The Republic of Iraq

# DATA COLLECTION AND COMMUNICATIONS STRATEGIES SURVEY ON PUBLIC INFRASRUCTURE PROJECTS IN THE REPUBLIC OF IRAQ

# FINAL REPORT

November 2019

JAPAN INTERNATIONAL COOPERATION AGENCY

**CROWN AGENTS JAPAN LIMITED** 

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Location Map of Target Projects of the Survey

#### Kurdistan Region

- Water Supply Improvement Project in Kurdistan Region
- Project Horticulture Technology Improvement and Extension
- Electricity Sector Reconstruction Project in Kurdistan Region
- Deralok Hydropower Plant Construction Project

- Basrah Governorate
- Khor Al-Zubair Fertilizer Plant
   Rehabilitation Project
- Port Sector Rehabilitation Project
- Hartha Thermal Power Station
- Rehabilitation Project
- All Iraq / Multiple Regions
- Project for Sustainable Irrigation Water Management through Water Users Associations
- Irrigation Sector Loan

Photos



#### Shots from Short Films









Electricity Sector Reconstruction Project in Kurdistan Region : overview Central Training Centre

This building was rehabilitated by JICA in the beginning of 2017.



Electricity Sector Reconstruction Project in Kurdistan Region : Deralok Hydropower Plant Construction Electricity Sector Reconstruction Project in Kurdistan Region : human element carpenter



Electricity Sector Reconstruction Project in Kurdistan Region : influencer's visit









### Abbreviations

BBG	Broadcasting Board of Governors
ISIL	Islamic State in Iraq and the Levant
KOICA	Korean International Cooperation Agency
kWh	Kilowatt-hour
lcd	liters per capita per day
NRW	Non-Revenue Water
O&M	Operation and Maintenance
ODA	Official Development Assistance
UNDP	United Nations Development Programme

## Currency

Iraqi Dinar (ID)	ID1.00 = ¥0.090790
US Dollar (US\$)	US\$1.00 = ¥107.990
(JICA official r	rate / Oct 2019)

### DATA COLLECTION AND COMMUNICATIONS STRATEGIES SURVEY ON PUBLIC INFRSTRUCTURE PROJECTS IN THE REPUBLIC OF IRAQ

#### **Final Report**

#### **Table of Contents**

Location Map of Target Areas of the Survey Abbreviations Table of Contents

1.	Outlin	ne of Study	1						
1.1	Back	ground of Study	1						
1.2	Objectives of Study								
1.3	Scope of Study2								
1.4	Study Schedule								
1.5	Study	y Implementation Structure	4						
2. F	Public	Works in Iraq	6						
2.1	Minis	stry of Electricity in the Government of Iraq	6						
2.	1.1	System for Electricity Charges	6						
2.	1.2	Status of the Collection of Electricity Charges	14						
2.	1.3	Operations and Maintenance Systems for Electric Power Infrastructure	16						
2.	1.4	Budgetary Provision for O&M of Electric Power Infrastructure	16						
2.2	Regio	onal Ministry of Electricity in Kurdistan	17						
2.	2.1	System for Electricity Charges	17						
2.	2.2	Status of the Collection of Electricity Charges							
2.	2.3	Operations and Maintenance System for Electric Powewr Infrastructure							
2.	2.4	Budgetary Provision for O&M of Electric Power Infrastructure							
2.3	Minis	stry of Construction, Housing and Municipalities and Publiv Works							
2.	3.1	System for Water and Sewerage Charges							
2.	3.2	Status of the Collection of Water and Sewerage Charges							
2.	3.3	O&M Systems for Water Supply and Sewerage Infrastructure							
2.	3.4	Budgetary Provision for O&M of Water Supply and Sewerage Infrastructure							
2.4	Regio	onal Ministry of Municipalities and Tourism in Kurdistan	35						
2.	4.1	Systems for Water Supply Charges							
2.	4.2	Status of Collection of Water Supply Charges							
2.	4.3	O&M Systems for Water Supply and Sewerage Infrastructure	40						
2.	4.4	Budgetary Provision for O&M of Water Supply and Sewerage Infrastructure	41						

2
3
3
6
5

4. Findings and Recommendations ......60

#### Annex

- 1. Field Survey Schedule
- 2. Questionnaire
- 3. Data Analysis
- 4. Offline Screening Event Invitation and Agenda sample
- 5. List of invited government representatives

#### List of Figures

Fig.1.4-1	The Study Flowchart	5
Fig.1.5-1	Implementation Structure for the Study	4
Fig.2.1-1	Ratio of subscribers at each distribution company	9
Fig.2.1-2	Ratio of subscribers by 5 categories of electricity charge	9
Fig.2.1-3	Ratio of electricity users at each distribution company	11
Fig.2.1-4	Ratio of electricity users by 5 categories of electricity charge	11
Fig.2.1-5	Ratio of unofficial customers at each distribution company	13
Fig.2.1-6	Ratio of unofficial custmers by 5 categories of electricity charge	13
Fig.2.2-1	Ratio of subscribers at each distribution company	19
Fig.2.2-2	Ratio of subscribers by 5 categories of electricity charge	19
Fig.2.2-3	Ratio of 5 rate categories in Erbil directorate	20
Fig.2.2-4	Ratio of 5 rate categories in Duhok directorate	20
Fig.2.2-5	Ratio of 5 rate categories in Sulaymaniyah directorate	20
Fig.2.2-6	Ratio of 5 rate categories in Garmian directorate	20
Fig.2.3-1	Number of subscribers to water supply at each directorate	28
Fig.2.3-2	Ratio of subscribers to water supply by 3 types	28
Fig.2.3-3	Transition in collected water supply charges and sewerage charges	29
Fig.2.3-4	Ratio of water supply charge against total charge collection	29
Fig.2.3-5	Ratio of water supply charge in total cost	31
Fig.2.3-6	Ratio of sewerage charge in total expenditure	32
Fig.2.4-1	Ratio of subscribers in each directorates	36
Fig.3.2-1	Response to "What were the aspects that caught your attention in terms of JICA's work?"	57
Fig.3.2-2	Response to "what extent did the screening help to increase your confidence in the govern	ment
	efforts to provide similar services?"	57
Fig.3.2-3	Response to "In your opinion, what is the role of the government in sustaining such proje	cts?"
Fig 3 2-1	Response to "After the screening how do you rate your role as a citizen in sustaining t	58 these
1 lg.J.2-4	projects?"	58
Fig 3 2-5	Response to "How do these projects influence your perception of the importance of pa	oo
8.0.2 0	taxes and bills for obtaining public services?"	
Fig.3 2-6	Response to "To the extent of your knowledge and/or based on the video screening n	lease
16.5.20	describe the impact of IICA's work on you and in Iraa?"	59
	accente in input of storie work on you and in hug.	

