



Completion Report

Project Number: 47144-001
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Mitigation of Hazardous Waste Contamination in Urban Areas: Supporting Inclusive Growth

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TA Number, Country, and Name:			Amount Approved: US\$1,500,000.00	
TA 8458-REG: Mitigation of Hazardous Waste Contamination in Urban Areas: Supporting Inclusive Growth			Revised Amount: Not Applicable	
Executing Agency: Asian Development Bank (ADB)		Source of Funding: Japan Fund for Poverty Reduction	Amount Undisbursed: \$ 408,844.24	Amount Utilized: \$ 1,091,155.76
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Description Environmental interventions aimed at reducing industrial pollution and related legislation in Indonesia and the Philippines have focused almost exclusively on heavy industries in the formal sector and have overlooked the widespread micro, small, and medium-sized industries. This capacity development TA aims to (i) increase awareness within governments, communities, and industries on the impacts of toxic pollution from such industries; (ii) strengthen capacity of stakeholders to integrate environmental management with urban development; and (iii) pilot sustainable strategies to address environmental and social issues brought about by toxic pollution on marginalized communities. Assistance has been provided to national, regional, and local governments in Indonesia and in the Philippines to strengthen capacity in hazardous waste management, contaminated site assessment, and creating strategic remediation and development plans for toxic sites in urban areas.				
Expected Impact, Outcome, and Outputs The impact of the TA is improved environmental management and community development capacity in selected locations in Indonesia and in the Philippines. The outcome is increased awareness, knowledge, and institutional capacities on the mitigation of hazardous waste contamination created in pilot locations. The TA has 3 outputs: (i) capacity assessment and awareness created through assessment of common practices and information dissemination; (ii) strategy and action plan formulated; and (iii) community development and institutional strengthening training programs and mechanisms established and implemented.				
Delivery of Inputs and Conduct of Activities TA concept was adequately formulated, however at the onset, it was realized that it had been over budgeted since some related studies carried by other donors were readily available. The original duration of the TA was two years but an extension of eight (8) months was required since some of the activities in the Philippines were delayed and the TA consultant needed additional time to deliver the final report. Nevertheless, consultants' overall performance was generally satisfactory especially on the awareness creation and action plan formulation. However, institutional strengthening was only achieved at the national level as the consultant failed to create strong ties with local governments in the Philippines. This was partly because of complication due to government officers' replacements. ADB was the executing agency (EA) and fielded four (4) review missions and three (3) additional site visits in the Philippines. ADB performance as EA was satisfactory particularly on the timely recruitment of consultants, reports quality assessment, policy formulation, and cost control. Major immediate development objectives towards mitigation of hazardous waste contamination in pilot sites were achieved. The implementing agencies (IAs)—Ministry of Environment and Forestry in Indonesia and the Department of Environment and National Resources in the Philippines—assisted in the preparation of the national workshops. Performance of the IAs was satisfactory and supportive of proposed policies. Due to a change in administration, a follow-up TA needs further discussions.				
Evaluation of Outputs and Achievement of Outcome Output 1: Capacity Assessment and Awareness Creation. The DMF targets were: (i) two workshops conducted (Jakarta and Manila); (ii) draft policies prepared; and (iii) information, education and communication (IEC) programs completed. The TA partly achieved this output—two workshops were held in each country: one on baseline data gathering and one on site assessment. The baseline workshops focused on hazardous waste integration into current environmental and strategic planning, monitoring, and licensing of formal and informal industry, and on best practices in pollution mitigation. The site assessment workshop focused on practical demonstration of the usage of monitoring equipment in polluted areas. The TA assessed the gaps in the existing legal framework and the enforcement of existing legislation. The TA also provided policy recommendation and draft policy papers based on Environmental Protection Agency (USA) regulations. Furthermore, the TA developed (i) an IEC campaign that guides local public health officials in identifying signs of hazardous waste exposures; (ii) primers for the governments on hazardous waste management and (iii) videos to alert general public about household hazardous waste. The information conveyed in workshops, policy dialogues, community sessions, and training was compiled into a 5-page booklet resource set included in the final report.				

