

**Document of
The World Bank**

Report No: ICR0000455

**IMPLEMENTATION COMPLETION AND RESULTS REPORT
(Ln. 4612-IND / Cr. 3519-IND, GEF Grant No. 029805)**

ON A

LOAN
IN THE AMOUNT OF US\$ 11.7 MILLION

AND A

CREDIT
IN THE AMOUNT OF SDR 4.6 MILLION

AND A

GLOBAL ENVIRONMENTAL FACILITY
IN THE AMOUNT OF SDR 2.0 MILLION

TO THE

REPUBLIC OF INDONESIA

FOR THE

WESTERN JAVA ENVIRONMENTAL MANAGEMENT PROJECT

June 29, 2007

Urban Development Sector Unit
Sustainable Development Department
East Asia and Pacific Region

CURRENCY EQUIVALENTS

Currency Unit = Rupiah
US\$1.00 = Rupiah 9,600 (April 25, 2001)
US\$1.00 = Rupiah 8,806 (May 10, 2007)

FISCAL YEAR
[January 1 – December 31]

ABBREVIATIONS AND ACRONYMS

APL	Adaptable Program Loan
ASER	Annual “State of the Environment” Report
BPLHD	Provincial EPA
CA	Credit Agreement
CEF	Community Environmental Facility
CPSU	Central Project Support Unit
DED	Detailed Engineering Design
DGHS	Directorate General of Human Settlements
DIKNAS	Ministry of Education
DKI	<i>Daerah Khusus Ibukota</i> (Special Capital Area)
FS	Feasibility Study
GA	Grant Agreement
GEO	Global Environment Objectives
GHG	Greenhouse Gas
GBWMC	Greater Bandung Waste Management Corporation
GEF	Global Environment Facility
GOI	Government of Indonesia
Jabotabek	Short for Jakarta-Bogor-Tangerang-Bekasi
Jabodetabek	Short for Jakarta-Bogor-Depok-Tangerang-Bekasi
JWMC	Jabotabek / Jabodetabek Waste Management Corporation
Kabupaten	District
KLH	Ministry of Environment
Kota	Municipality
LA	Loan Agreement
LEF	Local Environmental Forum
LES	Local Environmental Strategies
LG	Local Government
LNAC	Landfill Neighborhood Advisory Committee
LPSU	Local Project Support Unit
MoE	Ministry of Environment
MoF	Ministry of Finance
MPW	Ministry of Public Works, previously named MSRI - Ministry of Settlements and Regional Infrastructure (“ <i>Kimpraswil</i> ”)
NUES	National Urban Environmental Strategy
PAD	Project Appraisal Document
PES	Provincial Environmental Strategies
PLG	Participating Local Government
PPSU	Provincial Project Support Unit
SDR	Special Drawing Rights
SPA	Waste Transfer Site
SWIP	Waste Management Improvement Plans
TA	Technical Assistance (Consultant Services)
TPA	Final Waste Handling (e.g., Landfill) Site
WJEMP	Western Java Environmental Management Project

Vice President:	Mr. James W. Adams, EAP
Acting Country Director:	Mr. William E. Wallace, EACIF
Sector Director:	Mr. Keshav Varma, EASUR
Task Team Leader:	Mr. Richard Beardmore, EASUR

INDONESIA

Western Java Environmental Management Project APL 1

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MAP IBRD 30672R

A. Basic Information			
Country:	Indonesia	Project Name:	Western Java Environmental Management Project
Project ID:	P040528,P068051	L/C/TF Number(s):	IBRD-46120, IDA-35190, JPN-26563, MULT-29805
ICR Date:	06/28/2007	ICR Type:	Core ICR
Lending Instrument:	APL	Borrower:	REPUBLIC OF INDONESIA
Original Total Commitment:	USD 17.5M, USD 3.1M	Disbursed Amount:	USD 16.9M, USD 2.1M
Environmental Category: B		Focal Area: C	
Implementing Agencies: Ministry of Public Works			
Cofinanciers and Other External Partners: GEF			

B. Key Dates				
Western Java Environmental Management Project - P040528				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	11/15/1996	Effectiveness:	03/28/2002	03/28/2002
Appraisal:	11/13/2000	Restructuring(s):		
Approval:	06/12/2001	Mid-term Review:		10/09/2003
		Closing:	06/30/2005	06/30/2006

GEF-Western Java Environmental Management Project - P068051				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	11/15/1996	Effectiveness:	03/28/2002	03/28/2002
Appraisal:	11/13/2000	Restructuring(s):		
Approval:	06/12/2001	Mid-term Review:		10/09/2003
		Closing:	06/30/2005	06/30/2006

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes	Moderately Unsatisfactory
GEO Outcomes	Moderately Satisfactory
Risk to Development Outcome	High
Risk to GEO Outcome	High
Bank Performance	Moderately Satisfactory
Borrower Performance	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry	Unsatisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Moderately Satisfactory	Implementing Agency/Agencies:	Moderately Satisfactory
Overall Bank Performance	Moderately Satisfactory	Overall Borrower Performance	Moderately Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Western Java Environmental Management Project - P040528			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating:
Potential Problem Project at any time (Yes/No):	Yes	Quality at Entry (QEA)	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA)	None
DO rating before Closing/Inactive status	Moderately Satisfactory		

GEF-Western Java Environmental Management Project - P068051			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating:
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA)	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA)	None
GEO rating before Closing/Inactive Status	Moderately Satisfactory		

D. Sector and Theme Codes		
Western Java Environmental Management Project - P040528		
	Original	Actual
Sector Code (as % of total Bank financing)		
General water, sanitation and flood protection sector	56	56
Other social services	10	10
Solid waste management	34	34

Theme Code (Primary/Secondary)		
Administrative and civil service reform	Primary	Secondary
Climate change	Primary	Secondary
Other social protection and risk management	Secondary	Secondary
Participation and civic engagement	Primary	Primary
Pollution management and environmental health	Primary	Primary

GEF-Western Java Environmental Management Project - P068051		
	Original	Actual
Sector Code (as % of total Bank financing)		
Agro-industry	100	100

Theme Code (Primary/Secondary)		
Climate change	Secondary	Primary
Other rural development	Primary	Not Applicable

E. Bank Staff		
Western Java Environmental Management Project - P040528		
Positions	At ICR	At Approval
Vice President:	James W. Adams	Jemal-ud-din Kassum
Country Director:	William E. Wallace (Acting)	Mark Baird
Sector Manager:	Keshav Varma	Keshav Varma
Project Team Leader:	Richard M. Beardmore	Finn Nielsen
ICR Team Leader:	Richard M. Beardmore	
ICR Primary Author:	Gottfried Roelke	

GEF-Western Java Environmental Management Project - P068051		
Positions	At ICR	At Approval
Vice President:	James W. Adams	Jemal-ud-din Kassum
Country Director:	William E. Wallace (Acting)	Mark Baird
Sector Manager:	Keshav Varma	Keshav Varma
Project Team Leader:	Richard M. Beardmore	Finn Nielsen
ICR Team Leader:	Richard M. Beardmore	
ICR Primary Author:	Gotfried Roelke	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The objectives of the three-tranche Western Java Environmental Management Program are: (a) to strengthen institutionally and economically the local, provincial and regional institutions responsible for waste management and environmental control; (b) to develop local environmental strategies and plans within the national strategy; (c) to increase community awareness and participation in environmental management both at the local government and community levels; (d) to improve waste collection and disposal as well as support activities directed at waste reduction, reuse and recycling; (e) to improve the environmental conditions of a number of specific, high priority localities; and (f) to assist in developing a commercial level composting industry through a grant from the GEF.

The objectives of APL1 were: (a) to lay the strategic framework which will form the institutional and community foundation for sustainable environmental waste management among the participating local and provincial governments; (b) to prepare detailed designs for the investments to be implemented mostly during APL2 and APL3; and (c) to form the basis for reducing Greenhouse Gas (GHG) emissions by establishing commercial scale compost production.

Revised Project Development Objectives (as approved by original approving authority)

Despite the change in the nature of the components, the PDO was not revised. All amendments to the legal documents were judged to be within the spirit of the original PDO.

Global Environment Objectives (from Project Appraisal Document)

To form the basis for reducing Greenhouse Gas (GHG) emissions by establishing commercial scale compost production. (That is, to establish large scale enterprises that can operate as a “going concern” – ICR author comment).

Revised Global Environment Objectives (as approved by original approving authority)

No revision

PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1:	Development of key policies, including establishment of landfill advisory committees, community environment facilities			
Value (quantitative or Qualitative)	All 25 TORs established	Jabotabek & Bandung Waste Mgmt. Master Plans, hospital waste program, compost grant allocation prog. all finalized		100%
Date achieved	06/30/2001	06/30/2006		
Comments (incl. % achievement)				
Indicator 2:	Jabotabek and Bandung Waste Mgmt. Corporations established and operations funded partially by revenues generated from transactions			
Value (quantitative or Qualitative)	Corporations to be established	Corporations established and operating		No established regional bodies
Date achieved	06/30/2001	06/30/2006		
Comments (incl. % achievement)				
Indicator 3:	At least 50% of PLGs operating landfills have selected at least one landfill and established for that landfill a neighborhood advisory committee (LNAC), meeting regularly			
Value (quantitative or Qualitative)	0	At least 50%		Fully achieved
Date achieved	06/30/2001	06/30/2006		
Comments (incl. % achievement)				
Indicator 4:	At least 50% of PLGs's solid waste net revenues have increased by 20% over FY01 net revenues			
Value (quantitative or Qualitative)	None	50%		Fully achieved
Date achieved	06/30/2001	06/30/2006		
Comments (incl. % achievement)	In DKI Jakarta, a political decision was made not to charge user fees for solid waste management at all; in Kota Cirebon, the municipal accounting system was changed, and the current and previous revenue figures are no longer comparable.			

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 5:	Annual State of the Environment Reports (ASER), acceptable to Bank, are prepared by PLGs			
Value (quantitative or Qualitative)	0	at least 8 annually		Fully achieved
Date achieved	06/30/2001	06/30/2006		
Comments (incl. % achievement)				

(b) GEO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1:	Production and marketing of 200 tons per day of additional quality compost			
Value (quantitative or Qualitative)	0	60,000 tons over life of project	200 tons per day	218 tons per day
Date achieved	06/30/2001	06/30/2006		
Comments (incl. % achievement)	Target achieved with substantially less funding than was made available by GEF			

(c) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1:	Establishment of 1,000 community environment sub-projects			
Value (quantitative or Qualitative)	0	1000 sub-projects established		420 identified/ 42 implemented
Date achieved	06/30/2001	06/30/2006		
Comments (incl. % achievement)				

G. Ratings of Project Performance in ISRs

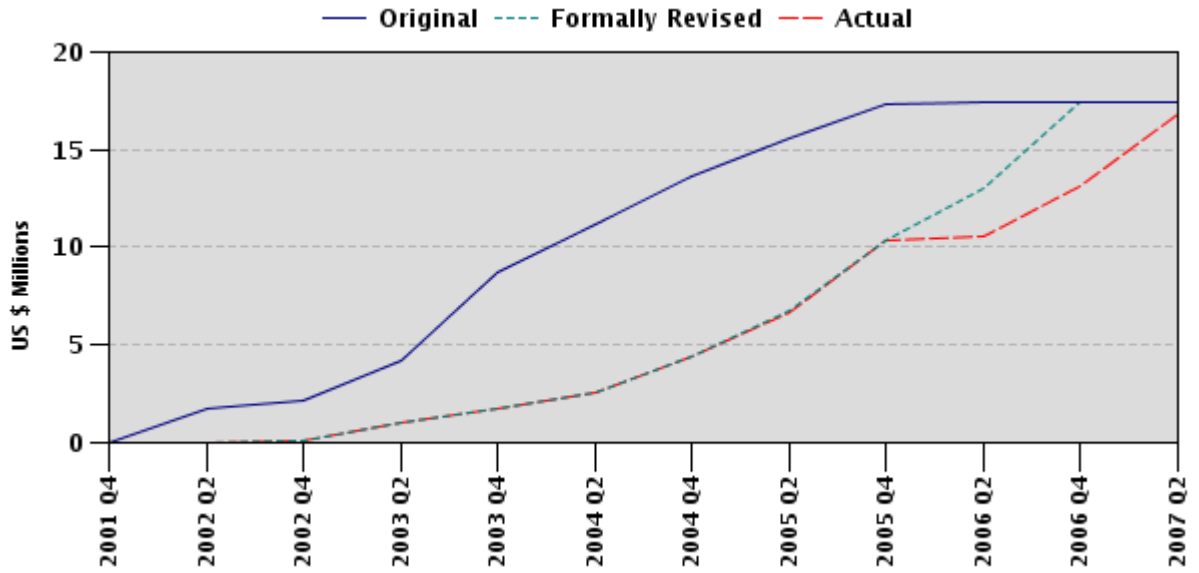
-						
No.	Date ISR Archived	DO	GEO	IP	Actual Disbursements (USD millions)	
					Project 1	Project 2
1	06/20/2001	S	S	S	0.00	0.00
2	12/13/2001	S	S	S	0.00	0.00
3	04/30/2002	S	S	S	0.12	0.00
4	08/12/2002	S	S	S	0.99	0.00
5	02/25/2003	S	S	S	0.99	0.13
6	06/18/2003	S	S	S	0.99	0.13
7	12/10/2003	S	S	S	2.60	0.13
8	04/08/2004	S	S	S	3.39	0.21
9	07/22/2004	S	S	S	4.42	0.21
10	12/01/2004	S	S	S	6.72	0.36
11	06/24/2005	S	S	S	10.38	0.60
12	03/28/2006	MS	MS	S	11.85	1.06

