

THE GENERAL DIRECTORATE OF CIVIL DEFENSE
PALESTINIAN AUTHORITY

PREPARATORY SURVEY
FOR
THE PROJECT FOR THE IMPROVEMENT OF
FIRE EQUIPMENT
IN
THE WEST BANK, PALESTINE

FINAL REPORT

NOVEMBER 2024

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

INGEROSEC CORPORATION
KATAHIRA & ENGINEERS INTERNATIONAL

GP
JR
24-028

PREFACE

Japan International Cooperation Agency (JICA) decided to conduct the preparatory survey and entrust the survey to the Joint Ventures consist of INGEROSEC Corporation and Katahira and Engineers International.

The survey team held a series of discussions with the officials concerned of the Palestinian Authority, and conducted a field investigations. As a result of further studies in Japan, the present report was finalised.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between Japan and the Palestinian Authority.

Finally, I wish to express my sincere appreciation to the officials concerned of the Palestinian Authority for their close cooperation extended to the survey team.

November, 2024

Junko Masuda
Director General
Governance and Peace Building Department
Japan International Cooperation Agency

SUMMARY

SUMMARY

1. Overview of Palestine

The Palestinian Territories (hereinafter referred to as “**Palestine**”) are located in the Middle East and have been administered by the Palestinian Authority since 1995, on the basis of the 1993 Declaration of Principles on Interim Self-Government Arrangement (Oslo Accords). The territory consists of the West Bank, which borders Jordan (hereinafter referred to as “**the West Bank**”), and the Gaza Strip, which borders Israel, Egypt and the Mediterranean Sea.

The total area of this entire autonomous region is about 6,020 km², of which the West Bank is 5,655 km² and the Gaza Strip is 365 km². The population is about 5.48 million, of which about 3.25 million live in the West Bank and 2.22 million in the Gaza Strip (Palestinian Central Bureau of Statistics (hereinafter referred to as “**PCBS**”): 2023).

The topography of the West Bank is rugged, ranging from 400m below sea level to over 1,000m in the Central Mountain Range. The climate is divided into a rainy season (November-March) and a dry season (April-October), with average annual rainfall of about 400mm (World Bank: 2020), about a third of the global average of 1,200mm.

Nominal GDP is about USD18.8 billion, GDP per capita is USD3,517 and real GDP growth is 4% (IMF estimate: 2022). The unemployment rate is extremely high at 26% (IMF estimate: 2022).

Due to the special circumstances under which Palestine has historically been severely restricted by Israel’s blockade and other policies towards it since the establishment of the State of Israel in 1948, Palestine is overly dependent on international aid. In addition, import and export permits for the West Bank, logistics and tax collection, including customs duties, are essentially under Israeli control. Furthermore, Israeli products account for the majority of daily necessities in the West Bank, about 70% of total trade (about 80% of exports and half of imports), and the Palestinian economy remains overly dependent on Israel, making economic self-sufficiency a major challenge.

The West Bank is divided into three districts, A, B and C, according to the entity with administrative and police jurisdiction, and districts A and B, where many Palestinians live, are surrounded and divided by district C, an Israeli settlement which covers 60% of the total area of the West Bank. The movement of people and goods is severely restricted by the separation walls and checkpoints in the area, while settlements restrict access to land, water and other resources.

2. Background and the Outline of the Project

In the West Bank, approximately 10,000 fires occur annually, mainly due to mismanagement, arson and electrical appliance accidents, with 3.6 fires per 1,000 inhabitants, which is much higher than the global average of 2.4 (International Association of Fire and Rescue Service, 2021), and in 2020, fires

caused damage to 575 houses and 580 vehicles (Ministry of Interior’s information).

Jenin governorate has the highest number of fires by region, followed by Tulkarem governorate and Ramallah Al-Bireh governorate (hereinafter referred to as “**Ramallah**”), which together account for half of the total number of fires in the entire West Bank with 5,335 fires. However, the shortage and ageing of the deployed Fire Pump Trucks with Water Tanks (hereinafter referred to as the “**Fire Trucks**”¹, due to a chronic financial shortfall of the Palestinian Authority, has hindered timely and adequate firefighting and rescue operations, leading to an increase in the scale of the disaster, and thus there is the urgent need to maintain and further strengthen the firefighting response capability by replacing the existing ageing Fire Trucks with new Fire Trucks in the target area (Jenin, Tulkarem and Ramallah governorates).

The Palestinian Authority has declared “building resilient community” as one of its priorities in its master plan of “National Policy Agenda 2017-2022” (formulated in December 2016) and indicated its policy to “*Strengthen its capacity for disaster response and crisis management*”. In addition, the General Directorate of Civil Defense, of the Ministry of the Interior (commonly referred to as Palestinian Civil Defense, hereinafter referred to as “**PCD**”) has established the “*Palestinian Civil Defence Development Plan 2017-2022*” which places the following three points as the high priority plans: i) renew and increase the number of Firefighting Vehicles²; ii) increase the number and capacity of firefighting personnel; and iii) expand the number of Civil Defense Centers (hereinafter referred to as “**CDCs**”)³.

Against this background, PCD requested the Government of Japan to provide a grant aid for “the Project for the Improvement of Fire Equipment in the West Bank” (hereinafter referred to as “**the Project**”), with the aim to improving the firefighting and rescue capabilities by deploying new Fire Trucks to CDCs in the 3 target governorates.

3. Summary of the Survey Results and Project Contents

Japan International Cooperation Agency (hereinafter referred to as “**JICA**”) dispatched a survey team from 3rd March to 31st March 2023 for the 1st field survey, held discussions with Palestinian government officials and conducted a survey in the area covered by the Project.

On return from Palestine, the results of the field survey were used as the basis for an outline design and a preliminary project cost estimate, which was first presented to the Palestinian side via online conference held from 12th to 26th December 2023 to provide a preliminary outline of the outline design

¹ Fire Pump Truck with Water Tank (“Fire Truck”): In this report, it refers to a firefighting vehicle equipped with a water tank, fire pump powered by the vehicle engine via power take off (PTO) and equipped with on-board equipment necessary for firefighting and rescue operations.

² Firefighting Vehicles: In this report, “Fire Truck (Fire Pump Truck with Water Tank)” and “Ladder Truck” as well as other vehicles used for firefighting operations including “Water Tanker”, are collectively referred to as the “Firefighting Vehicles”.

³ In Palestine, fire stations are referred to as “Civil Defense Centers”, while disaster prevention centers are referred to as “Support Centers” which have responsibilities for firefighting/rescue operation as well as disaster prevention operations. Support Centers are located in three governorates, namely Jenin (covering northern region), Ramallah (covering central region) and Hebron (covering southern region).

draft.

In addition, the Explanation and Discussion of Draft Preparatory Survey Report conducted online from 9th to 10th July 2024 and compiled as a preparatory survey report after the conclusion of the Minutes of Discussion (hereinafter referred to as “M/D”).

An overview of the Project covered under the grant aid is described below.

(1) Project Area

The Project will plan to procure new Fire Trucks in the 3 target governorates, namely Ramallah, Jenin and Tulkarem governorates, out of the 11 governorates in the West Bank which are under the jurisdiction of the Executing Agency.

(2) Equipment Plan

The Fire Trucks to be procured under the Project will be 14 units of Fire Pump Truck with Water Tank (capacity of 3,000 liter, hereinafter referred to as “lit.”) which to be deployed to 12 CDCs out of the 20 CDCs in the target governorates. After the discussion with PCD, it was concluded in the M/Ds that the use of these new Fire Trucks in question—in combination with the existing Fire Trucks (3,000 to 4,000lit.) diagnosed as capable of continuous operation—can contribute to maintaining and further strengthening the firefighting response capabilities of the 20 CDCs in the target governorates.

The basic specifications of the Fire Truck are shown in Table 1 below:

Table 1: Basic Specifications of the Fire Trucks and On-board Equipment

Composition	Outline Specifications	
Chassis	- Cabin :	Double Cabin (Max number of passengers: 6 persons)
	- Drive system :	4 Wheel Drive
	- Transmission Type :	Automatic transmission
	- Emission Standard :	EURO 6
	- Safety Protection Devices :	Equipped
Superstructure	- Water Tank Capacity :	3,000 liter
	- Fire Pump :	Rear Mount Power Take Off (PTO) system
	- Coupling Standard :	STORZ
	- Mounted Equipment :	Turret (on-roof Water Canon), Equipment Locker Rooms with shutter doors, Hose reel with nozzle, and other equipment
Main On-board Equipment	Fire Hose, Suction Hose, Hose Adaptor, Variable Nozzle, Breathing Apparatus Set, Portable Pump, Foldable Portable Water Tank, Basket Stretcher, Power Cutter, Electro-hydraulic Rescue Tools, 2 section Ladder, and other equipment	

Table 2: Plan for Deployment CDCs

Governorate	No.	CDC/Support Center Name	Requested Item Name	Quantity
Ramallah	1	Ramallah (Betounia) CDC	Fire Truck (3,000lit.)	2 Units
	2	Al-Bireh CDC		1 Unit
	3	Birzeit CDC		1 Unit
	4	Abwein CDC		1 Unit
	5	Bayt Liqya CDC		-
	6	Taybe Support Center		-
	7	Ni’lin CDC		-
	Sub-Total:			5 Units
Jenin	8	Jenin CDC	Fire Truck (3,000lit.)	1 Unit
	9	Siris CDC		1 Unit
	10	Barta’a CDC		-
	11	Yamun CDC		-
	12	Ya’bad CDC		1 Unit
	13	Qabatiya CDC		1 Unit
	14	Arraba CDC		-
	15	Marj ibn Amir CDC		-
	16	Jaba’ Support Center		1 Unit
	Sub-Total:			5 Units
Tulkarm	17	Tulkarm CDC	Fire Truck (3,000lit.)	2 Units
	18	A’ttil CDC		1 Unit
	19	Anabta CDC		1 Unit
	20	Deir Al Ghusoon CDC		-
	Sub-Total:			4 Units
Grant Total:				14 Units

Source: JICA Survey Team, based on the grand aid application form dated on 14th June 2023

(3) Soft Component Plan

The Project plans to provide a Technical Assistance (hereinafter referred to as “the Soft Component”), targeting the senior officers and firefighters from the 12 CDCs out of the 20 CDCs in the 3 target governorates. The Soft Component plan is to aim to enhance the firefighting and rescue capabilities of the target governorates; the objective consists of the following two components.

- (i) improve the skills of “individual firefighters” as well as of “a Single Unit”, and their competence in operating the firefighting and rescue equipment, while ensuring their safety in performing their duties; and
- (ii) strengthen the coordination amongst CDCs/deployed units for firefighting and rescue operations.

4. Project Implementation Schedule and Cost Estimation

If this Project is implemented under the grant aid scheme of the Government of Japan, the entire implementation period will be roughly 29 months, consisting of about 5 months for the project detailed designing, about 23 months for the equipment procurement, and about 1 month for the Soft Component implementation. The cost of the Project to be borne by the Palestinian side estimated USD494,000

(equivalent to 66 million Japanese Yen). The cost to be borne by the Japanese side is not disclosed in this report due to confidentiality.

5. Project Evaluation

(1) Relevance

1) Urgency

The target areas (Ramallah, Jenin and Tulkarm governorates) are of high civil defence importance, with habitats to approx. 910,000 people, covering almost 30% of the West Bank's total population (of approx. 3,250,000), and accounts for approx. 50% of the West Bank's total number of fires (2018 to 2022 annual average: 11,913 incidents) and rescues (2018 to 2022 annual average: 4,689 cases) in the year.

However, almost half of the existing 31 units of the Fire Trucks deployed in total 20 CDCs in these 3 governorates are either already out of service or require frequent maintenances. There is a concern that the firefighting vulnerability will further progress in the future, causing a deterioration in quality of timely and effective firefighting and rescue services, which in turn may lead to enlarging the scale of the disasters.

Despite given situations, the Palestinian Authority has no prospect in renewing the firefighting equipment, due to its chronic financial shortfall and absence of supports from other donors in the firefighting sector, thus an urgent improvement in firefighting response capability by implementing this Project is required.

2) Beneficiaries of the Project

Approx. 910,000 residents, which is equivalent to approx. 30% of the West Bank's total population, will benefit from maintaining and strengthening the firefighting response capabilities in the target governorates, as a result of the procurement of Fire Trucks under the Project.

3) Project Contribution to National Policy Agenda

In the “*National Policy Agenda 2017-2022*” (December 2016), the Palestinian Authority has declared “building resilient communities” as one of its priorities and to achieve this goal, the Palestinian Authority is intervening to “strengthen its capacity for disaster response and crisis management”. In addition, PCD as the Executing Agency for the Project, has established the “*Palestinian Civil Defense Development Plan 2017-2022*” and placed its priorities on: i) renewal and increase in the number of Firefighting Vehicles; ii) increase the number of and strengthen the capacity of firefighting personnels; and iii) expansion of the CDCs.

This Project will contribute to the achievement of national policy agenda and goal of the

(2) Effectiveness

1) Quantitative Effectiveness

The quantitative effects expected from the implementation of the Project in the target governorates are as shown in Table 3 below.

Table 3: Quantitative Effect Indicators

Indicator	Target Governorates (No. of CDCs and Support Centers)	Baseline (Estimated Value in 2023)	Target Value (Tentative Value in 2030) <<3 years after Project completion>>
Increase in number and percentage of CDCs deployed with Fire Trucks (3,000lit. to 4,000lit. capacity)	Ramallah governorate (7 CDCs)	4 CDCs (57%)	7 CDCs (100%)
	Jenin governorate (9 CDCs)	4 CDCs (44%)	9 CDCs (100%)
	Tulkarm governorate (4 CDCs)	3 CDCs (75%)	4 CDCs (100%)
	3 Governorates in Total (20 CDCs)	11 CDCs (55%)	20 CDCs (100%)
Increase in total firefighting water volume of the Firefighting Vehicles deployed in each governorate	Ramallah governorate (7 CDCs)	37,000 lit.	48,000 lit. (30% increase)
	Jenin governorate (9 CDCs)	37,000 lit.	52,000 lit. (41% increase)
	Tulkarm governorate (4 CDCs)	13,000 lit.	17,000 lit (31% increase)
	3 Governorates in Total (20 CDCs)	87,000 lit.	117,000 lit (34% increase)
Increase in number of environmentally- friendly Firefighting Vehicles [*1]	3 Target Governorates	10 Units	21 Units

[*1] The number of Firefighting Vehicles with “Euro 5 or higher” Euro Emission Standard engine is counted as “environmentally-friendly units” in this indicator.

2) Qualitative Effectiveness

The qualitative effects expected from the implementation of the Project are: i) improvement of public services; and ii) mitigation of disaster risks for the residents in the target governorates as per details below:

- Firefighting operations in areas with difficult access for the Firefighting Vehicles, such as densely populated residential areas and grass fields are improved and as such swift response for dealing with emergencies will be possible; and

- Training materials and manuals on firefighting and rescue operations improved through the Project's Soft Component (Technical Assistance) are utilised effectively, and damages caused by disasters will be reduced.

Contents

Preface

Summary

Contents

Location Maps

Exterior of the Existing Firefighting Vehicles and CDCs in the Target Areas

List of Figures, Tables and Photos

Abbreviations

Page

CHAPTER 1. BACKGROUND OF THE PROJECT	1
1-1 Background of the Grant Aid Request and Summary	1
1-1-1 Background of the Grant Aid Request	1
1-1-2 The Summary of the Request from the Palestinian Side	2
1-2 Natural Conditions	3
1-2-1 Climate	3
1-2-2 Topographic Features	4
1-3 Environmental and Social Considerations	5
CHAPTER 2. CONTENTS OF THE PROJECT	6
2-1 Basic Concept of the Project	6
2-2 Outline Design of the Japanese Assistance	6
2-2-1 Design Policy	6
2-2-2 Basic Plan (Equipment Plan)	15
2-2-3 Outline Design Drawing	33
2-2-4 Implementation Plan	36
2-3 Security Measures	51
2-4 Obligations of Recipient Country	52
2-4-1 Bank Arrangement and Authorization to Pay	52
2-4-2 Assistance	52
2-4-3 Tax Exemption and Import Customs Clearance	52
2-4-4 Initial Operational Guidance and Soft Component	52
2-4-5 Vehicle Registration and Insurance Coverage	53
2-4-6 Transportation of Procured Equipment to Target CDCs and Support Center	53
2-4-7 Securing Proper Parking Garages	54
2-4-8 Appropriate Operation and Maintenance of the Equipment	55

2-4-9 Submission of Project Monitoring Reports	55
2-4-10 Others	55
2-5 Project Operation and Maintenance Plan.....	55
2-6 Project Cost Estimation.....	56
2-6-1 Initial Cost Estimation	56
2-6-2 Operation and Maintenance Cost.....	57
CHAPTER 3. PROJECT EVALUATION.....	62
3-1 Preconditions	62
3-2 Necessary Inputs by Recipient Country.....	62
3-3 Important Assumptions.....	62
3-4 Project Evaluation.....	63
3-4-1 Relevance	63
3-4-2 Effectiveness.....	64

[Appendices]

1. Member List of the Study Team
2. Study Schedule
3. List of Parties Concerned in the Recipient Country
4. Minutes of Discussions
5. Soft Component (Technical Assistance) Plan
6. Current Conditions of Garages and Necessity for Garage Constructions
7. Reference

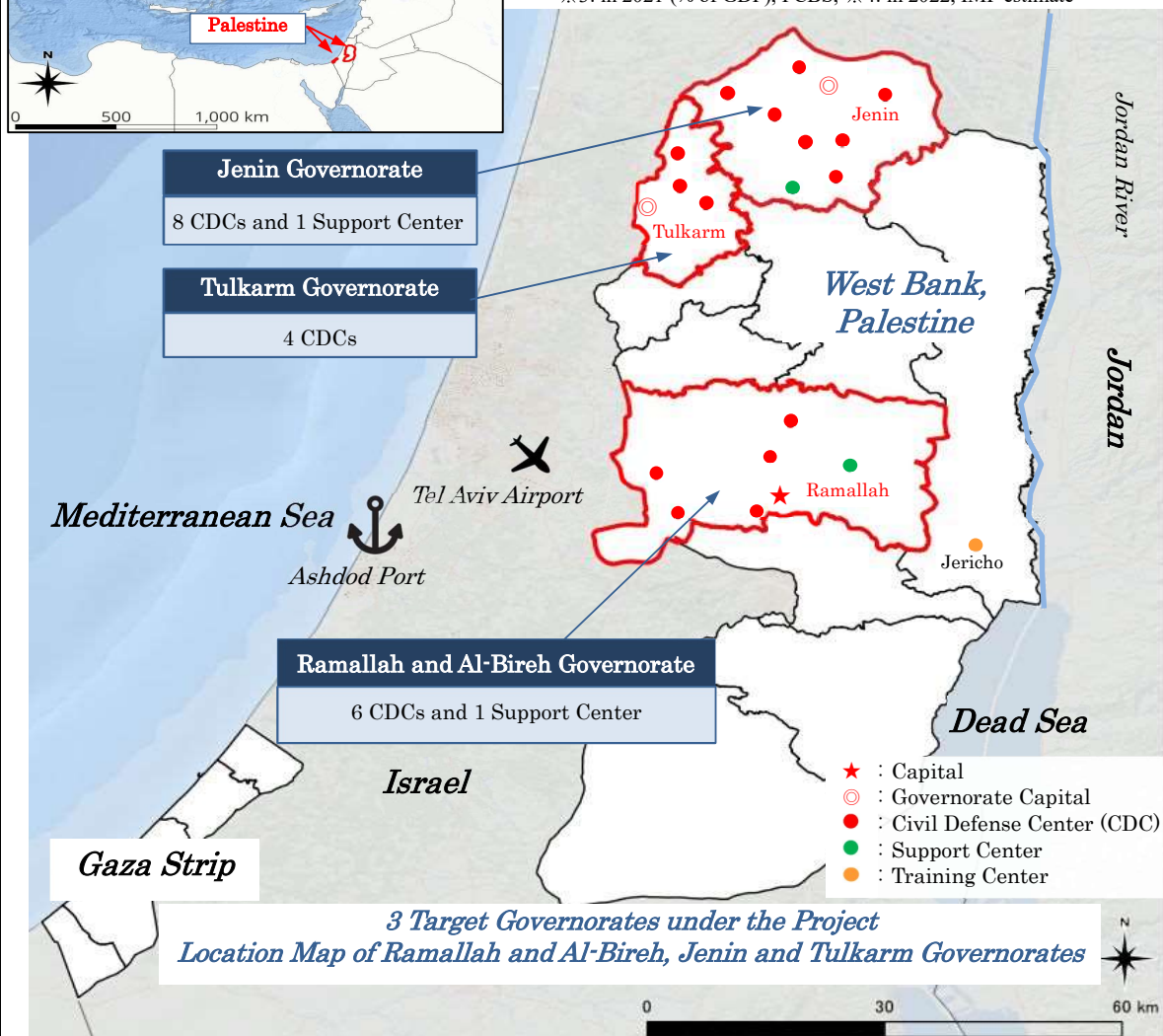
Palestine



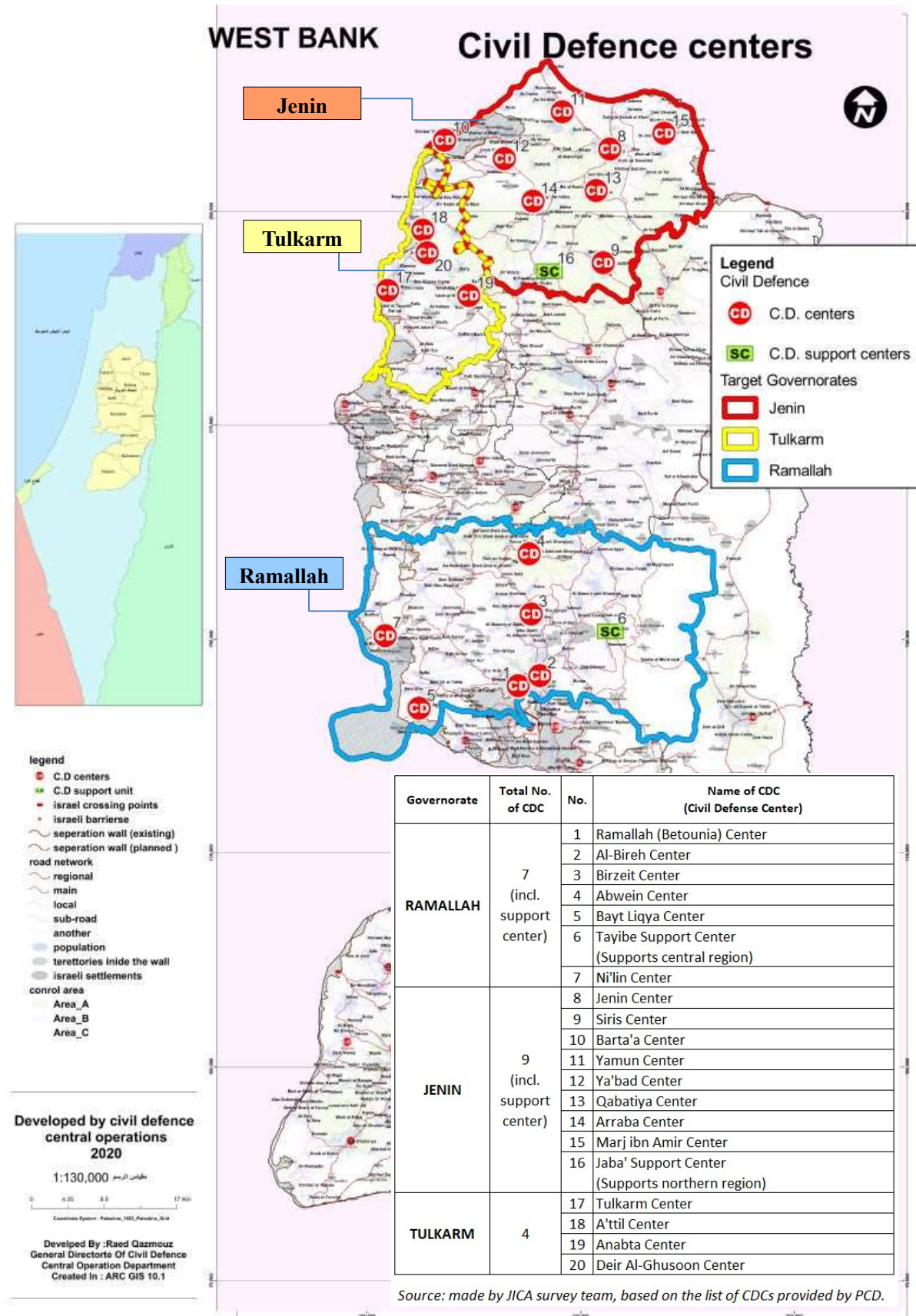
Overview of Palestine ※ ¹	
Area:	Approx. 6,020 km ² West Bank: Approx. 5,655 km ² Gaza Strip: Approx. 365 km ²
Population:	Approx. 5,480,000 ※ ² West Bank: Approx. 3,250,000 (incl. Refugees: 1,080,000) Gaza Strip: Approx. 2,220,000 (incl. Refugees 1,640,000)
Location of Self-government:	Ramallah
Ethnic Group:	Arab
Language:	Arabic
Religion:	Muslim (92%), Christianity (7%) and others
Main Industry:	Services (20.4%), Retail & Trade (18.3%), Public & Defense (12.4%), Mining, Electricity & Water (12.1%), Agriculture & Fishery (6.5%), Construction (4.7%), Finance & Insurance (4.5%) ※ ³
GDP per Capita:	US\$3,517 ※ ⁴
Real GDP Growth rate:	4% ※ ⁴
Unemployment Rate:	25.69% ※ ⁴



※1: From the website of the Ministry of Foreign Affairs, Japan (www.mofa.go.jp/mofaj/area/plo/index.html) (Access as of Aug. 2024)
 ※2: in 2023, Palestinian Central Bureau of Statistics (PCBS)
 ※3: in 2021 (% of GDP), PCBS, ※4: in 2022, IMF estimate



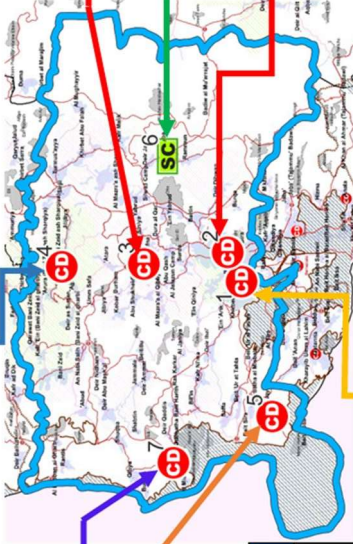
Overview and Target Area Map



Location Map of the Target Civil Defense Centers (CDCs)

Source: JICA Survey Team, based on PCD (Palestinian Civil Defense) Map

Exterior of the Existing Firefighting Vehicles and the CDCs in the Target Areas Ramallah and Al-Bireh Governorate: 6 CDCs and 1 Support Center

Ni'lin CDC		Abwein CDC [★ 1 Unit]		Birzeit CDC [★ 1 Unit]	
Outside View of the CDC	- Both the land and building are privately owned. - Fire Truck is parked on street.	Outside View of the CDC		Outside View of the CDC	
Existing Vehicle	 Fire Truck stationed in Nilin CDC is currently under repairment in another governorate. Fire Truck (4,000 Lit.) on left-hand picture is temporary deployed from Ramallah (Betounia) CDC.	Existing Vehicle		Existing Vehicle	
Bayt Liqya CDC		Tayibe Support Center		Al-Bireh CDC [★ 1 Unit]	
Outside View of the CDC		Outside View of the CDC		Outside View of the CDC	
Existing Vehicle		Existing Vehicle		Existing Vehicle	
Ramallah (Betounia) CDC [★ 2 Units]					
Outside View of the CDC	  	Outside View of the CDC		Outside View of the CDC	
Existing Vehicle	  	Existing Vehicle		Existing Vehicle	

Legend
[★] : No. of Units planned to be procured under the Project

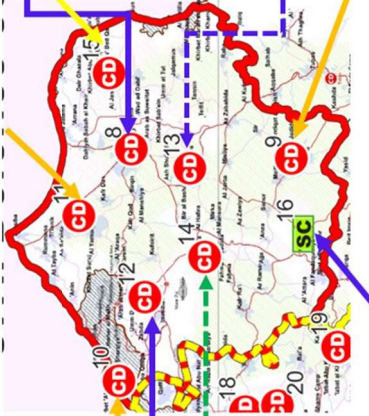
Exterior of the Existing Firefighting Vehicles and the CDCs in the Target Areas

Jenin Governorate: 8 CDCs and 1 Support Center

Barta'a CDC		Yamum CDC		Marj ibn Amir CDC	
Outside View of the CDC		Outside View of the CDC		Outside View of the CDC	
Existing Vehicle	 	Existing Vehicle	 	Existing Vehicle	 

Ya'bad CDC [★1 Unit]		Jenin CDC [★1台]	
Outside View of the CDC		Outside View of the CDC	
Existing Vehicle	 	Existing Vehicle	 

Jaba' Support Center [★1 Unit]		Siris CDC [★1 Unit]		Qabatiya CDC [★1 Unit]	
Outside View of the CDC		Outside View of the CDC		Outside View of the CDC	
Existing Vehicle	 	Existing Vehicle	 	Existing Vehicle	



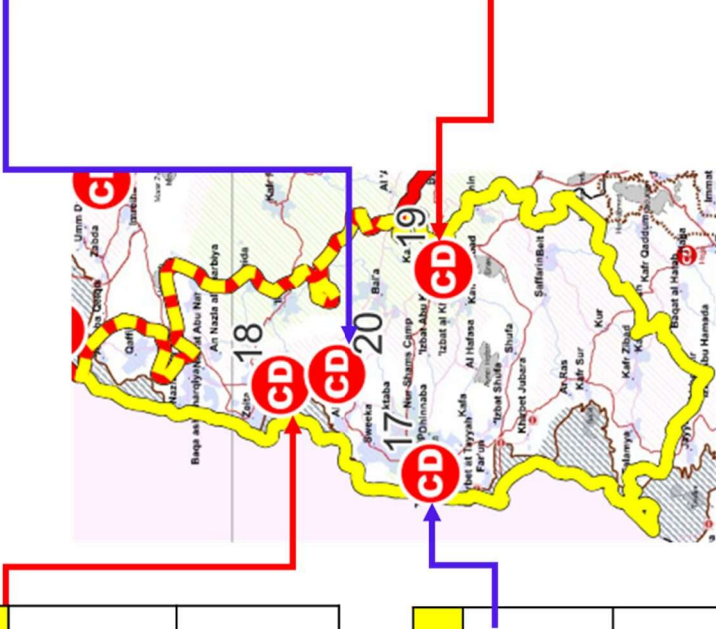
Legend
 [★] : No. of Units planned to be procured under the Project

Exterior of the Existing Firefighting Vehicles and the CDCs in the Target Areas Tulkarm Governorate: 4 CDCs

A'ttil CDC [★1 Unit]	
Outside View of the CDC	
Existing Vehicle	 
Fire Truck (4,000Lit) on the right side is being transferred to Anabta CDC for repayment.	
Tulkarm CDC [★2 Unit]	
Outside View of the CDC	
Existing Vehicle	   

Deir Al Ghusoon CDC	
Outside View of the CDC	
Existing Vehicle	
Anabta CDC [★1 Unit]	
Outside View of the CDC	
Existing Vehicle	 

Fire Truck (4,000Lit) on the right is deployed to A'ttil CDC. However, it was temporarily parked in Anabta CDC for repayment.



Legend
[★] : No. of Units planned to be procured under the Project

Lists of Figures, Tables and Photographs

■ List of Figures

Figure 1-1 Max. and Min. Temperature (Average) in the 3 Target Governorates	4
Figure 1-2 Monthly Average Rainfall in the 3 Target Governorates	4
Figure 1-3 Topographic Features of the West Bank	4
Figure 2-1 Location Map of Fire Hydrants (Jenin Governorate)	9
Figure 2-2 Steps for Specifications Planning and Selection of On-Board Equipment.....	23
Figure 2-3 Equipment Operational Plan.....	31
Figure 2-4 Outline Drawing of a Fire Truck	34
Figure 2-5 Water Delivery (Loading and Discharge) Diagram	35
Figure 2-6 Project Implementation Organizational Chart	36
Figure 2-7 Major Actors and Basic Application Flows	38
Figure 2-8 Summary of Transportation Route	45
Figure 2-9 Final Delivery Site- PCD Training Center (Jericho Governorate).....	47
Figure 2-10 Reference Garage Plan.....	54
Figure 2-11 Operation and Maintenance Costs for 14 Units of New Fire Trucks (5 years).....	60

■ List of Tables

Table 1-1 The Assumed Equipment and Target Area at the Start of the 1st Field Survey.....	2
Table 1-2 Request Items	3
Table 1-3 Requested Equipment and Deployment CDCs	3
Table 2-1 Fire Trucks Deployment Design (Ramallah Governorate).....	19
Table 2-2 Fire Trucks Deployment Design (Jenin Governorate)	20
Table 2-3 Fire Trucks Deployment Design (Tulkarm Governorate)	21
Table 2-4 Fire Truck Deployment Plan	22
Table 2-5 Minimum Requirements for On-board Equipment as a Fire Truck	23
Table 2-6 Design Conditions to be Considered and Corresponding Specifications.....	24
Table 2-7 For Chassis: Replacement Parts and Consumables	26
Table 2-8 For Superstructure: Replacement Parts and Consumables.....	26
Table 2-9 Basic Specifications of the Fire Truck (Main Unit)	27
Table 2-10 For Firefighting Operations.....	29
Table 2-11 For Rescue Operations	30
Table 2-12 For Firefighting and Rescue Operations in General.....	30
Table 2-13 Burden Sharing between the Two Governments	41
Table 2-14 Equipment Procurement Classification	44
Table 2-15 Outline of the Soft Component	48

Table 2-16 Implementation Schedule.....	50
Table 2-17 Overview of PCD Personnel Inputs Required during Trainings	53
Table 2-18 Vehicle Maintenance Type	56
Table 2-19 Project Cost to be borne by the Palestinian Side.....	57
Table 2-20 PCD Annual Budget for Operation and Maintenance Costs	58
Table 2-21 Annual Maintenance Cost (2018-2022) for Existing Aged Fire Trucks.....	59
Table 2-22 Replacement Intervals of Replacement Parts	59
Table 2-23 Maintenance cost per unit	61
Table 3-1 Quantitative Effect Indicators	64

■ **List of Photographs**

Photo 2-1 Fire Hydrant at a CDC.....	7
Photo 2-2 Agricultural water tank as a source of firefighting water	9
Photo 2-3 Main road connecting cities.....	11
Photo 2-4 Street parking.....	11
Photo 2-5 Narrow street in	11
Photo 2-6 Flooded Road (Ramallah Governorate).....	11
Photo 2-7 Speed hump placed in the city	11
Photo 2-8 Mounted equipment secured inside the locker.....	27
Photo 2-9 Firefighter uniforms placed inside the Fire Truck, ready for dispatchment	32
Photo 2-10 Sample Image of the Garage.....	55

Abbreviations

Abbreviations	Definitions
Organisations (Internationals/States/Donors)/ Development Plans / Legislations	
COGAT	Coordination of Government Activities in the Territories
EU	European Union
Palestine Customs	General Directorate of Customs, Excises and VAT, Ministry of Finance
ICDO	International Civil Defence Organization
IMF	International Monetary Fund
IMR	Israeli Mandatory Requirements
Israel Customs	Israeli Customs Directorate of Israel Tax Authority
JICA	Japan International Cooperation Agency
JICS	Japan International Cooperation System
PCBS	Palestinian Central Bureau of Statistics
PCD	Palestinian Civil Defense (General Directorate of Civil Defense), Ministry of Interior
USAID	United States Agency for International Development
Organisations related to Palestinian Civil Defense	
CDC	Civil Defense Center
Unit Symbols	
AC	Alternating Current
INS	Israeli New Shekels (currency)
kVA	kilovolt ampere
lit	liter
lit/min	liter per min
Mpa	Megapascal
m/s	meter per second
SUS	Steel Use Stainless
Others	
A/P	Authorization to Pay
ABS	Anti-lock Braking System
ACC	Active Cruise Control
C/P	Counter Part
E/N	Exchange of Notes
EBS	Electronic Brake System
EURO 6	Euro six emission standard
G.V.W.	Gross Vehicle Weight
G/A	Grant Agreement
M/D	Minutes of Discussions
PTO	Power Take Off
VAT	Value Added Tax
VIN	Vehicle Identification Number
4x4	Four-wheel drive vehicle

CHAPTER 1.BACKGROUND OF THE PROJECT

CHAPTER 1. BACKGROUND OF THE PROJECT

1-1 Background of the Grant Aid Request and Summary

1-1-1 Background of the Grant Aid Request

In the West Bank of the Jordan River (hereinafter referred to as “**the West Bank**”) of the Palestinian Territories (hereinafter referred to as “**Palestine**”), an average of approx. 12,000 cases of fire incidents were reported annually in the recent five years (2018 to 2022) and the number of fires per 1,000 population is 3.7, which is much higher than the world average of 2.4 (International Association of Fire and Rescue Service, 2021). In addition, the fires caused damage to 575 houses, 580 vehicles and other property in 2020 (Ministry of Interior of Palestine).

Looking at the number of fires by region, Jenin governorate has the highest number of fires (2,035 fires) out of all 11 governorates in the West Bank, followed by Tulkarem (1,594 fires) and Ramallah and Al-Bireh (1,580 fires) (hereinafter referred to as “**Ramallah**”) governorates, which together account for 5,209 fires, half of the total number of fires in the West Bank as a whole, and an outstandingly high number of fires which is as high as at 5.7 incidents per 1,000 population (Fire Statistics, 2022).

Despite the acute problem, the shortage and ageing of the deployed Fire Pump Trucks with Water Tanks (hereinafter referred to as the “**Fire Trucks**”)⁴, due to a chronic financial shortfall of the Palestinian Authority, is hindering the timely and appropriate firefighting and rescue operations across the entire West Bank and increases the scale of the disaster. In particular, the Fire Trucks deployed to 18 Civil Defense Centers and 2 Support Centers (hereinafter collectively referred to as “**CDCs**”)⁵ in the above 3 target governorates in the West Bank have aged considerably; many firefighting vehicles deployed to these 20 CDCs have been in operation more than 20 years and have faced frequent failures in fire pumps, engines and drive systems.

In addition, as with other types of firefighting vehicles, the deployed Fire Trucks (which play a central role in firefighting activities) have also faced frequent breakdowns and operational failures. Since more than half of these CDCs has only one unit of Fire Truck, it will hinder prompt firefighting and rescue operation when the Fire Truck in question is out of service or undergoing maintenance under which condition requires for having assistance from neighbouring CDCs.

Furthermore, Jenin and Tulkarem governorates in the rainy season become more prone to floods than other regions due to its topographic characteristics and vulnerability in road drainage systems, which cause inundating houses and commercial premises as well as induce landslide on steep slopes. Fire Trucks

⁴ Fire Pump Truck with Water Tank (“**Fire Truck**”): In this report, it refers to a firefighting vehicle equipped with a water tank, fire pump powered by the vehicle engine via power take off (PTO) and equipped with on-board equipment necessary for firefighting and rescue operations.

⁵ In Palestine, fire stations are referred to as “Civil Defense Centers”, while disaster prevention centers are referred to as “Support Centers” which have responsibilities for firefighting/rescue operation as well as disaster prevention operations. Support Centers are located in three governorates, namely Jenin (covering northern region), Ramallah (covering central region) and Hebron (covering southern region).

are also used as rescue vehicles against various disasters including such flood disasters; so there is a growing need for the deployment of Fire Trucks in these governorates.

Under these circumstances, the General Directorate of Civil Defense of the Ministry of Interior (commonly referred to as **Palestinian Civil Defense**, hereinafter referred to as “**PCD**”) requested the Government of Japan to provide a grant aid for “*the Project for the Improvement of Fire Equipment in the West Bank*” (hereinafter referred to as “**the Project**”), with the aim to improve the firefighting and rescue response capabilities by deploying new Fire Trucks to CDCs in the 3 target governorates in the West Bank.

1-1-2 The Summary of the Request from the Palestinian Side

As an official grant aid request from the Palestinian side for the Project had not been received by the Government of Japan at the time of conducting the 1st field survey (March 2023), after consultation and confirmation with PCD (the counterpart in Palestine for this Preparatory Survey), the JICA Survey Team carried out the survey in the three target governorates (Ramallah, Jenin and Tulkarem) based upon the contents of the firefighting equipment assumed as requested items and target areas in the Term of Reference for the Preparatory Survey (Refer Table 1-1).

Table 1-1 The Assumed Equipment and Target Area at the Start of the 1st Field Survey

Requested Equipment	Fire Truck (3,000 liter, Double Cabin Type): 15 units
Target Area	Ramallah and Al-Bireh, Jenin and Tulkarem governorates in the West Bank (Total 19 CDCs in 3 governorates)

Source: JICA Survey Team, based on the “Term of Reference” of the Survey

During the 1st field survey, the total of 20 CDCs (including 2 Support Centers) were studied (adding Deir Al Ghusoon CDC newly established in Tulkarem in 2021).

Based on the discussion in the 1st field survey, the basic outline of the request for the Japan grant aid including the items requested, quantity and the deployment sites were confirmed and agreed by the Japanese and Palestinian sides in the Minutes of Discussions (hereinafter referred to as “**M/D**”). A formal request was then submitted to Japan by the Palestinian side on 4th July 2023 (Refer “Appendix-4 Minutes of Discussions”).

The summary of the requested items and the deployment locations are shown in Table 1-2 and Table 1-3.

Table 1-2 Request Items

No.	Items	Quantity
1.	Fire Trucks (3,000liter)	14 units
2.	On-board equipment	14 sets
3.	Spare Parts for No.1 and No.2	1 set
4.	Summaries of manuals in Arabic language	16 sets [*1]

Source: JICA Survey Team, based on the grand aid application form dated on 14th June 2023

*1: 16 sets of manuals will be distributed to the following organisations: the target CDCs (14 sets), PCD Headquarter (1 set) and PCD Training Center (1 set).

