. Up to 1978, preschool education system was mainly made of private schools, namely kindergartens. At that time, there were only three existing public schools (nursery schools) distributed as follows; two in Dakar and one in Ziguinchor.

Kindergartens are under the management of non-religious private sectors based on their own operation modes. The personnel responsible for children's care are not requested to be holder of any professional diploma. Despite some blunders regarding operation (not respecting the regulations strictly and use French for training), kindergartens seek the same objectives as nursery school. High registration and monthly fees characterize the kindergartens.

Nursery schools are under the tutelage of the State and managed by directors as far as administrative and pedagogical constituents and by the Regional Nursery School Teacher-parents Association (ARPEM)² for financial management. The monthly payments by the parents of the students are used for the payment of the salaries of the subordinate personnel (duty women and security guards). On the other hand, the remuneration of instructors who are civil servants is entirely under the responsibility of the State. Instructors who are hired based on junior or senior high school degree are provided appropriate training in specialized schools.

Day nurseries have responsibility for taking care of children. Academic grade is not considered as a criterion for recruiting teaching staff. Day nurseries are changing

¹ In February 2002, the number of regions that used to be 10 became 11 with the creation of Matam region

² There is at the national level the National Federation of the Nursery school Teacher-Parents Associations (FENAPEM)

themselves to undertake pure education activities teaching the same subjects as the nursery school while the staff being unskilled. Day nurseries are characterized by low standards (child/class ratio, Child/toilet ratio and space for each child). Most of the time, children are accommodated in inappropriate facilities deprived of any security standards.

2.1.3 Facilities and Enrolment

Preschool education is mainly composed of three grades (small, medium and upper classes) and intends to prepare children for a shift to primary school under the best conditions possible. For the academic year 2000/2001, there were 394 schools, including 87 public schools and 307 private ones (kindergarten and day nurseries)³. Approximately one half of the schools (194) are located in Dakar region.

On the other hand, in less urbanized regions schools are very scarce. About ten institutions exist in the rural regions such as Diourbel, Fatick and Louga. The same trend is noted regarding the class. Many classes exist in the regions where there is high concentration of preschools and most of them have a comprehensive cycle, say three classes, ensuring stable and comprehensive preschool education for children. However, the acute deterioration of many schools requires prompt action from the relevant authorities to ensure perfect security for children and educators.

Table 1.2.5 Regional Distribution of Preschools and Classes in 2001

REGIONS	No. of Schools			No. of Classes		
	PUBLIC	PRIVATE	TOTAL	PUBLIC	PRIVATE	TOTAL
Dakar	15	179	194	51	540	591
Diourbel	6	4	10	19	10	29
Fatick	6	4	10	20	15	35
Kaolack	4	13	17	13	40	53
Kolda	7	5	12	23	13	36
Louga	6	4	10	18	12	30
St-Louis	16	13	29	44	39	83
Tamba	5	7	12	16	18	34
Thiès	9	55	64	30	209	239
Ziguinchor	13	23	36	37	65	102
SENEGAL	87	307	394	271	961	1,232

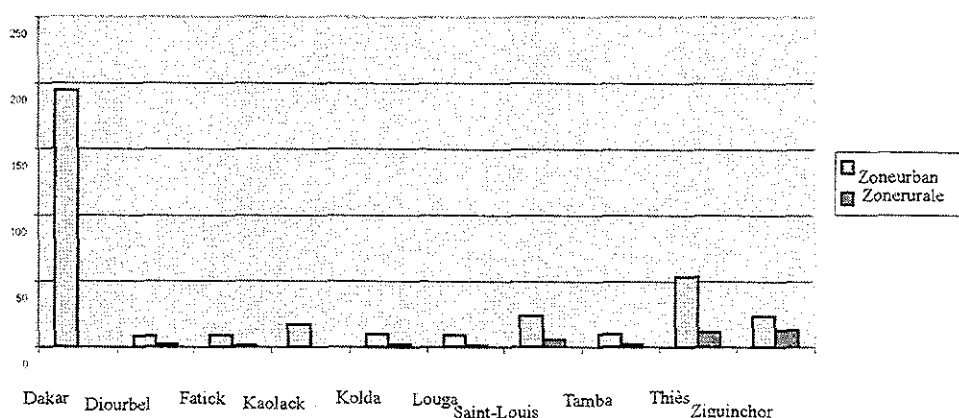
Source: MOE

Out of the existing 394 preschools (public and private), only 37 are located in the rural area. About 65% of the preschools located in the rural areas are mainly distributed between the 2 regions of Ziguinchor (13) and Thiès (11). The existing preschool

³ There are 123 kindergarten and 184 day nurseries all throughout the country.

network in rural areas is very weak. Such situation heavily jeopardizes the policy of the government as far as equity, social justice and equality of opportunities are concerned.

Figure 1.2.2 Distribution of Preschools among Urban and Rural Areas in 2001



Source: MOE

The unevenness in the distribution of school between urban and rural areas is well reflected in the enrolment. Very few preschools in rural areas correspond to low rates of enrolment, which is 8% of the total enrolment. However, let us note the importance of the girls' ratio compared to the total enrolment. The latter represents 52% of the national enrolment rate. Highest girls' enrolment ratio is recorded in Kaolack (56%) and Thiès (55%). Apparently, gender issues are not being neglected in the sub sector of preschool education. In 2000, total preschool enrolment increased to 31,650 with the annual growth rate of 10.4% during 1995 - 2000.

Table 1.2.6 Preschool Enrolment between 1995/96 and 2000/2001

REGIONS	ENROLMENT (95/96)			ENROLMENT (00 /01)		
	PUBLIC	PRIVATE	TOTAL	PUBLIC	PRIVATE	TOTAL
Dakar	1,249	8,608	9,857	1,754	14,760	16,514
Diourbel	654	18	672	521	129	650
Fatick	546	0	546	544	211	755
Kaolack	327	523	850	446	702	1,148
Kolda	538	174	712	749	279	1,028
Louga	656	84	740	647	442	1,089
St-Louis	654	536	1,190	951	888	1,839
Tamba	606	61	667	844	381	1,225
Thiès	857	1,409	2,266	783	3,939	4,722
Ziguinchor	1,240	493	1,733	1,186	1,494	2,680
SENEGAL	7,327	11,906	19,233	8,425	23,225	31,650

Source: MOE

2.2 Development Plan and Government Policy

(1) Ten-year education and training program (PDEF)

The Government of Senegal started the preparation of the Ten-Year Education and Training Program (PDEF) in 1998. The Program sets the new orientations of the Government in terms of education until 2010. The PDEF covers all of sub-sectors of education. The Government drafted this programme in collaboration with his financial partners and teachers' trade union to give impacts on a qualitative and quantitative development of the educational system. It involves an important part of the sub-sectors of Early Childhood Development (ECD) with the following objectives:

- To extend access by diversifying and adapting early childhood care taking facilities and the underprivileged fringe group into account;
- To readjust the curriculum with the integration of health and nutrition constituents plus education;
- To experiment new accommodating facilities for Early Childhood; and
- To bring innovation in the recruitment and management of the teaching staff.

The ECD sub-sectors of the Ten Year Education and Training Program (PDEF) will be jointly financed by the State and various development partners including International Development Agency (IDA), UNICEF and Luxembourg. The Table below indicates the budget for PDEF during the first phase (2001/2004). The budget for preschool education shares about 10% of the total budget.

Table 1.2.7 PDEF Budget (million FCFA)

Budget for PDEF	2001	2002	2003	2004	Total
Preschool	2,353	2,603	2,894	3,230	11,080
Operation	1,923	2,128	2,367	2,644	9,062
Investment	430	475	526	586	2,018
Primary School	6,833	7,492	8,265	9,172	31,761
Operation	4,702	5,140	5,655	6,261	21,758
Investment	2,131	2,352	2,610	2,910	10,003
Junior High School	7,690	7,171	7,466	7,673	30,000
Operation	7,300	6,741	6,903	7,030	27,973
Investment	390	429	563	644	2,027
Secondary High School	3,383	3,089	3,240	3,533	13,244
Operation	2,778	2,626	2,815	3,045	11,263
Investment	605	463	425	488	1,981
Technical Secondary School	141	138	214	266	760
Operation	132	129	150	187	598
Investment	9	9	65	79	162
Professional Training School	2,385	3,231	4,176	4,891	14,684
Operation	2,066	2,704	3,613	4,483	12,866
Investment	319	527	564	408	1,817
Higher Education	1,532	1,706	1,902	2,125	7,266
Operation	1,532	1,706	1,902	2,125	7,266
Investment	0	0	0	0	0
Total	24,317	25,430	28,157	30,891	108,795
Operation	20,433	21,174	23,404	25,776	90,787
Investment	3,844	4,256	4,753	5,115	18,088

Source: CREA (Centre de Recherche Economiques Appliquees)

The preschool sub-sector is composed of three stages as follows:

- 1) The first stage (1999-2002) aims at developing and testing designs and materials through some research-action. In addition, an integrated approach will be implemented to take into account nutrition, health, cognitive and psychosocial development, as well as strategies for family literacy which emphasis will be put on transition to primary school. The new integrated design will be tested in 180 ECD centres to be created. It is also planned for the recruitment and training of 450 male and female instructors.
- 2) During the second stage (2003-2004), ECD initiatives tested in the first stage will be brought to wider scale in close collaboration with the various parties involved. At the end of this stage, 5% of children between 3 and 5 years should be taken into account.
- 3) The objective assigned to the third stage (2006-2009) is to contribute to the strengthening of sustainability for reproduction of ECD successful approaches. At this level it makes sure that the activities of Early Childhood becomes part of the transition period to primary school. By the year 2010, 10% of the total number of children will be covered by the program.

The budget under the PDEF for 2004 is as follows:

Table 1.2.8 PDEF Budget for Early Childhood Education for 2004

(Million FCFA)			
Theme	Activities	Amount	Partner
Access	Procurement and distribution of 180 educational kits	40.00	IDA
	Equipment (desks and chairs)	45.00	IDA
	Educational materials (books and notebooks)	65.00	IDA
Management	Subsidy to five operators	15.00	IDA
	Activity monitoring (training, tool experimentation)	25.00	IDA
	Consultation at the national level regarding pilot evaluation	1.56	IDA
	Field visit	0.52	IDA
	Evaluation workshop at the regional level	1.04	IDA
Quality	First training of 270 instructors	70.22	IDA
	Community initiative for children, family and parental education	150.00	UNICEF
	Training at the central level and management	7.36	IDA
	Continuing training: retraining of 500 teachers and instructors of the first generation	44.55	IDA
	Capacity strengthening of supervising personnel at the central and regional levels	31.45	IDA
	Training at the department level	20.00	IDA
	Training of trainers (multi-sector technical group)	3.53	IDA
	Development of training module (education)	0.60	IDA
	Development of training module (health and nutrition)	0.60	IDA
Development of training module (community management)	0.60	IDA	

Source: PDEF POBA 2004, MOE

(2) Document de politique de la petite enfance (early childhood policy document)

As of March 2004 the latest version of “National Integrated Development Policy for Early Childhood (Politique Nationale de Développement Intégré de la Petite Enfance)” is at the 4th phase and being reviewed by the Planning Group (Equipe de Planification), which is based in the MECCTP. The forum for the validation is planned in April or May 2004. Some features of this political document are described below.