H. Restructuring (if any)

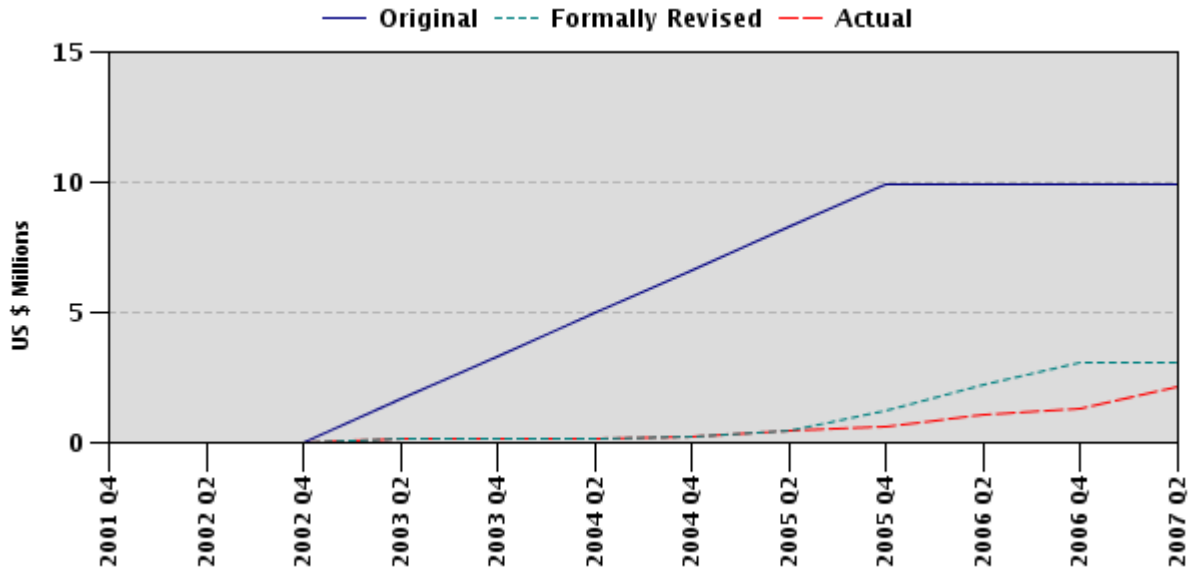
Not Applicable

I. Disbursement Profile

P040528



P068051



1. Project Context, Development and Global Environment Objectives Design

1.1 Context at Appraisal

The Western Java Environmental Management Project (WJEMP) was one of the GOI's responses to National "Agenda 21". The WJEMP aims to: (i) increase environmental awareness by government agencies and the public; (ii) institutionalize sustainable improvements in environmental management; and (iii) reduce environmental pollution in the project area. The ultimate goals of the program are to improve living conditions and improve Indonesia's international competitiveness. A critical priority is improving urban environmental management and service delivery. Therefore a three-phase adaptable program loan (APL) was proposed where APL1 would focus heavily on required policy development and management improvements. Achieving these improvements would be a pre-requisite (trigger) for implementation of APL2. The three (3) phases of the APL were designed as follows:

APL1: Environmental Framework, and Preparation.

APL2: Implementation of Environmental Programs

APL3: Consolidation of Service Delivery

1.2 Original Project Development Objectives (PDO) and Key Indicators

The APL1 objectives are to: (i) lay the strategic framework which will form the institutional and community foundation for sustainable environmental waste management among the participating local and provincial governments; (ii) prepare detailed designs for the investments to be implemented mostly during the subsequent two phases; and (iii) form the basis for reducing greenhouse gas (GHG) emissions by establishing commercial scale compost production (PAD, page 3).

Key *policy* indicators for the APL components only (i.e., excluding GEO) focused on the successful development and adoption/implementation of key policies, including (i) policies on hospital waste management; (ii) landfill advisory committees; (iii) community environment facilities; (iv) establishment of regional corporations with local funding; (v) an environmental awareness campaign; (vi) public review of annual 'State of Environment' reports; and (vii) carrying out detailed engineering design of subsequent components.

The key *physical* indicator related to the APL1 objective was the establishment of 1,000 community environment sub-projects, known as "green KIP" projects through participating local governments under what came to be known as the Community Environment Facility.

A key *social* indicator was assistance to be provided to some 7,000 waste pickers.

1.3 Original Global Environment Objectives (GEO) and Key Indicators (as approved)

Demonstrate GHG emission reduction through sustainable composting operation.

The GEO objective was stated twice in the PAD: first, as an objective of the PDO for the APL1; and, second, as an objective in its own right under the GEO. Both statements call for the establishment of sustainable commercial operations. The GHG objective was to be (i) large scale; (ii) commercial (not experimental) in scale; (iii) sustainable, i.e., financially viable; and (iv) could be run by both the private sector and municipalities. The GEF funding was to support the piloting of a project to scale up the production of compost from a neighborhood activity to a commercial level with marketing as an agro-chemical product.

The key indicator was the production of 60,000 tons of compost during the project period. There was no specific indicator for the institutional development objective.

1.4 Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification

Despite the change in the nature of the components, the PDO was not revised. All amendments to the legal documents were judged to be within the spirit of the original PDO

1.5 Revised GEO (as approved by original approving authority) and Key Indicators, and reasons/justification

No revision to GEO.

The target of producing compost was revised from 60,000 tons over the project period to 200 tons per day in order to simplify monitoring of amount of compost produced.

1.6 Main Beneficiaries

The PAD states that the project's key beneficiaries were to be 4.5 million urban poor in Western Java. In addition, specific targeted efforts were to be provided for about 350,000 people through programs for waste pickers. The latter sub-component "Support to Waste Pickers" was dropped from the program in 2003, in favor of increased resource allocation to flood control issues for Jakarta. Through the implementation of community environmental facilities (CEF), a sub-group of the urban poor was effectively identified as beneficiaries of special efforts.

1.7 Original Components

The original design of APL1 included three categories of intervention covering the following components. To meet the overall objective of the WJEMP, the first stage APL1 had the following design features: (i) Urban Environmental Strategy – This was a framework consisting of a National Urban Environmental Strategy (NUES) as the foundation for more detailed and region-specific Provincial Environmental Strategies

(PES) for Banten, DKI, and West Java. Within this framework, the participating local governments (PLGs) prepared their individual local environmental strategies LES; (ii) *Community Awareness* – At the LG level, each PLG established a Local Environmental Forum (LEF), a Landfill Neighborhood Advisory Committee (LNAC), and nominated one school to participate in the Green School Program. At the central government level, specific projects were undertaken to increase community awareness, including a national environmental awareness program by KLH, and a national environmental education curriculum and program by Diknas, and the Community Environmental Facility (CEF); (iii) *Reduction of Environmental Pollution* – This component had a number of solid waste management sub-projects through the establishment of Regional Solid Waste Management Corporations (JWMC and GBWMC) and through the DKI solid waste management sub-project; the small and medium industries waste management sub-project; regional flood management through the Bopunjur drainage sub-project; the DKI flood management and micro drainage sub-project; the medical waste sub-project; emergency preparedness sub-project; individual solid waste management, drainage, and wastewater sub-projects at the nine PLGs, and reduction in green house gas production through the compost production subsidy sub-project.

1.8 Revised Components

Over the course of implementation of APL1, there were four formal amendments to the Loan and Credit Agreements. These related to modifications in the scope of the project covering (i) deletion of four DKI projects; (ii) inclusion of substitution projects; and (iii) accommodation of physical implementation under CEF, and demonstration landfill projects. Subsequently, there was an extension of the closing date of the Loan and Credit Agreements. The details are itemized in the following table.

Amendment	Date	Covering
#1	27 March 2002	Expecting DKI Jakarta to pass resolution supporting its participation in the Project
#2	8 April 2002	Deletion of 6 DKI sub-projects and inclusion of 4 DKI sub-projects covering solid waste management and micro drainage
#3	25 November 2004	Amend the Credit Agreement to provide sub-grants for the implementation of CEF sub-projects and for compost plants in Cirebon, Kab. Bandung and Kab. Serang, and a model landfill in Depok
#4	10 June 2005	Extending the loan closing date by one year, to 30 June 2006

At the start of the APL1, several sub-projects were deleted or restructured. The reasons for the restructuring were (i) a general policy decision by LGs to defer construction to APL2 (or post APL1) subject to the completion of the feasibility studies; (ii) the revised priorities of DKI to focus more on solid waste management and micro-drainage resulting in new sub-projects; and (iii) revised priorities in respect to Cirebon 1-6. The replacement of sub-projects DKI 3-2, 3-7, DKI 3-3, DKI 3-4, and DKI 3.5DKI 3.5b by

sub-projects dealing with drainage management plans, drainage action programs, solid-waste management master plans and action plans for solid waste management in DKI was motivated by the large flood that occurred in 2002 (Annex 2). Government priorities changed as a result of the flood and thus assistance to waste pickers was dropped from the program, among other sub-projects. While this may seem to be a capricious act on the part of GOI, one can assume that they were acting for the greater good of the whole of DKI. It is to be noted that though the studies were completed, no investment as a result of these studies took place and a flood in 2006 repeated the impact of the flood of 2002. Both the waste pickers and the greater population of DKI became the victims of GOI inaction.

As far as the impact on the PDO is concerned, the changes in project components did not undermine the development objectives in that the new components were supportive of the laying of a strategic framework for improved environmental management, specifically with regard to flood prevention and solid waste management.

1.9 Other significant changes

None

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design, and Quality at Entry

A key factor affecting the implementation of the project was the inclusion of a large number of central, provincial and local bodies in the project, creating a degree of complexity that plagued the preparation and design of the operation. Being primarily a technical assistance project, the large number of studies had to be assigned to the correct institution. The poor quality of the project appraisal document, with its gaps and internal inconsistencies, attests to the difficulty the preparation team had in defining the various components of the project with the correct institutional framework. The resultant PAD reflects a low quality at entry. The PDOs defined in the PAD do not correlate well with the log-frame in Annex 1, giving rise to confusion about what is to be achieved, what indicators should be monitored, and what final outcomes are expected. The complexity led to a slow start-up where fewer than half of the studies were under way half way through the project. A significant factor affecting implementation of the project was the sudden introduction of GOI's decentralization policy. Rolled out without the necessary detailed guidance notes, decentralization sowed confusion among the provincial and district levels of government with regard to reporting relationships, levels of review, procurement, and financial procedures. Were it not for the Central Project Support Unit (CPSU), it is unlikely that the degree of success in completing the studies would have been achieved.

2.2 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

Monitoring and evaluation of the implementation of TA assignments, and of project implementation progress in general, were basically in the hands of the CPSU, with support from the CPSU advisory consultant. Information was collected from the PLGs through their LPSUs and through the PPSUs. This design proved fully adequate and

yielded the necessary feedback for management. Most of this feedback was adequately used, but it appears that the higher management levels, especially within the Executing Agency, did not fully grasp the imminent difficulties in achieving some of the planned project outcomes.

Specifically for the monitoring of quantities and qualities of compost production, MoE established a National Compost Technical Team whose findings are the basis for the outcome assessment of the composting activity in this report.

2.3 Implementation

A key factor affecting implementation was the delay in mobilizing the CPSU Advisory Consultant. In the period between negotiations of the loan in May 2001 and launching of the project, a 'Bridging Consultant' provided continuity of support to the Executing Agency. From January 2003, the CPSU Advisory Consultant was in place and could support the CPSU with management of APL1 implementation. The primary impact of this delay was a concomitant delay in the start-up of the studies. The actual start-up occurred close to the half way point of the project implementation period. However, 50% of the studies had commenced in the first 12 months of the Advisory Consultant's assignment. The other factor of note is the spread between the first start, the fiftieth percentile start, and the last start of the studies. It was observed that once the CPSU Advisory Consultant was mobilized, there was a more rapid procurement of some of the studies, but there were some studies that required a protracted procurement process. The last studies of APL1 were mobilized in the final 25% of the time available in the loan. This was one contributing factor in the requirement for an extension of the APL1 loan from 20 June 2005 to 30 June 2006.

2.4 Safeguard and Fiduciary Compliance

As there was little physical implementation planned during APL1, compliance with social and environmental safeguards was not envisaged in the project design. With the inclusion of some civil works and the procurement of heavy earthmoving equipment, there occurred the need for environmental and social safeguards. GOI was made aware of the need for mandatory safeguards during a supervision mission. All works were carried out in compliance with the social and environmental safeguards, i.e., EIA (AMDAL) was prepared for three composting plants and EMP (UKL/UPL) was prepared for CEF. The composting plants went through Initial Environmental Examinations, and were followed by EMPs (UKL/UPL), which were completed by the local governments. The demonstration landfill in Depok did not have an EIA because it was an extension of an existing and operating facility. The CEF projects were screened with the Initial Environmental Examinations. All of these were below the threshold for EMP (UKL/UPL) because of the nature and size (<US\$15,000) of the proposals.