Table 1-3 Requested Equipment and Deployment CDCs

Governorate	No.	CDC/Support Center Name	Requested Item Name	Quantity
Ramallah	1	Ramallah (Betounia) CDC	Fire Truck (3,000lit.)	2 Units
	2	Al-Bireh CDC		1 Unit
	3	Birzeit CDC		1 Unit
	4	Abwein CDC		1 Unit
	5	Bayt Liqya CDC		-
	6	Taybe Support Center		-
	7	Ni’lin CDC		-
	Sub-Total:			5 Units
Jenin	8	Jenin CDC	Fire Truck (3,000lit.)	1 Unit
	9	Siris CDC		1 Unit
	10	Barta’a CDC		-
	11	Yamun CDC		-
	12	Ya’bad CDC		1 Unit
	13	Qabatiya CDC		1 Unit
	14	Arraba CDC		-
	15	Marj ibn Amir CDC		-
	16	Jaba’ Support Center		1 Unit
	Sub-Total:			5 Units
Tulkarm	17	Tulkarm CDC	Fire Truck (3,000lit.)	2 Units
	18	A’ttil CDC		1 Unit
	19	Anabta CDC		1 Unit
	20	Deir Al Ghusoon CDC		-
	Sub-Total:			4 Units
Grand Total:				14 Units

Source: JICA Survey Team, based on the grand aid application form dated on 14th June 2023

1-2 Natural Conditions

1-2-1 Climate

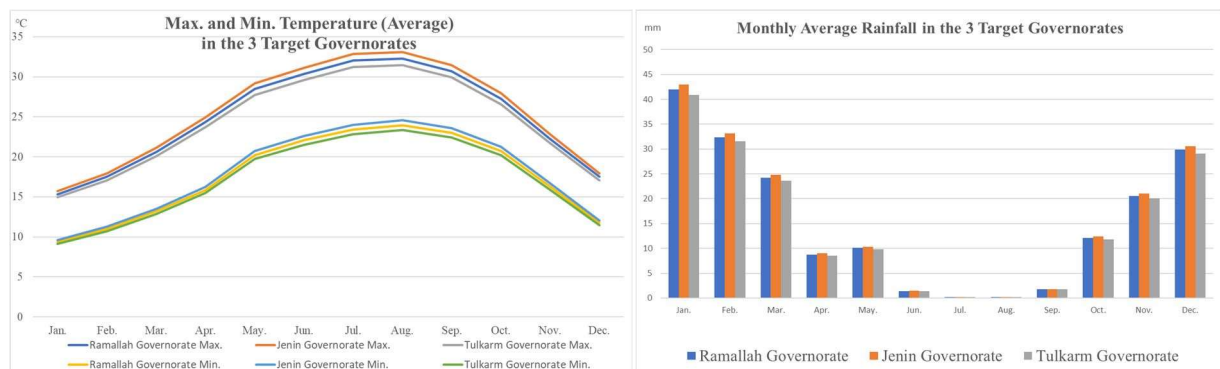
The 3 target governorates located in the West Bank have a mediterranean climate, characterised by dry summer and concentrated rainfall in the winter.

Despite some variations depending on the altitude and the location, there are no significant differences in temperature and rainfall amongst the 3 target governorates, during the dry and the rainy

seasons as shown in Figure 1-1 and Figure 1-2 below.

The dry season is from April to October, with an average temperature of approx. 26°C and the average monthly rainfall is very low ranging from approx. 0.2 to 12mm, when the occurrence of fire incidents is concentrated in this same period.

The rainy season is from November to March, with an average temperature of approx. 16°C and the average monthly rainfall is approx. 20 to 40mm, with the rainfall concentrated in the 3 months from December to February, accounting for approx. 60% of the average annual rainfall of approx. 180mm in each target governorate.



Source: JICA Survey Team, based on data from Tektktk.org

Figure 1-1 Max. and Min. Temperature (Average) in the 3 Target Governorates

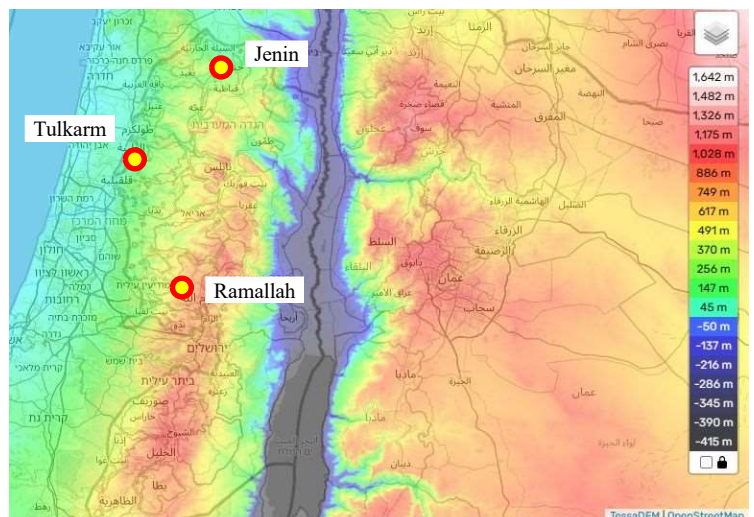
Figure 1-2 Monthly Average Rainfall in the 3 Target Governorates

1-2-2 Topographic Features

Topography of the 3 target governorates can be characterised, with Ramallah governorate having a hilly terrain of higher than 1,000m above sea level, while Jenin and Tulkarm governorates have moderate-slope hills of approx. 300m above sea level, with some basins across the areas. Whilst the urban cities and villages are built on these hilly areas, forests and olive orchards are also widespread.

In the hilly urban areas, the buildings do not always have the sufficient space secured for the Fire Trucks and Ladder Trucks to set up for operation, as many roads are steep and buildings are built on slopes.

In addition, in the plains of Jenin and



Source: JICA Survey Team, based on <https://ja-jp.topographic-map.com>

Figure 1-3 Topographic Features of the West Bank

Tulkarm governorates, the aforementioned topographical characteristics together with the weak road drainage system results in flooding of roads and houses during the rainy seasons.

1-3 Environmental and Social Considerations

This Project is classified as “Category C”, based on “*Japan International Cooperation Agency (JICA) Guidelines for Environmental and Social Considerations (January 2022)*”, as the Project’s adverse impact on the environment and society are considered minimal.

CHAPTER 2. CONTENTS OF THE PROJECT

CHAPTER 2. CONTENTS OF THE PROJECT

2-1 Basic Concept of the Project

The Project aims to improve the firefighting and rescue response capabilities in the three target governorates of the West Bank (Ramallah, Jenin and Tulkarem) where firefighting and rescue needs are high and the existing Fire Trucks are considerably aged, by deploying 14 units of new Fire Trucks (with 3,000lit. water tank). This will thereby contribute to the improvement of public services and mitigation of the disaster risks.

2-2 Outline Design of the Japanese Assistance

2-2-1 Design Policy

2-2-1-1 Basic Policy

As stated in “*Chapter 1-1-1 Background of the Grant Aid Request*”, Ramallah, Jenin and Tulkarm are the target governorates with greater urgency of needs, and total 20 CDCs located in these 3 governorates are covered by the Project. Of these 20 CDCs:

- in 12 CDCs, the Project shall renew the Fire Trucks deployed, by replacing the existing units found to be particularly aged and hindering the firefighting operations; while
- in the remaining 8 CDCs, the existing Fire Trucks shall continue to be used, as these units were confirmed to be still operable without compromising the level of firefighting operations.

Therefore, the firefighting capability in the target governorates shall be maintained and further strengthened by utilising both the new Fire Trucks to be procured under the Project and the existing Fire Trucks in good condition.

2-2-1-2 Policy for Coping with Natural Environmental Conditions

There are no natural environmental conditions (temperature, rainfall, altitude etc.) in the West Bank that require special considerations for the equipment specifications, so that general specifications will be applied for the firefighting equipment to be procured under the Project.

2-2-1-3 Policy on Socio-economic Conditions

Socio-economic conditions which require special considerations for the equipment specifications include “firefighting water availability” and “road conditions”.

The following summarise each condition and the design policy that will be adopted for the firefighting equipment to be procured under the Project.

(1) Corresponding Policies to Firefighting Water Sources Availability

1) Overview

Firefighting water sources are generally divided into 2 main categories of: i) “natural water” which utilises water from river, reservoirs and groundwaters; and ii) “man-made water” which utilises water from fire hydrants⁶ and fire suppression water tanks. However, as discussed 5) below, natural water is not available as a source of firefighting water in the West Bank and as a result, firefighting water is limited to the use of man-made water mainly from the fire hydrants, with some waters from the well and water storage tanks.

2) Policy on Coupling Standard for Fire Hydrant

In the West Bank, coupling⁷ (fitting) standard adopted for fire hydrants is STORZ⁸ and this standard is widely common in the European Union (hereinafter referred to as “EU”) regions. Therefore, firefighting equipment to be procured under the Project is to adopt STORZ standard couplings, such as for water discharge outlets, suction inlet, water filler (tank inlet) and hoses, to be compatible with the existing standard in the West Bank.



Photo 2-1 Fire Hydrant at a CDC

3) Policy on Water Pipes and Water Tank of Fire Trucks

As there was an information that the salinity of the groundwater is high in some areas of the West Bank, water from the fire hydrants installed in CDCs of the target governorates were measured using a salinity meter during the 1st field survey. The results confirmed 0.00% (below the measurable value). Therefore, no special specifications, such as use of highly salt-resistant materials, is required and standard materials generally used for water pipes and water tank of a Fire Truck will be used.

4) Corresponding Policy to Man-made Water Source Fire Hydrant Availability

As already mentioned, source of firefighting water is limited to man-made water, such as from fire hydrants and water distribution pipes in the West Bank.

Usually, fire hydrants placed in cities are used to secure firefighting water. However, in principle, fire hydrants and water distribution pipes installed in each CDC are used as a main source of firefighting

⁶ Fire hydrants in the West Bank are above-ground hydrants, so that Fire Trucks do not need to carry standpipes.

⁷ Coupling: Fittings (joint) used to connect fire hoses together or connect water outlets and inlets of the Fire Truck with fire hoses. Fitting standards such as STORZ in EU countries, BSP in UK, GOST in former Soviet Union and what is called “Machino” in Japan are adopted.

⁸ STORZ: Standard for fire hose fittings adopted in EU countries such as Germany, Austria and Sweden.

water, given that the fire hydrant network in cities is limited across the West Bank including the target governorates.

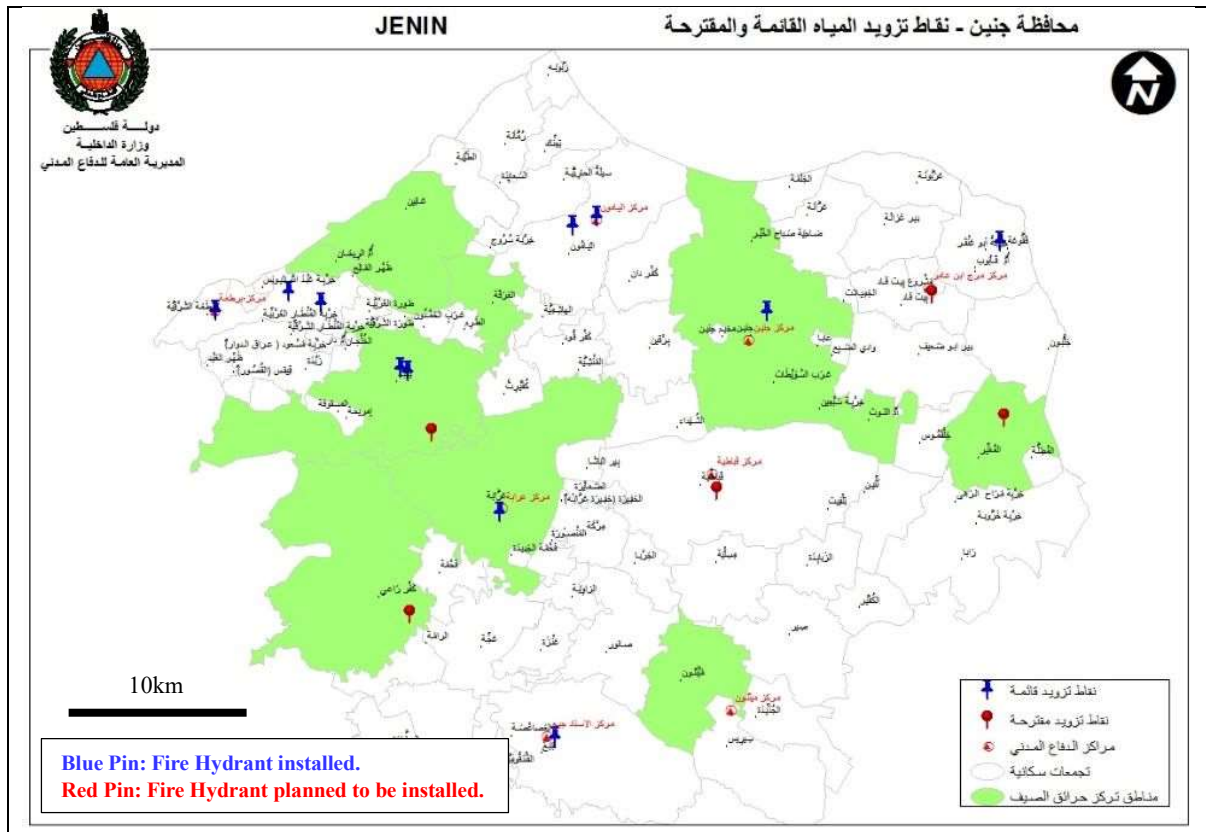
The following section provides an overview on the current status of (i) fire hydrants availability and (ii) other man-made water source availability in the target governorates, while describing corresponding design policies against these conditions.

(i) Fire Hydrants Availability

Fire hydrants are located in CDCs and other areas mainly in urban cities. However, the number is severely limited, with 25 places in Ramallah (governorate area: 855 km²), 11 places in Jenin (governorate area: 583 km²) and 30 places in Tulkarm (governorate area: 246 km²) governorates (as of the 1st field survey).

Figure 2-1 shows the current distribution of fire hydrants and a plan for expansion in Jenin governorate. As it can be seen, the locations of fire hydrants are sparse and in some cases the distance between one and another is more than several kilometres.

Given the circumstances, it is not realistic for a single Fire Truck to extinguish a fire, by continuously discharging water to be pumped from a fire hydrant, as there may be no fire hydrant available near the fire incident. This in turn means that equipment deployment plan under the Project should be based on the ground that at least 2 Fire Trucks should respond in pairs for firefighting operations, and that when water tanks get empty, 2 units should take in turn to “rush to the nearest CDC or a fire hydrant available to refill the water tank”.



Source: PCD Central Operation Department

Figure 2-1 Location Map of Fire Hydrants (Jenin Governorate)

(ii) Other Man-made Water Sources Availability

Other than fire hydrants, man-made water sources available as firefighting water includes fire suppression water tanks and agricultural water storage tanks (approx. 10,000lit. tank confirmed during the 1st field survey). As for fire suppression water tanks, only in 3 CDCs in the target governorates were identified, in which they have been built recently by other overseas donor agencies.

The availability of these water tank facilities near fire incidents is rare, and same with the case of fire hydrants, it is not possible for a single Fire Truck to continuously discharge water by intaking from these water facilities.

Therefore, the equipment deployment plan under the Project shall be based on the understanding that these water facilities will not be utilised as a usual source of firefighting water.

5) Corresponding Policy to Natural Water Source

The main natural water sources available in the West Bank are groundwater and some river water. However, the amount supplied from the existing water sources is decreasing year by year, and much of it

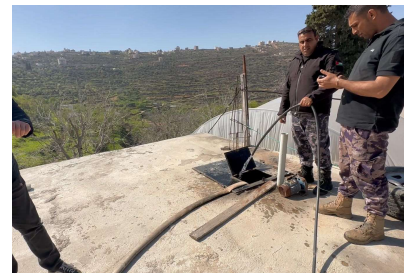


Photo 2-2 Agricultural water tank as a source of firefighting water

is under the control of Israel. In addition, development of a new water source (e.g. drilling a well) requires a permission from the Israeli authority and is highly dependent on the political situation between Palestine and Israel. As a result, the West Bank purchases much of its water supply from Israel, which is one of the factors putting pressure on the fiscal balance in Palestine. Therefore, the water supply in the West Bank is highly constrained and poses a major challenge in securing the firefighting water (Source: Palestinian Water Authority website).

Under these circumstances, it is not expected at this present that the Fire Truck will utilise natural water as firefighting water and it deemed not necessary to have water suction equipment mounted on a Fire Truck. However, there may be opportunities in the future to dispatch the Fire Trucks to be procured under the Project to overseas for international disaster relief operations. Therefore, water suction equipment required to obtain firefighting water from the natural water resources shall be included in the equipment specifications under the Project.

(2) Policy on Road Conditions

The road conditions in the target governorates includes:

- many narrow roads and street parking;
- susceptible to flooding, due to insufficient road drainage system;
- deteriorating paved roads; and
- many speed humps placed in the cities.

The design policies to cope with these road conditions are described as follows.

1) Narrow Roads and Street Parking

As shown in Photo 2-3, the main roads connecting the cities are in good pavement condition and wide, so there is no major concern for emergency vehicles such as Fire Trucks from driving.

On the other hand, as shown in Photo 2-4, street parking is evident in many roads in the urban areas including the old towns, which is considered an obstacle for the Fire Trucks from passing. In addition, as shown in Photo 2-5, there are several densely populated residential areas including the “Refugee Camps”⁹ in the urban areas of the target governorates, which are connected by narrow streets and alleys of less than 4m wide, making the entry for Fire Trucks difficult. Furthermore, many of these narrow streets are unpaved, which makes it further difficult for Fire Trucks to pass through.

Based on these road conditions, vehicle-class for better mobility, as well as on-board equipment which enable firefighting activities in areas where Fire Trucks have difficulties entering, shall be accounted for in the design.

⁹ Refugee camps refer to residential areas, where refugees who fled their home gathered and formed settlements following the establishment of the State of Israel in 1948.



Photo 2-3 Main road connecting cities



Photo 2-4 Street parking in a city



Photo 2-5 Narrow street in a refugee camp

2) Road Ancillary Structure

The road drainage system is inadequate in the target governorates and despite the average monthly rainfall of maximum 40mm in the West Bank, there have been cases of roads being flooded and soaked into neighbouring buildings (refer Photo 2-6).

In case of flooding, firefighters also drain the flooded basement floors of houses and other buildings.

Based on above, Fire Trucks to be procured under the Project shall be able to drive over the flooded roads and include on-board equipment required for drainage work in flooded houses.



Source: www.apaimages.info/

Photo 2-6 Flooded Road (Ramallah Governorate)

3) Deteriorated Pavements

Many of the paved roads in the target governorates have damaged surface caused by frictions, which makes the Fire Trucks easy to slip when re-starting to drive in steep slopes.

3,000lit.-class Fire Truck has a gross vehicle weight of 13 to 16 tonnes when fully loaded with water, and there is a risk of slipping when re-starting to drive in such steep slopes, therefore four-wheel drive systems (4 x 4) shall be selected.

4) Speed Humps

Many speed humps and/or speed reduction zones are placed in cities and driveways leading to settlements in villages, to slow down the driving vehicles. Fire Trucks as an emergency vehicle can drive over the hump with minimal speed reduction, if the surrounding safety is confirmed, so the Fire Trucks are more prone to the impact of riding over the speed humps.

To minimise the impact of such speed humps on the Fire Trucks, followings measures shall be taken in the equipment designs: i) on-board firefighting and rescue



Photo 2-7 Speed hump placed in the city

equipment to be securely fasten in the locker spaces; and ii) buffer plates¹⁰ to be installed inside the water tank to minimise the loaded water from moving vigorously and prevent the loss of driving stability of the Fire Truck.

2-2-1-4 Policy on Operation and Maintenance

Operation of the firefighting equipment to be procured under the Project, is to be conducted by PCD's own budget and personnels, in the same way that the existing Fire Trucks are operated.

On the other hand, for maintenance of these firefighting equipment to be procured: i) daily inspections shall be carried out by the respective CDCs; ii) while responding to defects and breakdowns, periodical inspections (such as annual inspections), and replacements of parts and consumables shall be serviced by the local authorised dealer of the chassis manufacturer.

The same policy shall apply not only for the chassis but for the superstructure of the Fire Truck, as well as the on-board equipment for the Project.

In addition, during the Initial Operational Guidance under the Project, manufacturer of the fire truck superstructure (herein after referred to as a “**fire truck manufacturer**”¹¹) shall provide a technical guidance on basic maintenances of the superstructure of the Fire Truck, to the mechanics of the after-sales service agent for the superstructure (assuming the local authorised dealer of the chassis manufacturer) to be appointed at the time of concluding the Procurement Contract between PCD and the equipment Supplier.

Should a troubleshooting be required for a problem that cannot be addressed by the local after-sales service mechanics alone, then the fire truck manufacturer shall dispatch an engineer to the West Bank or conduct online supports with a use of web camera to collaborate with the mechanics of the local after-sales service agent.

2-2-1-5 Policy on Replacement Parts and Consumables

Replacement parts and consumables required for one year of operation shall be procured together with the Fire Trucks (including the on-board equipment) to be procured under the Project, to allow enough time for PCD to secure their own budget to purchase the replacement parts and consumables from the second year going forward.

(1) For Chassis

To receive appropriate after-sales services from the chassis manufacturer, the chassis must be maintained as specified by the manufacturer. Therefore, as mentioned above, the Project will procure the

¹⁰ Buffer plates are dividers installed inside the water tank, to restrict the movement of the loaded water to its minimum.

¹¹ A “fire truck manufacturer” in this report refers to a manufacturer who fabricates and mounts the superstructure onto a chassis, and add firefighting and rescue functions to build a Fire Truck as a complete unit.

necessary replacement parts and consumables for maintenance specified by a chassis manufacturer for one year of operation. Thereafter, PCD shall procure chassis' replacement parts and consumables from the local authorised dealer of the chassis manufacturer located in the West Bank with PCD's own budget.

(2) For Superstructure

For superstructure, the Project will also procure replacement parts and consumables necessary for maintenance for one year. Thereafter, PCD shall procure replacement parts and consumables for the superstructure from the fire truck manufacturer through its appointed local after-sales service agent in the West Bank for the Project (assuming the local authorised dealer of the chassis manufacturer), using PCD's own budget.

2-2-1-6 Procurement Policy on Legal Regulations

Importing vehicles to the West Bank is subject to complying with the Israeli safety and environmental standards, such as "*Safety and Environmental Protection Regulations for Motor Vehicles Manufactured According to European Union Directives (Nov. 2022 Revision)*" under the "*Israeli Mandatory Requirements (IMR)*", issued by the Ministry of Transport and Road Safety in Israel.

Therefore, the specification of the chassis for the Fire Trucks to be procured under the Project must comply with the European technical standards, as well as conforming to the latest European exhaust emission standards (Euro 6) and be equipped with applicable safety devices to prevent collisions¹².

2-2-1-7 Policy on Equipment Grading

Of the existing Fire Trucks, units (4,000 lit.) procured by the United States Agency for International Development (hereinafter referred to as "**USAID**") in 2012 and units (3,000lit.) procured by EU in 2015 are the main Firefighting Vehicles that are currently maintaining PCD's firefighting response capability. These vehicles and on-board firefighting equipment are of the standard grades commonly used in Europe.

Taking into considerations of the compatibility and user-convenience, the equivalent grading (in terms of the capacity of Fire Trucks, and type/standards of on-board equipment mounted) shall be selected for the Fire Trucks to be procured under the Project. However, as already stated in "*Chapter 2-2-1-6 Procurement Policy on Legal Regulations*", the latest requirements for exhaust emission standards (Euro 6) and safety devices to prevent collisions shall be adhered to, which were not obligatory at the time of procuring the existing vehicles.

¹² Safety devices for collision preventions, such as ABS (Anti-lock Brake System), ESP (Electronic Stability Program), forward collision warning with an emergency brake (also known as ACC: Active Cruise Control) and lane departure warning system.

2-2-1-8 Policy on Procurement Methods

(1) Selection of Chassis Manufacturers

Chassis which complies to the aforementioned Israeli regulations requires special maintenance equipment, such as a “diagnostic tool”, only owned by the respective local authorised dealer of the chassis manufacturer. In addition, a Fire Truck is an emergency vehicle and requires to be repaired as soon as possible in case of a problem.

Therefore, the chassis of the Fire Trucks to be procured under the Project shall be limited to those chassis manufacturers who have local authorised dealers appointed in the West Bank and are able to provide appropriate after-sales maintenance services. The Project is planned based on the assumption that such local authorised dealer will provide the above-mentioned maintenance services.

(2) Policy on Procurement Lot

The firefighting equipment to be procured under the Project can broadly be categorised into i) Fire Truck vehicle itself, and ii) on-board equipment, however, both should be procured together as a set. Since there is only one type of Fire Truck (3,000lit.) to be procured and all 14 units expected can be manufactured by the same fire truck manufacturer, the bidding lot shall be of one (single) lot including the on-board equipment.

2-2-1-9 Policy on Country of Origin and Country of Procurement

(1) Definition of “Country of Origin”

“Fire Truck” in this report refers to a special purpose vehicle, where a fire truck manufacturer fabricates and mounts its superstructure onto a procured chassis and equip with necessary on-board firefighting equipment to finalise as a complete unit of Fire Truck.

For the purposes of this Project, the “country of origin” is defined as “a country where manufacturing place is located, for fabricating and mounting the superstructure to build a Fire Truck as a complete unit”.

(2) Country of Origin and Country of Procurement

The country of origin of the Fire Trucks to be procured under the Project shall be Japan.

During the Survey, it was confirmed that there is only 1 Japanese fire truck manufacturer that can fabricate 14 Fire Trucks within the intended procurement schedule of the Project based on a chassis that is compliant to the West Bank regulations. On the other hand, as for chassis manufacturers, it was confirmed that there are more than 4 truck chassis manufacturers based in Europe with models complying with the needed regulations. Preliminary designs of the superstructure based on chassis from these different European manufacturers were made during the Survey.

As bidders will be able to select a chassis from several chassis manufacturers available, this will keep the competitiveness in the bidding process during the equipment procurement stage under the Project.

It is also confirmed that there is no fire truck manufacturer in the West Bank.

(3) Manufacturer's Supply Guarantee

As mentioned above, there is only 1 Japanese fire truck manufacturer capable of fabricating 14 Fire Trucks within the intended procurement schedule of the Project based on the European chassis which meets the Israeli regulations for importation to the West Bank. The Survey Team obtained a "Certificate of Supply Guarantee" from the aforementioned Japanese fire truck manufacturer as of 20th of October 2023, stating that it will provide quotations to several potential bidders at its own discretion during the bidding process in selecting the Supplier for the equipment procurement under the Project.

2-2-1-10 Policy on Procurement Schedule

Manufacturing lead time (from order placement to production and pre-shipment inspection) for the Fire Trucks will be 18 months and plans to ship all units in one shipment, taking into account the manufacturing capacity of the manufacturer. Transportation plan will also be made via Israel.

2-2-2 Basic Plan (Equipment Plan)

2-2-2-1 Overall Plan

The Project aims to strengthen the firefighting and rescue capabilities in the target governorates, by renewing the necessary Fire Trucks, which will be planned in accordance with "*Chapter 2-2-1 Design Policy*".

While deployment plan for the Fire Trucks considers smooth and effective firefighting and rescue operations with easy maintenance, procurement plan shall ensure fairness in the selection of the Supplier for equipment procurement.

Based on above, outline of the equipment specifications and deployment plans are explained as follows.

2-2-2-2 Equipment Plan

(1) Basic Capacity of the Fire Truck

The Fire Trucks to be procured under the Project shall meet the following basic requirements:

- "Fire Pump Truck with Water Tank", with PTO (Power take-off)¹³ driven fire pump mounted;

¹³ "PTO" stands for Power take off. A mechanism that transfers the power from the driveline (engine) to another application, via a shaft. For the Fire Trucks to be procured under the Project, the power from the drive engine is transmitted to the fire pump via PTO to discharge water.

- Water discharge capacity of 2,000lit./min (at 0.85 Mpa)¹⁴ or more;
- Equipped with a water tank of 3,000lit. or more; and
- Equipped with necessary on-board equipment for firefighting and rescue operations.

(2) Basic Fire Truck Deployment Plan

Basic principles for the Fire Truck deployment plan under the Project are summarised as follows.

1) Coordinated Operations amongst CDCs and Deployed Units

Currently, at least 1 unit of 1,000lit. to 4,000lit. class Fire Truck is deployed at each CDC in the target governorates. However, as already stated, some units are not functioning satisfactory due to aging.

The Project plans to replace the aged Fire Trucks, so that “at least 1 unit of 3,000 to 4,000lit. class Fire Truck will be deployed at each CDC”. Most fire incidents require at least 3,000lit. of firefighting water, and it is necessary to deploy a vehicle equipped with a water tank of at least the same capacity under the Project as well.

Nonetheless, for house fires and large-scale fires, 3,000lit. of loaded water may not be adequate and may hinder the firefighting operations, therefore, the deployment plan under the Project shall be made based on “coordinated operations with the neighbouring CDCs and deployed units”.

2) For “Central CDC” in each Governorate

Civil Defense Centers in the West Bank can be broadly categorised into: i) “Central CDCs”¹⁵; ii) “Local CDCs”; and iii) “Support Centers”, in terms of their size and duties.

In each governorate, one Central CDC is located in the governorate capital. The numbers and types of Firefighting Vehicles (i.e. Fire Truck, Water Tanker, Rescue Truck, etc.) available at Central CDC are more extensive and larger in number of personnel allocated, in comparison to other local CDCs and Support Center in the governorate. Central CDC acts as the core facility and it plays an important role in ensuring the firefighting response capabilities of all areas covered by the local CDCs within the governorate.

2 units or more Fire Trucks (of 3,000lit. to 4,000lit. class, or in combination with 1,000lit. class) are deployed at the Central CDC in each governorate, as it is often called for support in disasters of scales

¹⁴ This specification is equivalent to the performance of “A-2 class” fire pump installed in a full-scale Fire Truck in Japan. However, the chassis of the Fire Trucks to be procured under the Project is planned to be procured from Europe, and the engine output is generally higher than that of a Japanese chassis, thus the water discharge capacity is expected to be higher at 3,000lit./min (at 1.0 MPa) (specification to be decided during detailed design stage).

¹⁵ The term “Central CDC” used in this report is merely for a convenience to indicate that it has a greater number of Firefighting Vehicles and personnel allocated than the other local CDCs, and that it plays a role as a core firefighting facility within the governorate. Nonetheless, PCD refers to “Central CDC” as a Civil Defense Center and does not differentiate it from any other CDCs in terms of its name.

which are expected to be beyond the capacity of other local CDCs in the governorate. In addition, whenever an incident occurs in an area covered by a local CDC whose Fire Truck is out of service or undergoing maintenance, it is the role of the Central CDC to dispatch its own Fire Truck or lend a “backup Fire Truck” for support.

The deployment plan under the Project will follow the existing deployment structure as described above, so that “at least 2 units of 3,000-lit class Fire Truck will be deployed in each Central CDC”.

3) Utilising the Existing Equipment

Of the existing Fire Trucks, the units which are diagnosed as still be functional (without problems such as a breakdown) even after 3 years of Project implementation will continue to be utilised and are included in the deployment plan together with the Fire Trucks to be procured under the Project, to maintain and further strengthen the firefighting response capability in the target governorates.

Nonetheless, the actual deployment plan is to prioritise the deployment of the new Fire Trucks (to be procured under the Project) to CDCs with higher-needs and to relocate some of the existing Fire Trucks (judged to be capable of continuous operation) to CDCs with less urgent needs.

(3) Detailed Fire Truck Deployment Plan

Based on the basic principle of deployment plan described above, the detailed deployment plan is designed for each target governorate and summarised as per Table 2-1 (Ramallah), Table 2-2 (Jenin) and Table 2-3 (Tulkarm).

Table 2-1 to Table 2-3 are described as follows.

1) Existing Deployment Status (as of the time of Preparatory Survey) (①)

The following information is provided in **green column** labelled: “*As of the time of Preparatory Survey: Status of Existing Vehicles* (①)” in Table 2-1 to Table 2-3:

- Deployment status of the existing vehicles
- Conditions of the existing vehicles diagnosed
- Deployment plan as of the Project completion, including the relocation plan

2) Deployment Status during Project Implementation (②)

The following information is provided in **purple column** labelled: “*During the Project Implementation: Deployment Status of Firefighting and Rescue Vehicles* (②)” in Table 2-1 to Table 2-3:

- In column ④: existing vehicles, excluding the units diagnosed as D, E or F which are considered equivalent to being “decommissioned” by 3 years after the Project completion.

- In column ⑤: the equipment to be procured under the Project
- In column ⑥: relocation of the existing vehicles from other CDCs

3) Deployment Status at Project Completion (③)

The following information is provided in **light blue column** labelled: “*As of the Project Completion: Deployment Status of Firefighting and Rescue Vehicles (③)*” in Table 2-1 to Table 2-3:

- Deployed vehicle types and quantities, as a result of the Project implementation
- Deployment characteristics after the Project completion

Table 2-1 Fire Trucks Deployment Design (Ramallah Governorate)

CDC/SC ^{*1} Name	As of the time of Preparatory Survey Status of Existing Vehicles (①)			During the Project Implementation Deployment Status of Firefighting and Rescue Vehicles (②)				As of the Project Completion Status of Firefighting and Rescue Vehicles (③)		
	Category	Vehicle Type	Diagnosis	Deployment Plan as of the Project Completion	Existing Vehicles (④)	Procurements under this Project (⑤)	Relocations from other CDC (⑥)	Deployment as a result of the Project Implementation (④)+(⑤)+(⑥)	CDC/SC Deployment Structure after Project Completion	
1 Ramallah (Betouna) CDC	1	Fire Truck (4,000lt.)	C	Relocate to Nflm CDC	Fire Truck (3,000lt.)	0 Unit	None	0 Unit	Fire Truck (3,000lt.)	2 Units
	2	Water Tanker (11,000lt.)	B	Remain	Water Tanker (11,000lt.)	1 Unit			Water Tanker (1,000lt.)	1 Unit
	3	Small Rescue Truck	B	Remain	Small Rescue Truck	2 Units			Small Rescue Truck	2 Units
	4	Small Rescue Truck	C	Remain	Ladder Truck (30mclass)	1 Unit			Ladder Truck (30mclass)	1 Unit
	5	Ladder Truck (30m class)	A	Remain	Fire Truck (3,000lt.)	1 Unit			Ladder Truck (30mclass)	1 Unit
	6	Ladder Truck (30m class)	C	Remain as backup	Fire Truck (1,000lt.)	1 Unit			Fire Truck (3,000lt.)	1 Unit
	7	Fire Truck (3,000lt.)	C	Remain as backup	Ladder Truck (30mclass)	1 Unit			Fire Truck (1,000lt.)	1 Unit
	8	Fire Truck (1,000lt.)	E	Remain as backup						
2 Al-Breh CDC	1	Fire Truck (4,000lt.)	A	Relocate outside the target governorates	Fire Truck (3,000lt.)	0 Unit	None	0 Unit	Fire Truck (3,000lt.)	1 Unit
					Stationed Trucks				Stationed Trucks	
					Backup Trucks				Backup Trucks	
3 Biret CDC	1	Fire Truck (3,000lt.)	D	Decomission	Fire Truck (3,000lt.)	0 Unit	None	0 Unit	Fire Truck (3,000lt.)	1 Unit
					Stationed Trucks				Stationed Trucks	
					Backup Trucks				Backup Trucks	
4 Abwein CDC	1	Fire Truck (2,700lt.)	E	Decomission	Fire Truck (3,000lt.)	0 Unit	None	0 Unit	Fire Truck (3,000lt.)	1 Unit
					Stationed Trucks				Stationed Trucks	
					Backup Trucks				Backup Trucks	
5 Bayt Lajna CDC	1	Fire Truck (4,000lt.)	C	Remain	Fire Truck (4,000lt.)	1 Unit	None	0 Unit	Fire Truck (4,000lt.)	1 Unit
					Stationed Trucks				Stationed Trucks	
					Backup Trucks				Backup Trucks	
6 Taybe SC	1	Fire Truck (3,000lt.)	A	Remain	Fire Truck (3,000lt.)	1 Unit	None	0 Unit	Fire Truck (3,000lt.)	1 Unit
	2	Water Tanker (11,000lt.)	B	Remain	Water Tanker (11,000lt.)	1 Unit			Water Tanker (1,000lt.)	1 Unit
	3	Large Rescue Truck	A	Remain	Large Rescue Truck	1 Unit			Large Rescue Truck	1 Unit
7 Nflm CDC	1	Fire Truck (2,700lt.)	E	Decomission	Fire Truck (2,700lt.)	0 Unit	Fire Truck (4,000lt.)	1 Unit	Fire Truck (4,000 lt.)	1 Unit
					Stationed Trucks		※ Relocated from Ramallah (Betouna) CDC		※ Utilization of relocated Unit	
					Backup Trucks		(Fire Truck diagnosed as "C")		Backup Trucks	
Total no. of Fire Trucks (3,000lt.) to be procured for Ramallah governorate under the Project:					5 Units	Total no. of 3,000lt.-class Fire Trucks deployed in Ramallah governorate, as of the Project completion:				
						7 Units				

<<Legend>> Vehicles diagnosed as "D" to "F" are considered equivalent to "Decomissioned" by 3 years after the Project completion.

Diagnosis "A": Good as new; "B": No operational problems; "C": Some problems, but operable; "D": Currently operable, but operation in 3 years time questionable due to aging; "E": With operational problems; and "F": Decommissioned.

*1 CDC/SC: Civil Defense Center/Support Center

Table 2-2 Fire Trucks Deployment Design (Jenin Governorate)

CDC/SC ^{*1} Name	As of the time of Preparation Survey Status of Existing Vehicles (1)			During the Project Implementation Deployment Status of Firefighting and Rescue Vehicles (2)				As of the Project Completion Deployment Status of Firefighting and Rescue Vehicles (3)	
	Category	Vehicle Type	Diagnosis	Deployment Plan as of the Project Completion	Existing Vehicles (4)	Procurements under the Project (5)	Relocation from other CDC (6)	Deployment as a result of the Project implementation ((2)+(5)+(6))	CDC/SC Deployment Structure after Project Completion
8 Jenin CDC	Stationed Trucks	1 Fire Truck (4,000lt)	A	Remain	Stationed Trucks	1 Unit	None	0 Unit	1 Unit
	Backup Trucks	2 Fire Truck (4,000lt)	B	Relocate to Arraba CDC	Backup Truck				1 Unit
									Procurement Method 1 Unit of Additional Procurement
9 Sira CDC	Stationed Trucks	1 Fire Truck (3,000lt)	E	Decommission	Stationed Trucks	0 Unit	None	0 Unit	1 Unit
	Backup Trucks	2 Fire Truck (3,000lt)	F	Decommission	Backup Truck				
									Procurement Method 1 Unit of Replacement
10 Bar'a CDC	Stationed Trucks	1 Fire Truck (3,000lt)	B	Remain	Stationed Trucks	1 Unit	None	0 Unit	1 Unit
	Backup Trucks	2 Fire Truck (3,000lt)	F	Decommission	Backup Truck				
									Procurement Method 1 Unit of Replacement
11 Yaman CDC	Stationed Trucks	1 Fire Truck (4,000lt)	C	Remain	Stationed Trucks	1 Unit	None	0 Unit	1 Unit
	Backup Trucks				Backup Trucks				
									Procurement Method 1 Unit of Replacement
12 Yabrud CDC	Stationed Trucks	1 Fire Truck (1,000lt)	E	Decommission	Stationed Trucks	0 Unit	None	0 Unit	1 Unit
	Backup Trucks	2 Fire Truck (1,000lt)	E	Decommission	Backup Trucks				
									Procurement Method 1 Unit of Replacement
13 Qabliya CDC	Stationed Trucks	1 Fire Truck (1,000lt)	B	Remain	Stationed Trucks	1 Unit	None	0 Unit	1 Unit
	Backup Trucks				Backup Trucks				
									Procurement Method 1 Unit of Additional Procurement
14 Arraba CDC	Stationed Trucks	1 Fire Truck (2,700lt)	E	Decommission	Stationed Trucks	0 Unit	Fire Truck (4,000lt) ※ Relocated from Jenin CDC (Fire Truck diagnosed as "B")	1 Unit	1 Unit
	Backup Trucks				Backup Trucks				
									Procurement Method 1 Unit of Replacement
15 Majidiya CDC	Stationed Trucks	1 Fire Truck (4,000lt)	B	Remain	Stationed Trucks	1 Unit	None	0 Unit	1 Unit
	Backup Trucks	2 Water Tanker (6,000lt)	C	Remain	Backup Trucks				
		3 Water Tanker (6,000lt)	F	Decommission					Procurement Method 1 Unit of Replacement
16 Jaba SC	Stationed Trucks	1 Fire Truck (3,000lt)	D	Decommission	Stationed Trucks	0 Unit	None	0 Unit	1 Unit
	Backup Trucks	2 Water Tanker (11,000lt)	B	Remain	Backup Trucks				
									Procurement Method 1 Unit of Replacement
Total no. of Fire Trucks (3,000lt) to be procured for Jenin governorate under the Project:					5 Units	Total no. of 3,000lt-class Fire Trucks deployed in Jenin governorate, as of the Project completion			

<<Legend>> Vehicles diagnosed as "D to F" are considered equivalent to "Decommissioned" by 3 years after the Project completion.

Diagnosis: "A": Good as new; "B": No operational problems; "C": Some problems, but operable; "D": Currently operable, but operation in 3 years time questionable due to aging; "E": With operational problems; and "F": Decommissioned.

