

**APPENDIX A:  
PROJECT DESCRIPTION  
MALI SIKASSO MUNICIPAL SANITATION PROJECT**

I. Introduction

This appendix describes the activities to be undertaken and the results to be achieved with the funds obligated under this Agreement. Nothing in this Appendix A shall be construed as amending any of the definitions, conditions, or terms of the Agreement.

II. Background

The city of Sikasso is a regional capital approximately 380 kilometers from Bamako. The city's estimated 19,743 households produce approximately 200 tons of solid waste per day. (These figures do not include solid waste from business and industrial sources.) The city's public works department is able to collect only 10 percent of total waste. The department relies on the Grantee, the Coordinating Agency for Groups Working in Sanitation and Environmental Protection (COTAPE), to complement its efforts. COTAPE is an association of twenty Economic Interest Groups (EIGs) involved in sanitation and environmental protection activities.

Liquid waste poses another serious problem for the city. In addition, the city cannot adequately service and manage existing cesspools, latrines, and water fountains.

COTAPE currently has 11 member groups that collect about 7 percent of the total solid waste in addition to that the city collects. This means approximately 83 percent of the demand for trash collection market is not met. The potential market for COTAPE's services is estimated at 17,665 households. However, due to the limited number of carts, the slow speed of their donkeys, and the distance between the dumps and town, the member groups' daily coverage is limited.

III. Funding

A. ADF Contribution

The financial plan for ADF's contribution is set forth in Appendix A-1 to this Agreement. The Parties may make changes to the financial plan without formal amendment, if such changes are made in accordance with Article 7 of the Agreement and do not cause ADF's contribution to exceed the obligated amount specified in Article 3, Section 3.1 of the Agreement.

B. Grantee Contribution

COTAPE will purchase eighteen (18) trash collection units (7,560,000 CFA) and 5,500 trash cans (27,500,000 CFA). It will acquire access to the sites needed for composting

ADF  Grantee 



(10,000 m<sup>2</sup>), intermediary dumps (400 m<sup>2</sup> each), public toilets, water fountains and washing facilities.

#### IV. Project Goal

The goal of the Project is to improve the environmental and health conditions for Sikasso city residents.

#### V. Project Purpose

The purpose of the Project is to increase and sustain use of improved sanitation services in Sikasso, as measured by the following.

- A. The percentage of households that pay for garbage collection will increase from 7 in year 0 to 14, 19, 26, and 32 in project years I, II, III, and IV, respectively.
- B. By project year II, the average daily use of public toilets will increase from 180 users in year 0 to 540, and the average daily use of public shower facilities will increase from 30 to 90 users in three markets.
- C. The average consumption of water at public fountains and washbasins will increase from 75m<sup>3</sup> in project year 0 to 300m<sup>3</sup> by the end of project year I, and to 825 m<sup>3</sup> by the end of project year II.
- D. The number of dumpsites used will increase from 0 in year 0 to 5 in project year 1, and 10 in project year II.

#### VI. Project Outputs

The Project will generate the following major outputs in order to attain the Project's purpose.

##### A. New Sanitation Facilities

1. The number of buildings with modern septic sewage systems will increase from 0 in project year 0 to 50 in project year II, 75 in project year III, and 100 in project year IV.
2. Two(2) septic waste treatment facilities will be constructed by the end of Year II.
3. Two (2) solid waste composting facilities will be constructed by the end of project year I.
4. Ten (10) public fountains will be constructed in public markets by the end of project year II.

##### B. Strengthened Capacity of COTAPE's Members

1. The amount of trash collected monthly will increase from 351 tons in project year 0 to 700 tons in project year I, 1125 tons in

- project year II, 1450 tons in project year III, and 1700 tons in project year IV.
2. The number of households served will increase from 1197 in project year 0 to 2400 in project year I, to 3447 in project year II, to 4672 in project year III, to 5697 in project year IV.
  3. By project year II, an intermediary treatment facility with controlled wastewater disposal will replace the use of designated safe areas for septic disposal.
  4. The amount of compost produced and sold will increase from 150 m<sup>3</sup> per year in project year 0 to 1,000 m<sup>3</sup> in project year I to 4,000 m<sup>3</sup> in project year II.
  5. The amount of terreaux sold will increase to 1,000 m<sup>3</sup> per year in project year I and 3,500 m<sup>3</sup> in project year II.

## VII. Activities

### A. Trash and Liquid Waste Collection

*Solid Waste.* COTAPE will provide trash collection groups 30 additional transport units consisting of a cart drawn by two donkeys. Each unit will have the capacity to service an average of 150 households. Initially, COTAPE will make available fifteen transport units to the member groups. It will add units to an individual group when the average number of customers serviced per new unit by the individual group reaches 110. Each group receiving trash transport units will sign lease/purchase contracts obligating them to make 48 monthly payments to COTAPE, after which the units will become the property of the individual EIG.

