



Implementation Completion Memorandum

Project Number: JFPR 9035-LAO
May 2008

Lao PDR: Solid Waste Management and Income
Generation for Vientiane's Poor Project
(Financed by the Japan Fund for Poverty Reduction)

Asian Development Bank

JAPAN FUND FOR POVERTY REDUCTION (JFPR)

IMPLEMENTATION COMPLETION MEMORANDUM (ICM)¹

I. BASIC INFORMATION			
1. JFPR Number and Name of Grant: JFPR 9035 LAO Solid Waste Management and Income Generation for Vientiane's Poor Project			
2. Country (DMC): Lao PDR		3. Approved JFPR Grant Amount: \$1,000,000	
4. Grant Type: <input checked="" type="checkbox"/> Project / <input type="checkbox"/> Capacity Building		5-A. Undisbursed Amount \$13,910.24	5-B. Utilized Amount \$986,089.76
6. Contributions from other sources:			
Source of Contribution:	Committed Amount	Actual Contributions:	Remark - Notes:
DMC Government	\$ 150,000	\$ 148, 515	In kind: office space, staff salaries, land, landfill operations and staff
Other Donors	\$0	\$0	No other donors
Community/ Beneficiaries	\$ 46,000	\$ 253,017	Cash and in-kind (i.e., voluntary land contributions, labor, materials)
7-A. GOJ Approval Date: 21 August 2003 (SRC)		7-B. ADB Approval Date: 16 December 2003	
		7-C. Date the LOA was signed (Grant Effectiveness Date): 31 March 2004	
8-A. Original Grant Closing Date: 31 January 2007		8-B. Actual Grant Closing Date: 30 June 2007	
		8-C. Account Closing Date: 30 April 2008	
9. Name and Number of Counterpart ADB (Loan) Project: Loan 1843 LAO (SF): Vientiane Urban Infrastructure & Services Project (VUISP)			
10. The Grant Recipient: Ministry of Finance H.E. Chansy Phosikham, Minister of Finance, Vientiane Capital City Fax No: 856 21412415			
11. Executing and Implementing Agencies:			
<p>Executing Agency: <i>Vientiane Prefecture.</i> Contact person: Mr. Bounchanh Sinthavong, Vice Mayor, Vientiane Capital City Fax: (856) 21 412526 Ph: (856) 21412526 Email: vppfp spu@lao.com</p> <p>Implementing Agency: <i>Vientiane Urban Development & Administrative Authority.</i> Contact person: Mr. Ketkeo Sihalath, Vice President of VUDAA & JFPR Project Director, Vientiane Capital City Fax: (856) 244353 Mob: (856) 20 5520713 Email: vuisp@laopdr.com</p> <p>Implementing Partners:</p> <ul style="list-style-type: none"> - <i>Vientiane Capital Women's Union.</i> Contact person: Ms. Soumphone Vorovong, Team leader Fax: (856) 21 412507; Mob: (856) 20 5658747 - <i>Participatory Development Training Centre.</i> Contact person: Mr. Sombath Somphone, Director: Fax (856) 21215909, Tel. (856-21) 506941, E-mail: padetc@laotel.com - <i>Lao Management & Development Consultants.</i> Contact person: Mr. Thanomvong Khamvongsa, Managing Director Fax: (856) 21 453149, Mob: (856) 20 5410343 Email: laomdc@laotel.com 			

¹ The ICM was prepared by Mr. Januar Hakim, ADB Project Officer, with substantial contributions from the Recipient, EA/IAs, and the grant project manager/coordinator of the PCU.

II. GRANT PERFORMANCE ASSESSMENT

12. Description:

Vientiane is the capital of Lao PDR with a population of 700,000 people with an average annual growth rate of 6.5% (2000-2006). Rapid urbanization is being fuelled by increasing economic development and rural-urban migration, which pressures city administrators to expand and upgrade existing infrastructure and services. Of particular concern is the environmental hazard caused by uncollected solid waste and unhygienic habits, which work against the health and employment opportunities of the poor. Of a total estimated 350 daily tons of solid waste generated in the city, only 120-150 tons are collected and disposed of at the municipal landfill site, while the remaining waste is burned, buried or dumped elsewhere. Furthermore, waste collection services cannot reach neighborhoods due to difficult road and access conditions. For Vientiane to develop into a sustainable, hygienic city, it is imperative to promote better environmental hygiene and generate income for poor households through adequate waste collection, transportation, recycling, and disposal. In line with its poverty reduction strategy, the Government of Lao PDR (the Government) through the Vientiane Urban Development Administration Authority (VUDAA) requested the Asian Development Bank (ADB) in June 2003 to prepare, through the Japan Fund for Poverty Reduction (JFPR), a grant to assist the Government in preparing an innovative environmental improvement project for the poor in low-income areas in Vientiane, while at the same time generating income for poor households.

