



Technical Assistance Report

Project Number: 45051
Research and Development Technical Assistance (RDТА)
November 2011

Solid Waste Management in the Pacific

ABBREVIATIONS

ADB	–	Asian Development Bank
AFD	–	Agence Française de Développement
DMC	–	developing member country
JICA	–	Japan International Cooperation Agency
PRSWMS	–	Pacific Regional Solid Waste Management Strategy 2010–2015
SPREP	–	Secretariat of the Pacific Regional Environment Programme
SWM	–	solid waste management
TA	–	technical assistance
TASF	–	Technical Assistance Special Fund

TECHNICAL ASSISTANCE CLASSIFICATION

Type	–	Research and development technical assistance (RDTA)
Targeting classification	–	General intervention
Sector (subsector)	–	Water supply and other municipal infrastructure and services (waste management)
Themes (subthemes)	–	Environmental sustainability (urban environmental improvement), social development (human development), economic growth (knowledge, science, and technological capacities)
Location impact	–	National (high)

NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. In the Pacific Approach,¹ the Asian Development Bank (ADB) recognizes the need to improve the supply and delivery of solid waste services in the Pacific. Pacific Island countries also recognize the importance of and need for better solid waste management (SWM), as indicated by their adoption of the Pacific Regional Solid Waste Management Strategy 2010–2015 (PRSWMS)² at the November 2009 meeting of the Secretariat of the Pacific Regional Environment Programme (SPREP). They committed to identifying sustainable financing mechanisms for SWM, implementing integrated SWM programs, passing required legislation, building awareness, and building government and private sector capacity in SWM. Thirteen Pacific developing member countries (DMCs)³ signed the PRSWMS and committed to adopting cost-effective, self-sustaining SWM systems. Timor-Leste's national development plan also commits to introduce urban waste management guidelines, establish standards for waste treatment in Dili and other main cities, and encourage composting and recycling.⁴

2. The technical assistance (TA) will help Pacific DMCs fulfill these commitments by reviewing their current SWM practices, identifying one or two prioritized initiatives for each Pacific DMC from its national solid waste strategy,⁵ and preparing an outline proposal for pilot investment for these prioritized initiatives. The TA will also bring together SWM stakeholders at a workshop to validate the outline proposals for pilot investment, examine progress made towards implementing the PRSWMS, and discuss remaining challenges to be tackled during the last two years of the PRSWMS. The TA has been prepared in consultation with Pacific DMC governments, SPREP, and the Japan International Cooperation Agency (JICA), the main donor in the sector in the Pacific.

3. The TA will help stakeholders take stock of the current situation in each Pacific DMC, identify suitable solutions for investment, and gauge the progress made in implementing the PRSWMS. The TA design and monitoring framework is in Appendix 1.⁶

II. ISSUES

4. Four main barriers to effective SWM in the Pacific have been identified: governance and institutional issues, technical challenges, the current lack of public awareness, and the need for financing.

- (i) **Governance and institutional issues.** Many Pacific DMCs face institutional barriers to improving SWM services, including missing or poorly enforced policies and a lack of capacity to directly deliver SWM services or manage private or community service providers. Because of these problems, different actors have taken on the responsibility for SWM across the Pacific DMCs. In some DMCs, the local or national government has the capacity to provide services directly. In others, the solid waste industry is well developed and the private sector provides

¹ Asian Development Bank. 2009. *Pacific Approach (2010–2014)*. Manila. (p. 19)

² Secretariat of the Pacific Regional Environment Programme. 2010. *Pacific Regional Solid Waste Management Strategy 2010–2015*. Apia.

³ Cook Islands, Fiji, Kiribati, Republic of the Marshall Islands, Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

⁴ Government of Timor-Leste. 2011. *Timor-Leste Strategic Development Plan 2011–2030*. Dili.

⁵ The national solid waste strategies of the Pacific DMCs are at various stages of preparation. Some Pacific DMCs have strategies that are still under development; others have completed draft strategies; and still others have final strategies approved by the relevant authority.

⁶ The TA first appeared in the business opportunities section of ADB's website on 12 August 2011.

SWM services. In still others, community groups, churches, and nongovernment organizations undertake SWM. However, the effectiveness and sustainability of SWM services in the Pacific is limited by the absence or weak enforcement of legal and regulatory frameworks for collection, disposal, and treatment of solid waste, as well as the weak planning and operational capacity of operators (public, private, and community) and regulators. Customary land tenures exacerbate institutional barriers by limiting the land available for SWM.