#### List of Tables

Table1.3-1	Target ODA Loan/Technical Cooperation Projects	3
Table 2.1-1	Rate of Electricity Charge : Government of Iraq	6
Table 2.1-2	Four General Electricity Distribution Companies and 17 Directorates	7
Table 2.1-3	Number of Subscribers to Electricity Distribution in Each Directorate	8
Table 2.1-4	Number of Electricity Users and Ratio of Subscribers	10
Table 2.1-5	Number of Unofficial Consumers and Ratio	12
Table 2.1-6	Electricity Rates: Comparison with Prior Electricity Rates	14
Table 2.1-7	Electricity Supply Cost Recovery Structure	14
Table 2.1-8	Electricity Supply Cost Structure	15
Table 2.2-1	Rate for Electricity Charges : Kurdistan Regional Government	18
Table 2.2-2	Directorates and Number of Subscribers to Electricity Distribution	18
Table 2.2-3	Ratio of the Five Rate Categories Comprising the Total Amount Collected	20
Table 2.2-4	Comparison of Electricity Rates	21
Table 2.2-5	Electricity Supply Cost Recovery Structure:Kurdistan Regional Government	22
Table 2.2-6	Electricity Supply Cost Structure	23
Table 2.3-1	Rate for Water and Sewerage Charges	26
Table 2.3-2	Water Supply Directorates and the Number of Subscribers to Water Supply	27
Table 2.3-3	Transition in Collected Water Supply Charges and Sewerage Charges	29
Table 2.3-4	Comparison of Previous and Current Rates of Water Supply Charges	30
Table 2.3-5	Ratio of Total Amount Collected against Total Expenditure for Water Supply	31
Table 2.3-6	Ratio of Total Amount Collected against Total Expenditure for Sewerage	32
Table 2.3-7	Estimated Amount of Charges for Water Supply and Total Amount Collected	33
Table 2.4-1	Rate for Water Supply Charges : Kurdistan Regional Government	36
Table 2.4-2	Directorates of Water Supply and Sewerage and Number of Subscribers	36
Table 2.4-3	Water Supply and Sewerage Rate Comarison	
Table 3.1-1	Target ODA Loan / Technical Cooperation Projects Outline	42
Table 3.2-1	Short Film Brakedown	44
Table 3.2-2	Number of Followers of Social Media in Iraq	47
Table 3.2-3	KPIs to Uploaded Videos at JICA Iraq Office Facebook Page in Total	50
Table 3.2-4	KPIs to Uploaded Videos at JICA Iraq Office Facebook Page per Video	50
Table 3.2-5	KPIs to Disseminated Videos to Civil Groups in Total	51
Table 3.2-6	KPIs to Disseminated Videos to Civil Groups per Video	51
Table 3.2-7	Metrics for Each Institution's Facebook Page Followers	52
Table 3.2-8	Effect of Facebook Advertising	53
Table 3.2-9	Results of Offline Event	56

#### 1. Outline of Study

#### 1.1 Background to Study

In Iraq, due to the effects of three wars since the 1980s and long-term economic sanctions, much of the socio-economic infrastructure has been disrupted or deteriorated, causing a remarkable decline in public services. At a conference held in Madrid in 2003, Japan announced support for reconstruction in Iraq of up to 5 billion USD, including the implementation of grant assistance for the provision of emergency infrastructure (1.5 billion USD), ODA (Official Development Assistance) loan projects for mid-term support for reconstruction and development (3.5 billion USD), and technical cooperation for training courses for a total of 9,600 people or more. Regarding the socio-economic infrastructure, including the 3.5 billion USD ODA loan projects mentioned above, Japan has been engaged in 31 projects in various fields such as electricity, water supply/sanitation, and irrigation, and has contributed more than 830 billion yen in total.

The Government of Iraq has gradually improved public services by promoting the development of socioeconomic infrastructure through various projects including the ODA projects, yet the people of Iraq have little awareness or satisfaction regarding public services, which causes social insecurity seen as the poor ratio of the collection of public utility charges, and civil unrest due to dissatisfaction with public services.

One of the reasons why the relevant government agencies cannot set about raising public utility charges is that the public works and the development of infrastructure being implemented by the fovernment have not been well perceived by the citizens. Due to the lack of such understanding, the gradual improvement of public sevices is not widely recognized, and this is not leading to an awareness of or motivation toward the payment of public utility charges. Also, while it is necessary for the government of Iraq to promote awareness-raising activities that encourage the awareness of the people with regard to public works and public utility charge payments, efficient and effective PR and awareness-raising activities are not being performed, which carries the risk of fostering antagonism among the people of Iraq.

From the perspectives of infrastructure management, operations and maintenance and regional stability and national reconstruction and development, an important and unavoidable challenge for the government of Iraq, which is promoting the development of socio-economic infrastructure under the National Development Plan (2018 - 2022), is to encourage an understanding of public works among the people of Iraq and to improve their awareness of public utility charge payments. Raising the understanding and awareness of the people regarding these projects by means of initiatives by the Government of Iraq will lead to the promotion of JICA development cooperation project implementation and an improvement in development outcomes from the perspectives of improving the collection ratio of public utility charges and securing the budget for management, operations and maintenance.

This study aims to identify the status of public utility charges and public infrastructure management,

operations and maintenance in Iraq, to contribute to initiatives related to securing the expenses needed by agencies that implement public services for awareness-raising activities and operations and maintenance, and to improve the development outcomes of JICA development and cooperation projects.

#### 1.2 Objectives of Study

# **1.2.1** Public utility charges and public infrastructure management, operations and maintenance study

- In order to make public infrastructure management, operations and maintenance sustainable and stable, it is necessary to cover the expenses needed for management, operations and maintenance by means of public utility charges in compensation for the supplied services. Also, setting appropriate public utility charges and reliably collecting the public utility charges is the basis of securing management, operations and maintenance expenses by means of public utility charges. In order to do so, it is necessary to improve the common understanding of public works and the development of infrastructure, and to raise motivation toward public utility charge payments. The present status of public utility charges payment and public infrastructure management, operations and maintenance in Iraq is being identified with the aim of contributing to initiatives by the Government of Iraq to promote the improvement of the relevant understanding and motivation. The main study items are as follows.
- System for public utility charges
- Status of public utility charge collection
- > Public infrastructure management, operations and maintenance systems
- Structure of budget for public infrastructure management, operations and maintenance

#### **1.2.2** Special study for PR related to public works

This study, which covers the six ODA loan projects and two technical cooperation projects shown in Table 1, verifies the initiatives and methods used to gain the understanding of local people regarding public works, and the connection between these awareness-raising activities, the collection of public utility charges and management, operations and maintenance. The results of this are presented to Iraq governmental agencies with the aim of promoting awareness-raising activities by individual implementing agencies and formulating policies to secure operations and maintenance costs, as well as improving the development outcomes of JICA development and cooperation projects in Iraq.