The Project was conceptually related to the Vientiane Urban Infrastructure and Services Project (VUISP). Whereas the major thrust of VUISP was to provide physical infrastructure and environmental sanitation for poor communities, the Project was more poverty-focused, involving income-generating activities related to solid waste management and provision of service coverage to inaccessible areas, which are not normally financed under ADB loans. The key implementers were: (i) Vientiane Prefecture as the executing agency (EA), (ii) VUDAA as the implementing agency (IA), (iii) a project coordinating unit (PCU) established under the IA, (iv) three pre-selected project partners, namely the Vientiane City Women's Union (VCWU), Participatory Development and Training Centre (PADETC), and Lao Management Development Corporation (LMDC), and (v) community-based organizations. A Project Steering Committee comprising central and provincial government staff provided directional policy guidelines. The original implementation schedule was envisaged for 35 months, from March 2004 to January 2007, but was extended to 30 June 2007 to complete project activities.

13. Grant Development Objective and Scope:

Development Objective. The Project was to improve the living conditions of the poor in Vientiane through an improved sanitary environment, better access to waste collection services, and improved standards of living through acquisition of entrepreneurial skills. Its objectives were to (i) improve and sustain good solid waste collection practices in poor communities and proper disposal in the municipal landfill site, (ii) build capacity to plan and implement sustainable community-based solid waste management, and (iii) generate income and promote employment opportunities for waste pickers and poor households.

Scope. The Project comprised four project components: (i) Part A: infrastructure improvements at the KM18 municipal landfill with particular focus in providing assistance to the waste picker community; (ii) Part B: community based solid waste management in 15 target villages in Vientiane; (iii) Part C: income generation and entrepreneurial development; and (iv) Part D: project management, policy dialogue and dissemination of lessons learned.

Outputs. The following outputs were originally expected and implemented: (i) infrastructure improvements at the KM18 landfill site, comprising: a demonstration landfill plot, 600m new access roads and drainage improvements and a waste pickers multipurpose center (WMC) of 300m², with equipment for the processing of recyclable materials, (ii) improved working conditions at the landfill site, (iii) establishment of community-based solid waste management (CBSWM) systems and solid waste management (SWM) infrastructure improvements in 15 villages, (iv) increased public awareness on the importance of good environmental hygiene and waste minimization, (v) increase in average annual household income of poor families and waste pickers by 15%, and (vi) policy initiatives in managing Vientiane's solid waste.

Activities. Project activities included: (i) civil works for infrastructure improvements at the KM18 municipal landfill (ii) facilitation of good landfill management practices, improvements in occupational and environmental safety; (iii) design of the CBSWM system in 15 target villages to coordinate collection and transportation of household waste; (iv) income generation training by LMDC; (v) community mobilization and beneficiary participation implemented through the VCWU, (vi) public awareness education and promotion by VCWU; (vii) project management and dissemination of project experiences; (viii) monitoring and evaluation; and (ix) stakeholder consultations to develop a SWM framework.

Grant Design. The grant design assumed active participation of beneficiaries, particularly the poor, to (i) improve the amenities and hygiene of village environments, (ii) increase incomes through the acquisition of new business management skills, and (iii) provide practical choices to improve their communal and personal circumstances. Through the participatory learning approach, communities and individuals were able to gain self confidence and independence.