1) The vision of young children by age group

Dividing children into newborn, zero to two, three to five, six to eight, and children with special needs, the document is specifying the respective needs of these groups. The principal focus is on securing children against poor physical environment, disease, and malnutrition with their mothers. For each age group, the policy document states the specific strategies and projects.

2) Strategies

The overall objectives of the policy are to assure all Senegalese children from newborn to age 8 to get out of difficult situation, and for them to have access to adequate and integrated services in the family and ECD facility (p.48).

There are seven basic strategies in order to achieve these objectives:

Set up institutional framework to integrate all activities concerning ECD in Senegal;

- Strengthening children's access to ECD facilities;
- Promote national system to strengthen parent and family capacity;
- Set up measures to protect young children;
- Develop communication and network with regard to ECD;
- Establish finance mechanism in favor of ECD; and
- Improve quality of ECD activities.

3) Proposed Programmes

Under the strategies above, the following six programmes are proposed:

Programme for strengthening early childhood integrated development facilities to increase the enrolment of preschool education and improve the service quality.

National programme for strengthening parent and family capacity to assure the parents and families with available information and supporting mechanism to enable them to act appropriately for their children.

Programme for improving service quality in favor of young children to assure quality services within families and facilities.

National programme for young children protection to assure all children with effective protection and allow them to enjoy all their rights.

Communication and network programme for the early childhood to develop operational plan for communication within network supporting young children so that community participation and involvement are guaranteed.

Programme to support young children to assure availability in terms of financial, material, human resources to implement the policy.

The emphasis is on the holistic and integrated approach, which includes education, health, nutrition, and protection, to secure and improve the children's environment.

4) Legal and institutional framework

In the policy document, it is recognized that there have been institutional dysfunctions in promoting ECD. Sector approach, gap between decision-making and action in practice, and absence of concerted interventions are pointed out as obstacles.

For the consolidation and continuity of the various activities surrounding ECD, the policy document proposes to establish National Permanent Secretariat for Early Childhood (Secrétariat National Permanent de la Petite Enfance; SNPE). SNPE consists of Ministry of Education, Ministry of Health, Ministry of Justice, Ministry of Family, Social Development and National Solidarity, as well as representatives from NGOs, the private sector, and technical partners.

National Technical Commission for Early Childhood (Commission Technique Nationale la Petite Enfance) and National Network for the Integrated Development of Early Childhood (Le Réseau National pour le développement intégré de la Petite Enfance; RNDIPE) are also proposed at the national level. The parallel institutions are suggested to establish at the Region level.

In the policy document, training plan, plan for the research concerning early childhood, policy monitoring and evaluation system, and investment system in implementing programmes and projects are yet to be elaborated in the latest version.

2.3 Organizations Related to Early Childhood Development

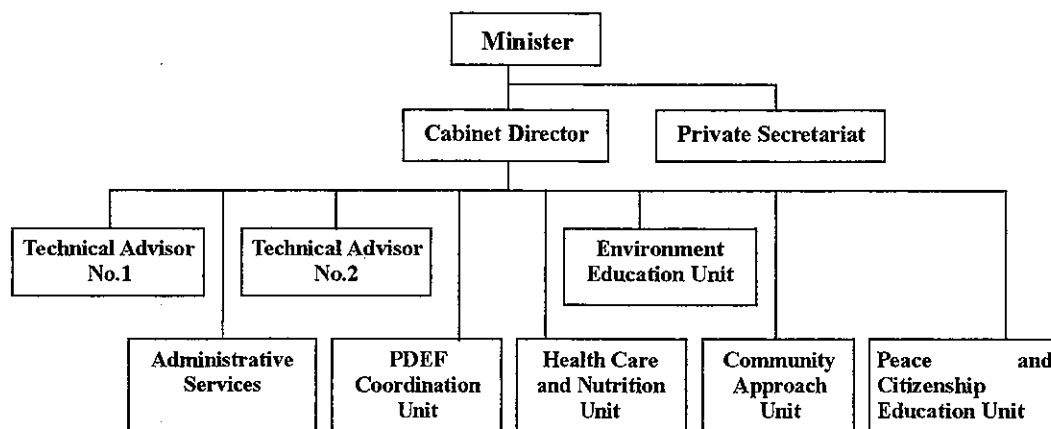
2.3.1 Ministry of Early Childhood and Cases des Tout-Petits

In November 2002, the former Ministry of Family and Early Childhood was restructured into the Delegated Ministry of Preschool Education and Cases des Tout-Petits. Then, in December 2003, it was transformed to the Cabinet of Delegated Ministry of Early Childhood and Cases des Tout-Petits (hereafter referred as MECCTP), and integrated into the Ministry of Education.

The MECCTP's missions are: 1) implementation of policies defined by the President concerning Early Childhood (EC) with holistic and integrated approach, and 2) technical execution of CTP programmes. The decree to create the MECCTP was issued in August 2003 (° 2003-666). In total, there are 26 personnel in the MECCTP undertaking orientation, coordination, and monitoring of EC activities. There are six

priority areas covered by the MECCTP: education, health and nutrition, communication, social mobilization, environment, and infrastructure. The current (March 2004) MECCTP organisation is as follows⁵:

Figure 1.2.3 Organization Chart of MECCTP



PDEF⁶ Unit is engaged in monitoring of programmes and coordination of Planning Group of Document de Politique de la Petite Enfance (Early Childhood Policy Document). This Unit consists of three members; the coordinator, the preschool education inspector, and the preschool educator.

Department of Preschool Education (DEPS) is now under the Ministry of Education. The main objective of this Department is to assure the integrated development of children with regard to cognitive, psycho-physical, and social affective growth.

The missions of the Department are: 1) to conceptualize and execute instruments for revitalization of preschool education in accordance with the recent new orientation of the sector; 2) to develop a coordinating system of this sectors' stakeholders; 3) to establish statutory framework for the private sector's activities in preschool education; 4) to develop early childhood curriculum considering special needs of children in difficult situation; 5) to maximize appropriate use of decentralized services; and 6) to promote the participation of retired people in this sector.

Currently the Department is deeply involved in the curriculum development targeting

⁵ The Ministries were reshuffled on 23 April 2004. The Presidential Decree was issued and the MECCTP was changed to "Agence National de la Case des tous Petits – National Agency for Case des Tous Petits". However, details are yet to be decided.

⁶ Programme Décennal de l'Éducation et de la Formation (Ten-Year Programme of Education and Training)

children aged three to six under PAMISEC project⁷, under the initiative of the Department of Planning and Educational Reform of the Ministry of Education (DEPRE). As of February 2004, the preschool education curriculum is at the trial stage in selected preschool institutions and expanding phase is expected to start in 2006.

Healthcare and Nutrition Unit is in charge of forming early childhood health and nutrition strategy and implementation and monitoring/evaluation of relevant programmes and projects in CTPs. Environment Education Unit is responsible for the integration of environmental education such as afforestation into early childhood education facilities including CTPs. Community Approach Unit works for the institutionalization of early childhood at all levels; promoting the integration of early childhood into social policies at the national and regional levels, and establishing partnerships with the private sector and local communities. Peace and Citizenship Education Unit looks at the possibility of integration of relatively recent issues such as peace and citizenship into preschool educational activities in the country.

At the regional level, there is a Regional Coordinator in each Region and EC and CTP Office in each Department. In total, there are 50 preschool education inspectors in the country and they are responsible for managing educational activities in the facilities and institutions, and for initial and continuing training of teachers.

2.4 Ministries Related to Early Childhood Education

Up to 2001, the Ministry of Education (MOE) was responsible for preschool education for children between 3 and 6. The MOE supervised public and private institutions for that age group as well as the teaching personnel and inspectors under this sub sector. However, there is strong institutional cooperation between the two ministries as indicated in the joint management of PDEF. The Ministry of Education is responsible for primary school, secondary school and higher education⁸.

Besides, it is necessary to point out the actions taken by the Ministry of Social Development and National Solidarity (MSDNS)⁹ in favour of Early Childhood. That is mainly supporting poor and underprivileged families and handicapped young people as well. In that respect, the role of by the Centers for Protection and Social Reinsertion,

⁷ Projet d'Appui à la Mise à l'Essai de Curriculum (Curriculum Trial Supporting Project)

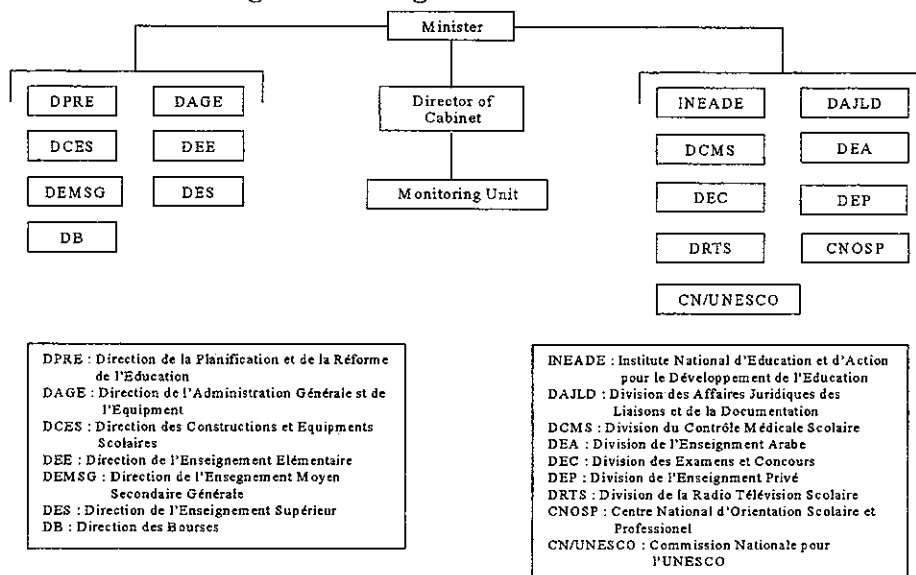
⁸ Technical and vocational education is under the Ministry of Technical Education, Vocational training, Literacy promotion, and Local Languages.

⁹ MSDNS was changed to Ministry of Family, Social Development and National Solidarity

under the MSDNS is important.

