

## Appendix 1

### PROJECT DESCRIPTION

#### I. BACKGROUND

Solid Waste Management (hereinafter referred to as "SWM") has become a serious problem in Punjab due to rapid urbanization, uncontrolled population growth, lack of resources, institutional weaknesses and lack of civic sense towards solid waste disposal.

The average solid waste collection efficiency in Punjab is only around 50% causing spread of multiple diseases such as diarrhea and dengue fever. Whatever quantity of waste is collected, it is normally dumped in open areas along the roadsides, canalsides and low lying areas. The land contamination may be affected the quality of groundwater from shallow depth. Un-collected waste was illegally piled by sidewalks, open spaces, the sewer lines, or even in canals, and blockages of waste water flow in the sewers are seen and cause additional load for the local government.

In the Punjab Vision 2020, waste management is located under the priority area of water supply, sewerage and sanitation (WSS), and through the Urban Unit (hereinafter referred to as "UU") of the Government of the Punjab (hereinafter referred to as "GOPb"), solid waste management strategy was developed as the Guidelines of Solid Waste Management issued in 2007. GOPb has been tackling the issues which contribute to an improvement of solid waste management based on the guidelines.

However, the budget for SWM in Punjab is restrictive, and about 80% of the budget is spent on personnel expenses or institutional administrative expenses.

Moreover, although SWM is to be performed on the responsibility of each district government under the law, since the laws or the guidelines on SWM are not fully implemented, how to conduct SWM effectively and efficiently under the limited human resources and budget in each local government has been an important issue to be solved.

In 2009, JICA commissioned a sector study to take stock of the current status, problems, and necessity of the assistance in SWM sector in seven (7) major cities of Punjab Province. Through the study, the degree of assistance needs for SWM, SWM related budget, the number of the related department personnel, existence of master plan, existence of other donor support, existence of self-financed activities, motivation/commitment of top management, etc. were investigated. Based on the results of the study, followed by a series of discussion made by GOPb and JICA, the necessity of the assistance for SWM sector was ascertained, and in addition, Gujranwala city was identified as the highest priority among the surveyed cities considering the highly motivated top management and SWM related staff, no existence of donor support ever, conducting waste collection under the limited budget and etc.

CDGG through UU GOPb submitted an official request to the Government of Japan received the official request, submitted by CDGG through UU, from Economic Affairs Division on July 30, 2010 for the Technical Cooperation to formulate the Master Plan to address improvement of SWM in



Gujranwala. GOPb has also a plan to replicate the results of the Project to other major cities in Punjab.

In response to the request from GOP, the Japanese Detailed Planning Study Team (hereinafter referred to as "the Team") headed by Ms. Hiroko Kamata was sent to Pakistan by JICA from September 28 to October 19, 2011 for the purpose of discussing and confirming the scope of work for the Project for Integrated Solid Waste Management Master Plan in Gujranwala (hereinafter referred to as "the Project").

## **II. OUTLINE OF THE PROJECT**

### **1. Title of the Project**

Project for Integrated Solid Waste Management Master Plan in Gujranwala

### **2. Objectives of the Project**

- (1) To develop a Master Plan of Integrated Solid Waste Management for Gujranwala City
- (2) To enhance the Institution Capacity for Implementation of the SWM Master Plan
- (3) To draw lessons and best practices for replication of the master plan in other major cities of Punjab

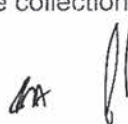
### **3. Target year of the Master Plan**

The Master Plan will be developed from 2012 to 2014 through the technical assistance from JICA. The implementation period of the master plan is from 2014 to 2025. Both sides agreed that the scope of the master plan is from 2014 to 2025.

### **4. Activities done by PMU**

Phase 1: Review and analysis of the present situation

- (1) Establishment of Project Management Unit (PMU)
- (2) Collection and review of relevant data and reports on solid waste management (solid waste discharge, collection, intermediate treatment, existing recycling firms for municipal solid waste, illegal dumping sites, final disposal, medical and industrial waste, institution systems, and privatization scheme)
- (3) Review of past and on-going studies and development projects related to solid waste management
- (4) Capacity Assessment of Individuals and Institutions
- (5) Survey of the present conditions
  - i) Social and economic analysis
  - ii) Review existing laws, regulations, policies and institutional arrangements related to solid waste management
  - iii) Financial and managerial conditions
- (6) Field survey and investigation
  - i) Characterization Study (Quantitative/Qualitative, 3 times seasonally, April-May, Aug-Sep., Jan-Feb, including public awareness)
  - ii) Time and Motion Study
  - iii) Measurement of waste volume/weight of waste collection vehicle





Appendix II: Record of Discussion (Draft)

- (7) Survey of the Final Disposal Site
  - i) Survey on candidate sites for final disposal
  - ii) Selection of Final Disposal Site
  - iii) Environmental Impact Assessment for candidate site(s) by CDGG
  - iv) Social consideration around candidate site(s) (surrounding residents or natural environment)
  - v) Geological Survey for existing dumpsite
  - vi) Topographic Survey for existing dump site
  - vii) Water Quality Survey around existing dump site and candidate site(s)

Phase 2: Formulation of a Master Plan

- (1) Formation of basic strategy (setting up future socio-economic framework)
- (2) Estimation of prospective amount of generated solid waste
- (3) Estimation of resources, equipment and machinery, human resource, method of waste disposal
- (4) Planning of how to procure resources in different stages according to the geographical zoning
- (5) Formulation of an integrated master plan (strategy, dimensions of the plan and projects, financial and management plan, institution and organization plan, facility plan, operation and maintenance plan, and human resources development plan)
- (6) Selection of priority project(s)
- (7) Seminars, Trainings and workshops
- (8) Environmental and social consideration study; and
- (9) Cost estimation of projects under Integrated Solid Waste Master Plan and formulate implementation plan

Phase 3: Action Plans for the target year 2025

- (1) Selection of priority projects for Grant Aid and/or Technical Cooperation Project and/or Loan
- (2) Clarification of approximate costs for the priority projects; and
- (3) Formulation of action plans and a road map for implementation

5. Input

(1) Input by JICA

(a) Dispatch of Mission

- i) Solid Waste Management (1)
- ii) Final Disposal Plan (1)
- iii) Waste Collection and Transport Plan (1)
- iv) Intermediate Treatment and 3R Plan (1)
- v) People's Participation / Environmental Education (1)
- vi) Financial affairs and business management analysis (1)
- vii) Environmental impact assessment and social consideration (1)
- viii) Institutional Strengthening and Restructuring Plan (1)

Input other than indicated above will be determined through mutual consultations between JICA and GOPb during the implementation of the Project, if necessary.



Appendix II: Record of Discussion (Draft)

(2) Input by CDGG and GOPb

CDGG and GOPb will take necessary measures to provide at its own expense:

- (a) Services of CDGG and GOPb counterpart personnel and administrative personnel as referred to in II-6;
- (b) Suitable office space with necessary equipment;
- (c) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than the equipment provided by JICA;
- (d) Information as well as support in obtaining medical service;
- (e) Credentials or identification cards;
- (f) Available data (including maps and photographs) and information related to the Project;
- (g) Running expenses necessary for the implementation of the Project;
- (h) Expenses necessary for transportation within Pakistan of the equipment referred to in II-6 as well as for the installation, operation and maintenance thereof; and
- (i) Necessary facilities to members of the JICA missions for the remittance as well as utilization of the funds introduced into Pakistan from Japan in connection with the implementation of the Project.