14. Key Performance Indicators	Accomplishment Rating*	Summary Output/Outcome
i) <i>Number of households participating in solid waste collection, recycling, and disposal.</i> - 2,900 households (14,200 people) in 10 communities will directly benefit from solid waste collection, recycling and processing.	HS	4,500 households (13,500 people) in 15 communities introduced to CBSWM system and 1,200 new solid waste contracts signed with 15 VEUs established in each village. Participation in recycling rose from 23% (2004) to 85% (2007) with just 4% of recyclable material remaining in waste bags.
ii) <i>Increased amount of solid waste collected and processed.</i> - An additional 20 tons/day of waste will be collected through community-based mechanisms.	S	Net tonnage in waste collected has not increased significantly since inception of CBSWM in 2005; attributed to success of household waste separation, resulting in 30% waste reduction.
iii) <i>500 persons will be provided with skills training and ability to increase earnings by 15%.</i>	S	500 persons trained in SME management by LMDC, which assisted in the income generation training and support, on-the-job training and establishment of a Business Development Fund. The poverty impact assessment (March 2007), reported that average household incomes had increased by 30% after training.
iv) <i>Improved occupational safety for 200 waste pickers and adequate sanitary practices in the municipal landfill site.</i>	S	250 waste pickers trained in occupational health and safety, vocational skills and employment opportunities.
v) <i>Improved landfill infrastructure and site conditions</i>	PS	Introduction of sanitary landfill practices, completion of a 58,000m ³ demonstration landfill cell. The landfill and capacity building initiatives did not achieve the planned objectives due to lack of counterpart funds and commitment by landfill management.
	S	Construction of 1,350m of access roads and drainage works. There is a concern of lack of maintenance
	S	A 300m ² waste pickers multipurpose centre was constructed to support training and process recyclable materials.

* HS=highly satisfactory, S=satisfactory, PS=partially satisfactory, U=unsatisfactory

15. Evaluation of Inputs

Consultant Performance. The Project recruited a project management consultant (30p-m) a poverty impact assessment consultant (2p-m) and an income-generation and training consultant (12p-m) from LMDC. Performance of the project management consultant was highly satisfactory, particularly in the light of initial setbacks as discussed in the following paragraphs and in overcoming external constraints. The consultant infused the PCU with innovative ideas, and coordinated well with the project manager, staff and various stakeholders. The poverty impact assessment consultant provided an excellent review and evaluation of the Project. The report structure and methodology was commendable particularly in representing views of the beneficiaries. The consultant's performance was satisfactory. The income generating and training consultant from LMDC provided "client focused" service to the beneficiaries and demonstrated a clear commitment to provide tools for improving family incomes. LMDC's input was highly satisfactory.

ADB Performance. The project officer and support staff provided technical advice on ADB and JFPR procedures for disbursement, procurement, resettlement, financial control and reporting. The review missions were timely and well-attuned to the problems facing the Project. ADB's performance was highly satisfactory.

Executing and Implementing Agency Performance. Throughout implementation, the Project was directed by the VUDAA Vice President. The first project director provided timely support to the PCU to implement the Project. In January 2006, he was relocated to another government position, but it took almost three months before a new project director was assigned to the position. This coincided with the relocation of the PCU office to the new VUDAA building. The transition caused some delays in implementation. However the incoming project director provided the needed

leadership and subsequently communication between PCU and ADB improved and regular monthly meetings were conducted. In general both the executing and implementing agencies provided guidance to the PCU and their performances were satisfactory.

PCU Performance The PCU was not established fully until late December 2004 during which the project management consultant was engaged. Actual implementation began in March 2005 when the PCU completed the detailed design. Service agreements between PCU and third parties followed upon completion of the tender process for procurement of civil works. Following a 9 month delay, the PCU proceeded with a revised implementation schedule and disbursement targets and completed the Project in a timely manner. The performance of the PCU was satisfactory.

Performance of Third Party Implementing Agencies. Three partners were recruited based on their specialized expertise. Their assignment and performances are as follows: (i) *VCWU* provided 24 months input which included community mobilization, training, public awareness and promotion as well as income generation activities. The delivered outputs fell short of expectations as VCWU had limited skills and management capacity. Their performance would have been better had they been confined to community mobilization and public awareness education. Submission of VCWU reports was delayed and the reports lacked adequate detail to meet project monitoring and coordination needs. The performance of VCWU was partly satisfactory; (ii) *PADETC* with considerable prior experience in solid waste management projects, train-the-trainer capability, and income generation programs provided 12 months intermittent inputs. However, they effectively withdrew from the project 8 months after commencement due to lack of suitably experienced trainers. The training component of their assignment was considered highly satisfactory while the income generation training skills was partly satisfactory; and (iii) *Science Technology Environment Office*, a government agency tasked with producing the 2 motorized waste transporters, made a contractual arrangement with the University of Lao Department of Engineering which designed, constructed and tested the vehicles. Their performance was satisfactory.