- (ii) **Technical challenges.** Pacific DMCs face a number of technical challenges in SWM due to their small size, soil type, and isolation. These include “increases in waste generation caused by economic and population growth, limited availability of suitable land on small islands and atolls for landfill, and small and sometimes sparse populations which limit any potential economies of scale” (footnote 2). Climate change exacerbates these challenges.
- (iii) **Public awareness.** Demand for SWM services varies within and between Pacific DMCs. In some cases, community demand for SWM services is low because of a lack of information about the benefits of effective SWM and a reliance on environmentally damaging, traditional waste disposal methods. In others, where demand is strong, community groups, the private sector, or governments have stepped in to provide SWM services. As noted in the PRSWMS, not-in-my-backyard attitudes impose restrictions on the availability of suitable land for SWM services and infrastructure (footnote 2). Increased public awareness of the need for and benefits derived from effective SWM is necessary to sustain improvements in SWM.
- (iv) **Financing.** Pacific DMCs face challenges in financing SWM systems because residents are reluctant to pay for poor service, revenues collected are not earmarked for SWM costs, and recycling off-island is expensive. These financing challenges are exacerbated by several factors. First, the remoteness of many Pacific DMCs results in high costs for consumables for waste management that must be imported (footnote 2). Second, many Pacific DMCs are not taking advantage of the potential revenue generation opportunities in composting and recycling. Despite 58% of waste generated being biodegradable, solid waste is not commonly composted privately or at landfills. The opportunity to reduce waste entering landfills through composting generally remains untapped. Recycling is more common than composting, but is very costly as it often means shipping recyclable waste to facilities overseas. Finally, as stated in the PRSWMS, “solid waste financing has not kept pace with growth in waste quantities”(footnote 2).

5. As a result of these four barriers, the majority of solid waste still ends up at landfill sites, which are often poorly managed, informal or illegal, and have negative environmental and health impacts.

6. Following the endorsement of the PRSWMS, Pacific DMCs began work on national solid waste strategies to guide their activities in this sector. They have been supported in this by the Agence Française de Développement (AFD), JICA, and SPREP. JICA recently launched the Project for Promotion of Regional Initiative on Solid Waste Management (2011–2015). This builds on the success of its Solid Waste Management Project in Oceania Region (2006–2010), which disseminated the good practices introduced at the Tafaigata landfill in Samoa and supported other Pacific island countries in preparing national SWM strategies. Under the 2011–2015 project, JICA will continue to partner with SPREP to (i) implement the PRSWMS, for which SPREP remains the coordinating agency, (ii) support those Pacific DMCs that need to finalize

their national solid waste strategies, and (iii) conduct training courses and pilot initiatives, such as the “Vava’u Semi-Aerobic Landfill Facility and Tonga Waste Reduction Campaign – 3Rs” in Tonga, which will improve final treatment facilities and reduce waste by recycling. AFD recently launched the Regional Initiative for Solid Waste Management in the Pacific Region. This project will support the development and delivery of vocational training in waste management, develop frameworks for waste oil collection and disposal, and prepare country activity proposals in SWM.

7. The TA will work closely with active donors and agencies to (i) update the research and data (which in many cases is 5–10 years out of date) that was used to prepare each national solid waste strategy and the PRSWMS; (ii) prepare the outline proposals for pilot investments; and (iii) discuss progress made in implementing the PRSWMS during the Pacific SWM Workshop. By evaluating progress made to date and preparing outline proposals for pilot investments for submission to donors, the TA will make an important contribution to the ongoing and future work of Pacific DMC governments and donors in the SWM sector.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

8. The impact of the TA will be improved delivery of SWM. The outcome will be that key stakeholders (government, private, and civil society) in Pacific DMCs have an increased understanding of SWM issues in the Pacific.

B. Methodology and Key Activities

9. The TA will support Pacific DMCs’ goal to improve SWM by bringing together civil society organizations and government stakeholders to prioritize one or two initiatives in the sector from amongst the required actions outlined in the national strategies. An outline proposal for pilot investment will then be prepared for each of the prioritized initiatives.