6. Implementation Structure

The roles and assignments of relevant organizations are as follows:

(1) City District Government Gujranwala (CDGG)

Mr. Barrister Nabeel Awan	District Coordination Officer (DCO)
Mr. Tariq Mahmood	Executive District Officer (EDO) (F&P)
Mr. Waheed Ahmed Butt	Executive District Officer (EDO) (MS: Municipal Services)

\*Executive District Officer (Municipal Services) of CDGG is responsible for the Project at the Pakistani side and the counterpart agency for the JICA Project Team. Mr. Butt will be the Project Manager for the Project. The Project Manager will be responsible for overall administration and implementation of the Project.

Dr. Shahid Munir Khawaja	District Officer (DO) (SWM)
Mr. Imtiaz Rasool Alvi	District Officer (DO) (Environment)
Mr. Abdul Qayum Dar	Chief Sanitary Inspector (Zone 1)
Mr. Muhammad Sharif Bhuttar	Chief Sanitary Inspector (Zone 2)

(2) The Urban Unit (UU)

Dr. Nasir Javed	Project Director
Dr. Kiran Farhan (Ms.)	SWM Specialist
Ms. Syeda Sani-e-Zahra Naqvi	Urban Planner
Mr. Fawad Saeed	Senior GIS Specialist
Mr. Murad Rana	Research Associate
Mr. Abdul Razaq	Senior M&E Specialist
Mr. Jehangir Shabbir	Research Assistant
Mr. Muhammad Ahmad	Research Analyst

\*Dr. Farhan and Mr. Rana will be the focal persons for the Project.



## Appendix II: Record of Discussion (Draft)

### (3) Members of the JICA missions

Members of the JICA missions will give necessary technical guidance, advice and recommendations to CDGG and UU on any matters pertaining to the implementation of the Project.

### (4) Project Management Unit (PMU)

JICA Project Team, CDGG and GOPb will create a Project Management Unit (PMU) that will implement and manage the Project. During the Project, four (4) research assistants/associates from UU and eight (8) solid waste managers from CDGG will undergo On-The-Job-Training from the JICA Project Team. The implementation structure of PMU is shown in Annex 1.

### (5) Joint Coordinating Committee

Joint Coordinating Committee (hereinafter referred to as "JCC") will be established in order to facilitate inter-organizational coordination. JCC will be held whenever deems it necessary. A list of proposed members of JCC is shown in Annex 2.

## 7. Project Site(s) and Beneficiaries

Gujranwala City and its people

## 8. Duration

The duration of the Project would be eighteen (18) months from the date when the JICA Project Team member(s) arrives. The Project will be carried out in accordance with the tentative schedule as below. The schedule is tentative and subject to change when both parties agree upon any necessity that will arise during the course of the Project.

TENTATIVE SCHEDULE																		
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Work in Gujranwala																		
Inception Report	▲																	
Progress Report				▲														
Interim Report									▲									
Draft Final Report																▲		
Final Report																		▲
Work in Japan	■			■					■									
Seminar/Workshop										■					■			

## 9. Reports

JICA will prepare and submit the following reports to CDGG and UU in English.

- (1) Thirty (30) copies of Inception Report at the commencement of the first work period in Pakistan
- (2) Thirty (30) copies of Progress Report at the time of three (3) months after the commencement of the first work period in Pakistan
- (3) Thirty (30) copies of Interim Report at the time about eight (8) months after the commencement of the first work period in Pakistan
- (4) Fifty (50) copies of Draft Final Report at the end of the last work period in

Appendix II: Record of Discussion (Draft)

Pakistan

- (5) Fifty (50) copies of Final Report within one (1) month after the receipt of the comments on the Draft Final Report

10. Environmental and Social Considerations

CDGG and UU agreed to abide by 'JICA Guidelines for Environmental and Social Considerations' in order to ensure that appropriate considerations will be made for the environmental and social impacts of the Project.

**III. UNDERTAKINGS OF CDGG, GOPb AND GOP**

1. CDGG, GOPb and the Government of Pakistan will take necessary measures to:

- (1) ensure that the technologies and knowledge acquired by the Pakistan nationals as a result of Japanese technical cooperation contributes to the economic and social development of Pakistan, and that the knowledge and experience acquired by the personnel of Pakistan from technical training as well as the equipment provided by JICA will be utilized effectively in the implementation of the Project; and
- (2) grant privileges, exemptions and benefits to members of the JICA missions referred to in II-5 (3) above and their families, which are no less favorable than those granted to experts of third countries performing similar missions in Pakistan under the Colombo Plan Technical Cooperation Scheme.

2. CDGG, GOPb and the Government of Pakistan will take necessary measures which are agreed on the Agreement of Technical Cooperation between the Government of Pakistan and Japan (Annex 3).

**IV. PROMOTION OF PUBLIC SUPPORT**

For the purpose of promoting support for the Project, CDGG and GOPb will take appropriate measures to make the Project widely known to the people of Pakistan.

**V. MUTUAL CONSULTATION**

JICA, CDGG and GOPb will consult each other whenever any major issues arise in the course of Project implementation.

**VI. AMENDMENTS**

The record of discussions may be amended by the minutes of meetings among JICA, CDGG, GOPb, and EAD if necessary.

The minutes of meetings will be signed by authorized persons of each side who may be different from the signers of the record of discussions.

Annex 1 Implementation Structure of the Project

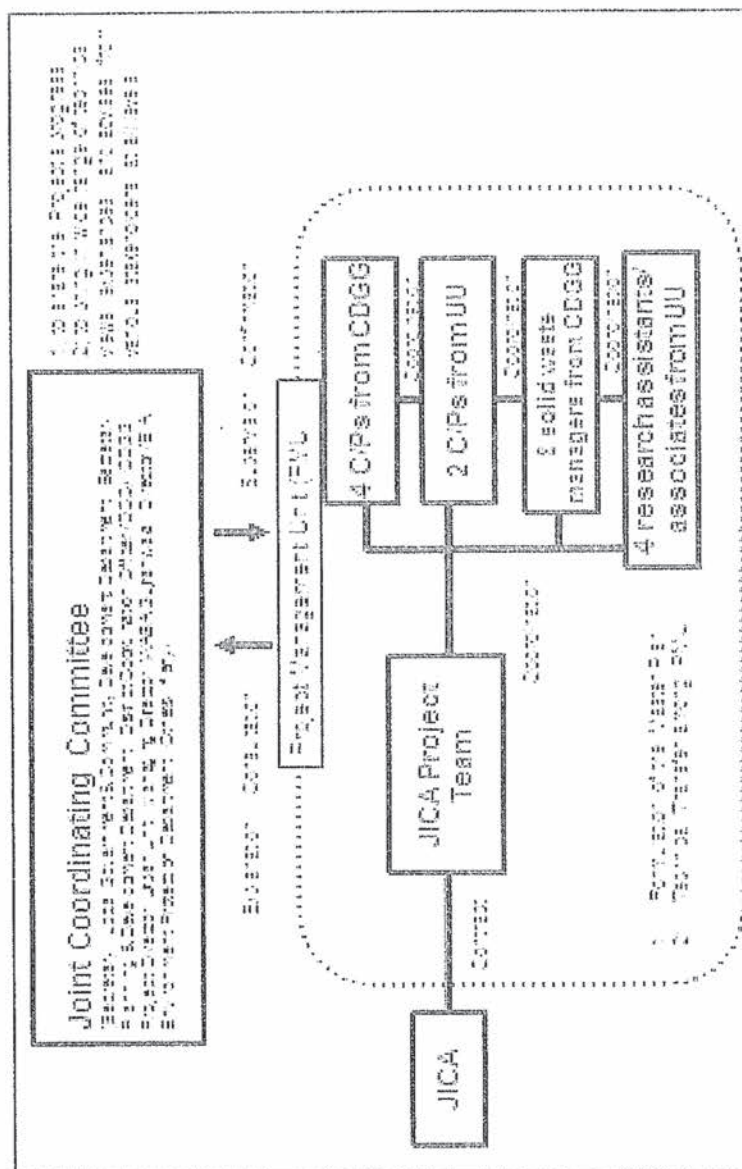
Annex 2 List of Proposed Members of Joint Coordinating Committee