Regarding fiduciary compliance, there was a case of flawed TA procurement in Kota Cirebon, but this was resolved through a re-evaluation and careful follow-up.

2.5 Post-completion Operation/Next Phase

Only relatively few physical facilities were created under the project. These were mainly CEF, composting facilities in three PLGs, a demonstration landfill in another PLG, and a few items of equipment for solid waste handling. Operation and maintenance (O&M) of the CEF is to be handled by the local communities, and revenue collection mechanisms for this purpose were put in place. The composting facilities, the demonstration landfill, and the solid waste handling equipment are to be operated and maintained by the concerned PLGs with funds from their annual budgets, through fund allocations to their relevant local line agencies.

The envisaged waste management corporations have yet to be established, and their working mechanisms (including required resources) have yet to be determined. Likewise, the envisaged waste management plans do exist as drafts but have yet to be endorsed by the relevant LGs¹ before they can be considered valid. The existence of both endorsed management plans and established organization, triggers for proceeding to APL 2, will be required before the construction of physical facilities can begin.

The waste composting operations, initiated by the project and conducted by private sector entities, shall be continued and expanded. With the end of the subsidies provided by the project, some compost producers have reportedly reduced or ceased their production, but others have reportedly continued or even expanded it. With this, there has effectively been a consolidation process which may in fact enhance the sustainability of the operations.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

Throughout the project period, the project development objectives remained relevant and consistent with global priorities, country priorities, and the Bank assistance strategy for Indonesia. Implementation arrangements, though complex, were adequate as there were no changes in the institutional set-up, including the roles of civil society and the private sector. This applies to both the PDO and the GEO.

The project design was suitable for the purpose and the framework conditions prevailing at the time of appraisal. The identification and assessment of the nine-year program as a whole was valid, and its sub-division into three phases, to be supported by a total of three APL-type loans, was appropriate. The deficiencies in eventual project implementation, especially the non-attainment of some important outcomes, could probably not have been avoided through a different project design.

¹ In the Greater Bandung Region, this shall include LGs that were not PLGs under APL1. See Additional Annex 11 for more details.

During the period from 2003 to June 2006, the first stage APL1 was successfully implemented by the three (3) provinces of Banten, West Java and DKI, and by the nine (9) participating local governments (PLGs), Kabupatens Serang, Bandung, Bekasi and Kota Tangerang, Depok, Bandung, Bekasi, Bogor and Cirebon. In addition, kabupaten Bogor is participating in the proposed Jabodetabek Waste Management Corporation and the kabupaten of Sumedang, Garut, and Kota Cimahi are participating in the proposed Greater Bandung Waste Management Corporation (GBWMC). A key feature is that the environmental management framework and the community participation and awareness components have been established as designed and their first stage objectives have largely been achieved. This is the essential first stage for the sustainability component of WJEMP.

3.2 Achievement of Project Development Objectives and Global Environmental Objectives

PDO (a) to lay the strategic framework which will form the institutional and community foundation for sustainable environmental waste management among the participating local and provincial governments.

With regard to provincial and local environmental strategies, environmental awareness programs, community advisory groups, environment-related activities in schools, a satisfactory outcome was achieved on the basis of successful delivery of technical reports and the implementation of some of the institutional arrangements. The endorsement of these outputs by the relevant government entities was crucial for outcome attainment. Some key objectives of the PES are being translated into more binding legal forms: a provincial ordinance on conservation areas is about to be passed, and another provincial ordinance on air pollution control is planned. Provincial government plans to protect water resources more effectively, both through limiting the abstraction of groundwater and through propagating waste water treatment plans, to protect surface water bodies from further pollution. Further evidence of the perceived benefit of the LES is the news that those LGs of Banten Province that had not participated in APL1 have expressed strong interest in preparing an LES like those of the PLGs of APL1. This indicates the successful institutional impacts and the welcome spreading effects and renders this part of the project satisfactory.

A less than satisfactory outcome has been reached with regard to the creation of regional waste management bodies and the approval of waste management plans, two important triggers for proceeding with APL2. This is despite the successful delivery of the planned outputs in the form of studies and draft documents prepared by consultants. This unsatisfactory situation arose from a combination of two factors: (i) the critical assumptions for this component (“sufficient political commitment, sufficient cooperation between LGs, etc.) did not hold true; and (ii) the administrative and legal hurdles were grossly under-estimated at the time of project appraisal.

PDO (b) to prepare detailed designs for the investments to be implemented mostly during APL2 and APL3

The preparation of 14 investments for implementation under a future APL activity was partially completed. Environmental and land acquisition activities remain to be completed. The delay in preparing LARAPs can be explained by the uncertainty surrounding the question of whether a follow-up investment would go ahead. This outcome was satisfactory as the design products form a suitable basis for investment.

The establishment of a Community Environment Facility was a project sub-component that focused on the improvement of urban environment facilities, with an emphasis on increasing public awareness through active participation of local communities. Its sectoral focus covered local environmental infrastructure elements, such as local drains, communal toilets, solid waste disposal facilities, communal composting facilities/activities, communal sanitation facilities, etc. A total of 420 local environmental facilities were identified of which 42 were established.

PDO (c) to form the basis for reducing Greenhouse Gas (GHG) emissions by establishing commercial scale compost production.

The GEF sponsored compost production component was successful in that it achieved more than the target required (218 tons per day vs. 60,000 over the project period). GOI also reports that, with the end of the project and the expiry of the subsidies, a consolidation process in compost production is setting in. Some smaller producers may have reduced or even stopped production, but the shortfall is largely compensated by production increases at bigger producers. Such consolidation may actually be an advantage for the sustainability of the whole component, as marketing in large quantities from a small number of producers is likely to be more efficient (and thus sustainable) than supply and marketing of small quantities from numerous scattered sources. Also, it is encouraging that compost producers have now established a communication forum to articulate common concerns, and to exchange information and experiences. A chronic problem for the propagation of composting has been difficulties encountered in commercial marketing. This was identified as a main bottleneck. However, the marketing problems do not affect all producers equally. GOI reports that some producers have established well functioning marketing channels.

Nevertheless, it cannot be said that the composting industry has been put on a commercial scale. That is, there are no commercial entities which have made a “going concern” with sustainable production and sales. Therefore while the output target was obtained, the required outcome was not. The economics of compost production may preclude there ever being an unsubsidized industry. In that sense, the objective may have been unrealistic from the start. The component is rated as moderately satisfactory because of the short-term success of the compost production activity, despite not attaining the institutional outcome.

Achievement of Triggers

Achievement of triggers to proceed with APL2 is summarized as follows (Details in Additional Annex 11):

- (a) Jabotabek Waste Management Corporation (JWMC) and Greater Bandung Waste Management Corporation (GBWMC) have been established and their operations are funded partially by the revenues generated from their transactions (not met in full);
- (b) Each participating local government (PLG) has selected at least one landfill and established for that landfill a neighborhood advisory committee that meets regularly (met in full);
- (c) The funding arrangement between the central government and local and provincial governments has been established for APL2 and APL3 activities, including the ratio of grant/counterpart matching fund levels (not met);
- (d) PLGs' solid waste net revenues have increased by at least 20% over FY2001 net revenues (met in all but two PLGs);
- (e) Waste management master plans for Jabotabek and Bandung regions have been updated, agreed and publicly vetted. Environmental impact assessments, consistent with IDA environmental assessment requirements and operating plans exist for all operating and proposed landfills (plans prepared but not approved);
- (f) At least eight annual “State of the Environment” reports (ASER), acceptable to IDA, have been prepared by the PLGs (met in full); and
- (g) An aggregate of at least 60,000 metric tons of quality, certified compost has been produced.” During project implementation, this trigger condition was revised to ‘200 metric tons of quality, certified compost per day’, effectively an increase over the previous target (met in full).

3.3 Efficiency

The PAD states that a discrete economic analysis did not apply for APL1 because APL1 includes only a few physical investments and rather sets the strategic framework, strengthens the institutions, and prepares the feasibility studies and detailed designs for the investments to be undertaken mainly in APL2 and APL3. However, given that a total of nearly US\$19 million was made available for the project activities, it could be argued that similar results could have been achieved with less money, a simpler design and better alignment between outcomes, components and indicators. The Borrower did raise the point that TA for the support of such political processes should be provided in a more suitable modality. The typical TA design (“high intensity – short duration”) may be suitable for the preparation of studies, but less so for advice accompanying ongoing political processes where a “low intensity – long duration” model would be much better. Adopting this approach would have made for a more efficient and effective impact of the TA.

3.4 Justification of Overall Outcome and GEO Outcome Rating

<i>PDO</i> <i>Rating:</i>	<i>Outcome</i>	<i>Moderately</i> <i>unsatisfactory</i>	<i>GEO</i> <i>Rating:</i>	<i>Outcome</i>	<i>Moderately</i> <i>satisfactory</i>
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The completion of 25 highly technical studies represents the most successful outcome of the non-GEF components of the project. Most reports were prepared to a high standard

(only six (6) were non-effective) and many were used as the basis for action during the project period. The Community Environmental Facility was also a success with over 420 facilities identified. Draft solid waste management plans exist and are being used as reference documents. Agreement on pre-corporate versions of the Waste Management Companies was reached. However, the failure to fully achieve the key triggers for APL2 (establishment of regional companies and approved SWM plans) compels the overall rating for the non-GEF components as moderately unsatisfactory.

The GEO was always very relevant and the output meets requirements set up at the beginning of the project, with higher-than-anticipated efficiency (lesser resource consumption than had been planned), and with the hoped-for degree of widespread private sector participation. The overall outcome of establishing commercial scale compost production was not achieved. Therefore, the GEF component is rated as moderately satisfactory.

While Bank supervision teams regularly gave the project a satisfactory rating in the ISR, a closer examination of the achievements of the project was made during the last supervision mission. The lack of progress in achieving the key triggers, and little prospect of further progress during the remaining project period, was the significant factor that led the team to down grade the rating to MS for the first and last time..

3.5 Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects, and Social Development:

Being largely confined to TA activities, the project had little direct impact on poverty or gender issues, or wider social development issues (land acquisition, resettlement, or similar). The composting component had some, very limited, social impact: it created a number of new job opportunities for unskilled and semi-skilled persons of either gender. The CEF sub-component benefited especially the urban poor, without gender discrimination. No social group was put at any disadvantage by the project.

(b) Institutional Change/Strengthening:

The provincial and local environmental strategies were prepared with a high degree of public participation. Some of their recommendations have been, or are being, transformed into legally binding regulations. Besides this, a great deal of public interest in them has now been generated. Both these factors point to likely positive longer-term impacts.

The environmental awareness campaign and the special environmental school education campaign have considerably raised the awareness, in the PLGs and in society at large, about the importance of proper environmental planning and management, as had been intended.

Through appropriate technical assistance, the CPSU, the PPSUs, and the LPSUs have been supported and strengthened to a point that they could fulfill their tasks under the

project. The human resources of MPW will now be more able to handle similar project activities in the future.

The study for medical waste handling has been recognized by MoE as exemplary, and it has been used to guide other provincial governments (e.g., of East Java) in corresponding efforts.

The project was meant to be a catalyst for galvanizing political commitment, including cooperation between LGs. The lack of political commitment and cooperation between LGs, together with organizational and legal complexities and uncertainties, are the main reasons for the less than satisfactory outcome of the Solid Waste Management Component.

(c) *Other Unintended Outcomes and Impacts:*

Beyond the project's expectations, some PLGs and some private hospitals have already begun to put into practice the recommendations of the hospital waste management plan. They have purchased and installed a number of incinerators whose proper operation is supervised by the local environmental agencies with support from MoE.

Those LGs of Banten Province that had not participated in APL1 have expressed strong interest in preparing local environmental strategies like those of the PLGs because they are confident about the usefulness of such strategies. This indicates the successful institutional impacts and the welcome spread effects at the outcome level.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

No formalized beneficiary surveys were undertaken. However, an indication of active support by the beneficiaries is the successful formation of neighborhood advisory communities around existing landfill sites. This was a trigger condition for APL2, and it has been attained in all PLGs except Kota Tangerang.

Other indications of high benefit are the commitment shown by local communities in the implementation of the CEF sub-component and the continued use of the facilities provided through this sub-component.

Two big final stakeholder workshops were implemented. One was the Urban Environmental Infrastructure Forum, held in Bandung in February 2006, the other was the Workshop on Results and Continuation of WJEMP, held in Jakarta in June 2006. In both workshops, GOI and the PLGs expressed their willingness to continue applying the results of the environmental strategies, to continue the environmental education program, and to continue the waste composting program. Also, the readiness for private sector participation was expressed, but statements on the formation of new waste management organizations were rather vague. More details are given in Annex 6.

In addition, numerous workshops were held in the course of the various TA assignments. Thus, a wide range of various stakeholders was involved in project implementation over a fairly long period of time.