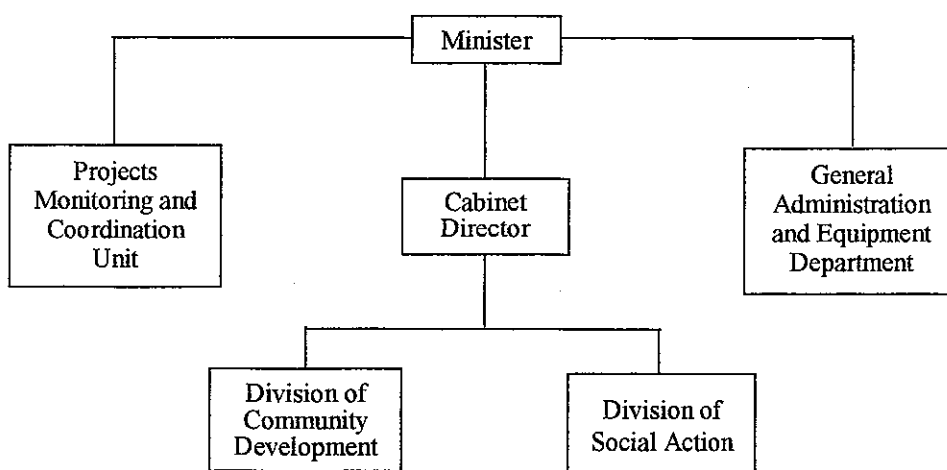
The organization charts of the MOE and MSDNS are presented in Figure 1.2.4 and 1.2.5.

Figure 1.2.4 Organization Chart of MOE



Source: MOE

Figure 1.2.5 Organization Chart of MSDNS



Source: MSDNS

2.5 Financing for Early Childhood Education

The total budget of the Ministry of Education and MECCTP for 2003 and 2004 are shown in the table below.

Table 1.2.9 MOE and MECCTP Budget 2003 and 2004 (FCFA)

	2003	2004
Education (total)	127,267,048,000	146,156,188,000
Early Childhood Education	496,341,487	613,855,990
Ratio of ECE in Education	0.39%	0.42%

Source: MECCTP

Although an increase is observed from 2003 to 2004 (24%), the representation of ECE in the overall educational budget is minute. The budgets of ECE above do not include capital investment. In 2003, 150 million FCFA was invested in infrastructure among which 100 million was arranged by supplementary budget and the rest, 50 million, was allocated by external donors. For 2004, the MECCTP is expecting 100 million investment and 150 million of supplementary budget.

Financing procedures for public and private institutions are different. Public preschools benefit from budget support provided by the government and monthly payments from the parents of the students. However, duty personnel are entirely responsible by the community. Generally, for kindergartens and day nurseries under the private sector, financial resources mainly come from registration and regular fees for children's education. The fees vary between 1,000 FCFA and 50,000 FCFA per month.

2.6 Training Institutions and Teaching Staff

2.6.1 Training Institutions

Until 1977, there was no training school for the preschool educators in Senegal. They were trained in the school where departments opened for them. At first it was at the National School for the Social Assistants and Educators, and then at the Female Technical Training School. In 1978, the National School for Pre-school Educators (NSPE) was created in Dakar for girls and for boys in order to preserve the physical balance of the little children. The school was transferred to Louga in 1983 and replaced ten years later by the Primary Teacher Training School (PTTS), which carried out a training both for pre-school and primary school. At present, there are four PTTS established in Louga, Saint-Louis, Thiès and Kolda. They recruit among the holders of the Junior High school Graduate and Senior High school Diploma. The training lasts one year and focuses on basic subjects such as child's psychology, pedagogy, the fundamental subjects (maths, French, natural sciences), practical training (manual techniques, artistic education, family economics) and physical education. The completion of the studies is recognised by a diploma of the study, which is to be followed by additional one year OJT training for junior high school graduates. However,

for the senior high school graduates additional one year OJT training is not required.

In the private sector, only the catholic schools provide their staff with a reinforced training by means of the close monitoring carried out by the most experienced educators. The private sector recruits some educators from those trained by the PTTS who are not recruited by the government. In 2001, status of new teachers for both primary and preschool changed from civil servant to volunteer and increased their salaries from FCFA 50,000 to 80,000.

As presented in the following table, numbers of the graduates from PTTS increased substantially from 628 in 2000 to 1,883 in 2001. The numbers further increased to 2,035 in 2002. However, 90% of the graduates go and work for primary school.

Table 1.2.10 Graduates from PTTS between 1999/2002

YEAR	LOUGA	THIES	SAINT-LOUIS	KOLDA	TOTAL
1999	151	175	130	209	665
2000	144	169	127	188	628
2001	465	445	430	543	1,883
2002	425	450	550	610	2,035

Source: Ecole de Formation des Instituteurs (EFI)

2.6.2 Teaching Staff

In 2000, 1,427 teachers for Preschool Education including 1,173 women (82%) were registered. Such number hardly meets the demand for teachers. The ministry have to redeploy the staff often in order to make up for the vacancies due to the maternity leaves.

Table 1.2.11 Number of Teachers for Preschool (2000)

REGION	PUBLIC	PRIVATE	TOTAL	WOMEN
Dakar	92	648	740	703
Diourbel	22	9	31	18
Fatick	19	7	26	11
Kaolack	15	46	61	42
Kolda	25	14	39	14
Louga	21	11	32	18
St-Louis	49	54	103	68
Tamba	21	19	40	23
Thiès	53	200	253	216
Ziguinchor	35	67	102	60
SENEGAL	352	1,075	1,427	1,173

Source: MOE

As indicated above, more than half of the instructors are concentrated in the region of Dakar (740). The other regions, which receive important numbers of instructors, are Thiès (253) and Saint-Louis (103). The regions with the smallest numbers of educators

are Fatick (26), Diourbel (31) and Louga (32).

Furthermore, there is substantial imbalance in the distribution of teachers between the private and public sectors. For private only 325 instructors are employed, while 1,075 in public. This is due to the pre-eminence of the private preschools, kindergartens in particular. It is also worth pointing out that 82% of educators are women. The distribution of the instructors are managed and monitored by the inspectors of preschool education.

Supervision and monitoring of teachers are under the responsibility of the inspectors.

There are 45 preschool inspectors in Senegal, but only 22 of them belong to the regions or departments. On the other hand, a half of the departments (more than 20 out of 41) have no inspector. The remaining 23 inspectors are dispatched among the central services of the Ministry of Education and the training schools (Secondary Teacher Training School and Primary Teacher Training School). Generally, there is almost no means of transportation for them. The inspectors for preschool education carry out with difficulty the continuous monitoring and training.

2.7 Curriculum and Didactic Materials

2.7.1 Curriculum

The programmes used by preschools are prepared based on the framework document formulated during the symposium on education held in Saint-Louis in 1995. However, there are no official programmes applicable to all the preschools. At first, draft curriculum was introduced in 1980s and revised in 1999. The experimental projects (new curriculum) including preschool and elementary education were suspended because of technical and operational reasons. It was due to the following shortcomings: i) the lack of a methodological guide, didactic manuals and materials adapted to the trainees and ii) the incoherence of the training system for the trainers, monitors, schools' head masters, teachers and educators. The organizations concerned are still thinking over how to overcome this situation.

Regarding the teaching language, a circular exists since 1984 that determines and regulates the teaching languages in preschools. The language to be used should be the main local ones contrary to private schools where French is still the teaching medium. This propensity to use French as early as the preschool is because most teachers in private schools worry about the satisfaction of parents than the child's interest. Indeed,

parents chose the schools and value them according to their children's mastery of French and their ability to write and do not take into account the children's mental age and capacities.

2.7.2 Didactic Materials

The materials used are to facilitate manipulation and contact in order to contribute to the child's development. This equipment can be collective or individual, depending on the objective and the present needs. The elements that can be used as collective material are painting, clay, paper, glue, etc. Some materials can be strictly personal which help children to fulfil their individual responsibility. It is important to mention that most of the materials used are recuperated materials such as plastic bottles, wood pieces, fabric scraps and carton. For example, old tires inspire many games that boost child imagination and creativity. The child can roll them, escalate them, go through them, jump and crawl inside. They are used as houses, boats, tunnel cars according to the fantasy and imagination.

Thus, in every preschool, games and life activities have been developed according to the class. In middle and upper class, various games are introduced in the framework of workshops initiation to Reading-Writing, Science and Technology awakening. Children are encouraged to consult books or albums to look for images, and documents that are related to the theme of the class. Accordingly, they can classify images, can distinguish written aids and compose writings. Specific games such as logical blocks, domino, scales, the games of water and earth with different transparent containers aim at boosting observation, stimulating curiosity, enabling some experimentation.

For the implementation of the CTP program, the education materials prepared by Nathan Edition (French Group) have been tested since 2001. The objective of such operation was to collect sufficiently pertinent information about its adequacy with the ongoing curriculum and its adaptation and its future diffusion.

2.8 Concept and Development of Case des Tout-Petits

2.8.1 Concept of CTP

In spite of the efforts deployed to extend access to preschool education, the situation is not satisfactory. Large number of children is not covered by any of the existing structures. The rate of preschool enrolment can hardly reach 3%. That is why the

President has given early childhood one of the top priorities and created the Ministry of Family and Early Childhood in 2001. One of this Ministry's most important projects was the construction of 28,000 "Case des Tout-Petits" (CTP) over the national territory. The government is creating, through these early childhood facilities, a new environment for the education and the development of all children regardless of the socio-economic background of their parents. In the implementation of the Early Childhood Development Program, priority will be given to rural and poor areas.

This program will focus on three fields (Education, Health and Nutrition) with the idea of helping children develop their physical and intellectual functions. Another innovating aspect in this program is the dominant role that the instructor (*animateur*) and the assistant mother will be playing in early childhood education. They belong to the same community as infants, and their role will be to follow-up their psycho affective, cognitive and physical development in the perspective of a community approach that integrates education, health and nutrition. The instructor (*animateur*) will instruct children with awakening and learning activities such as assembling, disassembling, counting, colouring and various manipulations. These games and plays will be supplemented by tale stories, riddles and proverbs sessions. The CTP is the place for the harmonization of early childhood development approaches, and will play a role as a centre of parents' information, training and awareness raising on individual and collective hygiene to better ensure the follow-up within the family.

2.8.2 Development of CTP

The following table shows the number of CTPs including operating and under construction throughout the country.

Table 1.2.12 Regional Distribution of CTPs

Region	Constructed		Almost Completed	Under Construction		Yet to be constructed	Total
	Operating	Not operating		Ad-hoc operation	Not operating		
Dakar	8	2	1		5	11	27
Thies	13				2	10	25
Kaolack	3	1		7	8	5	24
Louga	2			5	6	9	22
Dijouebel	2			5	10	5	22
Fatick				3	10	6	19
St-Louis				5	6	7	18
Matam	1				8	5	14
Tambacounda	2	1	3	9	5	1	21
Kolda				3	7	9	19
Ziguinchor	3	1			5	13	22
Total	34	5	4	37	72	81	233

Source: JICA Study Team

2.9 International Cooperation for ECD

2.9.1 UNICEF

UNICEF's approach to ECD in Senegal is the quality assurance. The organisation puts the emphasis on capacity building and institutional strengthening in order to improve the quality of children's lives. At present UNICEF has three prioritized areas as described below.