Annex 3 Agreement of Technical Cooperation



Annex 1 Implementation Structure of the Project

Implementation Structure of the Project





Appendix II: Record of Discussion (Draft)

Annex 2 List of Proposed Members of Joint Coordinating Committee

Government of the Punjab (GOPb)

Planning & Development (P&D) Department

Mr. Ali Tahir Secretary

Local Government & Community Development Department

Mr. Khizar Hayat Gondal Secretary, The Project Director

The Urban Unit (UU)

Dr. Nasir Javed Project Director, UU

Ms. Syeda Sani-e-Zahra Naqvi Urban Planner

Water and Sanitation Agency (WASA), Gujranwala

Mr. Khalid Bashir Butt Managing Director

Environment Protection Department

Mr. Mian Khalid Director (EIA), Environmental Impact Assessment

City District Government Gujranwala (CDGG)

Mr. Barrister Nabeel Awan District Coordination Officer (DCO), The Deputy Project Director





**AGREEMENT ON TECHNICAL COOPERATION  
BETWEEN THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF  
PAKISTAN AND THE GOVERNMENT OF JAPAN**

The Government of the Islamic Republic of Pakistan and the Government of Japan,

Desiring to strengthen further the friendly relations existing between the two countries through the promotion of technical cooperation, and

Considering mutual benefits derived from promoting the economic and social development of their respective countries,

Have agreed as follows:

**Article I**

The two Governments (hereinafter referred to as "the Parties") shall endeavor to promote technical cooperation between the two countries.

**Article II**

Separate arrangements which govern specific technical cooperation programs carried out under this Agreement shall be agreed upon between the competent authorities of the Parties. The competent authority of the Government of the Islamic Republic of Pakistan is the Ministry of Economic Affairs and Statistics (Economic Affairs Division), and the competent authority of the Government of Japan is the Ministry of Foreign Affairs.

**Article III**

The following forms of technical cooperation will be carried out by the Japan International Cooperation Agency (hereinafter referred to as "JICA") at its own expense in accordance with the laws and regulations in force in Japan as well as with the arrangements referred to in Article II:

- (a) Providing technical training to Pakistani nationals;
- (b) dispatching experts (hereinafter referred to as the "Experts") to the Islamic Republic of Pakistan;
- (c) dispatching Japanese volunteers with a wide range of technical skills and abundant experience (hereinafter referred to as the "Senior Volunteers") to the Islamic Republic of Pakistan;
- (d) dispatching Japanese missions (hereinafter referred to as the "Missions") to the Islamic Republic of Pakistan to conduct surveys of economic and social development projects of the Islamic Republic of Pakistan;

- (e) providing the Government of the Islamic Republic of Pakistan with equipment, machinery and materials; and
- (f) providing the Government of the Islamic Republic of Pakistan with other forms of technical cooperation as may be decided upon by mutual consent between the Parties.

#### Article IV

The Government of the Islamic Republic of Pakistan shall ensure that the techniques and knowledge acquired by Pakistani nationals as well as the equipment, machinery and materials provided as a result of the Japanese technical cooperation as set forth in Article III contribute to the economic and social development of the Islamic Republic of Pakistan, and are not utilized for military purposes.

#### Article V

In case JICA dispatches the Experts, the Senior Volunteers and the Missions, the Government of the Islamic Republic of Pakistan shall:

1. (1) (a) exempt the Experts, the Senior Volunteers and members of the Missions from taxes including income tax, and fiscal charges imposed on or in connection with salaries and any allowances remitted to them from abroad ;  
  
(b) exempt the Experts, the Senior Volunteers, members of the Missions and their families from taxes including customs duties and fiscal charges in respect of the importation of:
  - (i) personal effects, household effects and consumer goods; and
  - (ii) one motor vehicle per Expert and per Senior Volunteer assigned to stay in the Islamic Republic of Pakistan;  
(c) exempt the Experts and the Senior Volunteers who do not import any motor vehicle into the Islamic Republic of Pakistan from taxes including all indirect taxes and fiscal charges in respect of the local purchase of one motor vehicle per Expert and per Senior Volunteer; and  
  
(d) exempt the Experts and the Senior Volunteers from the registration fee of the motor vehicles mentioned in (b)(ii) and (c).
- (2) (a) provide, at its own expense, suitable office and other facilities including telephone and facsimile services necessary for the performance of the duties by the Experts, the Senior Volunteers and the Missions as well as to bear the expenses for their operation and maintenance;  
  
(b) provide, at its own expense, the local staff (including adequate interpreters, if necessary) as well as Pakistani counterparts to the Experts, the Senior Volunteers and the Missions necessary for the performance of their duties;  
  
(c) bear expenses of the Experts and the Senior Volunteers for:



- (i) daily transportation to and from their place of work;
  - (ii) their official travels within the Islamic Republic of Pakistan whenever local conditions and financial possibilities of authorities concerned of the Government of the Islamic Republic of Pakistan may permit; and
  - (iii) their official correspondence;
- (d) provide the assistance for the acquisition of appropriate housing accommodation for the Experts, the Senior Volunteers and their families; and
- (e) provide the assistance for receiving medical care and facilities for the Experts, the Senior Volunteers, members of the Missions and their families.
- (3) (a) permit the Experts, the Senior Volunteers, members of the Missions and their families to enter, leave and sojourn in the Islamic Republic of Pakistan for the duration of their assignment therein, offer them the assistance for completing the procedures of alien registration requirements, and exempt them from consular fees;
- (b) issue identification cards to the Experts, the Senior Volunteers and members of the Missions to secure the cooperation of all governmental organizations necessary for the performance of their duties;
- (c) offer the Experts, the Senior Volunteers and their families the assistance for the acquisition of car driving license; and
- (d) carry out other measures necessary for the performance of the duties by the Experts, the Senior Volunteers and the Missions.
2. The motor vehicles mentioned in paragraph 1 shall be subject to payment of taxes including customs duties if they are subsequently sold or transferred within the Islamic Republic of Pakistan to individuals or organizations not entitled to exemption from such taxes or similar privileges.
3. The Government of the Islamic Republic of Pakistan shall accord the Experts, the Senior Volunteers, members of the Missions and their families such privileges, exemptions and benefits as are no less favorable than those accorded to experts, senior volunteers, members of missions and their families of any third country or of any international organization performing a similar mission in the Islamic Republic of Pakistan.

#### Article VI

The Government of the Islamic Republic of Pakistan shall bear claims, if any arises, against the Experts, the Senior Volunteers and members of the Missions resulting from, occurring in the course of, or otherwise connected with, the performance of their duties, except when the Parties agree that such claims arise from gross negligence or willful misconduct on the part of the Experts, the Senior Volunteers or members of the Missions.