10. The TA has four outputs: (i) an update of the current situation in the SWM sector in Pacific DMCs, (ii) agreement of Pacific DMCs for the outline proposals for pilot investment, (iii) sharing of Pacific DMC stakeholders’ experiences on SWM issues, and (iv) dissemination of SWM knowledge products. The research conducted and disseminated by the TA, as well as the outline proposals for pilot investment, will increase stakeholders’ awareness and understanding of SWM solutions in the Pacific.

11. The TA has five key activities that will be undertaken to achieve the outputs:

- (i) **Research.** Consultants will be hired to work with Pacific DMC governments and community stakeholders to survey current SWM practices in each Pacific DMC, and identify one or two priority initiatives from among those listed in each national solid waste strategy. For each Pacific DMC, the consultants will update the information contained within each national strategy, following the four themes identified (governance and institutional issues, technical challenges, public awareness, and financing). Subjects to be researched include: waste generation, collection, transfer, and disposal; technologies; institutional arrangements; policies, legislation, and standards, including monitoring and enforcement mechanisms; service delivery providers, including public, private, community, informal solid waste workers, and civil society; public education and awareness campaigns; approaches to different types of solid waste, e.g., residential,

commercial, urban, rural, public spaces, medical, hazardous, industrial, post-disaster clean-up; programs on waste reduction, recycling, composting, and waste-to-energy, including market demand for outputs of such programs; and funding, costing, and revenue generation mechanisms, including carbon credits and clean development mechanisms.

- (ii) **Establishment of the baseline.** Through their research, the consultants will establish the baseline figures for the SPREP's SWM indicators and the project's performance indicators. Additional indicators (and baseline data) may be proposed if required.
- (iii) **Priority investments.** Through community meetings and discussions with governments in each Pacific DMC, the consultants will validate their findings and discuss the selected priority initiatives to identify appropriate approaches and solutions. An outline proposal for pilot investment that is 'donor-ready' will then be prepared for each priority initiative. During consultations, the consultant will deliver basic onsite advice, when possible, on identified priority initiatives. Stakeholders' capacity in preparing investment plans and designing investment projects will be strengthened through their hands-on participation in preparing the outline proposal for pilot investment.
- (iv) **Workshop.** Government, private sector, and community stakeholders and donors will be invited to a Pacific-wide workshop to (i) validate the consultants' overall research findings, (ii) provide feedback on the outline proposals for pilot investment for the priority initiatives in each Pacific DMC, (iii) evaluate progress made towards implementing the PRSWMS, and (iv) discuss remaining challenges to be addressed in the last two years of the PRSWMS.
- (v) **Knowledge products.** Research findings will be compiled into a final report, which will be used to prepare a Pacific Studies Series publication. Both will be shared widely through stakeholder networks to increase awareness of SWM issues and outline pilot investment proposals for priority initiatives.

12. A key risk to the success of the TA is that proposed investment initiatives may be limited by a lack of available information on the research topics in certain Pacific DMCs. This risk will be mitigated by widespread community consultations to gather local knowledge that may not be available from traditional data sources. The TA assumes that Pacific DMC governments will agree with the recommended investment initiatives and research conclusions, and take the lead in seeking financing to further develop the proposals. To ensure these assumptions hold true, Pacific DMC government representatives and other key stakeholders will be involved from an early stage in data collection, prioritizing investment needs, and developing outline investment proposals.

C. Cost and Financing

13. The TA will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF). The budget for the TA is \$450,000, with \$425,000 to be funded by TASF-other sources and \$25,000 by TASF-IV. The participating governments will provide counterpart support in the form of office accommodation, transport, remuneration and per diem of counterpart staff, and others. Cost estimates and the financing plan are provided in Appendix 2.

D. Implementation Arrangements

14. The TA will commence on 1 December 2011 and end on 30 November 2013. Disbursements under the TA will be made in accordance with the *Technical Assistance*

Disbursement Handbook (2010, as amended from time to time). ADB will be the executing agency of the TA and will organize the Pacific SWM Workshop and similar activities.

15. The TA will require one international consultant with expertise in SWM and governance for 9 person-months. The SWM and governance specialist will undertake the research, prepare the outline proposals for pilot investment, organize the SWM workshop, and prepare the final report and Pacific Studies Series publication. The international consultant will be assisted by 14 national consultants as research assistants, one per Pacific DMC. Each national research assistant will be engaged for 1 person-month and will coordinate research efforts, collect data, and arrange community meetings in each Pacific DMC. Outline terms of reference are provided in Appendix 3. Consultants will be engaged on an individual basis by ADB in accordance with the Guidelines on the Use of Consultants (2010, as amended from time to time). Editing and publishing of the final report and Pacific Studies Series publication will be coordinated with ADB's Department of External Relations.