*1 CDC/SC: Civil Defense Center/Support Center

Table 2-3 Fire Trucks Deployment Design (Tulkarm Governorate)

CDC/SC ¹ Name	As of the time of Preparatory Survey Status of Existing Vehicles (①)			During the Project Implementation Deployment Status of Firefighting and Rescue Vehicles (②)				As of the Project Completion Deployment Status of Firefighting and Rescue Vehicles (③)				
	Category	Vehicle Type	Diagnosis	Deployment Plan/as of the Project Completion	Existing Vehicles (④)		Procurements under this Project (⑤)		Relocations from other CDC (⑥)	Deployment as a result of the Project Implementation (④)+(⑤)+(⑥)	Procurement Method	CDC/SC Deployment Structure after Project Completion
17 Tulkarm CDC	1	Fire Truck (4,000lit.)	B	Relocate outside the target governorates	Fire Truck (3,000lit.)	0 Unit	Fire Truck (3,000lit.)	2 Units	None	0 Unit	Fire Truck (3,000lit.)	2 Units
	2	Fire Truck (3,000lit.)	D	Relocate outside the target governorates	Fire Truck (1,000lit.)	1 Unit					Fire Truck (1,000lit.)	1 Unit
	3	Fire Truck (14,000lit.)	D	Relocate outside the target governorates	Small Rescue Truck	1 Unit					Small Rescue Truck	1 Unit
	4	Fire Truck (1,000lit.)	B	Remain								
	5	Small Rescue Truck	C	Remain								
	Backup Trucks				Backup Trucks						Backup Trucks	Procurement Method
												2 Units of Replacement
18 A'till CDC	1	Fire Truck (4,000lit.)	D	Decomission	Fire Truck (3,000lit.)	0 Unit	Fire Truck (3,000lit.)	1 Unit	None	0 Unit	Fire Truck (3,000lit.)	1 Unit
	2	Fire Truck (1,000lit.)	D	Decomission								
	Backup Trucks				Backup Trucks						Backup Trucks	Procurement Method
												1 Unit of Replacement
19 Anabta CDC	1	Fire Truck (4,000lit.)	B	Relocate outside the target governorates	Fire Truck (3,000lit.)	0 Unit	Fire Truck (3,000lit.)	1 Unit	None	0 Unit	Fire Truck (3,000lit.)	1 Unit
	Stationed Trucks				Stationed Trucks							
	Backup Trucks				Backup Trucks						Procurement Method	1 Unit of Replacement
												No procurement under this Project. The existing Fire Truck is in good condition.
20 Der Al Ghusoon CDC	1	Fire Truck (4,000lit.)	B	Remain	Fire Truck (4,000lit.)	1 Unit	No Project Procurement	0 Unit	None	0 Unit	Fire Truck (4,000lit.)	1 Unit
	Stationed Trucks				Stationed Trucks							
	Backup Trucks				Backup Trucks						Backup Trucks	Procurement Method
												Utilisation of the Existing Unit
Total no. of Fire Trucks (3,000lit.) to be procured for Tulkarm governorate under the Project:					4 Units	Total no. of 3,000lit.-class Fire Trucks deployed in Tulkarm governorate, as of the Project completion:					5 Units	

<<Legend>> Vehicles diagnosed as "D to F" are considered equivalent to "Decommissioned" by 3 years after the Project completion.

Diagnosis "A": Good as new; "B": No operational problems; "C": Some problems, but operable; "D": Currently operable, but operation in 3 years time questionable due to aging; "E": With operational problems; and "F": Decommissioned.

(4) Fire Truck Deployment Plan (Draft)

Based on “Chapter 2-2-2-2 (3) Detailed Fire Truck Deployment Plan”, deployment plan of the Fire Trucks to be procured under the Project is shown as per Table 2-4 below.

Table 2-4 Fire Truck Deployment Plan

Target Governorate	No.	Place of Deployment (CDC / Support Center Name)	Item Name	Q'ty
Ramallah	1	Ramallah (Betounia) CDC	Fire Truck (3,000lit.)	2 Units
	2	Al-Bireh CDC		1 Unit
	3	Birzeit CDC		1 Unit
	4	Abwein CDC		1 Unit
	5	Bayt Liqya CDC		No deployment
	6	Taybe Support Center		No deployment
	7	Ni'lin CDC		No deployment
	Sub-total			
Jenin	8	Jenin CDC	Fire Truck (3,000lit.)	1 Unit
	9	Siris CDC		1 Unit
	10	Barta'a CDC		No deployment
	11	Yamun CDC		No deployment
	12	Ya'bad CDC		1 Unit
	13	Qabatiya CDC		1 Unit
	14	Arraba CDC		No deployment
	15	Marj ibn Amir CDC		No deployment
	16	Jaba' Support Center		1 Unit
	Sub-total			
Tulkarm	17	Tulkarm CDC	Fire Truck (3,000lit.)	2 Units
	18	A'ttil CDC		1 Unit
	19	Anabta CDC		1 Unit
	20	Deir Al Ghusoon CDC		No deployment
	Sub-Total			
Grand Total				14 Units

(5) Examining the Basic Specifications

1) Overview

The planning steps for determining: i) the basic specifications of the main unit of the Fire Truck itself; and ii) selection of on-board equipment, to be procured under the Project are shown in Figure 2-2 below.

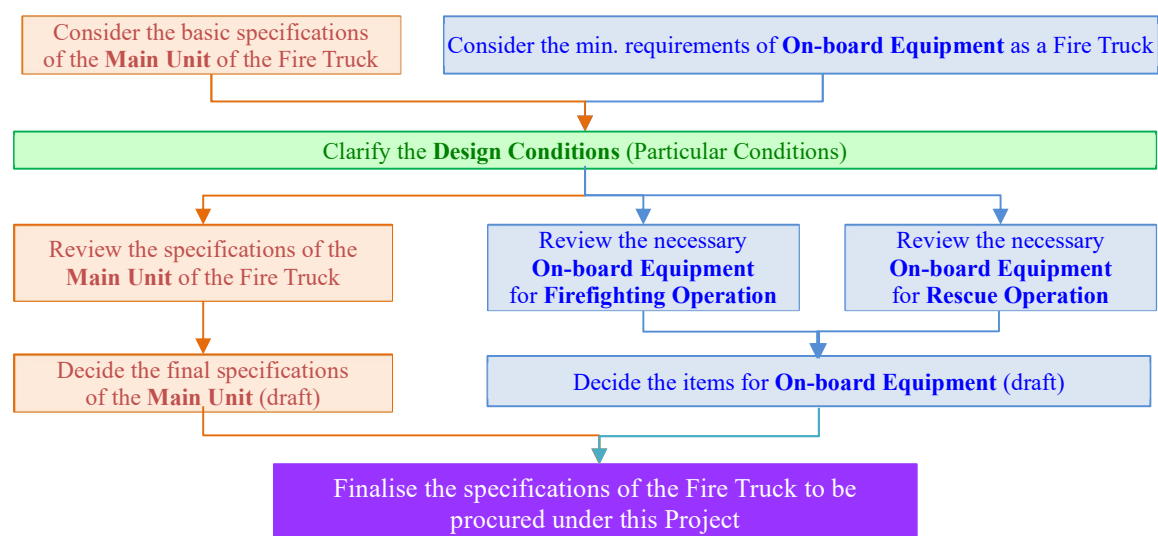


Figure 2-2 Steps for Specifications Planning and Selection of On-Board Equipment

Based on above planning procedures, the outline specifications of the Fire Truck and selection of on-board equipment to be procured under the Project are shown as follows.

2) Minimum Requirements for On-board Equipment as a Fire Truck

To function as a Fire Truck, at least the minimum necessary On-board Equipment for firefighting operations shall be planned to be equipped (Table 2-5).

Table 2-5 Minimum Requirements for On-board Equipment as a Fire Truck

Name of On-board Equipment	Purpose of Use	Reference Image
Fire Hose	Hose which delivers firefighting water.	
Suction Hose and Suction Strainers	Hose necessary for a Fire Truck to intake unpressurised firefighting water such as natural water; and a filtering device to prevent direct suction of dirt and other foreign materials from mixing with the suction water.	
Hose Bridge	Hose bridge is used to protect the extended fire hoses laid across the road, when passing vehicles need to drive over the hoses.	
2 Way Ball Valve	A device which feeds two lines of small-diameter hoses from one large-diameter hose.	

Name of On-board Equipment	Purpose of Use	Reference Image
Hose Adaptor	An adaptor which converts the diameter of hose fitting, allowing to connect hoses of different diameter.	
Hose Spanner	Spanner used to fasten/loosen the connecting parts of a hose.	
Variable Nozzle (Gun Type)	Water discharge nozzle which can change the shape of water being discharged.	

3) Clarify the Necessary Design Conditions

In designing the Fire Trucks to be procured under the Project, the design conditions should first be clarified. Then functions and specifications necessary as a Fire Truck, as well as the items for On-board Equipment shall be selected to meet such conditions (Table 2-6).

Table 2-6 Design Conditions to be Considered and Corresponding Specifications

Design Condition		Corresponding plans on Equipment Specifications and itemizing On-board Equipment	
Category	Condition Contents	Basic Specifications of the Fire Truck (Main Unit)	On-board Equipment
Road Condition	(1) Many roads with steep slopes.	- Drive System: Four Wheel Drive (4WD) - Secure minimum Ground Clearance, Approach Angle and Departure Angle.	-
	(2) Main roads are paved, while other feeder roads are unpaved.		-
	(3) Slippery surface of the paved roads, caused by driving frictions.	Drive System: 4WD	-
	(4) Residential areas with narrow roads.	Minimise the size of Fire Truck	-
	(5) Due to inadequate drainage system on the roads, damages such as house flooding are caused even in small rainfalls.	- Drive System: 4WD - Secure minimum Ground Clearance, Approach Angle and Departure Angle.	-
	(6) Many speed humps are placed on city roads, to slow the driving speed.	- Layout of baffle plates inside the water tank to be considered. - Install devices to secure the on-board equipment inside the locker rooms.	-
Firefighting Water Source Availability	(7) Natural water is not available and only man-made water sources such as fire hydrants are available as firefighting water.	-	Foam Proportioner (for minimising water usage)
	(8) There are few water supply points available for Fire	Water Tank Capacity: 3,000 lit. or more (based	-

Design Condition		Corresponding plans on Equipment Specifications and itemizing On-board Equipment	
Category	Condition Contents	Basic Specifications of the Fire Truck (Main Unit)	On-board Equipment
	Trucks. Most likely to take long time to reach the nearest water supply points.	on coordinated operations with neighbouring CDCs).	
Grass Fire	(9) Difficult or unable for Firefighting Vehicles to approach close to the fire scene.	- Minimise the size of Fire Truck - Turret (On-roof water cannon)	- Portable Pump - Forestry Water Pump and Backpack - Fire hoses: 100m or more when all on-board hoses are connected
	(10) In principle, the operation is to minimize the spread of fire than extinguishing a fire.	-	Chain Saw
House Fire	(11) House fire has a high no. of cases, after grass fire, waste/garbage fire and fruit tree fire.	- Minimise the size of Fire Truck - Water Tank Capacity: 3,000 lit. or more	2-section ladder - Blower - Breathing Apparatus Set
Topography	(12) There are many steep terrains.	Drive System: 4WD	
	(13) Many areas are located in the basins and even a small rainfall can cause house flooding and other damages.	-	Drainage pump
Regulation	(14) Emission standard and mandatory installation of collision prevention safety devices are imposed.	- Euro 6 emission standard - Latest Safety Prevention Devices	-
Existing Fire Truck	(15) Existing Fire Trucks are in accordance with the standard specifications adhered to in Europe.	- Coupling Standard: STORZ - Rear-mount Pump	Coupling Standard: STORZ
Firefighting and Rescue Operations	(16) In principle, there is a team of four for when a Fire Truck is dispatched.	Double Cabin	- Personal Equipment for Firefighters 4 sets of Breathing Apparatus Set
	(17) There is a high no. of car accidents and rescue operations ¹⁶ are required.	-	- Electro-hydraulic rescue tools - RAM Cylinder - Small Power Saw
	(18) Many rescues under confined spaces (e.g. rescue under rubbles) are required.	-	- Stretcher - Rescue Rope - Demolition Hammer (Breaker) - Power Cutter

¹⁶ In the West Bank, many vehicles drove are generally of old models and in case of traffic accidents, driver and passenger areas of the vehicles are greatly deformed. In order to rescue people trapped inside, the need to use hydraulic destructive devices to cut or widen the gaps of the doors and pillars of the accident vehicles are high.

(6) Plan for Replacement Parts and Consumables

Itemising plans of the replacement parts and consumables for both chassis and superstructure of the Fire Truck are shown as follows.

1) For Chassis

Under the Project, the following replacement parts and consumables for the chassis are planned to be procured as per Table 2-7 below.

Table 2-7 For Chassis: Replacement Parts and Consumables

Item	Q'ty
Fuel filter and related parts	As per Manufacturer's recommended quantity
Air filter and related parts	As per Manufacturer's recommended quantity
Engine oil filter and related parts	As per Manufacturer's recommended quantity
AdBlue and other emission regulation related replacement parts	As per Manufacturer's recommended quantity

2) For Superstructure

Under the Project, the following replacement parts and consumables for the superstructure are planned to be procured as per Table 2-8 below.

Table 2-8 For Superstructure: Replacement Parts and Consumables

Equipment	Replacement Parts	Q'ty
Fire Truck (3,000lit.)	Electrical replacement parts (lights, fuse, set of bulbs, relay switches etc.)	Necessary quantity of the replacement parts and consumables for one year.
	Various valve-related replacement parts	
	Spare parts for hoses and nozzles	
	Consumable parts such as packings for firefighting pump	

2-2-2-3 Basic Specifications Plan

The basic specifications planned based on above-mentioned plans and considerations are shown below, by categorised into: i) Fire Truck (Main Unit); and ii) On-board Equipment.

(1) Fire Truck Main Unit

1) Basic Specifications

The basic specifications of the main unit of the Fire Truck are shown as per Table 2-9 below.

Table 2-9 Basic Specifications of the Fire Truck (Main Unit)

Composition	Outline Specifications	
	Item	Basic Specifications
Chassis	Cabin	Double Cabin
	Drive System	4 x 4 (four wheel drive)
	Transmission	Automatic Transmission
	Emission Standard	EURO 6
	Safety Protection Devices:	
	- Anti-lock Braking System (ABS)	Equipped
	- Electronic Brake System (EBS)	Equipped
	- Full Braking Assistant	Equipped
	- Electronic Stability Program (ESP)	Equipped
	- Forward collision warning with emergency braking (ACC (Active Cruise Control))	Equipped
	- Lane Departure Warning System	Equipped
Superstructure	Water Tank	3,000lit., Material: SUS304
	Foam Tank	Not Equipped (Foam Proportioner (Inductor) to be provided)
	Pump	Rear Mount 3,000lit./min @ 1.00MPa PTO driven
	Coupling Standard	STORZ
	Suction Inlet	STORZ A 125, Aluminum (1 place)
	Water Filler (Tank Inlet)	STORZ C 52, Aluminum (1 place)
	Discharge Outlet	STORZ B 75 (Valve Type), Aluminum (4 places)
	Turret (On-roof Water Cannon)	~2,500lit./min. @ 8 bar
	Hose Reel	STORZ D 25mm, L=50m, Gun-type Nozzle, for water only (1 place)
	Equipment Locker Room	2 Rooms/Side (4 Rooms/Both Sides)
	Shutter Door	2 Shutters/Side (4 Shutters/Both Sides)
	Mounting Bracket for Breathing Air Cylinder	Installed inside the Cabin (for 4 cyliners)
	On-board Radio	Not Equipped

2) Particular Note for the Superstructure

In urban areas of the West Bank, many speed humps are being placed as well as the roads are quite steep, and in rural areas many roads are still unpaved.

Under such road conditions, Fire Trucks are required to drive fast under emergencies. Securing device to fasten on-board equipment in the locker rooms is required to prevent them from moving while the vehicle shakes during fast driving.

Many of the equipment mounted on the Fire Trucks are heavy (such as hydraulic rescue equipment), and there are risks of equipment being damaged, as well as locker walls and shutters from being deformed or damaged, due to on-board equipment moving inside the lockers.

In addition, water shaking inside the tank caused by a Fire Truck driving over the speed humps may cause a loss of driving stability, and the possibility of it inducing an accident of a Fire Truck from tripping



Photo 2-8 Mounted equipment secured inside the locker.

over cannot be denied in a worse-case scenario.

As countermeasures against shaking, on-board equipment shall be surely secured, and the water tank shall be equipped with baffler plates to minimise the loaded water from shaking.

(2) On-board Equipment

Items and their basic specifications of the on-board equipment are shown as follows, which are divided into three categories of: i) for Firefighting Operations (Table 2-10); ii) for Rescue Operations (Table 2-11); and iii) for Firefighting and Rescue Operations in general (Table 2-12).

1) Basic Specifications of the On-board Equipment

Table 2-10 For Firefighting Operations

Main Use	Main Item	Basic Specification	Q'ty	Reference Image
For Firefighting Operations in General	Fire Hose	Hose dia. 52mm, Storz Coupling type C, L=20m	6 pcs.	
		Hose dia. 75mm, Storz Coupling type B, L=20m	7 pcs.	
	Suction Hose	Hose dia. 125mm, Storz Coupling type A, L=2m	2 pcs.	
	Suction Strainer	Outlet: STORZ 125	1 pc.	
	Hose Bridge	For Type C/D, Solid Rubber	1 set	
	2 Way Ball Valve	Inlet: STORZ 75 Outlet: STORZ 52 x 2	1 pc.	
	Hose Adaptor	Size: 75B-52C	4 pcs.	
		Size: 52C-25D	3 pcs.	
	Hose Spanner	Size: STORZ 75(B)	1 pc.	
		Size: STORZ 52(C)	1 pc.	
		Size: STORZ 25(D)	1 pc.	
	Variable Nozzle (Gun Type)	Flow Rate: Variable 110-480 (lit./min.) (0.7MPa.)	2 pc.	
		Type: Straight, Spray		
		Coupling: STORZ 52-C		
	Breathing Apparatus Set	BCD*, Regulator, Gauge, Mask and Oxygen Cylinder	4 sets (with 8 cylinders)	
For Minimizing Water Usage	Heavy Foam Branchpipe	Flow Rate: 400lit./min.(1.0MPa.) or more	1 pc.	
		Coupling: STORZ 52-C		
	Foam Proportioner (Inductor)	Flow Rate: 200lit./min. or more	1 pc.	
		Admixing Rate: 0.5-6% Coupling: STORZ 52-C		
For Forestry Fire	Portable Pump	Weight: 10kg or less	1 unit	
		Fuel Type: Gasoline		
	Forestry Water Pump and Backpack	Capacity: 19lit. or more	2 pcs.	
		Type: Hand Pump Weight: 0.8 to 1.1kg		
	Foldable Portable Water Tank	Capacity: 500-1,000lit. Weight: 10-13kg	1 pc.	
For Building Fire	Chain Saw	Fuel Type: Gasoline	1 unit	
		Blade length: 60cm		
		Weight: approx. 5.5-6.5kg		
For Building Fire	Blower	Fuel Type: Gasoline	1 unit	
		Blade dia.: 40cm		
		Weight: 35-37kg		

*BCD: Buoyancy Control Device

Remark 1: Some small items are not listed above. / Remark 2: Only the outline of the basic specifications are stated above.

Table 2-11 For Rescue Operations

Main Use	Main Item	Basic Specifications	Q'ty	Reference Image
For Rescue Operations in General	Generator	Capacity: 2.5kVA	1 unit	
		Fuel Type: Gasoline		
		with Cord Reel		
	Basket Stretcher	Weight: approx. 9.8-10.0kg	1 pc.	
		Loading Capacity: 350kg or more		
		Materials: Polyethylene and Stainless steel		
	For Confined Space Rescue	Power Cutter	1 unit	
		Fuel Type: Gasoline		
		Blade dia.: 350mm		
	Demolition Hammer (Breaker)	Weight: approx. 11kg	1 unit	
		Power Source: AC240V		
		End Bits: Concrete bit, chisel etc.		
	For Flooding	Weight: 9.0-12.0kg	1 unit	
		Water Suction Pump		
		Capacity: 600lit./min. or more		
	For Vehicle Accidents	Coupling Standard: STORZ C	1 unit	
		Fuel Type: Gasoline		
		Rescue Float		
	Electro-Hydraulic Tool	Weight: 2.3-2.8kg	1 pc.	
		Φ: 40-60cm		
		Cutter	1 set	
		Power Source: Re-chargeable Lithium Ion Battery		
		Max. Cutting Force: 775 kN or more		
		Cutting Diameter: φ32mm or more		
	Spreader	Power Source: Re-chargeable Lithium Ion Battery	1 set	
		Spreading Force: 38-170 kN		
		Max. Crushing Force: 76kN or more		
	RAM Cylinder	Power Source: Re-chargeable Lithium Ion Battery	1 unit	
		Capacity: 60-105ton class		
		Max. Stroke: 795mm or more		
	Small Power Saw (Cordless)	Power Source: Lithium Ion Battery	1 unit	
		Weight: approx. 11kg		

Remark 1: Some small items are not listed above. / Remark 2: Only the outline of the basic specifications are stated above.

Table 2-12 For Firefighting and Rescue Operations in General

Main Use	Main Item	Basic Specification	Q'ty	Reference Image
For Firefighting and Rescue Operations in General	Personal Equipment for Firefighters	Helmet and Flush light	4 sets	
	Ladder	Material: Aluminum	1 pc.	
		Length (extended): 8.0m		
		No. of Sections: 2		

Remark 1: Some small items are not listed above. / Remark 2: Only the outline of the basic specifications are stated above.

2) Particular Note on On-board Equipment

(i) Response to Grass Fires and House Fires with limited access

Regarding firefighting operations for: i) grass fires; and ii) housing fires in residential areas facing narrow roads, it was confirmed during the 1st field survey that the existing equipment mounted on the Fire Trucks are not sufficient enough to effectively operate in places where Fire Trucks are restricted from accessing close to the fire incidents due to the terrain and/or the road conditions.

To effectively extinguish fires in the events of limited access to fire incidents, the Project plans to include “Portable Pump (shoulder-mountable)” and “Forestry Water Pump with Backpack” as on-board equipment. Figure 2-3 below shows how these on-board equipment and related equipment will be operated.

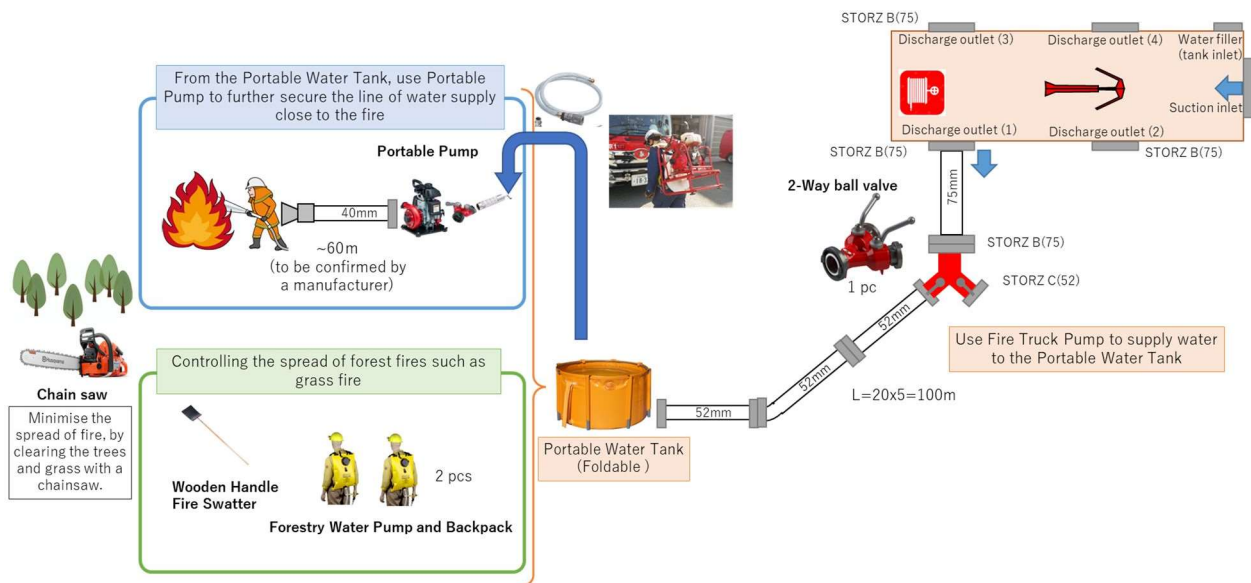


Figure 2-3 Equipment Operational Plan

(ii) Procurement Consideration for Suction Hoses and a Suction Strainer

In general, firefighting water sources available for a Fire Truck can be broadly categorised into: i) pressurised water, such as from fire hydrants; and ii) unpressurised natural water. The former delivers water to the Fire Truck tank by utilising the water pressure from a fire hydrant, whereas the latter uses a fire pump mounted on the Fire Truck to intake unpressurised water to the tank.

However, as described in “Chapter 2-2-1-3 (1) Corresponding Policies to Firefighting Water Sources Availability”, firefighting water used in the target governorates are limited almost just to fire hydrants and no natural water is used, therefore “Suction Hose” and “Suction Strainer” mounted on the existing vehicles are not used at present.

During the initial specification discussions with PCD, they expressed their willingness to exclude suction hoses and a strainer from the list of On-board Equipment. However, it may become possible in the future to intake firefighting water from natural water sources in the West Bank and/or the Fire Trucks to be procured under the Project may be dispatched overseas for international disaster relief operations where

it may become necessary to intake water from natural water sources available at the disaster-stricken areas. In anticipating the above situations, “Suction Hose” and “Suction Strainer” will be included in the list of On-board Equipment for this Project.

Nonetheless, instead of mounting these suction hoses and a strainer on the Fire Truck, they will be stored at respective CDCs, and when necessary, they will be mounted on the roof of the Fire Trucks with the provided buckles for dispatchment to the site.

(iii) Procurement Consideration for Firefighter Uniforms

During the 1st field survey (March 2023), it was confirmed that firefighters’ uniforms were available as personnel equipment at the target CDCs (Photo 2-9), and as PCD expressed its intention to utilise the existing firefighter uniforms, it was decided to exclude uniforms from Japan’s scope of procurement.

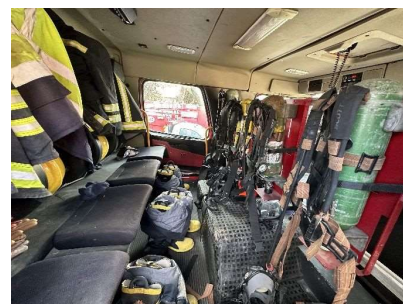


Photo 2-9 Firefighter uniforms placed inside the Fire Truck, ready for dispatchment. (Left hand corner of the photo)

(iv) Procurement Consideration for Radio Communication System

A radio communication system is generally used as a means of communication between fire stations and firefighting vehicles, where firefighting vehicles are equipped with dash-mount mobile radios.

Radio system can be broadly categorised into: i) conventional analogue radio communication system (hereinafter referred to as “**analogue radios**”); and ii) digital radio communication system (hereinafter referred to as “**digital radios**”).

Use of digital radios is becoming more common, as it has clearer sound for vocal communication, as well as its ability to share information on vehicle locations and conditions. In addition, there is an increase in reasonably priced digital radios now available in the market from Chinese manufacturers. However, digital radios have their disadvantages, that they are not compatible with analogue radios, nor with other digital radios which adopts different standards, as standards differ from manufacturer to manufacturer. Therefore, confirming the standards adopted on the existing equipment is very important in ensuring compatibility when designing the procurement specifications of a new radio communication equipment.

For this Project, it was found during the 1st field survey, that the Ministry of Interior is currently initiating on a possibility to integrate the communication network systems of fire services, police and ambulance, however, the radio standards to be adopted has not yet been decided at this moment.

Given the circumstances, there is a concern that if radio equipment is included in the Fire Trucks to be procured under the Project, the radio standard may not be compatible with the new standard to be

adopted when above-mentioned system integration on communication network takes place in the future, whereby procured radio equipment under the Project may no longer be utilised. Therefore, it was decided not to include the radio equipment as a component in the Project.

2-2-3 Outline Design Drawing

2-2-3-1 Fire Truck (3,000 lit.)

Outline reference drawing of the Fire Trucks to be procured under the Project is shown as per Figure 2-4.

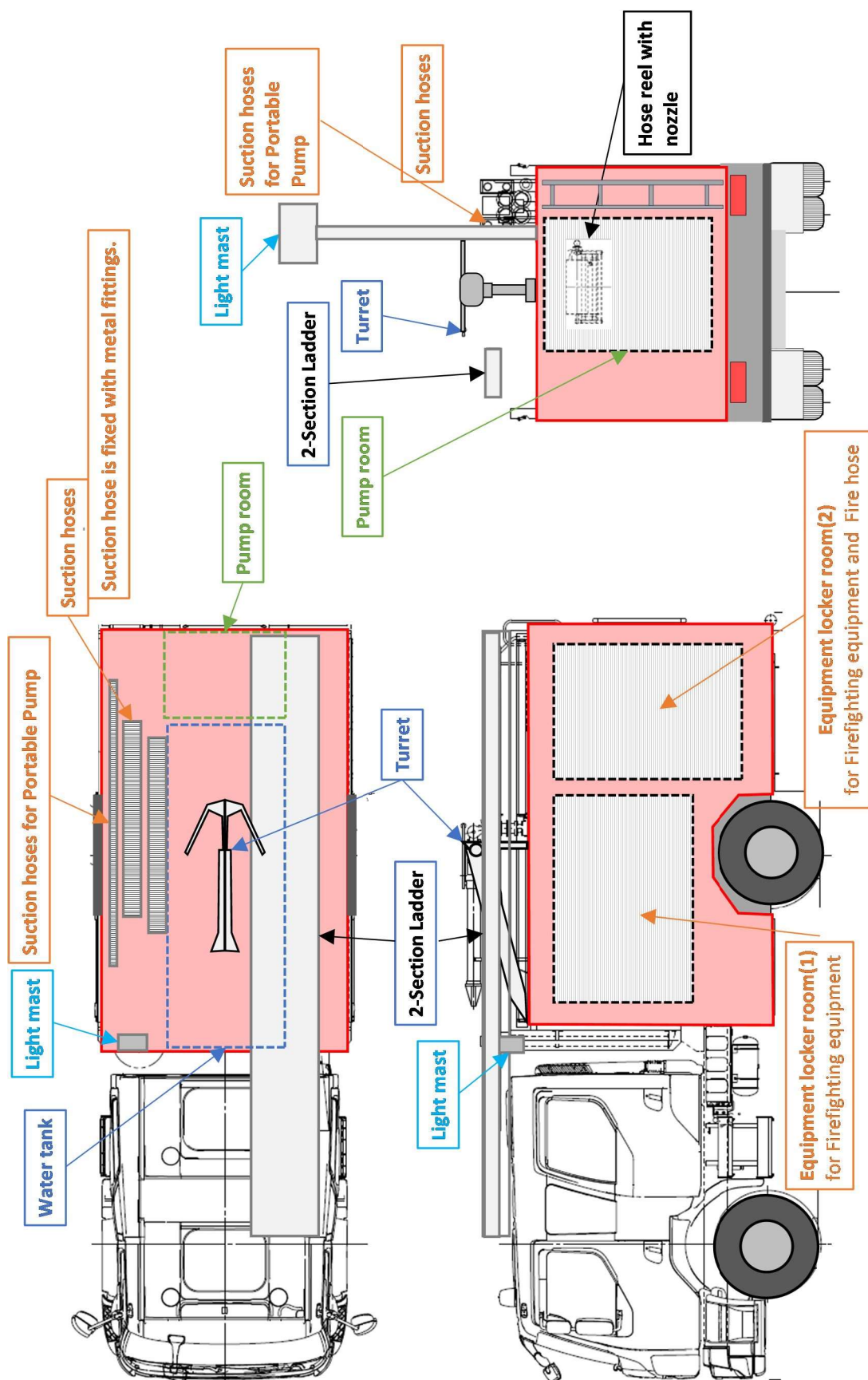


Figure 2-4 Outline Drawing of a Fire Truck

2-2-3-2 Water Supply System

Outline diagram on water delivery (loading and discharge) of the Fire Trucks and on-board equipment to be procured under the Project is shown as per

Figure 2-5 below.

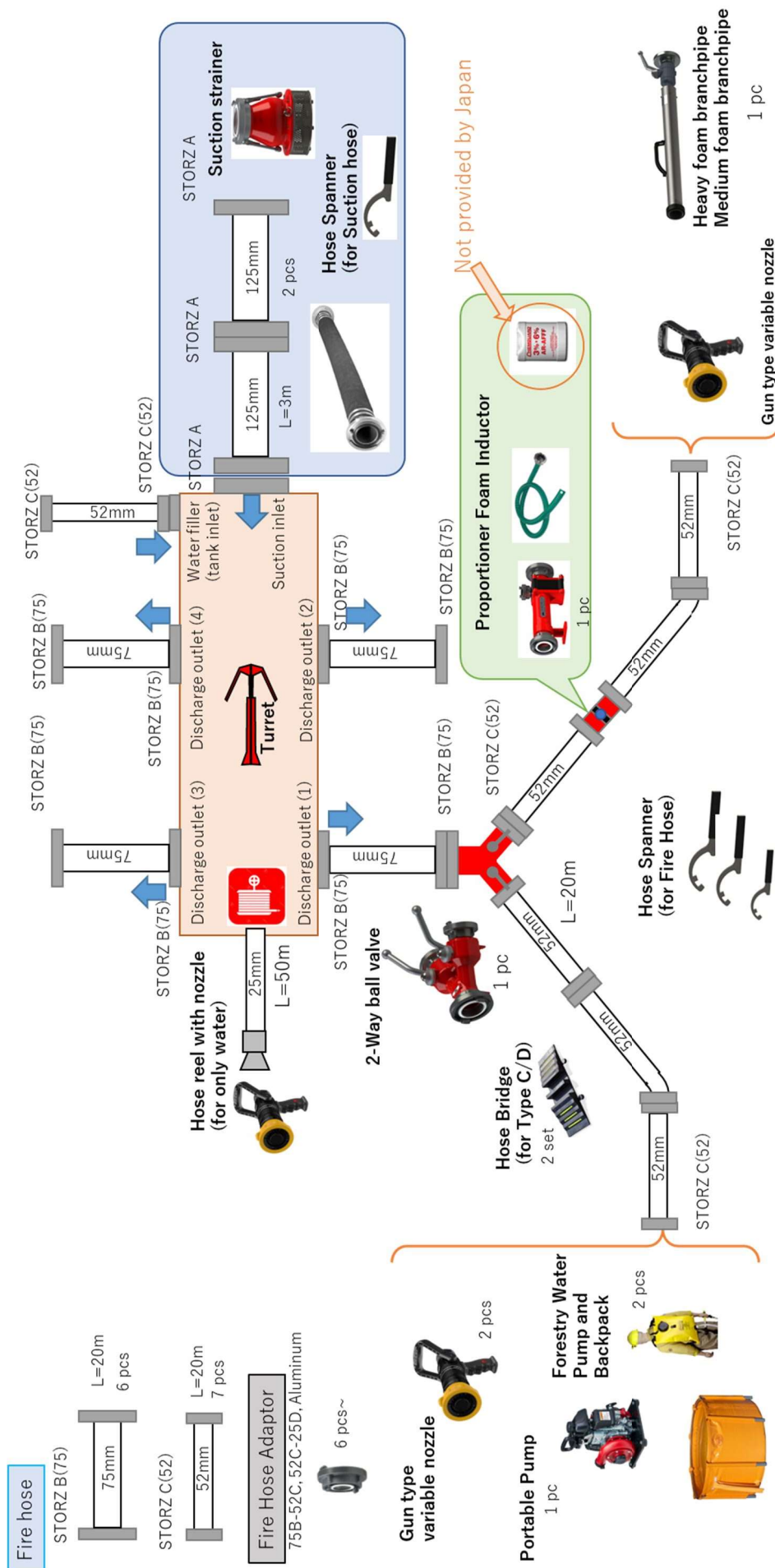


Figure 2-5 Water Delivery (Loading and Discharge) Diagram

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

(1) Project Implementation Entity

Figure 2-6 below shows the main roles of and relationships between the organisations of both sides involved in the Project under Japan's grant aid scheme.

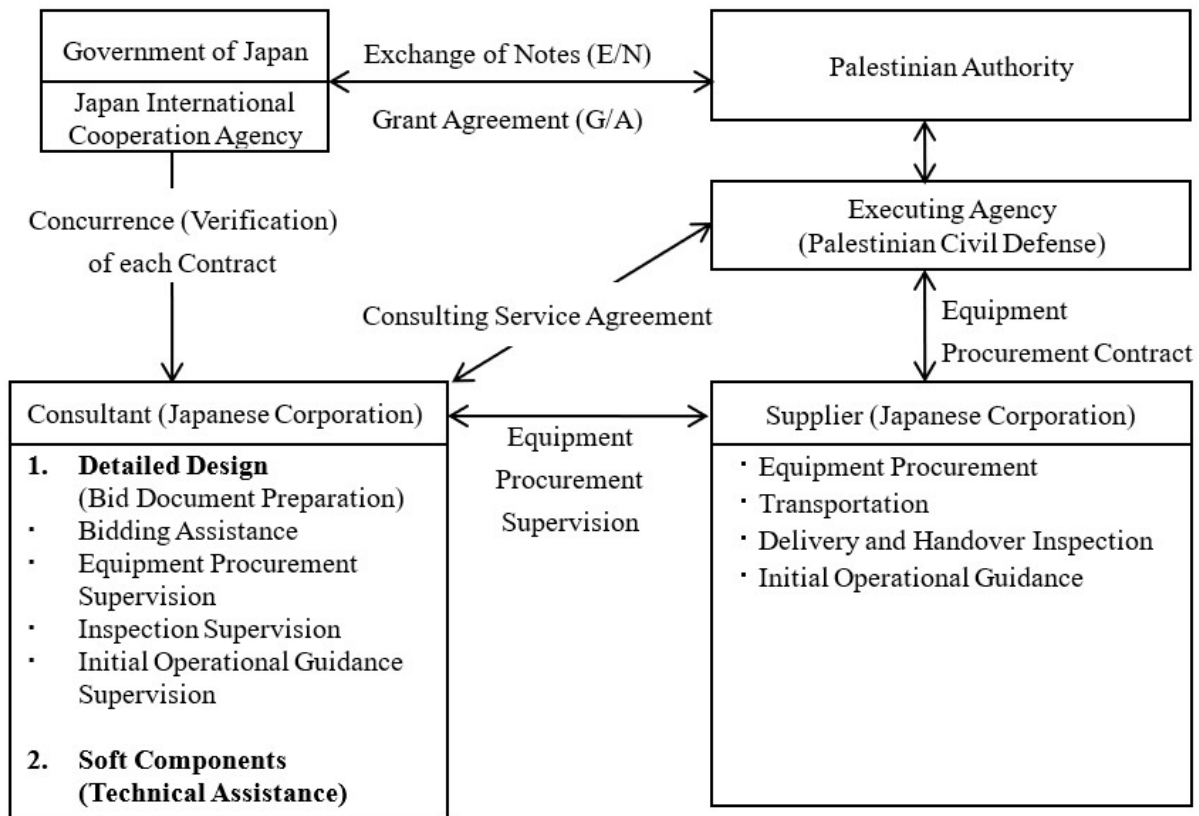


Figure 2-6 Project Implementation Organizational Chart

1) Responsible Authority for the Project

PCD shall be the Executing Agency, responsible for the implementation of the Project, while 11 CDCs and 1 Support Center in Ramallah, Jenin and Tulkarm governorates, where procured Fire Trucks will be deployed, shall be responsible for the daily operation and maintenance. PCD, as the Executing Agency, shall ensure to secure the necessary budgets for operation and maintenance of the equipment to be procured.

2) Consultant

After the conclusion of Exchange of Notes (hereinafter referred to as “E/N”) and Grant Agreement (hereinafter referred to as “G/A”) on the grand aid cooperation for the Project, PCD shall promptly enter into a service agreement (Consulting Service Agreement) with a selected Japanese Consultant, for the

Consultant to facilitate the procedures and management of the Project.

The contracted Consultant will provide services for the detailed design, preparation of bidding documents, bid execution assistance and procurement supervision, and will be responsible for the Project until the completion of the delivery of the equipment under the Project. In addition, the Consultant will provide technical guidance using the procured equipment to PCD, based on the Soft Component (Technical Assistance) plan.

3) Equipment Supplier

Japanese company as a Supplier shall be selected by PCD through a general competitive bidding process, based on the framework of Japan's grant aid.

The bidding method adopted is a “*Single-Stage, Two-Envelope Bidding Procedure*”, where bidders will be invited to submit technical and price bids simultaneously in 2 separate sealed envelopes. First, the technical bids will be opened for the Consultant to evaluate the conformity of required specifications, quality and quantity. At a later stage, the price bids of the bidders who have passed the technical evaluation will be opened and the Consultant shall examine the price bids to determine the successful bidder. The successful bidder will conclude a procurement contract (Procurement Contract) with PCD as the Supplier of the equipment.

2-2-4-2 Implementation Conditions

The following conditions shall be taken into account for procurement under the Project.

(1) Importation to the West Bank

Importation of grant aid cargo to the West Bank in Palestine is subject to various restrictions imposed by the Israeli authorities. Not only a general compliance to Israeli import customs regulations is required, i) tax exemption approval from the Israel Customs Directorate of Israel Tax Authority (hereinafter referred to as “**Israel Customs**”); as well as ii) “Security Screening” clearance from the Coordination of Government Activities in the Territories (hereinafter referred to as “**COGAT**”) of Israel is required to ensure that the imported goods will not be used or converted for military use (“dual use”). There have been cases in the past where obtaining the necessary approvals and permits from the Israeli side have taken time, therefore it is necessary to arrange and submit the required documents in a timely manner.

1) Exemption of Customs Duties and Taxes

Palestine is required to take necessary actions for the exemption of import customs duties and levies, including VAT (value-added tax) for the Fire Trucks (including the on-board equipment and replacement parts) to be procured under the Project.

As the collection of customs duties and levies on goods to be imported to the West Bank is carried

out by the Israel Customs, tax exemption for the grant aid cargo under the Project must be applied and approved by the Israel Customs, through the General Directorate of Customs, Excises and VAT under the Ministry of Finance in Palestine (hereinafter referred to as “**Palestine Customs**”).

Application process is summarised as shown in Figure 2-7 below, together with COGAT’s document security screening process to be explained further below.