(1) Early childhood national development policy

From the initial stage of development of "National Integrated Development Policy for Early Childhood (Politique Nationale de Développement Intégré de la Petite Enfance)", UNICEF has been providing the government with technical assistance. As of March 2004, the drafting is at the 4th stage and a forum is expected to be held in early spring for the validation of the policy. The characteristic of this policy is in the inclusion of all FCFA facilities including kindergarten and nursery.

UNICEF encourages the government to pay further attention to the functions of CTPs, as well as facility construction. To assess the functions within ongoing ECD facilities, UNICEF had conducted a survey in association with the government and CRESP, an NGO.¹⁰ This is the first and only comprehensive survey looking into 63 facilities in Dakar, Thies, Kolda, and Tambacounda. This study considers the present conditions in all its aspects such as construction, equipment, organization and administrative management, timetable, curriculum, activity planning, training of teachers, educational materials, health and nutrition, and financing of the facilities.

(2) Training

UNICEF has supported the government in training of CTP animators in the past at the national level. Multidisciplinary and referral are important notions in UNICEF's approach to the training of animators at the grassroots level. This is because the roles rendered to animator are multifaceted; educator, protector, and health and nutrition caregiver (multidisciplinary). As the animators face day-to-day growth of children and various incidences, they need iterative training (referral). Iterative training is as important as initial training for many animators in the field.

At the department level, UNICEF has been supporting the health and nutrition parts in the training of animators of community centres (case communautaire) in association with NGOs in Mbour, Thies.

¹⁰ MECCTP, UNICEF, CRESP, *Dispositif d'Aménagement, de Gestion et d'Animation de la Case des Tout-Petits selon une Approche Communautaire: Diagnostics et Propositions*, 2003

The other case where UNICEF supports the training of ECD teachers is Centre de Formation Préscolaire Privé Catholique (CFPPC; Private Catholic Preschool Training Centre) in Thies City. Built in 1990, CFPPC has been offering quality initial training and re-training opportunities for trainees. The training lasts for one year. On average, there are around 30 students a year and at the end of the year, a certificate is issued for those who have succeeded in the examination.

UNICEF considers current government training curriculum shall be improved by reviewing the contents and schedule along with learners' needs.

(3) Strengthening “Family Capacity”

The third issue in which UNICEF is involved is parental education, called “Renforcement de la capacité de famille.” The objective is to guarantee knowledge, attitudes, and practices of parents and communities in enhancing early child survival, development, and protection. Parental education activities are targeted at: 1) Parent, in particular underprivileged parent, primarily mothers, as well as fathers, grandmothers; 2) 6 to 14 years olds to prepare for their future, and 3) adolescents.¹¹

With special focus on children aged zero to three, UNICEF seeks the possibility to integrated traditional values into comprehensive early childhood development. For example, UNICEF has conducted a survey with regard to indigenous medical treatment practices.¹²

2.9.2 UNESCO

The priority of UNESCO in ECD in Senegal is in the development of “National Integrated Development Policy for Early Childhood (Politique Nationale de Développement Intégré de la Petite Enfance)”. Along with ADEA¹³, UNESCO has been involving the development and elaboration of the Plan from the initial stage.

In parallel with this policy development, UNESCO has been implementing a project titled Early Childhood Development in Senegal since 2000. Their main interests are in the operation and management of CTPs to learn lessons and ultimately to design an operational model to expand and apply to other Francophone countries in Africa. Community approach is applied including income generation activities for the fees and

¹¹ UNICEF, WACARO-Dakar, *Parental Education: An essential part of an integrated approach for ECD*, Working Paper, July 2003

¹² UNICEF Dakar, *Etude sur les Pratiques de Soins au Jeune Enfant au Sénégal*, January 2004

¹³ Association for Education Development in Africa, based in Paris

management committee.

Through UNESCO, three CTPs have been constructed in Yadé, Poppinguine Sérère, and Poppinguine Escale in Thies. Apart from Japan, Mauritius has been financing the CTPs construction through UNESCO.

2.9.3 International Bank for Reconstruction and Development (The World Bank)

As described in Table 2.8 “PDEF Budget for Early Childhood Education”, the World Bank is one of the important development partners in the Early Childhood sub-sector. The World Bank assistance has mostly been provided for training of academic inspectors and regional coordinators.

2.9.4 Bilateral Partners

Support and contribution of bilateral organizations to early childhood education are summarized below:

(1) Taiwanese - Chinese cooperation

Taiwanese government supports ECD in Senegal by constructing 50 ‘*Case des Tout-Petits*’. Site selection was made and most of the proposed CTPs are under implementation.

(2) Luxembourg

For poverty alleviation, Luxembourg supports project in rural areas, health, and education projects including technical and vocation training and early childhood development. Further support is envisaged for construction of ‘*Case des Tout-Petits*’.

(3) Canadian International Development Agency (CIDA)

In collaboration with the Ministry of Education and the Ministry of Family and Early Childhood, CIDA supports the ‘*projet de construction curriculaire en education de base, decembre (PAMISEC), en planification*’ for preparation of the curriculum training and project for the action plan. Other activities include assistance for the guidebook of preschool teaching and re-adjustment of the programme to preschool education.

(4) French cooperation (French Commune-Mante la Jolie-Arras)

Two CTPs are being constructed, respectively in Kanel and Kébémér by the two communes. Instructors training and adult continuous training for teachers will be provided for within the scope of the bilateral cooperation.

(5) Nordic development funds

In collaboration with the African Development Bank, it supports activities of women through the project '*Projet d'Appui aux Groupements de Promotion Féminine (PAGPF)*' in Diourbel, Kolda, Tambacounda and Thiés. Additional support is provided for ECE centres including teaching materials and training. It also supports income-generating activities for women associated with ECE programmes. It co-finances with the African Development Bank for the activities of Women's group in Tambacounda.

(6) USAID

As a contribution to the quality education for all, USAID focuses on the '*Girls' Education*' programme. It co-finances with Christian Children's Fund the project for '*Children Survival*' in the district of Thiadiaye and Joal, and the Casamance programme.

(7) Other cooperation organisations

Other organizations involved in the construction of the '*Case des Tout-Petits*' and funding equipment are summarized below:

- Groupe Vivendi: Education materials
- Department in charge of Decentralisation: (construction programme for the support to urban community (PAC).
- International Association for the Struggle against Poverty and for Development (AIPED): construction of CTP

2.9.5 International NGOs

(1) PLAN International

PLAN International assists ECD in partnership with local, rural and urban communities through the project '*Early Childhood Care Development*' and '*Programme de Creation de Centres d'éveil pour petite enfance*' which involves more than 34,188 children in around 600 communities and peri-urban:

Table 1.2.13 Awakening Centres for Early Childhood

REGIONS	AWAKENING CENTRES	NUMBER OF CHILDREN
Dakar Urban	Fass Mbao	76
	Ndiareme	60
Thies	Ngoundiane	99
	Pout Diack	110
Louga	Ouarak	76
	Kelle Gueye	36
	Niomre	200
St. Louise	Ndiagambal	42
	Rao	57
	Ndiorno	86
	Ngaye-Ngaye	59
Kaolack	Wack Ngouna	72
	Saboya	105
Total		1,078

Source: PLAN International

It has 3 Community Activity Centres, 2 in Saboya in Wack N'Gouna and 1 in Thilla, which are run in collaboration with communities. It further supports income-generating activities.

(2) Christian Children's Fund (CCF)

Christian Children's Fund' programme '*Stimulation Précoce de l'enfant*' has 30 projects with 21,000 sponsored children. The programme integrating education, health, nutrition and micro-finance projects are run in the six areas and regions as summarized below:

Table 1.2.14 Sites of CCF Projects

REGIONS	AREAS/DISTRICTS
Dakar	Yoff, Ouakam, Dalifort, Camberene, Pikine-Guediawaye, Darouhane, Wakhinaneet, Sebi-fass.
Thies	Moda Kane, Abdel Kader Ndiaye, Jammi Xaleyi, Banti Mam Yalla, Fandene, Baback, Faggu Medina Fall.
Tivoubana	Ligey
Mbour	Garderi Elisabeth Diouf, Fissel, Ndollor, Diokhar, Thiadiaye, Mbalamoseone, Foua II, Tattaguine Bambara, Mbafaye Sandock, Koulouck Mbada.
Bambey	Takku Ligey and Bambey 5
Diourbel	Medinatoul and Ndayane

Source: CCF

Further, it runs 6 community ECE nurseries and day-care centres in Dakar and 3 in the Thiès regions. These involve 555 mother guides trained by social workers to support families and their children.

(3) SOS Children's Village

It manages and operates three *SOS Villages* in Dakar, Kaolack and Louga, which include ECE programmes. The ECE centres accommodate children for preschool education in the villages and surrounding areas.

(4) Other organizations

The presence of other NGOs is noted. For example, Centre de Ressources pour l'Emergence Social et Participative' (CRESP), a local NGO, is involved in a community ECE project "*Family – Based Child Development*" in Yoff area of Dakar consisting of three components: centre-based model where children attend the centre, home-visit model where adolescent evaluator visit homes to evaluate children and home-based model where learning take place at home. The project is accompanied by a micro-credit lending system for mothers.

It seems that many organizations activities are similar in their target and ways of operation and a number are targeting similar districts and regions. As such, intense co-ordination is imperative. However, interviews with some organizations show that there is little discussion and debate about ECE programmes between partners and between partners and government. Therefore, networking and close interaction between stakeholders requires nurturing and continued attention.

2.10 Early Childhood Education in Two Regions

2.10.1 Kaolack

(1) Early childhood facilities and enrolment

Preschool education is little developed in Kaolack Region. There are 17 preschool institutions in Kaolack. Out of 17, there are 4 public and 13 private schools (kindergartens and day nurseries). Kaolack is the Region with the least public preschools. The four public preschools are located on Kaolack (2), Nioro, and Kaffrine Communes. Thus, there is no public preschool in rural area. Among 13 private preschools, 11 are located in Kaolack commune, 1 in Kaolack Department and in Kaffrine Department.

Table 1.2.15 Number of Preschool Pupils in Kaolack Region

Academic Year	Number of Pupils		
	Public	Private	Total
1995/1996	327	323	850
1996/1997	347	707	1,054
1997/1998	362	814	1,176
1998/1999	406	789	1,195
1999/2000	418	1,048	1,466
2000/2001	446	702	1,148

Source Academic Inspector of Kaolack

The number of pupils enrolled in public preschools increased from 327 to 446 with an average annual growth of 6.4% from 1995 to 2000. Enrolment in the private preschools fluctuated during the same period. In 1999, the number of pupils reached 1,048 but in 2000, it fell to 702. It was probably due to economic difficulties Kaolack people faced.