Output 2: Strategy and Action Plan Formulation. The DMF targets were: (i) two strategic urban redevelopment, investment, and project action plans formulated; and (ii) two prefeasibility studies on hazardous industrial waste management alternatives prepared. This output was achieved through the development of strategic urban redevelopment plans, including remediation and financing plans, for Pesarean village (Indonesia) and one for the abandoned Ramcar site in Meycauayan (Philippines). These plans include template budgets and sampling reports that governments can modify for remediation planning as well as guidebooks on the process of redevelopment planning and financing. Two pre-feasibility studies on remediation of these sites were prepared.

Output 3: Community Development and Institutional Strengthening. The DMF targets were: (i) two poverty and economic assessments conducted; (ii) at least two pilot alternative livelihood programs implemented; (iii) two training-of-trainers conducted with government personnel and experts from local universities and research institutions; (iv) two multisector hazardous waste mitigation task forces created; and (v) one regional workshop conducted and guidebook on mitigation of hazardous waste for micro-, small-, and medium-sized industries prepared. This output was partly achieved since the poverty and economic assessment was only carried for Pesarean village in Indonesia. The livelihood training focused on shifting from metal smelting to making decorative art for tourism. No assessment nor livelihood training was carried out for the Ramcar site since this is an industrial estate and is not inhabited. Nevertheless, an assessment would have been appropriate since remediation of the site will indirectly benefit surrounding communities. Furthermore, training was provided to the informal industries on clean technologies on smelting and tanning provided by experts from local universities and research institutions. Hazardous waste task forces were created in local government units both in Indonesia and the Philippines. It was decided to conduct two national workshops instead of one regional workshop since the issues in each country are quite different and to save on travelling expenses. As part of training and national workshops, guidebooks were developed to support the further strengthening of both industry and local governments in pollution management, hazardous waste management oversight, and remediation planning.

Overall Assessment and Rating

The TA outcome on increased awareness, knowledge, and institutional capacities on the mitigation of hazardous waste contamination on pilot locations, has been achieved. However, sustainability of institutional capacity will depend on continued local government's commitment. The TA impact on improved environmental management and community development capacity has been successful in Pesarean village in Indonesia and will bring financing support for site remediation from DANIDA. National, provincial, and local governments have shown their support with budget contribution to conform an attractive cultural destination and will exert pressure on medium- and small-sized industries. In the Philippines, prefeasibility studies for the Ramcar site will not translate into projects due to lack of incentives for developers and stringent environmental regulation enforcement. Overall, the TA is assessed as successful because the outcome was achieved including increased awareness and institutional capacities on the mitigation of hazardous waste contamination created in pilot locations.

Major Lessons

- Community awareness is vital to create the need to mitigate hazardous waste in polluted areas. Institutional capacity should be continuously strengthened to keep up with waste production changes.
- Local governments should continue updating industries database, strengthen pollution monitoring and enforce hazardous waste regulations to protect communities' health.
- In locations outside project areas, industries need technical support and funding access to meet environmental and worker health requirements.
- Strategic urban development can be used by governments as an incentive to remediate abandoned or under-utilized contaminated sites in urban areas. Aiming to attract public or private funding.

Recommendations and Follow-Up Actions

ADB should incorporate discussions on hazardous waste management, specifically community awareness and institutional capacity building, into sector discussions and project concepts and discuss with governments potential support mechanisms to be provided through loan financing and/or piggybacked TAs. Local governments should have a hazardous waste unit capable of updating pollution databases and issuing legislation compliance recommendations. Required technical aid for informal industries could be offered through industries associations and government regulatory programs. Strategic urban redevelopment plans can be targeted to attract potential investors and relevant public agencies. Tax incentives or financing schemes can be offered by local governments to encourage redevelopment and remediation by private sector alongside environmental law enforcement. Site remediation can be part of urban projects in ADB pipeline, in cities upgrading with industrial legacy.

ADB = Asian Development Bank; DANIDA = Danish International Development Agency; DMF = design and monitoring framework; EA = executing agency; IA = implementing agency; IEC = information, education and communication; TA = technical assistance.