

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

**THE MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES
THE PLANNING OFFICE FOR SAN SALVADOR METROPOLITAN AREA
THE REPUBLIC OF EL SALVADOR**

**THE STUDY
ON
REGIONAL SOLID WASTE
MANAGEMENT
FOR
SAN SALVADOR METROPOLITAN AREA
IN
THE REPUBLIC OF EL SALVADOR**

**FINAL REPORT
VOLUME III**

ANNEX

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The Study on Regional Solid Waste Management
for San Salvador Metropolitan Area in the Republic of El Salvador

List of Volumes

Volume I	Executive Summary
Volume I(S)	Executive Summary (Spanish Version)
Volume II	Main Report
Volume II(S)	Main Report (Spanish Version)
Volume III	Annex
Volume III(S)	Annex (Spanish Version)
Volume IV	Data Book
Volume IV(S)	Data Book (Spanish Version)

This is the Annex.

In this report, the project cost is estimated by using the April 2000 price and an exchange rate of 1.00 US\$ = 105.00 Japanese Yen = 8.75 Colones.

Contents

Annex A	___	Profile of the Study Area
Annex B	___	Waste Amount and Composition Survey
Annex C	___	Public Opinion Survey
Annex D	___	Time and Motion Survey
Annex E	___	Recycle Market Survey
Annex F	___	Medical Waste Survey
Annex G	___	Current Situation of SWM
Annex H	___	Sanitary Education and Public Awareness Promotion Campaign
Annex I	___	Collection Service Experiment
Annex J	___	Collection Route Improvement
Annex K	___	Framework of Master Plan
Annex L	___	Particulars for Master Plan Formulation
Annex M	___	The Master Plan
Annex N	___	Contract Administration
Annex O	___	Proposal of Law
Annex P	___	SWM Execution Unit of OPAMSS
Annex Q	___	San Salvador Municipal Public Company of Urban Cleansing
Annex R	___	Manual for Collection Route Improvement
Annex S	___	Minutes of Meetings

List of Abbreviations

AECI	Spanish International Cooperation Agency
AIDIS	Inter-American Sanitary Engineering and Environmental Association
AMSS	San Salvador Metropolitan Area
ANDA	National Aqueduct and Sewerage Administration
ATP	Availability to pay
AU	Urbanized/urbanizable Area
B/D	Basic Design
BCI	Burden on citizens' income
BCR	Central Reserve Bank
BHN	Basic Human Needs
BOD	Biological demand of oxygen
BOOT	Build Own Operate and Transfer
BOT	Build Operate and Transfer
BYRP	Bond Yield Risk Premium Approach
C/P	Counterpart
C/P	Compost Plant
CAESS	Electric Lighting Company of San Salvador
CAPM	Capital Asset Pricing Model
CD	Controlled Dumping
CDA	Department Council of Mayors
CEPRHI	Executive Committee for the Protection of Hydraulic Resources
CESTA	Appropriate Technology Center
CIDA	Canadian International Development Agency
COAMSS	Mayors Council for San Salvador Metropolitan Area
COD	Chemical oxygen demand
COMURES	Association of Municipalities in the Republic of El Salvador
CPI	Consumer Price Index
CRC	Zone Coverage
CS	Cleansing service
CTR	Cost per ton collected
CTT	Cost per ton transported
D/D	Detailed Design
D/S	Disposal Site
DA	Agricultural Development Zone
DB	Data Base
DELSUR	Electricity Distribution Company of the South
DIGESTYC	General Directorate of Statistics and Census
DR	Restricted Development Zone
DTE	Ecologically-sustainable Tourism Development Zone
DUA	Directorate of Urbanism and Architecture
ECC	Efficiency on Use of Truck Capacity
EDE	Electricity Distribution Companies
EIA	Environment Impact Assessment
EMAUSS	San Salvador Municipal Public Company of Urban Cleansing
ERZ	Route Efficiency Use in Zone
FDS	Final Disposal Site
FIRR	Financial Internal Rate of Return
FISDL	Social Investment Fund for Local Development

FMLN	Farabundo Marti National Liberation Party
FODES	Economic and Social Development Fund
FS	Feasibility Study
FUSADES	Salvadoran Fund for Development
FUSAL	Salvadoran Fund for Health and Development
GC	Gathering Center
GCK	Fuel Expense per Kilometer
GDP	Gross Domestic Product
GRDP	Gross Regional Domestic Product
GTZ	German Technical Cooperation
GVW	Gross Vehicle Weight
HDPE	High Density Polyethylene
HHI	Herfindahl-Hirschman Index
ICI	Institutions, Commercials and Industries
IDB	Inter-American Development Bank
IRDB	International Reconstruction and Development Bank
ISDEM	Salvadoran Institute for Municipal Development
ISSS	Salvadoran Institute of Social Security
IUDOP	University Institution of Public Opinion
JBIC	Japan Bank for International Cooperation
JICA	Japan International Cooperation Agency
KXG	Kilometer per Fuel Gallon
M/P	Master Plan
MARN	Ministry of Environment and Natural Resources
MIDES	Integral Solid Waste Management (company)
MINED	Ministry of Education
MOH	Ministry of Finance
MP	Maximum Protection Zone
MRF	Material Recovery Facility
MSPAS	Ministry of Public Health and Social Assistance
MSW	Municipal Solid Waste
MUS	Minimum Urban Salary
MWI	Medical Waste Incineration
MWS	Medical Waste Survey
NGOs	Non-Governmental Organizations
O&M	Operation and Maintenance
O/D	Open Dumping
OPAMSS	Planning Office For San Salvador Metropolitan Area
PAHO	Pan-American Health Organization
PET	Polyethylene Terephthalate
PLAMADUR	Urban Development Master Plan
PNC	Civil National Police
POS	Public opinion survey
PPS	Participation by Private Sector
PROCOTES	Association of Communal Projects of El Salvador
PSP	Private Sector Participation
RCXE	Collection per Employee
RCXEH	Collection Efficiency per Employee
RCXK	Waste Production per Kilometer
REDES	Salvadoran Foundation for Reconstruction and Development
S/L	Sanitary landfill

S/P	Selection Plant
SACDEL	Consulting and Training System for Local Development
SAE	Environment Service Specialists
SEMA	Executive Secretariat for Environment
SIGET	Superintendent's Office of Electricity and Telecommunications
SINAMA	National Environment Arrangement System
SW	Solid wastes
SWEU	Solid Waste Management Executing Unit
SWM	Solid Waste Management
SW-SRE	Solid Waste Service-Rendering Enterprises
T&M	Time and Motion
T/S	Transfer Station
TDS	Total Dissolved Solids
UCA	José Simeón Cañas Central American University
UE-OPAMSS	Execution Unit of SWM of OPAMSS
UNES	Salvadoran Ecological Unity
USAID	United States Agency for International Development
UTLA	Latin-American Technology University
VAT	Value Added Tax
VRC	On-route Velocity
VT	Haulage Velocity
WACS	Waste Amount and Composition Survey
WTP	Willingness to pay
ZP	Protection Zone

Abbreviations for the 14 Municipalities

SS	San Salvador
MJ	Mejicanos
CD	Delgado
CT	Cuscatancingo
AY	Ayutuxtepeque
SM	San Marcos
ST	Nueva San Salvador
AC	Antiguo Cuscatlan
SY	Soyapango
IL	Ilopango
SMT	San Martin
AP	Apopa
NJ	Nejapa
TN	Tonacatepeque