16. The TA will produce two key deliverables: (i) the international consultant's final report, which will include the outline proposal for pilot investment for each country's prioritized initiatives, and (ii) a Pacific Studies Series publication. Both knowledge products will be shared widely through stakeholder networks and during the Pacific SWM Workshop to increase awareness of SWM issues and present the outline proposals for pilot investment. Recipients will include Pacific DMC governments, community and private sector stakeholders, regional stakeholders such as SPREP, and donors. ADB will evaluate these outline proposals for future ADB support to the SWM sector in discussion with Pacific DMC governments.

IV. THE PRESIDENT'S DECISION

17. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$450,000 on a grant basis for Solid Waste Management in the Pacific, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact Improved delivery of SWM</p>	<p>0.8kg of waste collected and disposed of per day per person according to country standards</p> <p>80% of households and businesses accessing SWM services</p>	<p>SPREP reports on the implementation of the PRSWMS 2010–2015</p>	<p>Assumptions Continued Pacific DMC governments' support for implementing PRSWMS 2010–2015 and other SWM initiatives</p> <p>Continued donor support for SWM initiatives</p>
<p>Outcome Key stakeholders (government, private, and civil society) in Pacific DMCs have an increased understanding of SWM issues in the Pacific</p>	<p>14 improved SWM practices and initiatives agreed to in 14 Pacific DMCs</p>	<p>Country programming review reports, government sector reports, survey of key stakeholders</p>	<p>Assumptions Pacific DMC governments agree with recommendations in the knowledge products</p> <p>Knowledge products reach SWM stakeholders in Pacific DMCs</p>
<p>Outputs</p> <p>1. Update of current situation in SWM sector in Pacific DMCs is completed</p> <p>2. Pacific DMCs agree to outline proposals for pilot investment</p> <p>3. Pacific DMC stakeholders share experiences on SWM issues</p> <p>4. SWM knowledge products are disseminated</p>	<p>2 knowledge products produced</p> <p>14 outline proposals for pilot investment agreed to</p> <p>14 outline proposals for pilot investment enhanced through stakeholder discussions at SWM Workshop</p> <p>100 Pacific DMC stakeholders attend events at which the knowledge products are launched and received by stakeholders.</p>	<p>Content of knowledge products</p> <p>Content of knowledge products</p> <p>Pacific SWM Workshop records</p> <p>Attendance and distribution records</p>	<p>Assumption</p> <p>Strong stakeholder interest in contributing to research, reviewing knowledge products, and attending Pacific SWM Workshop</p> <p>Risk Lack of availability of information on all four thematic areas in all Pacific DMCs would limit the proposed initiatives</p>

Activities with Milestones	Inputs
<p>1. Update of current situation in SWM sector in Pacific DMCs is completed</p> <p>1.1. Investigate current SWM practices in four thematic areas, updating the information contained within the national strategies by December 2012.</p> <p>1.2. Gather baseline data for SPREP's SWM indicators and propose additional relevant indicators if required by December 2012.</p> <p>1.3. Interview and survey stakeholders, host participatory workshops, and work with civil society organizations to gather information and recommendations by December 2012.</p> <p>1.4. Examine donor support to SWM, recognize best and good practices, and identify gaps, unsuccessful practices, and ongoing challenges by December 2012.</p> <p>2. Pacific DMCs agree to outline proposals for pilot investment</p> <p>2.1. With community and government stakeholders, identify one or two priority initiatives per country and prepare an outline proposal for pilot investment for each initiative by December 2012.</p> <p>2.2. Validate findings and outline proposal(s) for pilot investment through a community meeting in each Pacific DMC, organized in partnership with local civil society organizations by December 2012.</p> <p>2.3. Compile research findings, baseline data, and outline proposals for pilot investment in all Pacific DMCs into a draft research report for validation at the Pacific SWM Workshop by March 2013.</p> <p>2.4. After the Pacific SWM Workshop, evaluate the outline proposals for pilot investment for future ADB support to the SWM sector in discussion with Pacific DMC governments by October 2013.</p> <p>3. Pacific DMC stakeholders share experiences on SWM issues</p> <p>3.1. Organize and host Pacific SWM Workshop by April 2013.</p> <p>3.2. Validate research findings and baseline data at the Pacific SWM Workshop by April 2013.</p> <p>3.3. Gather peer feedback on outline proposals for pilot investment and disseminate lessons learned at the Pacific SWM Workshop by April 2013.</p> <p>3.4. Evaluate progress made and discuss remaining challenges in implementing the PRSWMS at the Pacific SWM Workshop by April 2013.</p> <p>3.5. Disseminate lessons learned from the Pacific SWM Workshop to Pacific DMCs and other stakeholders through the knowledge products by October 2013.</p> <p>4. SWM knowledge products are disseminated</p> <p>4.1. After the Pacific SWM Workshop, finalize the research report and prepare a Pacific Studies Series publication for wider distribution by August 2013.</p> <p>4.2. Launch knowledge products through ADB's website and events by October 2013.</p> <p>4.3. Distribute knowledge products to key stakeholders in Pacific DMCs through civil society and government networks by October 2013.</p> <p>4.4. Inform stakeholders of knowledge products through local newspapers and other media by October 2013.</p>	<p>ADB: \$450,000</p>