#### 1.3 Scope of Study

**1.3.1** Study of public utility charges and the management, operations and maintenance of public infrastructure assets

(1) Sector

- ➢ Electricity
- ➢ Water supply
- (2) Target agencies
  - ➢ Government of Iraq
    - Ministry of Electricity
    - Ministry of Construction, Housing, and Municipalities and Public Works
  - Kurdistan Regional Government
    - Regional Ministry of Electricity in Kurdistan
    - Regional Ministry of Municipalities and Tourism in Kurdistan

#### 1.3.2 Special study of PR related to public works

Information gathering and analyses have been conducted regarding plans for awareness-raising activities by the Government of Iraq, the implementation status of those plans, and the recognition of public works among local people with regard to public works including the ODA loan and technical cooperation projects shown in Table 1.3-1

ODA Loan : Irrigation Sector Loan				
Year of L/A : 2008 JPY9,500 mil				
ODA Loan : Khor Al-Zubair Fertilizer Plant Rehabilitation Project				
Year of L/A : 2008 JPY18,100 mil				
ODA Loan : Port Sector Rehabilitation Project				
Year of L/A : 2008 JPY30,200 mil				
ODA Loan : Electricity Sector Reconstruction Project in Kurdistan Region				
Year of L/A : 2008 JPY14,700 mil				
ODA Loan : Water Supply Improvement Project in Kurdistan Region				
Year of L/A : 2009 JPY34,300 mil				
ODA Loan : Hartha Thermal Power Plant Rehabilitation Project				
Year of L/A : 2015 JPY20,200 mil				
Technical Cooperation : The Project for Sustainable Irrigation Water Management through Water Users Associations				
Project Duration : Apr 2017 – Dec 2020 Total Amount approx JPY620 mil				
Technical Cooperation : The Project on Horticulture Technology Improvement and Extension				
Project Duration : Aug 2011 – Aug 2016 Total Amount Approx. JPY 800 mil				

Table 1.3-1 Target ODA Loan/Technical Cooperation Projects

#### 1.4 Study Schedule

The overall schedule for this study covers a period of approximately 10 months from the end of January to the end of November 2019. In the initial plan, the schedule ended at the end of July 2019, but, in connection to the general release of PR media (videos) and PR campaigns on social media, the Project period was extended to the end of November 2019 in order to add English subtitles to Arabic language videos and both English and Arabic subtitles to Kurdish language videos, as the potential viewers are not limited to Arabic-speaking people only. In addition, due to security concerns, it was necessary to obtain permission from local authorities for using drones to shoot film and it required considerable time. The study flowchart is shown in Fig. 1.4-1.

#### 1.5 Study implementation structure

This study was conducted by three consultants (including those hired to strengthen the study team) from Crown Agents Japan Limited, National Coordinator and ARK Group. The study team structure is shown in Fig. 1.5-1.



Fig. 1.5-1 Implementation Structure for the Study



Fig. 1.4-1 The Study Flowchart

#### **2**. Public Works in Iraq

#### 2.1 Ministry of Electricity in the Government of Iraq

#### 2.1-1 System for Electricity Charges

The rate of electricity charges from the Government of Iraq is established through a proposal by the Ministry of Electricity with the approval of the Council of Ministers. Revisions to the rate are drafted by the Directorate of Distribution in the Ministry. There is no time limitation to the revision of the rate and it can be revised as and when necessary. The current rate was applied in January 2018.

The application of electricity rates is uniform throughout all directorates rather than having a fluctuating rate according to season, region or time of use. Equally, there is no reduced rate with respect to low-income earners.

(1) Rate table for electricity charges

The rate of electricity charges is established on a monthly basis. The rate is shown in Table 2.1-1 below.

Consumers are divided into five categories, namely, Household Type, Commercial Type, Industrial Type, Agricultural Type and Governmental Type, with rates being established uniquely for each category. In the Household Type and Commercial Type, divisions are made according to the amount of electricity consumed, and, as the amount of electricity consumed increases, the rate charge arises according to the measured rate system. On the other hand, in the Industrial Type, Agricultural Type and Governmental Type, a standard rate is applied regardless of the amount of electricity consumed.

Consumer Type	Range (kWh)	Price (IQD/kWh)
	1 - 1,500	10
	1,501 - 3,000	35
Household	3,001 - 4,000	80
	4,001 over	120
	1 - 1,000	60
Commercial	1,001 - 2,000	80
	2,001 over	120
Industrial	1 over	60
Agricultural	1 over	60
Governmental	1 over	120

Table 2.1-1 Rate of Electricity Charge: Government of Iraq

(Source: Ministry of Electricity)

(2) Jurisdiction for charge collection

The jurisdiction for charge collection is divided into 17 directorates under the remit of the Directorate

of Distribution. The Ministry of Electricity has established General Electricity Distribution Company in Baghdad, the middle, the north and the south, and electricity distribution in each directorate is presided over by these four state own companies. The assignment of the 17 directorates to the General Electricity Distribution Company is shown in the Table 2.1-2.

The directorates are formed on a governorate-basis in 15 of the 18 Governorates in Iraq (excluding the three Governorates in the Kurdistan Region of Erbil, Duhok and Sulaymaniyah), but the Baghdad Governorate is divided into three directorates (Rusafa, Sadr and Al-Karkh), making a total of 17 directorates.

The divisions of the directorates mentioned above were reorganized in fiscal 2019 based on revisions to the directorates, with the Baghdad directorate being divided into three (Rusafa directorate, Sadr directorate and Al-Karkh directorate), and former Northern Nasiriyah directorate being integrated with the Thi-Qar directorate.

Distribution Company	Directorate	Distribution Company	Directorate	Distribution Company	Directorate	Diatribution Company	Directorate
	Rusafa		Babylon	The North	Nineveh	The South	Basra
Baghdad General Electricity Distribution Company	Sadr	The Middle General Electricity Distrubution Company	Najaf	General Electricity Distritution	Kirkuk	General Electricity Distribution Company	Maysan
	Al-Karkh		Diwaniyah	Company	Saladin		Thi-Qar
	Anbar		Karbala				
	Diyala		Wasit				
			Muthana				

Table 2.1-2 Four General Electricity Distribution Companies and 17 Directorates

(Source: Framed by survey team based on information from Ministry of Electricity)

(3) Number of subscribers to electricity distribution network

The Table 2.1-3 shows the number of electricity distribution subscribers (those who have installed power meters) in each directorate as of January 2019. Regarding the five directorates in the middle (Babylon, Najaf, Diwaniyah, Karbala and Wasit), data regarding the number of subscribers to electricity distribution that could not be obtained (only data for the number of users without power meters installed was obtained), and estimate values (light blue background on the table) were used for the complement by finding the ratios for the remaining 12 directorates and each of the five directorates using population data for each of the Governorate administrative districts in Iraq (in 2017, Central Statistical Organization

of Ministry of Planning, from the Investment Map of Iraq 2019<sup>1</sup>), and by multiplying the ratios by the total number of subscribers to electricity distribution in the 12 directorates. For that reason, except for the number of uninstalled users, the data for the five directorates are estimate values, and, equally, the relevant totals including these figures are estimate values.

The total number of subscribers to electricity distribution in the 17 directorates is estimated to be approximately 4.01 million. In the Baghdad General Electricity Distribution Company, the number of subscribers is estimated to be 1,500.9 thousand at 37.4%, 1,017.2 thousand at 25.4% in the Middle General Electricity Distribution Company, 804.5 thousand at 20.1% in the North General Electricity Distribution Company and 685.2 thousand at 17.1% in the South General Electricity Distribution Company. The total of the three directorates (Rusafa, Sadr, and Al-Karkh) in the Baghdad Governorate is approximately 1,098.4 thousand, which comprises 27.4% of the total number of subscribers.

The ratio of the total number of subscribers at the five categories of electricity rate, is is estimated that the Household Type is the highest at 80.9%, followed by the Commercial Type at 15.9%, Agricultural Type at 1.4%, Governmental Type at 1.0% and the Industrial Type at 0.7%.