COTAPE will use ADF funds to purchase two thousand metal trash containers, which it will give to its members for distribution to households that subscribe to the trash collection. Members engaged in trash collection will purchase and distribute an additional 5,500 trash containers over the life of the project from their own revenues. The Project will fund the improvement of ten (currently unprotected) transit dumpsites to serve as intermediate collection points for trash.

*Liquid Waste.* COTAPE will acquire and manage a SPIROS pumper truck to remove liquid wastes from cesspools and latrines. Member groups engaged in liquid waste management will schedule services for their clients with COTAPE, for which the members will receive a commission of 10 percent of the price of the service from COTAPE.

*Revolving Fund.* COTAPE will establish a revolving fund to promote cesspool construction that meets all applicable health and technical standards. The fund will make loans available to individual homeowners up to 100,000 CFA per unit, which they will reimburse over a 24-month period at 5,000 CFA per month. This will enable the homeowners to finance the cesspools that COTAPE members will construct. A lawyer will review the cesspool construction loan agreements before COTAPE provides initiates

the program to ensure that the terms and conditions are enforceable under local laws and regulations.

#### B. Waste Treatment

COTAPE will procure and manage two 7 m<sup>3</sup> dump trucks to transfer trash from the intermediary dumpsites to two composting sites especially developed to receive biodegradable wastes. COTAPE will sort the trash at the composting sites and transport the non-degradable materials to one of two landfills designated by the Sikasso municipal authorities. COTAPE will sell the compost to local farmers.

COTAPE will construct a wastewater treatment facility at one of the final dumpsites to receive the liquid wastes from the latrines and cesspools, eliminating the current practice of dumping the wastes in open fields.

#### C. Construction of Sanitation Facilities

*Public water fountains.* The Project will develop and improve ten public water fountains, including facilities for washing dishes, clothes and cars, and drains and cesspools to collect the runoff from the sites. A COTAPE member will use the Project's pumper truck to empty the cesspools regularly. COTAP will use the wastewater in the composting operations. A member group that sells water and levies charges for use of the washing facilities will manage the facilities. The member EIG will remit a monthly fee to COTAPE for the right to manage the facilities.

*Public latrines.* The Project provides for construction of two new public latrine complexes, each consisting of 10 toilets, 5 showers, and an office at 2 public markets in Sikasso. A COTAPE member group will manage the complexes and charge a fee for use of the toilet and shower facilities. The member EIG will remit a monthly fee to COTAPE for the right to manage the latrines.

#### D. Training and Technical Assistance

The Project provides for technical assistance and training to ensure appropriate procedures are put in place to protect the workers handling the wastes, and to reinforce members' knowledge of sanitation and public health practices and issues. Training will include accounting, business and financial management, and group management training and technical assistance during the first two project years to ensure that COTAPE adopts and masters appropriate management systems. ADF will provide participatory monitoring and evaluation training to ensure that the Grantee establishes appropriate systems to monitor its progress toward project objectives. The Project will fund HIV/AIDS prevention training for COTAPE group members.

## VIII. Roles and Responsibilities of the Parties

COTAPE is responsible for ensuring the proper management and implementation of the Project. COTAPE will hire a General Manager to oversee the day-to-day activities of the Project. The ADF Partner in Mali, the Association for Entrepreneurship and Sustainable Development in the Sahel (AED Sahel), will provide COTAPE technical and management assistance during the implementation of the Project.

## IX. Monitoring and Evaluation

Within sixty days of the effective date of this Agreement, the Grantee, working with the ADF Partner, will form a monitoring and assessment committee composed of a representative cross-section of the Grantee's organization. The committee will provide the Partner input for the Project monitoring plan. In addition, during implementation, the committee will have responsibility for ensuring that the Project follows the implementation plan, and that problems identified through monitoring and evaluation are properly addressed in a timely manner. The Project provides for a motorcycle and office equipment to help COTAPE improve its coordination, monitoring, and logistical capabilities.

## X. Other Implementation Issues

COTAPE will establish three bank accounts: (a) an account to manage the reinvestment funds; (b) an account to receive ADF funds; and (c) the COTAPE current account. COTAPE will use the reinvestment account to receive regular deposits for equipment replacement and reserves to acquire additional equipment. It will make deposits to the account on a quarterly basis (at a minimum) beginning as soon as the member groups receive their new equipment or start managing the new facilities, whichever comes earlier.