ADB = Asian Development Bank; DMC = developing member country; PRSWMS = Pacific Regional Solid Waste Management Strategy 2010–2015; SPREP = Secretariat of the Pacific Regional Environment Programme; SWM = solid waste management.

Source: Asian Development Bank estimates.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	170.80
ii. National consultants	70.00
b. International and local travel	37.20
c. Reports and communications	45.00
2. Training, seminars, and conferences	114.00
3. Miscellaneous administration and support costs	1.90
4. Contingencies	11.10
Total	450.00

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-IV and TASF-other sources). The participating governments (Cook Islands, Fiji, Kiribati, Republic of the Marshall Islands, Federated States of Micronesia, Nauru, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu) will provide counterpart support in the form of office accommodation, transport, remuneration and per diem of counterpart staff, and others.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. International Solid Waste Management and Governance Specialist

1. **Scope of work.** The consultant will explore trends in SWM in the Pacific, investigate SWM practices in each Pacific DMC, interview and survey key practitioners and stakeholders in SWM, and prepare a research report for donors, Pacific DMC governments, community groups, and other key stakeholders. The consultant will present and validate his/her findings at the Pacific SWM Workshop. The consultant will finalize the research report based on the results of the workshop and prepare the research report for publication as a Pacific Studies Series report. The consultant will report to the ADB Project Officer.

2. **Detailed tasks.** The consultant will undertake the following tasks:

- (i) Explore trends in SWM across the Pacific.
- (ii) Examine the role played by national policy environments, political economy and culture, civil society organizations, non-government organizations, regional initiatives and partnerships (e.g., PRSWMS), and donors in SWM in the Pacific.
- (iii) Visit 12 Pacific DMCs (Cook Islands, Fiji, Kiribati, Republic of the Marshall Islands, Federated States of Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, and Vanuatu) to undertake field research. A local research assistant will be provided in each location to set up meetings, gather documents, and provide background and contextual information.
- (iv) Work with government and civil society organizations to investigate current SWM practices in four thematic areas (governance and institutional issues, technical challenges, public awareness, and financing), updating the information contained within the national solid waste strategy of each Pacific DMC.
- (v) Gather baseline data for SPREP's SWM indicators and the project's performance indicators, and propose additional relevant indicators if required.
- (vi) Produce fourteen country case studies discussing the following facets of SWM: amount and composition of waste generated by whom and where; resource value of waste generated; technologies, management, institutional arrangements, regional partnerships, legislation and policies; current private sector, community and civil society participation in delivering SWM services; informal solid waste workers; public education and awareness campaigns; approaches to different types of solid waste (e.g., public spaces, residential, commercial, medical, hazardous, industrial, post-disaster clean-up); differences in approaches to urban- and rural-generated waste; methods of waste selection, collection, storage, transfer, processing and disposal; enforcement of collection, disposal and composting standards; enforcement of environmental codes; monitoring systems; programs on waste reduction, recycling and composting; funding, costing, and revenue generation mechanisms including carbon credits and clean development mechanisms; and market analysis of demand for recyclables and compost.
- (vii) Work with government and civil society organizations to undertake surveys and interviews and to host participatory workshops with Pacific DMC government officials, SWM practitioners, community groups, civil society organizations, and other key stakeholders to supplement traditional data collection and research methods. These consultations will ensure that (a) local knowledge held by the community informs research findings, and (b) community priorities and recommendations guide the selection of one or two priority initiatives.