Table 2.1-3 Number	of Subscribers to	o Electricity	<b>Distribution in</b>	Each Directorate
Table 2.1-5 Humber	of Subscribers 6	o Electricity	Distribution in	Lach Directorate

Distribution		Number of Subscribers (Number of Mater Installation)					
Company	Directorate	Household	Commercial	Industrial	Govt. Org.	Agricultural	Total
	Rusafa	213,406	107,887	895	2,343	2,263	326,794
Baghdad	Sadr	207,320	94,755	396	1,213	219	303,903
General	Al-Karkh	383,425	71,723	7,703	4,402	473	467,726
Distribution	Anbar	151,683	21,475	1,116	3,488	7,148	184,910
Company	Diyala	188,876	24,433	785	1,930	1,505	217,529
	Subtotal	1,144,710	320,273	10,895	13,376	11,608	1,500,862
	Babylon	203,108	40,019	1,731	2,621	3,510	250,989
	Najaf	145,584	28,685	1,240	1,879	2,516	179,904
The Middle General	Diwaniyah	127,264	25,075	1,084	1,642	2,199	157,264
Electricity	Karbala	120,431	23,729	1,026	1,554	2,081	148,821
Distribution Company	Wasit	135,971	26,791	1,159	1,755	2,350	168,026
Company	Muthana	96,186	10,073	380	1,474	4,061	112,174
	Subtotal	828,544	154,372	6,620	10,925	16,717	1,017,178
The North	Nineveh	340,917	49,180	3,051	5,385	2,752	401,285
General Electricity	Kirkuk	177,371	24,041	1,247	2,975	5,897	211,531
Distribution	Saladin	158,245	15,521	3,507	2,235	12,135	191,643

(highlited numbers are estimate values)

<sup>&</sup>lt;sup>1</sup> http://investpromo.gov.iq/wp-content/uploads/2019/05/investment-Map-2019-En.pdf

Company	Subtotal	676,533	88,742	7,805	10,595	20,784	804,459
The South	Basra	281,849	40,823	1,431	2,718	3,845	330,666
General	Maysan	101,560	10,184	341	1,774	2,401	116,260
Distribution	Thi-Qar	209,996	24,620	542	2,463	695	238,316
Company	Subtotal	593,405	75,627	2,314	6,955	6,941	685,242
Τα	tal	3,243,192	639,014	27,634	41,851	56,050	4,007,741

(Source: Ministry of Electricity)





Fig. 2-1-1 Ratio of subscribers at each distribution company



(4) Ratio of electricity users and subscribers

The ratios of the number of electricity users and the number of subscribers to electricity distribution are shown in Table 2.1-4.

The total number of electricity users in the 17 directorates is estimated to be approximately 4.449 million. In the Baghdad General Electricity Distribution Company, the number of subscribers is estimated to be 1,624.6 thousand at 36.5%, 1,148.1 thousand at 25.8% in the Middle General Electricity Distribution Company, 912.8 thousand at 20.5% in the North General Electricity Distribution Company and 763.3 thousand at 17.1% in the South General Electricity Distribution Company. The total of the three directorates (Rusafa, Sadr, and Al-Karkh) in the Baghdad Governorate is approximately 1,176.1 thousand, which comprises 27.4% of the total number of subscribers.

The population of Iraq is approx. 38.85 million (38,854,563 people<sup>2</sup>), or approx. 33.65 million people after removing the population of the Kurdistan Region of approx. 5.2 million people (2019, the Kurdistan Regional Government website<sup>3</sup>).

<sup>&</sup>lt;sup>2</sup> Investment Map of Iraq 2019 http://investpromo.gov.iq/wp-content/uploads/2019/05/investment-Map-2019-En.pdf

<sup>&</sup>lt;sup>3</sup> http://previous.cabinet.gov.krd/p/page.aspx?l=12&p=214

In accordance with the five categories of electricity charge, the number of electricity users in the Household Type is estimated to be 3,643.7 thousand at 81.9%, with an average of 10.8 people per user. The number of users in the Commercial Type is estimated to be 665.7 thousand at 15.0%, 68.7 thousand at 1.5% in the Agricultural Type, 41.9 thousand at 0.9% in the Governmental Type and 28.7 thousand at 0.6% in the Industrial Type.

The ratio of the total number of subscribers to electricity distribution among the total number of electricity users is approx. 90.1%, and, looking at the five categories of electricity rate, the Governmental Type is the highest at 99.9%, followed by the Industrial Type at 96.2%, the Commercial Type at 96.0%, the Household Type at 89.0% and the Agricultural Type at 81.6%. In the Household Type, the Wasit directorate comprises 79.3% (estimate value), the Kirkuk directorate comprises 79.7% and the Sadr directorate 82.0%, while in the Agricultural Type, the Al-Karkh directorate comprises 9.0%, the Diyala directorate 52.1% and the Kirkuk directorate 73.0%, which is the cause of a reduction in the ratio of electricity distribution subscribers. Looking at the ratio by directorate, the highest ratios are comprised of the Al-Karkh directorate at 96.4%, the Rusafa directorate is 80.1% and the Wasit directorate is 81.6%, which is the cause of a reduction in the ratio of electricity distribution subscribers.

#### Table2.1-4 Number of Electricity Users and Ratio of Subscribers

Directorat	Number of Users			Ratio of Subscribers (Meter Installation)								
e	House hold	Commer cial	Industria 1	Govt. Org	Agricult ural	Total	House hold	Commer cial	Industria 1	Govt. Org	Agricult ural	Total
Rusafa	226,246	108,008	895	2,343	2,891	340,383	94.3%	99.9%	100.0%	100.0%	78.3%	96.0%
Sadr	252,693	95,737	441	1,218	248	350,337	82.0%	99.0%	89.8%	99.6%	88.3%	86.7%
Al-Karkh	395,812	72,193	7,703	4,409	5,267	485,384	96.9%	99.3%	100.0%	99.8%	9.0%	96.4%
Anbar	159,539	22,034	1,147	3,495	7,667	193,882	95.1%	97.5%	97.3%	99.8%	93.2%	95.4%
Diyala	219,926	28,928	908	1,948	2,888	254,598	85.9%	84.5%	86.5%	99.1%	52.1%	85.4%
Subtotal	1,254,216	326,900	11,094	13,413	18,961	1,624,584	91.3%	98.0%	98.2%	99.7%	61.2%	92.4%
Babylon	230,861	40,403	1,732	2,622	3,539	279,157	88.0%	99.0%	99.9%	100.0%	99.2%	89.9%
Najaf	171,041	28,976	1,276	1,879	2,941	206,113	85.1%	99.0%	97.2%	100.0%	85.5%	87.3%
Diwaniya h	136,531	25,226	1,085	1,642	2,261	166,745	93.2%	99.4%	99.9%	100.0%	97.3%	94.3%
Karbala	137,253	24,066	1,027	1,554	2,089	165,989	87.7%	98.6%	99.9%	100.0%	99.6%	89.7%
Wasit	171,443	28,459	1,191	1,755	2,942	205,790	79.3%	94.1%	97.3%	100.0%	79.9%	81.6%
Muthana	106,709	11,368	393	1,474	4,301	124,245	90.1%	88.6%	96.7%	100.0%	94.4%	90.3%
Subtotal	953,838	158,498	6,704	10,926	18,073	1,148,039	86.9%	97.4%	98.7%	100.0%	92.5%	88.6%
Nineveh	381,212	55,323	3,417	5,399	3,252	448,603	89.4%	88.9%	89.3%	99.7%	84.6%	89.5%
Kirkuk	222,483	29,217	1,418	2,975	8,079	264,172	79.7%	82.3%	87.9%	100.0%	73.0%	80.1%