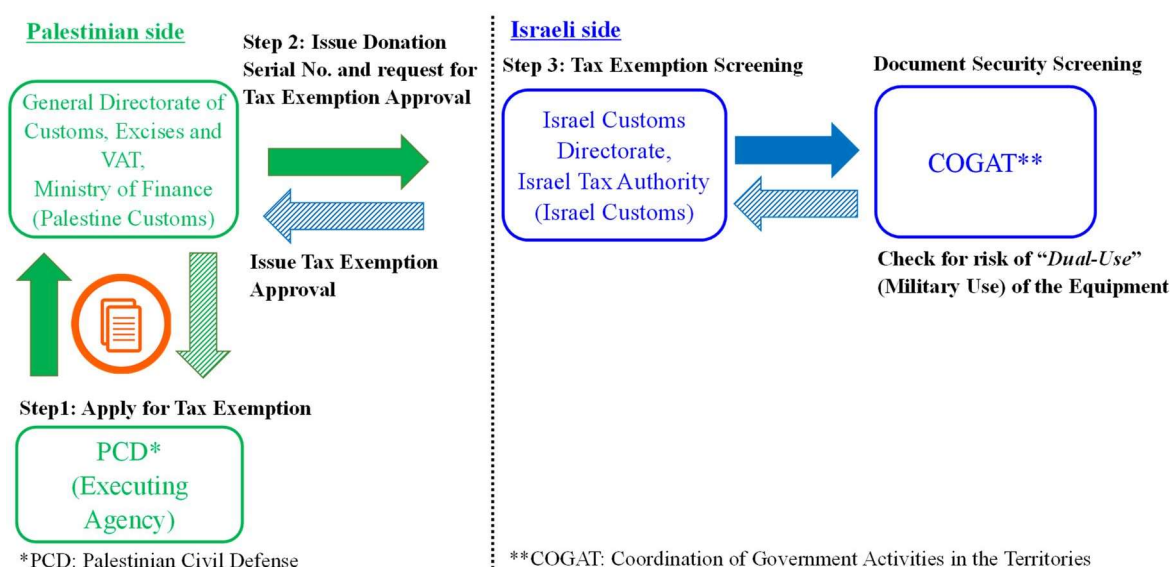


Figure 2-7 Major Actors and Basic Application Flows

(i) Tax Exemption Application Procedures

Step1:	Upon concluding the Procurement Contract with the Supplier, PCD as the Executing Agency shall apply for Tax Exemptions to the Palestine Customs, by attaching the necessary documents including below: <<Documents to be Attached>> ▪ Donation Letter issued by JICA (a Letter confirming the firefighting equipment as Japanese government’s grant aid cargo); ▪ Copies of E/N and G/A ▪ Master List of the firefighting equipment ▪ Proforma Invoice and Packing List (Note: Necessary documents will vary depending on the equipment and are subject to change with time. Latest information shall be checked well in advance.)
Step2:	After receiving the application from PCD, the Palestine Customs will issue a “Donation Serial Number” and apply for tax exemption approval to the Israel Customs.
Step3:	Israel Customs will issue a tax exemption approval after examination and notify the Palestine Customs.

Remarks:	▪ In principle, tax exemption approval is valid for 1 year (extension possible) ▪ Tax exemption for the firefighting equipment to be procured under the Project is a matter to be undertaken by the Palestinian side and will require close coordination between PCD and the Palestine Customs, as well as with the Israel Customs.
----------	--

2) COGAT Security Screening Procedures

Equipment to be imported to the West Bank require import permits from the Israeli Authorities. As part of this process, COGAT will conduct document security screening to ensure that there is no risk of Dual Use (use or conversion for military use) of the equipment to be imported. Necessary documents prepared by the equipment Supplier will be submitted to COGAT via the Israel Customs through the Palestine Customs for document screening.

(i) Main Documents required:

- Detailed technical specifications of the equipment
- Equipment catalogues
- Drawings
- Certificates of conformity (certifying the manufacturing standards etc.)
- Proforma Invoice/Packing List
- Any other supporting documents as required upon request from COGAT

(Note: Manufacturers' names, models, chassis number (Vehicle Identification Number, hereafter referred to as "VIN"), emission standard, conformed production standards, materials, etc. must be provided in detail).

(ii) Time Required for Approval

- Difficult to estimate the expected time required to obtain COGAT's approval, as the information is not officially available.
- However, information from the Palestine Customs and other sources indicates that, in the past, some cases only took 2-3 weeks, whilst other cases took more than 6 months from the application to approval.
- Validity period of approval is reported as 1 year in principle, which can be extended if needed.

(iii) Application Timing

- As soon as the technical specifications of the firefighting equipment (including on-board equipment and replacement parts) to be imported are finalised upon concluding the Procurement Contract with the Supplier, it is preferable to submit the required documents to COGAT through the Israel Customs as soon as practicable.
- The Supplier will require to coordinate with PCD and JICA Palestine Office through the Consultant, to facilitate smooth security screening procedure by COGAT.

3) COGAT Pre-Security Screening

As previously stated, the Project plans to fabricate and mount the superstructure of the Fire Truck in Japan, therefore the country of origin of the Fire Truck (as a complete unit) will be Japan under the Project. As this Project will be the first time to import made-in-Japan brand-new Fire Trucks to the West Bank as a grant aid cargo, it deemed necessary to obtain a prior confirmation from COGAT to ensure that the Fire Truck (including on-board equipment) would not be subject to import restrictions or considered a risk for military dual use etc.

Based on above, the Consultant prepared the necessary documents on equipment specifications based on the outline design (as of the 1st field survey) and conducted a pre-screening by COGAT, which confirmed that no security concerns were raised regarding the specifications and fabrication standards for the expected Japanese superstructure. As of September 2024, a pre-screening of the on-board equipment is still ongoing by COGAT and waiting for the result of the screening.

This is to note, however, that the technical specifications and other information provided for the pre-screening are tentative and draft information as of the outline design stage. For the actual implementation of the Project, contracted Supplier will need to undergo COGAT's security screening based on the finalised specifications of the actual equipment and obtain the import permit for the actual shipment.

(2) Loss and Damage Liability during Transportation

Project delivery site for the firefighting equipment to be procured from Japan will be PCD Training Center in Jericho governorate, where the equipment will be handed over to the Palestinian side.

The Supplier shall be liable for any damage or loss of the equipment during transportation to the Project delivery site (ocean and inland, including unloading at site), as well as during site storage until the completion of inspection for handover, and shall be covered by Supplier's transportation insurance.

On the other hand, the Palestinian side is responsible for the inland transportation of the procured equipment from PCD Training Center in Jericho governorate to respective CDCs and Support Center and is liable for any damage or loss during such inland transportation.

(3) Loss and Damage Liability during Initial Operational Guidance

Upon arrival at the project delivery site, the firefighting equipment shall be inspected and handed over to the Palestinian side, and ownership of the equipment will be transferred to the Palestinian side.

The Palestinian side shall be responsible for any loss or damage of the procured equipment during the initial operational guidance (training), after the transfer of ownership to the Palestinian side.

2-2-4-3 Scope of Works

Table 2-13 below shows the burden sharing between the Japanese and the Palestinian side for the

Project implementation.

All costs related to the procurement of equipment, including transportation to the project delivery site at PCD Training Center in Jericho governorate and unloading on the ground, shall be borne by the Japanese side.

Transportation costs (self-propelled) from PCD Training Center to respective CDCs and Support Center in the three target governorates, as well as the operation and maintenance costs of the procured equipment after handover shall be borne by the Palestinian side.

Table 2-13 Burden Sharing between the Two Governments

Work Item	Content	Responsible Party		Remark
		Japan	Palestine	
Equipment Procurement	Equipment Procurement	●		
	Ocean and Land Transportations	●		Up to the import customs clearance point
	Customs Clearance	●	●	Including tax exemption procedure
	Inland Transportation	●		Transportation from the unloading port (Ashdod Port, Israel expected) to PCD Training Center (in Jericho governorate)
			●	Transportation (self-propelled) from PCD Training Center in Jericho governorate to respective CDCs and Support Center in the three target governorates
	Vehicle Registration		●	Vehicle registration procedure and its fee
Training	Initial Operational Guidance	●	●	Followings to be arranged and fees to be borne by the Palestinian side: · Training participants from PCD/CDCs and their traveling, accommodation and personnel expenses etc.; · Fuels, oils, lubricants, firefighting water, scrap woods (for fire simulation), scrapped vehicles and dummy dolls necessary for trainings; and · Training Venue.
	Soft Component (Technical Assistance)	●	●	Following to be arranged and fees to be borne by the Japanese side: · Dispatch of Trainer and their traveling, accommodation and personnel expenses etc.

Equipment Management	Parking Space		•	New construction and renovation of the existing garages with roofs at respective CDCs and Support Center.
	Operation and Maintenance		•	
	Daily Trainings		•	

2-2-4-4 Consultant Supervision

(1) Basic Policy

After the conclusions of E/N and G/A, a Japanese Consultant shall conclude a Consulting Service Agreement with PCD based on the framework of the grant aid, for the Detailed Design and procurement supervision services within the scope of work indicated in the said contract.

It is important that the Consultant forms a team that fully understands the background of the Project implementation, as well as the history and purpose of the Outline Design (O/D) that has been carried out in formulating the cooperation Project. The Consultant shall dispatch technical experts, in line with the progress of the equipment inspections in Japan and Initial Operational Guidance at the project delivery site, to ensure that operation and safety management is carried out in accordance with the plan.

(2) Detailed Design

Main scope of works for Detailed Design stage are as follows.

- Project initiation discussion and confirmation of the Project plan
- Review of technical specifications of the equipment
- Preparation of bidding documents
- Explanation and approval of bidding documents
- Assistance in bidding procedures (public announcement of bid, distribution of bidding documents, bid execution and evaluation of results)
- Assistance in conclusion of the Supplier's contract (contract negotiation, witness of contract signing and contract verification process)

(3) Procurement Supervision

Main scope of works for procurement supervision stage are as follows.

- Confirmation of issuance of equipment purchase order
- Review of equipment specifications and fabrication drawings
- Confirmation of factory inspections (interim and pre-delivery inspections)
- Arrangement of pre-shipment inspection (outsourced to a third party) and issuance of inspection report
- Pre-delivery meeting (confirming the delivery schedule, tax exemption process and

implementation procedure for the Initial Operational Guidance)

- Witness commissioning and handover inspections at site
- Witness Initial Operational Guidance
- Preparation of completion report

2-2-4-5 Quality Control Plan

The following inspections will be conducted at each stage of the procurement process, to ensure that the firefighting equipment to be procured from the Supplier meets the specifications, quality and quantity in accordance with the procurement contract.

- Confirmation of the contents of the equipment purchase order issued by the Supplier, and fabrication drawings and specifications
- Factory inspections (interim and pre-delivery inspections)
- Pre-shipment inspection
- Handover inspection at site

2-2-4-6 Equipment Procurement Plan

(1) Procurement Source

To fabricate a Fire Truck, a fire truck manufacturer (manufacturer of a fire truck superstructure) procures a chassis from a chassis manufacturer, and then mounts their superstructure fabricated and fit necessary on-board equipment to build as a complete unit of Fire Truck.

As indicated in “Chapter 2-2-1-6 Procurement Policy on Legal Regulations” and “Chapter 2-2-1-9 (2) Country of Origin and Country of Procurement”, chassis made in Europe (compliant to Israeli regulations) is required under the Project.

On the other hand, as indicated in “Chapter 2-2-1-9 (2) Country of Origin and Country of Procurement”, Japanese fire truck manufacturer is available to fabricate a Fire Truck to be procured under the Project, therefore a superstructure shall be made and mounted in Japan, by procuring a European-made chassis.

Taking into consideration of above, country of origin of the Fire Truck to be procured under the Project shall be Japan, as the “country of origin” defined under the Project is “a country where manufacturing place is located, for fabricating and mounting the superstructure to build a Fire Truck as a complete unit”.

Based on above, “country of origin” (complete unit) and “country of procurement” are shown in Table 2-14 as follows.

Table 2-14 Equipment Procurement Classification

Equipment Name	Country of Origin			Country of Procurement		
	Japan	Palestine	Third Country	Japan	Palestine	Third Country
Fire Truck (3,000 lit.)	●	-	-	●	-	-

(2) Transportation Plan

1) Transportation Scope

The Japanese side is responsible for the transport of the firefighting equipment from the manufacturing plant to PCD Training Center in Jericho governorate in the West Bank (approx. 45km east of Ramallah), which will be the final destination for the Japanese side.

After handover of the firefighting equipment and Initial Operational Guidance, inland transportation from PCD Training Center to respective CDCs in the target governorates shall be arranged under the responsibility of PCD.

2) Transportation Route

Expected transportation route is as shown in Figure 2-8 below and estimated lead time is approx. 2.5 months, including import customs clearance.

From a nearest major seaport of loading in Japan, firefighting equipment is expected to be shipped by ocean to Ashdod Port of unloading in Israel. Normally, RORO (Roll-on/Roll-off) car carrier vessels are used for the above shipment route, however due to the conflict between Gaza Strip and Israel which occurred in October 2023, RORO vessel carrier service has become unavailable (as of September, 2024). Thus, the shipment plan is made based on the assumption that container vessels are alternatively used by loading the equipment on flat rack containers (FR). In addition, as the Suez Canal cannot be used at the above point in time, it is assumed that a diversion route through the Cape of Good Hope will be used.

Inland transportation from Ashdod Port to PCD Training Center in Jericho governorate is planned by trailer. Road conditions of the main and public roads are good and there is no major infrastructural concern over the expected transportation route (as of September, 2024).

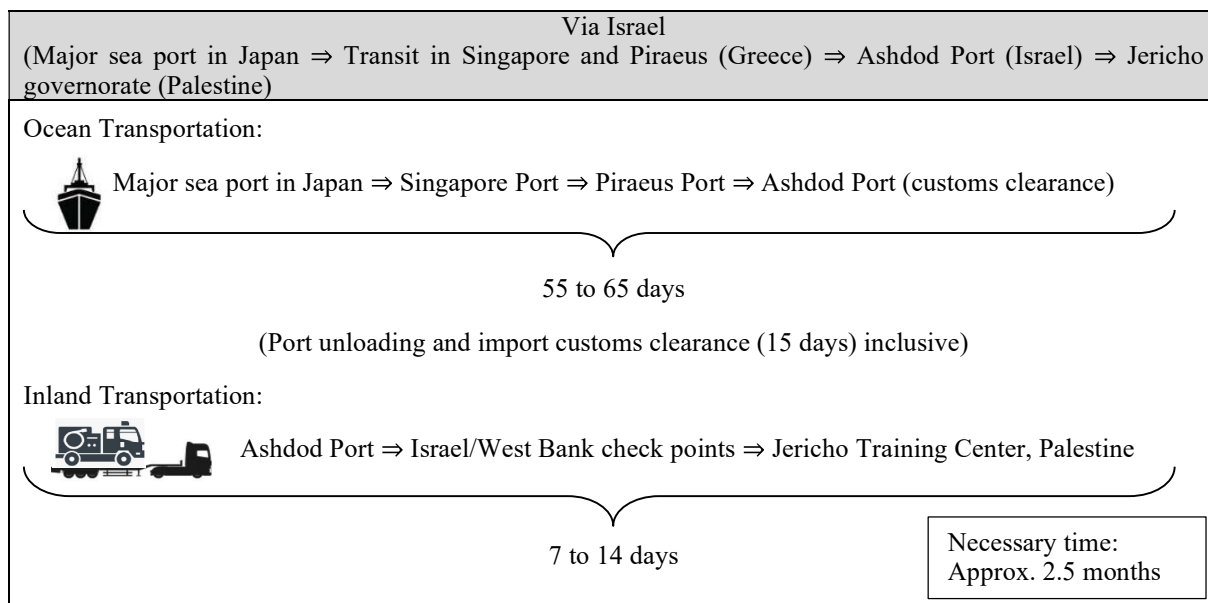


Figure 2-8 Summary of Transportation Route

3) Import Custom Clearance

(i) Import Permit

Import customs is planned to be cleared at the unloading port of Ashdod in Israel. To obtain an import permit from the Israel Customs Directorate: i) tax exemption approval; and ii) COGAT's security screening clearance, as well as iii) customs clearance that the equipment specifications comply with the relevant Israeli import laws and regulations (i.e. in case of vehicles, the relevant ministries concerned are Ministry of Transport (Israel) and Ministry of Economy and Industry (Israel)), (as per detailed stated in "*Chapter 2-2-4-2 Implementation Conditions*"), which requires a certain period of time for licensing and approval.

Clearance for iii) above is carried out as a part of import customs clearance process via a custom broker to be appointed by the equipment Supplier, based on Supplier's set of shipping documents (including necessary documents relating to equipment specifications). In addition to import permissions from the Israeli side, technical specification approval from the Directorate General of Technical Affairs of Ministry of Transport in Palestine, is also required for vehicles as part of the import custom clearance process via a custom broker. Nonetheless, it was confirmed from the same Directorate General of Technical Affairs that, as for the chassis, as long as it complies with the Israeli import regulations and it has been approved by the Israeli authorities concerned, the permit from the Palestinian Ministry of Transport will be granted without any major concerns.

Upon completion of import customs clearance in Ashdod Port, inland transportation of the cargo from the Port of Ashdod to PCD Training Center in Jericho governorate will take place.

(ii) Expected Leadtime

Customs clearance procedures are expected to take approx. 2 weeks, provided that tax exemption and COGAT's security screening have been approved prior to a shipment or at the latest by cargo arrival at the unloading port of Ashdod in Israel.

In addition, X-ray inspection of cargos by the Israel Customs may be conducted at the unloading port as appropriate, which may take some time depending on the port congestion, thus additional waiting time needs to be taken into account.

(iii) Remarks

Due to high storage fees at the Port of Ashdod, it is preferable that the Supplier ships the equipment only after the tax exemption and COGAT's security screening have been approved, to avoid port storage.

4) Final Delivery Site under the Project

PCD Training Center located in Jericho governorate, as the Supplier's final delivery site for the firefighting equipment, is surrounded by fences and permanently stationed by PCD staff. It can be assumed that there is no security concern and there is enough space to park 14 units of Fire Truck and unload spare parts.



Source: CIA World Factbook

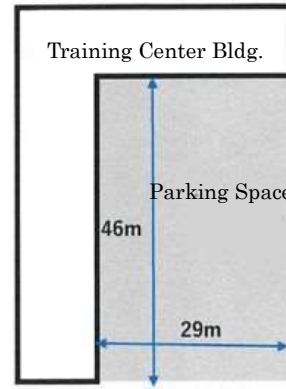
Location Map of Jericho Governorate



Aerial Photograph of PCD Training Center



Parking Space at PCD Training Center



Outline drawing of the Parking Space

Figure 2-9 Final Delivery Site- PCD Training Center (Jericho Governorate)

2-2-4-7 Initial Operational Guidance Plan

Upon delivery of the firefighting equipment, the Supplier is to conduct: i) PDI (Pre-delivery inspection) and Commissioning; ii) Handover Inspection; and iii) Initial Operational Guidance (training), at PCD Training Center in Jericho governorate.

The Project plans to provide adequate training on operation and maintenance of the firefighting equipment through the Initial Operational Guidance. The Supplier shall dispatch engineers from a Fire Truck manufacturer. Target participants expected are chief, driver and firefighters from the 11 CDCs and 1 Support Center in the 3 target governorates expected to receive the firefighting equipment to be procured under the Project. In addition, since it is necessary for PCD headquarter to accumulate knowhow on equipment handling and maintenance, senior officers from the Central Operations Department and Technical Affairs Department of PCD headquarter, as well as the training instructors from PCD Training Center in Jericho governorate shall also participate in the Initial Operational Guidance.

The Consultant shall supervise and manage the implementation schedule and safety, including whether the Initial Operational Guidance is being implemented by the dispatched engineers as per the contract, and to liaise with PCD and relevant parties.

2-2-4-8 Soft Component (Technical Assistance) Plan

Soft Component (Technical Assistance) is planned to be implemented by using the Fire Trucks to be procured under the Project, as per outline shown in Table 2-15 below. Details of the Soft Component Plan are as per Appendix-5 attached.

Table 2-15 Outline of the Soft Component

Item	Contents
Overall Goal	The overall goal is to enhance the firefighting and rescue capabilities of the target governorates under the Project as a whole.
Objectives	To realise the overall goal, the objectives of the Soft Component are: i) to improve the skills of “individual firefighters” as well as of “a Single Unit”, and their competence in operating the firefighting and rescue equipment, while ensuring their safety in performing their duties; and ii) to strengthen the coordination amongst CDCs/deployed units for firefighting and rescue operations, at the 3 target governorates of Ramallah, Jenin and Tulkarm.
Place	PCD Training Center in Jericho governorate
Duration	Approx. 1 month
Trainers	Contracted Consultants (2 Japanese firefighting experts planned to be dispatched)
Trainees	<u>From 11 CDCs and 1 Support Center in 3 target governorates:</u> ▪ Firefighters (Max. 48 people) ▪ Chief or Deputy Chief (Max. 12 people) <u>From PCD Headquarter:</u> ▪ Senior officers, in charge of planning the training for firefighting and rescue operations. (Max. 3 people) <u>From Jericho Training Center:</u> ▪ Instructors (Max. 3 people)
Theoretical Training Materials	1. Training manuals for: i) “<i>Improving the skills of Firefighting and Rescue Operations while ensuring Safety</i>” (for individuals and a “Single Unit Capability”)¹⁷; and ii) “<i>Strengthening the coordination amongst CDCs/deployed firefighting units for Firefighting and Rescue Operations</i>” (“Coordination Capacity amongst Units”)¹⁸ Note: Initial drafts of the manuals shall be made in Japan in advance. 2. Exam questions to evaluate the level of achievement
Practical Training Materials	▪ Fire Trucks to be procured under the Project. ▪ Fire and rescue training burn building, scrap woods (for fire simulation), and scrapped vehicles and dummy dolls for rescue training.

¹⁷ The term “*Single Unit Capability*” refers to the capability of individual firefighter as well as of a Single Unit to conduct firefighting and rescue operations.

¹⁸ The term “*Coordination Capacity amongst Units*” in this report refers to the capability for coordinated firefighting and rescue operations amongst plural units.

Training Activities	I. Improving the skills of Firefighting and Rescue Operations while ensuring Safety (for individuals and a Single Unit Capability)
	<<Technical assistance using the Firefighting equipment>> Procedures on: 1) Fire hose extension; 2) water discharge; 3) positioning of the hose nozzle; and 4) entering building on fire
	<<Technical assistance using the Rescue equipment>> Rescue operations for: 1) under rubble; 2) car accident; 3) water accident rescue
	II. Strengthening the coordination amongst CDCs/deployed firefighting units for Firefighting and Rescue Operations (Coordination Capacity amongst Units)
	▪ Joint exercise amongst neighboring CDCs for Grass Fire ▪ Joint exercise amongst neighboring CDCs for House Fire ▪ Joint exercise amongst neighboring CDCs for Senior Officers

2-2-4-9 Implementation Schedule

The Project shall be implemented on a basis of Japan's grant aid. The tentative Project implementation schedule is shown in Table 2-16 below.

Table 2-16 Implementation Schedule

Duration		Number of Months																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
Contracts	Approval of the Cabinet (A/C)	△																																
	Conclusion of Exchange of Notes (E/N)		△																															
	Conclusion of Grant Agreement (G/A)			△																														
	Consulting Services Agreement	Contract Signing	△	△	Verification																													
Detailed Design	Final confirmation of plans				■																													
	Review of equipment specifications etc.				□																													
	Bid document preparation					□																												
	Bid document approval					■																												
	Bid Notice						△																											
	Distribution of bid document and Q&A						□																											
	Bidding						Technical Bid	△	△	Price Bid																								
	Bid evaluation								■																									
	Contract with Supplier						Contract Signing	△	△	Verification																								
	Preparation of fabrication drawing										□																							
Procurement Supervision	Manufacturing																18months																	
	Fabrication test, Pre-delivery factory inspection and Pre-shipment inspection																																	
	Transportation																																	
	Delivery and unpacking																																	
	Adjustment and commissioning																																	
	Initial operation and maintenance training																																	
	Site acceptance inspection and handover																																	
	Soft component (Technical Assistance)																																	

 : Overseas
 : Domestic

Approx. 2.5 months

18months

2-3 Security Measures

While the situation in Israel and Palestine continues, Japanese Ministry of Foreign Affairs has issued an alert on 18th of October 2023, regarding the threat of terrorism and other threats in connection with this incident, and has increased the alert level on safety and security over the volatile situation faced in the surrounding areas including the West Bank. In addition to the ongoing situations described above, there is a possibility that the security and social situations in the Middle East region, including the West Bank, will change from moment to moment in the future, in light of the continued exchange of attacks between Israel and Lebanese armed groups in the northern border region of Israel in July 2024, and the further escalation of tensions between Israel and Iran. It is necessary to plan safety measures for this project while having in mind the possibility of such changes in the future.

As of now, the site activities of the procurement supervising the Consultant and the Supplier under the Project are assumed to be limited to Ramallah and Jericho governorates only. If the local situation does not improve, work such as preparation/approval of bidding documents and bidding as well as the arrival of the equipment will be carried out remotely; meanwhile for work from the time of delivery of equipment, the Consultant and the Supplier will consult with JICA to consider countermeasures based on the security situation at the time of shipment from Japan.

The basic safety management policy will be in line with JICA's "*Safety Management Manual for the Palestinian Territories and the State of Israel*". In addition to building a network for information gathering and communications amongst PCD and Japanese Supplier, co-ordination with the Representative Office of Japan to Palestine and JICA's Palestine office shall be made, to collect the latest information on local security situations and safety measures, and to carry out daily safety management.

In target governorates of Ramallah and Jenin in particular, constant conflicts between the Israeli forces/settlers and Palestinian residents are occurring. In preparing for unforeseen threats, comprehensive information gathering, as well as the overseas safety information provided by the Japanese Ministry of Foreign Affairs and the views expressed by JICA's safety management officers are needed in order to make action plans both carefully and flexibly.

As a specific security measure, the following code of conduct is included in the target governorates:

- The Consultant and the Supplier shall prepare a 'Mobility Notification Form' in advance and share it with relevant parties, including JICA's Palestinian office and PCD, to establish a system that allows them to check whether there are any security risks at the places they will visit or along the routes they plan to take.
- To avoid being unable to contact someone in an emergency because a mobile phone has run out of battery while travelling or at a destination, carry a charger or mobile battery.
- Permanent and temporary checkpoints are guarded by the Israel Defence Forces (IDF) and the Border Police, who may ask the members of the Consultant and the Supplier to show their passport and ask the purpose of the journey. If they are refused passage, report the case to PCD promptly or other relevant authorities and leave the matter in their hands.
- At the Jericho training centre, whenever necessary, ask PCD for an increase in security and vigilance on the premises.

2-4 Obligations of Recipient Country

When the Project is implemented as a grant aid from the Government of Japan, the following tasks shall be undertaken by the Palestinian side. These undertakings are inevitable for the smooth implementation of the Project and the Palestinian side is required to ensure the completion of each task.

2-4-1 Bank Arrangement and Authorization to Pay

The Palestinian side shall open a bank account at the designated bank in Japan, in the name of Palestinian Authority at their own expenses and issue Authorisation to Pay (hereinafter referred to as “A/P”) to the said bank for payments from the Grant to the Japanese Consultant and the Supplier.

In addition, the Palestinian side is also responsible for the payments of bank commissions to the designated bank in Japan for the banking services, such as A/P advising fees and payment commissions, in accordance with the Banking Agreement (hereinafter referred to as “B/A”).

2-4-2 Assistance

The Palestinian side shall accord Japanese and/or third-country nationals engaged in the Project and provide necessary assistances for when entering, staying and for visiting government authorities in Palestine in order to perform their duties.

2-4-3 Tax Exemption and Import Customs Clearance

2-4-3-1 Tax Exemption

Ensure all custom duties, value-added tax, internal taxes and other fiscal levies which may be imposed in Palestine shall be exempted with respect to the procurement of Equipment and the Services to be rendered under the Project.

2-4-3-2 Supports for Import Customs Clearance

It is the responsibility of the Supplier and their appointed custom broker to clear import customs of the Equipment to be procured under the Project. However, the Palestinian side is also required to take necessary procedures with the relevant Palestinian and Israeli ministries to support customs clearance based on tax exemption, and to support the Supplier to ensure prompt unloading at the disembarkation port, import customs clearance and inland transportation to the Project site to be arranged by the Supplier.

2-4-4 Initial Operational Guidance and Soft Component

2-4-4-1 Provision of Training Facilities

Initial Operational Guidance (training) and Soft Component (Technical Assistance) are planned to be conducted at PCD Training Center in Jericho governorate. The Palestinian side shall provide the facilities (classrooms, training facilities and place of accommodation) free of charge during the preparation and implementation of such technical training.

2-4-4-2 Training Expendables (fuel, lubricants and water) and Other Expenses for the Trainees

In conducting the Initial Operational Guidance and Soft Component (Technical Assistance), the

Palestinian side shall bear the costs of fuel, lubricants, electricity, firefighting water, and fire extinguishing agent necessary to operate the Fire Trucks and on-board equipment to be procured under the Project, and scrap woods (for fire simulation), scrapped vehicles and dummy dolls for rescue training.

The Palestinian side shall also bear the travel expenses (transportation fee, daily allowance and accommodation fee) for the training participants from PCD.

2-4-4-3 PCD Inputs of Human Resources for Trainings

PCD shall appoint appropriate personnels in charge from their side, to facilitate personnels from the Japanese side (Chief Consultant, Procurement Supervisor, Firefighting Expert and the Supplier), in order to ensure smooth running of the Initial Operational Guidance and Soft Component (Technical Assistance) under the Project.

The following Table 2-17 describes the type of personnel requested and requirements for the role and the timing of their participations.

Table 2-17 Overview of PCD Personnel Inputs Required during Trainings

Type of Personnel		Positional Requirements	Participation Timing		No. of People
			Initial Operational Guidance	Soft Component (Technical Assistance)	
1	Coordinator	▪ Able to communicate and coordinate with the Japanese side; ▪ Has direct contact with the senior officials at PCD; and ▪ Able to communicate in English	✓	✓	1 person
2	Training Manuals' Reviewer	▪ Senior Management level from PCD's Training Department and Technical Affairs Department	-	✓	Min. 2 to 3 people
3	Site Assistant	-	✓	✓	As necessary

2-4-5 Vehicle Registration and Insurance Coverage

The Palestinian side shall be responsible for the vehicle registration and insurance coverage of the Fire Trucks to be procured under the Project.

2-4-6 Transportation of Procured Equipment to Target CDCs and Support Center

The Palestinian side shall be responsible for arranging the transportation of the procured firefighting equipment to applicable CDCs and Support Center in the target governorates at their own expenses, upon completion of the Equipment handover, Initial Operational Guidance and Soft Component (Technical Assistance).

2-4-7 Securing Proper Parking Garages

PCD is required to secure proper parking garages with roof at the applicable CDCs and Support Center for the Fire Trucks to be procured under the Project, at the expense of the Palestinian side.

Availability of the parking spaces and the current conditions of the garages at the CDCs and Support Centers in the target governorates were confirmed during the 1st field survey, and as shown in Appendix-6, it was found that total 6 CDCs and 1 Support Center required construction and/or renovation of the garages with roof.

In the M/Ds, it was agreed that the garages of the applicable CDCs and Support Center will be constructed and/or renovated at the expense of the Palestinian side (for reference garage images, see, Figure 2-10 and Photo 2-10).

In the M/Ds, the parties agreed on the schedules to: i) secure necessary budget prior to the bid announcement, and ii) to complete the construction and/or renovation of the garages before the delivery of the Fire Trucks under the Project (see, Appendix-4).

It is notable that a budget request was submitted to the Palestinian Ministry of Finance in August 2023 and the necessary budget has already been secured in an official decision dated 13th August 2023.

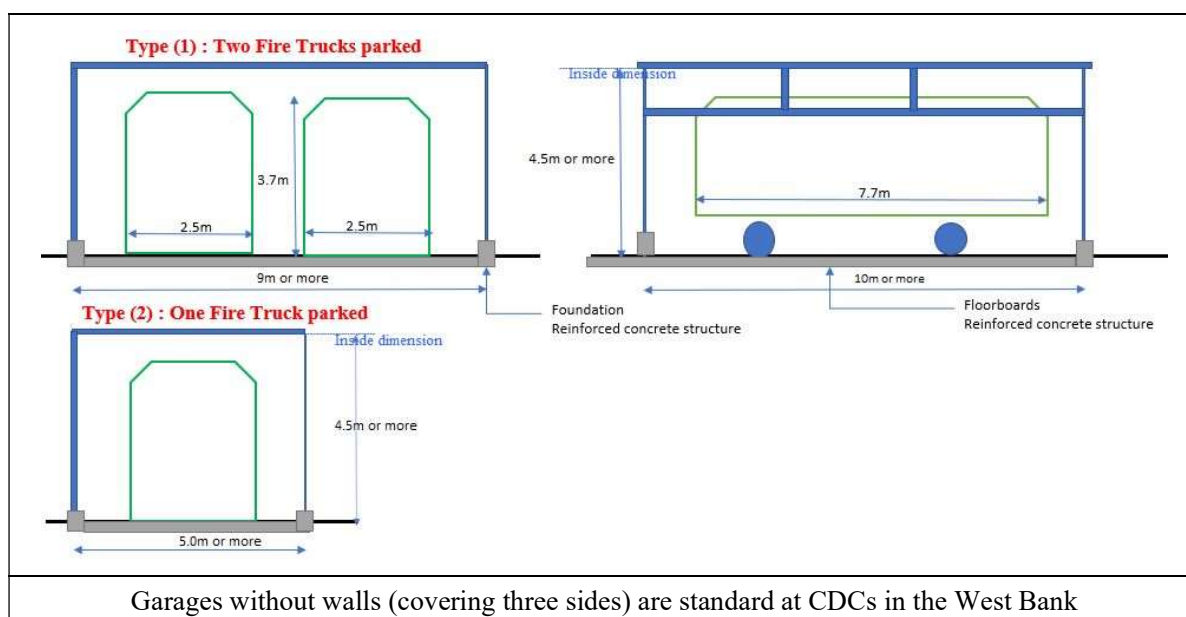


Figure 2-10 Reference Garage Plan



A garage built with USAID support in 2015
(Taybe Support Unit in Ramallah governorate)

Photo 2-10 Sample Image of the Garage

2-4-8 Appropriate Operation and Maintenance of the Equipment

The Palestinian side shall secure and allocate necessary budget and manpower for proper operation and maintenance (including conducting daily and periodic inspections) of the Fire Trucks to be procured under the Project.

The Palestinian side is also responsible to conduct ongoing firefighting and rescue trainings, to maintain the necessary technical level to operate these Equipment safely and properly.

2-4-9 Submission of Project Monitoring Reports

The Palestinian side shall submit the Project Monitoring Report (PMR) to JICA in accordance with the conditions stipulated in the M/D.

2-4-10 Others

The Palestinian side shall bear all expenses, other than those covered by the grant aid, necessary for the implementation of the Project.

2-5 Project Operation and Maintenance Plan

PCD is required to operate the firefighting equipment to be procured under the Project with its own budget and human resources, in the same way that the existing Fire Trucks are operated. As this Project plans to replace the aged Fire Trucks, rather than an increase in the number of units deployed, thus no increases in number of firefighting crew nor in fuel consumption are expected.

Maintenance is also required to be managed by PCD's budget. However, there seemed to be a difference in the ways that maintenances are conducted, between: Type 1) older models, which do not comply with the emission standards regulation; and Type 2) relatively new models, that do comply, as detailed shown in Table 2-18 below.

Table 2-18 Vehicle Maintenance Type

Maintenance Type	Vehicle Type for Maintenance	Maintenance Place			
		Daily Inspection	Periodical Maintenances (e.g. annual inspection)	Repair	
				Easy repair (e.g. bodywork repair and welding repair)	Electrical system repair requiring diagnostic tool and other advanced repair
Type 1	Older models	each CDC	Ordinary maintenance workshop nearby CDCs	Ordinary maintenance workshop nearby CDCs	N/A
Type 2	Relatively new models, complying with the emission standards regulation (Euro 4 stage or higher)	each CDC	Authorised dealer of chassis manufacturer	Ordinary maintenance workshop nearby CDCs	Authorised dealer of chassis manufacturer

The main reason for the maintenance difference between “Type 1” and “Type 2” above is that some of the chassis maintenance for relatively new chassis models (Euro 4 stage engine or higher) require “diagnostic tool” specific to each Manufacturer, in which such diagnostic tool is only available at manufacturer’s authorised dealers. Therefore, in accordance with the maintenance policy stipulated in “*Chapter 2-2-1-4 Policy on Operation and Maintenance*”, a maintenance plan for the Project is based on “Type 2” mentioned in Table 2-18 above.

For the maintenance of Fire Truck’s superstructure, as indicated in “*Chapter 2-2-1-4 Policy on Operation and Maintenance*”, maintenance shall be requested to the local authorised dealer of the chassis manufacturer (assumed to be appointed as the after-sales service provider under the Project) in principal, and depending on the degree of difficulty, maintenance at CDCs or ordinary maintenance workshop nearby CDCs shall be carried out at the discretion of chassis’ local authorised dealer. Nonetheless, in case of a difficulty where chassis’ local authorised dealer is unable to handle the problem by himself, mechanics from the fire truck manufacturer shall collaborate with the chassis’ local authorised dealer to perform maintenance using a web camera or other online means.

2-6 Project Cost Estimation

2-6-1 Initial Cost Estimation¹⁹

2-6-1-1 Project Cost to be borne by the Palestinian Side

Based on the calculation conditions stated in “*2-6-1-2 Cost Estimation Conditions*” below, the breakdown of the expenditures to be borne by the Palestinian side can be estimated as per Table 2-19. This cost estimate is provisional.

¹⁹ “Cost to be borne by the Japanese side” is not disclosed in this report due to confidentiality.

Table 2-19 Project Cost to be borne by the Palestinian Side

No.	Item		Estimated Amount (JPY in million) [USD] ^(*)
1	Banking commissions (for consulting service contract and supplier’s contract)		1.05 [USD8,000]
2	Garage construction and/or renovation fees for parking the Fire Trucks		17.17 [USD128,000]
3	Training-related fees necessary for “Initial Operational Guidance” and “Soft Component (Technical Assistance)”, other than the fees to be borne by the Japanese side for the Project (e.g. fuels, oils, lubricants, firefighting water, scrap woods (for fire simulation), scrapped vehicles and dummy dolls for trainings, and expenses for the training participants from PCD/CDCs, such as travelling, accommodation and meal expenses etc.)		2.72 [USD20,000]
4	Vehicle registration fee for the Fire Trucks to be procured under the Project		0.16 [USD1,000]
5	Operation and Maintenance Fee (including fuels, oils and lubricants)	1st and 2nd year (in total)	13.97 [USD104,000]
		3rd to 5th year (in total)	31.09 [USD232,000]
Total			66 [USD494,000]

*1: Estimated Amount in USD is rounded to the nearest thousand USD. Estimated Total Amount in JPY is rounded to the nearest thousand JPY.

2-6-1-2 Cost Estimation Conditions

- Time of estimation : May 2024
- Exchange rates : USD to JPY: USD1.00 = JPY151.96-
Local Currency to JPY: NIS1.00 = JPY41.076-
- Procurement Schedule : As per the Implementation Schedule attached.
- Others : The Project is to be implemented in accordance with the grant aid scheme of the Government of Japan.

2-6-2 Operation and Maintenance Cost

2-6-2-1 Overview

Upon hand over of the Fire Trucks to be procured under the Project, the Palestinian side is required to bear the operation and maintenance cost with PCD's own budget.

Annual operation and maintenance cost (including fuels, oils and lubricants) required for the 14 units of Fire Trucks (to be procured under the Project) is estimated on average of USD52,200/year/14 units (approx. JPY8 million) for the first 2 years; and average of USD77,433/year/14 units (approx. JPY12 million) from the 3rd to 5th years (refer Figure 2-11).

As shown in Table 2-20 below, PCD's operation and maintenance costs (estimated values) for the Firefighting Vehicles have been increasing year by year, with approx. 14% increase in 2022 compared to 2018. Such cost for 2022 was approx. NIS5.41 million (equivalent to JPY220 million), which accounted for as much as 7% of PCD's entire budget for 2022 (approx. NIS79.36 million ÷ JPY3.26 billion)

allocated in order for the Firefighting Vehicles deployed in 11 governorates (including the target governorates under the Project) across the West Bank to respond to firefighting and rescue incidents uninterruptedly 24 hours a day, 365 days a year. Furthermore, PCD has managed to continuously allocate appropriate maintenance budget for the existing Firefighting Vehicles which have been deployed for more than 20 years.

Through the renewal of aged Fire Trucks under the Project, the maintenance cost is expected to become significantly lower than the cost incurred by the maintenance of the existing firefighting equipment which fails to operate frequently. In addition, less fuel cost is expected due to improved fuel efficiency of the replaced Fire Trucks.

Table 2-20 PCD Annual Budget for Operation and Maintenance Costs

(Unit: NIS)

Year	2018	2019	2020	2021	2022	Increase Rate 2018/2022 in comparison
11 Governorates, West Bank	4,754,963	4,845,090	5,025,659	5,216,203	5,415,211	14%
	¥195,314,860	¥199,016,917	¥206,433,969	¥214,260,754	¥222,435,207	

Source: JICA Survey Team, based on the data provided by the Technical Affairs Department of PCD

Note 1: Currency exchange rate: 1NIS=JPY41.076 (Rate used for the Project's cost estimation is applied)

Note 2: Since the operation cost of the Firefighting Vehicles for the period from 2018 to 2022 were not disclosed, the costs of fuels, oils and lubricants (NIS3,120,000) and vehicle insurance fee (NIS579,675) secured for 2023 were added as an estimate to the operation and maintenance cost for each year concerned.

2-6-2-2 Comparison of Maintenance Cost

The deployment plan of the Project is based on the replacement of the aged Fire Trucks without increasing the total number of Fire Trucks deployed.

Based on this concept, the maintenance cost of each CDC borne by PCD during 2018 to 2022 are compared with the estimated maintenance cost of the new Fire Trucks to be procured under the Project, to assess the ability of PCD to bear the needed maintenance cost in the future as follows.

Note that fuel cost is excluded from the comparison, since the fuel efficiency will be improved compared to the existing vehicles.