4. Assessment of Risk to Development Outcome and Global Environment Outcome

<i>Risk to Development Outcome Rating:</i>	<i>High</i>	<i>Risk to GEO Outcome Rating:</i>	<i>High</i>
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The risk to fully realizing the PDO is rated as high because of the failure to establish the regional entities, the lack of approved SWM plans and no resolution of the funding mechanism for sub-national entities. The reason for this failure is a mix of organizational and legal complexities and uncertainties, as well as political difficulties that have especially impeded the formation of new waste management organizations, but also the endorsement of the draft waste management master plans. Indications of political will are mixed, with political will apparently increasing in some government entities but decreasing in others. At the time of writing this ICR, the prospects for a clear and universally accepted fund flow mechanism getting defined by GOI are emerging. The related risks had been rated as “High” in the PAD. In this evaluation, this rating is retained.

The GEO has been partially realized, and the risk to maintaining it is rated as high. Difficulties in marketing the compost as an agricultural input commodity and the absence of a concept for using it otherwise do pose risks, and the impact on the GEO of a major decrease in compost production would be severe. The risk rating is high.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) *Bank Performance in Ensuring Quality at Entry:*

<i>Rating:</i>	<i>Unsatisfactory</i>
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The Bank’s performance in project identification was moderately satisfactory. WJEMP is consistent with the Bank's Country Assistance Strategy (CAS), which had been developed jointly with GOI. A sector of high relevance and a region where these sectoral problems were most pressing were identified correctly, both at that time as well as in hindsight. The correct identification is confirmed by the fact that no provincial or local government dropped out from the project during APL1.

The Bank’s performance in preparation assistance was moderately satisfactory. However, total project preparation required 24 months (against the planned eight (8) months), and loan effectiveness slipped from May 2000 to August 2001. This discrepancy was not a result of poor work performance by the team, but rather a result of unrealistic planning.

It should have been foreseen that the preparation of such an innovative and complex program (involving the central government, then two (2) provincial administrations (DKI Jakarta and West Java, and nine (9) LGs) could not be completed within eight (8) months. Amongst others, obtaining the necessary endorsement and commitment from provincial parliaments, e.g., in DKI Jakarta, was very time consuming.

The Bank's performance in appraisal was unsatisfactory. A clear and seemingly feasible work program was determined, the actors for its implementation were appropriately identified, and adequate resources were allocated. However, the lack of clarity and internal consistencies in the PAD indicate a failure to grapple with the complexity involved in the project concept. The political and institutional difficulties of establishing the envisaged new waste management corporations were gravely underestimated. The Bank may not have allocated sufficient resources for the preparation of these documents, as would have been required in view of the extraordinary complexity of this program.

(b) *Quality of Supervision:*

<i>Rating:</i>	<i>Moderately Satisfactory</i>
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The Bank's performance in supervision was moderately satisfactory. During the four and one-half years of project implementation, ten supervision missions were conducted, i.e., one supervision mission roughly every five months. However, the quality, continuity, and consistency of supervision suffered from frequent replacement of task team leaders. Moreover, the TTLs were mostly HQ-based.

To enhance the quality of supervision, the Bank introduced a new supervision method, beginning in August 2004. From then on, the CPSU and their advisory consultants met regularly (bi-weekly) with the relevant WBOJ staff, so that many issues could be resolved "in real time" and not be "kept on the shelf" until the next formal supervision mission.

The report of the CPSU for the mid-term review clearly flagged the difficulties (both experienced and anticipated) in getting the new waste management corporations established and the waste management master plans endorsed, and it flagged the implications that delays on these issues would have for the preparation of APL2. From the first supervision mission both the Bank team and the Government fully recognized that the creation of regional solid waste companies was the most difficult trigger to be met. Each time the mission visited Indonesia the issue was discussed with MPW and the Steering Committees. The mission also raised this issue to top policy makers, including the Vice Governor of Jakarta and the Vice Governor of West Jawa Province. This issue was also discussed at various workshops. The study tour to Malaysia was also organized for the key persons involved to learn the experience of Malaysia. These efforts achieved some success, i.e., signing of an MOU for the establishment of JABOTABEC solid waste management corporation by all of the provinces including Jakarta, except one which opted for private investment. In addition, the Bandung participants eventually signed to establish the regional solid waste management agency.

(c) *Justification of Rating for Overall Bank Performance:*

<i>Rating:</i>	<i>Moderately Satisfactory</i>
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While the project's quality at entry was unsatisfactory, the project delivered almost all outputs as planned. However, the purpose of APL1 was eventually only achieved to a limited degree, and the most important triggers for APL2 were not fully met. This has introduced a hiatus between APL1 and the prospective APL2. This is mainly the result of insufficient political support on the Borrower's side.

5.2 Borrower Performance

NOTE: When the government and implementing agency are indistinguishable, provide rating and justification only for Overall Borrower Performance.

Click here if the Government and the Implementation Agency is the same or indistinguishable

(a) *Government Performance:*

<i>Rating:</i>	<i>Moderately satisfactory</i>
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The Government of Indonesia (GOI), although apparently performing below its potential during project preparation, handled overall project management in a generally satisfactory manner. Adequate financial and human resources were allocated to the project, and support to the project's technical activities was generally good. With Indonesia's emphatic decentralization policy being implemented since 2001, most of the responsibility for implementation rested with provincial and LGs, and their failure to mobilize sufficient political commitment (to transform the project outputs into outcomes) cannot be held against GOI. Even so, GOI's reluctance to accept a clear share of the overall responsibility for the establishment of the waste management corporations was one contributing cause to the failure to get these corporations established. Also, GOI has so far not presented a suitable funding model/fund flow mechanism that outlines the involvement of multilaterally owned organizations like the envisaged new waste management organizations

(b) *Implementing Agency or Agencies Performance:*

<i>Rating:</i>	<i>Moderately satisfactory</i>
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At the working level, most technical agencies delivered a moderately satisfactory performance. There were variations in implementation quality between the various agencies (four at the central level, three provincial administrations, and nine PLGs). Several implementing agencies were rather slow in the procurement of their respective TA assignments, which was one cause for the need to extend the project implementation period. However, the main project activities were eventually implemented without major

problems or disruptions, and most of the planned outputs (except those that were cancelled in agreement with the Bank) were achieved in adequate quality.

All implementing agencies allocated adequate financial and human resources to the project, and technical support to the project's technical activities was generally good. During a procurement workshop in April 2004, the project's performance in procurement was rated as satisfactory, because (i) the procurement plan is available and updated; (ii) no major procurement delays, (iii) procurement complaints are followed up on a timely manner; and (iv) each sub-project (including CPSU) is equipped with a staff with procurement knowledge and experience

(c) *Justification of Rating for Overall Borrower Performance:*

<i>Rating:</i>	<i>Moderately satisfactory</i>
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This rating takes into consideration that (i) many outputs have been achieved as planned, mainly in the form of consultant studies, reports etc., and (ii) outputs and outcomes of related to the GEO are rated as highly satisfactory. However, the outcome of related to key triggers for APL2 was unsatisfactory

6. Lessons Learned, Scope and Coverage

6.1 Procurement

There were many delays in the early phase of the project, and these can be traced back to essentially three issues, namely:

- (a) the lack of a facility for bridging advisory services to the Project Support Units at all levels, i.e., advisory TA services that would support these units during the procurement processes which included the procurement of the final TA assignment, "Advisory Services to CPSU";
- (b) discrepancies² between the consultants' ToR defined during the appraisal process and the perceived "real need" for TA work; and
- (c) difficulties experienced by the implementing agencies in correctly using the Bank's procurement guidelines and standard procurement techniques.

To overcome the first problem in the future, project appraisals should be more pro-active in anticipating the need for bridging advisory services to the Project Support Units. In the case of WJEMP (as in most projects), no such bridging advisory services were provided for in the PAD. However, a project with such a high number of envisaged implementing agencies would probably experience a much smoother start-up if such

² See, e.g., Aide Memoire of the November 2004 supervision mission.

services were planned from the start and made available more or less immediately after loan effectiveness, using simplified procurement techniques.

To overcome the second problem, it might be recommendable to hold very intensive consultations between the Bank team (e.g., appraisal team), the Executing Agency, and the implementing agency as early as possible. As resource consumption for this activity would be insignificant, it could be conducted immediately after loan effectiveness, or possibly even before that, independently from budget approvals. On such an occasion, a totally clear picture should be worked out on (a) the ToR to be used for the procurement process, and (b) the mechanism to be used for amending the scope of work, if and when required, with a maximum degree of efficiency and speed, yet still in line with all regulatory requirements.

To overcome the third problem, the implementing agencies should ensure that they only appoint staff who are professionally qualified for, and sufficiently experienced in, procurement using World Bank procurement guidelines and standard procurement techniques to the tender committees. In addition or alternatively, implementing agencies should conduct training/refresher training for the staff of the tender committees, with the assistance of relevant World Bank staff.

6.2 Assessing political commitment; initiating and supporting political processes

A major problem for project implementation was the very slow pace of acquiring the necessary political action toward the establishment of the new waste management organizations, not to speak of their longer-term maintenance. Whilst the PAD does recognize these risks and rates some of them as “high”, the employed mitigation strategies have proven insufficient.

Among the risks rated in the PAD as “high” are the following: (i) sufficient political commitment and professional capacity to maintain the waste management organizations; (ii) sufficient cooperation between local governments, community groups, and local councils; and (iii) political support. The stated mitigation strategies are (i) agreement from governments is part of loan effectiveness and support for the policy has been obtained from central and provincial agencies; and (ii) maintaining the high level of local government ownership. Neither strategy has proven sufficiently effective. The political support proclaimed by the central and provincial agencies at project start-up has not led to really decisive action and the factual establishment of new waste management organizations.

Future project preparation processes should outline significant reform milestones to be achieved by the GOI before project appraisal, thus locking in progress on key issues which demonstrate borrower commitment to the project objectives.

6.3 Efficient Use of Technical Assistance

TA for the support of political processes should be provided in a more suitable modality. The typical TA design (“high intensity – short duration”) may be suitable for the preparation of studies, but less so for advice accompanying ongoing political processes where a “low intensity – long duration” model would be much better. The decisive

meetings with high-ranking political decision makers cannot be scheduled a long time in advance; in fact, they often get rescheduled with short notice. Full-time external consultants, however highly qualified and expensive, may be rather ineffective as a result of this, and a model of part-time consultants in a retainer modality may actually serve the purpose better.

6.4 Inter-Agency Coordination

The APL1 incorporated some six central government ministries, three provincial administrations and 14 local governments. The coordination task in implementing 25 TA assignments and seven physical works assignments shared between these implementing agencies stretched the capabilities of all agencies and personnel involved. Invariably the implementation of the APL1 was hindered because of the complexity of the coordination across the large number of implementing agencies. Future projects should be less complex.

6.5 Scope and Coverage

The scope of APL1 originally included air quality, in addition to the SWM components, compost production, environmental strategies, wastewater management, drainage and flood control, medical waste, emergency preparedness, environmental education and environmental awareness. While the air quality component was dropped from APL1 at the start of implementation, as explained in Section 1.8 above, the remaining menu of components remained extensive. This became a contributing factor to the complexity of management and coordination. It also became obvious that some of the implementing agencies were not familiar with the implementation of sub-projects for the purpose of loan preparation, so that the final result of implementation was a series of reports but not a proposal for implementation in APL2.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

- (a) The Borrower paints a better picture of the outcomes of the project than does this ICR, which is to be expected. In particular, the GOI avers that the two important triggers (creation of regional entities and approval of SWM plans) have been “substantially completed”. The lack of significant progress on moving from “substantially achieved” to “completely achieved” during the period from March 2005 to the present suggests there is still an impasse on moving forward with APL 2. Such is the impasse that EAP has dropped APL2 from the lending program. By agreement between the GOI and the Bank, the project may be resurrected in 2010.
- (b) *Cofinanciers:*
Not applicable
- (c) *Other partners and stakeholders:*
No comments received

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in USD Million equivalent)

Western Java Environmental Management Project - P040528			
Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
OVERALL URBAN ENVIRONMENTAL MANAGEMENT	9.50	10.5	110%
SOLID WASTE MANAGEMENT	5.80	6.65	114%
COMMUNITY AND PRIVATE SECTOR PARTICIPATION	1.68	1.61	95.%
Total Baseline Cost	16.98	18.78	110%
Physical Contingencies	0.00	0.00	0.00
Price Contingencies	0.00	0.00	0.00
Total Project Costs	16.98	18.78	110%
PPF	0.00	0.00	0.00
Front-end fee IBRD	0.12	0.12	0.00
Total Financing Required	17.10	18.90	110%
GEF-Western Java Environmental Management Project - P068051			
Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
COMPOSTING SUPPORT-GEF	2.79	1.74	62.4%
Total Baseline Cost	2.79	1.74	62.4%
Physical Contingencies	0.00	0.00	0.00
Price Contingencies	0.00	0.00	0.00
Total Project Costs	2.79	1.74	62.4%
PPF	0.00	0.00	0.00
Front-end fee IBRD	0.00	0.00	0.00
Total Financing Required	2.79	1.74	62.4%

(b) Financing

P040528 - Western Java Environmental Management Project				
Source of Funds	Type of Financing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		2.68	NA	NA
International Bank for Reconstruction and Development	IBRD	11.70	9.99	85.3%
International Development Association (IDA)	IDA	6.60	6.66	90%
P068051 - GEF-Western Java Environmental Management Project				
Source of Funds	Type of Financing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		0.00	0.00	.00
Global Environment Facility (GEF)		2.79	1.74	74.4%

Annex 2. Output by Component

The Western Java Environmental Management Project (APL1) established a strategic framework under three separate but related components. A central part of the Urban Environmental Management Component was the preparation of the Environmental Strategies. The majority of the other sub-projects were implemented at the central level, with some sub-projects related to wastewater and drainage being implemented at the local level. The Solid Waste component covers the establishment of the Waste Management Corporations, the GEF grant subsidy for composting, and solid waste management sub-projects for DKI and the PLGs of Serang, Cirebon and Bandung. This Community Environmental Facility component of APL1 included the preparation of a community based environmental facility or CEF, implementation of selected pilot projects of the CEF, preparation of a program of support to small scale industries in the project area for cleaner production, and preparation of proposals for centralized treatment of industrial wastewater in Serang and Tangerang.