- (viii) Through consultation with government and civil society organizations, identify best and good practices, gaps, unsuccessful practices, and ongoing challenges with SWM in the Pacific and identify lessons applicable to all Pacific DMCs (in particular examples of service/management contracts with the private sector and civil society organizations or informal arrangements for SWM service delivery).
- (ix) Identify local supporters of improved SWM in each Pacific DMC, regional leaders in SWM, and potential speakers and participants for the Pacific SWM Workshop.
- (x) With community and government stakeholders, identify one or two priority initiatives per country and prepare an outline proposal for pilot investment for each initiative. Potential initiatives could be carried out by government, the private sector, the community, or a combination of stakeholders and could cover any aspect of the full SWM cycle from pre-selection and transfer to storage and processing at source and off-site.
- (xi) Validate findings and outline proposals for pilot investment through a community meeting in each Pacific DMC, organized in partnership with local civil society organizations.
- (xii) Compile all findings, analysis, country case studies, data, and recommendations into a draft research report.
- (xiii) Assist in planning a workshop to bring together stakeholders—government, private sector, and community—to (a) validate research findings and baseline data, (b) provide peer feedback on the outline proposals for pilot investment, (c) disseminate lessons learned, (d) evaluate progress made, (e) discuss remaining challenges in implementing the PRSWMS, and (f) promote future support to the SWM sector.
- (xiv) Present findings and outline proposals for pilot investment at the Pacific SWM Workshop for validation and feedback.
- (xv) Prepare the final research report incorporating feedback from the Pacific SWM Workshop.
- (xvi) Prepare the final research report for publication in the Pacific Studies Series.

3. **Output requirements.** The consultant will produce the following deliverables:

- (i) a draft outline of the research report;
- (ii) a draft research report with all data, indicators, interview notes, surveys, participatory workshop materials, and other research materials attached;
- (iii) a presentation for the Pacific SWM Workshop;
- (iv) a final research report with all data, indicators, interview notes, surveys, participatory workshop materials, and other research materials attached; and
- (v) the written content for the Pacific Studies Series publication.

4. **Places of assignment.** The consultant will travel to 12 Pacific DMCs (Cook Islands, Fiji, Kiribati, Republic of the Marshall Islands, Federated States of Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, and Vanuatu) and to the location of the Pacific SWM Workshop (Suva, Fiji). The required deliverables will be completed at the consultant's home location.

5. **Length of assignment.** The consultant will be engaged for 9 person-months on an intermittent basis.

B. National Research Assistant (14 positions)

6. **Scope of work.** Supporting the work of the international SWM and governance specialist, the research assistant will help to gather data, coordinate research efforts, organize interviews with key practitioners and stakeholders, and arrange community meetings. The research assistant will report to the international SWM and governance specialist.

7. **Detailed tasks.** The research assistant will undertake the following tasks:

- (i) Gather all available government, donor, private sector, and community reports, information, and data on the SWM sector.
- (ii) Identify key stakeholders in the SWM sector and arrange interviews with them for the international specialist.
- (iii) Organize community meetings to discuss SWM issues with the private sector and community stakeholders.
- (iv) Facilitate community meetings and interviews under the guidance of the international specialist.
- (v) Record minutes and gather lists of participants at all meetings and of all interviewees.
- (vi) Administer stakeholder surveys under the guidance of the international specialist.
- (vii) Provide administrative and logistical support to the international specialist's field visit.
- (viii) Provide translation and/or interpretation services as needed for the international specialist.

8. **Output requirements.** The research assistant will produce the following deliverables for his/her respective Pacific DMC:

- (i) a database of all available data, information, and reports on SWM;
- (ii) minutes and lists of participants at all community meetings and of all interviewees; and
- (iii) a final report detailing the activities undertaken, with all supporting documents, reports, and data attached.

9. **Places of assignment.** Each research assistant will be located in his/her home Pacific DMC.

10. **Length of assignment.** Each research assistant will be engaged for 1 person-month on an intermittent basis.