(1) Maintenance Costs of the existing Fire Trucks

Table 2-21 shows the maintenance cost from 2018 to 2022, paid for the existing aged Fire Trucks, most of which have been in operations for more than 20 years. Note, however, that the data was not available for some of the units, thus only the available source was used to summarise the data.

As shown in this table, it was found that PCD spends an average of JPY860,000 equivalent per year on maintenance for these aged vehicles.

Table 2-21 Annual Maintenance Cost (2018-2022) for Existing Aged Fire Trucks

Governorate	CDC/Support Center Name	Vehicle	Manufacturing Year	Maintenance Fee (NIS)					Annual Average (2018-2022)	
				2018	2019	2020	2021	2022	NIS	JPY
Ramallah	Ramallah (Betounia) CDC	Vehicle 1	2001	26,300	15,732	18,975	27,540	28,776	23,465	963,832
	Ramallah (Betounia) CDC	Vehicle 2	2001	6,974	4,460	8,420	3,856	7,864	6,315	259,387
	Birzeit CDC	Vehicle 3	2015	4,675	12,453	27,816	213,602	19,005	55,510	2,280,137
	Abwein CDC	Vehicle 4	2001	8,921	9,703	8,943	10,900	13,559	10,405	427,404
	Ni'lin CDC	Vehicle 5	2012	8,953	8,075	9,537	7,436	10,748	8,950	367,622
Jenin	Jenin CDC	Vehicle 6	1985	19,785	32,363	29,198	30,975	33,254	29,115	1,195,928
	Jenin CDC	Vehicle 7	1992	n/a	n/a	11,254	18,150	18,975	16,126	662,405
	Barta'a CDC	Vehicle 8	1997	11,827	8,812	18,214	10,805	20,811	14,094	578,917
	Yamun CDC	Vehicle 9	2001	8,720	9,210	9,294	8,629	12,648	9,700	398,445
	Qabatiya CDC	Vehicle 10	1994	24,800	27,649	18,720	23,876	38,970	26,803	1,100,960
	Jaba' Support Center	Vehicle 11	1991	18,126	24,876	28,976	19,452	33,520	24,990	1,026,489
Tulkarm	Tulkarm CDC	Vehicle 12	1997	37,492	20,423	28,573	30,964	35,584	30,607	1,257,221
	Tulkarm CDC	Vehicle 13	1987	n/a	n/a	9,584	14,680	22,485	15,583	640,087
Average amongst target governorates:									20,897	858,372

Source: JICA Survey Team, based on the data provided by PCD

Note: Currency exchange rate: 1NIS=JPY41.076 (Rate used for the Project's cost estimation is applied)

(2) Operation and Maintenance Cost of the Fire Trucks to be Procured under the Project

1) Calculation Concept for the Operation and Maintenance Costs

Operation and maintenance costs required for the Fire Trucks to be procured under the Project are categorised into costs for: i) replacement parts; ii) maintenance work; iii) fuel; and iv) environmental measures, and are calculated as follows.

(i) Cost for Replacement Parts

As parts required for replacement will vary with the age of the vehicle, cost for the replacement parts is estimated in accordance with the calculation principal shown in Table 2-22 shown below.

Table 2-22 Replacement Intervals of Replacement Parts

Replacement Intervals	Necessary Parts
During the 1st year after handover	Parts originally built-in the vehicle
Replacement after 1 year	Use replacement parts procured under the Project
Replacement after 2 years	Calculate the cost of necessary parts for the 2nd year
Replacement after 3 years	Calculate the cost of necessary parts for the 3rd year
Replacement after 4 years	Calculate the cost of necessary parts for the 4th year
Replacement after 5 years	Calculate the cost of necessary parts for the 5th year and replacement of tires

(ii) Maintenance Cost required by Local Dealers

Maintenance cost required by local dealers to replace above mentioned parts is calculated.

(iii) Fuel Cost

Fuel cost is calculated based on the following conditions:

- i) Number of dispatchment: 180 times/year.
- ii) Distance travelled when dispatched: 15 km/trip
- iii) Diesel fuel cost: NIS6.16/lit.

- iv) Exchange rate: NIS1=JPY41.076 (Rate used for the Project's cost estimation)
- v) Fuel efficiency: 5km/lit. (assumed)

(iv) Cost for Environmental Countermeasures

Emission standards required for the Fire Trucks to be procured under the Project is Euro 6 as previously mentioned, therefore urea SCR (Selective Catalytic Reduction) system²⁰ is used in the emission gas purification device, and AdBlue²¹ needs to be refilled for maintenance.

Procurement cost of AdBlue is included in the calculation of operation and maintenance cost based on the unit price confirmed at the petrol station during the 1st field survey in the West Bank at:

- 10 lit. AdBlue = Approx. US\$20

2) Operation and Maintenance Costs Required for 5 Years

Based on the calculation principals (i) to (iv) described above, operation and maintenance costs required for the first 5 years after the procurement under the Project are calculated as shown in Figure 2-11 below.

Note that other costs expected such as car insurance premiums, repair costs for unexpected breakdowns and damages and automobile tax are excluded from this calculation.

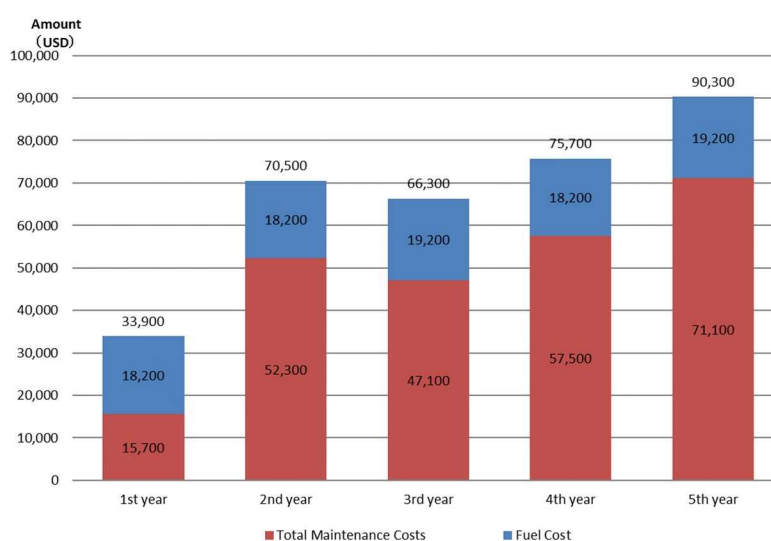


Figure 2-11 Operation and Maintenance Costs for 14 Units of New Fire Trucks (5 years)

Table 2-23 below shows the breakdown of estimated maintenance cost per unit of Fire Truck.

²⁰ Urea SCR system is a part of an emission gas purifying device, which significantly reduce the nitrogen oxides (NOx) emissions in diesel-powered vehicles.

²¹ AdBlue is a urea-based diesel exhaust fluid used in Urea SCR system to reduce harmful nitrogen oxides (NOx) from being released into the atmosphere. In West Bank, AdBlue are readily available at petrol stations and automobile local dealer shops for US\$20 per 10 lit.

Table 2-23 Maintenance cost per unit

Year	Maintenance cost		
	for 14 Units	per Unit	
	USD	USD	JPY
1st year	15,700	1,100	167,156
2nd year	53,300	3,700	562,252
3rd year	47,100	3,400	516,664
4th year	57,500	4,100	623,036
5th year	71,100	5,100	774,996

Currency exchange rate: 1USD=JPY41.076 (Rate used for the Project's cost estimation is applied)

(3) Comparison of Maintenance Costs

As indicated in 2-6-2-1 and 2-6-2-2 above, a comparison of maintenance cost per unit between the existing Fire Truck and the new Fire Truck to be procured under the Project is as follows:

- Maintenance cost of the existing Fire Truck: approx. JPY860,000/Unit on average.
- Maintenance cost of the Fire Truck to be procured under the Project: approx. JPY170,000 (1st year) to JPY770,000 (5th year).

Based on above, it can be seen that the maintenance cost for the Fire Trucks to be procured under the Project will be lower than that of the existing Fire Trucks, and given that operation and maintenance budget of PCD has been allocated as needed in a steadily manner up to now (as indicated in “2-6-2-1 Overview”), it can be concluded that financial concern over PCD's budget for operation and maintenance is little. By continuing to secure the existing level of maintenance budget, it can be expected that the Fire Trucks to be procured under the Project will be operated and maintained without problems financially.

CHAPTER 3.PROJECT EVALUATION

CHAPTER 3. PROJECT EVALUATION

3-1 Preconditions

Preconditions for the implementation of this Project is that the Palestinian side carries out its obligations in full as detailed in “*Chapter 2-4 Obligations of Recipient Country*”.

The major undertakings are summarised as follows.

- Signing of Bank Agreement (B/A), issuance of Authorization to Pay (A/P) and bear the banking service fees.
- Implementation of procedures related to tax exemption and customs.
- Provision of necessary assistances for the importation of firefighting equipment and accord Japanese and/or third-country nationals when entering and staying in Palestine for performing the related Services under the Project.
- Securing Proper Parking Garages at applicable CDCs and Support Center.
- Securing Operation and Maintenance budgets and personnel allocation.

3-2 Necessary Inputs by Recipient Country

The Palestinian side shall take necessary measures to satisfy the conditions listed below, to effectively utilise the firefighting equipment to be procured under the Project and for the outcomes of the Project to be realised and maintained.

- Secure and allocate enough human resources, including firefighters, necessary for firefighting operations.
- Continuous trainings to improve firefighting and rescue skills as well as technical proficiency, by those who are expected to participate in the Initial Operational Guidance (training) under the Project and/or by firefighters who are expected to further receive trainings from such training participants.
- Budget necessary for the operation and maintenance of the firefighting equipment to be procured under the Project is secured continuously.

3-3 Important Assumptions

The important assumptions for the Project implementation, and realisation and continuity of the Project outcomes, are as follows:

- No material changes in the policy agenda of the Palestinian Authority towards “*strengthening its capacity for disaster response and crisis management*”.
- No material policy change in “*Palestinian Civil Defense Development Plan 2017-2022*”²² established by PCD.
- No significant security deterioration in the West Bank, especially in the target areas of the Project, in relation to the Middle East peace issues.

²² During the Survey, the Planning and Development Department of the PCD Headquarter confirmed that there are no changes to the said “*Palestinian Civil Defense Development Plan 2017-2022*” and that PCD intends to continue the same plan in 2023, and that there is no new five-year plan drafted.

3-4 Project Evaluation

3-4-1 Relevance

The Project aims to contribute to the maintenance and strengthening of the firefighting response capabilities, by replacing the existing aged Fire Trucks deployed in CDCs of the target governorates (Ramallah, Jenin, and Tulkarm governorates), where these governorates account for 50% of all fire incidents recorded in the West Bank, thereby protecting the lives, bodies, and properties of the people against fires and natural disasters, and ensuring and improving the safety and security of the residents. Therefore, the significance as well as the relevancy of the Project is considered high as follows.

3-4-1-1 Urgency

The target areas (Ramallah, Jenin and Tulkarm governorates) are of high civil defence importance, with habitats to approx. 910,000 people, covering almost 30% of the West Bank's total population (of approx. 3,250,000), and accounts for approx. 50% of the West Bank's total number of fires (2018 to 2022 annual average: 11,913 incidents) and rescues (2018 to 2022 annual average: 4,689 cases) in the year.

However, almost half of the existing 31 units of the Fire Trucks deployed in total 20 CDCs in these 3 governorates are either already out of service or require frequent maintenances. There is a concern that the firefighting vulnerability will further progress in the future, causing a deterioration in quality of timely and effective firefighting and rescue services, which in turn may lead to enlarging the scale of the disasters.

Despite given situations, the Palestinian Authority has no prospect in renewing the firefighting equipment, due to its chronic financial shortfall and absence of supports from other donors in the firefighting sector, thus an urgent improvement in firefighting response capability by implementing this Project is required.

3-4-1-2 Beneficiaries of the Project

Approx. 910,000 residents, which is equivalent to approx. 30% of the West Bank's total population, will benefit from maintaining and strengthening the firefighting response capabilities in the target governorates, as a result of the procurement of Fire Trucks under the Project.

3-4-1-3 Project contribution to National Policy Agenda

In the “*National Policy Agenda 2017-2022*” (December 2016), the Palestinian Authority has declared “*building resilient communities*” as one of its priorities and to achieve this goal, the Palestinian Authority is intervening to “*strengthen its capacity for disaster response and crisis management*”. In addition, PCD as the Executing Agency for the Project, has established the “*Palestinian Civil Defense Development Plan 2017-2022*” and placed its priorities on: i) renewal and increase in the number of Firefighting Vehicles; ii) increase the number of and strengthen the capacity of firefighting personnels; and iii) expansion of the CDCs.

This Project will contribute to the achievement of national policy agenda and goal of the Palestinian Authority.

3-4-1-4 Consistency with the Assistance Policies and Strategies of the Japanese Government

Japan's Country Development Cooperation Policy for the Palestinian Authority (September 2017) indicates support for “*Enhancement of Administrative Capacity*” as the “*Priority Area of Assistance 2: Reinforcement of Financial and Government's Capacity*”.

The Project aims to improve the firefighting and rescue capabilities in the West Bank through the procurement of new firefighting and rescue equipment, thereby contributing to the improvement of public services, which is in line with Japan's assistance policy for Palestine.

3-4-2 Effectiveness

3-4-2-1 Quantitative Effectiveness

The quantitative effects expected from the implementation of the Project in the target governorates are as shown in Table 3-1 below.

Table 3-1 Quantitative Effect Indicators

Indicator	Target Governorates (No. of CDCs and Support Centers)	Baseline (Estimated Value in 2023)	Target Value (Tentative Value in 2030) <<3 years after Project completion>>
Increase in number and percentage of CDCs deployed with Fire Trucks (3,000lit. to 4,000lit. capacity) (*1)	Ramallah governorate (7 CDCs)	4 CDCs (57%)	7 CDCs (100%)
	Jenin governorate (9 CDCs)	4 CDCs (44%)	9 CDCs (100%)
	Tulkarm governorate (4 CDCs)	3 CDCs (75%)	4 CDCs (100%)
	3 Governorates in Total (20 CDCs)	11 CDCs (55%)	20 CDCs (100%)
Increase in total firefighting water volume of the Firefighting Vehicles deployed in each governorate (*2)	Ramallah governorate (7 CDCs)	37,000 lit.	48,000 lit. (30% increase)
	Jenin governorate (9 CDCs)	37,000 lit.	52,000 lit. (41% increase)
	Tulkarm governorate (4 CDCs)	13,000 lit.	17,000 lit (31% increase)
	3 Governorates in Total (20 CDCs)	87,000 lit.	117,000 lit (34% increase)
Increase in number of environmentally- friendly Firefighting Vehicles (*3)	3 Target Governorates	10 Units	21 Units

Remarks 1: Baseline and target value are calculated based on the information and target values available from the Palestinian Authority and, are estimate and provisional values only, as they are subject to change in the future.

Remarks 2: CDCs includes 1 Support Center each in Ramallah and Jenin governorates.

PRE-CONDITIONS:	
(*1):	For the Baseline, only the CDCs and Support Centers with <u>Fire Trucks (3,000lit. and 4,000lit.) diagnosed as “A to C”</u> in Table 2-1 (Ramallah), Table 2-2 (Jenin) and Table 2-3 (Tulkarm) are counted. In this Survey, the conditions of both the “vehicle itself” and the “on-board equipment” of the existing Fire Trucks (Fire Pump Trucks with Water Tanks) were diagnosed, and categorised into 6 different levels of conditions from A to F. Existing units diagnosed as “A to C” are considered <i><<still operable for firefighting and rescue purposes, in 3 years after the Project completion>></i>, whereas the existing units diagnosed as “D to F” are considered <i><<difficult to continue deployment in 3 years after the Project completion, as problems (such as malfunctions and breakages) are found in both the vehicle itself and the on-board equipment, facing challenges in firefighting and rescue operations>></i>. Criteria for conditions A to C, which are subject to quantitative effects are as follows: - Condition “A”: Good as new - Condition “B”: No operational problem (e.g., rusts, dents and other external damages on the vehicle itself and lowered performance level on some of the on-board equipment are observed, however, poses no major problem in conducting firefighting and rescue operations) - Condition “C”: With some problems, but still operable (e.g., in addition to external damages visible to the vehicle itself (such as rusts, dents, etc.), aging of multiple on-board equipment are observed, however, able to continue being deployed for firefighting and rescue operations).
(*2):	For the Baseline, the total volume of the firefighting water is calculated based on <u>the “permanently stationed” Fire Trucks (1,000lit., 3,000lit. and 4,000lit.) and Water Tankers diagnosed as “A to C”</u> in Table 2-1 (Ramallah), Table 2-2 (Jenin) and Table 2-3 (Tulkarm) and excludes the existing units deployed as “spares”.
(*3):	For the Baseline: the number of Firefighting Vehicles counted as “environmentally-friendly units” are <u>existing Fire Trucks (3,000lit. and 4,000lit.) and Water Tankers diagnosed as “A to C”, with “Euro 5 or higher” European Emission Standards engine only</u>, in Table 2-1 (Ramallah), Table 2-2 (Jenin) and Table 2-3 (Tulkarm). For the Target Value: the total units are calculated by, i) subtracting the number of existing environmentally-friendly Fire Trucks planned to be <u>relocated</u> to outside the target governorates (-3 units) from the baseline quantity, and ii) adding the number of new Fire Trucks to be procured under this Project (+14 units).

3-4-2-2 Qualitative Effectiveness

The qualitative effects expected from the implementation of the Project are: i) improvement of public services; and ii) mitigation of disaster risks for the residents in the target governorates as per details below:

- Firefighting operations in areas with difficult access for the Firefighting Vehicles, such as densely populated residential areas and grass fields are improved and as such swift response for dealing with emergencies will be possible; and
- Training materials and manuals on firefighting and rescue operations improved through the Project’s Soft Component (Technical Assistance) are utilised effectively, and damages caused by disasters will be reduced.

APPENDICES

Appendix-1 Member List of the Study Team

Appendix-2 Study Schedule

Appendix-3 List of Parties Concerned in the Recipient Country

Appendix-4 Minutes of Discussions (M/D)

- Minutes of Discussions (in March 2023)
- Minutes of Discussions (in July 2024)

Appendix-5 Soft Component (Technical Assistance) Plan

Appendix-6 Current Conditions of Garages and Necessity for Garage
Constructions

Appendix-7 Reference

Appendix-1 Member List of the Survey Team

First Field Survey

Name	Responsibility/Position	Organisation
(1) JICA		
Minako YAMAMOTO	Team Leader	Japan International Cooperation Agency (JICA)
Masatoshi OKANO	Cooperation Project (1)	JICA
Taichi SUZUKI	Cooperation Project (2)	JICA
(2) Consultant		
Atsushi SANO	Chief Consultant/ Firefighting Planning	INGEROSEC Corporation
Hina OKUBO	Deputy Chief Consultant/ Procurement Planning (2)	INGEROSEC Corporation
Yasuhiro SHIINO	Firefighting Structure Analyst	INGEROSEC Corporation
Nobuyuki KAMIHASHI	Firefighting Equipment Planning/ Equipment Operation and Maintenance Planning/ Cost Estimation (2)	INGEROSEC Corporation
Hidehiko HORIE	Procurement Planning (1)/ Cost Estimation (1)	Katahira & Engineers International

Second Field Survey-No. 1 (Online)

Name	Responsibility/Position	Organisation
(1) JICA		
Minako YAMAMOTO	Team Leader	Japan International Cooperation Agency (JICA)
Teppei MUNAKATA	Cooperation Project (1)	JICA
(2) Consultant		
Atsushi SANO	Chief Consultant/ Firefighting Planning	INGEROSEC Corporation
Hina OKUBO	Deputy Chief Consultant/ Procurement Planning (2)	INGEROSEC Corporation
Nobuyuki KAMIHASHI	Firefighting Equipment Planning/ Equipment Operation and Maintenance Planning/ Cost Estimation (2)	INGEROSEC Corporation

Second Field Survey-No. 2 (Online)

Name	Responsibility/Position	Organisation
(1) JICA		
Minako YAMAMOTO	Team Leader	Japan International Cooperation Agency (JICA)
Teppei MUNAKATA	Cooperation Project (1)	JICA
Etsuko IDE	Cooperation Project (2)	JICA
(2) Consultant		
Atsushi SANO	Chief Consultant/ Firefighting Planning	INGEROSEC Corporation
Hina OKUBO	Deputy Chief Consultant/ Procurement Planning (2)	INGEROSEC Corporation
Nobuyuki KAMIHASHI	Firefighting Equipment Planning/ Equipment Operation and Maintenance Planning/ Cost Estimation (2)	INGEROSEC Corporation

Appendix-2 Study Schedule

First Field Survey [March 2023]

Schedule			JICA 1, 2, 3.	4.	5.	Consultants		7.	8.
No.	Date	Day	1) Minako YAMAMOTO Team Leader 2) Masatoshi OKANO Cooperation Project (1) 3) Taichi SUZUKI Cooperation Project (2)	Atsushi SANO (Mr.) Chief Consultant/ Firefighting Planning	Yasuhiro SHIINO (Mr.) Firefighting Structure Analyst	Nobuyuki KAMIHASHI (Mr.) Firefighting Equipment Planning/ Equipment Operation & Maintenance Planning/ Cost Estimation (2)	Hina OKUBO (Ms.) Deputy Chief Consultant/ Procurement Planning (2)	Hidehiko HORIE (Mr.) Procurement Planning (1)/ Cost Estimation (1)	
1	03 March 2023	Fri.		Tokyo Narita→(via Abu Dhabi)					
2	04 March	Sat.		→Tel Aviv→Ramallah					
3	05 March	Sun.		1) Courtesy Visit to JICA Palestine Office 2) Courtesy Visit to PCD ¹ (Briefing on Inception Report; Discussions on Questionnaires and Field Survey Schedules; and Survey on Firefighting Plans and Regulations in WB ²					
4	06 March	Mon.		<<JENIN>> Field Surveys at "Jenin Directorate/HQ", "8. Jenin CDC" ³ , "11.Yamum CDC" and "15. Marj ibn Amir CDC"				Survey on local After-sales Service Agents of Truck Manufacturers (VOLVO and IVECO's dealers)	
5	07 March	Tue.		<<JENIN>> Field Surveys at "14. Arraba CDC", "12. Ya'bad CDC" and "10.Barta'a CDC"				1) Mtg. w/ local Forwarder/Logistics Company 2) Survey on local After-sales Service Agents of Truck Manufacturer (MAN's dealer)	
6	08 March	Wed.		<<JENIN>> Field Surveys at "13. Qabatiya CDC", "9. Siris CDC" and "16. Jaba Support Center (Northern Provinces Support)"				1) Mtg. w/ local Forwarder/Logistics Company 2) Survey on local After-sales Service Agents of Truck Manufacturer (MERCEDES' dealer)	
7	09 March	Thurs.		Courtesy Visit to Ministry of Interior	Survey on Firefighting Plans and Regulations in WB at PCD	Discussion with PCD, Technical Department re: Specifications of the Procurement Equipment			
				Survey on Firefighting Plans and Regulations in WB at PCD					
8	10 March	Fri.		Data Processing					
9	11 March	Sat.		Data Processing					
10	12 March	Sun.		<<RAMALLAH>> Field Surveys at "3.Birzeit CDC" and "4.Abwein CDC"					
11	13 March	Mon.		Survey on Firefighting Plans and Regulations in WB	<<TULKARM>> Field Surveys at "19. Anabta CDC", "Tulkarm Directorate/HQ", "Al Kafriat site (new CDC to be constructed)", "17. Tulkarm CDC", "18.A'ttil CDC" and "20. Deir Al Ghusoon CDC"				
12	14 March	Tue.		<<JERICHO>> Attend "Palestine-Jordan-East EU International Emergency Rescue Joint Exercise" in Jericho <<RAMALLAH>> Field Survey at "2.Al-Birch CDC"					
13	15 March	Wed.		<<RAMALLAH>> Field Surveys at "Ramallah Directorate/HQ", "1.Ramallah(Betounia) CDC", "7.Ni'lin CDC" and "5. Bayt Liqya CDC"					
14	16 March	Thurs.		Internal Discussion and Data Processing					
15	17 March	Fri.		Internal Meeting between JICA and the Consultant Team (re: Interim Report)					
16	18 March	Sat.		Data Processing					
17	19 March	Sun.		Survey at Ministry of Finance Collection of /Discussion on Q&A w/ PCD	Discussion w/ PCD, re: Equipment Specifications			Survey at Ministry of Finance Discussion w/ PCD, re: Equipment Specifications	Discussion w/ PCD, re: Equipment Specifications
18	20 March	Mon.		<<JERICHO>> Site visits to PCD Training Center in Jericho (potential Project Delivery Site/Training Sites) <<RAMALLAH>> Field Survey at "6.Tayibe Support Center"					
19	21 March	Tue.		Discussion w/ PCD, re: Equipment to be Requested <<E-JERUSALEM>> Mtg. w/ EUREP (Survey on other Donors)	Internal Discussion and Data Processing			Survey at Ministry of Transport <<E-JERUSALEM>> Mtg. w/ EUREP (Survey on other Donors)	Discussion w/ PCD, re: Equipment Specifications Internal Discussion and Data Processing
20	22 March	Wed.		<<TEL AVIV>> Meeting w/ COGAT ⁴ <<E-JERUSALEM>> Mtg. w/ USSC (Canada) (Survey on other Donors)	Discussion w/ PCD, re: Equipment Specifications Internal Discussion and Data Processing			<<TEL AVIV>> Meeting w/ COGAT <<E-JERUSALEM>> Mtg. w/ USSC (Canada) (Survey on other Donors)	Discussion w/ PCD, re: Equipment Specifications Internal Discussion and Data Processing
21	23 March	Thurs.		Overview Discussion w/ PCD (re: Equipment to be requested; Project Overview; Prior briefing on Minutes of Discussion (M/D)) Internal Discussion and Data Processing					
22	24 March	Fri.		Internal Meeting	Ramallah→Tel Aviv→ (via Abu Dhabi)		Internal Meeting	Ramallah→Tel Aviv→ (via Abu Dhabi)	
23	25 March	Sat.		Tokyo Narita→	Internal Meeting		Internal Meeting	→Tokyo Narita	
24	26 March	Sun.		Tel Aviv→Ramallah Courtesy Visits to JICA Palestine Office; and PCD			Same as on the left		
25	27 March	Mon.		<<RAMALLAH>> Site Visits to "2. Al-Birch; 1.Ramallah(Betounia); 3. Birzeit; and 4. Abwein" CDCs			Same as on the left		
26	28 March	Tue.		Discussion w/ PCD, re: M/D 1) Discussion w/ PCD, re: M/D 2) Mtg. w/ CFA*5			Same as on the left		
27	29 March	Wed.		1) Signing of M/D w/ PCD; and 2) Reports to JICA Palestine Office, and Representative Office of Japan to Palestine			Same as on the left		
28	30 March	Thurs.		Ramallah→Tel Aviv→			Ramallah→Tel Aviv→ (via Abu Dhabi)		
29	31 March	Fri.	→Tokyo Narita	→Tokyo Narita		→Tokyo Narita			

*1 PCD: Palestinian Civil Defense (PCD), Ministry of Interior / *2 WB: West Bank, Palestinian Territories / *3 CDC: Civil Defence Center

*4 COGAT: Coordinator of Government Activities in the Territories / *5 CFA: Central Financial Administration, Palestinian National Security Forces

Second Field Survey-No. 1 (Preliminary Explanation and discussion of Draft Preparatory Survey Report) (Online) [December 2023]

		JICA	Consultants		
Date	Day	1., 2.	3.	4.	5.
		1) Minako YAMAMOTO Team Leader 2) Teppei MUNAKATA Cooperation Project (1)	Atsushi SANO (Mr.) Chief Consultant/ Firefighting Planning	Hina OKUBO (Ms.) Deputy Chief Consultant/ Procurement Planning (2)	Nobuyuki KAMIHASHI (Mr.) Firefighting Equipment Planning/ Equipment Operation & Maintenance Planning/ Cost Estimation (2)
12 December 2023	Tue.		Preliminary Explanation and discussion on Draft Preparatory Survey Report		
13 December	Wed.		ditto		
14 December	Thur.				
15 December	Fri.				
16 December	Sat.				
17 December	Sun.				
18 December	Mon.		Preliminary Explanation and discussion on Draft Preparatory Survey Report		
19 December	Tue.		ditto		
20 December	Wed.				
21 December	Thur.				
22 December	Fri.				
23 December	Sat.				
24 December	Sun.				
25 December	Mon.				
26 December	Tue.	Internal meeting			
27 December	Wed.	Progress meeting on the Preparatory Survey			

Second Field Survey-No. 2 (Explanation and Discussion of Draft Preparatory Survey Report) (Online) [July 2024]

Date	Day	JICA	Consultants		
		1., 2.	3.	4.	5.
		1) Minako YAMAMOTO Team Leader 2) Teppei MUNAKATA Cooperation Project (1) 3) Etsuko Ide Cooperation Project (2)	Atsushi SANO (Mr.) Chief Consultant/ Firefighting Planning	Hina OKUBO (Ms.) Deputy Chief Consultant/ Procurement Planning (2)	Nobuyuki KAMIHASHI (Mr.) Firefighting Equipment Planning/ Equipment Operation & Maintenance Planning/ Cost Estimation (2)
09 July 2024	Tue	M/D discussion			
10 July	Wed	<i>ditto</i>			

Appendix-3 List of Parties Concerned in the Recipient Country

MINISTRY OF INTERIOR

Organisation and Name	Position
Directorate of Arab and International Relations	
Brigadier General Doctor Mahmoud Salahaldin	Director
General Directorate of Civil Defense (Palestinian Civil Defense): PCD	
Head Quarter	
Major General Al. Abed Ibrahim Khalildsava Adaadsfald	Director General
Brigadier Omar Al Bzour	Deputy General Director
Brigadier Owda Younis	Head of International Relations Department
Major Hasan Saad	Deputy Director, International Relations Department
Lieutenant Colonel Omar Eied	Head of Technical Affairs Department
Brigadier Malek Z. Alia	Head of Research and Study Department
Lieutenant Colonel Shatha Badawi	Head of Planning and Development Department
Lieutenant Colonel Raed Isad	Head of Central Operation Department
Colonel Adnan Shaheen	Head of Firefighting and Rescue Department
Lieutenant Colonel Mustafa Niyaz	Training Department, Leader of Training Management / Head of Training School Department (Jericho)
Brigadier Ammar Salameh	Head of Disaster Response Department
Ramallah and Al-Bireh Governorate	
Ramallah and Al-Bireh Governorate Headquarter of PCD	
Imad Hussien Abed Jammal	Director
Ramallah (Betounia) CDC	
Ramiz Saleh	Chief
Al-Bireh CDC	
Ahmad Khalifa	Chief
Birzeit CDC	
Abu AL-Kareem Armoosh	Chief
Abwein CDC	
Nader Abu Zrake	Chief
Bayt Liqya CDC	
Awdi Alhadge	Deputy Chief
Tayibe Support Center	
Tareq Abu Omar	Chief
Ni'lin CDC	
Yousif Atah	Chief
Jenin Governorate	
Jenin Governorate Headquarter of PCD	
Abdul-Latif	Director
Jenin CDC	
DergamZakarneh	Chief
Siris CDC	
Majed Jameel Nabhan	Chief
Barta'a CDC	
Derar Qabaha	Chief
Yamun CDC	
Mahmoud Dalbah	Chief

Ya'bad CDC	
Mohammad Baderneh	Chief
Qabatiya CDC	
Ahmad Sabaanah	Chief
Arraba CDC	
Hani Aziz	Chief
Marj ibn Amir CDC	
Abed AL-Aziz Nagnagieha	Chief
Jaba' Support Center	
Mohammad Hamadne	Chief
Tulkarm Governorate	
Tulkarm Governorate Headquarter of PCD	
Emad F. Abuthial	Director
Waled Zebdeh	Head of OperationCall Center
Tulkarm CDC	
Majid Salameh	Chief
A'ttilCDC	
AbedelilahKettaneh	Chief
AnabtaCDC	
Mustafa Atallah	Chief
Deir Al-Ghusoon CDC	
Rami H. M. Alsweis	Chief

PALESTINIAN NATIONAL SECURITY FORCES

Central Financial Administration	
Fadel Zedan	Director General

MINISTRY OF FINANCE

General Directorate of International Relations and Projects	
Hussein Jaloudi	Director of International Agreement
Diana Kanza	Grant officer
General Directorate of Customs & Excises	
Mohamed Sallia	-
Central Finance Department	
Mustafa Tarriq	Director General of Budget
Asma Hussien	Manager
Ahmad Jeetawi	Manager

MINISTRY OF TRANSPORT

Ahmad Amarneh	Director, Technical Department
Fawzy Abuasba	Director, Import

COORDINATION OF GOVERNMENT ACTIVITIES IN THE TERRITORIES (COGAT), ISRAEL

Shani Bukobza	Deputy Head, Foreign Relations Branch
Ariel Ganot	Donations and Delegations

OTHER DONOR ORGANISATIONS

Office of the European Union Representative (West Bank and Gaza Strip): UNRWA EUREP	
Shereen Abu-Eid	Programme Manager, Public Administration Reform
Sarah Velud	Manager, Rule of Law Programme
Odoardo Como	Head of Operations Section, Macroeconomic Support and Social Development
British Support Team (British Office of the United States Security Coordinator: USSC UK)	
Will Creighton	Civil Defense Advisor
Canada Office of the United States Security Coordinator: USSC Canada	
Josianne Phenix	Director, Law Enforcement
Todd Custance	Inspector, Law Enforcement Directorate

REPRESENTATIVE OFFICE OF JAPAN TO PALESTINE

Yoichi Nakashima	Ambassador
------------------	------------

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) PALESTINE OFFICE

Mitsutaka Hoshi	Chief Representative
Masaki Kudo	Representative
Ikumi Ogiwari	Project Formulation Advisor
Firas Farsakh	National Staff

PRIVATE SECTOR

Alassbah Company for Heavy Equip.&Trucks (VOLVO Truckdealer)	
Jamal Asbah	CEO
Zein Haj Moh'd	Sales Manager
BOW Industrial Company (MAN Truck & Bus dealer)	
Hamdi Alhamri	General Manager
SharikatGargour Al-Tijariyyah(Mercedes-Benz Truckdealer)	
Mahmoud Musleh	Sales Manager, CV Department
Khader Mukarker	Sales Manager, Truck Sales Unit / CV Sales Department
Husam Kokaly	Spare Parts Manager
Alaa Hammash	Service Manager, Service Department
Tower Mechanical Equipment Co. (IVECOdealer)	
Muhannad Masri	CEO & General Manager
Rifat Yaish	Managing Director
Ameera Asad	Tender and Sales Engineer
Yasmina Masri	Business Development
Al Barq Company (Local Forwarder)	
Bajis Hamed	General Manager
Unlimited Logistics (Local Forwarder)	
Rola Srouji	General Manager

Appendix-4.1 Minutes of Discussions (in March 2023)

Minutes of Discussions on the Preparatory Survey for the Project for the Improvement of Fire Equipment in the West Bank

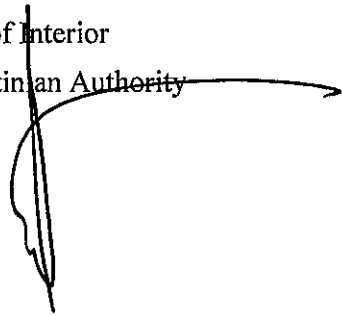
Based on the several preliminary discussions between the Palestinian Authority (hereinafter referred to as “Palestine”) and Japan International Cooperation Agency (hereinafter referred to as “JICA”), JICA dispatched the Preparatory Survey Team for the Outline Design (hereinafter referred to as “the Team”) of the Project for the Improvement of Fire Equipment in the West Bank (hereinafter referred to as “the Project”) to Palestine. The Team held a series of discussions with the officials of Palestine and conducted a field survey. In the course of the discussions, both sides have confirmed the main items described in the attached sheets.

Ramallah, 29th March, 2023



Minako Yamamoto
Leader
Preparatory Survey Team
Japan International Cooperation Agency
Japan

Major General Al.Abed Ibrahim Khalil
Director General
General Directorate of Civil Defense
Ministry of Interior
The Palestinian Authority



ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve the firefighting and rescue performances by procurement of fire-rescue equipment, thereby contributing to the risk mitigation and better public governance in the Project areas.

2. Title of the Preparatory Survey

Both sides confirmed the title of the Preparatory Survey as “the Preparatory Survey for the Project for the Improvement of Fire Equipment in the West Bank”.

3. Project site

Both sides confirmed that the sites of the Project are in Jenin, Ramallah and Al-Bireh, and Tulkarm.

4. Responsible authority for the Project

Both sides confirmed the authorities responsible for the Project are as follows:

4-1. The General Directorate of Civil Defense will be the executing agency for the Project (hereinafter referred to as “the Executing Agency”). The Executing Agency shall coordinate with all the relevant authorities to ensure smooth implementation of the Project and ensure that the undertakings for the Project shall be managed by relevant authorities properly and on time. The organization charts are shown in Annex1.

4-2. The line ministry of the Executing Agency is the Ministry of Interior. The Ministry of Interior shall be responsible for supervising the Executing Agency on behalf of Palestine.

5. Items requested by the Palestinian Authority

5-1. As a result of discussions, both sides confirmed that the items requested are as follows, of which details are provided in Annex 2

- (1) Fire Trucks (3,000lit.),
- (2) On-board equipment,
- (3) Spare parts for Items (1) and (2), and
- (4) Summaries of manuals in Arabic language



- 5-2. JICA will assess the feasibility of the above requested items, including the number of the Fire Trucks and its technical specifications, through the survey and will report the findings to the Government of Japan. The final scope of the Project will be decided by the Government of Japan.
- 5-3. In case of shortage of the Project budget, both sides agreed to consider possible reduction in the number of On-board equipment and/or possible alteration of their types prior to considering reducing the total number of Fire Trucks (3000lit.). If there is any room for the Project budget, both sides agreed to further explore possibilities for including necessary equipment for maintaining the Fire Trucks.
- 5-4. Palestine shall submit an official request to the Government of Japan through a diplomatic channel by July, 2023.
6. Procedures and Basic Principles of Japanese Grant
- 6-1. The Palestinian side agreed that the procedures and basic principles of Japanese Grant (hereinafter referred to as “the Grant”) as described in Annex 3 shall be applied to the Project.
- As for the monitoring of the implementation of the Project, JICA requires the Palestinian side to submit the Project Monitoring Report, the form of which is attached as Annex 4.
- 6-2. The Palestinian side agreed to take the necessary measures, as described in Annex 5 and Annex 6, for smooth implementation of the Project. The contents of the Annex 5 and Annex 6 will be elaborated and refined during the Preparatory Survey and be agreed in the mission dispatched for explanation of the Draft Preparatory Survey Report.
- The contents of Annex 5 and Annex 6 will be updated as the Preparatory Survey progresses, and eventually, will be used as an attachment to the Grant Agreement.
7. Schedule of the Survey
- 7-1. An official request to the Government of Japan will be submitted before July, 2023.
- 7-2. JICA will prepare a draft Preparatory Survey Report in English and dispatch a mission to Palestine in order to explain its contents around August, 2023.
- 7-3. If the contents of the draft Preparatory Survey Report is accepted and the undertakings for the Project are fully agreed by the Palestinian side, JICA will finalize the Preparatory Survey Report and send it to Palestine around November, 2023.
- 7-4. The above schedule is tentative and subject to change.

AL-k

8. Timeline for the Project

The Team explained to the Palestinian side that expected timeline for the Project is attached in Annex 7.

9. Expected Outcomes and Indicators

Both sides agreed to further elaborate on the following possible key indicators which will be used for monitoring the expected outcomes of the Project. These indicators shall be finalized and then agreed upon during the upcoming dispatch of the JICA mission:

[Quantitative indicators]

- The number of the Civil Defence Centers and the Support Centers with Fire Trucks (3,000lit.) increases from 14 out of 20 CDCs to 20 out of 20 CDCs.
*The precondition of this indicator described below is tentative which will be further elaborated and finalized:
 - 1) Fire Trucks considered to be “retired” are not counted from the number of the Fire Trucks above.
- The total volume of the loaded water on Fire Trucks for firefighting in each of the three target governorates increases.
*The preconditions of this indicator described below are tentative which will be further elaborated and finalized:
 - 1) Fire Trucks considered to be “retired” are not counted from the total volume of loaded water above.
 - 2) The loaded water on Fire Trucks (1,000lit.) and Water Tankers is included in the total volume of loaded water above.
- Shorten the annual time of Fire Trucks not in service in each of the three target governorates.
- Increase in the total number of the environmentally-friendly Fire Trucks deployed in each of the three target governorates.
*Preconditions of this indicator:
 - 1) Emission Control Regulations in the West Bank is applied.

[Qualitative indicators]

- Enhance the capacity of firefighting operations in areas considered difficult to access by Fire Trucks, such as densely populated housings and grassland.

- Improved training materials and manuals for firefighting and rescue operations through the Technical Assistance (“Soft Component” of the Project) will be effectively used.

10. Ex-Post Evaluation

JICA will conduct ex-post evaluation after three (3) years from the project completion, in principle, with respect to five evaluation criteria (Relevance, Effectiveness, Efficiency, Impact, Sustainability). The result of the evaluation will be publicized. The Palestinian side is required to provide necessary support for the data collection.

11. Technical Assistance (“Soft Component” of the Project)

Considering the sustainable operation and maintenance of the Equipment granted through the Project, both sides confirmed the necessity of implementing technical assistance. Its contents shall be further discussed and described in the Draft Preparatory Survey Report.

12. Environmental and Social Considerations

12-1. The Palestinian side confirmed to give due environmental and social considerations during implementation, and after completion of the Project, in accordance with the JICA Guidelines for Environmental and Social Considerations (January, 2022).

12-2. The Project is categorized as “C” from the following considerations:

The project is likely to have minimal adverse impact on the environment under the JICA guidelines for environmental and social considerations (January, 2022).

13. Other Relevant Issues

13-1. Gender Mainstreaming

Both sides confirmed that following gender elements shall be duly reflected in the scope of Preparatory Survey.