Details below:

Component 1: Urban Environmental Management

A central part of Urban Environmental Management component was the preparation of the Environmental Strategies. The majority of the other sub-projects were implemented at the central level, with some sub-projects related to wastewater and drainage being implemented at the local level.

- *Provincial Environmental Strategies (PES)*. Provincial Environmental Strategies were prepared for Banten and West Java Provinces using funds from the WJEMP. DKI prepared an equivalent provincial level strategy using DKI budget funds. In addition to problems with solid waste management, the issues of air pollution, traffic management, and watershed management were prominent in the strategy outcomes.
- *Local Environmental Strategies (LES)*. The nine PLGs all prepared Local Environmental Strategies that were vetted by the LEF and endorsed by the local stakeholders. The LES reflected local issues and showed a degree of variability of environmental priorities between local authorities. All of the specific sub-projects covered in APL1 were reflected in the priority actions identified in the LES.
- *National Urban Environmental Strategy (NUES)*. The preparation of an NUES was undertaken by Bappenas, using funding from the CPSU Advisory Consultant contract. A separate consultant was selected to prepare this national strategy. The NUES was prepared after the PES and LES had been prepared and reflects the wider context of national urban environmental issues, not necessarily focusing on the Jabodetabek area. The focal points of concern in the NUES were urban land management, water resource management, and waste management. The study was completed in approximately nine (9) months, with limited resources.
- *Collection and Disposal of Medical Waste (Pusat 3-1)*. The full title of this sub-project is 'Development of a Strategic Plan for the Collection and Disposal of Medical

Waste’. This study was completed on schedule at the end of December 2004. The implementing agency of the study was the Ministry of Environment (KLH), but the study was managed by the West Java Provincial Environmental Management Agency (BPLHD Jabar). The study focused on centralized incineration as the preferred process for medical waste disposal in the study area, proposing a menu of technical options for incineration of medical waste from hospitals and clinics in the greater Bandung area.

- *Environmental Awareness Component (Pusat 3-3)*. The full title of this sub-project is ‘Design and Implementation Supervision of Environmental Awareness Component’. This sub-project was implemented by the Ministry of Environment (KLH) and completed on schedule on June 2004. This component is closely linked in the project design to the DIKNAS 3-4 component forming a basis for long term sustainable attitude change towards environmental management by the community and as a mechanism for bottom up pressure from constituents to LGs for appropriate local government programs for environmental management. The study produced material and mechanisms for subsequent phases of environmental awareness campaigns that could include extension of local level campaigns to the community on good practices in solid waste and wastewater management.

- *Environmental Education Component (Pusat 3-4)*. This sub-project, the ‘Design and Implementation Supervision of Environmental Education Component’, was implemented by the Ministry of Education (DIKNAS) and was scheduled to finish in July 2004, but was significantly delayed. The thrust of the sub-project was to generate attitude change in the community by educating children, who then influence their parents, who thereby in turn provide pressure on LGs to act on environmental issues. This is the basis of a generational link to long term improved awareness of environmental issues and is a powerful intervention mechanism. It is likely that subsequent GOI intervention using the output of this study will be through GOI funding.

- *Cilegon/Serang Emergency Preparedness Program (Pusat 3-5)*. This study was implemented by the Ministry of Environment (KLH), but was managed by the Local Government of Cilegon. The study interacted with the Banten provincial agencies for economic planning (Bappeda) and Environmental Management, as well as the local government of Serang. The output of the study was to define a system of comprehensive emergency responses to serious industrial accidents in the project area. The study was completed successfully with recommendations on the measures to be instituted.

- *Drainage and Small Lakes in Jabodetabek-Bopunjur (Pusat 3-10)*. This study, ‘Outline Plan for Major Drainage and Small Lakes Management in Jabodetabek-Bopunjur Area’, was implemented by the Directorate General of Human Settlements (DGHS) and was completed successfully in May 2005. The Study identified immediate, medium term, and long term programs of intervention for flood prevention and reduction. The study focused on upstream measures, including catchment management and lake management. The study was complementary to DKI 3-10 on micro drainage. The study focused on institutional changes covering the responsibility, management, and maintenance of major drains and watercourses, including lakes. It proposed central

government support for further institutional development components and national level medium and long term components.

◦ *Drainage Management for Jakarta: Priority Assistance (DKI 3-8)*. This sub-project was implemented by DKI Jakarta and was designed to establish the scope of work and documentation of the full scale sub-project, DKI 3-9. The sub-project was started in September 2003, and successfully implemented after five months in February 2004, and led to the implementation of DKI 3-9.

◦ *Drainage Master Plan for Jakarta (DKI 3-9)*. This study, the 'Drainage Management for Jakarta: Master Plan Review and Program Development' was implemented by DKI Jakarta and successfully completed in June 2005. The study identified a total of 78 priority sub-projects for implementation. Of these, 23 were complete to the DED stage. The study also examined the possibility of constructing polder protected areas in high value commercial districts and maintaining the operation through the levy of user charges that would be off-set by gains in reduction of commercial losses due to reduced flood damage and commercial disruption. DKI plans to implement this component using own source budget funds.

◦ *Cikapundung River Domestic Wastewater (Kota Bandung 3-3)*. This study, the 'Feasibility Studies and Preliminary Engineering Design for Cikapundung River Domestic Wastewater Facilities' was implemented by the City of Bandung and it identified sewerage intervention to intercept wastewater flows into the Cikapundung River from a densely populated urban slum area (kampong). The study was completed to preliminary engineering design stage.

◦ *Normalization and Development of Lakes (Kota Depok 3-1)*. This sub-project, the 'Study for Normalization and Development / Management of Lakes', was implemented by the City of Depok and successfully completed in December 2004, over a 12 month period. The study identified interventions for three lakes in the city administrative area that serve as storm flow detention basins. The study was carried out to preliminary design stage, and identified benefits of reduced flooding and increased recharging of the groundwater table.

◦ *Wastewater Treatment Kesenden Pond (Kota Cirebon 3-2)*. This sub-project, the 'Feasibility Study and Detailed Engineering Design for Treatment of Wastewater Discharges and Improvement of Kesenden Oxidation Pond', was implemented by the LG of Cirebon and was successfully completed in March 2005. The sub-project examined the options for expansion of the existing oxidation ponds at Kesenden to increase the coverage of the sewerage system in Cirebon. The sub-project highlighted a number of problems, including an effective method of levying user charges for the wastewater system. The LG eventually withdrew this sub-project from APL2 on their assessment that the sewerage collection system could not be extended and that new consumers could not be connected to utilize the expanded facilities.

◦ *Domestic Wastewater Treatment (Kota Tangerang 3-1)*. This sub-project, the 'Feasibility Study, AMDAL and Detailed Engineering Design for Domestic Wastewater

Treatment', was implemented by the LG of Tangerang and successfully completed in October 2004. The study found that demand could not be ensured to fully utilize the proposed facilities. The Local Government withdrew this sub-project from APL2.

Component 2: Solid Waste Management

This component covers the establishment of the Waste Management Corporations, the GEF grant subsidy for composting, and solid waste management sub-projects for DKI and the PLGs of Serang, Cirebon and Bandung.

◦ *(Pusat 3-6) Jabodetabek Waste Management Corporation Consultant Support.* This study was implemented by the Directorate General of Human Settlements. The study was completed in June 2006, after two extensions of the consultant assignment. At the time of completion, the study had fulfilled all of the targeted outputs except the formal establishment of the Jabodetabek Waste Management Corporation, JWMC. The study prepared a Jabodetabek Waste Management Master Plan and carried out technical, economic, and financial feasibility studies for alternative JWMC structures. The study also produced a detailed business plan for the formation of the JWMC, as well as a corporate organization structure and staff technical guidelines.

◦ *(West Java 3-2) Greater Bandung Waste Management Corporation.* This sub-project was implemented by the provincial government of West Java through the provincial EPA (BPLHD). The assignment was completed in June 2005. No extensions to the consultant services were requested by BPLHD. At the time of completion, the Consultant had completed the assigned tasks *except the establishment of the Greater Bandung Waste Management Corporation, GBWMC*, so the BPLHD decided that the finalization of the activities for the formation of the GBWMC would be continued under the establishment and direction of an "Assessment Team" or Tim Perumus formed by provincial government officials.

◦ *Solid Waste Management Master Plan Jakarta (DKI 3-11).* This sub-project, 'Solid Waste Management for Jakarta: Master Plan Review and Program Development', was implemented by Dinas Kebersihan of DKI Jakarta, and successfully completed in June 2005. The study revised an existing master plan for solid waste management that was approximately ten years old to reflect the most recent deterioration in waste management. The revised master plan identified other technologies that may be applicable to the overall Jakarta waste management strategy, including waste reduction, recycling and reuse, large scale composting, and thermal treatment of waste as alternatives to conventional landfill disposal. As a result of the output of this sub-project, DKI has commenced preparation for implementation of thermal treatment options for two installations, each of up to 1000 ton/day capacity using private sector investors.

- *Feasibility Study, AMDAL and DED for Kopiluhur TPA (Cirebon 3-3).* This study was implemented by the Dinas Kebersihan of Cirebon city and successfully completed in June 2005. The outcome of the study is the closure of the existing TPA profile at Kopiluhur and the expansion of the site to accommodate a sanitary landfill designed by the study consultant.
- *TPA in East Serang SWM (Serang 3-1).* This sub-project, the ‘Improved Solid Waste Management Services and Feasibility Study, AMDAL and DED for New TPA in East Serang SWM’ was implemented by Bappeda of the district of Serang and successfully completed in December 2004, after an addendum of eight months. The study output was achieved for a 40hA site at Bojong Menteng. The local government of Serang has indicated that it intends to implement this sub-project in APL2. This site is a potential candidate for a JWMC western region TPA since it can be expanded to approximately 100hA.
- *Compost Production and Demonstration Landfill.* The third amendment of the Loan and Credit Agreements reallocated funds for the construction of a demonstration landfill and procurement of equipment at Depok, as well as the construction of municipal level composting facilities and procurement of equipment for Kab. Bandung, Kab. Serang and Kota Cirebon. The relevant sub-projects are:

Kab. Bandung 1-1	Construction of Compost Plant
Kab. Bandung 2-1	Procurement of Loader
Kab. Serang 1-1	Construction of Compost Plant
Kab. Serang 2-1	Procurement of Loader
Kota Cirebon 1-1	Construction of Compost Plant
Kota Cirebon 2-4	Procurement of Loader
Kota Depok 1-1	Construction of Demonstration Managed Landfill Cipayung
Kota Depok 2-1	Procurement of Bulldozer

These components were implemented by Dinas Kebersihan Kab. Bandung, Dinas Kebersihan Kab. Serang, Dinas Kebersihan Cirebon, and Dinas Kebersihan Depok.

- *Design of GEF Compost Grant Mechanism (Pusat 3-7).* This sub-project, the ‘Design of GEF Compost Grant Mechanism and Marketing Study for Agricultural Use of Commercial Scale Compost’, was implemented by the Ministry of Environment (KLH), and was completed in March 2005, after fifteen months. The output of the study was to establish a compost subsidy mechanism, identify compost producers that could meet the requirements for the subsidy, and implement the compost subsidy program.
- *Disbursement of Subsidies to Compost Producers (Pusat 2-1).* This sub-project was implemented by the KLH to disburse subsidies for compost production provided under the GEF Grant. An allocation of SDR 2.0 million was made in APL1 for application to the compost production subsidy. This was disbursed by the end of June

2006. The compost production subsidy was revised in June 2005, increasing the subsidy rates to Rp.200 – 350/Kg. By the end of June 2006, the total contracted production was 218 tons per day.

Component 3: Community and Private Sector Participation

This component of APL1 included the preparation of a community based environmental facility, or CEF, implementation of selected pilot projects of the CEF, preparation of a program of support to small scale industries in the project area for cleaner production, and preparation of proposals for centralized treatment of industrial wastewater in Serang and Tangerang.