#### Article VII

1. (1) In case JICA provides the Government of the Islamic Republic of Pakistan with equipment, machinery and materials, the Government of the Islamic Republic of Pakistan shall exempt such equipment, machinery and materials from taxes including customs duties and fiscal charges in respect of the importation. The equipment, machinery and materials mentioned above shall become the property of the Government of the Islamic Republic of Pakistan upon being delivered c.i.f. at the port of the disembarkation to competent authorities of the Government of the Islamic Republic of Pakistan.

(2) In case JICA provides the Government of the Islamic Republic of Pakistan with equipment, machinery and materials, the Government of the Islamic Republic of Pakistan shall exempt such equipment, machinery and materials from taxes including all indirect taxes and fiscal charges in respect of the local purchase.

(3) The equipment, machinery and materials mentioned in sub-paragraph (1) and (2) shall be utilized for the purpose specified in the arrangements referred to in Article II unless otherwise agreed upon between the competent authorities of the Parties.

(4) The expenses for the transportation within the Islamic Republic of Pakistan of the equipment, machinery and materials mentioned in sub-paragraph (1) and (2) and the expenses for their replacement, maintenance and repair shall be borne by the Government of the Islamic Republic of Pakistan.

2. (1) The equipment, machinery and materials, prepared by JICA, necessary for the performance of the duties by the Experts, the Senior Volunteers and members of the Missions shall remain the property of JICA unless otherwise agreed upon between the competent authorities of the Parties.

(2) The Government of the Islamic Republic of Pakistan shall exempt the Experts, the Senior Volunteers and members of the Missions from taxes including customs duties and fiscal charges in respect of the importation of the equipment, machinery and materials mentioned in sub-paragraph (1).

(3) The Government of the Islamic Republic of Pakistan shall exempt the Experts, the Senior Volunteers and members of the Missions from taxes including all indirect taxes and fiscal charges in respect of the local purchase of the equipment, machinery and materials mentioned in sub-paragraph (1).

#### Article VIII

The Government of the Islamic Republic of Pakistan shall maintain close contact, through organizations designated by it, with the Experts, the Senior Volunteers and members of the Missions.





concluded

#### Article IX

1. It is confirmed that JICA may maintain its overseas office in the Islamic Republic of Pakistan (hereinafter referred to as the "Office") with a resident representative and his/her staff to be dispatched from Japan (hereinafter referred to as the "Representative" and the "Staff" respectively) who shall perform the duties to be assigned to them by JICA relative to the technical cooperation programs under this Agreement in the Islamic Republic of Pakistan.

2. The Government of the Islamic Republic of Pakistan shall:

(1)(a) exempt the Representative, the Staff and their families from taxes including income tax and fiscal charges imposed on or in connection with salaries and any allowances remitted to them from abroad;

(b) exempt the Representative, the Staff and their families from taxes including customs duties and fiscal charges in respect of the importation of:

- (i) personal effects, household effects and consumer goods; and
- (ii) one motor vehicle per Representative and per Staff assigned to stay in the Islamic Republic of Pakistan;

(c) exempt the Representative and the Staff who do not import any motor vehicle into the Islamic Republic of Pakistan from taxes including all indirect taxes and fiscal charges in respect of the local purchase of one motor vehicle per Representative and per Staff;

(d) exempt the Representative and the Staff from the registration fee of the motor vehicles mentioned in (b)(ii) and (c);

(e) permit the Representative, the Staff and their families to enter, leave and sojourn in the Islamic Republic of Pakistan for the duration of their assignment therein, offer them the assistance for completing the procedures of alien registration requirements, and exempt them from consular fees;

(f) issue identification cards and special passes to the Representative and the Staff to enter airport/seaport beyond passport control point to receive and send off the Experts, the Senior Volunteers and members of the Missions;

(g) offer the Representative, the Staff and their families the assistance for the acquisition of car driving license; and

(h) carry out other measures necessary for the performance of the duties by the Representative and the Staff.

(2)(a) exempt the Office from taxes including customs duties and fiscal charges in respect of the importation of the equipment, machinery, motor vehicles and materials necessary for activities of the Office;

(b) exempt the Office from taxes including all indirect taxes and fiscal charges in respect of the local purchase of the equipment, machinery, motor vehicles and materials necessary for the functions of the Office; and

(c) exempt the Office from taxes including income tax and fiscal charges imposed on or in connection with office expenses remitted from abroad.

3. The motor vehicles mentioned in paragraph 2 shall be subject to payment of taxes including customs duties if they are subsequently sold or transferred within the Islamic Republic of Pakistan to individuals or organizations not entitled to exemption from such taxes or similar privileges.
4. The Government of the Islamic Republic of Pakistan shall accord the Representative, the Staff and their families as well as the Office such privileges, exemptions and benefits as are no less favorable than those accorded to representatives, staff and their families as well as offices of any third country or of any international organization performing a similar mission in the Islamic Republic of Pakistan.

#### Article X

The Government of the Islamic Republic of Pakistan shall take necessary measures to ensure security of the Experts, the Senior Volunteers, members of the Missions, the Representative, the Staff and their families staying in the Islamic Republic of Pakistan.

#### Article XI

The Government of the Islamic Republic of Pakistan and the Government of Japan shall consult with each other in respect of any matter that may arise from or in connection with this Agreement.

#### Article XII

1. The provisions of this Agreement shall also apply, after the entering into force of this Agreement, to the specific technical cooperation programs which have commenced prior to the entering into force of this Agreement, and to the Experts, the Senior Volunteers, members of the Missions, the Representative, the Staff and their families staying in the Islamic Republic of Pakistan as well as to the equipment, machinery and materials related to the said programs.

2. The termination of this Agreement shall neither affect the specific technical cooperation programs being carried out until the date of the completion of the said programs, unless otherwise decided upon by mutual consent between the Parties, nor affect the privileges, exemptions and benefits accorded to the Experts, the Senior Volunteers, members of the Missions, the Representative, the Staff and their families staying in the Islamic Republic of Pakistan for the performance of their duties in connection with the said programs.



Article XIII

1. This Agreement shall enter into force on the date of the signature thereof.

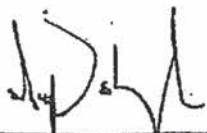
2. This Agreement shall remain in force for a period of one year, and shall be automatically renewed every year for another period of one year each, unless either Government has given to the other Government at least six months' written advance notice of its intention to terminate this Agreement.

Article XIV

The Annex to this Agreement forms an integral part of this Agreement, and all reference to the "Agreement" shall include reference to the Annex.

IN WITNESS WHEREOF the undersigned, duly authorized thereto, have signed this Agreement.