Performance of Beneficiaries. The inputs of beneficiary communities, village and district offices and community-based organizations were highly satisfactory, as was evident in the degree of participation, time and voluntary labor required to implement the CBSWM system in the target villages. The establishment of VEUs as effective institutions for managing community wastes clearly demonstrates community commitment. Waste pickers proved to be energetic and motivated counterparts. The income generation trainees also committed both time and energy to enhance their entrepreneurial and small business skills, as evidenced by at least 45 individuals securing independent finance and initiating start up businesses on the strength of income generation training received under the Project. Beneficiary performance was satisfactory.

16. Evaluation of Outcomes and Results

Solid waste infrastructure improvements. PCU was successful in initiating sanitary landfill operations 3 months upon completion of civil works. However commitment from municipal landfill staff and IA funding support was not forthcoming. The annexure of 50% of the current landfill space by the Ministry of Sport to provide additional space for the National Sports Complex in March 2006 also adversely impacted continuation of sanitary landfill operations as a long term supply of fill material required for daily covering was not longer available. The outputs and results of landfill improvements were partly satisfactory.

Establishment of a Waste Pickers Multi Centre and Waste Pickers Recycling Enterprise. WMC and WPRE were established to assist the waste picker community achieve independence from exploitative recycling dealers. While the facilities were operational and profitable as early as January 2006, the equipment essential to value adding recyclable product did not arrive until December the same year. The delays in arrival of the equipment, enterprise development support and micro credit loans, made the WPRE effectiveness and many waste pickers returned to previous dealers. The WPRE is likely to be sustainable, as the enterprise has been officially registered as a legal entity which is able to enter a long term use agreement with the executing agency. Overall the intervention is seen as partly satisfactory.

Improvement of working conditions at the landfill. This was achieved through the introduction of a split landfill cell separating waste picking activities from machinery operations. While waste pickers embraced measures for providing a safer workplace environment, their success hinged mostly on the management of overall landfill operations. Other occupational health and safety initiatives provided by the Project were training and education in respect to reducing workplace injuries and diseases through the use of protective clothing and improved hygiene. While most waste pickers continue to work without Personal Protective Equipment (PPE) approximately 10% of all waste pickers now use gloves, masks and hard soled boots while working on the landfill. This intervention was satisfactory.

Community-based solid waste management. The CBSWM system, built on the foundation of previous experience, was replicated beyond the confines of the Project area. Specifically it (i) extended coverage of waste management services using pushcarts, communal transfer points and improved access and collected an additional 15-20 tons of additional waste per day, (ii) implemented waste separation at the household level, (iii) created income generating

opportunities from the recycled waste. The implementation of community-based push cart collections initially had an unintended impact for private waste collectors who were displaced, but a viable agreement was reached. The Project (i) established VEU's for the management of household waste contracts and collection of waste fees (ii) secured the maximum number of village household contracts in each village, (iii) introduced pushcart collections in those areas of JFPR villages where large collection vehicle could not gain access and (iv) maximized household participation in household waste separation, (v) established 15 functional VEU's, increased household waste contracts by 30% (covering 75-95% of all village households) and (vi) enabled a 85% participation rate for source separation. The intervention was highly satisfactory.

Income generation and entrepreneurial development. The initial income generation training program was delivered by PADETC with the assistance of the VCWU. However, only 70 out of a projected 200 beneficiaries were trained after a full 12 months of activities costing on average \$947 per person. PADETC was then replaced by LMDC which subsequently trained 430 beneficiaries at a cost of \$49 per person. LMDC's income generating training program was highly successful and beneficiaries demonstrated high satisfaction with the training and support provided. This training component was considered satisfactory.

17. Overall Assessment and Rating:

Relevance in design. The Grant design was relevant and appropriate in achieving the development goal objectives; reducing poverty through providing beneficiaries with practical choices to improve their communal and personal circumstances. The design accommodated and encouraged the active participation of beneficiaries, particularly the poor, to innovate and experiment with new methods of (i) improving amenities and hygiene of village environments and (ii) increasing incomes through the acquisition of new business management skills. Through the participatory learning approach, communities and individuals were able to gain self confidence and independence.