**COUNTRY: MALI**  
**SIKASSO MUNICIPAL SANITATION PROJECT**  
**LOGICAL FRAMEWORK**

<b>OBJECTIVES</b>	<b>PERFORMANCE INDICATORS</b>	<b>MEANS OF VERIFICATION</b>	<b>ASSUMPTIONS</b>
<p><b>Goals:</b> Improved health and environment of Sikasso community residents</p>	<p>1. % decrease in water and sanitation related diseases due water and sanitation services available.</p>	<ul style="list-style-type: none"> <li>▪ Ministry of Health report</li> <li>▪ Ministry of water and sanitation</li> </ul>	
<p><b>Purpose:</b> Increased and sustained use of improved public sanitation services in Sikasso</p>	<ol style="list-style-type: none"> <li>1. The % of household paying for garbage collection increased from 7% to 14% in Year I; 19% in Year II; 26% in Year III and; 32% in Year IV.</li> <li>2. Average daily use of public toilets increased from 180 users to 540 per day; and 30 to 90 for public shower facilities per day in three markets by Year II.</li> <li>3. Average consumption of water at public fountains and washbasins increased from 75 m<sup>3</sup> to 300 m<sup>3</sup> in year I and 825 m<sup>3</sup> in Year II.</li> <li>4. Dumpsite use increased from 0 in Year 0 to 5 in Year I and 10 in Year II.</li> </ol>	<ul style="list-style-type: none"> <li>▪ Client payment records; Census data</li> <li>▪ Activity reports</li> </ul>	<ul style="list-style-type: none"> <li>▪ Household can afford and willing to pay for services</li> <li>▪ Municipal authorities continue support for public hygiene and sanitation improvements</li> </ul>
<p><b>Outputs</b></p> <p>1. Public sanitation facilities constructed</p>	<ol style="list-style-type: none"> <li>1.1. Buildings with modern septic sewage systems increased from 0 to 50 Year II, 75 in Year III and 100 in Year IV.</li> <li>1.2. Two (2) Septic waste treatment facilities constructed by Year II.</li> <li>1.3. Two (2) Solid waste composting facilities constructed by Year I.</li> <li>1.4. Ten (10) public fountains constructed in public markets by Year II.</li> </ol>	<ul style="list-style-type: none"> <li>▪ Performance reports</li> </ul>	<ul style="list-style-type: none"> <li>▪ Municipal authorities continue support for public hygiene and sanitation improvements</li> </ul>

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<p><b>2. Capacity of technical members to provide products and services strengthened</b></p>	<p><b>2.1.</b> Monthly increased of trash collected from 351 tons in Year 0 to 700 tons Year I, 1125 tons in Year II, 1450 tons in Year III, and 1,700 tons in Year IV.</p> <p><b>2.2.</b> The number of households served increased from 1197 in Year 0 to 2,422 in Year I, 3,447 in Year II, 4,672 in Year III, and 5,697 in Year IV.</p> <p><b>2.3.</b> Septage disposal changed from release in designated safe areas to release into an intermediary treatment facility with controlled wastewater disposal in Year II.</p> <p><b>2.4.</b> Compost produced and sold increased from 150 m<sup>3</sup> per year in Year 0 to 1,000 m<sup>3</sup> in Year I and 4,000 m<sup>3</sup> in Year II.</p> <p><b>2.5.</b> Terreaux sold increased from (TBD) in Year 0 to 1,000 m<sup>3</sup> per year in Year I and 3,500 m<sup>3</sup> per year in Year II.</p> <p><b>2.6.</b> Project monitoring &amp; evaluation plan developed by COTAPE in Year I.</p> <p><b>2.7.</b> Data collected, analyzed, and reported every four months on critical project indicators.</p>	<ul style="list-style-type: none"> <li>▪ Customer payment records</li> <li>▪ Activity reports</li> <li>▪ Individual market records of cash receipt</li> <li>▪ Individual fountain records of cash receipt and water bills</li> </ul>	<ul style="list-style-type: none"> <li>▪ Adequate and regular water supply</li> </ul>
<p><b>Components:</b></p> <p><b>1. Waste Collection</b></p> <p><b>1.1.</b> Liquid waste collection</p> <p><b>1.2.</b> Solid waste collection</p> <p><b>2. Treatment</b></p> <p><b>2.1.</b> Composting of solid waste</p> <p><b>2.2.</b> Treatment of liquid waste</p> <p><b>3. Public sanitation Facilities</b></p> <p><b>3.1.</b> Public toilets</p> <p><b>3.2.</b> Water fountain and washing areas</p> <p><b>4. Training and Technical Assistance</b></p> <p><b>5. External audit</b></p> <p><b>TOTAL</b></p>	<p><b>1.1.</b> CFA 34,650,000</p> <p><b>1.2.</b> CFA 63,700,000</p> <p><b>2.1.</b> CFA 7,700,000</p> <p><b>2.2.</b> CFA 11,500,000</p> <p><b>3.1.</b> CFA 16,855,000</p> <p><b>3.2.</b> CFA 14,050,000</p> <p><b>4.</b> CFA 12,950,000</p> <p><b>5.</b> CFA 2,100,000</p> <p><b>CFA 163,505,000</b></p>	<ul style="list-style-type: none"> <li>▪ Financial reports</li> </ul>	

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