Similar to preschool, enrolment in primary school is low in Kaolack. In 1999, the gross enrolment ratio was 44.3% in Kaolack while national ratio was 68.3%. Low enrolment ratio is due to the following two issues.

- Many parents send their children to Daara instead of primary school.
- Children can not continue their study because of classroom availability

(2) Institutional framework

The Academic Inspection (L'Inspection d'Académie) is in charge of management, promotion, and control of education system of both public and private sectors from preschool to secondary education in the Region. It is responsible for managing and supervising inspection activities by the department offices. In the Region, there are four Departmental Educational Inspections (IDE), which look at education from preschool to secondary schools.

The Regional Coordination Office for Preschool Education and CTPs (CREP/CTP) is responsible for all early childhood development activities in the Region. At present, there are three agents within CREP/CTP (One chief inspector and two preschool educators). Their administrative and logistic means such as computer and vehicle are severely limited. As the number of CTPs increases, the capacity building at both regional and departmental levels becomes imperative.

(3) Regional educational development plan (PRDE)

The fundamental idea of PRDE is in accordance with the PDEF. The rationales of PDEF are: a) expansion of access with efficient constriction and social mobilization; 2)

quality improvement in classroom and administration; and 3) rational and concerted management of available resources. The bases of the regional education plan (PRDE) are as follows:

- Diversification of education and training supply enabling people to choose the model to pursue their lives.
- Consideration of equality between boys and girls in terms of enrollment and achievement.
- Performance improvement with credible system with regard to contents and results.
- Management transparency that would realize participation at all levels.
- Active partnership with communities based on the idea that education is for all.
- Reinforcing the lessons learnt through experiences of decentralization.
- Support and promotion of the private sector to allow it to represent in the national education with good quality.

The regional government recognizes that both access increase through infrastructure development and quality improvement are needed to intensify early childhood development. As of 2003 there are 50 facilities in the region and the distribution of facilities is biased toward urban areas. While there has been a rapid increase in the number of CTPs, the numbers of other facilities such as kindergartens and nurseries have been unchanged during past years. This enabled rural children's access to the facilities. Quality problem is equally important issue, especially the training and retraining of teachers.

(4) Preschool education development plan

In the said development plan, the development strategies for ECD are specified as follows:

- *Initiate campaign in the communities to attract people's interest in preschool education and to encourage local, private, and community initiatives.*
- *Intensify preschool education network by introducing CTPs in towns, key areas of arrondissements, and in all Communautés Rurales.*
- *Improve personnel qualification.*
- *Review preschool educational district, if necessary, to assure equality between rural and urban areas.*
- *Emphasize religious education in order to accommodate people's preoccupation and to encourage people to register the children with educational facilities.*

- Improve equipment in the facilities.

The plan states more specific actions by PDEF theme, i.e. access, quality, and management, which is tabulated below.

Table 1.2.16 Early Childhood Development Plan (2004-07) of Kaolack

Theme	Objective	Action	Timetable
<i>Access</i>	<i>- To raise preschool enrollment rate from 1.9 % in 2003 to 3.5% in 2007.</i>	1. Awareness raising about preschool education among local communities	May, June, October 2004-2007
		2. Construction of new facilities (CTPs)	25 new CTPs per year from 2004 to 2007
		3. Construction of kindergarten: three in Kaolack city and one each in five towns	2004-05: two in Kaolack city; 2005-06: one each in Kahone, Gandiaye, Ndoffane, Kounheul; 2006-07: one in Kaolack city, one each in Kaffrine and Nioro
		4. Teacher recruiting	75 animators, 25 assistant mothers, and 8 preschool teacher in each year from 2004 to 2007
		5. Promotion of private and community initiative for the construction of facilities	
<i>Quality</i>	<i>- To improve learning quality by human capacity. - To improve learning condition through existing infrastructures and equipments.</i>	1. Preschool-inspector deployment	2004: two inspectors 2006: two inspectors
		2. Capacity building of personnel in preschool of the private and public sectors through training sessions	3 sessions (3 days each) in each year from 2004 to 2007
		3. Supply of teaching materials	Regular supply when new facility is opened
		4. Provision of school supply at the community level	Regular supply when new facility is opened
		5. Playing material (such as slide and swing) provision with preschool facilities	2004-05: 50% of facilities are equipped; 2005-06: 50% of facilities are equipped
		6. Provision of health and nutrition kits	2004-05: for all facilities in rural and semi-urban areas; 2005-06: for all facilities in urban area
		7. Annex building (hygiene) construction and rehabilitation of public facilities	2004-05: 50% of facilities; 2005-06: 50% of facilities
		8. Introduction of school uniform	2004-05: experimental phase; 2005-07: generalization
<i>Management</i>	<i>- To involve community further to make the management structure more functional.</i>	1. Awareness raising such as workshop and community meeting to strengthen community's support	From 2004, planning will be made for each school year
		2. Revitalization of Parent Association (APE): regional meeting	From 2004
		3. Capacity building of management committee in each facility: training of new members and strengthening of existing committees	From 2004
		4. Integration of various programmes: opinion exchange on activities by different implementers	From 2004

Source: Academic Inspector of Kaolack, PRDE Period 2004-2007, Provisional Version

In this development plan, as described above, access improvement and quality assurance are the key issues. In the quality part, there is a propensity to emphasize the material sides such as teaching materials and school uniforms. A firm commitment in securing quality through reviewing curriculum, uses of materials, and educational activities in the facilities are also expected. Recruitment and training of teachers are important for quality assurance because there are many cases where a single teacher looks after more than 50 children at once.

It is also intriguing to note that the gender gap is not the concern in the plan, because the girls' enrollment is higher than boys in every Department in Kaolack Region. The factors contributing to higher girl's enrollment have yet to be examined. This is an important issue since there is a clear gap between boys and girls in primary enrollment both in public and private schools in all departments.

Although the important role of the private sector is mentioned in the PRDE, any strong involvement of this sector is not specified in the Plan.

(4) Budget

General

Through the local government, the central government has supported the school class building along with provision of school supplies. These direct expenses amounted to 201,747,903 FCFA, which have been allocated to Communautés Rurales, Communs, and Conseil Régionals. As for the recurrent cost, it is estimated at 202,682,000 FCFA in the Region.

Apart from these, the Regional government has managed to have an idea of other financial inflows; school registration fees, parental association membership fees, kindergarten and CTPs fees, etc. This is estimated at 932,023,650 FCFA in 2003.

Early childhood

According to the Development Plan for 2004-2007, the Kaolack government has budgeted for the corresponding years to implement the proposed actions. The estimated costs are as follows.

- Access: 2 billion 173.7 million FCFA (2,173,700,000 FCFA)
- Quality: 275.042 million FCFA (275,042,000 FCFA)
- Management: 18 million FCFA (18,000,000 FCFA)

The total amount is 2 billion 466.742 million FCFA (2,466,742,000). The total budget

for the whole education is 41 billion 707.710 million FCFA (41,707,710,000). The EC represents around 6% of the total budget.

Among these the costs for the access are the highest. For example, the cost to build one CTP is estimated at 472.5 million FCFA. This does not automatically indicate a bias toward construction, but from the fact that the capacity building such as teacher training is urgently required, and the budget will be reviewed to obtain a balance.

2.10.2 Tambacounda

(1) Early childhood facilities and enrolment

Tambacounda has 12 preschool institutions. Out of 12, 5 are public preschools and 7 are private – 1 kindergarten and 6 day nurseries - . Among those schools, only two of them are located in rural areas. The number of preschools doubled from 6 to 12 because of private sector.

Table 1.2.17 Number of Preschool and Classrooms in Tambacounda

	1995			2001		
	Public	Private	Total	Public	Private	Total
School	5	1	6	5	7	12
Classroom	15	3	18	12	15	27

Source: Academic Inspector of Tambacounda

Preschool attendance is low in Tambacounda Region. Total number of enrolment is 1,225 while the number of 3-6 years old population is 60,844. The low enrolment ratio (2.0%) is due to the following issues.

- Lack of information and parents' sensitization on the importance of preschool education
- Competition with Daaras and preschools
- Higher cost of preschool education

Table 1.2.18 Number of Pupils in Preschools in Tambacounda

	1995			2001		
	Public	Private	Total	Public	Private	Total
Boy	320	36	356	408	185	593
Girl	286	25	311	436	196	632
Total	606	61	667	844	381	1,225

Source: Academic Inspector of Tambacounda

However, the number of enrolment doubled between 1995 and 2001. It is due to the mass registration of children from the third year. Many parents send their children to preschool for only one year for preparing their children for primary school education.

As regards primary education, Tambacounda Region has higher enrolment (76.2% in 1999).

(2) Institutional framework

The role played by the Academic Inspection (AI) with regard to early childhood is identical with Kaolack. The constraints the AI is facing are also much the same with Kaolack. The region office lacks of means such as vehicles, petrol, and computers. As the geographic expansion of Tambacounda is massive, this is a serious problem in order to carry out effective educational inspection in each educational district of the region.

(3) Regional educational development plan (PRDE)

The basic idea of the Regional Education Development Plan (PRDE) of Tambacounda is similar to that of Kaolack. In the PRDE of Tambacounda, the following issues are specified as principal focus:

- Liberalization and diversification of educational opportunities: to allow the private sector, individuals, religious group, and local governments, to create and manage educational facilities. This also allows multiplication of parents' choice.
- Quality education for all: to assure equality and justice in education, the measures will be needed such as positive discrimination in resource allocation, particular attention to gender and vulnerable people, and curricula diversification in order to accommodate society's needs.
- Quality education by performance standard: to assure coherence in curriculum, teaching method, assessment, and school environment.
- Transparent and efficient management: should be guaranteed through strengthened institutional capacity both at central and decentralized levels, coordination mechanism, and monitoring.
- Participation and productive partnership: in development programmes and projects through social mobilization.
- Strengthened decentralization and deconcentration: to assure quality education based on grassroots level needs.

(4) Preschool education plan

As of late 2003 there were 15 functioning ECD facilities in the region (there are other 19 facilities constructed or planned). The development strategies are enumerated as follows:

- Awareness raising activities to emphasize the importance of ECD;
- Construction policy elaboration based on the community needs and reality;
- Human resource development with adequate training policy;
- Manual and educational materials development;
- Reopening facilities which have been closed and constructing new ones in both urban and rural areas; and
- Intensifying emerging issues including health and nutrition for the integrated development.

Along with these strategies, the areas of intervention are identified which are as follows:

- Raise preschool education enrollment through enlarging access and capacity.
- Improve quality through holistic and integrated approach.
- Devolve administrative and financial responsibility to locals.
- Intensify qualified personnel, educational materials, and health/nutrition equipment.