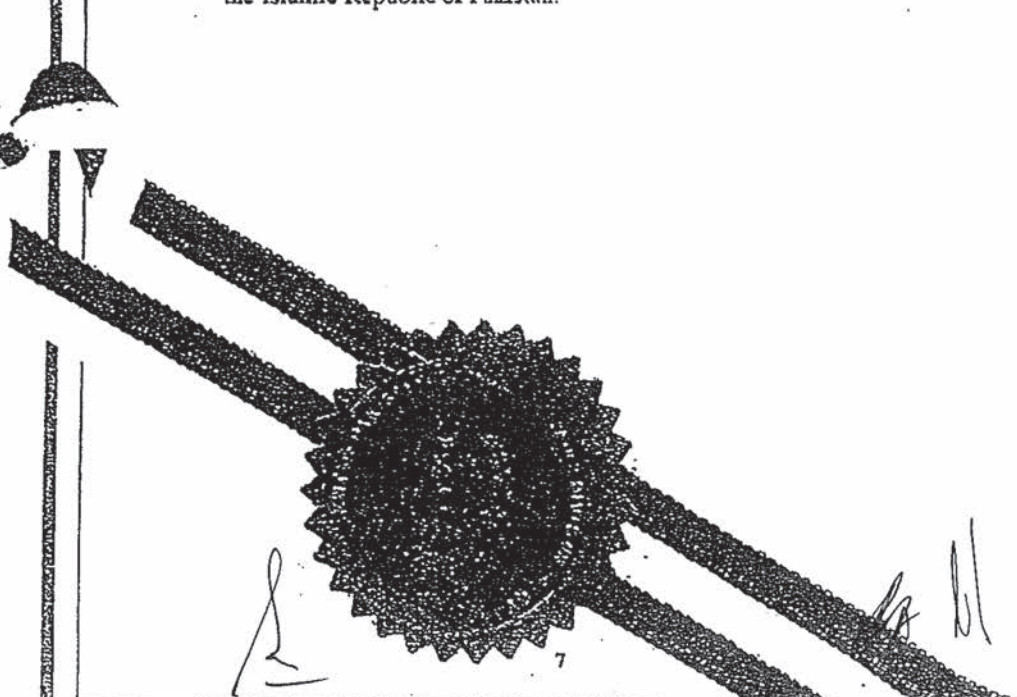
DONE in duplicate, in Japanese and English languages, both texts being equally authentic, at Islamabad on 30<sup>th</sup> April, 2005.



For the Government of  
the Islamic Republic of Pakistan:



For the Government of Japan:



## ANNEX

In case the Government of the Islamic Republic of Pakistan should impose consular fees or require the obtainment of import license or certificate of foreign exchange coverage in respect of the importation of items in the future, the Experts, the Senior Volunteers, members of the Mission, the Representative, the Staff and their families as well as the Office shall be exempted from such consular fees or such requirement, in respect of the importation of the items referred to in Article V.1.(1)(b), Article VII.1.(1) and 2.(2), and Article IX.2.(1)(b) and 2.(2)(a).





## Appendix 2

### MAIN POINTS DISCUSSED

#### 1. Counterpart Personnel

GOPb will complete the recruitment of eight (8) new solid waste managers and four research associates/assistants who will be associated with the JICA Project Team in order to develop capacities to formulate a master plan of solid waste management at latest by the end of December 2011. Those eight (8) solid waste managers will be trained by UU in January 2012 and be dispatched to CDGG from February 2012.

#### 2. Seminar and/or Workshops

Both sides agreed that seminars and/or workshops would be jointly held by CDGG, UU and JICA Project Team to provide opportunities of dialogue with stakeholders and technology transfer to the Pakistani counterparts. Especially, considering the intention to replicate the outcomes from the Project to other cities, it is preferable to invite relevant personnel from other major cities engaged in solid waste management, such as from Faisalabad, Rawalpindi, Multan, Sargodha, Bahawalpur or Sialkot, and/or other districts within Gujranwala division, and other related stakeholders. CDGG, UU, eight (8) solid waste managers and four (4) research assistants/associates shall use the opportunities to take lead on planning for replication to other cities in Punjab and/or districts in Gujranwala division. Cost for holding seminars/workshops will be mainly borne by JICA.

#### 3. Necessary Equipment and Facilities for the Project

GOPb and CDGG agreed to provide the PMU with suitable office space, furniture, air conditioners, and communication facilities in the Solid Waste Management Office of CDGG during the Project.

Both sides agreed that CDGG shall provide the communication facilities and that the bills for the use of the communication would be paid by JICA Project Team.

About the vehicles one vehicle with a driver will be allocated to each of eight (8) waste managers. And transport for four (4) research associates from UU, UU will bear the cost of transport.

#### 4. Reports

Both sides agreed that the reports of the Project shall be made available to stakeholders and open to the public. CDGG and GOPb agreed to make sure of disclosing the reports on web site of all counterparts.

#### 5. Utilization of PC-I titled Institutional Capacity Building of Urban Solid Waste Management System in Punjab (Pilot Phase)

The approved PC-I budget will cover necessary expenses for eight (8) solid



waste managers including staff salary, travel expenses for training, daily consumptions for the Project.

#### **6. Environmental and Social Considerations**

JICA provided JICA's Guidelines for environmental and social considerations (2010), (hereinafter referred to as the JICA guidelines) and explained that it would be applied to the project. The Pakistani side understood the policy of the JICA guidelines and agreed in principle as follows:

- (1) The Pakistani side will follow EIA regulations in Pakistan for project activities at final disposal site and take appropriate measures, if necessary. The JICA Project Team will provide the technical support to do it.
- (2) The information disclosure such as opening the study report shall be made in order to ensure the participation and dialogues with various stakeholders, in order to achieve appropriate environmental and social considerations.
- (3) In the course of implementation of the Project, public consultation with communities and stakeholders shall be included if necessary.
- (4) In view of the Project objectives, both side agreed the Project to follow the laws and regulations in force in Pakistan and the JICA guidelines.

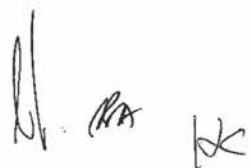
#### **7. Continuous support for the Project**

Both sides agreed that through the Project, capacity for formulation of a master plan in the field of solid waste management at city level will be developed and the capacity should be accumulated and transferred to GOPb for future extension of the master plan formulation to other major cities in Punjab.

Both sides agreed that UU and Department of Local Government will make every effort to retain professionally competent solid waste managers for the replication stage of the Project in other district(s) of Gujranwala and in other major cities in Punjab.

CDGG, GOPb and JICA will cooperate for the implementation of the master plan that will be developed as the outcome of the Project by conducting Grant Aid and/or Technical Cooperation.

GOPb expects next implementation phase of the Project for extension of the scope of capacity development by Grant Aid and/or Technical Cooperation Project. GOPb through CDGG shall secure continuous engagement of solid waste managers as per decided number. Actions for further steps for Grant Aid and/or Technical Cooperation Project would be discussed between Pakistani side and Japanese side as the Project progresses as well as the monitoring and evaluation stage of the Project.





## 8. Others

### (1) Office Space for the Project

CDGG confirmed the office space for the JICA Project Team located at the first floor of CDGG building. Necessary arrangement such as partition, desks, chairs, bookshelves, internet facility, telephone, air conditioners, etc, shall be made available before the commencement of the Project.

### (2) Selection of the candidate areas of the new final disposal site in Gujranwala

CDGG and GOPb will select candidate areas of a new final disposal site and inform JICA of the result of selection before the commencement of the Project and during the Project, the candidate sites will be compared and examined to determine the best new final disposal site in the master plan. Consequent upon the selection of final disposal site, CDGG will take up the process of EIA. Cost for EIA will be made available by Pakistani side.

The Team requested to include following into the selection criteria for the candidate areas;

- i) Accessibility
- ii) Environmental and Social Consideration based on JICA Guidelines
- iii) Consideration of the location of the existing dump site as it will be used for future transfer station/material recovery facilities (MRF)
- iv) Sufficient land size to accept the waste at least for another 10 years

CDGG and GOPb agreed that the selection criteria will be prepared and shared with JICA by the end of December 2011, and the candidate areas will be identified and informed to JICA before the commencement of the Project.