(highlited numbers are estimate values)

Saladin	165,258	16,374	3,556	2,236	12,592	200,016	95.8%	94.8%	98.6%	100.0%	96.4%	95.8%
Subtotal	768,953	100,914	8,391	10,610	23,923	912,791	88.0%	87.9%	93.0%	99.9%	86.9%	88.1%
Basra	327,266	42,742	1,596	2,719	4,539	378,862	86.1%	95.5%	89.7%	100.0%	84.7%	87.3%
Maysan	108,322	10,498	363	1,774	2,443	123,400	93.8%	97.0%	93.9%	100.0%	98.3%	94.2%
Thi-Qar	231,126	26,182	564	2,463	748	261,083	90.9%	94.0%	96.1%	100.0%	92.9%	91.3%
Subtotal	666,714	79,422	2,523	6,956	7,730	763,345	89.0%	95.2%	91.7%	100.0%	89.8%	89.8%
Total	3,643,721	665,734	28,712	41,905	68,687	4,448,759	89.0%	96.0%	96.2%	99.9%	81.6%	90.1%

(Source: Ministry of Electricity)





Fig. 2.1-3 Ratio of electricity users at each distribution company

Fig. 2.1-4 Ratio of electricity users by 5 categories of electricity charge

#### (5) Unofficial electricity consumers

Table 2.1-5 shows the number of unofficial consumers (Meter uninstalled) and their ratio among the total electricity users.

The total number of unofficial consumers in the 17 directorates is estimated to be approximately 441.0 thousand. In the Baghdad General Electricity Distribution Company, the number of unofficial consumers is estimated to be 123.7 thousand at 28.1%, 130.9 thousand at 29.7% in the Middle General Electricity Distribution Company, 108.3 thousand at 24.6% in the North General Electricity Distribution Company and 78.1 thousand at 17.7% in the South General Electricity Distribution Company. The total of the three directorates (Rusafa, Sadr, and Al-Karkh) in the Baghdad Governorate is approximately 77.7 thousand, which comprises 17.6% of the total number of unofficial consumers.

In accordance with the five categories of electricity charge, the number of unofficial consumers in the Household Type is estimated to be 400.5 thousand at 90.8%, 26.7 thousand at 6.1% in the Commercial Type, 12.6 thousand at 2.9% in the Agricultural Type, 1.1 thousand at 0.2% in the Industrial Type and 54 in the Governmental Type.

Looking at the ratio of unofficial consumers, the level is high in the following directorates: 52,641 cases at 19.93% in the Kirkuk directorate, 37,764 cases at 18.35% in the Wasit directorate, 37,069 cases at 14.56% in the Diyala directorate, 46,434 cases at 13.25% in the Sadr directorate, 26,209 cases at 12.73% in the Najaf directorate and 48,196 cases at 12.72% in the Basra directorate. By the numbers, Niveveh directorate is high of 47,318 cases at 10.55%.

The cost required for power meter installation is charged to electricity distribution subscribers.

	Unofficial Consumer (Meter Uninstalled)								
Directorate	House hold	Commercial	Industrial	Govt. Org	Agricultural	Total	Ratio of Uninstalled		
Rusafa	12,840	121	0	0	628	13,589	3.99%		
Sadr	45,373	982	45	5	29	46,434	13.25%		
Al-Karkh	12,387	470	0	7	4,794	17,658	3.64%		
Anbar	7,856	559	31	7	519	8,972	4.63%		
Diyala	31,050	4,495	123	18	1,383	37,069	14.56%		
Subtotal	109,506	6,627	199	37	7,353	123,722	7.62%		
Babylon	27,753	384	1	1	29	28,168	10.09%		
Najaf	25,457	291	36	0	425	26,209	12.72%		
Diwaniyah	9,267	151	1	0	62	9,481	5.69%		
Karbala	16,822	337	1	0	8	17,168	10.34%		
Wasit	35,472	1,668	32	0	592	37,764	18.35%		
Muthana	10,523	1,295	13	0	240	12,071	9.72%		
Subtotal	125,294	4,126	84	1	1,356	130,861	11.40%		
Nineveh	40,295	6,143	366	14	500	47,318	10.55%		
Kirkuk	45,112	5,176	171	0	2,182	52,641	19.93%		
Saladin	7,013	853	49	1	457	8,373	4.19%		
Subtotal	92,420	12,172	586	15	3,139	108,332	11.87%		
Basra	45,417	1,919	165	1	694	48,196	12.72%		
Maysan	6,762	314	22	0	42	7,140	5.79%		
Thi-Qar	21,130	1,562	22	0	53	22,767	8.72%		
Subtotal	73,309	3,795	209	1	789	78,103	10.23%		
Total	727,749	49,645	1,947	107	24,485	803,933	18.07%		

Table 2.1-5 Number of Unofficial Consumers and Ratio

(Source: Ministry of Electricity)





Fig. 2.1-5 Ratio of unofficial customers at each distribution company



(6) Plan of improvement in electricity charge system

With the aim of improving the billing and collection of electricity charges, investigations are being promoted into a new system for electricity charge billing and charge collection called Smart System, and tentative plans are being studied as followings.

- Introduction of digital power meter
- > Introduction of advance payment system (Supply of a prepaid amount of electricity)
- Application of punitive measures for non-payment
- Introduction of private subcontracting system
- (7) Comparison of prior electricity rates and current electricity rates

A comparison of the electricity rates until December 2017 and the current electricity rates adopted as of January 2018 is shown in Table 2.1-6.

In the revision of the electricity rates in January 2018, there were no price increases in any of the rated items in the five categories, whereas there was a general price reduction of around 30-40%, except for 1,000 kW or below (same rate), 1,501 - 2,000 kW (8% reduction) and 4,001 kW or more (same rate) in the Household Type, 2,001 - 3,000 kW (20% reduction) in the Commercial Type, 5,000 kW or below (4% reduction) and 5,001 - 10,000 kW (20% reduction) in the Governmental Type. The rated items with a price reduction of more than 40% were 1,001 - 1,500 kW (50% reduction) and 2,001 - 3,000 kW (56% reduction) in the Residential Type, 4,001 or more (47%) in the Commercial Type and 40,001 or more (47% reduction) in the Governmental Type.

	Forme	r Tariff	Tariff			
	Range (kWh)	Price (ID/kWh)	Range (kWh)	Price (ID/kWh)		
	1 - 500	10				
	501 - 1,000	10	1 - 1,500	10		
	1,001 - 1,500	20				
Household	1,501 - 2,000	40	1.501 2.000	25		
	2,001 - 3,000	80	1,501 – 3,000	35		
	3,001 - 4,000	120	3,001 - 4,000	80		
	4,001 over	200	4,001 over	200		
	1 - 1,000	100	1 - 1,000	60		
	1,001 – 2,000	125	1,001 - 2,000	80		
Commercial	2,001 - 3,000	150				
	3,001 - 4,000	200	2,001 over	120		
	4,001 over	225				
	0.416kV	125				
Industrial	11kV	150	1	60		
moustriai	33kV	175	1 över	00		
	132kV	200				
Agricultural	1 over	100	1 over	60		
	1 - 5,000	125				
	5,001 - 10,000	150				
Governmental	10,001 - 20,000	175	1 over	120		
Organization	20,000 - 40,000	200				
	40,001 over	225				

#### Table2.1-6 Electricity rates: Comparison with Prior Electricity Rates

(Source: Framed by survey team based on collectd information)

#### 2.1-2 Status of the collection of public utility charges

(1) Department managing the collection of electricity charges

The authority responsible for the collection of electricity charges is the Directorate of Distribution.