Table 1.2.19 Early Childhood Development Plan (2004-07) of Tambacounda

Theme	Objective	Action	Timetable
Access	- To raise awareness toward preschool education within overall education	Awareness raising of all local leaders, village chiefs, religious authorities.	2004-07
	- To raise preschool education enrollment	Construction of facilities	2004-07 60 facilities will be built and in function (23 in Bakel, 17 in Kedgou, and 20 in Tambacounda)
	- To assure good function and management in facilities	Recruit and training of personnel	2004-07
Quality	- To improve material and working condition of teachers and children	Supply of educational materials and equipment	2004-07
		Seminars/distance education	2004-07
	- To improve educators capacity through continuing education	Introduction of canteen in all facilities	2004-07
	- To assure holistic nutrition approach	Introduction of water (well and pump)	2004-07
	- To satisfy the needs of water		

Source: Academic Inspector of Tamabacounda, (PRDE) Period 2004-2007

Although there are numerous proposed activities in common in two regions, in comparison with the Kaolack Development Plan, the Tambacounda Plan has more substantial orientation toward material inputs. Securing quality through reviewing the suitability of curriculum, uses of materials, and educational activities in the facilities are also not much questioned. It is assumed that to implement this plan, the capacity building at the regional and departmental levels are imperative.

(5) Budget

The budget for access and quality is estimated at 1,072,000 FCFA and 779,117 FCFA respectively (in total 1,851,557). This budget is enormously smaller than that of Kaolack. The ratio of EC of total education budget is 7.4%. The total budget for EC is larger than that of primary education

2.11 Results of Children's Survey

(1) Background

For identifying the environment surrounding early childhood in the target sites, JICA Study Team conducted a survey in collaboration with the MECCTP in Kaolack and Tambacounda regions with the assistance of a local consultant. A total number of 180 households each in four proposed sites were surveyed giving overall total samples of 240 householders, 240 mothers and 240 children as shown in the table below.

Table 1.2.20 Number of Samples for the Survey

Region	Kaolack			Tambacounda			Total
	Sites		sub-total	Camp Navetane		sub-total	
	Urban	Rural		Urban	Rural		
Householder	60	60	120	60	60	120	240
Mothers	60	60	120	60	60	120	240
Children	60	60	120	60	60	120	240
Total	180	180	360	180	180	360	720

Source: JICA Study Team

Results of the survey are briefly summarized below, of which details are explained in the separate report.

(2) Educational level of household head

Around 41% and 22% of household heads are non-educated in Kaolack and Tambacounda, respectively. High ratio of primary school graduate (63%) is identified in Camp Navetane followed by Touba Kaolack. More than 85% of household heads did not graduate from even primary school in Sagna because there was no facility up to 1997. Around one third of household heads were graduated from primary school in Touba Kaolack and Sinthiou Maleme.

Table 1.2.21 Education Attainment Level of Household Head in the Pilot Sites (%)

Region	Kaolack			Tambacounda		
	Touba Kaolack	Sagna	(Average)	Camp Navetane	Sinthiou Malem	(Average)
Preschool	1.7	0.0	0.9	0.0	1.7	0.9
Primary school	20.0	11.7	15.9	36.7	13.3	25.0
Secondary school	8.3	1.7	5.0	20.0	15.0	17.5
High School and above	6.7	1.7	4.2	6.7	1.7	4.2
Literate*	16.7	45.0	30.9	10.0	41.7	25.9
No education**	46.6	36.6	41.6	21.6	23.3	22.5
No answer	0.0	3.3	1.7	5.0	3.3	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Household Head can read and write, but have never been to any public school.

** Household Head who have not attending any school and illiterate.

Source: JICA Study Team

(3) Enrolment in preschool

As shown in the table below, children from 0 to 6 in all four (4) sites have very low access to preschool education. However, school attendance rate for boys in Kaolack is about twice as high as that of the girl's, while the rates are almost the same between boys and girls in Tambacounda.

Table 1.2.22 School Attendance (%)

	Kaolack			Tambacounda		
	Touba Kaolack	Sagna	Total	Camp Navetane	Shintiou Maleme	Total
Boys	15.0	11.7	13.3	8.3	6.7	7.5
Girls	6.7	8.3	7.5	8.3	5.0	6.7
Total	10.8	10.0	10.4	8.3	5.8	7.1

(4) Enrolment in primary school

Average enrolment rate of children in primary and secondary schools (aged 7 to 15 years) is 54% in Kaolack region and 46% in Tambacounda region. There is not so much difference between boys and girls. However, rates are different between urban and rural areas in Tambacounda region. The enrolment ratio in Sagna, rural area in Kaolack, is quite low (41%), compared with that of Touba Kaolack (67%), urban area in Kaolack region because there was no facility up to 1997.

Table 1.2.23 Educational Attainment in the Pilot Sites (%)

Region Proposed site	Kaolack			Tambacounda		
	Touba Kaolack	Sagna	(average)	Camp Navetane	Sinthiou Malem	(average)
(1) Boys						
No educated/No answer	28	61	45	57	54	56
Primary school	54	37	45	33	28	30
Secondary school	18	2	10	10	18	14
Sub-total	100	100	100	100	100	100
(2) Girls						
No educated/No answer	37	57	47	48	54	51
Primary school	55	40	47	42	28	35
Secondary school	8	3	6	10	18	14
Sub-total	100	100	100	100	100	100
(3) Total						
No educated/No answer	33	59	46	52	54	54
Primary school	54	39	46	38	28	32
Secondary school	13	2	8	10	18	14
Total	100	100	100	100	100	100

Source: JICA Study Team

(5) Expenses for education and health

Average monthly incomes are FFCFA 58,962 in Kaolack and FFCFA 71,307 in Tambacounda.

The range between FCFA 1,000 to 2,000 is the most frequent in educational expense per household in Kaolack, while FCFA 2,000 to 5,000 in Tambacounda. On the other hand, the range over FCFA 5,000 is the most frequent range of health expense in Kaolack, while FCFA 2,000 to 10,000 in Tambacounda.

This indicates that people in the pilot sites spend for health more than for education.

Table 1.2.24 Household Monthly Expenditures for Education in Pilot Project sites

Region (FCFA)	Kaolack			Tambacounda		
	Touba Kaolack	Sagna	(average)	Camp Navetane	Sinthiou Malem	(average)
(1) Education						
Under 1,000	8.3	8.3	8.3	3.3	1.7	2.5
1,000 to 2,000	18.3	18.3	18.3	13.3	8.3	10.8
2,000 to 5,000	10.0	6.7	8.3	21.7	18.3	20.0
5,000 to 10,000	6.7	15.0	10.8	8.3	11.7	10.0
Over 10,000	5	0	2.5	16.7	8.3	12.5
No answer	51.7	51.7	51.7	36.7	51.7	44.2
Total	100	100	100	100	100	100
(2) Health						
Under 1,000	3.3	0	1.7	3.3	1.7	2.5
1,000 to 2,000	3.3	13.3	8.3	1.7	6.7	4.2
2,000 to 5,000	3.3	18.3	10.8	23.3	40.0	31.7
5,000 to 10,000	13.3	26.7	20.0	25.0	20.0	22.5
Over 10,000	30.0	8.3	19.2	25.0	11.7	18.3
No answer	46.7	33.3	40.0	21.7	20.0	20.8
Total	100	100	100	100	100	100
(3) Monthly income (FCFA)						
	81,925	36,000	58,962	70,392	72,223	71,307

Source: JICA Study Team

CHAPTER 3 HEALTH CARE AND NUTRITION OF CHILDREN

3.1 General Situation

3.1.1 Health Status

Like in other Sub-Saharan countries, in Senegal, young children are prone to malnutrition and infections, leading to the 37th world highest under five mortality rate (U5MR): 118 per 1,000 live births, with annual under five deaths of 43,000¹. Malaria, acute respiratory infections (ARI), diarrhea, intestinal parasites are the major diseases that threaten children's lives. Although both infant and under-five child mortality rates have declined over the last decades, they still remain high (Table 1.3.1). Maternal mortality ratio, an important indicator of maternal health that would directly influence the new-born baby's growth, is one of the world highest, 560 per 100,000 live births. As a result, the life expectancy is as low as 53 years in 1999, with 44.3% of the population under 15 years.

Table 1.3.1 Basic Health Indicators in Senegal (1960 and 1999)

	Infant Mortality Rate (IMR) (per 1,000 live birth)		Under Five Mortality Rate (U5MR) (per 1,000 live birth)		Life expectancy at birth (year)	
	1960	1999	1960	1999	1970	1999
Senegal	173	70	300	118	41	53
Sub-Saharan Africa	156	107	258	173	44	49
Developing countries	141	63	222	90	53	63

Source: UNICEF (2001) *The State of the World's Children 2001*

When we look at the evolution of these mortality rates between 1992 and 1999/2000 as in the table below, it is not showing an even trend. It is observed that the IMR was ameliorated from 76 in 1992 to 60 in 1996, then after, it deteriorated as 69 in 1997 and 70 in 1999/2000. U5MR is also showing the deterioration between 1997 and 2000. It should be taken in mind that these are based on the various data and statistics, but even so, it is estimated that the children's health environment is not improved so much during this period.

¹ UNICEF (2001) *The State of the World's Children 2001*

Table 1.3.2 Trend in Mortality Rates of Children from 1992 to 2000

	1992	1996	1997	1999/2000	Increase rate from '92 to '00
IMR	76.0	60.0	69.4	70.1	-8%
U5MR	156.7	154.0	139.3	145.3	-7%

Source: GOS/UNICEF (2000) Rapport de l'Enquete sur les Objectifs de la Fin de Decennie sur l'Enfance (MICS II 2000)

Likewise, the MICS II is clearly showing the disparity in mortality between urban and rural areas. When we look at these mortality by region, while Dakar is recording the most favorable rates (IMR; 55, U5MR; 87 per 1,000 live birth), the rates in Kaolack and Tambacounda are much higher beyond the national average.

Table 1.3.3 Mortality Rate of Children in Kaolack and Tambacounda

Region	IMR	U5MR
Dakar	54.8	87.4
Tambacounda	83.6	181.9
Kaolack	85.0	197.5
National	70.1	145.3

Source: MICS II 2000

As shown in the above, the health condition of the country is far from favorable in general, there also exists the gaps in health status by asset quintile and by place of residence (rural or urban) as tabulated below. This estimation is based on the sampling of households to define the socio-economic status in terms of assets including consumer items.

It is clearly shown that both IMR and U5MR are higher as the asset quintile decreases. In the meantime, while the prevalence of diarrhea, one of the most common diseases of children, is common among all asset quintile, the difference in treatment methods by quintile was not very clear. The immunization coverage rate by asset quintile was not available. These existing gaps should well be recognized in considering the targeting of beneficiaries in planning interventions.