- (a) Collection of information and gender disaggregated data for assessment of gender needs.
- (b) Examination of gender-responsive measures based on the assessment, such as:
 - ✓ Facility design that reflects gender-specific needs.
 - ✓ Selection of equipment that reflects gender-specific needs and ensure usability by women.

- ✓ Implementation of soft-component activities that promote women's empowerment.
- ✓ Collection of gender-disaggregated data for monitoring and evaluation (in case gender-related data is included in the indicators for project objective).

Annex 1 Organization Chart

Annex 2 List of Items Requested by the Palestinian Authority

Annex 3 Japanese Grant

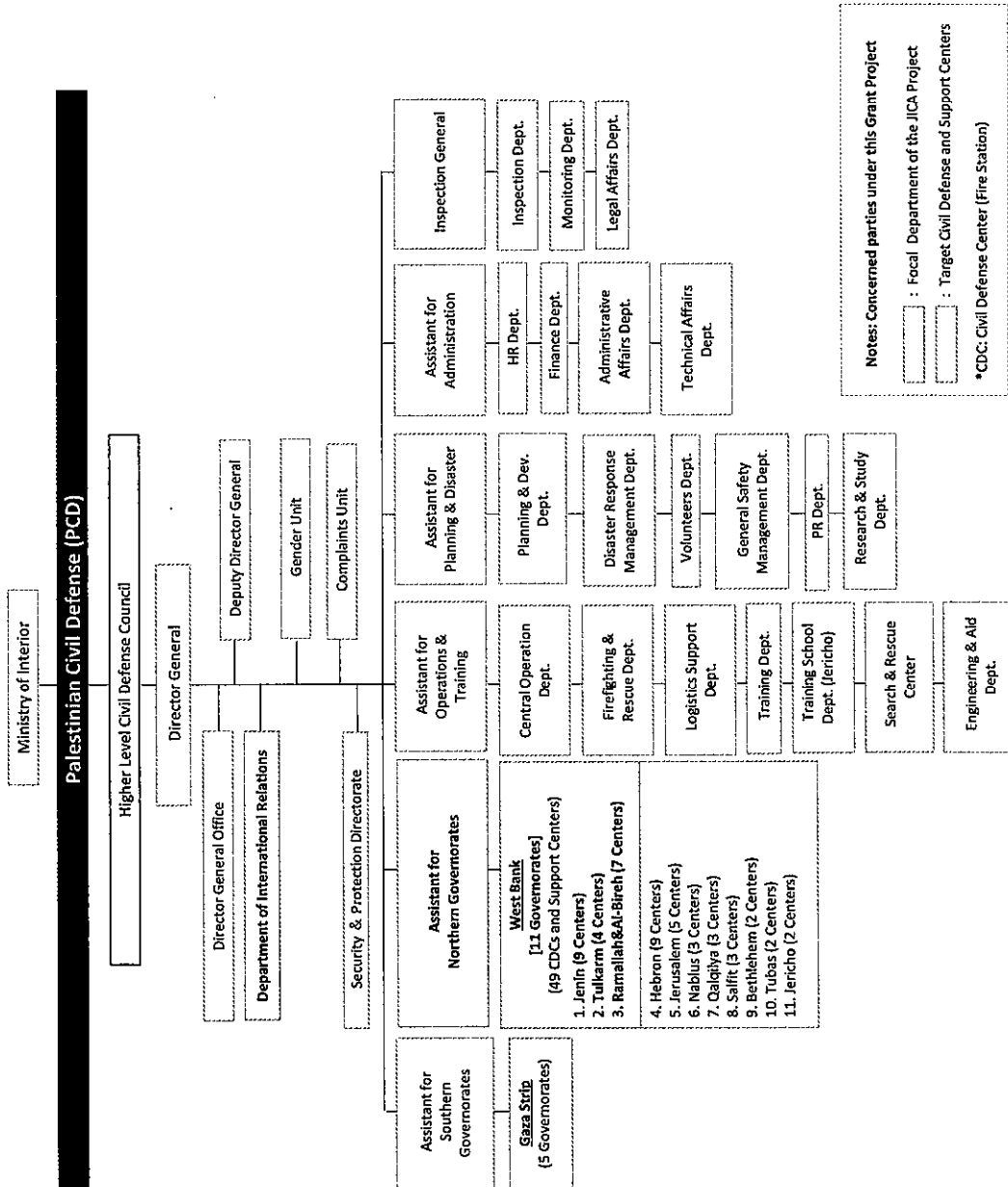
Annex 4 Project Monitoring Report (template)

Annex 5 Major Undertakings to be taken by the Palestinian Authority

Annex 6 List of CDC and Support Center Required for Renovation / Construction of
Garages

Annex 7 Timeline for the Project

Organizational Chart of Palestinian Civil Defense



List of Items Requested by the Palestinian Authority

1. Items and Quantity Requested

No.	Item		Quantity
1	Fire Trucks (3,000lit.)		14 units
2	On-board equipment		14 sets
3	Spare parts for Item No.1 and No.2		1 set
4	Summaries of manuals in Arabic language	For CDC/Support Center	14 sets
		For PCD HQ	1 set
		For Search and Rescue Training Center	1 set

Notes:

CDC: Civil Defense Center

PCD: Palestinian Civil Defense

2. Requested Items Deployment CDC / Support Center Name

Target Governorate	No.	CDC / Support Center Name	Quantity*1
Ramallah	1	Ramallah (Betounia) CDC	2 units
	2	Al-Bireh CDC	1 unit
	3	Birzeit CDC	1 unit
	4	Abwein CDC	1 unit
	5	Bayt Liqya CDC	—
	6	Taybe Support Center	—
	7	Ni'lin CDC	—
	Sub-total		5 units
Jenin	8	Jenin CDC	1 unit
	9	Siris CDC	1 unit
	10	Barta'a CDC	—
	11	Yamun CDC	—
	12	Ya'bad CDC	1 unit
	13	Qabatiya CDC	1 unit
	14	Arraba CDC	—
	15	Marj ibn Amir CDC	—

88

AL-k

Target Governorate	No.	CDC / Support Center Name	Quantity* ¹
	16	Jaba’ Support Center	1 unit
	Sub-total		5 units
Tulkarm	17	Tulkarm CDC	2 units
	18	A’titil CDC	1 unit
	19	Anabta CDC	1 unit
	20	Deir Al Ghusoon CDC	—
	Sub-total		4 units
Grand Total			14 units

*1: The quantities shown in the above table are the quantities of items No. 1 and No.2 listed in "1. Items and Quantity Requested".

3. Consulting Services

- Detailed design, support for bidding documents, and supervision of equipment procurement.

4. Technical Assistance ("Soft Component" of the Project)

- To acquire and improve firefighting and rescue tactics utilizing the procured firefighting and rescue equipment under the Project.
- To improve firefighting and rescue tactics in a coordinated manner among the target CDCs / Support Center

28

AL-k

JAPANESE GRANT

The Japanese Grant is non-reimbursable fund provided to a recipient country (hereinafter referred to as “the Recipient”) to purchase the products and/or services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. Followings are the basic features of the project grants operated by JICA (hereinafter referred to as “Project Grants”).

1. Procedures of Project Grants

Project Grants are conducted through following procedures (See “PROCEDURES OF JAPANESE GRANT” for details):

(1) Preparation

- The Preparatory Survey (hereinafter referred to as “the Survey”) conducted by JICA

(2) Appraisal

- Appraisal by the government of Japan (hereinafter referred to as “GOJ”) and JICA, and Approval by the Japanese Cabinet

(3) Implementation

Exchange of Notes

- The Notes exchanged between the GOJ and the government of the Recipient

Grant Agreement (hereinafter referred to as “the G/A”)

- Agreement concluded between JICA and the Recipient

Banking Arrangement (hereinafter referred to as “the B/A”)

- Opening of bank account by the Recipient in a bank in Japan (hereinafter referred to as “the Bank”) to receive the grant

Construction works/procurement

- Implementation of the project (hereinafter referred to as “the Project”) on the basis of the G/A

(4) Ex-post Monitoring and Evaluation

- Monitoring and evaluation at post-implementation stage

2. Preparatory Survey

(1) Contents of the Survey

The aim of the Survey is to provide basic documents necessary for the appraisal of the the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of

28

A1-k

relevant agencies of the Recipient necessary for the implementation of the Project.

- Evaluation of the feasibility of the Project to be implemented under the Japanese Grant from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.
- Confirmation of Environmental and Social Considerations

The contents of the original request by the Recipient are not necessarily approved in their initial form. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant.

JICA requests the Recipient to take measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the executing agency of the Project. Therefore, the contents of the Project are confirmed by all relevant organizations of the Recipient based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA contracts with (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the feasibility of the Project.

3. Basic Principles of Project Grants

(1) Implementation Stage

1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as “the E/N”) will be signed between the GOJ and the Government of the Recipient to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Recipient to define the necessary articles, in accordance with the E/N, to implement the Project, such as conditions of disbursement, responsibilities of the Recipient, and procurement conditions. The terms and conditions generally applicable to the Japanese Grant are stipulated in the “General Terms and Conditions for Japanese Grant (January 2016).”

28

AL-k

2) Banking Arrangements (B/A) (See “Financial Flow of Japanese Grant (A/P Type)” for details)

- a) The Recipient shall open an account or shall cause its designated authority to open an account under the name of the Recipient in the Bank, in principle. JICA will disburse the Japanese Grant in Japanese yen for the Recipient to cover the obligations incurred by the Recipient under the verified contracts.
- b) The Japanese Grant will be disbursed when payment requests are submitted by the Bank to JICA under an Authorization to Pay (A/P) issued by the Recipient.

3) Procurement Procedure

The products and/or services necessary for the implementation of the Project shall be procured in accordance with JICA's procurement guidelines as stipulated in the G/A.

4) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the Recipient to continue to work on the Project's implementation after the E/N and G/A.

5) Eligible source country

In using the Japanese Grant disbursed by JICA for the purchase of products and/or services, the eligible source countries of such products and/or services shall be Japan and/or the Recipient. The Japanese Grant may be used for the purchase of the products and/or services of a third country as eligible, if necessary, taking into account the quality, competitiveness and economic rationality of products and/or services necessary for achieving the objective of the Project. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm, which enter into contracts with the Recipient, are limited to "Japanese nationals", in principle.

6) Contracts and Concurrence by JICA

The Recipient will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be concurred by JICA in order to be verified as eligible for using the Japanese Grant.

7) Monitoring

The Recipient is required to take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and to regularly report to JICA about its status by using the Project Monitoring Report (PMR).

8) Safety Measures

The Recipient must ensure that the safety is highly observed during the implementation of the Project.

9) Construction Quality Control Meeting

Construction Quality Control Meeting (hereinafter referred to as the “Meeting”) will be held for quality assurance and smooth implementation of the Works at each stage of the Works. The member of the Meeting will be composed by the

Recipient (or executing agency), the Consultant, the Contractor and JICA. The functions of the Meeting are as followings:

- a) Sharing information on the objective, concept and conditions of design from the Contractor, before start of construction.
- b) Discussing the issues affecting the Works such as modification of the design, test, inspection, safety control and the Client's obligation, during of construction.

(2) Ex-post Monitoring and Evaluation Stage

- 1) After the project completion, JICA will continue to keep in close contact with the Recipient in order to monitor that the outputs of the Project is used and maintained properly to attain its expected outcomes.
- 2) In principle, JICA will conduct ex-post evaluation of the Project after three years from the completion. It is required for the Recipient to furnish any necessary information as JICA may reasonably request.

(3) Others

1) Environmental and Social Considerations

The Recipient shall carefully consider environmental and social impacts by the Project and must comply with the environmental regulations of the Recipient and JICA Guidelines for Environmental and Social Considerations (April, 2010).

2) Major undertakings to be taken by the Government of the Recipient

For the smooth and proper implementation of the Project, the Recipient is required to undertake necessary measures including land acquisition, and bear an advising commission of the A/P and payment commissions paid to the Bank as agreed with the GOJ and/or JICA. The Government of the Recipient shall ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Recipient with respect to the purchase of the Products and/or the Services be exempted or be borne by its designated authority without using the Grant and its accrued interest, since the grant fund comes from the Japanese taxpayers.

3) Measures to ensure more efficient implementation of the Grant

- i) In the event that the E/N and the G/A concerning a project cannot be signed by the end of the following Japanese fiscal year of the cabinet decision concerned by the GOJ, the authorities concerned of the two Governments will discuss the cancellation of the project.

28

AL-6

ii) In the event that the period, specified in the G/A, during which the grant is available expires before the completion of the disbursement, the authorities concerned of the GO J will thoroughly review the status, situation and perspective of the implementation of the project concerned before extending the said period. The authorities concerned of the two Governments will discuss the termination of the project including a refund, unless there are concrete prospects for its completion.

iii) Regardless of the period mentioned in ii) above, the authorities concerned of the two Governments will, in the event that five years have passed since the cabinet decision concerned by the GOJ before the completion of the disbursement, except as otherwise confirmed between them, discuss the termination of a project including a refund, unless there are concrete prospects for its completion.

4) Proper Use

The Recipient is required to maintain and use properly and effectively the products and/or services under the Project (including the facilities constructed and the equipment purchased), to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Japanese Grant.

5) Export and Re-export

The products purchased under the Japanese Grant should not be exported or re-exported from the Recipient.

PROCEDURES OF JAPANESE GRANT

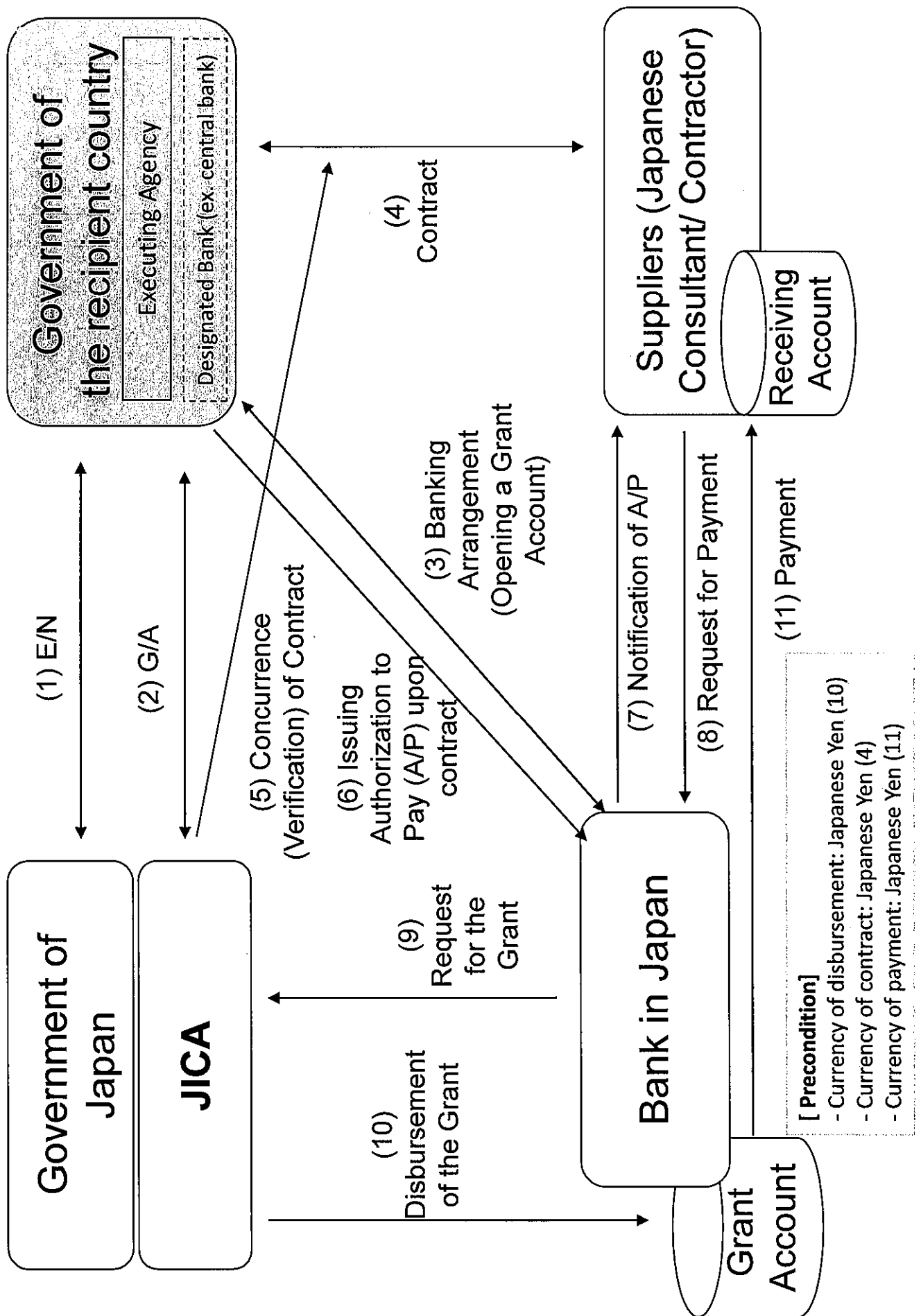
Stage	Procedures	Remarks	Recipient Government	Japanese Government	JICA	Consultants	Contractors	Agent Bank
Official Request	Request for grants through diplomatic channel	Request shall be submitted before appraisal stage.	x	x				
1. Preparation	(1) Preparatory Survey Preparation of outline design and cost estimate		x		x	x		
2. Appraisal	(2) Preparatory Survey Explanation of draft outline design, including cost estimate, undertakings, etc.		x		x	x		
	(3) Agreement on conditions for implementation	Conditions will be explained with the draft notes (E/N) and Grant Agreement (G/A) which will be signed before approval by Japanese government.	x	x (E/N)	x (G/A)			
	(4) Approval by the Japanese cabinet			x				
3. Implementation	(5) Exchange of Notes (E/N)		x	x				
	(6) Signing of Grant Agreement (G/A)		x		x			
	(7) Banking Arrangement (B/A)	Need to be informed to JICA	x					x
	(8) Contracting with consultant and issuance of Authorization to Pay (A/P)	Concurrence by JICA is required	x			x		x
	(9) Detail design (D/D)		x			x		
	(10) Preparation of bidding documents	Concurrence by JICA is required	x			x		
	(11) Bidding	Concurrence by JICA is required	x			x	x	
	(12) Contracting with contractor/supplier and issuance of A/P	Concurrence by JICA is required	x				x	x
	(13) Construction works/procurement	Concurrence by JICA is required for major modification of design and amendment of contracts.	x			x	x	
	(14) Completion certificate		x			x	x	
4. Ex-post monitoring & evaluation	(15) Ex-post monitoring	To be implemented generally after 1, 3, 10 years of completion, subject to change	x		x			
	(16) Ex-post evaluation	To be implemented basically after 3 years of completion	x		x			

notes:

1. Project Monitoring Report and Report for Project Completion shall be submitted to JICA as agreed in the G/A.

2. Concurrence by JICA is required for allocation of grant for remaining amount and/or contingencies as agreed in the G/A.

Financial Flow of Japanese Grant (A/P Type)



<u>Project Monitoring Report</u> on <u>Project Name</u> <u>Grant Agreement No. XXXXXXXX</u> 20XX, Month
--

Organizational Information

Signer of the G/A (Recipient)	Person in Charge (Designation) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____
Executing Agency	Person in Charge (Designation) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____
Line Ministry	Person in Charge (Designation) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____

General Information:

Project Title	
E/N	Signed date: Duration:
G/A	Signed date: Duration:
Source of Finance	Government of Japan: Not exceeding JPY _____ mil. Government of (): _____

28

D1-k

1: Project Description

1-1 Project Objective

--

1-2 Project Rationale

- Higher-level objectives to which the project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the project addresses

--

1-3 Indicators for measurement of "Effectiveness"

Quantitative indicators to measure the attainment of project objectives		
Indicators	Original (Yr)	Target (Yr)
Qualitative indicators to measure the attainment of project objectives		

2: Details of the Project

2-1 Location

Components	Original (proposed in the outline design)	Actual
1.		

2-2 Scope of the work

Components	Original* (proposed in the outline design)	Actual*
1.		

Reasons for modification of scope (if any).

(PMR)

--

2-3 Implementation Schedule

Items	Original		Actual
	<i>(proposed in the outline design)</i>	<i>(at the time of signing the Grant Agreement)</i>	

Reasons for any changes of the schedule, and their effects on the project (if any)

--

2-4 Obligations by the Recipient

2-4-1 Progress of Specific Obligations
See Attachment 2.

2-4-2 Activities
See Attachment 3.

2-4-3 Report on RD
See Attachment 11.

2-5 Project Cost

2-5-1 Cost borne by the Grant(Confidential until the Bidding)

Components			Cost (Million Yen)	
	Original <i>(proposed in the outline design)</i>	Actual <i>(in case of any modification)</i>	Original ^{1),2)} <i>(proposed in the outline design)</i>	Actual
	1.			
Total				

Note: 1) Date of estimation:
2) Exchange rate: 1 US Dollar = Yen

2-5-2 Cost borne by the Recipient

Components			Cost (1,000 Taka)	
	Original <i>(proposed in the outline design)</i>	Actual <i>(in case of any modification)</i>	Original ^{1),2)} <i>(proposed in the outline design)</i>	Actual
	1.			

Note: 1) Date of estimation:
2) Exchange rate: 1 US Dollar =

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

Original (at the time of outline design)

name:

role:

financial situation:

institutional and organizational arrangement (organogram):

human resources (number and ability of staff):

Actual (PMR)

2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

3: Operation and Maintenance (O&M)

3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

Original (at the time of outline design)

Actual (PMR)

3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

Original (at the time of outline design)

Actual (PMR)

4: Potential Risks and Mitigation Measures

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

Assessment of Potential Risks (at the time of outline design)

Potential Risks	Assessment
1. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
2. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
3. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:

	Contingency Plan (if applicable):
Actual Situation and Countermeasures	
(PMR)	

5: Evaluation and Monitoring Plan (after the work completion)

5-1 Overall evaluation

Please describe your overall evaluation on the project.

--

5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

--

5-3 Monitoring Plan of the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

--

Attachment

1. Project Location Map
2. Specific obligations of the Recipient which will not be funded with the Grant
3. Monthly Report submitted by the Consultant
- Appendix - Photocopy of Contractor's Progress Report (if any)
 - Consultant Member List
 - Contractor's Main Staff List
4. Check list for the Contract (including Record of Amendment of the Contract/ Agreement and Schedule of Payment)
5. Environmental Monitoring Form / Social Monitoring Form
6. Monitoring sheet on price of specified materials (Quarterly)
7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries) (PMR (final) only)
8. Pictures (by JPEG style by CD-R) (PMR (final) only)
9. Equipment List (PMR (final) only)
10. Drawing (PMR (final) only)
11. Report on RD (After project)
12. Report on the Management of Safety for Construction Works

Monitoring sheet on price of specified materials

1. Initial Conditions (Confirmed)

Items of Specified Materials	Initial Volume A	Initial Unit Price (₹) B	Initial total Price C=A×B	1% of Contract Price D	Condition of payment Price (Decreased) E=C-D	Price (Increased) F=C+D
1 Item 1	●●t	●	●	●	●	●
2 Item 2	●●t	●	●	●		
3 Item 3						
4 Item 4						
5 Item 5						

2. Monitoring of the Unit Price of Specified Materials

(1) Method of Monitoring : ●●

(2) Result of the Monitoring Survey on Unit Price for each specified materials

Items of Specified Materials	1st month, 2015	2nd month, 2015	3rd month, 2015	4th	5th	6th
1 Item 1						
2 Item 2						
3 Item 3						
4 Item 4						
5 Item 5						

(3) Summary of Discussion with Contractor (if necessary)

. . .

25

Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)
(Actual Expenditure by Construction and Equipment each)

	Domestic Procurement (Recipient Country) A	Foreign Procurement (Japan) B	Foreign Procurement (Third Countries) C	Total D
Construction Cost	(A/D%)	(B/D%)	(C/D%)	
Direct Construction Cost	(A/D%)	(B/D%)	(C/D%)	
others	(A/D%)	(B/D%)	(C/D%)	
Equipment Cost	(A/D%)	(B/D%)	(C/D%)	
Design and Supervision Cost	(A/D%)	(B/D%)	(C/D%)	
Total	(A/D%)	(B/D%)	(C/D%)	

AL-2

Report on the Management of Safety for Construction Works

Month/Year 2022 年×月	Cumulative number of labor 労働延人数	Cumulative number of public accident 公衆災害件数	Cumulative hours worked 延べ実労働時 間数	Number of deaths and injuries due to industrial accidents 労働災害による死傷者				Frequency rate 度数率	Severity rate 強度率
This Month 当月				Death 死者	Aggregated number of calendar days absent 延べ休業日数	Aggregated number of work- days lost 延べ労働損失日数			
				More than 4 calendar days absent 休業 4 日以上					
				1 to 3 calendar days absent 休業 1～3 日					
				Total 計					
				Death 死者					
Total including this month 当月迄累計				More than 4 calendar days absent 休業 4 日以上					
				1 to 3 calendar days absent 休業 1～3 日					
				Total 計					
				Death 死者					
				More than 4 calendar days absent 休業 4 日以上					
Note 注)									
1. Frequency rate is the frequency of occurrence of industrial accidents. Frequency rate = (Number of deaths and injuries due to industrial accidents ÷ Cumulative hours worked) × 1,000,000 度数率 = (労働災害による死傷者数÷延べ実労働時間数) ×100 万時間									
2. Severity rate is degree of seriousness of the industrial accident. Severity rate = (Aggregated number of work-days lost ÷ Cumulative hours worked) × 1,000 強度率 = (延べ労働損失日数÷延べ実労働時間数) 1000 時間									
3. Aggregated number of work-days lost = Aggregated number of calendar days absent ×(300÷365) Death (7,500 days) : death as a result of an industrial accident includes not only instantaneous death but also death as a result of occupational injury or disease. 延べ労働損失日数＝延べ休業日数× (300÷365)・・・死亡 7500 日 (即死のほか負傷が原因で死亡したものを含む)									
4. Frequency rate and severity rate are rounding off the third decimal place. 度数率・強度率は小数点第 3 位以下四捨五入									

AL-R

Major Undertakings to be taken by the Palestinian Authority

1. Specific obligations of the Palestinian Authority which will not be funded with the Grant

(1) Before the Tender

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To open bank account (B/A)	Within 1 month after G/A	MOF	TBD	
2	To issue A/P to bank in Japan (the Agent Bank) for the payment to the consultant	Within 1 month after the signing of the contract with the consultant	PCD through MOF	TBD	
3	To submit Project Monitoring Report No.1 (with the result of Detailed Design)	Before preparation of bidding documents	PCD	-	
4	To secure necessary budget for the following items: 1) Construction and/or renovation of the garages for the Fire Trucks to be procured in the Project 2) The personnel to operate the Fire Trucks to be procured in the Project		PCD, MOI and MOF	TBD	Annex-6

Notes:

B/A: Banking Arrangement

A/P: Authorization to Pay

MOF: Ministry of Finance

PCD: Palestinian Civil Defense MOI: Ministry of Interior

(2) During the Project Implementation

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To issue A/P to a bank in Japan (the Agent Bank) for the payment to the supplier(s)	Within 1 month after the signing of the contract with the supplier(s)	PCD through MOF	TBD	
2	To bear the following commissions to a bank in Japan for the banking services based upon the B/A 1) Advising commission of A/P 2) Payment commission for A/P	1) Within 1 month after signing of the contract with the supplier(s) 2) Every payment	PCD through MOF	TBD	
3	To accord Japanese nationals and/or physical persons of third countries whose services may be required in connection with the supply of the Equipment and the services such facilities as may be necessary for their entry into the country of the Recipient and stay therein for the performance of their work	Immediately after the signing of the contract with the supplier(s)	PCD	-	
4	To submit Project Monitoring Report No.2 after the signing of contract	Immediately after the signing of the contract with the supplier(s)	PCD	-	
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the country of Recipient with respect to the purchase of the Equipment and/or the services be exempted	Before import of the Equipment	PCD	-	
6	To ensure prompt customs clearance and to assist the supplier(s) with inland transportation in the recipient country	Immediately after the shipment of the Equipment	PCD	-	
7	To construct and/or renovate the garages for the Fire Trucks to be procured in the Project	Before receiving the Equipment	PCD and MOF	-	Annex-6
8	To ensure that the initial and ordinary operation training costs (daily allowance, transportation, lodging, fuel, water etc.) for fire service staffs will be covered	Before receiving the Equipment	PCD	-	
9	To ensure necessary number of personnel to collaborate with Japanese experts for provision of the Soft Component (including revision of manuals and operation training)	Before receiving the Equipment	PCD	-	
10	To ensure the cost for the Soft Component(daily allowance, transportation, lodging, fuel, water etc.)	Before receiving the Equipment	PCD	-	
11	To submit Project Monitoring Report No.3 (after receiving the Equipment)	Within 2 weeks after receiving the Equipment	PCD	-	
12	To submit Project Monitoring Report No.4 (final:with the result of Soft Component)	Within 2 weeks after the completion of Soft Component	PCD	-	
13	To ensure the safety of persons engaged in the implementation of the Project	During the Project	PCD	-	
14	To register and insure the Fire Trucks provided under the Project	During the Project	PCD	-	
15	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project	During the Project	PCD	-	

(3) After the Project

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	Inland transportation from Jericho Governorate to the respective CDCs and Support Centers	After the completion of the project	PCD	-	
2	To maintain and use properly and effectively the Equipment provided under the Japanese Grant 1) Allocation of operation and maintenance cost 2) Organization of operation and maintenance 3) Routine check/Periodic inspection	After the completion of the project: Every year (Annual running cost)	PCD	TBD	
3	To continue training on firefighting and rescue operations	Every year	PCD	-	

2. Other obligations of the Palestinian Authority funded with the Grant

NO	Items	Deadline	Amount (Million Japanese Yen)*
1	To procure the Equipment and to arrange the following transportation 1) Marine transportation of the Equipment from Japan 2) Inland transportation from port of Ashdod (Israel) to Jericho Governorate		
2	To implement detailed design, bidding support and procurement supervision (Consulting Service)		
	Total		

* The Amount is provisional. This is subject to the approval of the Government of Japan.

**List of CDC and Support Center Required for
Renovation / Construction of Garages**

Target Governorate	No.	CDC / Support Center Name	Need for Renovation / Construction of Garages
Ramallah	1	Ramallah (Betounia) CDC	Garage with a roof required
	2	Al-Bireh CDC	Garage with a roof required
	3	Birzeit CDC	Not required
	4	Abwein CDC	Garage with a roof required
	5	Bayt Liqya CDC	—
	6	Taybe Support Center	—
	7	Ni'lin CDC	—
Jenin	8	Jenin CDC	Not required
	9	Siris CDC	Garage with a roof required
	10	Barta'a CDC	—
	11	Yamun CDC	—
	12	Ya'bad CDC	Garage with a roof required
	13	Qabatiya CDC	Garage with a roof required
	14	Arraba CDC	—
	15	Marj ibn Amir CDC	—
	16	Jaba' Support Center	Repair of the garage floor surface required
Tulkarm	17	Tulkarm CDC	Not required
	18	A'titil CDC	Not required
	19	Anabta CDC	Not required
	20	Deir Al Ghusoon CDC	—

AL-k

27

Timeline for the Project

Process		2023												2024											
		4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12			
Preparatory Survey	Basic design of procurement equipment																								
	Cost estimation by Consultant																								
	Design review by JICA																								
Contract	Preparation of Draft Preparatory Survey Report																								
	Explanation/ Discussion of the Draft Preparatory Survey Report (2nd field survey)																								
	Preparatory Survey Report finalization																								
Detailed Design	Submission of the Preparatory Survey Report																								
	Cabinet Approval (A/C)																								
	Signing of Exchange Note (E/N)																								
Procurement	Signing of Grant Agreement (G/A)																								
	Consultant agreement																								
	Confirmation of project contents																								
	Review of equipment specifications																								
	Preparation of bidding documents																								
	Approval of bidding documents																								
	Public notice of bids																								
	Submission of drawing and internal explanation																								
	Bids																								
	Evaluation of Bids																								
	Contractor agreement																								
	Preparation of production drawings																								
	Manufacturing of equipment																								
	Product inspection, Pre-delivery inspection, Pre-shipment inspection																								
	Transportation of equipment																								
	Unpacking, Bringing, Installing																								
	Adjustment and commissioning																								
	Initial and ordinary operation training																								
	Acceptance inspection and handover of equipment																								
	Soft component																								

Note: The schedules shown in this table are tentative.

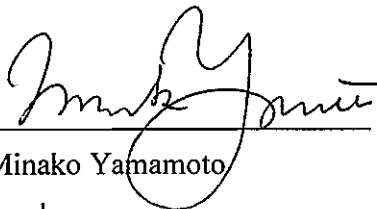
AL-k

Appendix-4.2 Minutes of Discussions (in July 2024)

Minutes of Discussions on the Preparatory Survey for the Project for the Improvement of Fire Equipment in the West Bank (Explanation on Draft Preparatory Survey Report)

With reference to the minutes of discussions signed between the General Directorate of Civil Defense and the Japan International Cooperation Agency (hereinafter referred to as "JICA") on 29th March 2023 and in response to the request from the Palestinian Authority (hereinafter referred to as "Palestine") dated 4th July 2023, JICA dispatched the Preparatory Survey Team (hereinafter referred to as "the Team") for the explanation of Draft Preparatory Survey Report (hereinafter referred to as "the Draft Report") for the Project for the Improvement of Fire Equipment in the West Bank (hereinafter referred to as "the Project").

As a result of the discussions through online meetings, both sides agreed on the main items described in the attached sheets.



Minako Yamamoto

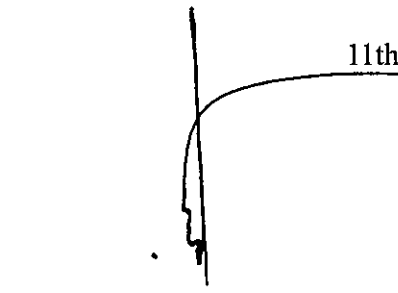
Leader

Preparatory Survey Team

Japan International Cooperation Agency

Japan

11th July, 2024



Major General Al.Abed Ibrahim Khalil

Director General

General Directorate of Civil Defense

Ministry of Interior

The Palestinian Authority

ATTACHEMENT

1. Objective of the Project

The objective of the Project is to improve the firefighting and rescue performances by procurement of fire and rescue equipment, thereby contributing to the risk mitigation and better public governance in the Project areas.

2. Project site

Both sides confirmed that the sites of the Project are in Jenin, Ramallah and Al-Bireh, and Tulkarm as shown in Annex 1.

3. Responsible authority for the Project

Both sides confirmed the authorities responsible for the Project are as follows:

- 3-1. The General Directorate of Civil Defense will be the executing agency for the Project (hereinafter referred to as “the Executing Agency”). The Executing Agency shall coordinate with all the relevant authorities to ensure smooth implementation of the Project and ensure that the undertakings for the Project shall be taken care by relevant authorities properly and on time. The organization charts are shown in Annex 2.
- 3-2. The line ministry of the Executing Agency is the Ministry of Interior. The Ministry of Interior shall be responsible for supervising the Executing Agency on behalf of Palestine.

4. Contents of the Draft Preparatory Survey Report

After the explanation of the contents of the Draft Report by the Team, the Palestinian side agreed to its contents. JICA will finalize the Preparatory Survey Report based on the confirmed items. The report will be sent to the Palestinian side around September 2024.

5. Cost estimate

Both sides confirmed that the cost estimate explained by the Team is provisional and will be examined further by the Government of Japan for its approval.

6. Confidentiality of the cost estimate and technical specifications

Both sides confirmed that the cost estimate and technical specifications of the Project should never be disclosed to any third parties until all the contracts under the Project are concluded.

7. Procedures and Basic Principles of Japanese Grant

The Palestinian side agreed that the procedures and basic principles of Japanese Grant (hereinafter referred to as “the Grant”) as described in Annex 3 shall be applied to the Project. In addition, the Palestinian side agreed to take necessary measures according to the procedures.

8. Timeline for the Project implementation

The Team explained to the Palestinian side that the expected timeline for the Project implementation is as attached in Annex 4.

9. Expected Outcomes and Indicators

Both sides agreed that key indicators for expected outcomes are as follows. The Palestinian side will be responsible for the achievement of agreed key indicators targeted in year 2030 and shall monitor the progress for Ex-Post Evaluation based on those indicators.

[Quantitative indicators]

Indicator	Target Governorates (No. of CDCs and Support Centers)	Baseline (Estimated Value in 2023)	Target Value (Tentative Value in 2030) <<3 years after Project completion>>
Increase in number and percentage of Civil Defense Center and Support centers (hereafter referred to “CDC”) deployed with Fire Trucks (3,000lit. to 4,000lit. capacity)	Ramallah governorate (7 CDCs)	4 CDCs (57%)	7 CDCs (100%)
	Jenin governorate (9 CDCs)	4 CDCs (44%)	9 CDCs (100%)
	Tulkarm governorate (4 CDCs)	3 CDCs (75%)	4 CDCs (100%)
	3 Governorates in Total (20 CDCs)	11 CDCs (55%)	20 CDCs (100%)
Increase in total firefighting water volume of the Firefighting Vehicles deployed in each governorate	Ramallah governorate (7 CDCs)	37,000lit.	48,000lit. (30% increase)
	Jenin governorate (9 CDCs)	37,000lit.	52,000lit. (41% increase)
	Tulkarm governorate (4 CDCs)	13,000lit.	17,000lit (31% increase)
	3 Governorates in Total (20 CDCs)	87,000lit.	117,000lit (34% increase)
Increase in number of environmentally- friendly Firefighting Vehicles	3 Target Governorates	10 Units	22 Units

Remarks 1: Baseline and target value are calculated based on the information and target values available from the Palestinian Authority and, are estimate and provisional values only, as they are subject to change in the future.

Remarks 2: CDCs includes 1 Support Center each in Ramallah and Jenin governorates.

[Qualitative indicators]

- Firefighting operations in areas with difficult access for the Firefighting Vehicles, such as densely populated residential areas and grass access fields, are improved and as such swift response for dealing with emergencies will be possible;
- Training materials and manuals on firefighting and rescue operations improved through the Project's Soft Component (Technical Assistance) are utilized effectively, and damages caused by disasters will be reduced.

10. Ex-Post Evaluation

JICA will conduct ex-post evaluation after three (3) years from the Project completion, in principle, with respect to six evaluation criteria (Relevance, Coherence, Effectiveness, Efficiency, Impact, Sustainability). The result of the evaluation will be publicized. The Palestinian side is required to provide necessary support for the data collection.

11. Technical assistance ("Soft Component" of the Project)

Considering the sustainable operation and maintenance of the products and services granted through the Project, technical assistance is planned under the Project as described in the Draft Preparatory Survey Report. The Palestinian side confirmed to deploy necessary number of counterparts who are appropriate and competent in terms of its purpose of the technical assistance.

12. Undertakings of the Project

Both sides confirmed the undertakings of the Project as described in Annex 5. Both sides also confirmed that Annex 5 will be used as an attachment of G/A.

The Palestinian side assured to take the necessary measures and coordination including allocation of the necessary budget which are preconditions of implementation of the Project. It is further agreed that the costs are indicative, i.e. at Outline Design level. More accurate costs will be calculated at the Detailed Design stage.

With regard to exemption of customs duties, internal taxes and other fiscal levies as stipulated in (2) No.5 of Annex 5, both sides confirmed that such customs duties, internal taxes and other fiscal levies, which shall be clarified in the bid documents by the Executing Agency during the implementation stage of the Project. The Palestinian side is also responsible for import custom clearance and assist to the suppliers for

y

AK

safe and prompt inland transportation from Ashdod Port to Jericho training center as attached in (2) No. 7 of Annex 5.

Furthermore, it is confirmed that the construction or renovation of the garages has to be carried out in 7 fire stations (6 Civil Defense Centers and 1 Support Center) under the responsibility of the Palestinian side as shown in Annex 6. Both sides confirmed that the garages must be completed by January 2027 before delivery of the equipment.

Both sides confirmed that the Executing Agency shall take necessary measures to ensure and maintain the security of the Project site and the persons related to the implementation of the Project, in cooperation with relevant authorities during the Project period. Such security measures shall reasonably reflect needs of the Consultant/the Contractor engaging in the Project, as shown in Annex 5.

Both sides agreed that in case the additional security cost would be necessary for the implementation of the Project, such cost shall be borne by the Palestinian side without using the Grant.

13. Items and measures to be considered important for the smooth implementation of the Project

Both sides confirmed that it is necessary to obtain a permit from COGAT (Coordination of Government Activities in the Territories) to import vehicles or equipment to Palestine as attached in (2) No.6 of Annex 5. Some key procedures are as follows:

1) The Executing Agency shall submit an application request for tax exemption as well as a letter of support issued by JICA Palestine Office along with other related documents to the Palestinian Customs and Excises General Directorate. Related documents to be attached depend on the items of import which are subject to change at any time. For those reasons it needs to clarify beforehand which documents are required to submit.

2) The Palestinian Customs and Excises General Directorate will issue a donation identification number upon receipt of the application request for tax exemption. The Israeli Customs Directorate will notify the Palestinian Customs and Excises General Directorate after issuing a tax exemption permission upon clearance of COGAT's security screening.

AK

14. Monitoring during the implementation

The Project will be monitored by the Executing Agency and reported to JICA by using the form of Project Monitoring Report (PMR) attached as Annex 7. The timing of submission of the PMR is described in Annex 5.

15. Project completion

Both sides confirmed that the Project completes when all the equipment procured by the Grant are in operation. The completion of the Project will be reported to JICA promptly by the Executing Agency, but in any event not later than six months after completion of the Project.

16. Environmental and Social Considerations

The Team explained that 'JICA Guidelines for Environmental and Social Considerations (January 2022)' (hereinafter referred to as "the Guidelines") is applicable for the Project. The Project is categorized as C because the Project is likely to have minimal adverse impact on the environment under the Guidelines.

17. Disclosure of Information

Both sides confirmed that the Preparatory Survey Report from which project cost is excluded will be disclosed to the public after completion of the Preparatory Survey. The comprehensive report including the project cost will be disclosed to the public after all the contracts under the Project are concluded.