### (3) Collaboration with WASA

CDGG explained that there occurs blockage of sewers by solid waste in Gujranwala that causes less efficiency of waste water flow, on the other hand, when rainy season, waste water from canals overflow and wash out the waste compiled along the road. Likewise, waste water management and solid waste management are inter-related. Therefore, both sides agreed that the collaboration with WASA shall benefit mutually contributing to the better efficiency of collection of waste and sewage management. To support this collaboration, MD WASA Gujranwala shall be the member of JCC.

### (4) Target waste

CDGG requested to include industrial waste and medical waste within the scope of the Project. Although the industrial waste is supposed to be properly

Appendix II: Record of Discussion (Draft)

treated by industries, and medical waste is to be segregated at source and treated properly by hospitals under Health Department, but in reality, those wastes are disposed mixed with other municipal solid waste, and this problem has to be addressed and improved. In this context, the JICA Project Team will propose the policy recommendation for the industrial waste and medical waste.

Annex 1

List of Counterpart Personnel (Tentative)





Appendix II: Record of Discussion (Draft)

Annex 1 List of Counterpart Personnel (Tentative)

The Urban Unit (UU), Government of the Punjab (GOPb)

Dr. Kiran Farhan (Ms.)	SWM Specialist
Mr. Murad Rana	Research Associate
<u>to be confirmed</u>	Research Assistant/Associate(1)
<u>to be confirmed</u>	Research Assistant/Associate(2)
<u>to be confirmed</u>	Research Assistant/Associate(3)
<u>to be confirmed</u>	Research Assistant/Associate(4)

City District Government Gujranwala (CDGG)

Mr. Waheed Ahmed Butt	Executive District Officer (EDO) (MS: Municipal Services)
Dr. Shahid Munir Khawaja	District Officer (DO) (SWM)
Mr. Abdul Quayum Dar	Chief Sanitary Inspector (Zone 1)
Mr. Muhammad Sharif Bhuttar	Chief Sanitary Inspector (Zone 2)
<u>to be confirmed</u>	Solid Waste Manager (1)
<u>to be confirmed</u>	Solid Waste Manager (2)
<u>to be confirmed</u>	Solid Waste Manager (3)
<u>to be confirmed</u>	Solid Waste Manager (4)
<u>to be confirmed</u>	Solid Waste Manager (5)
<u>to be confirmed</u>	Solid Waste Manager (6)
<u>to be confirmed</u>	Solid Waste Manager (7)
<u>to be confirmed</u>	Solid Waste Manager (8)

### 3. 主要面談者リスト

#### 1. パンジャブ州政府 (GOPb : Government of Punjab)

##### (1) 計画開発局 (P&D : Planning & Development Department)

Mr. Ali Tahir Secretary

##### (2) アーバンユニット (UU : The Urban Sector Policy and Management Unit (Urban Unit))

Dr. Nasir Javed Project Director

**Dr. Kiran Farhan (Ms.)** **SWM Specialist (Counterpart)**

Ms. Syeda Sani-e-Zahra Naqvi Urban Planner

Mr. Fawad Saeed Senior GIS Specialist

**Mr. Murad Rana** **Research Associate (Counterpart)**

Mr. Abdul Razaq Senior M&E Specialist

Mr. Haroon Rasul Khokhar I.T. Specialist

Mr. Murad Rana Research Associate (SWM)

Mr. Jehangir Shabbir Research Assistant (SWM)

Mr. Muhammad Ahmad Research Analyst (SWM)

##### (3) ローカルガバメント&コミュニティ開発局 (Local Government & Community Development Department)

Mr. Khizar Hayat Gondal Secretary

Mr. Saqib Aziz Special Secretary

Mr. Moazzam Ali Janjua Additional Secretary (Development)

#### 2. グジュランワラ市役所 (CDGG : City District Government Gujranwala)

Mr. Barrister Nabeel Awan District Coordination Officer (DCO)

Mr. Tariq Mahmood Executive District Officer (EDO) (F&P)

**Mr. Waheed Ahmed Butt** **Executive District Officer (EDO) (MS: Municipal Services) (Project Manager)**

Mr. Imtiaz Rasool Alvi District Officer (Environment)

Dr. Shahid Munir Khawaja District Officer (DO) (SWM)

Mr. Abdul Quayum Dar Chief Sanitary Inspector (Zone 1)

Mr. Muhammad Sharif Bhuttar Chief Sanitary Inspector (Zone 2)

#### 3. 水道公社 (WASA : Water and Sanitation Agency)

Dr. Javed Iqbal (Mr.) Managing Director, WASA Lahore

Mr. Khalid Bashir Butt Managing Director, WASA Gujranwala

#### 4. ラホール廃棄物管理公社 (LWMC : Lahore Waste Management Company)

Mr. Ghhiyas Maliq District Officer (Workshop)

Mr. Malik Jamshid Ali Incharge Mehmood Booti dump site



#### 4. 収集資料リスト

主管部長	文書管理課長	主管課長	情報管理課長	技術情報課長	図書館受入口

		プロジェクトID		調査団番号			
地域	南西アジア	調査団名又は専門 家氏名	グジャランワラ市廃棄物対策マ スタープラン策定プロジェクト	調査の種類又は指導科 目	詳細計画策定調査	担当部課	地球環境部 環境管理第一課
国名	パキスタン	配偶機関名	グジャランワラ市役所	現地調査期間又は派遣 期間	2011年9月28日～10月20日	担当者氏名	根崎 俊

[illegible]

## 5. 事業事前評価表

### 事業事前評価表（開発計画調査型技術協力）

作成日：平成 24 年 5 月 30 日

担当部署：地球環境部環境管理第一課

1. 案件名
<p>国名：パキスタン・イスラム共和国</p> <p>案件名：和名 グジュランワラ市廃棄物管理マスタープラン策定プロジェクト</p> <p>英名 Project for Integrated Solid Waste Management Master Plan in Gujranwala</p>
2. 協力概要
<p>(1) 事業の目的</p> <p>本事業は、パンジャブ州グジュランワラ市において、2025 年を目標年次とする廃棄物管理マスタープランおよびアクションプランを策定し、マスタープランの実行に係る実施体制の強化及び能力開発を行うことを目的とする。</p> <p>(2) 調査期間</p> <p>2012 年 9 月から 2014 年 3 月まで（18 ヶ月間）</p> <p>(3) 総調査費用 約 2.7 億円</p> <p>(4) 協力相手先機関</p> <p>パンジャブ州政府計画開発局アーバン・ユニット（都市開発課）、グジュランワラ市役所</p> <p>(5) 計画の対象（対象分野、対象規模等）</p> <p>廃棄物管理（一般廃棄物）、パンジャブ州グジュランワラ市（面積 61km<sup>2</sup>、人口約 190 万人（2007 年推計））</p>
3. 協力の必要性・位置付け
<p>(1) 現状及び問題点</p> <p>パキスタン・イスラム共和国（以下、パキスタン）は国家環境政策（National Environmental Policy, 2005 年）として包括的な廃棄物管理の推進を掲げており、廃棄物管理は各地方自治体の責任で行うことと定めている。</p> <p>パキスタンの人口の半分超が集中するパンジャブ州には、州人口の約 20%が州内の主要都市に暮らしている。それら主要都市では近年人口増加が顕著であり、急激に都市化が進んでいるため、それに伴い、ごみ発生量も増加している。パンジャブ州の主要都市では一般廃棄物の収集率は 50%程度に留まり、街の至る所に無造作に廃棄物が積まれ、不法投棄が蔓延し、パンジャブ州の都市景観に対する悪いイメージをもたらしている。実際に、未収集または不法に投棄された廃棄物は、歩道や小溪谷、排水渠に投棄・放置され、都市部の下水道・雨水排水路を詰まらせている。</p> <p>JICA は地方自治体の固形廃棄物管理全般にかかる関係機関の能力向上のため、パンジャブ州を含むパキスタン国内の主要 8 都市を対象とした技術協力プロジェクト「廃棄物処理対策向上プロジェクト」（2006 年～2009 年）を実施し、廃棄物管理に係る収集・運搬・処分の改善を行った。その結果、廃棄物管理に係る基礎的な知識・技術が向上したものの、各都市における総合的な固形廃棄物管理に必要な計画策定、事業の実施には至らなかった。パンジャブ州計画・開発局では、包括的な廃棄物管理に係るマスタープランを策定し、廃棄物管理の改善に向けた行動計画を実施していく必要性を強く認識しているものの、州内各市の廃棄物管理担当部局は人材・予算ともに脆弱であり、廃棄物管理計画策定やその実施に係る技術的な知見やノウハウが圧倒的に不足している。</p> <p>上記プロジェクトにて積極的な取り組みのあったパンジャブ州に対して、JICA は情報収集・</p>