Table 1.3.4 Health Status and Service Indicator by Asset Quintile and by Urban-Rural Residence in Senegal (1997)

Indicators	Quintiles					Population Average
	Poorest	Second	Middle	Fourth	Richest	
IMR	84.5	81.6	69.6	58.8	44.9	69.4
U5MR	181.0	179.9	145.3	102.9	69.6	139.4
Diarrhea -Prevalence	15.3	17.1	14.4	14.7	13.7	15.1
Medical Treatment of Illness *						
Treatment of Diarrhea (%)						
- ORT Use	61.6	65.6	71.8	65.3	64.5	65.7
- Seen Medically	29.4	30.9	37.2	35.7	33.7	33.1
- % Seen in a Public Facility	26.3	27.6	33.3	27.5	26.5	28.2

Indicators					
Urban Quintiles	Poorest	Second	Middle	Fourth	Richest
IMR	--	(65.1)	60.1	55.0	39.7
U5MR	--	--	(120.2)	97.2	63.1
Rural Quintiles					
IMR	84.9	82.9	72.2	67.2	(72.4)
U5MR	182.0	182.1	152.1	115.9	(103.4)

Note: * Prevalence means the percentage of surviving children under three, four or five years old who had diarrhea in the two weeks preceding the survey, based on mother's reports concerning the presence of loose stools. () indicate large sampling errors due to small number of cases.

Source: HNP/Poverty Thematic Group of the World Bank (2000), Socio-economic Differences in Health, Nutrition, and Population in Senegal

Neonatal tetanus is a major cause of infant mortality that is primarily due to unsanitary conditions at the time of the child delivery. In order to protect the infants against the neonatal tetanus, women should take two doses of tetanus toxoid injections during the pregnancy which will offer full protection. The proportion of women who received the injections during the pregnancy increased from 52.7% in 1992 to 74.7% in 2000 (MICS II), although more efforts should be made to increase the coverage.

Tuberculosis, diphtheria, pertussis, tetanus, polio, measles, as well as yellow fever are the leading causes of mortality/morbidity among young children, which can be prevented by vaccination. The vaccination coverage among the children aged 12-23 months was 88.8% for BCG (to prevent tuberculosis), 51.8% for three times of DPT (to prevent diphtheria, pertussis and tetanus), 48.8% for three times of Oral Polio Vaccine, 47.9% for the measles vaccine, and 33.3% for yellow fever (Table 3.5) in 1999. Of which, the proportions of those who are fully vaccinated was as low as 30.3%.

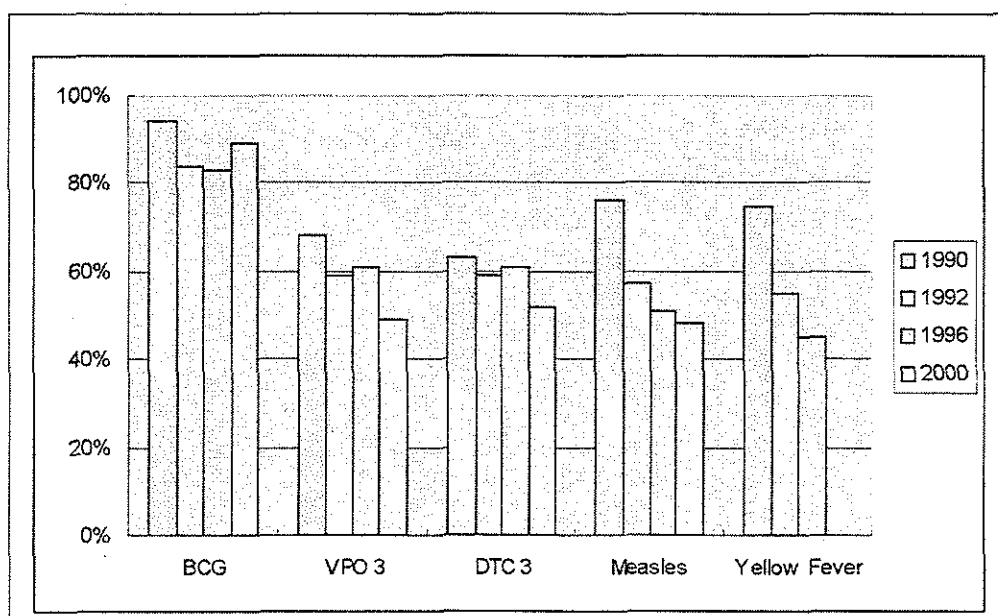
Table 1.3.5 Vaccination Coverage among the Children Aged 12-23 Months (%)

Antigen	Urban	Rural	Senegal
BCG	96.9	83.1	88.8
DPT3	67.0	40.9	51.8
OPV	77.7	47.8	48.8
Measles	78.7	51.8	47.9
Yellow Fever	N/A	N/A	33.3

Source: Enquête Sénégalaise sur les Indicateurs de Santé (ESIS) 2000

Further, the vaccination coverage rate has not been improving, but deteriorating as the figure below shows. Except BCG, vaccination rate of VPO3, DTC3, and measles were all decreased from 1990 to 2000 nationwide. This is partly explained by the fact that there has been a prolonged strike by labor union of health workers between 1997 and 2000. During this period, the monitoring system for vaccination was not functioning properly.

Figure 1.3.1 The Trends in Vaccination Coverage between 1990 and 2000



As for the decrease trends in vaccination, Kaolack and Tambacounda are not the exception. As tabulated in Table 3.6, the decrease rates of DPT3, OPV, and measles in both regions are higher than the national average rates. It is anticipated that these will all adversely affect the improvement in IMR and U5MR.

Table 1.3.6 Trends in Vaccination Coverage in Two Regions (%)

Antigen	Kaolack		Tambacounda		National	
	1996	2000	1996	2000	1996	2000
BCG	79.0	73.4	76.0	76.4	83.0	88.8
DPT3	56.0	32.9	49.0	38.6	61.0	51.8
OPV	56.0	31.2	50.0	28.4	61.0	48.8
Measles	46.0	29.6	43.0	34.4	57.0	47.9

Source: MICS 2000

It has been recognized that dehydration caused by diarrhea, ARI (particularly pneumonia) and malaria are the major causes of mortality among children in Senegal. ARI can be defined by a cough accompanied by rapid or difficult breathing. According to MICS II (2000) survey, the proportions of under five children who had diarrhea, ARI and consistent fever (symptom of malaria) during the past two weeks at the survey time was 26.1%, 6.6% and 20.5%, respectively. The prevalence of diarrhea was highest in Tambacounda (35.0%), followed by Kaolack (32.6%) and Diourbel (32.1%). Regarding ARI, Kaolack had much higher prevalence, even more than twice, compared to national average.

Table 1.3.7 Morbidity of Under Five Children during the Past Two Weeks by Region (%)

	Diarrhea	ARI	Fever
Kaolack	32.6	13.2	27.9
Tambacounda	35.0	5.7	31.7
Kolda	27.7	6.9	26.9
Fatick	31.1	7.0	24.7
Diourbel	32.1	6.6	24.9
Saint-Louis	22.0	5.0	15.8
Louga	17.7	3.9	10.1
Ziguinchor	21.8	6.9	20.6
Thies	24.9	4.5	15.1
Dakar	20.4	5.4	16.2
Total	26.1	6.6	20.5

Source: UNICEF (2000) Rapport de l'Enquete sur les Objectifs de la Fin de Decennie sur l'Enfance (MICS II 2000)

3.1.2 Nutrition Status

(1) General

The latest nation-wide survey in terms of children's status, the multiple indicator cluster survey (MICS II), revealed that the prevalence of underweight (low weight-for-age), stunting (low height-for-age) and wasting (low weight for height) among under 5 children were 18.4%, 19.0% and 8.3% respectively, with slightly higher proportions among boys than girls (Table 1.3.8).

Table 1.3.8 Prevalence of Malnutrition among Under Five Children (%)

	Stunting	Underweight	Wasting
Boys	20.0	19.3	9.4
Girls	17.1	16.4	7.3
Total	19.0	18.4	8.3

Source: GOS, UNICEF (2000) Rapport de l'Enquête sur les Objectifs de la Fin de Décennie sur l'Enfance (MICS II 2000)

Stunting, or linear growth retardation, is known as the important proxy of the chronic malnutrition, strongly associated with the household socio-economic status, for which the prevalence is highest in Tambacounda region (24.0%). On the other hand, Kaolack region has the highest prevalence of wasting, or acute malnutrition (14.0%) (Table 1.3.9). While the poverty is at the root of child malnutrition, food insecurity, lack of knowledge of good feeding practices, endemic diseases, inadequacy of drinking water, and poor sanitation are all exacerbating the health and nutrition status of children, especially in rural area.

Table 1.3.9 Prevalence of Malnutrition among Under Five Children by Region (%)

	Stunting	Underweight	Wasting
Kaolack	19.3	24.7	14.0
Tambacounda	23.8	23.8	11.5
Kolda	23.2	22.2	9.4
Fatick	23.2	19.7	8.4
Diourbel	18.9	18.5	8.0
Saint-Louis	14.9	19.3	12.1
Louga	17.7	17.9	7.3
Ziguinchor	20.0	19.3	5.8
Thies	17.2	15.2	5.9
Dakar	17.2	12.8	6.5
Total	19.0	18.4	8.3

Source: MICS II 2000

(2) Diet practices

The major staple in Senegal is rice and bread is also a popular breakfast meal. At the time of food shortage, rice is often replaced by millet or maize. Rice is grown locally, where there is enough water to flood the fields (e.g. Saint Louis and Casamance), but most of the rice are imported. The typical national meal is called *Tieboudienne*, which consists of rice baked in a thick source of fish and vegetables. Groundnuts are grown almost everywhere in the country, thus, rice with a thick brown groundnut sauce called *mafe* is also very common. Millet and maize have to be pounded into flour before it is cooked. In rural areas, this is done by hand with a large wooden mortar and pestle, sometimes for several hours. The millet flour is steamed and then moistened with water until it thickens into a stiff 'porridge' that can be eaten with the fingers. Senegal is quite rich in fishes, vegetables (e.g. onions, tomatoes, potatoes, sweet potatoes, okra, green beans and tomato) and fruits (e.g. oranges, mandarins, grapefruits, banana, guavas,

papaya and mangoes), although its availability is largely depending on the location and season. The consumption of animal protein (meat, fish, egg) is quite high in urban area like Dakar, while it is extremely limited in rural villages. Consequently, the seasonal food insecurity and the low quality of diets would adversely affect the nutritional status of rural population, especially children.