(2) Proportion of total amount of charge collection in the total cost

The structure of cost recovery is divided into Physical Loss, Unphysical Loss, Unpaid and Paid. The Physical Loss and Unphysical Loss are categorized in Unbilled and the Unpaid and Paid are categorized in Billed. The ratio of cost recovery from the collection of electricity charges comprising the total cost of electricity supply is recognized to be around 20%.

 Table 2.1-7 Electricity Supply Cost Recovery Structure

Cost Recovery		Recovered			
Billing	Unb	illed	Billed		
Power Loss & Unpaid	Physical Loss	Unphysical Loss	Unpaid	Paid	

(Source: Framed by survey team based on collectd information through interview)

The structure of cost is divided into Operation of Power Generation, Operation of Electricity Transmission, Operation of Electricity Distribution and Administration.

<b>Table 2.1-8</b>	Electricity	Supply	Cost	Structure
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	Cost of Electricity Supply						
Cost	Operation of	Operation of	Operation of	Cost of Administration			
Structure	Power Generation	Electricity Transmission	Electricity Distribution				

(Source: Framed by survey team based on collectd information through interview)

(3) Electricity charge collection method

A door-to-door visit method is used as the method of collecting electricity charges whereby the electricity charge collectors from each directorate visit each house, check the power meter and issue a bill for the collection of charge.

The electricity charge collector issues a bill at the visit, and the recovery of charge is based on the following two methods. Charges that cannot be collected are brought forward and a bill for the total is issued the following month.

- > Collection at the time of the visit by an electricity charge collector
- Collection at any time at an electricity charge payment location at the directorate (Payment is made by subscribers themselves by paying a visit to the charge collection locations in the case that they are not at home or they do not have enough money to pay the bills when the electricity charge collector visits.)
- (5) Difficulty and challenges for charge collection

The following points have been raised as the difficulties and challenges for charge collection.

- > Dissatisfaction of people due to unstable electricity supply
- > Decline in ability to pay due to economic slump/reduced income
- Presence of regions where charge collection is difficult
- Morals of electricity charge collectors

(6) Awareness regarding citizen's motivation to make electricity charge payments

It is recognized that the default/non-payment of electricity charges is due to an insufficient and unstable supply of electricity, and that people have a particularly high dissatisfaction during the summer when demand is at its highest.

(7) Plan for the improvement of people's motivation toward paying electricity charges

In order to improve people's motivation to make payments, efforts are being made to improve the status of the electricity supply.

#### 2.1-3 Operations and maintenance systems for public infrastructure

There has been no designated department in charge of operation and maintenance (O&M) of electric power infrastructure in Ministry of Electricity. O&M of electric power infrastructure is presided over through the operation of the Directorate of Generation, Directorate of Transmission and Directorate of Distribution respectively. There is not a structured plan for O&M of electric power infrastructure, and the reality is that O&M is being carried out by the Regional Company within the scope for which a budget can be secured in the operation of the three directorates respectively. The absence of departments exclusively responsible for O&M of electric power infrastructure, the absence of structured O&M plan and the insufficient budget are causing the fragile situation on O&M.

(1) Organizational structure for O&M of electric power infrastructure

There is no designated department responsible for O&M of electric power infrastructure.

(2) Department responsible for electric power infrastructure O&M

O&M of electric power infrastructure is presided over through the individual operation of the Directorate of Generation, Directorate of Transmission and Directorate of Distribution, and is performed by the Regional Companies in each region under the jurisdiction of each Directorate. The Directorate for Generation has a separate state company for inspections and repairs of electricity generation system.

#### (3) O&M administration area

The division of the regions covered by state companies in each Directorate is as follows.

- Directorate for Generation: Northern Region, Upper & Middle Euphrates Region, Middle Region and South Region
- Directorate for Transmission: Northern Region, Upper & Middle Euphrates Region, Middle Region and South Region
- > Directorate for Distribution: Northern Region, Baghdad Region, Middle Region and South Region
- (4) Plan to improve electric power infrastructure O&M

There are no plans for the improvement of O&M as of June 2019.

#### 2.1-4 Budgetary provision for O&M of electric power infrastructure

(1) Budget of the jurisdictional directorates for O&M of electric power infrastructure

There are no data available regarding the budget and annual expenditure for O&M in the Directorate for Generation, Transportation and Distribution.

(2) Budget to raise people's awareness toward making electricity charge payments

There is no specified budget to raise people's awareness toward making electricity charge payments.

(3) Measures to raise people's awareness toward making electricity charge payments

There are no specified measures to raise people's awareness toward making electricity charge payments.

(4) Use of collected electricity charges for O&M

The collected electricity charges are included in their entirety as the state revenue managed by the Ministry of Finance. The O&M of Electric power infrastructure is performed by using the budget of the Ministry of Electricity.

(5) Difference between collected electricity charges and annual expenditure

The difference between collected electricity charges and annual expenditure of the Ministry of Electricity is covered by the national treasury.

#### 2.2 Regional Ministry of Electricity in Kurdistan

#### 2.2-1 System for electricity charges

Electricity charges in the Kurdistan Regional Government are established through a proposal by the Regional Ministry of Electricity with the approval of the Council of Ministers. Revisions to the rate are drafted by the Directorate of Distribution in the Ministry. There is no time limitation to the revision of the rate and it can be revised as and when necessary. The current rate was adopted in January 2018.

The application of electricity rates is uniform throughout the entire electricity directorate rather than having a fluctuating rate according to season, region or time of use. Equally, there is no reduced rate with respect to low-income earners.

(1) Rate table for electricity charges

The rate of electricity charges is established on a monthly basis. The rate is shown in Table 2.2-1 below.

Electricity consumers are divided into five categories, namely, Residential Type, Commercial Type, Industrial Type, Agricultural Type and Governmental Type, with rates being established uniquely for each category. In the Residential Type, divisions are made according to the amount of electricity consumed, and, as the amount of electricity consumed increases, the rate charge arises according to the measured rate system. On the other hand, in the Commercial Type, Industrial Type, Agricultural Type

and Governmental Type, a standard rate is applied regardless of the amount of electricity consumed. Note that the charge is set in the Industrial Type according to the electrical voltage.

Consumer Type	Range (k	Wh)	Price (ID/kWh)		
	1 - 45	0	15		
	451 - 900		20		
	901 - 1,:	500	35		
Residential	1,501 - 2	,100	60		
	2,101 - 3	,000	75		
	3,001 - 5	,000	150		
	5,001 o	ver	200		
Commercial	1 ove	r	130		
	0.416kV		120		
T 1 4 1	11kV	1	100		
Industrial	33kV	1 over	100		
	132kV		100		
Agricultural	1 over		30		
Governmental	1 over		1 over		150

Table 2.2-1 Rate for Electricity Charges: Kurdistan Regional Government

(Source: Regional Ministry of Electricity in Kurdistan)

(2) Directorates for charge collection

Charge collection is under the jurisdiction of the Directorate for Distribution and is presided over by the four directorates of Erbil, Duhok, Sulamaniyah and Garmian.