Annex 1: Project Site

Annex 2: Organization Chart

Annex 3: Japanese Grant

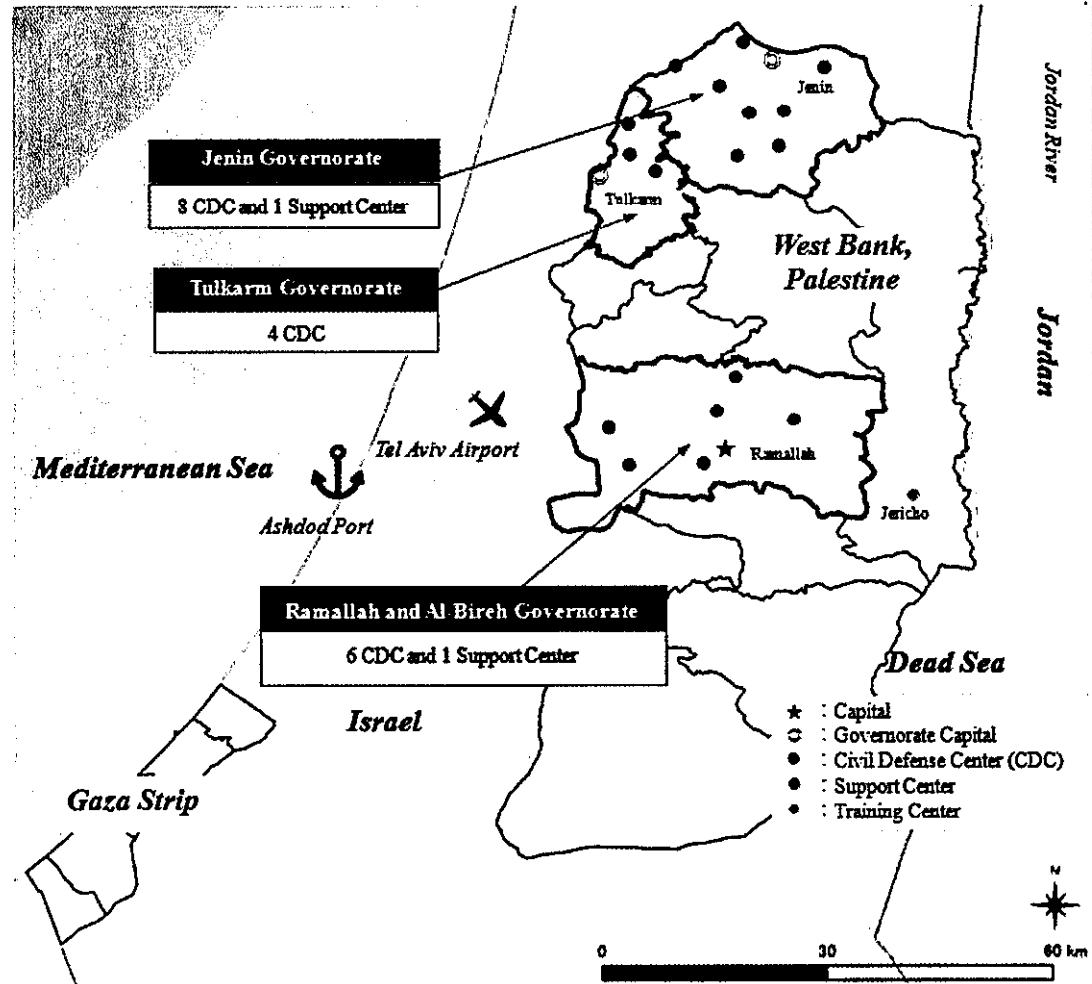
Annex 4: Project Implementation Schedule

Annex 5: Major Undertakings to be taken by the Palestinian Authority

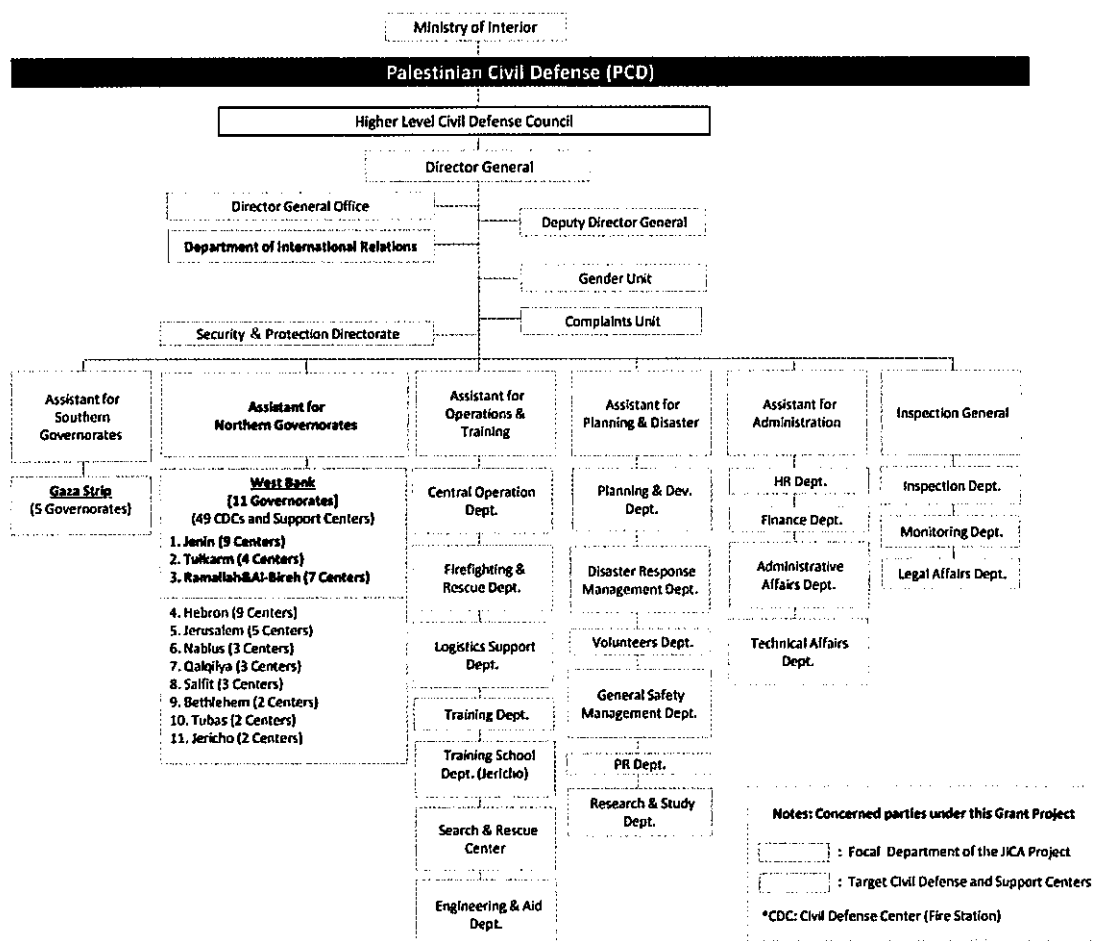
Annex 6: List of CDC and Support Center Required for Renovation and Construction of Garages

Annex 7: Project Monitoring Report

Project Site



Organization Chart



JAPANESE GRANT

The Japanese Grant is non-reimbursable fund provided to a recipient country (hereinafter referred to as “the Recipient”) to purchase the products and/or services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. Followings are the basic features of the project grants operated by JICA (hereinafter referred to as “Project Grants”).

1. Procedures of Project Grants

Project Grants are conducted through following procedures (See “PROCEDURES OF JAPANESE GRANT” for details):

(1) Preparation

- The Preparatory Survey (hereinafter referred to as “the Survey”) conducted by JICA

(2) Appraisal

- Appraisal by the government of Japan (hereinafter referred to as “GOJ”) and JICA, and Approval by the Japanese Cabinet

(3) Implementation

Exchange of Notes

- The Notes exchanged between the GOJ and the Palestinian Authority

Grant Agreement (hereinafter referred to as “the G/A”)

- Agreement concluded between JICA and the Recipient

Banking Arrangement (hereinafter referred to as “the B/A”)

- Opening of bank account by the Recipient in a bank in Japan (hereinafter referred to as “the Bank”) to receive the grant

Construction works/procurement

- Implementation of the project (hereinafter referred to as “the Project”) on the basis of the G/A

(4) Ex-post Monitoring and Evaluation

- Monitoring and evaluation at post-implementation stage

2. Preparatory Survey

(1) Contents of the Survey

The aim of the Survey is to provide basic documents necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the Recipient necessary for the implementation of the Project.
- Evaluation of the feasibility of the Project to be implemented under the Japanese Grant from a technical, financial, social and economic point of view.

AK

27

- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.
- Confirmation of Environmental and Social Considerations

The contents of the original request by the Recipient are not necessarily approved in their initial form. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant.

JICA requests the Recipient to take measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the executing agency of the Project. Therefore, the contents of the Project are confirmed by all relevant organizations of the Recipient based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA contracts with (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the feasibility of the Project.

3. Basic Principles of Project Grants

(1) Implementation Stage

1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as "the E/N") will be signed between the GOJ and the Palestinian Authority to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Recipient to define the necessary articles, in accordance with the E/N, to implement the Project, such as conditions of disbursement, responsibilities of the Recipient, and procurement conditions. The terms and conditions generally applicable to the Japanese Grant are stipulated in the "General Terms and Conditions for Japanese Grant (January 2016)."

2) Banking Arrangements (B/A) (See "Financial Flow of Japanese Grant (A/P Type)" for details)

- a) The Recipient shall open an account or shall cause its designated authority to open an account under the name of the Recipient in the Bank, in principle. JICA will disburse the Japanese Grant in Japanese yen for the Recipient to cover the obligations incurred by the Recipient under the verified contracts.
- b) The Japanese Grant will be disbursed when payment requests are submitted by the Bank to JICA under an Authorization to Pay (A/P) issued by the Recipient.

3) Procurement Procedure

The products and/or services necessary for the implementation of the Project shall be procured in accordance with JICA's procurement guidelines as stipulated in the G/A.

4) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the Recipient to continue to work on the Project's implementation after the E/N and G/A.

5) Eligible source country

In using the Japanese Grant disbursed by JICA for the purchase of products and/or services, the eligible source countries of such products and/or services shall be Japan and/or the Recipient. The Japanese Grant may be used for the purchase of the products and/or services of a third country as eligible, if necessary, taking into account the quality, competitiveness and economic rationality of products and/or services necessary for achieving the objective of the Project. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm, which enter into contracts with the Recipient, are limited to "Japanese nationals", in principle.

6) Contracts and Concurrence by JICA

The Recipient will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be concurred by JICA in order to be verified as eligible for using the Japanese Grant.

7) Monitoring

The Recipient is required to take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and to regularly report to JICA about its status by using the Project Monitoring Report (PMR).

8) Safety Measures

The Recipient must ensure that the safety is highly observed during the implementation of the Project.

9) Construction Quality Control Meeting

Construction Quality Control Meeting (hereinafter referred to as the "Meeting") will be held for quality assurance and smooth implementation of the Works at each stage of the Works. The member of the Meeting will be composed by the Recipient (or executing agency), the Consultant, the Contractor and JICA. The functions of the Meeting are as followings:

- a) Sharing information on the objective, concept and conditions of design from the Contractor, before start of construction.
- b) Discussing the issues affecting the Works such as modification of the design, test, inspection, safety control and the Client's obligation, during of construction.

(2) Ex-post Monitoring and Evaluation Stage

- 1) After the Project completion, JICA will continue to keep in close contact with the Recipient in order to monitor that the outputs of the Project is used and maintained properly to attain its expected outcomes.
- 2) In principle, JICA will conduct ex-post evaluation of the Project after three years from the completion. It is required for the Recipient to furnish any necessary information as JICA may reasonably request.

(3) Others

1) Environmental and Social Considerations

The Recipient shall carefully consider environmental and social impacts by the Project and must comply with the environmental regulations of the Recipient and JICA Guidelines for Environmental and Social Considerations (January, 2022).

2) Major undertakings to be taken by the Palestinian Authority

For the smooth and proper implementation of the Project, the Recipient is required to undertake necessary measures including land acquisition, and bear an advising commission of the A/P and payment commissions paid to the Bank as agreed with the GOJ and/or JICA. The Palestinian Authority shall ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Recipient with respect to the purchase of the Products and/or the Services be exempted or be borne by its designated authority without using the Grant and its accrued interest, since the grant fund comes from the Japanese taxpayers.

3) Measures to ensure more efficient implementation of the Grant

i) In the event that the E/N and the G/A concerning a project cannot be signed by the end of the following Japanese fiscal year of the cabinet decision concerned by the GOJ, the authorities concerned of the GOJ and the Palestinian Authority will discuss the cancellation of the project.

ii) In the event that the period, specified in the G/A, during which the grant is available expires before the completion of the disbursement, the authorities concerned of the GOJ will thoroughly review the status, situation and perspective of the implementation of the project concerned before extending the said period. The authorities concerned of the GOJ and the Palestinian Authority will discuss the termination of the project including a refund, unless there are concrete prospects for its completion.

iii) Regardless of the period mentioned in ii) above, the authorities concerned of the GOJ and the Palestinian Authority will, in the event that five years have passed since the cabinet decision concerned by the GOJ before the completion of the disbursement, except as otherwise confirmed between them, discuss the termination of a project including a refund, unless there are concrete prospects for its completion.

4) Proper Use

The Recipient is required to maintain and use properly and effectively the products and/or services under the Project (including the facilities constructed and the equipment purchased), to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Japanese Grant.

5) Export and Re-export

The products purchased under the Japanese Grant should not be exported or re-exported from the Recipient

y

AK

PROCEDURES OF JAPANESE GRANT

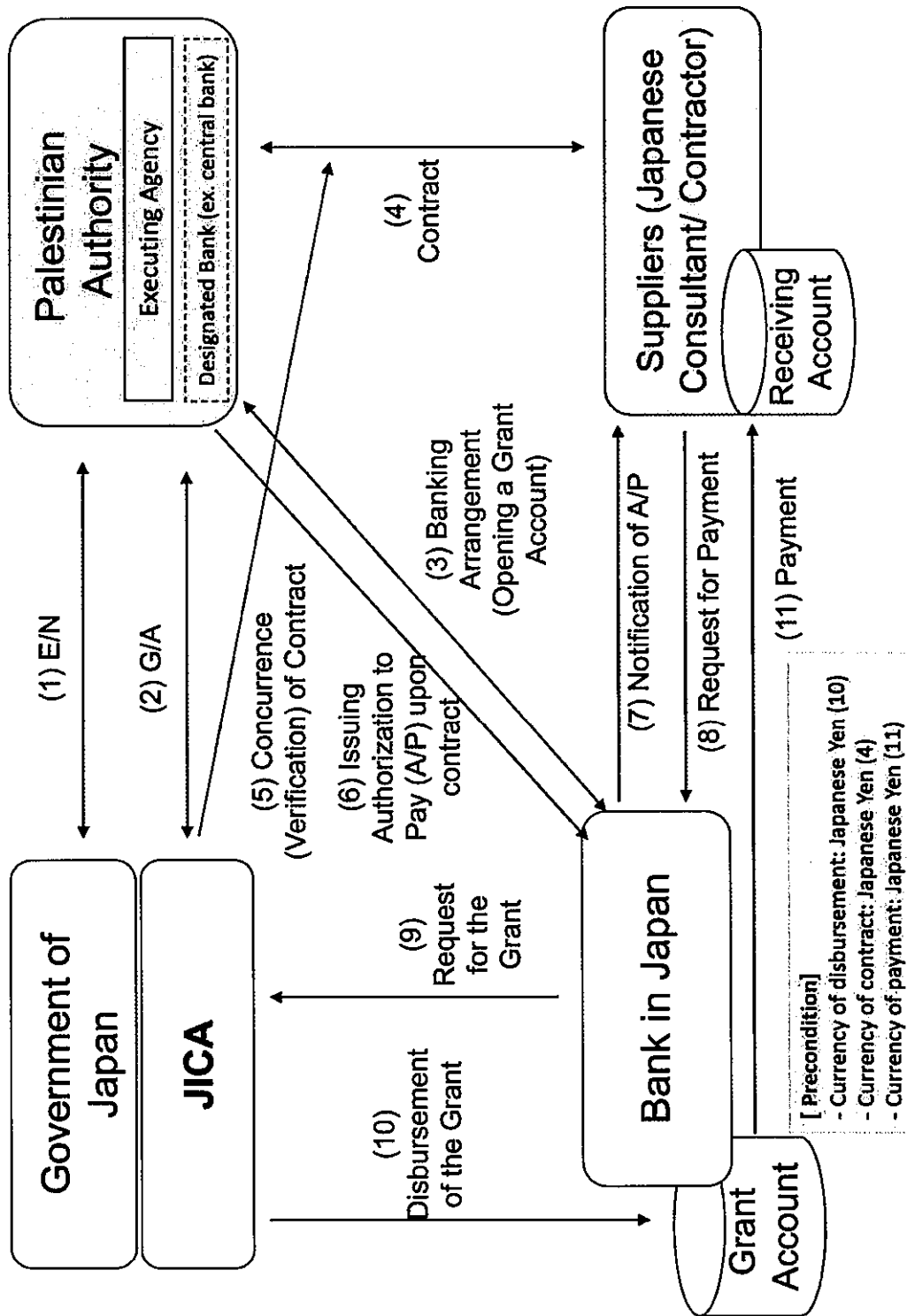
Stage	Procedures	Remarks	Palestinian Authority	Japanese Government	JICA	Consultants	Contractors	Agent Bank
Official Request	Request for grants through diplomatic channel	Request shall be submitted before appraisal stage.	x	x				
1. Preparation	(1) Preparatory Survey Preparation of outline design and cost estimate		x		x	x		
2. Appraisal	(2) Preparatory Survey Explanation of draft outline design, including cost estimate, undertakings, etc.		x		x	x		
	(3) Agreement on conditions for implementation	Conditions will be explained with the draft notes (E/N) and Grant Agreement (G/A) which will be signed before approval by Japanese government.	x	x (E/N)	x (G/A)			
	(4) Approval by the Japanese cabinet			x				
3. Implementation	(5) Exchange of Notes (E/N)		x	x				
	(6) Signing of Grant Agreement (G/A)		x		x			
	(7) Banking Arrangement (B/A)	Need to be informed to JICA	x					x
	(8) Contracting with consultant and issuance of Authorization to Pay (A/P)	Concurrence by JICA is required	x			x		x
	(9) Detail design (D/D)		x			x		
	(10) Preparation of bidding documents	Concurrence by JICA is required	x			x		
	(11) Bidding	Concurrence by JICA is required	x			x	x	
	(12) Contracting with contractor/supplier and issuance of A/P	Concurrence by JICA is required	x				x	x
	(13) Construction works/procurement	Concurrence by JICA is required for major modification of design and amendment of contracts.	x			x	x	
	(14) Completion certificate	—	x			x	x	
4. Ex-post monitoring & evaluation	(15) Ex-post monitoring	To be implemented generally after 1, 3, 10 years of completion, subject to change	x		x			
	(16) Ex-post evaluation	To be implemented basically after 3 years of completion	x		x			

Notes:

1. Project Monitoring Report and Report for Project Completion shall be submitted to JICA as agreed in the G/A

AK

Financial Flow of Japanese Grant (A/P Type)



2

Project Implementation Schedule

Duration		No. of Months																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
Contracts	Approval of the Cabinet (A/C)	Δ																																
	Conclusion of Exchange of Notes (E/N)	Δ																																
	Conclusion of Grant Agreement (G/A)		Δ																															
	Consulting Services Agreement	Contract Signing	Δ	Verification																														
Detailed Design	Final confirmation of plans																																	
	Review of equipment specifications etc.																																	
	Bid document preparation																																	
	Bid document approval																																	
	Bid Notice																																	
	Distribution of bid document and Q&A																																	
	Bidding																																	
	Bid evaluation																																	
	Contract with Supplier																																	
	Preparation of fabrication drawing																																	
Procurement Supervision	Manufacturing																																	
	Fabrication test, Pre-delivery factory inspection and Pre-shipment inspection																																	
	Transportation																																	
	Delivery and unpacking																																	
	Adjustment and commissioning																																	
	Initial operation and maintenance training																																	
	Site acceptance inspection and handover																																	
Soft component (Technical Assistance)																																		

■ : Overseas
 □ : Domestic

Approx. 2.5 months
 18 months

SK

Major Undertakings to be taken by the Palestinian Authority

1. Specific obligations of the Palestinian Authority which will not be funded with the Grant

(1) Before the Tender

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To open bank account (B/A)	Within 1 month after G/A	MOF	As necessary	
2	To issue A/P to bank in Japan (the Agent Bank) for the payment to the consultant	Within 1 month after the signing of the contract with the consultant(s)	PCD through MOF	US\$40	
3	To bear the following commissions to a bank in Japan for the banking services based upon the B/A 1) Advising commission of A/P 2) Payment commission for A/P	Within 1 month after the signing of the contract with the consultant(s)	PCD through MOF	1) US\$40 2) As necessary	
4	To submit Project Monitoring Report No.1 (with the result of Detailed Design)	Before preparation of bidding documents	PCD	-	
5	To secure necessary budget for the following items: 1) Construction and/or renovation of the garages for the Fire Trucks to be procured in the Project 2) The personnel to operate the Fire Trucks to be procured in the Project		PCD, MOI and MOF	1) US\$128,290	Annex-6

Notes:

B/A: Banking Arrangement A/P: Authorization to Pay

MOF: Ministry of Finance PCD: Palestinian Civil Defense MOI: Ministry of Interior

(2) During the Project Implementation

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To issue A/P to a bank in Japan (the Agent Bank) for the payment to the supplier(s)	Within 1 month after the signing of the contract with the supplier(s)	PCD through MOF	As necessary	
2	To bear the following commissions to a bank in Japan for the banking services based upon the B/A 1) Advising commission of A/P 2) Payment commission for A/P	1) Within 1 month after signing of the contract with the supplier(s) 2) Every payment	PCD through MOF	1) US\$40 2) As necessary	
3	To accord Japanese nationals and/or physical persons of third countries whose services may be required in connection with the supply of the Equipment and the services such facilities as may be necessary for their entry into the Palestine and stay therein for the performance of their work	Immediately after the signing of the contract with the supplier(s)	PCD	-	
4	To submit Project Monitoring Report No.2 after the signing of contract	Immediately after the signing of the contract with the supplier(s)	PCD	-	

NO	Items	Deadline	In charge	Estimated Cost	Ref.
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in Palestine and Israel with respect to the purchase of the Equipment and/or the services be exempted in cooperation with the Palestinian Customs and Excises General Directorate	Before import of the Equipment	PCD	-	
6	To obtain an import permit of COGAT's security screening through coordination for smooth import of the Equipment	Before import of the Equipment	PCD		
7	To ensure prompt customs clearance and to assist the supplier(s) with inland transportation in Palestine	Immediately after the shipment of the Equipment	PCD	-	
8	To construct and/or renovate the garages for the Fire Trucks to be procured in the Project	By January 2027	PCD and MOF	-	Annex-6
9	To ensure that the initial and ordinary operation training costs (daily allowance, transportation, lodging for fire service staff, as well as fuel, water etc.)	Before receiving the Equipment	PCD	US\$20,300	
10	To ensure the cost for the Soft Component (daily allowance, transportation, lodging, fuel, water etc.)	Before receiving the Equipment	PCD		
11	To ensure necessary number of personnel to collaborate with Japanese experts for provision of the Soft Component (including revision of manuals and operation training)	Before receiving the Equipment	PCD	-	
12	To submit Project Monitoring Report No.3 (after receiving the Equipment)	Within 2 weeks after receiving the Equipment	PCD	-	
13	To submit Project Monitoring Report No.4 (final: with the result of Soft Component)	Within 2 weeks after the completion of Soft Component	PCD	-	
14	To ensure the safety of persons engaged in the implementation of the Project	During the Project	PCD	-	
15	To register and ensure the Fire Trucks provided under the Project	During the Project	PCD	-	
16	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project	During the Project	PCD	-	

(3) After the Project

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	Inland transportation from Jericho Governorate to the respective CDCs and Support Centers	After the completion of the Project	PCD	-	
2	To register the Equipment provided under the Project	Immediately after receiving the Equipment	PCD		
3	To maintain and use properly and effectively the Equipment provided under the Japanese Grant 1) Allocation of operation and maintenance cost 2) Organization of operation and maintenance 3) Routine check/Periodic inspection	After the completion of the project: Every year (Annual running cost)	PCD	US\$65,000	
4	To continue training on firefighting and rescue operations	Every year	PCD	-	

2. Other obligations of the Palestinian Authority funded with the Grant

NO	Items	Deadline	Amount (Million Japanese Yen)*
1	To procure the Equipment and to arrange the following transportation 1) Marine transportation of the Equipment from Japan 2) Inland transportation from port of Ashdod (Israel) to Jericho Governorate		
2	To implement detailed design, bidding support and procurement supervision (Consulting Service)		
	Total		

* The Amount is provisional. This is subject to the approval of the Government of Japan.

**List of CDC and Support Center Required for
Renovation / Construction of Garages**

Target Governorate	No.	CDC (*1) / Support Center Name	Need for Renovation / Construction of Garages
Ramallah	1	Ramallah (Betounia) CDC	Garage with a roof required
	2	Al-Bireh CDC	Garage with a roof required
	3	Birzeit CDC	Not required
	4	Abwein CDC	Garage with a roof required
	5	Bayt Liqya CDC	—
	6	Taybe Support Center	—
	7	Ni'lin CDC	—
Jenin	8	Jenin CDC	Not required
	9	Siris CDC	Garage with a roof required
	10	Barta'a CDC	—
	11	Yamun CDC	—
	12	Ya'bad CDC	Garage with a roof required
	13	Qabatiya CDC	Garage with a roof required
	14	Arraba CDC	—
	15	Marj ibn Amir CDC	—
	16	Jaba' Support Center	Repair of the garage floor surface required
Tulkarm	17	Tulkarm CDC	Not required
	18	A'titil CDC	Not required
	19	Anabta CDC	Not required
	20	Deir Al Ghusoon CDC	—

(*1: CDC: Civil Defense Center)

AK

Project Monitoring Report
on
the Project for
the Improvement of Fire Equipment in the West Bank
Grant Agreement No. XXXXXXX
 Month 20XX

Organizational Information

Signer of the G/A (Recipient)	Person in Charge <u>(Designation)</u>
	Contacts <u>Address:</u>
	<u>Phone/FAX:</u>
	<u>Email:</u>
Executing Agency	<u>General Directorate of Civil Defense</u>
	Person in Charge <u>(Designation)</u>
	Contacts <u>Address:</u>
	<u>Phone/FAX:</u>
Line Ministry	<u>Ministry of Interior</u>
	Person in Charge <u>(Designation)</u>
	Contacts <u>Address:</u>
	<u>Phone/FAX:</u>
	<u>Email:</u>

General Information:

Project Title	
E/N	Signed date: Duration:
G/A	Signed date: Duration:
Source of Finance	Government of Japan: Not exceeding JPY _____ <u>mil.</u> Palestinian Authority: _____

1: Project Description	
-------------------------------	--

1-1 Project Objective

--

1-2 Project Rationale

- Higher-level objectives to which the Project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the Project addresses

--

1-3 Indicators for measurement of "Effectiveness"

Quantitative indicators to measure the attainment of project objectives		
Indicators	Original (Yr)	Target (Yr)
Qualitative indicators to measure the attainment of project objectives		

2: Details of the Project

2-1 Location

Components	Original (proposed in the outline design)	Actual
1.		

2-2 Scope of the work

Components	Original* (proposed in the outline design)	Actual*
1.		

Reasons for modification of scope (if any).

(PMR)

2-3 Implementation Schedule

Items	Original		Actual
	<i>(proposed in the outline design)</i>	<i>(at the time of signing the Grant Agreement)</i>	

Reasons for any changes of the schedule, and their effects on the Project (if any)

--

2-4 Obligations by the Recipient

Progress of Specific Obligations
See Attachment 2.

2-5 Project Cost

2-5-1 Cost borne by the Grant(Confidential until the Bidding)

Components			Cost (Million Yen)	
	Original <i>(proposed in the outline design)</i>	Actual <i>(in case of any modification)</i>	Original ¹⁾²⁾ <i>(proposed in the outline design)</i>	Actual
	1.			
Total				

Note: 1) Date of estimation:

2) Exchange rate: 1 US Dollar = Yen

2-5-2 Cost borne by the Recipient

Components			Cost (USD)	
	Original <i>(proposed in the outline design)</i>	Actual <i>(in case of any modification)</i>	Original ¹⁾ <i>(proposed in the outline design)</i>	Actual
	1.			

Note: 1) Date of estimation:

2

AK

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

Original (at the time of outline design)

Name:

Role:

Financial situation:

Institutional and organizational arrangement (organogram):

Human resources (number and ability of staff):

Actual (PMR)

2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

3: Operation and Maintenance (O&M)

3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

Original (at the time of outline design)

Actual (PMR)

3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

Original (at the time of outline design)

Actual (PMR)

2

AK

4: Potential Risks and Mitigation Measures

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

Assessment of Potential Risks *(at the time of outline design)*

Potential Risks	Assessment
1. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
2. (Description of Risk)	
	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
Actual Situation and Countermeasures (PMR)	Action required during the implementation stage:
	Contingency Plan (if applicable):

2

AK

5: Evaluation and Monitoring Plan (after the work completion)

5-1 Overall evaluation

Please describe your overall evaluation on the project.

5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the Project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

5-3 Monitoring Plan of the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

Attachment

1. Project Location Map
2. Specific obligations of the Recipient which will not be funded with the Grant
3. Check list for the Contract (including Record of Amendment of the Contract/Agreement and Schedule of Payment)
4. Report on Proportion of Procurement (Palestine, Japan and Third Countries) (PMR No.4 only)
5. Pictures (by JPEG style by CD-R) (PMR No.4 only)

2

AK

GENERAL DIRECTORATE OF CIVIL DEFENSE
PALESTINIAN AUTHORITY

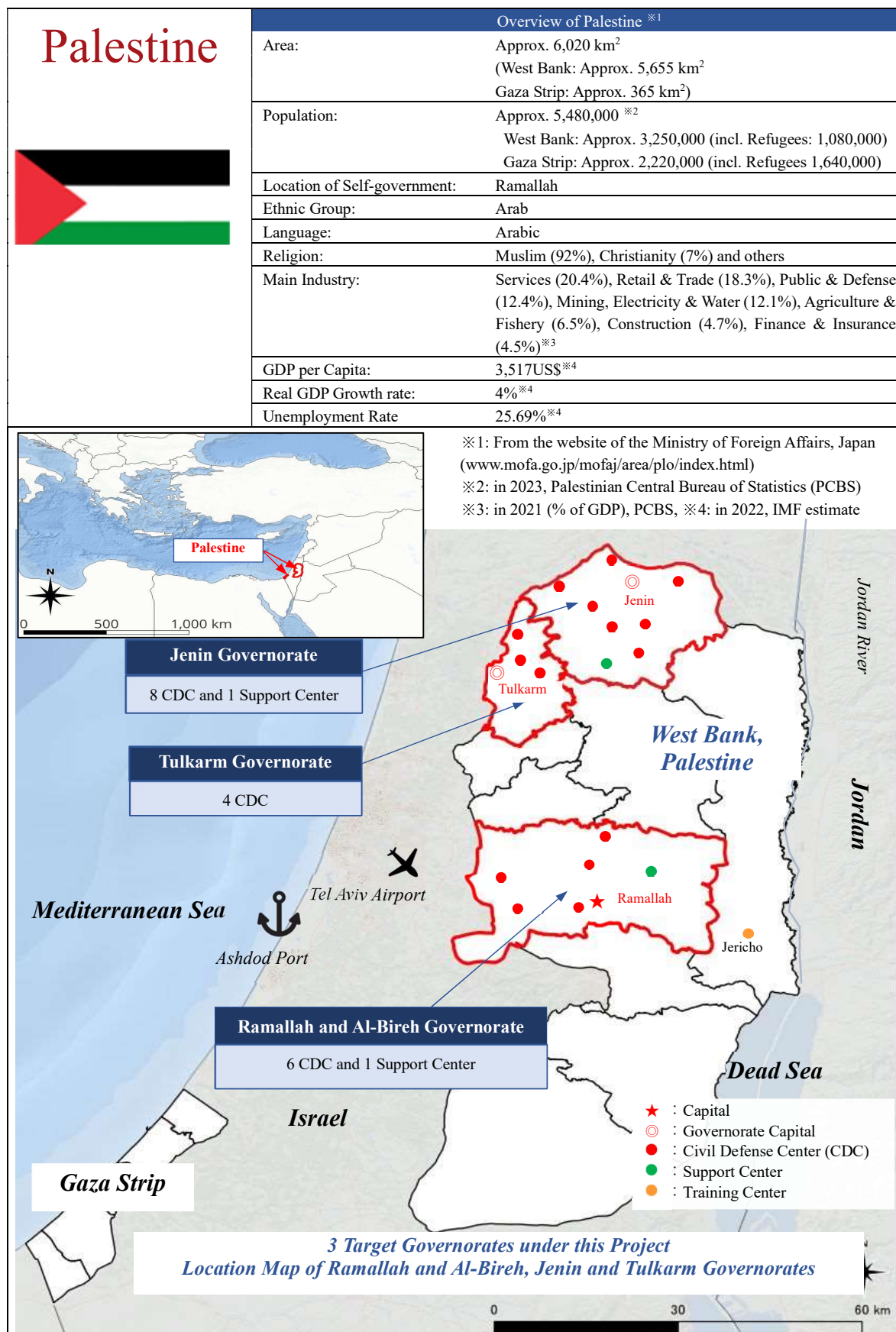
PREPARATORY SURVEY
FOR
THE PROJECT FOR THE IMPROVEMENT
OF FIRE EQUIPMENT
IN
THE WEST BANK, PALESTINE

Soft Component Plan

NOVEMBER 2024

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

INGEROSEC CORPORATION
KATAHIRA & ENGINEERS INTERNATIONAL



Overview and Target Area Map

Contents

Overview and Target Area Map

List of Figures and Tables

	Page
Chapter 1. Background to Planning the Soft Component	1
1-1 Outline of the Project	1
1-2 Objectives of the Soft Component	2
1-3 Need for the Soft Component	2
1-3-1 Background behind the Plan for “Strengthening Coordination amongst CDCs/Deployed Firefighting Units”	3
1-3-2 Background behind a Plan for “Improving Firefighting and Rescue Skills while Ensuring Safety”	4
Chapter 2. Goal of the Soft Component	5
Chapter 3. Expected Outcomes of the Soft Component.....	5
3-1 Coordination amongst CDCs/Deployed Units Is Strengthened	5
3-2 Firefighting and Rescue Skills while Ensuring Safety Are Improved	5
3-3 Training Manuals Are Made	5
Chapter 4. Methods for Confirming the Level of Achievement in the Soft Component.....	6
4-1 Baseline Survey	6
4-2 Checking the Level of Achievement of Outputs	6
Chapter 5. Soft Component Activities (Input Plan)	8
5-1 Outline of the Activities	8
5-2 Contents of the Activities	9
5-2-1 Prepare Training Manuals to Strengthen the Competency in Firefighting and Rescue Techniques and for Sustained Transfer of Skills	9
5-2-2 Operation Skills of Fire Trucks and Firefighting Techniques	9
5-3 Qualification of Japanese Experts and Implementing Structure	11
5-3-1 Assignment of “Firefighting Expert” and “Firefighting Technical Expert”	11
5-3-2 Assignment of “Assistant to Firefighting Experts”	12
5-3-3 Dispatch of Japanese Interpreters (Japanese-Arabic languages)	12
5-4 Intended Participants of the Soft Component	13
Chapter 6. Human Resource Procurement to Implement the Soft Component	15
6-1 Procurement Methods for Human Resources	15
6-2 Staffing Plan	15

6-2-1	Works to be Carried Out in Japan	15
6-2-2	Works to be Carried Out in the West Bank	15
6-2-3	Inputs from the Palestinian Side.....	17
Chapter 7. Implementation Process of the Soft Component		18
7-1	Implementation Details and Schedule	18
7-1-1	Preparatory Works in Japan.....	18
7-1-2	Works in the West Bank	18
Chapter 8. Deliverables of the Soft Component		20
8-1	Soft Component Completion Report	20
8-2	Progress Report.....	20
8-3	Training Manuals	20
8-4	Collected Materials	20
Chapter 9. Responsibilities of the Executing Agency in Palestine.....		21
9-1	During the Soft Component Implementation.....	21
9-2	After Implementation of the Soft Component	21

List of Figures and Tables

■ List of Figures

Figure 1-1 Goal and Objectives of the Soft Component.....	2
Figure 5-1 Implementation Structure of the Soft Component	8

■ List of Tables

Table 4-1 Methods for Checking the Level of Achievement (draft).....	7
Table 5-1 Table of Contents for Training Manuals (draft)	9
Table 5-2 Outline of the On-site Training	10
Table 5-3 Experts in Charge and Selection Criteria.....	13
Table 5-4 Intended Participants of the Soft Component	14
Table 6-1 Staffing Plan (Tasks in Japan).....	15
Table 6-2 Major Tasks to be Undertaken by Japanese Experts and Assignment Duration	17
Table 6-3 Personnel Deployed from the Palestinian Side for the Soft Component	18
Table 7-1 Soft Component Implementation Schedule (On-site Training)	19

Chapter 1. Background to Planning the Soft Component

1-1 Outline of the Project

In the West Bank of the Jordan River (hereinafter referred to as “**the West Bank**”) of the Palestinian Territories (hereinafter referred to as “**Palestine**”), an average of approximately 12,000 cases of fire incidents were reported annually in the past 5 years (2018 to 2022), mainly caused by negligence, arson and electrical surge of household appliances. The number of fires per 1,000 population is 3.6, which is much higher than the world average of 2.4 (International Association of Fire and Rescue Service, 2021). In addition, fires caused damage to 575 residential houses and 580 units of vehicles in 2020 (Ministry of Interior, Palestine). Despite this acute problem, a shortage and aging of Firefighting Vehicles¹ due to a chronic financial shortfall of Palestine is hindering the timely and appropriate firefighting and rescue operations and is attributing to a factor that is increasing the scale of disasters.

By focusing on the number of fire incidents by regions, Jenin governorate has the highest number, followed by Tulkarm and Ramallah and Al-Bireh (hereafter referred to as “**Ramallah**”) governorates. These 3 governorates alone account for 5,209 fire incidents, which is approximately 50% of all fire incidents recorded in whole of the West Bank (Fire Statistics 2022, Ministry of Interior, Palestine). Nonetheless, many existing Firefighting Vehicles, deployed in 18 Civil Defense Centers and 2 Support Centers (hereinafter collectively referred to as “**CDCs**”) totalling 20 CDCs located in above 3 governorates, are significantly aged and have been in operation for more than 20 years. Many problems are occurring frequently in fire pump, engine and/or drive systems of the vehicles, and in particular, Fire Pump Truck with Water Tank (hereinafter referred to as the “**Fire Truck**”)², which plays a central role in firefighting operations, often break down or cause malfunction. As a result, when such Fire Truck is out of service or undergoing maintenance, it is necessary to call for assistance from neighbouring CDCs preventing prompt firefighting and rescue operations. Furthermore, Jenin and Tulkarm governorates are more susceptible to flooding during the rainy season in comparison to other areas, due to their topographical features and weak road drainage systems, which results in more requests for Fire Truck dispatchments.

Palestine has declared “*building resilient communities*” as one of its priorities in its “*National Policy Agenda (December 2016)*”, and to achieve this goal, the Palestinian government is intervening to “*strengthen its capacity for disaster response and crisis management*”. Under this national policy, General Directorate of Civil Defense of the Ministry of Interior (commonly referred to as Palestinian Civil Defense) (hereinafter referred to as “**PCD**”) has established the “*Palestinian Civil Defense Development Plan 2017-2022*” and identified as an urgent matter to strengthen the firefighting and rescue capabilities through the renewal and increase in the number of Firefighting Vehicles.

Under such circumstances, PCD as the executing agency requested the Government of Japan to provide a grant aid for “the Project for the Improvement of Fire Equipment in the West Bank”

¹ Firefighting Vehicles: In this report, “Fire Pump Truck with Water Tank” and “Ladder Truck”, as well as other vehicles used for firefighting operations including “Water Tanker”, are collectively referred to as the “Firefighting Vehicles”.

² Fire Pump Truck with Water Tank (“Fire Truck”): In this report, it refers to a firefighting vehicle equipped with a water tank, fire pump powered by the vehicle engine via power take off (PTO) and equipped with on-board equipment necessary for firefighting and rescue operations.

(hereinafter referred to as “**the Project**”), to procure and deploy new Fire Trucks and strengthen the response capabilities for fire incidences and rescue needs. This Project is consistent with the national policy of Palestine and is considered as a high priority project in the West Bank.

In response to above request, Japan International Cooperation Agency (hereinafter referred to as “**JICA**”) called for this Preparatory Survey for the grant aid (hereinafter referred to as “**the Survey**”) and dispatched the Preparatory Survey Team for the Outline Design of the Project.

1-2 Objectives of the Soft Component

The overall goal of this Soft Component (Technical Assistance) is to enhance the firefighting and rescue capabilities of PCD in the target governorates, based on the procurement plan of the firefighting equipment under the Project.

The objective consists of two components:

The first objective is to strengthen the coordination amongst CDCs/deployed firefighting units³ for firefighting and rescue operations (“**Coordination Capacity amongst Units**”⁴).

The second objective is to improve the skills of individual firefighters, as well as of a single firefighting unit, and their competence in operating the firefighting and rescue equipment, while ensuring their safety in performing their duties (“**Single Unit Capability**”⁵).