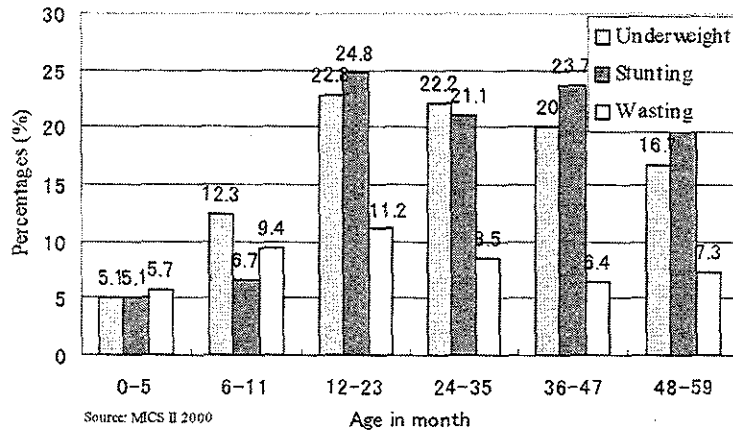
(3) Breastfeeding

It is now well recognized that the breast milk has an important role, not only providing the nutrients necessary for the infant growth, but also developing the immune system in his/her body. Breastfeeding is widely practiced in Senegal, where more than 90.0% of the children receive at least up to 12-15 months. During the few days after a baby is born, the breast produce a small amount of yellowish milk called *colostrums*, which is rich in antibodies, white cells, and growth factor. Some people believe that colostrums is not good for a baby, but it is exactly what a baby needs for the first few feeds to protect him/her against infection, and to prepare his gut to digest and absorb the mature milk which comes later. It is reported that, in Senegal, 44% of the babies do not receive the colostrums within 24 hours after birth². Besides, MICS II revealed that only 23.5% of mothers practiced the exclusive breastfeeding up to four months, and many mothers introduced other liquids/foods too early, which would often cause diarrhea among the babies. On the other hand, the delayed introduction of the complementary food has been also reported; only 63.6% of infants aged 6-9 months receive complementary foods together with breast milk.

Figure 3.2 shows the prevalence of underweight, stunting and wasting according to age group in months. The rapid increase in the prevalence of underweight and stunting, from 6-11 months to 12-23 months shows the inappropriate feeding practices during the first years after birth.

² UNICEF. *Analyse de situation de la enfant et de la femme au Senegal 2000*. 2001

Figure 1.3.2 Prevalence of Malnutrition Among under five children



Birth weight of new-born is an indicator of intra uterine growth retardation, which is strongly associated with maternal nutritional status. Infants who weigh less than 2,500g at birth are categorized as low birth weight (LBW). It is reported that 13.4% of the infants were born with LBW. It must be noted, however, that most deliveries in rural villages are taken place at home where the birth weight is not measured, and that those who are weighted may be a biased sample of all births, as is the case of Tambacounda where the percentage of LBW was reported only 4.2%³.

(4) Control of micronutrient deficiencies

Vitamin A

The body's immune system can not function properly without adequate levels of vitamin A. Lack of vitamin A damages the surfaces of the skin, eyes and mouth, the lining of the stomach, and the respiratory system. A child with vitamin A deficiency (VAD) is more prone to infections, which become more severe as the immune system is damaged. VAD increases the risk that children will die or become blind. It is the most common cause of childhood blindness in the developing world. It is estimated that by giving adequate vitamin A, either by food fortification or oral supplements, in vitamin A deficient population, child mortality from measles can be reduced by 50%, and mortality from diarrhea disease by 40%. Overall mortality in children aged 6-59 months can be reduced by 23%⁴. UNICEF and WHO are recommending that all countries with an under five mortality rate exceeding 70, or where VAD is a public health problem, should commit a VAD control program. In Senegal, the vitamin A supplementation programs for the children aged 6-59 months have been incorporated into the National

³ Ministère de la Santé. *Enquête Sénégalaise sur les Indicateurs de Santé (ESIS) 1999*. 2000

⁴ These estimations are based on WHO/UNICEF (1999), *Nutrition Essentials: A Guide for Health Manager*

Immunization Days (NIDs), hence, the coverage is quite high among this age group (80.4%). Since the vitamin A can be stored in the liver for 4-6 months only, ideally, the children should be provided with the supplementations twice a year. Another national distribution day, “National Micronutrient Days (NMD)” was launched in 2000 by National Service for Food and Nutrition⁵ (SNAN) with supports of WHO, UNICEF and BASICS, and since then, has been organized twice a year, one day for the vitamin A and the other for iodized salt. Another group who are at risk of VAD is the newly delivered mothers, for whom the intervention is still insufficient.

Iodized Salt

Iodine is essential for the production of thyroxin – a hormone produced by the thyroid gland – and used for a number of vital body function, growth, and reproduction. Deficiency of iodine during early foetal life can adversely affect foetal neurological development, causing impaired cognitive functions to varying degrees in children. The most severe form is cretinism. Iodine deficiency disorders (IDD) is the world’s greatest single cause of preventable brain damage and mental retardation. In addition, IDD is associated with neonatal deaths, stillbirths, and miscarriages. IDD occurs where the soil is iodine deficient, resulting in low levels of iodine in locally grown foods and water. Sea fish and some seaweed also contain iodine, although sea salt itself does not contain. In the areas where the IDD is widespread, goiter – the most typical form of IDD – is common in school-aged children and women at reproductive age. Salt iodization is an effective, low-cost way of preventing IDD. Adequately iodized salt should contain 15ppm of iodine or more. With the efforts of the government of Senegal, the proportion of households who consume the iodized salt has been increasing, from 9.0% in 1996 to 31.3% in 2000 (MICS II). In Tambacounda and Kolda where the IDD has been endemic, the consumption of iodized salt is found quiet prevalent, 53.6% and 37.8%, respectively. The salt factories are located in Kaolack, Fatick and Saint-Louis, where the salt is partly iodized. Interestingly, the proportions of households who consume the iodized salt are lower in these regions than other regions.

Iron

Senegal has one of the highest maternal mortality rates, 560 per 100,000 live births, and in Tambacounda it is estimated that the region’s mortality rate was no less than 1,200 per 100,000 live births in 1999. Iron deficiency anemia (IDA) is known to be significantly associated with maternal mortality, increasing the risk of hemorrhage and sepsis during the delivery. Pregnant women and children are at highest risk of iron deficiency, because iron is needed for rapid growth and building of new cells. Infections,

⁵ In March 2004, this is Division de l’Alimentation, de la Nutrition et de la Survie de l’Enfant (DANSE).

such as malaria and hookworm, predispose them to severe anemia. Under the Bamako Initiatives, the iron tablets are available at the local pharmacies (On average, at FCFA 200 per six tablets), while little is known about the actual intake by pregnant women.

3.1.3 Reproductive Health and Family Planning

During the past decades, there has been growing awareness of importance to enhance the reproductive health, including family planning, to secure the health conditions of women and new-born babies. Studies have shown that the short interval of pregnancy would adversely affect the mortality/morbidity of new-born babies, as well as that of their siblings, on which the risk would even increase for the later birth orders. Early marriage, leading to early pregnancy, is traditionally common in Senegal, especially in rural areas, hence high adolescent fertility rate of 119 per 1,000 women aged 15-19 years⁶. It is, therefore, not surprising that the average fertility rate is still as high as 5.2⁷. The Table 1.3.10 shows the Total Fertility Rate (TFR) by asset quintile, as well as Age Specific Fertility Rate⁸.

Table 1.3.10 Population and Service Indicators by Asset Quintile in Senegal (1997)

Indicators	Quintiles					Population Average
	Poorest	Second	Middle	Fourth	Richest	
TFR	7.4	6.8	6.2	5.2	3.6	5.7
Age Specific Fertility Rate *	189.0	147.0	109.0	83.0	36.0	103.0
Antenatal Care Visits (%)						
- to a medically trained person	66.8	71.5	87.0	94.5	96.3	82.0
- to a doctor	4.0	5.3	4.0	4.1	17.3	6.4
- to a nurse or trained midwife	62.8	66.2	83.0	90.4	79.0	75.6
Delivery Attendance (%)						
- by a medical trained person	20.3	25.4	45.3	69.3	86.2	46.5
- by a doctor	1.0	1.3	2.3	3.8	10.4	3.4
- by a nurse or trained midwife	19.3	24.1	43.0	65.5	75.8	43.2
- % in a public facility	23.2	29.7	46.1	65.3	67.7	44.6
- % in a private facility	0.2	0.4	1.4	4.0	13.8	3.4
- % at home	75.8	69.3	51.6	30.0	17.5	51.3
Use of Modern Contraception **	1.0	1.6	4.8	11.6	23.6	8.1

Note: * Age Specific Fertility Rate is births per 1,000 women age 15 to 19.

** Currently married females using a modern method.

Source: HNP/Poverty Thematic Group of the World Bank (2000), Socio-economic Differences in Health, Nutrition, and Population in Senegal

⁶ United Nations, Population Division, *World Population Monitoring, 2000: Population, gender and development* 2001

⁷ UNICEF. *Analyse de situation de la enfant et de la femme au Senegal 2000*. 2001

⁸ As the data source is varied, the data in fertility is slightly different.

Appropriate antenatal care for pregnant women and delivery attendance are directly connected to women's health. Table 1.3.10 reveals that poorer women receive less service in both antenatal care and delivery attendance. In some areas, it is recommended to women to give delivery at health facility, where medical equipment is available, instead of at home, by setting the higher price for the delivery at home.

Despite the fact that the Government has been working to date, to increase the availability, access and education of family planning information to the population, the coverage of contraceptive use is still very low (13.0%). The contraceptive methods can be largely divided into two types; modern methods, including pill, injections, Intrauterine Contraceptive Devices (IUD), condom and sterilization, and traditional methods. Advantage of family planning is well recognized (e.g. keeping the appropriate birth space), although in rural area, there are many women who do not know anything about the contraceptive methods, 45% in Tambacounda and 30% in Kaolack, respectively. It is also undeniable that there is a large gap between the knowledge and actual practice. According to ESIS, despite that 86.9% of the married women knew the pills, the proportion of those who actually used is limited to 11.1%. Table 3.11 shows the proportions of married women who use the traditional/modern contraceptives, or use modern ones only by region, for both of which Tambacounda has the second lowest proportions. Likewise, the use of modern contraception is more frequent among rich quintile as the Table 1.3.10 shows.

Table 1.3.11 Proportions of the Married Women who Using the Contraceptives

Regions	Traditional and/or modern methods	Modern methods only
Kaolack	6.5	5.1
Tambacounda	5.8	4.6
Kolda	6.1	5.1
Fatick	7.9	5.1
Diourbel	4.3	3.3
Saint-Louis	12.9	11.2
Louga	6.2	4.6
Ziguinchor	13.1	9.7
Thies	13.0	9.1
Dakar	23.1	18.6
Total	10.5	8.2

Source: ESIS 2000

In promoting family planning there are constraints including the conception hold by male: they prefer the large number of children which symbolize their wealth and the low educational attainment of women. According to MICSII, 63% of women at reproductive age have not received any education in the country.