- *Community Environment Facility (CEF) (Pusat 3-8).* This sub-project, the 'Preparation of Program Design and Implementation Plan for Community Environment Facility', was implemented by the Directorate General for Community Empowerment of the Ministry of Home Affairs, PMD (MoHA). The assignment was completed successfully in June 2005. The output from the sub-project was a community based facility for providing support to community based groups to implement small scale environmental improvement projects in their immediate neighbourhoods. The scale of the sub-projects was of the order of +/- US\$15,000 per community and covered sanitation, drainage, solid waste, composting, and recycling activities. The sub-project was extended by 12 months to support implementation of 42 pilot CEF projects at the kelurahan level under sub-project Pusat 2-1. At the conclusion of this sub-project, a total of 420 CEF projects were identified. Of these, 43 were implemented as pilots in Pusat 1-1. The balance was proposed for implementation in APL2.
- *Implementation of CEF Pilot Project (Pusat 1-1).* This sub-project was established during APL1 specifically to disburse US\$750,000 to 42 CEF pilot projects prepared under Pusat 3-8. The sub-project was implemented by the Directorate General for Community Empowerment of the Ministry of Home Affairs, PMD (MoHA). The funds were transferred directly to a community established bank account in accordance with the procedure established in Pusat 3-8. The sub-project was successfully completed in June 2006.
- *Plan for Small and Medium Scale Industry Support (S/MIS) (Pusat 3-9).* This sub-project, the 'Preparation of Program Design and Implementation Plan for Small and Medium Scale Industry Support', was implemented by the Ministry for Industry and Trade, and successfully completed in December 2004. The outputs of the study were proposals for conjunctive use of waste treatment facilities by associations of small scale industrial facilities. The Study focused on small scale food production and metal plating industries in the Jakarta area. The study looked at ways of grouping industries to optimize the treatment of industrial waste produced and also looked at applying or retrofitting 'Clean Production' practices to existing industries. The output of the study will be implemented by the Ministry for Industry (restructured Cabinet of GOI), and will not be proposed for APL2 funding.
- *Centralized Wastewater Treatment for Industries (Serang 3-3).* This sub-project, the 'Feasibility Study for Centralized Wastewater Treatment for Industries,' was

implemented by the Environment Department of the District of Serang. The study compiled an inventory of contributing industries, including their willingness to participate in a commercially operated centralized wastewater treatment facility. The PHRD Packet III Consultant subsequently produced contract documents to assist the LG of Serang to procure private sector investments for the facility.

- *Centralized Wastewater Treatment for Industries (Kt. Tangerang 3-4).* This sub-project, the 'Feasibility Study for Centralized Wastewater Treatment for Industries,' was implemented by the Environment Department of the City of Tangerang. As for Serang 3-3, the study compiled an inventory of contributing industries, including their willingness to participate in a commercially operated centralized wastewater treatment facility. The PHRD Packet III Consultant subsequently produced contract documents to assist the LG of Tangerang City to procure private sector investments for the facility.

- *Plan for Small and Medium Scale Industry Support (S/MIS) (Pusat 3-9).* This sub-project, the 'Preparation of Program Design and Implementation Plan for Small and Medium Scale Industry Support', was implemented by the Ministry for Industry and Trade, and successfully completed in December 2004. The outputs of the study were proposals for conjunctive use of waste treatment facilities by associations of small scale industrial facilities. The output of the study will be implemented by the Ministry for Industry (restructured Cabinet of GOI), and will not be proposed for APL2 funding.

- *Centralized Wastewater Treatment for Industries (Serang 3-3).* This sub-project, the 'Feasibility Study for Centralized Wastewater Treatment for Industries,' was implemented by the Environment Department of the District of Serang. The study compiled an inventory of contributing industries, including their willingness to participate in a commercially operated centralized wastewater treatment facility. The PHRD Packet III Consultant subsequently produced contract documents to assist the LG of Serang to procure private sector investments for the facility.

- *Centralized Wastewater Treatment for Industries (Kt. Tangerang 3-4).* This sub-project, the 'Feasibility Study for Centralized Wastewater Treatment for Industries,' was implemented by the Environment Department of the City of Tangerang. As for Serang 3-3, the study compiled an inventory of contributing industries, including their willingness to participate in a commercially operated centralized wastewater treatment facility. The PHRD Packet III Consultant subsequently produced contract documents to assist the LG of Tangerang City to procure private sector investments for the facility.

Annex 3. Economic and Financial Analysis

The PAD states that a discrete economic analysis did not apply for APL1, which includes only a few physical investments but sets the strategic framework, strengthens the institutions, and prepares the feasibility studies and detailed designs for the investments to be mainly undertaken in APL2 and APL3.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team Members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Finn Neilsen	Task Team Leader	EASUR	
Daniel Hoornweg	Sr. Environmental Engineer	EASES	
Keichi Tamaki	Financial Analyst	EASUR	
Viviente Rambe	Environmental Specialist	EASES	
Unggul Suprayitno	Financial Analyst	EASES	
JoAnne Nickerson	Operations Analyst	EASUR	
Rizal Rivai	Procurement Specialist	EASUR	
Karin Nordlander	Counsel	LEGEA	
Supervision/ICR			
Richard Beardmore	Task Team Leader	EASUR	
Josef Leitmann	Task Team Leader	EASES	
Hiroaki Suzuki	Task Team Leader	EASUR	
Dini Trisyanti	Consultant	EASES	
Risyana Sukarma	Sanitary Engineer	EASUR	
Rizal H. Rivai	Sr. Procurement Spec.	EAPCO	
Sri Bebasari	Consultant	EASUR	
Unggul Suprayitno	Financial Management Specialist	EAPCO	

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of Staff Weeks*	US\$ ('000) Full Costs
Prior FYs (1998-2005)		
Lending	95.5	608.0
Supervision	113.6	299.4
Total Prior FYs	209.0	907.4
Current FY (2006)		
ICR	7.5	46.0
Total FY	216.5	953.4

*Staff weeks prior to FY2000 is not available in SAP, only an estimate.

Annex 5. Beneficiary Survey Results

A formal beneficiary survey was neither planned nor undertaken. This was in line with the special nature of the project, as only the first of three phases of a longer-term program, focusing on laying the institutional and conceptual groundwork for the following two phases. There were relatively few direct beneficiaries of project activities, and these were mainly the beneficiaries of the CEF sub-component. Other beneficiaries of the project were farmers who received compost to improve their agricultural production techniques.

Annex 6. Stakeholder Workshop Report and Results

Two big final stakeholder workshops were implemented. One was the Urban Environmental Infrastructure Forum, held in Bandung in February 2006; the other was the Workshop on Results and Continuation of WJEMP, held in Jakarta in June 2006. The workshop reports summarize the respective conclusions, as follows:

Urban Environmental Infrastructure Forum, Bandung, February 2006

1. PLGs need to finalize and implement the programs they have started to design under WJEMP.
2. The difficulties to identify waste disposal sites in urban areas require enhanced efforts to reduce-reuse-recycle as well as improve environmentally friendly management of waste disposal sites.
3. The technical unit for waste disposal that has been formed in Kabupaten Serang shall be further developed into a Public Service Agency (“*Badan Layanan Umum*”).
4. The Green School Program shall be expanded to elementary schools and junior high schools, and supported by the PLGs.
5. APL2 shall focus on implementing programs from APL1.
6. Implementation of APL2 will hinge on the readiness and capacity of local governments.
7. Local governments shall give priority to funding, in order to avoid protracted uncertainties about funding.
8. Cooperation with the private sector shall be strived for.
9. Improvements to environmental quality, especially in waste management and air pollution control, shall be a priority of each local government.

Workshop on Results and Continuation of WJEMP, Jakarta, June 2006

1. APL1 will close in June 2006, but the PLGs shall continue implementing the programs they have designed, with or without World Bank assistance, as these programs reflect identified priorities.
2. The provincial and local environmental strategies shall be further developed and consistently implemented.
3. Programs with private sector participation shall be urgently implemented, e.g., the waste water management programs in Kota Tangerang and Kota Cirebon.
4. The composting program under GEF shall be continued by each PLG, and each PLG shall propagate the use of compost.
5. MPW shall continue to facilitate program implementation and conduct the required coordination. MWP is in the process of arranging for the start of APL2, although some trigger conditions still need action. Project continuation depends very much on local governments’ readiness to establish the new waste management organizations for the common need.
6. Should WJEMP not proceed to APL2, the identified programs shall still be implemented through joint/shared funding from central, provincial, and local governments, albeit with limited means.

Also, numerous workshops were held in the course of the implementation of the various TA assignments, in accordance with the special nature of this project. This included a large workshop held for the purpose of getting new waste management organizations established, and another large workshop in the context of propagating waste composting. Thus, stakeholder involvement was certainly very intensive and also very comprehensive, encompassing a large number of stakeholders from a wide variety of backgrounds and geographical origins.

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

The Borrower took the unusual step of preparing their own complete ICR. Since the major outputs of the project were the achievement of the triggers to allow for progression to APL2, the section of the Borrower's document dealing with this issue is reproduced here.

Compliance with Covenants and Triggers

The Executing Agency complied with the requirements of the Credit and Loan Agreements as contained in the above Agreements and other associated documentation. The review of this section is covered under: (i) Effectiveness Conditions; (ii) Financial Covenants; (iii) Objectives of the Project; (iv) Implementation; and (v) Performance Indicators (Triggers). The performance indicators in the Credit and Loan Agreements are (almost) synonymous with the Triggers of the PAD.

Compliance with Conditions of Effectiveness

The conditions of effectiveness of the Credit and Loan Agreements are included in Article V of the respective Agreements. The GOI and the Executing Agency met those conditions by March 2002, when the PMM was issued. The GOI legal opinion on the Credit and Loan Agreements was issued on 7 February 2002. The loan became effective in March 2002.

Compliance with Financial Covenants

The GOI and the Executing Agency complied with the Financial Covenants as set out in Article IV of the Credit and Loan Agreements. Specifically, the Executing Agency established and maintained financial records and accounts for the withdrawal and application of Credit and Loan funds. The Executing Agency prepared quarterly management reports and annual financial statements, records, and accounts certified by the State Auditors Office. A schedule of reports and compliance with the Financial Covenants is included in Annex 10. Annex 10 also includes the latest consolidated FMR (PMR) to the end of 2005, as well as the quarterly FMR (PMR) to the end of June 2006. The final consolidated FMR is still in preparation, pending collection of all disbursement data from the loan account.

Compliance with Implementation of APL1

The Executing Agency and other implementing agencies generally complied with the requirements of Article III of the Credit and Loan Agreements and Schedule 2 of the same Agreements regarding the commitment to implement the WJEMP APL1. In particular, the Executing Agency ensured that commitment to the implementation of APL1 by the PLGs was obtained from both the Executive and Legislative arms of the participating local governments in the form of an MOU with the Executing Agency signed by the head of the LG and passed by a resolution of the local parliament. This commitment was the basis for proceeding with the implementation of the Project, including the degree of autonomy granted to the PLGs for the implementation of the components assigned to their LG.

Compliance with Project Objectives

In general, the Executing Agency considers that the Project Development Objectives were met.

Compliance with Triggers for Progress to APL2

The progress from APL1 to APL2 was subject to achievement of a series of triggers. These are first defined in the PAD, and are subsequently included as Performance Indicators in Schedule 5 of the Credit and Loan Agreements. The triggers, however, differ slightly from the Performance Indicators of Schedule 5. The triggers include a requirement for defining the financing arrangements for APL2, which requirement is not part of the performance indicators. The performance of the Executing Agency and Implementing Agencies in achieving the triggers is discussed in the following sections. A summary of compliance with the triggers is as follows:

TRIGGER	PRESENT STATUS
1. LNAC	Complied with
2. 20% increase of SWM revenue	Complied with
3. SWM (Master) Plans	Complied with – pending full public disclosure
4. ASER	Complied with
5. Funding mechanism	Complied with
6. JWMC/GBWMC	Substantially complied with

Landfill Neighbourhood Advisory Committee (LNAC)

Each participating local government (PLG) has selected at least one landfill and established for that landfill a neighbourhood advisory committee that meets regularly;

This trigger was complied with by all PLGs, except that the city of Tangerang did not establish an LNAC for the existing landfill at Rawa Kucing on the basis that it was near the end of its operational life. Tangerang eventually established an LNAC in May 2006 for the proposed future landfill site in Jatiwaringin.

PLG Solid Waste Revenues

PLGs' solid waste net revenues have increased by at least 20% over FY2001 net revenues;

This trigger has highlighted problems with the question of user fees for solid waste collection services provided by local governments. The collection of solid waste from households, which constitutes about 80% of the total waste collected, is carried out by community organizations under the coordination of the head of the local neighborhood, (RW/RT). The community based collection service transfers the household waste to LG operated collection points (TPS) from where it is taken to the disposal site. The household pays a fee to the local neighborhood collection organization, which is then supposed to retain a portion of the fee for its costs and transfer the balance of the fee collected to the LG administration to cover the cost of disposal of the waste from the TPS to the landfill.

Waste from commercial establishments is generally collected directly by local governments, which also charge the commercial establishments directly for that service. These commercial establishments include the markets, shops, restaurants, hotels, commercial buildings, etc. This part of the service is generally cost recoverable or at least can readily be adjusted to become cost recoverable. The problem is the recovery of the fees from households and the proper sharing of the fee between the local government and the community organization.