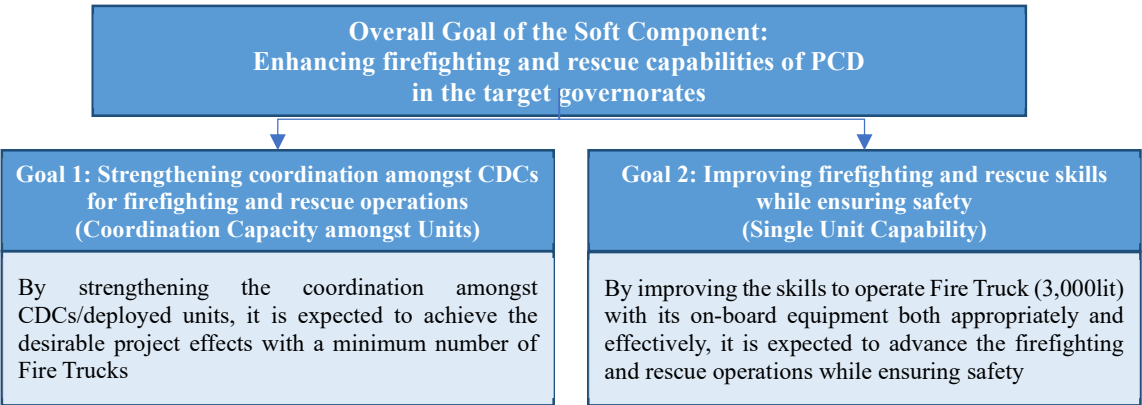


Figure 1-1 Goal and Objectives of the Soft Component

1-3 Need for the Soft Component

The background to planning the Soft Component is detailed as follows.

³ The term “firefighting unit” (single unit) used in this report refers to a team of three to five crews on a fire truck who are deployed for firefighting and rescue operations.

⁴ The term “Coordination Capacity amongst Units” in this report refers to a capability for coordinated firefighting and rescue operations amongst units. The first focus of the Soft Component is to enhance mutual cooperation amongst CDCs/units in firefighting operations by providing practical training based on the assumption that a real disaster has occurred.

⁵ The term “Single Unit Capability” refers to the capability of individual firefighter as well as a Single Unit to conduct firefighting and rescue operations. The second focus of Soft Component is on the basic operational skills of a single firefighting unit to increase the awareness regarding division duties and roles amongst crews, coordinated operations and competence in handling the fire-rescue equipment.

1-3-1 **Background behind the Plan for “Strengthening Coordination amongst CDCs/Deployed Firefighting Units”**

“Teamwork” among firefighters, in the event of disasters including fire incidents—particularly the coordination capacity amongst CDCs/deployed firefighting units (hereinafter referred to as “deployed units”)—is crucial to success in firefighting and rescue operations. Strengthening and maintaining such capability is therefore key to effective and sustainable operations of the Fire Trucks with its on-board equipment to be procured under the Project.

The background behind the plan to “Strengthen the coordination amongst CDCs/deployed units” is described below.

Fire incidents such as Grass Fire as well as House Fire where human lives may be at stake require prompt extinguishing of fires with large quantity of firefighting water. In the West Bank, approx. 3,000 – 7,000lit. of water are used to extinguish a typical house fire.

However, a minimum of only one unit of 3,000lit.-class Fire Truck is being deployed at every CDC and Support Center, except for “Central CDC⁶” located in the governorate capital of each target governorate (i.e. Ramallah CDC, Jenin CDC and Tulkarm CDC). Since the Project aims to replace the existing aged Fire Trucks with new ones (not increasing its total number), the number of Fire Trucks deployed to each CDC/Support Center will remain one unit (except for Central CDCs).

In addition, the Fire Trucks, planned to be procured under the Project, will be of a medium-size with 3,000lit. water tank capacity, considering the characteristics of the road conditions in the target governorates and the mobility of the Fire Trucks. This suggests that the districts covered by those CDCs where only one unit of Fire Truck is deployed is unable to secure the necessary water volume of 7,000lit. by a single CDC.

For this reason, PCD has an operative structure to dispatch Fire Truck(s) from nearby CDCs in support of firefighting and rescue operations in the event of fire incidents where human lives are at a risk such as House Fires. Coordination amongst CDCs/deployed units are, thus, essential for these operations.

However, there are several challenges currently faced by PCD, in fully demonstrating the comprehensive performance as firefighting unit(s), which can be summarised as follows:

- No manuals focusing on coordination amongst CDCs/deployed units are available at PCD;
- Command training based on assumed disaster scenarios has not been conducted sufficiently; and
- Trainings focusing on coordination procedures amongst CDCs/deployed units, by covering various specific types of fire (including Grass Fire and House Fire), have not been sufficiently practised.

⁶ The term “Central CDC” in each governorate used in this report is merely for a convenience to indicate that it has a greater number of Firefighting Vehicles and personnel allocated than the other local CDCs and Support Centers, and that it plays a role as a core firefighting facility within the governorate. Nonetheless, PCD refers to “Central CDC” as a Civil Defence Center and does not differentiate it from any other CDCs in terms of its name.

In other words, to enhance the competency of comprehensive firefighting techniques, it is vital to provide training opportunities focusing on coordinated operations amongst CDCs/deployed units, by setting training themes with each based on a different type of fire.

In light of the above challenges, this Soft Component aims to strengthen the coordination capacity amongst CDCs/deployed units, while using the unified Fire Trucks with its on-board equipment to be procured by the Project.

1-3-2 Background behind a Plan for “Improving Firefighting and Rescue Skills while Ensuring Safety”

PCD currently offers an induction training course for newly recruited firefighters at the Training Center in Jericho governorate (hereinafter referred to as “**PCD Training Center**”⁷), where basic knowledge required for firefighting and rescue operations are acquired, as well as utilisation of equipment are practised. However, this course is limited only to one month and it does not provide sufficient practical trainings to acquire the skills necessary for the newly recruited firefighters to make prompt response to actual disasters.

After completing the induction course, the new firefighters are posted to their assigned CDC to acquire practical skills in using the firefighting and rescue equipment, based on On-the Job Training (hereinafter referred to as “**OJT**”) from senior firefighters. However, at this moment, OJT is currently provided at CDCs without sufficient training materials covering the operational methods of Fire Trucks and on-board equipment.

In addition, since there is no standardisation in the existing Fire Trucks with their on-board equipment deployed at each CDC in terms of specifications and type of equipment available, variations in firefighters’ skills and competency in using the firefighting and rescue equipment among CDCs/deployed units are observed.

Furthermore, some disparities concerning the safe use of firefighting and rescue equipment as well as skills are noted among individuals and CDCs/deployed units. The significant difference in equipment operative skills and its competency are observed between i) those CDCs with Fire Trucks of a 1,000lit. tank capacity/aged Fire Trucks; and ii) other CDCs with relatively new Fire Trucks of a 3,000lit.-class, as the specifications of Fire Trucks and the lineup of the on-board equipment are different.

For example, when more than two CDCs/deployed units jointly conduct firefighting and rescue operations, the procedures followed are not always unified amongst them, due to the differences in the lineup of the equipment and/or in operational procedures, facing a challenge that hinders smooth and effective coordinated operations.

In light of the above issues, this Soft Component aims to develop consistency in operative skills of firefighting and rescue equipment amongst CDCs/deployed units, and also to strengthen these operational performances while ensuring safety.

⁷ Training Center located in Jericho governorate, directly operated by PCD.

Chapter 2. Goal of the Soft Component

Based on the above background, the following goal is set with a view to ensure the effectiveness and sustainability of the Project:

The goal of the Soft Component:

“Enhance the firefighting capability of PCD in the target governorates, with the use of firefighting equipment to be procured under the Project, to conduct firefighting and rescue operations effectively, while ensuring safety.”

Chapter 3. Expected Outcomes of the Soft Component

The expected outcomes upon completion of the Soft Component are as follows:

3-1 Coordination amongst CDCs/Deployed Units Is Strengthened

By focusing the technical training on operational coordination amongst CDCs/ deployed units, commanding skills of the Unit Chief, as well as coordination capability among deployed units will be strengthened, thereby ability to conduct firefighting and rescue operations in safely and effectively controlled manners will be enhanced.

3-2 Firefighting and Rescue Skills while Ensuring Safety Are Improved

The technical training, focusing on improving the operational skills of individual firefighters and of a Single Unit, will advance their proficiency in handling the unified Fire Trucks with their on-board equipment to be procured under the Project.

3-3 Training Manuals Are Made

The training manuals (hereinafter referred to as “**Manuals**”) on:

- 1) *“Improving the Skills of Firefighting and Rescue Operations while Ensuring Safety”*; and
- 2) *“Strengthening the Coordination amongst CDCs/Deployed Firefighting Units for Firefighting and Rescue Operations”*

will be made, based on i) review of PCD’s existing training materials, ii) discussion with PCD in charge of training plans and iii) on-site technical trainings of the Soft Component.

Chapter 4. Methods for Confirming the Level of Achievement in the Soft Component

4-1 Baseline Survey

The Baseline Survey will be conducted by Japanese Experts upon arrival at PCD Training Center in Jericho governorate, by carrying out both practical and paper exams to assess the training participants' current knowledge and performance level of firefighting and rescue skills as follows:

1) For Practical Test

The participants will first demonstrate an exercise by a Single Unit, and then a joint exercise by forming a group of participants from 2-3 CDCs from the same governorate, for the evaluation by Japanese Experts on a level of 1-5 based on below criteria:

- Safeness
- Level of competency in handling the firefighting and rescue equipment; and
- Level of coordination amongst CDCs/deployed units

2) For Paper Test

The participants will take paper examinations to check the current level of technical knowledge. The contents of the examinations and evaluation criteria drafted by Japanese Experts will be reviewed by PCD for discussion via video conference and then be revised prior to the Baseline Survey.

4-2 Checking the Level of Achievement of Outputs

Upon completion of classroom lecture/on-site training for each subject shown in Table 4-1, a short test will be given to check the level of understanding and achievement. The tests' results will help each participant to identify the area of weakness, and then to overcome the challenges by further self-learning/practices.

Upon completion of the entire Soft Component course, final written and practical tests are given to check the overall level of technical proficiency achieved.

The subjects/items and proposed methods for checking the level of achievement are shown in Table 4-1 below.

Table 4-1 Methods for Checking the Level of Achievement (draft)

Category		Fire Truck	Confirming the Level of Achievement	
		Contents of Technical Training	Method/Time	Passing score
Training for improving the skills of firefighting & rescue operations while ensuring safety	Traning for use of firefighting equipment	1) Procedure on fire hose extension	Conducting tests before and after the trainings	90% or more
		2) Procedure on water discharge		
		3) Procedure on hose nozzle positioning		
		4) Procedure on entering a building on fire		
	Training for use of rescue equipment	1) Rescue under rubbles		
		2) Car accident rescue		
		3) Water rescue		
Training for strengthening the coordination amongst CDCs for firefighting and rescue operations		1) Joint exercise amongst CDCs for Grass Fire		
		2) Joint exercise amongst CDCs for House Fire		
Achievement check:			Final tests (written & practical) on Day 7th (last day)	

Chapter 5. Soft Component Activities (Input Plan)

5-1 Outline of the Activities

The Soft Component consists of the i) tasks in Japan (preparing draft Manuals and lecture materials regarding the firefighting equipment to be procured under the Project); and ii) the tasks in the West Bank (conducting on-site technical training). The implementation structure is shown in Table 5-1 below.

The Manuals and lecture materials are first drafted by Japanese Experts in Japan, which will be reviewed by PCD for discussion via video conference and then be revised as the draft Manuals and materials. These drafts will be finalised by Japanese Experts after the arrival in West Bank, based on the feedback given from the on-site training.

On-site training will be carried out by Japanese Experts in collaboration with senior officers from PCD Headquarter and instructors from PCD Training Center (Jericho).

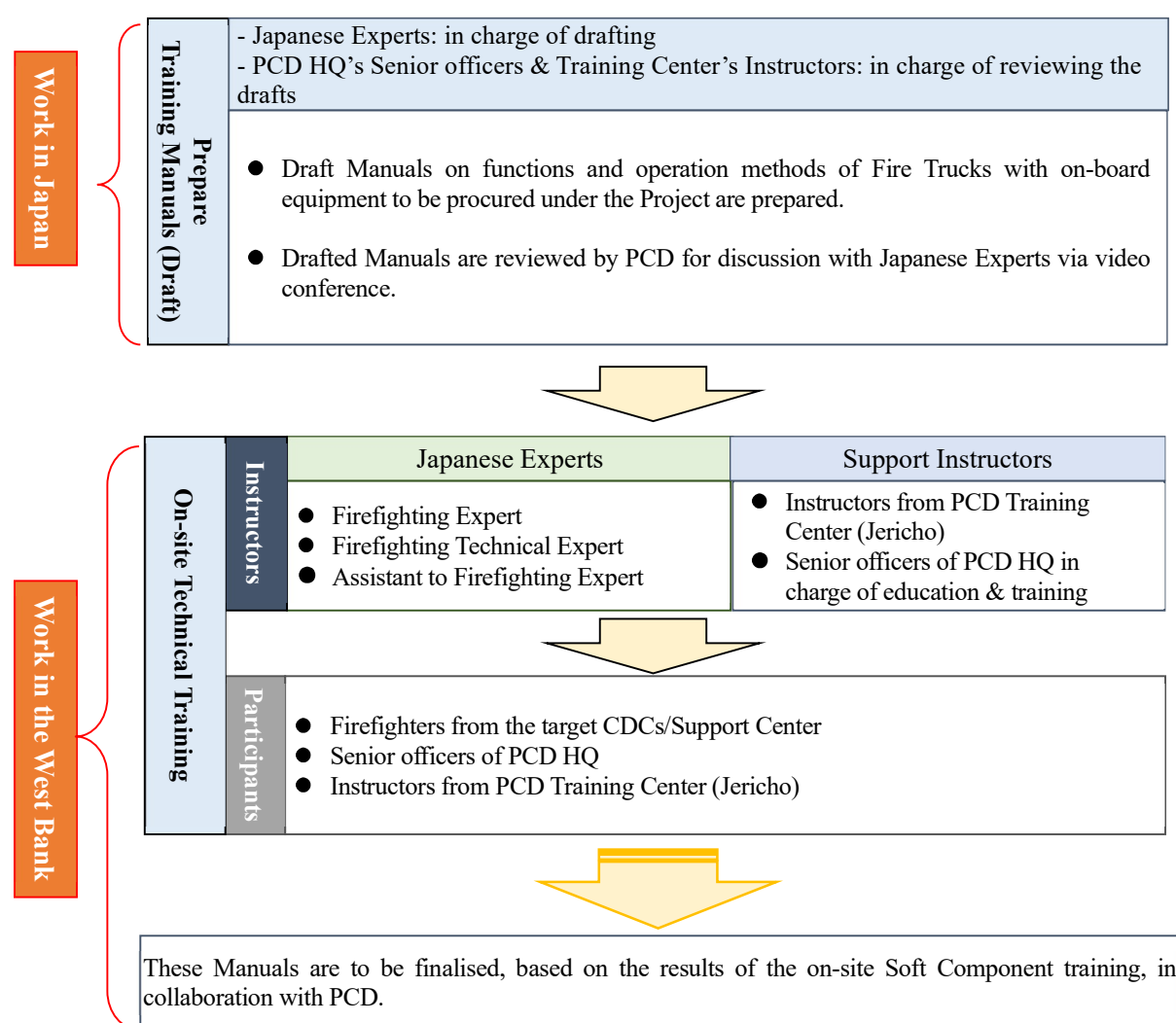


Figure 5-1 Implementation Structure of the Soft Component

5-2 Contents of the Activities

5-2-1 Prepare Training Manuals to Strengthen the Competency in Firefighting and Rescue Techniques and for Sustained Transfer of Skills

The Manuals will be made on how to effectively utilise the Fire Trucks and on-board equipment (to be procured under the Project) in PCD's firefighting and rescue operations. The aims of the manuals are (i) to strengthen the competency in firefighting and rescue techniques and (ii) to transfer the acquired skills and knowledges within PCD.

Japanese Experts will take the initiative in preparation of the draft Manuals and other training materials, while PCD will provide existing training documents for reference as well as give feedback to the drafts.

The draft table of contents for the Manuals are shown in Table 5-1 which will be finalised based on the discussion with PCD.

Table 5-1 Table of Contents for Training Manuals (draft)

Volume	Chapter	Section
Vol. 1: Training Manual on “Improving the Skills of Firefighting and Rescue Operations while Ensuring Safety” (for individuals and a Single Unit Capability)	Firefighting Operation	Procedure on fire hose extension
		Procedure on water discharge
		Procedure on positioning of hose nozzle
		Procedure on entering building on fire
	Rescue Operation	Rescue under rubble
		Car accident rescue
		Water accident rescue
Vol. 2: Training Manual on “Strengthening the Coordination amongst CDCs/deployed units for Firefighting and Rescue Operations” (Coordination Capacity amongst Units)	For Grass Fire	Joint exercise amongst CDCs for Grass Fire
	For House Fire	Joint exercise amongst CDCs for House Fire
Exams	For Firefighting operations	N/A
	For Rescue operations	N/A
	For Grass Fire	N/A
	For House Fire	N/A

5-2-2 Operation Skills of Fire Trucks and Firefighting Techniques

Fire Trucks and most of the on-board equipment (to be procured under the Project) will be of the similar types as the existing ones PCD is currently using and how to operate is familiar to PCD, therefore the Soft Component will focus on ensuring the safety of the operations.

The outline of the on-site training is shown in Table 5-2 as follows.

Table 5-2 Outline of the On-site Training

Item	Outline			
Training principle	The basic principle behind this Soft Component is to strengthen the capabilities of firefighters in the three target governorates for safely carrying out firefighting and rescue operations both as a single firefighting unit and as several coordinated units.			
Place	PCD Training Center in Jericho governorate			
No. of intended participants (firefighters) from the target governorates	From the targeted 11 CDCs and 1 Support Center: - Maximum 4 participants per CDC in principle, as long as regular operations are not compromised; or - Minimum 2 participants per CDC for those with limited no. of human resources, for the reasons stated below. - Since each CDC has 2 or 3 shifts of firefighting team(s), it is important that the number of firefighters to participate in the Soft Component shall be kept minimum in order to avoid disturbance in regular operations of each CDC. - To maximise the benefits of the Soft Component and effectively improve the firefighting and rescue capability of an individual firefighter as well as of a single unit, it is desirable for a unit of 4 usual members per CDC to participate in the training.			
Training team composition	For the trainees: 4 participants from the same CDC will form 1 training team in principle. - For those CDCs which can only send 2 participants per CDC will join 2 participants from another CDC to form a training team of 4 members. - Since a teamwork is indispensable for firefighting operations, wherever practicable, participants from the same CDC shall join the same training team. - Maximum number of participants is 20 per governorate. - The training is carried out for each governorate separately and for 7 days per governorate. For Japanese Experts: 2 Firefighting Experts and 1 Assistant to Firefighting Experts.			
Model training schedule (one rotation per governorate)	Day	Objective	Overview	Expert in charge
	Day 1	Baseline Survey	Introductory session; written & practical tests	- Firefighting Expert (in charge) - Firefighting Technical Expert (in support)
	Day 2	Improving Firefighting & Rescue Skills, while Ensuring Safety (Single Unit Capability)	Instruction on firefighting equip.: 1) Procedure on fire hose extension 2) Procedure on water discharge	- Firefighting Technical Expert (in charge) - Firefighting Expert (supervision)
	Day 3		Instruction on firefighting equip.: 1) Procedure on positioning of hose nozzle 2) Procedure on entering a building on fire	- Firefighting Technical Expert (in charge) - Firefighting Expert (supervision)
	Day 4		Instruction on rescue equip.: 1) Rescue under rubble 2) Car accident rescue	- Firefighting Technical Expert (in charge) - Firefighting Expert (supervision)
	Day 5		Instruction on rescue equip.: 1) Water accident rescue	Firefighting Technical Expert (in charge)

		Strengthening Coordination amongst CDCs/deployed units for Firefighting & Rescue Operations (Coordination Capacity amongst)		▪ Firefighting Expert (supervision)
			Joint exercise amongst neighbouring CDCs for Grass Fire	▪ Firefighting Expert (in charge) ▪ Firefighting Technical Expert (in support)
	Day 6		Joint exercise amongst neighbouring CDCs for House Fire	▪ Firefighting Expert (in charge) ▪ Firefighting Technical Expert (in support)
	Day 7		Joint exercise for chief/deputy chief amongst neighbouring CDCs	▪ Firefighting Expert (in charge) ▪ Firefighting Technical Expert (in support)
		Evaluation	Final tests (written & practical) and Wrap up session	

※ “Assistant to Firefighting Experts” will engage in the entire activities of the Soft Component to assist both the Firefighting Expert and the Firefighting Technical Expert.

5-3 Qualification of Japanese Experts and Implementing Structure

The Soft Component will be undertaken by four Japanese Experts (namely, Chief Consultant, Firefighting Expert, Firefighting Technical Expert and Assistant to Firefighting Experts); these experts shall meet the qualification described in Table 5-3.

5-3-1 Assignment of “Firefighting Expert” and “Firefighting Technical Expert”

The common selection criteria for both “Firefighting Expert” and “Firefighting Technical Expert” are to have:

- i) extensive operational experiences in firefighting and rescue operations; and
- ii) teaching experiences at Fire Academy based in Japan.

In addition, particular selection criteria to meet and type of on-site training assigned for each Expert are described as follows.

<<For Firefighting Expert>>

- a person who has teaching experiences in “unit command training” (including safety management) and in firefighting and rescue techniques.
- Firefighting Expert will be in charge of providing training for strengthening the coordination amongst CDCs/deployed units for firefighting and rescue operations.

<<For Firefighting Technical Expert>>

- a person who has i) experiences in firefighting and rescue operations of various types of disasters, including House Fire, Forest Fire and Water disaster; ii) experiences in using the on-board equipment equivalent to those equipped on the Fire Trucks to be procured

under the Project; and iii) has/had the rank of “subadar” or higher, with experiences in commanding/overseeing firefighting units in Japan.

- Firefighting Technical Expert will be in charge of training both individual firefighters and a single firefighting unit to advance their skills for firefighting and rescue operations while ensuring safety.

5-3-2 Assignment of “Assistant to Firefighting Experts”

Since the Soft Component training is to be conducted in high places, with the handling of hazardous materials involved such as fire and heavy objects, it is necessary to establish a safety management system to prevent occurrence of accidents during the training.

Therefore, an “Assistant to Firefighting Experts” will be deployed to ensure safety during the training. Such assistant shall be selected based on whether this person has experiences engaged in supervisory tasks on initial operational trainings and Soft Components in the firefighting sector.

As the “Assistant to Fire Experts” will also be in charge of finalising the Manuals during the Soft Component implementation in the West Bank, same personnel shall be engaged in the preparation of the draft Manuals in Japan from the initial stage of its development to make it most efficient and keep coherence.

5-3-3 Dispatch of Japanese Interpreters (Japanese-Arabic languages)

For this particular Soft Component plan, a Japanese interpreter (Japanese-Arabic languages) will be deployed for the following reasons.

- i) Unable to find suitable candidates for Japanese Firefighting Experts who have good command in English or Arabic, while meeting the qualifications shown in Table 5-3. As a result, a Japanese-Arabic interpreter is necessary to be dispatched from Japan, together with the Japanese Firefighting Experts to the West Bank to provide interpretation service during the Soft Component training.
- ii) Given that Soft Component training involves exercises in high places, with the handlings of fire, hazardous materials and heavy objects involved, it is indispensable to create a training environment which enables accurate and smooth communications between the Japanese Fire Experts and the trainees.
- iii) In order to mitigate potential risk of injuries amongst all members concerned and/or any damages to property/equipment as a result of mis-communication, as well as to conduct the training safely, a Japanese-Arabic Interpreter shall be deployed from Japan to the West Bank.

Table 5-3 Experts in Charge and Selection Criteria

Expert in Charge	Criteria for Selection
Chief Consultant (Grade 2)	Chief Consultant of the existing Preparatory Survey
Firefighting Expert (Grade 3)	A person who has: – extensive knowledge and practical experiences in the field of firefighting & rescue operations; and – teaching experiences at Fire Academy in Japan for: i) firefighting and rescue techniques; ii) “unit command training” (including safety management); and iii) technical training regarding “improvement of coordination capacity amongst CDCs/deployed units” at Fire Academy.
Firefighting Technical Expert (Grade 3)	A person who has: – practical experiences in the field of rescue from House Fire, Forest Fire, Car Accidents and Water Disaster; – experiences in firefighting and rescue operations, while using on-board equipment equivalent to the ones to be procured under the Project; and – (has/had) “subadar” or higher rank, with experiences in commanding/overseeing firefighting unit(s) in Japan.
Assistant to Firefighting Experts (Grade 3)	A person who has experiences in: – supervising the initial operational trainings and Soft Component trainings in firefighting sector of JICA’s grant aid Projects; and – developing plans for technical training in this sector.
Interpreter (Japanese-Arabic) (Grade 4)	A person who has experiences engaged in JICA’s survey projects, as an Arabic interpreter.

5-4 Intended Participants of the Soft Component

In order to achieve each of the goals set in the Soft Component, intended training participants for each course are summarised as per Table 5-4.

For the course on “*Strengthening Coordination amongst CDCs for Firefighting and Rescue Operations (Coordination Capacity amongst Units)*”, primary intended participants are i) Chief/Deputy Chief or Captain in charge of commanding firefighting units from the target CDCs⁸; ii) Senior Officials from PCD Headquarter (in charge of planning trainings); and iii) firefighters from the target CDCs.

Meanwhile, the course on “*Improving Firefighting & Rescue Skills while Ensuring Safety (Single Unit Capability)*”, firefighters from the target CDCs are primarily eligible to participate.

For both courses mentioned above, the Instructors from PCD Training Center (Jericho) are

⁸ Target CDCs in this report refers to 11 Civil Defense Centers and 1 Support Center in 3 target governorates, which are expected to receive the equipment to be procured under the Project.

mandatory to participate (for the classroom lectures and the on-site technical trainings).

Table 5-4 Intended Participants of the Soft Component

Course/ Activity Item	Mode of Participation	Target Participants	
Strengthening Coordination amongst CDCs for Firefighting & Rescue Operations (Coordination Capacity amongst Units)	Mandatory participation	Chief/Deputy Chief, or Captain from the target CDCs	Approx. 12 persons
		Senior officials of PCD HQ, in charge of planning education/training for firefighting and rescue operations	2~3 persons
		Instructors from PCD Training Center (Jericho governorate)	2~3 persons
		Firefighters from the target CDCs	Max. of 48 persons (12 CDCs × 4 persons* from each CDC) [*Note: At least 2 persons shall participate from each CDC.]
Improving Firefighting & Rescue Skills, while Ensuring Safety (Single Unit Capability)	Mandatory participation	Firefighters from the target CDCs	Max. of 48 persons (12 CDCs × 4 persons from each CDC) [*Note: At least 2 persons shall participate in it from each CDC.]
		Instructors from PCD Training Center (Jericho governorate)	2~3 persons
	Participation where possible	Senior officials of PCD HQ, in charge of planning education/training for firefighting and rescue operations	2~3 persons
	Optional participation	Chief or Deputy Chief from the target CDCs	Approx. 12 persons
Total number of participants expected:			Between 40~70 persons

Chapter 6. Human Resource Procurement to Implement the Soft Component

6-1 Procurement Methods for Human Resources

Since there are no West Bank-based experts or organisations specialised in firefighting and rescue sector eligible to serve as instructors for the Soft Component training, a direct technical support from the nominated Japanese Consultant together with the qualified former Japanese firefighters is planned.

6-2 Staffing Plan

6-2-1 Works to be Carried Out in Japan

In the Soft Component, the Manuals, as described in “*Chapter 3-3 Training Manuals are Made*”, will be prepared which will first be drafted in Japan prior to conducting the on-site technical training at PCD Training Center in Jericho governorate.

The materials to be used for the Baseline Survey will also be prepared in Japan.

Staffing plan for the tasks to be completed in Japan is shown as follows in Table 6-1.

Table 6-1 Staffing Plan (Tasks in Japan)

Expert in Charge	Major Tasks	Assignment Duration
Chief Consultant (Grade 2)	➤ Meetings with PCD (several times: total 1 day) ➤ Summarise the policy for Manuals (0.5 day) ➤ Review and proofread the draft Training Manuals (1 day) ➤ Prepare Baseline Survey sheets and performance tests (0.5 day)	3 days (0.15P/M ⁹)
Firefighting Expert (Grade 3)	➤ Gather and compile the materials related to coordination amongst CDCs/deployed units, for preparing the Manuals (3 days) ➤ Prepare Baseline Survey sheets and performance tests (1 day) ➤ Meetings with PCD (several times: total 1 day)	5 days (0.25P/M)
Firefighting Technical Expert (Grade 3)	➤ Gather and compile the materials related to firefighting and rescue techniques for the on-board equipment to be procured under the Project, for preparing the Manuals (3 days) ➤ Prepare Baseline Survey sheets and performance tests (1 day) ➤ Meetings with PCD (several times: total 1 day)	5 days (0.25P/M)
Assistant to Firefighting Experts (Grade 3)	➤ Main person in charge of drafting the Manuals, based on the materials gathered by Firefighting Experts (2 days) ➤ Compile the existing Manuals currently used by PCD (1 day) ➤ Meetings with PCD (several times: total 1 day) ➤ Main person in charge for drafting Baseline Survey sheets & performance tests (1 day)	5 days (0.25P/M)
Total Assignment Days		18 days (0.90P/M)

6-2-2 Works to be Carried Out in the West Bank

The Soft Component training (both classroom lectures and on-site technical training) will be

⁹ “P/M” stands for Person-Month.

conducted in PCD Training Center in Jericho governorate, using the draft Manuals prepared in advance in Japan.

The Japanese Consultant team consisting of “Firefighting Expert”, “Firefighting Technical Expert” and “Assistant to Firefighting Experts”, together with a Japanese interpreter, will be dispatched to the West Bank for the training implementation.

The major tasks to be undertaken by each member and their assignment duration are summarised as follows in Table 6-2.

Table 6-2 Major Tasks to be Undertaken by Japanese Experts and Assignment Duration

Expert in Charge	Major Tasks	Assignment Duration
Firefighting Expert (Grade 3)	➤ Provide technical training on “strengthening coordination amongst CDCs/deployed units” for firefighting & rescue operations in the target governorates (Enhancing Coordination Capacity amongst Units) ➤ Work in pair to support “Firefighting Technical Expert”, during technical training on “firefighting and rescue techniques” ➤ Provide technical feedback during the finalisation of the Manuals ➤ Conduct both classroom lectures and practical training ➤ Compile basic data necessary for preparing performance tests ➤ Evaluate the performance test results	3 days (travel day) 30 days (working day) <u>Total days = 33 days</u> (1.10P/M)
Firefighting Technical Expert (Grade 3)	➤ Provide technical training on “improving the skills for effective & safe use of the Fire Trucks and on-board fire-rescue equipment to be procured under the Project” (Enhancing Single Unit Capability). ➤ Work in pair to support “Firefighting Expert” during technical training on strengthening coordination amongst CDCs/deployed units ➤ Give technical feedback during the finalisation of the Manuals ➤ Conduct both classroom lectures and practical training ➤ Compile basic data necessary for preparing performance tests ➤ Evaluate the performance test results	3 days (travel day) 30 days (working day) <u>Total days = 33 days</u> (1.10P/M)
Assistant to Firefighting Experts (Grade 3)	➤ Main person in charge of finalising the Manuals, based on the feedback obtained during the on-site technical training ➤ Assist the Firefighting Experts during the technical training ➤ Prepare necessary documents related to the Soft Component ➤ Prepare the performance tests ➤ Compile the performance tests results ➤ In charge of safety management ➤ Confirm the completion of the on-site technical training	3 days (travel day) 35 days (working day) <u>Total days = 38 days</u> (1.27P/M)
Interpreter (Japanese-Arabic) (Grade 4)	➤ Provide Japanese-Arabic interpretation service for the two Firefighting Experts	3 days (travel day) 30 days (working day) <u>Total days = 33 days</u> (1.10P/M)
Total Assignment Days		137 days (4.57P/M)

6-2-3 Inputs from the Palestinian Side

The human resources to be provided for the Soft Component from the Palestinian side is shown in Table 6-3.

Table 6-3 Personnel Deployed from the Palestinian Side for the Soft Component

In charge	Intended personnel in charge	No. of person	Duration
Logistical & administrative supports (gather participants; secure/prepare classrooms and training grounds; and supply fuel, water and any other necessary items/materials.)	➤ Senior officials in charge of training & logistical support at PCD HQ ➤ Administrative staff at PCD Training Center (Jericho governorate)	Several persons	Approx. 1 month
Participating in the on-site technical training	➤ Senior officials of PCD HQ, in charge of planning education/training for firefighting and rescue operations ➤ Instructors from PCD Training Center (Jericho governorate) ➤ Chief/Deputy Chief and selected firefighters from the target CDCs	40~70 persons ※	Approx. 1 month

※ Details of the intended participants and its number are described in “Table 5-4: Intended Participants of the Soft Component”

Chapter 7. Implementation Process of the Soft Component

7-1 Implementation Details and Schedule

The Soft Component comprises of the tasks to be conducted in Japan and in the West Bank. The preparation of lecture materials and paper tests in Japan prior to dispatching the Japanese Experts, will reduce both the length of their stay in the West Bank and the project costs.

7-1-1 Preparatory Works in Japan

Prior to commencing the works in the West Bank, the lecture materials and test papers drafted in Japan will be discussed and agreed with PCD through means of video conference in advance.

Senior officials of PCD HQ and instructors from PCD Training Center shall study the prepared materials in advance for the smooth implementation of the Soft Component.

7-1-2 Works in the West Bank

On-site technical trainings of the Soft Component will be implemented at PCD Training Center in Jericho governorate, using the draft Manuals and the tests prepared in Japan.

The implementation schedule in the West Bank is shown as follows in Table 7-1.

[illegible]

Chapter 8. Deliverables of the Soft Component

The followings are the list of deliverables of the Soft Component:

- 1) Soft Component Completion Report
- 2) Progress Reports
 - i) Progress Report for the Executing Agency (PCD); and
 - ii) Work Progress Report (for JICA).

Note: This “Work Progress Report” shall be submitted to JICA on 15th or 16th day of the on-site training (straight after the day of completing the technical training for target CDCs in Ramallah governorate) as indicated in Table 7-1.

- 3) Training Manuals
- 4) Lecture Materials
- 5) Any other collected information and materials related to the Soft Component

8-1 Soft Component Completion Report

A “Soft Component Completion Report”, shall be prepared as a deliverable in accordance with the “Soft Component Guidelines of JICA (4th Edition)” as indicated in 1) above. This report shall include the following documents.

- Activity logs (including Photographs) during the Soft Component implementation
- Final Soft Component Report
- Result of the Baseline Survey
- Result of the achievement confirmation tests

8-2 Progress Report

The Progress Report written in English shall be delivered to PCD, while the Work Progress Report in Japanese shall be delivered to JICA.

8-3 Training Manuals

Below are the tentative titles of the Training Manuals to be prepared in Arabic language:

- <Volume 1> Training Manual on “Improving the Skills of Firefighting and Rescue Operations while Ensuring Safety” (for individuals and a Single Unit Capability)
- <Volume 2> Training Manual on “Strengthening the Coordination amongst CDCs/deployed units for Firefighting and Rescue Operations” (Coordination Capacity amongst Units)

8-4 Collected Materials

Photographs taken and the materials collected during the Soft Component implementation shall be compiled as part of the deliverables (in Arabic language).

Chapter 9. Responsibilities of the Executing Agency in Palestine

In order to achieve the goals of the Soft Component, the responsibilities described below shall be fulfilled by PCD.

9-1 During the Soft Component Implementation

During the implementation of the Soft Component, PCD shall cooperate with the Japanese Experts regarding the following matters (see, Table 6-3):

- Select and gather participants of the Soft Component training, as well as cover the personnel expenditures and the travel expenses of the participants;
- Arrange fuel and water (for the Fire Trucks), scrap woods (for fire simulation) as well as scrapped vehicles and dummy dolls (for rescue training);
- Accommodate PCD Training Center in Jericho governorate as the venue for the on-site technical training of the Soft Component (e.g. class rooms and training ground); and
- Provide all necessary support to the Japanese Experts during the implementation of the Soft Component, including ensuring the safety of the experts.

9-2 After Implementation of the Soft Component

After the implementation of the Soft Component, PCD shall be responsible to carry out the following matters:

- Continuously utilise the firefighting and rescue skills acquired through the Soft Component;
- Transfer the acquired skills/techniques within PCD, by using the Training Manuals made in the Soft Component.

In particular, the instructors from PCD Training Center in Jericho governorate and the senior officials of PCD HQ shall take the initiative to improve the firefighting capacity of the entire PCD across the West Bank, by providing technical training equivalent to the contents of the Soft Component to firefighters who have not participated in the Soft Component; and

- Improve firefighting capacity of the entire PCD through the use of the equipment to be procured under the Project.

Appendix-6 Current Conditions of Garages and Necessity for Garage Construction

CDC Name	Garage Photos	Current Conditions	Necessity of Renovation/ Construction of Garage	Requested No. of Fire Truck (Unit)
Ramallah Governorate				
Ramallah (Betounia) CDC		Existing garage is parked by Ladder Trucks	New garage with roof is required (for 2 units of Fire Trucks)	2
Al-Bireh CDC		No roofed garage	New garage with roof is required	1
Birzeit CDC		Roofed garage available	Not required	1
Abwein CDC		No roofed garage	New garage with roof is required	1

CDC Name	Garage Photos	Current Conditions	Necessity of Renovation/ Construction of Garage	Requested No. of Fire Truck (Unit)
Jenin Governorate				
Jenin CDC		Roofed garage available	Not required	1
Siris CDC		Existing roof structure is not strong and tall enough	Re-building the roof is required	1
Ya'bad CDC		Existing roof structure is not strong and tall enough	New garage with roof is required. To be constructed beside the existing garage (or by demolishing the existing garage)	1
Qabatiya CDC		Existing garage with roof is not tall enough	New garage with roof is required.	1
Jaba Support Center		Roofed garage available but its ground is not properly paved	Re-pavement of the garage ground is required	1

CDC Name	Garage Photos	Current Conditions	Necessity of Renovation/ Construction of Garage	Requested No. of Fire Truck (Unit)
Tulkarm Governorate				
Tulkarm CDC		Roofed garage available	Not required	2
A'ttil CDC		Roofed garage available	Not required	1
Anabta CDC		Roofed garage available	Not required	1

Appendix-7 Reference

No.	Document Title	Type	Original/Copy	Publisher	Publishing Year
1	2017 - 2022 National Policy Agenda	Document	Electronic data	Palestinian Authority	2017
2	Security Sector Strategic Plan	Document	Electronic data	Palestinian Authority	2017
3	Public Policies 2021 - 2023	Document	Electronic data	Palestinian Authority	2021
4	Civil Defence Law No. 3 of 1998	Document	Electronic data	Palestinian Authority	1998
5	Decision of the Minister of Interior No. 1 of 2011 on the Regulation of the Work of Volunteers in Operations of the Palestinian Civil Defence	Document	Electronic data	Palestinian Authority	2023
6	Palestinian Civil Defense Development Plan 2017-2022	Document	Electronic data	Palestinian Civil Defense (PCD)	2017
7	Projects Priority List for Civil Defense 2021-2023	Document	Electronic data	PCD	2021
8	PCD Annual Report (2017, 2018, 2019, 2020, 2021, 2022)	Document	Electronic data	PCD	2017~2022
9	USAR Development Plan	Document	Electronic data	Urban Search & Rescue Team (USAR) in Palestine	2018
10	Organogram for PCD	Document	Electronic data	PCD	2023
11	Map of Civil Defence Centers Geographical Distribution	Document	Electronic data	PCD	2023
12	List of Vehicles by Donor	Document	Electronic data	PCD	2023
13	EU provides rapid response and support vehicles and equipment for PCD	Document	Electronic data	The European Union	2015
14	Capacity Building Programme and Provision of Firefighting and Rescue Vehicles (Press Release)	Document	Electronic data	The European Union	2016

No.	Document Title	Type	Original/Copy	Publisher	Publishing Year
15	Fire and Rescue Statistics (2019 - 2022)	Document	Electronic data	PCD	2019~2022
16	Annual Budget Sheets (2018 - 2022)	Document	Electronic data	PCD, Central Financial Administration, Ministry of Finance	2023
17	Maintenance Expenses for Firefighting Vehicles	Document	Electronic data	PCD	2023
18	PCD's Responses to the Questionnaires (1st field survey)	Document	Electronic data	PCD	2023
19	Field Questionnaires at CDCs	Document	Copy	Target CDCs and INGEROSEC	2023
20	Procedure Manuals for Central Operations and Local Operations	Document	Electronic data	PCD	2022
21	Projected Mid-Year Population by Locality 2017 - 2026	Document	Electronic data	Palestinian Central Bureau of Statistics	2021
22	Groundwater Quality of Drinking Water Wells in the West Bank, Palestine	Document	Electronic data	MDPI	2022
23	Think Hazard in West Bank and Gaza	Document	Electronic data	World Bank and other donor agencies	2021
24	GIS-based Flood Hazard Mapping West Bank by Sameer 2019	Document	Electronic data	An-Najah University Journal for Research	2019
25	National Water and Wastewater Strategy for Palestine	Document	Electronic data	Palestinian Water Authority	2013
26	Training Material Series for Firefighting and Rescue Services	Document	Electronic data	PCD	2020
27	Syllabus of Civil Defense	Document	Electronic data	PCD	2020
28	Fire Hydrant Location Map	Document	Electronic data	PCD	2023
29	Developing National Capability for the Palestinian Civil Defence	Document	Electronic data	British Support Team	2022

No.	Document Title	Type	Original/Copy	Publisher	Publishing Year
30	Logbooks of Fire Fighting and Rescue vehicles	Document	Copy	Civil Defence Centers in Ramallah, Jenin and Tulkarem governorates	2023
31	Dispatchment Records	Document	Copy	Civil Defence Centers in Ramallah, Jenin and Tulkarem governorates	2023
32	Incoming Call Memo	Document	Copy	Civil Defence Centers in Tulkarem governorate	2023
33	Fire and rescue incidents in Ramallah, Jenin and Tulkarem governorates	Photograph and Video	Electronic data	PCD	2023
34	Safety and Environmental Protection Regulations for Motor Vehicles Manufactured According to European Union Directives (Nov. 2022 Revision) in Israeli Mandatory Requirements	Document	Electronic data	Ministry of Transport and Road Safety of Israel	2022
35	Road Traffic Ordinance Amendment Law No. 130, 5782 - 2022	Document	Electronic data	Ministry of Transport and Road Safety of Israel	2022