Effectiveness. The Project was effective in achieving its objectives. Most of the outputs were delivered as envisaged in the project design. However, there are several areas that could have improved project implementation: (i) a simplified approval system to enable rapid turnaround of project documents, particularly when signatories are unavailable, (ii) improved PCU staff selection through open competition based on required skill levels, and (iii) for various positions and requirement of minimum skills. (iii) closer monitoring and supervision of dumpsite activities.

Efficiency in achieving outcomes and outputs. The project was efficient in then use of project inputs. Improvements in the landfill site and safety training for contributed to a better environment for waste pickers. The CBSWM provided the impetus for cleaner village environments, increased awareness on the importance of environmental hygiene, and generation of income. Policy dialogue enabled the formation of village environmental units, which managed and monitored solid waste contracts at the community level. The outputs and outcomes were achieved without cost overruns

Sustainability. The project outcomes are likely to be sustainable. The Project has developed a number of initiatives which were finalized towards project completion. VEUs proved to be financially sustainable through retention of a percentage of monthly waste fees. Provided that they operate transparently and efficiently, their legitimate role as village level solid waste managers will be assured. The results achieved at the municipal dumpsite, however, are less likely to be sustained. The public awareness education campaigns will require continued Government resources to sustain and expand the results gained from the Project.

Overall poverty impact. Project impacts have been positive, particularly in the villages where new access roads and extended waste collection services have been provided. The Project provided beneficiaries with the ability to learn and innovate, and the flexibility to adapt to changing circumstances. Attitudes to environmental sanitation have changed dramatically in and beyond the target area through dissemination of Project experiences through mass media and community meetings. Sustainable waste management practices have been widely adopted in the central city area, which is evident by through visible improvements in hygiene. Overall the Project was satisfactory.

18. Major Lessons Learned:

1. The Project design anticipated strong support from stakeholders during implementation. However, it did not adequately evaluate counterpart capacity, obtain consensus from key stakeholders and analyze lessons learned from previous solid waste management projects in Lao. For example, private waste collection companies and district authorities, who were directly involved in waste management, were not sufficiently involved during project design. In particular, in the implementation of the CBSWM, conflict between the PCU and the private waste collectors arose in districts which had provided concessions to private waste collectors. For future projects, ample time and resources should be provided for during project design for a thorough investigation of counterpart capacity and stakeholder commitment.