In general, all of the PLGs achieved this trigger except for DKI Jakarta and Cirebon. DKI Jakarta made a policy decision not to collect a fee for solid waste management from households precisely for the reasons identified above. The cost of administering the fee collection process between the DKI administration and the various RW/RT was more than the funds collected.

Cirebon had modified their solid waste management fee collection system several times, alternatively combining it with the water bill and then charging them separately, and then reverting again to a combined fee. While on a combined fee collection system, the overall collection level increased by 80%, and dropped when separate collection for solid waste was made.

Waste Management Master Plans

Waste management master plans for the Jabodetabek and Bandung regions have been updated, agreed and publicly vetted. Environmental impact assessments, consistent with IDA environmental assessment requirements and operating plan,s exist for all operating and proposed landfills;

Master Plans for JWMC and GBWMC were prepared by the consultant assignments Pusat 3-6, and West Java 3-2. These were accompanied (in Pusat 3-2, JWMC) with Waste Management Improvement Plans (SWIP) for each local government that was expected to be a customer of JWMC. These SWIP defined the improvements necessary to achieve an acceptable level of service for the collection of solid waste to ensure the effectiveness of the proposed regional facilities under JWMC (and GBWMC). These draft SWIP were to be completed by the PLGs, following the model drafts prepared by the Pusat 3-6 consultant. At the end of APL1, these had not been completed or publicly vetted. The SWIP were completed as part of the PHRD Packet 2 consultant services, and the public vetting was undertaken by the PHRD Bridging Consultant and the Executing Agency/CPSU.

There were no draft SWIPs prepared for the GBWMC LGs under the West Java 3-2 assignment. However, the PHRD Packet 2 consultant completed the SWIPs for five (5) LGs expected to take part in GBWMC (City and District of Bandung, City of Cimahi, and Districts of Garut and Sumedang). Public vetting of the SWIPs was undertaken by the PHRD Bridging Consultant and the Executing Agency/CPSU. This trigger was substantially complied with.

ASER

At least eight annual “State of the Environment Reports” (ASER), acceptable to IDA, have been prepared by the PLGs;

This trigger was well complied with by the nine (9) PLGs and the provincial administrations of West Java, Banten and DKI. All 12 ASERs for 2003 were completed between March and October 2004. All except Depok were reviewed and endorsed by the LEF in 2004. In the following year, 11 ASERs were produced and for 2005, 6 ASERs were produced by June 2006. This trigger was complied with.

APL2 Funding Arrangements

The funding arrangement between the central government and local and provincial governments has been established for APL2 and APL3 activities, including the ratio of grant/counterpart matching fund levels;

The implementation of APL1 coincided with a period of significant change in policy within the Ministry of Finance on the use of external funds (loans and grants) for development projects. The thrust of the policy was to transfer the obligation of external loans to the end users of the funds in the case of regional governments. Loans and grants for application to national funded development programs were largely untouched by these new policy changes, which focused on the obligations and responsibilities of regional governments.

The main regulatory instrument was originally KMK35/2003. The decree of the Minister for Finance stipulated that loan funds could only be provided to regional governments as subsidiary loans and only for income earning or cost recovery developmental expenditures. There was also a provision for on-granting external loan funds for non-income earning development projects subject to a clearly demonstrated need and benefit cost analysis. The on-granting rules required that regional governments be rated in terms of fiscal capacity. This was done periodically (every two years) and the fiscal status was first declared in KMK 538 January 2003, subsequently revised in PMK129 December 2005, and most recently in PMK 73 August 2006. The formula for cost sharing is based on the classification of PLGs as strong, medium or weak, in which case they contribute 70%, 40%, and 10%, respectively, towards the grant component, thereby drawing grants of 30%, 60% and 90%. KMK 538 specifies the mechanism for calculating the fiscal capacity of PLGs.

The PLGs of APL1 initially fell in the following categories under KMK35: (i) Strong - DKI (province), Cirebon City, Bandung City; (ii) medium – Bogor City, Depok City, Bekasi City, Bekasi District, Tangerang City; and (iii) weak – Bandung District and Serang District.

During the early stages of preparation of APL2, which was undertaken as part of APL1 implementation, see Chapters 9 and 10, it was clear that the on-granting mechanism of KMK35 was not usable because no implementing instructions had been issued by the Ministry of Finance. Furthermore, the existing laws on regional autonomy and fiscal balance, UU22/1999 and 25/1999 were revised on 19 October 2004 as UU32/2004 and

UU33/2004. This legislation was in conflict with the provisions of KMK 35 on two main points: (i) it referred to borrowing by an LG for non-income generating components while KMK 35 stipulates grants on a cost sharing basis for those components; and (ii) under UU33/2004, borrowing for non-income generating investments must be medium term; however, the term of the sub-loan is limited to the remaining term of office of the present LG executive. This in effect limits the term to a maximum of five (5) years, and in practice, to less than that.

This situation prevailed until December 2005, when the Ministry of Finance issued two new decrees to replace KMK35, and to overcome the conflict with the existing legislation, UU32/2004 and UU33/2004. The new decrees were PP 54/2005, relating to on-lending, and PP57/2005, relating to on-granting. These were followed by a further regulation, PP2/2006, relating to the general use of external funds. These regulations were made operational by the issuance of Ministerial Decree PMK52/2006, relating to on-granting, and PMK53/2006, relating to subsidiary lending. These regulations were unambiguous on the application of loan and grant funds.

Based on the current regulations, the PCRC agreed on the following financing structure for APL2:

Component of APL2	Financing
Regional landfill primary infrastructure for JWMC and GBWMC	Central government financed through use of loan funds with counterpart funds of 20%.
Transfer Station (SPA) and associated transport vehicles.	Provincial and or local government using own source funds or SLA.
Primary drainage in Bopunjur, Pusat 3-10	Central government financing through use of loan funds with counterpart funds of 20%.
CEF components	External funds as grants directly to communities with cost sharing by community and local government of 20%.
All other local SWM components	LGs own source of funds or SLA.
GEF component in APL2	100% grant.
Consultants and studies	Grant from loan funds.

JWMC and GBWMC

Jabodetabek Waste Management Corporation (JWMC) and the Greater Bandung Waste Management Corporation (GBWMC) have been established, and their operations are funded partially by the revenues generated from their transactions;

In addressing this trigger, the Executing Agency carried out an exhaustive analysis of all possible options for the establishment of the regional corporations. The task is complex because of the strong autonomy legislation that empowers local governments and results in a difficult decision making environment, which involves both the executive and

legislative branches of local governments. Various options were considered and discussed, but only the final status is being reiterated here.

JWMC: a draft joint decree, by the Governor of West Java and the local governments of the District of Bogor, the City of Bogor and the City of Depok, is currently under deliberation and pending signature. This decree will establish a Waste Management Body that may operate as a corporate entity and may be converted to a Perseroan Terbatas (PT) at some later stage.

GBWMC: as above, a joint decree, by the Governor of West Java and the local governments of the Districts of Bandung, Garut, and Sumedang, and the Cities of Bandung and Cimahi, is under deliberation and pending signature.

This trigger, while not fully achieved, is substantially ready for compliance.

Compost Production

An aggregate of at least 60,000 metric tons of quality, certified compost has been produced.” (during project implementation, this trigger condition was revised to ‘200 metric tons of quality, certified compost per day’, effectively an increase over the previous target).

At the completion of APL1 in June 2006, a total of 218 tons/day of compost was in production by registered producers who were receiving subsidies under the GEF Grant program. Overall, more than 90,000 tons of compost has been produced under the APL1 Project GEF funded subsidy scheme.

Loan Extension

Prior to the end of the loan period, the GOI and the World Bank reviewed the status of the critical components that were necessary to advance to APL2. Of these, three critical components were not on track for completion by June 2005. These included Pusat 3-6 JWMC Consultant support, WJ 3-2 GBWMC Consultant Support, and Pusat 2-1 (GEF) production of 200 tons/day of high quality compost. In addition, a number of other components were going to have difficulty in meeting the June 2005 closing date. These included: Pusat 3-5, Emergency Preparedness; Kota Tangerang 3-4; and Kab. Serang 3-3, Central Waste Water Treatment. During the Bank’s supervision mission in November 2004, the GOI and the World Bank agreed to extend the closing date of the loan by one year, to 30 June 2006.

Comments Received from the Executing Agency, the Ministry of Public Works, on the World Bank’s ICR

In addition to the Borrower’s ICR, comments were also received from the Executing Agency regarding the Bank’s ICR. These are presented below.

“The Executing Agency notes that the Bank’s draft ICR has incorporated and acknowledged the comments of the GOI as included in the Project Completion Report of APL1 by the Executing Agency. The Executing Agency considers that the ICR gives a balanced assessment of the implementation of APL1.

The Executing Agency makes the following comments on the draft ICR:

- (i) Data Sheet (F) Results Framework Indicator (2)
The ICR has no entry in the 'comments and % achieved' box. The GOI view is that while the formal establishment was not achieved by the APL1 closing date, the GOI had advanced towards establishment and had set up intermediate structures to enable formation of JWMC and GBWMC. The EA view is that this component was close to being achieved and therefore should be rated to reflect this.
- (ii) This partial achievement of JWMC/GBWMC objectives is further acknowledged in the ICR in the section 3.2 Triggers (a). The view of the Executing Agency is that it was significantly advanced but not fully achieved.
- (iii) Also in the same section, Triggers (c), the financing arrangements for APL2 are stated as not being met. The EA had set the framework for these but not the detail. A significant additional factor here is the unforeseeable impact of the decentralization laws and the complete overhaul of the GOI financing rules and regulations related to external loans and grants. During the implementation of APL1, the GOI enacted KMK 35/2003 as the prevailing regulation for on-lending and grants. This regulation proved unworkable and was eventually replaced by PP54/2005 and PP57/2005 in December 2005, six months before the closing date of APL1. Ministerial decrees for application of these regulations PMK 52/2006 and PMK 3/2006 were not released until July 2006.
- (iv) Section (5) Assessment of Bank and Borrower Performance
(c) Borrower performance
This states that Component (2) was unsatisfactory, whereas in section 3.4 the overall rating of non GEN components is rated as moderately unsatisfactory.
- (v) Please also note that in the Date Sheet (F), Indicator (1), the allocated funding was essentially fully utilized.

Overall, the Executing Agency is satisfied with the presentation of the findings of the ICR and wishes to express its intent to proceed with subsequent implementation of APL2 and APL3.”

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

None received

Annex 9. List of Supporting Documents

1. Project Concept Note
2. Project Appraisal Document for WJEMP, Report No. 21029-IND, dated May 15, 2001; and documents quoted therein
3. Credit Agreement for WJEMP, dated August 30, 2001 (Cr. 3519-IND)
4. Loan Agreement for WJEMP, dated August 30, 2001 (LN 4612-IND)
5. Grant Agreement for WJEMP, dated August 30, 2001 (TF 029805)
6. Aide Memoires of Supervision Missions for WJEMP in May 2002, October 2002, March 2003, May 2003, October 2003, June 2004, November 2004, June 2005, November 2005, and March 2006 (Preparation Mission for APL2)
7. Report of Midterm Review of WJEMP by CPSU, dated September 2003
8. Amendment to the Loan Agreement for WJEMP, dated November 25/December 21, 2004
9. Letter of the Bank's Country Director for Indonesia to the MoF, dated June 10, 2005 (extension of loan closing date)
10. Procurement Post and Financial Review for WJEMP, PricewaterhouseCoopers, dated June 2006
11. Report on Urban Environmental Infrastructure Forum (Bandung, February 2006)
12. Report on the Workshop on Results and Continuation of WJEMP (Jakarta, June 2006)
13. Report on Output from APL1 Sub-Projects by CPSU Advisory Consultant

Additional Annex 10. Results and Effectiveness of TA Assignments

Assignment	Rating of Result ¹	Rating of Effectiveness ²	Reasons for Effectiveness Rating
Provincial Environmental Strategy for West Java	S	E	For all of these: Provincial and local governments have confirmed the usefulness of these environmental strategies, not the least because of the highly participatory way of the preparation. They have expressed their determination to translate these strategies into action. Several local governments that did not participate in APL1 have expressed their desire to prepare similar environmental strategies for their respective jurisdictions
Provincial Environmental Strategy for Banten (added in 2002)	S	E	
Local Environmental Strategy for Kabupaten Serang	S	E	
Local Environmental Strategy for Kota Tangerang	S	E	
Local Environmental Strategy for Kota Bekasi	S	E	
Local Environmental Strategy for Kabupaten Bekasi	S	E	
Local Environmental Strategy for Kota Depok	S	E	
Local Environmental Strategy for Kota Bogor	S	E	
Local Environmental Strategy for Kota Bandung	S	E	
Local Environmental Strategy for Kabupaten Bandung	S	E	
Local Environmental Strategy for Kota Cirebon	S	E	
Strategic Plan for Handling of Medical Waste	HS	E	Although the draft plan has not been officially endorsed by the relevant line agency, some local governments and some private hospitals are beginning to put its recommendations into practice
Advisory Services to CPSU	S	E	CPSU has fulfilled all its project management and documentation tasks
Design & Supervision of Environmental Awareness Program	N	N	There were several public relation campaigns but they were not well connected to the WJEMP work program