確認調査「廃棄物管理にかかる情報収集・確認調査」(2009 年～2010 年)を実施し、パンジャブ州内の 7 都市 (Lahore 市、Gujranwala 市、Faisalabad 市、Rawalpindi 市、Sargodha 市、Multan 市、Sialkot 市) における廃棄物管理関連予算、関連部署職員数、既存のマスタープラン等の有無、他ドナー支援・自己資金事業の有無、事業実施に関する各都市のモチベーション・コミットメント等を調査し、基礎情報を収集すると同時に、同州内の都市における廃棄物管理分野への支援ニーズが高いことを確認した。

現在の廃棄物対策への取り組み状況(実施体制が整い、収集率も一定程度あること)や、他ドナー支援実績がないこと、関係者の主体者意識が高いこと等を鑑み、パンジャブ州政府は、他都市と比較して支援ニーズが高い、グジュランワラ市を対象とした、「グジュランワラ市廃棄物対策マスタープラン策定プロジェクト」を新規に要請し、わが国政府は本要請を採択した。なお、パンジャブ州政府は本案件の成果を同州内の他の主要都市に対して活用することを念頭においている。

## (2) 相手国政府国家政策上の位置づけ

パキスタンの国家環境政策(2005 年)では重点項目の 1 つに廃棄物管理を挙げ、包括的な廃棄物管理の推進等が掲げられている。また、パンジャブ州政府開発指針である“Punjab’s Vision 2020”(2004 年)では、重点課題として掲げられた「上水供給、下水と衛生」の中に、廃棄物管理が位置づけられている。パンジャブ州政府の廃棄物管理担当部局であるアーバン・ユニット(計画・開発局都市開発課)は、固形廃棄物管理ガイドライン(2007 年)の中で、各自治体が包括的な廃棄物管理のマスタープランを策定し、廃棄物管理の改善に向けた行動計画を実施していく必要性を記載している。

## (3) 他の援助機関の関連事業との整合性

パンジャブ州ではアジア開発銀行(以下、ADB)と世界銀行(以下、世銀)が以下のプロジェクトを実施している。グジュランワラ市は対象とされていない。

### 1) ADB の事業

#### a) Southern Punjab Basic Urban Services Project (2005 年～2009 年)

パンジャブ州の 26 都市を対象に、廃棄物のみならず、上下水、排水、道路等の基礎インフラ整備を目的としたプロジェクトである(事業予算は約 60 百万米ドル(約 49.6 億円<sup>1)</sup>)。本事業では 26 都市に対し、13 の埋立処分場を建設した。

#### b) Rawalpindi Environmental Improvement Project (2006 年～2011 年)

ラワルピンディ市の上下水、廃棄物管理(廃棄物収集車両の調達、新規最終処分場の建設)の整備を実施した。事業予算は 51 億ルピー(約 46.7 億円)。

### 2) 世銀の事業

#### a) Punjab Municipal Services Improvement Project (2006 年～2010 年)

パンジャブ州の Tehsil Municipal Administration (TMA) を対象に都市サービス(上下水、廃棄物管理、道路・交通等)に関する計画や財務管理の能力開発を実施。事業予算用は約 59 百万米ドル(約 48.8 億円)。

#### b) KOICA-World Bank Joint Study on Solid Waste Management in Punjab (2006 年～2007 年)

韓国国際協力団(KOICA: Korean International Cooperation Agency)が世銀と連携し、パンジャブ州主要 9 都市の廃棄物管理の実態を調査。そのうち、ラホール市とシアルコッ

1 1 米ドル＝82.64 円、1 パキスタンルピー＝0.916 円(2012 年 3 月 29 日の為替レート)で算出

ト市の2都市について2021年を目標年次とした廃棄物管理のマスタープランを策定した。

(4) 我が国援助政策との関連、JICA 国別事業実施計画上の位置づけ

本事業は、対パキスタン事業展開計画において、援助重点分野「人間の安全保障の確保と人間開発」、開発課題「環境改善に向けた取り組みの促進」、協力プログラム「環境改善プログラム」に位置づけられる。

4. 協力の枠組み

(1) 調査項目

【第一フェーズ：2012年9月～2013年4月】現状分析、課題の把握

- 1) プロジェクト・マネジメント・ユニット (PMU) の設立
- 2) 固形廃棄物管理にかかる各種報告書やデータ (関連法規、関連組織情報、固形廃棄物の廃棄、収集、中間処理、既存のリサイクル業者、不法投棄、最終処分場、医療廃棄物、産業廃棄物、民営化にかかる制度等) の収集とその分析
- 3) 既往 / 現在進行中の関連計画 / 事業のレビュー
- 4) カウンターパート機関の個人・組織のキャパシティ・アセスメント
- 5) 現状調査
  - (ア) 社会経済分析
  - (イ) 関連法規、政策、規程、関連組織
  - (ウ) 財務状況、経営状況
- 6) 野外調査
  - (ア) ごみ質調査 (季節ごとに1回、年3回)
  - (イ) 収集作業のタイム・アンド・モーション・スタディ (動作研究)
  - (ウ) ごみ量調査
- 7) 最終処分場調査
  - (ア) 現存最終処分場の地質・地勢調査
  - (イ) 現存最終処分場及び周辺の水質調査
  - (ウ) 新規最終処分場候補地の地質・地勢調査
  - (エ) 新規最終処分場候補地及び周辺の水質調査
  - (オ) 新規最終処分場の選定
  - (カ) 新規最終処分場及び周辺の環境社会配慮調査

【第二フェーズ：2013年5月～2013年12月】マスタープランの策定

- 1) 基本戦略の作成 (社会経済フレームワークの設定)
- 2) 固形廃棄物排出量の将来推計
- 3) 必要な資源 (財源、資機材、人的資源) の特定
- 4) 適正な廃棄物処理方法の決定
- 5) 区画毎の段階的な資源調達計画の策定
- 6) 廃棄物管理マスタープランの策定 (戦略、処分場区分計画、財務・経営計画、組織計画、施設計画、運営・維持管理計画、人材育成計画)
- 7) セミナー、研修、ワークショップの開催
- 8) 環境社会配慮調査の実施
- 9) 廃棄物管理マスタープラン実施に係る事業経費の積算