2. Project implementation could have been enhanced through prior agreement between the Ministry of Finance, the Executing Agency, Implementing Agency and PCU in specifying clear roles, responsibilities and procedures for management of the Project. To ensure smooth project implementation the arrangements, stakeholder roles and responsibilities must be agreed in principal prior to Project approval. JFPR Project experience demonstrates that autonomy at the PCU level produced superior results than the command and control method adopted later by the executing agency. The role of executing agency and higher-level stakeholders could have been more effective had it been confined to strategic and policy support for project operations rather than micro management.
3. The Project's enduring legacy is that it (i) enabled communities to acquire the necessary capacity to manage solid waste and community infrastructure projects, (ii) provided a conduit for skills advancement and (iii) enabled the mobilization of large numbers of people to become project shareholders. While the Project realized the majority of the immediate outputs, many of the initiatives are still evolving. However, there is a need of ongoing stakeholder support (particularly Government funding) to consolidate the gains derived from the Project; otherwise the gains will be eroded over time. Given the strong community demand, level of participation, and willingness to contribute, a follow up project is highly justified.
4. The original implementation schedule did not fully account for the minimum statutory time frames that are required for procurement. In social development projects where participatory planning is required, adaptive project management provides for rolling planning based on the needs of beneficiaries. Given the initial delays in operationalizing the PCU, the project struggled to attain predetermined physical progress and disbursement targets. It is imperative that realistic implementation schedules are framed, including additional time for local approval processes which can be considerable.
5. Project Implementation Manuals and other key documentation must be translated to the local language to ensure all stakeholders fully understand their obligations, roles, responsibilities and details of project implementation. Misunderstandings at the outset of the project can produce problems later on, particularly in respect to expectations of beneficiaries.
6. Several pre-selected partners did not have sufficient experience to implement the tasks required under their respective Term of Reference which caused significant project setbacks (both PADETC and VCWU claimed skills in designing, managing and implementing the Income Generation component). In addition the VCWU management and operation of the business development funds was problematic. In the future, the pre-selection of project partners must demand greater scrutiny, particularly on assessments of their capacity to undertake the tasks assigned.
7. Smaller contracts using a greater number of private sector service providers would yield a higher standard of service and greater project impact. In addition to standards of service delivery, the pre-selected implementers did not have sufficient funds up front to initiate their respective activities. Requests for advance payments could not be provided due to the requirement for Bank Guarantees from the NGO's. Sufficient financial capacity to undertake at least 3 months of work should be a minimum requirement before contracts are signed with project partners.
8. Although the JFPR Project shared the same EA and IA as the ADB financed VUIISP project, the executing agency could have put more effort to integrate the two projects under a common project management system. To an extent, this was made toward the closing phase of the JFPR project, whereby attempts were made to synchronize the two projects. The linkage was useful in educating the beneficiaries on the importance of participation, health and hygiene, and environmental awareness. Many of the problems outlined above could have been minimized, and the benefits maximized, had the two projects been integrated at the outset.
9. Several drivers of change were identified: (i) public awareness campaigns, which were highly successful in promoting sustainable solid waste management practices in Vientiane, (ii) the increase in household waste separation, which has stimulated a significant increase in the development of the informal recycling market by street pickers, dealers and truckers, (iii) infrastructure improvements, particularly access roads, that expanded solid waste management services and increase in property values, (iv) leadership and commitment of PCU staff to implementing the Project despite the strong resistance from private sector waste collectors, and (iv) VEU's role in promoting recycling, increasing household waste contracts and penalizing residents who breached waste ordinances.

19. Recommendations and Follow-up Actions:

The effectiveness of JFPR projects could be enhanced if intermediate scaling up of the initial pilot could be included in the overall project design. For example the project could be divided into two phases, the pilot and the actual project. If

this approach was used in the Project then many of the barriers to implementation could have been rectified, successful components extended and poorly supported components dropped. Once the pilot had been successfully implemented the second drawdown of funds could have been advanced to the recipient.

A distinguishing feature of JFPR projects is support for inclusive social development and flexibility to work directly with communities. Local communities in the Project area demonstrated their capacity to responsibly handle their communal and personal circumstances and mobilize needed financial and in-kind support. At the community level, poor families were provided with assistance by village offices, village temples, wealthier families and the private sector. Continued JFPR investment at this level of society will have the greatest immediate impact for the poor. Stand alone grants are possibly the most appropriate modality for direct community support.

20. Additional Remarks, Comments and Suggestions:

Dialogue and sharing lessons learned between the Lao and Cambodian JFPR projects was highly useful for the JFPR Lao PCU. A number of efficiencies, particularly with respect to resettlement, introduction of the CBSWM system, pushcart design and planned initiatives for waste pickers were incorporated into the Lao design. Similarly, networking with the Asian Institute of Technology was also beneficial. As stated earlier learning lessons from past and current projects within the recipient country and neighboring region is essential to build on successes of the past.

III. PREPARATION AND APPROVAL		
Prepared by	Name of Person and Designation	Signature and Date
1. Representative from the Recipient:	Mr. Bounchanh Sinthavong President, VUDAA/ Vice Mayor, Vientiane Capital City	
2. Manager, JFPR-GIU ¹ :	Sayamang Nanthavone Project Manager, JFPR 9035-LAO	
3. Project Officer, ADB:	Januar Hakim Urban Development Specialist Social Sectors Division, SERD	

Approved	Name of Person and Designation	Signature and Date
1. Director General, Department, ADB:	Arjun Thapan, Director General Southeast Asia Regional Department	
2. Division/Country Director, ADB:	Shireen Lateef Director, Social Sectors Division Southeast Asia Regional Department	
3. Head of the Executing Agency:	Mr. Bounchanh Sinthavong President, VUDAA/ Vice Mayor, Vientiane Capital City	
4. Head of Implementing Agency:	Mr. Ketkeo Sihlath Vice President, Vientiane Urban Development Administration Authority	

¹ GIU=grant implementation unit (formerly called PIU=project implementation unit)