Table 2.2-2 Directorates and Number of Subscribers to Electricity Distribution:Kurdistan Regional Government

	Number of Subscribers								
Directorate	Residential	Commercial	Industrial	Agricultural	Gov. Org.	Total			
Erbil	467,000	62,780	1,819	6,247	7,946	545,792			
Duhok	284,247	46,362	700	3,264	5,838	340,411			
Sulaymaniyah	496,137	69,524	7,475	9,059	7,382	589,577			
Garmian	56,644	7,585	138	1,050	922	66,339			
TOTAL	1,304,028	186,251	10,132	19,620	22,088	1,542,119			

(Source: Regional Ministry of Electricity in Kurdistan)





Fig. 2.2-1 Ratio of subscribers at each distribution company

Fig. 2.2-2 Ratio of subscribers by 5 categories of electricity charge

(3) Number of subscribers to electricity distribution

The total number of electricity distribution contracts as of January 2019 in the four directorates of the Kurdistan Region is shown in Table 2.2-2.

The number of subscribers is 1,542,119, and, looking at the number of contracts, the highest number is 598,577 at 38.2% in the Sulaymaniyah directorate, followed by 545,792 at 35.4% in the Erbil directorate, 340,411 at 22.1% in the Duhok directorate and 340,411 at 4.3% in the Garmian directorate.

In accordance with the five categories of electricity charge, the total number of Residential Type is 1,304,028 at 84.6%, which, divided by the approximate population of the Kurdistan Region of 5.2 million, makes an average of 4.0 people per subscription. By the highest number of subscribers following the Residential Type, 186,251 at 12.1% in the Commercial Type, 22,088 at 1.4% in the Governmental Type, 19,620 at 1.3% in the Agricultural Type and 10,132 at 0.7% in the Industrial Type. The number of Industrial Type consumers is extremely large in the Sulaymaniyah directorate, which is the center of the oil industry in northern Iraq.

(4) Ratio of the five rate categories among the total amount collected

The ratio of the five rate categories among the total amount collected in the electricity distribution charges is shown in the Table 2.2-3.

In Erbil, the Commercial Type comprises 38%, the Residential Type comprises 33% and the Governmental Type comprises 20%, and these three categories comprise 91% of the total amount. In Duhok, the Residential Type comprises 50%, which comprises 96% of the total together with the Commercial Type: 28% and Governmental Type: 18%. In Sulaymaniyah, the Industrial Type is outstanding comprising 94% of the total. In Garmian, the Residential Type comprises 56% and the Commercial Type comprises 24%, so that these two categories comprise 80% of the total amount.

	Ratio: Amount of Collected / Total Amount of Collected							
Directorate	Residential	Commercial	Industrial	Agricultural	Gov. Org.			
Erbil	33%	38%	8%	2%	20%			
Duhok	50%	28%	4%	1%	18%			
Sulaymaniyah	3%	1%	94%	0%	3%			
Garmian	56%	24%	7%	4%	8%			

 Table 2.2-3 Ratio of the Five Rate Categories Comprising the Total Amount Collected

(Source: Regional Ministry of Electricity in Kurdistan)



Fig. 2.2-3 Ratio of 5 rate categories in Erbil directorate



Fig. 2.2-5 Ratio of 5 rate categories in Sulaymaniya directorate



Fig. 2.2-4 Ratio of 5 rate categories in Duhok directorate



Fig. 2.2-6 Ratio of 5 rate categories in Garmian directorate

(5) Plan of improvement in electricity charge system

The project to introduce the new meter reading system, called Smart Meter, has been underway since
January 2019. The aim is to cover all Residential Type electricity supply subscribers within fiscal 2020, and a pilot project to install 200 Smart Meters in Erbil city is underway. In the pilot project, a verification test for operation and data collection is being implemented. 40,000 Smart Meters have already been procured, and now there is a plan to install them. Smart Meters switch from an analog method by reading the dials on the meters to a digital method, and the expected improvements due to Smart Meter installation include the acquisition of a variety of data by the central administration system.

Along with the introduction of Smart Meters, with the objective of resolving the issues of non-payment and overdue payments, the following two specific measures are being investigated. Initially, it was expected that the policy would be determined by the end of 2019, but it is anticipated that another 1-1.5 years will be required.

- Conversion of the charge collection method from the current post-payment method to a complete prepaid method
- Introduction of a method of gradually lowering the usable consumer electricity (ampere) in the case of overdue payments (until the payment is made)

(6) Comparison of electricity rates: Government of Iraq and Kurdistan Regional Government

The following Table 2.2-4 shows a comparison of electricity rates in the Government of Iraq and the Kurdistan Regional Government.

Except for the Agricultural Type, in the four categories of Residential Type, Commercial Type, Industrial Type and Governmental Type, the rate of the Kurdistan Regional Government has a higher unit than the rate of the Government of Iraq. In particular, in the Residential Type, except for the range of 4,001 kWh or more, the unit price is generally 100% higher, and in the Industrial Type it is 67-100% higher.

Consumer	Federal G	ov. of Iraq	Kurdistan Regional Gov.	
Туре	Range (kWh)	Price (ID/kWh)	Range (kWh)	Price (ID/kWh)
		10	1 - 450	15
	1 - 1,500		451 - 900	20
			901 - 1,500	35
Household / Residential	1,501 - 3,000	35	1,501 - 2,100	60
Residential			2,101 - 3,000	75
	3,001 - 4,000	80	3,001 - 5,000	150
	4,001 over	200	5,001 over	200
Commercial	1 - 1,000	60	1	120
	1,001 - 2,000	80	1 over	130

Table 2.2-4 Comparison of Electricity Rates:Government of Iraq and the Kurdistan Regional Government

	2,001 over	120				
			0.416kV		120	
Industrial	1 over	60	11kV	1 over		
			33kV		100	
			132kV			
Agricultural	1 over	60	1 ove	er	30	
Governmental Organization	1 over	120	1 ove	er	150	

(Source: Framed by survey team based on collected information)

# 2.2-2 Collection status of public utility charges

(1) Department responsible for the collection of electricity charges

The department responsible for the collection of electricity charges is the Directorate of Distribution in Ministry of Electricity.

(2) Total amount of charges collected against total costs

Regarding the total cost of electricity supply, the Directorate for Distribution has made a request to JICA for study support due to the need to perform a basic study to clarify the cost of electricity generation, electricity transmission and electricity distribution as the basis of a policy investigation because the current data is too old and is insufficient.

The structure of cost recovery is divided into Physical Loss, Unphysical Loss, Unpaid and Paid. The Physical Loss and Unphysical Loss are categorized in Unbilled and the Unpaid and Paid are categorized in Billed. The ratio of costs recovered by collecting electricity charges comprised in the total cost is recognized to be around 20%.

Billing	Unbilled		Billed	
Power Loss & Unpaid	Physical Loss	Unphysical Loss	Unpaid	Paid

(Source: Framed by survey team based on collected information through interview)

The structure of cost is divided into Operation of Power Generation, Operation of Electricity Transmission, Operation of Electricity Distribution and Administration.