Assignment	Rating of Result¹	Rating of Effectiveness²	Reasons for Effectiveness Rating
Design & Supervision of Environmental Education Program	N	N	A large number of schools have adopted the program
Local Environmental Awareness Building Jakarta	-	-	Cancelled in 2002
Cilegon / Serang Emergency Preparedness Program	N	-	By design, this output is only to be used in an emergency which has not occurred yet
FS & DED for Oxidation Pond in Kesenden, Kota Cirebon	S	-	For all of these: Physical implementation, tentatively planned for APL2, has not started yet
Normalization & Development of Lakes in Kota Depok	S	-	
FS & DED for Cikapundung River, Kota Bandung	S	-	
FS, AMDAL & DED for Wastewater Treatment Plant in Kota Tangerang	S	-	
DED and Construction of Drainage in Kota Depok	-	-	Cancelled in 2002
DED and Construction of Lake Rehabilitation in Kota Depok	-	-	Cancelled in 2002
Support to Jabodetabek Waste Management Corporation	S	N	The establishment of a waste management corporation did not materialize
Support to Greater Bandung Waste Management Corporat.	N	N	The establishment of a waste management corporation did not materialize.
FS, AMDAL & DED for Kopiluhur Disposal Site in Kota Cirebon	S	-	For both of these: Physical implementation, tentatively planned for APL2, has not started yet
Improved Management, FS, AMDAL & DED for New Disposal Site in Kabupaten Serang	S	-	
Design of GEF Grant Mechanism for Composting	S	E	Grant mechanism was defined and successfully applied so that physical target/trigger condition was met
Commercial Scale Composting Plant for DKI Jakarta	-	-	Cancelled in 2002

Assignment	Rating of Result¹	Rating of Effectiveness²	Reasons for Effectiveness Rating
Assistance to Community Based Waste Handling incl. Waste Pickers in DKI Jakarta	-	-	Cancelled in 2002
Plan for Support to Small & Medium Scale Industries	N	N	The mechanisms for credit and financial incentives are not operational yet
Plan for Community Environmental Facilities (CEF)	HS	HE	CEF were constructed and have been highly effective and accepted by communities
Pollution Reduction Program for Soybean Processing Industries in DKI Jakarta	-	-	Cancelled in 2002
Support to Soybean and Fish Processing Industries in DKI Jakarta	-	-	Cancelled in 2002
FS for Industrial & Domestic Wastewater Treatment System in Pulogadung, DKI Jakarta	-	-	Cancelled in 2002
FS for Centralized Industrial Wastewater Treatment in Kabupaten Serang	S	-	For both of these: Physical implementation, tentatively planned for APL2, has not started yet
FS for Centralized Industrial Wastewater Treatment in Kota Tangerang	S	-	
Plan for Drainage and Lakes Management in Jabodetabek-Bopunjur Area (added in October 2002)	HS	E	Implementation, funded by provincial and local governments, is to start in FY 2007
Drainage Action Program Development for Jakarta (added in October 2002)	S	E	Physical implementation started in FY 2003 and is to be continued
Action Plan for Solid Waste Management in DKI Jakarta (added in October 2002)	N	E	DKI Jakarta showed great interest and rehired the consultant from their own budget
Solid Waste Management Master Plan for DKI Jakarta (added in October 2002)	S	E	DKI Jakarta showed great commitment and communicated with potential private sector partners for possible follow-up

¹ HS=Highly satisfactory; S=Satisfactory; N=Not fully satisfactory.

² HE=Highly effective; E=Effective; N=Not fully effective.

Additional Annex 11. Achievement of Triggers to Proceed to APL2

The PAD states: “In order to proceed to APL2, at least 50% of PLGs must have met the above conditions. Any local government that has not met the above requirements will not be eligible to proceed to APL2.” However, the Credit and Loan Agreements are silent on any consequences resulting from non-attainment of any of these triggers.

The following table provides an overview of the attainment of triggers (b) and (d) by the PLGs:

PLG	Met trigger (b)	Met trigger (d)	Met both triggers / is eligible for APL2 (according to PAD)
DKI Jakarta	Yes	No ^a	No (?)
Kabupaten Serang	Yes	Yes	Yes
Kota Tangerang	Yes ^b	Yes	Yes (?)
Kota Depok	Yes	Yes	Yes
Kabupaten Bogor	Yes	Yes	Yes
Kota Bogor	Yes	Yes	Yes
Kota Bekasi	Yes	Yes	Yes
Kota Cirebon	Yes	No ^a	No (?)
Kota Bandung	Yes	Yes	Yes
Kabupaten Bandung	Yes	Yes	Yes

^a In DKI Jakarta, a political decision was made not to charge user fees for solid waste management at all; in Kota Cirebon, the municipal accounting system was changed, and the current and previous revenue figures are no longer comparable

^b the landfill site chosen in Kota Tangerang is not currently operated but earmarked for future operation

Following is a description of the degree to which each of these triggers has been reached:

- (a) JWMC: a regional waste management corporation covering Kota Bogor, Kabupaten Bogor, and Kota Depok is in the process of being established, with a provincial government and state owned forestry company, PT Perhutani, as additional stakeholders. Progress is being held back mainly by the uncertainty surrounding the desired participation of the central government. In terms of regional coverage, this potential organization would fall significantly short of the JWMC envisaged in the project plans.

- (b) GBWMC: a joint decree has been signed by the Governor of West Java and five interested LGs, stating that a joint waste management corporation shall be established. However, this decree has not been implemented to date and, as experience³ has shown, even a joint decree can later fail to be implemented. The trigger condition must be regarded as **not met**.
- (c) Of the ten PLGs, nine (all but Kota Tangerang) have identified one currently operated landfill site each and formally established a neighborhood advisory committee there. The overall trigger condition has thus been **met**. Kota Tangerang has established such a committee, too, albeit not for the currently operated landfill at Rawa Kucing but for the planned landfill site at Jatiwaringin which was deemed more relevant. Thus, the eligibility of Kota Tangerang for participation in APL2 should still be considered. The funding arrangements between the central government and local and provincial governments are sometimes deemed to have been established with the promulgation of MoF Regulation Nos. PMK53/2006 and PMK52/2006, which replaced the previous Regulation No. KMK35/2003. It is by no means certain that eligible LGs would wish to borrow in accordance with this regulation, some of them might rather want to finance the investments and activities from other sources. This will raise the question whether they should still be considered PLGs in the framework of WJEMP APL2. The implementation of the planned APL2 would require that the flow of funds from a prospective new loan to these organizations be clearly defined. Up to now, the matter cannot be considered fully resolved and the trigger condition must be regarded as **not met**.
- (d) Net revenues from user fee collection for solid waste management services have increased by at least 20% (over FY2001 net revenues) in all PLGs except DKI Jakarta and Kota Cirebon; with this, the trigger is deemed to have been sufficiently **met** to allow the overall preparation of APL2 to go ahead. However, since DKI Jakarta and Kota Cirebon have failed to meet the trigger condition formally, their eligibility for participating in APL2 should be re-evaluated.
- (e) Draft waste management master plans for the Jabodetabek region and the Greater Bandung region have been prepared under the TA assignment to support the establishment of the JWMC. The drafts were supposed to be formally endorsed by the relevant government entities and publicly vetted, but these processes had not been completed by the end of the project. Also, environmental impact assessments and operating plans should have been prepared “for all operating and proposed landfills” by the end of APL1. – Fairly detailed Standard Operating Procedures for landfill sites were indeed prepared, and as generic documents they cover the requirements adequately. Some specific environmental impact assessments do exist, including for the proposed new landfill site at Nambo (for the southern zone of the Jabodetabek area). However, they do not yet exist for all landfills, notably not for

³ E.g., in the Bali Urban Infrastructure Project where the legally decreed merger of five water supply utilities never materialized.

the two proposed alternative new landfill sites at Nagreg (for the Greater Bandung area). All in all, the trigger condition has **not** been **met**.

- (f) Eight “Annual State of the Environment Reports” (ASER) were required to be prepared in a quality acceptable to IDA. All PLGs have prepared and submitted ASERs for 2002 and 2003 in a format provided by the CPSU, and their evaluation has been completed. West Java Provincial Government has also prepared ASERs. Although not all PLGs continued this activity after 2003 owing to lack of funds, the trigger condition has been **met**.
- (g) The Implementing Agency for the composting component (MoE) reports that the revised trigger target of 200 tons of compost per day produced from municipal solid waste was slightly exceeded at the end-of-project (218 tons per day). Cumulatively, more than 91,000 tons of compost was produced during the project implementation period, exceeding the original target (60,000 tons). The trigger condition has been **met**.

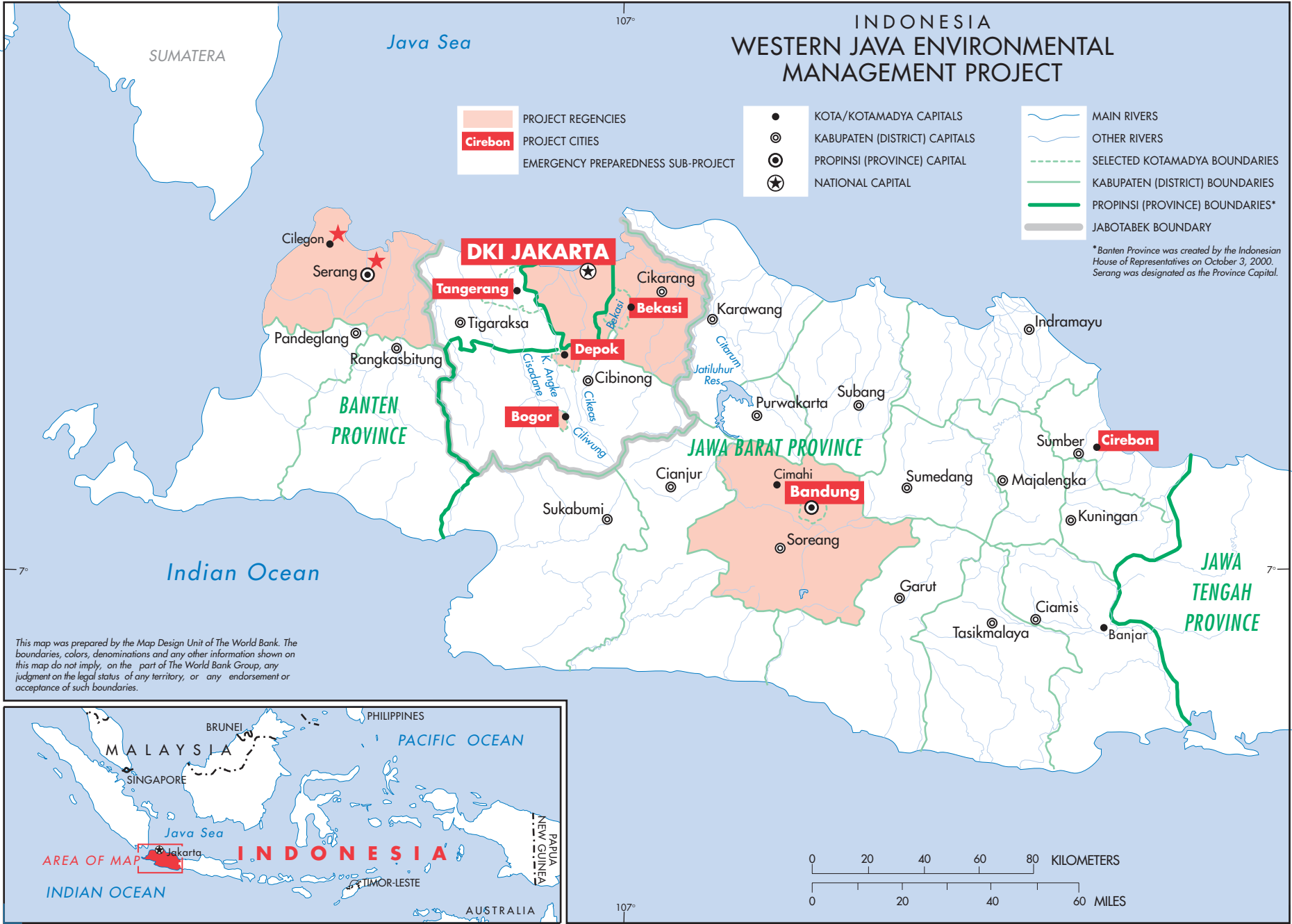
INDONESIA WESTERN JAVA ENVIRONMENTAL MANAGEMENT PROJECT

- PROJECT REGENCIES
- Cirebon** PROJECT CITIES
- EMERGENCY PREPAREDNESS SUB-PROJECT

- KOTA/KOTAMADYA CAPITALS
- ⊙ KABUPATEN (DISTRICT) CAPITALS
- ⊙ PROPINSI (PROVINCE) CAPITAL
- ★ NATIONAL CAPITAL

- MAIN RIVERS
- OTHER RIVERS
- SELECTED KOTAMADYA BOUNDARIES
- KABUPATEN (DISTRICT) BOUNDARIES
- PROPINSI (PROVINCE) BOUNDARIES*
- JABOTABEK BOUNDARY

*Banten Province was created by the Indonesian House of Representatives on October 3, 2000. Serang was designated as the Province Capital.



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