【第三フェーズ：2014年1月】2025年を目標年次としたアクションプランの策定



<p>1) 優先プロジェクトの選定（無償資金協力、技術協力プロジェクトの実施を想定）</p> <p>2) 優先プロジェクトの概算コスト算出</p> <p>3) アクションプランの策定</p> <p>（2）アウトプット（成果）</p> <p>1) グジュランワラ市における廃棄物管理対策マスタープランが策定される。</p> <p>2) マスタープランに基づくアクションプランが策定される。</p> <p>3) 実施機関の固形廃棄物管理にかかるマスタープラン策定能力が強化される。</p> <p>（3）インプット（投入）：以下の投入による調査の実施</p> <p>a) コンサルタント（分野／人数）（約 64MM を想定）</p> <table border="0"> <tr><td>総括 / 廃棄物管理計画</td><td>1 名</td></tr> <tr><td>最終処分場計画</td><td>1 名</td></tr> <tr><td>廃棄物収集運搬</td><td>1 名</td></tr> <tr><td>中間処理・3R 推進</td><td>1 名</td></tr> <tr><td>環境教育</td><td>1 名</td></tr> <tr><td>財務・経済分析</td><td>1 名</td></tr> <tr><td>環境影響評価 / 環境社会配慮</td><td>1 名</td></tr> <tr><td>組織強化</td><td>1 名</td></tr> </table> <p>b) 供与機材</p> <p>最終処分場運営管理に必要な機材等（詳細は先方と協議の上決定）</p> <p>c) その他プロジェクト活動経費</p> <table border="0"> <tr><td>研修員受入</td><td>無し</td></tr> </table>	総括 / 廃棄物管理計画	1 名	最終処分場計画	1 名	廃棄物収集運搬	1 名	中間処理・3R 推進	1 名	環境教育	1 名	財務・経済分析	1 名	環境影響評価 / 環境社会配慮	1 名	組織強化	1 名	研修員受入	無し	
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組織強化	1 名																		
研修員受入	無し																		
<p>5. 協力終了後に達成が期待される目標</p>																			
<p>（1）提案計画の活用目標</p> <ul style="list-style-type: none"> <li>・本事業で策定するグジュランワラ市廃棄物管理マスタープランがパンジャブ州政府やグジュランワラ市役所によって事業化される。</li> <li>・本事業により習得されたマスタープラン策定のノウハウを活用することにより、パンジャブ州内の他の主要都市の廃棄物管理マスタープランが策定される。</li> </ul> <p>（2）活用による達成目標</p> <ul style="list-style-type: none"> <li>・グジュランワラ市において 2025 年までに廃棄物の適切な収集・運搬、処理がなされ、不法投棄や処分場周辺の環境が改善される。</li> </ul>																			
<p>6. 外部要因</p>																			
<p>（1）協力相手国内の事情</p> <ul style="list-style-type: none"> <li>・優先プロジェクトについて円滑な合意形成が図られる。（合意形成は住民対話を通じるなどして、丁寧に行われることになっている。）</li> <li>・廃棄物管理に関する政策が大きく変わらない。</li> <li>・カウンターパートが配置され、大幅な異動や離職が生じない。</li> <li>・先方負担事項である予算の確保がなされる。（本事業に必要な予算の大半はカウンターパート職員の人件費であり、その予算は承認済みであるが、配賦状況はモニタリングする必要がある。）</li> </ul>																			

<p>(2) 関連プロジェクトの遅れ 特になし。</p>
<p>7. 貧困・ジェンダー・環境等への配慮 (注)</p>
<p>1) 環境に対する影響 / 用地取得・住民移転</p> <p>① カテゴリ分類：B</p> <p>② カテゴリ分類の根拠 本事業は、本事業は、「国際協力機構環境社会配慮ガイドライン」(2010年4月公布)上、セクター特性、事業特性および地域特性に鑑みて、環境への望ましくない影響が重大でないと判断されるため。</p> <p>③ 環境許認可：本調査にて確認。</p> <p>④ 汚染対策：本調査にて確認。</p> <p>⑤ 自然環境面：本調査にて確認。</p> <p>⑥ 社会環境面：本調査にて確認。</p> <p>⑦ その他・モニタリング：本調査にて確認。</p>
<p>8. 過去の類似案件からの教訓の活用 (注)</p>
<p>ADB が実施した Southern Punjab Basic Urban Services Project (2005 年～2009 年)、Rawalpindi Environmental Improvement Project (2006 年～2011 年) において廃棄物管理に関する計画の策定が行われたが、これらの実施において以下のような教訓が得られている。</p> <ul style="list-style-type: none"> <li>・職員の質（教育、訓練）に問題がある。</li> <li>・職員に事業実施に対するインセンティブがない。</li> <li>・廃棄物管理を行う部門が予算的に自立していない。</li> </ul> <p>JICA は技術協力プロジェクト「廃棄物処理対策向上プロジェクト」(2006 年～2009 年) を実施し、廃棄物管理に係る収集・運搬・処理の改善をパキスタン国内の主要 8 都市にて支援し、カウンターパートの基礎的な知識・技術の向上がなされたが、以下のような提言が得られている。</p> <ul style="list-style-type: none"> <li>・同プロジェクトで実施した本邦研修（廃棄物の収集・運搬、衛生埋立場の設計、既存埋立地の改善、機材の維持管理およびオペレーション等）の帰国研修員を中心としたパキスタン専門家グループを結成し、彼らに蓄積されたノウハウを活用すること。</li> <li>・住民啓発運動を拡充し、住民を巻き込んだ活動を行うこと。</li> </ul> <p>本事業ではこれらの教訓から、これまで JICA が実施したプロジェクトのカウンターパートや帰国研修員の知見も活用しつつ、廃棄物関連部局の職員に対するセミナーやワークショップの開催と研修の実施、そしてオンザジョブ・トレーニングによる日常的な指導を行うこととする。また、廃棄物収集に係る料金徴収やインセンティブをもたらず民間企業の巻き込み、廃棄物管理に係る特別会計システムの構築などについて、廃棄物管理マスタープランを構成する重要な要素として計画への組み入れを検討する。</p> <p>また、技術協力プロジェクト「パキスタン国環境モニタリング支援プロジェクト」(2009 年～2012 年) では、パキスタン国側によるカウンターパートへの給与支払遅延によるカウンターパートの意識低下、パキスタン政府による PC-I<sup>2</sup> 開発予算執行の遅れによる先方負担事項履行の滞り等が、プロジェクトの円滑な実施を阻害する課題として挙げられた他、5 州を対象としたマネジメントの困難さが教訓として挙げられた。本事業においては、カウンターパートはアーバン・ユニット、グジュランワラ市役所の正規職員および期限付きプロジェクトスタッフである。後者は</p>

2 Planning Commission Profoma (PC) と呼ばれるプロジェクト開発予算申請書のこと。開発事業一般（有償、無償、技術協力プロジェクトを含む）には PC-I を、F/S 等調査には PC-II を用いる。



別途承認されている PC-I 予算から雇用することとなっているため、PC-I の配賦状況はモニタリングする必要がある。なお、本事業の活動経費の多くは日本側負担であり、本事業向けに申請された PC-II の予算規模は小さなものであるため、本案件の進捗を左右するものではない。

#### 9. 今後の評価計画

##### (1) 事後評価に用いる指標

###### (a) 活用の進捗度

策定されたマスタープランの事業化に向けた予算編成状況

###### (b) 活用による達成目標の指標

グジュランワラ市における最終処分場の運営状況

グジュランワラ市における廃棄物収集率

##### (2) 上記 (a) および (b) を評価する方法および時期

必要に応じて調査終了後、3 年後以降に評価を実施する。

(注) 調査にあたっての配慮事項