# Table 2.2-6 Electricity Supply Cost Structure

Cast	Cost of Electricity Supply				
Structure	Operation of Power Generation	Operation of Electricity Transmission	Operation of Electricity Distribution	Cost of Administration	

(Source: Framed by survey team based on collected information through interview)

# (3) Electricity charge collection method

A door-to-door visit method is used as the method of collecting electricity charges whereby the electricity charge collectors from each directorate visit each house, check the power meter and issue a bill for the collection of charges.

The electricity charge collector issues a bill at the visit, while the recovery of charges is based on the following two methods. Charges that cannot be collected are brought forward and a bill for the total is issued the following month.

- > Collection at the time of the visit by an electricity charge collector
- Collection at any time at an electricity charge payment location at the directorate (Payment is made by subscribers themselves by paying a visit to the charge collection locations in the case that they are not at home or they do not have enough money to pay the bills when the electricity charge collector visits.)
- (4) Status of the collection of electricity charges

Ratio of subscribers from whom charges are collected among the total number of electricity supply subscribers is approx. 70%. Ratio of total amount of charges collected against the total billed amount for electricity charges is also approx. 70%.

(5) Difficulties and challenges for charge collection

Prior to the increase in terrorist activities by ISIL in 2014, the ratio of the collection of electricity charges was higher than 95%, and there were no major issues with the collection of electricity charges. After that, the economic condition worsened due to, for example, the interruption to transport routes caused by military conflicts with ISIL, and, with the rise of domestic refugees and their influx into the Kurdistan Region, the capacity of people to pay electricity charges declined. For those reasons, electricity charges are now sometimes unpaid. It is recognized that the issue of non-payment is not due to a change in the awareness of people with regard to electricity charge payments, and rather it is recognized that the collection ratio will improve if the economic status improves.

(6) Plan for the improvement of people's motivation toward paying electricity charges

There are no plans as of month/year.

(7) Awareness regarding people's motivation to make electricity charge payments

While the worsening economic situation due to military conflicts with ISIL has affected people's capacity to make electricity charge payments, there is not recognized that people are less motivated toward making payments. It is recognized that the electricity charge collection ratio will recover as the economic status recovers.

# 2.2-3 Operations and maintenance system for electric power infrastructure

There has been no designated department in charge of operation and maintenance (O&M) of electric power infrastructure in the Regional Ministry of Electricity in Kurdistan. O&M of electric power infrastructure is presided over through the operation of the Directorate of Generation, Directorate of Transmission and Directorate of Distribution respectively. There is not a structured plan for O&M of electric power infrastructure, and the reality is that O&M is being carried out within the scope for which a budget can be secured in the operation of the three directorates respectively. The absence of department exclusively responsible for O&M of electric power infrastructure, the absence of structured O&M plan and the insufficient budget are causing the fragile situation on O&M.

(1) Organizational structure for electric power infrastructure O&M

There is no designated department responsible for O&M of electric power infrastructure.

(2) Department responsible for electric power infrastructure O&M

O&M of electric power infrastructure is presided over through the individual operation of the Directorate for Generation, Directorate for Transmission and Directorate for Distribution.

(3) O&M administration area

It is divided into four directorates, namely, Erbil, Duhok, Sulaymaniyah and Garmian.

(4) Plan to improve electric power infrastructure O&M

There are no plans for the improvement of O&M as of June 2019.

# 2.2-4 Budgetary provision for O&M of electric power infrastructure

(1) Budget of the jurisdictional directorates for O&M of electric power infrastructure

There are no data available regarding the budget and annual expenditure for O&M in each of the Directorates.

(2) Budget to raise people's awareness toward making electricity charge payments

There is no specified budget to raise people's awareness toward making electricity charge payments.

(3) Measures to raise people's awareness toward making electricity charge payments

There are no specified measures to raise people's awareness toward making electricity charge payments.

(4) Use of collected electricity charges for O&M

Of the collected electricity charges, 8% of the total amount is retained by the Ministry of Electricity, which can be used for O&M of electric power infrastructure. 92% of the total amount is included as state revenue managed by the Ministry of Finance. O&M of electric power infrastructure is performed by using the budget of the Ministry of Electricity.

(5) Difference between collected electricity charges and annual expenditure

The difference between collected electricity charges and annual expenditure of the Ministry of Electricity is covered by the national treasury.

# 2.3 Ministry of Construction, Housing, and Municipalities and Public Works in the Government of Iraq

# 2.3-1 System for water and sewerage charges

The rate of water and sewerage charges from the Government of Iraq is established through a proposal by the Ministry of Construction, Housing, and Municipalities and Public Works with the approval of the Council of Ministers. Within the Ministry, drafts are formed by the General Directorate of Water. There is no time limitation for the revision of the rate and it can be revised as and when necessary. The current rate was applied in January 2018.

The application of water and sewerage rates is uniform throughout the entire electricity directorate rather than having a fluctuating rate according to season, region or time of use. Equally, there is no reduced rate with respect to low-income earners.

(1) Rate table for water and sewerage charges

The rate of water and sewerage charges is established on a monthly basis. The rate is shown in Table 2.3-1.

Water and sewerage charges are composed of the water supply charge, sewerage charge and the fixed charge for cleaning. Water supply charge is largely divided into Government Sector and Non-government Sector. The rate for Non-government Sector is stratified by usage volume of 30m<sup>3</sup> under a measured rate system in which the rate arises as the usage volume increases. The rate for Government Sector is fixed at 120 Iraq Dinar per 1m<sup>3</sup>. As for the sewerage charge, the same amounts as the water supply charge is added uniformly for subscribers located in regions with access to the sewerage network. Also, the cleaning charges of 1,000 Iraq Dinar and 500 Iraq Dinar are added to all subscribers in central

areas of the Governorates and in rural areas, respectively. The basic water and sewerage charges are shown below.

Water and sewerage charges = (Water supply charge) + (Sewerage charge) + (Cleaning charge)

	Usage	Rate (IQD/m <sup>3</sup> )
1	1st 30m <sup>3</sup>	12.0
2	2nd 30m <sup>3</sup>	30.0
3	3rd 30m <sup>3</sup>	40.0
4	4th 30m <sup>3</sup>	70.0
5	5th 30m <sup>3</sup> and more	70.0
For Governme	ent Sector	
1	1 m <sup>2</sup>	120.0
verage Charg	e	
1	100% of Water Ch	narges
% Sewage Wa age. eaning Charge	ages to be added to subscribers who live in th	e areas which have networks to
1	Center of Province	1000
1		

 Table 2.3-1 Rate for Water and Sewerage Charges

(Source : Ministry of Construction, Housing, and Municipalities and Public Works)

(2) Directirates for charge collection

Jurisdiction for water supply and sewerage is divided into the City of Baghdad region under the jurisdiction of the Mayoralty of Baghdad, and all other regions except for the city of Baghdad under the jurisdiction of the Ministry of Construction, Housing, and Municipalities and Public Works. Charge collection in regions under the jurisdiction of the Ministry of Construction, Housing, and Municipalities and Public Works is presided over by the General Directorate of Water in the Ministry. Water supply directorates are based on Governorates, with the Baghdad Governorate divided into regions excluding the Mayoralty of Baghdad, and the Anbar Governorates divided into the Western Desert region and all

other regions. There are 16 water supply directorates in total based on the 15 Governorates excluding the Kurdistan Region, with the Anbar Governorate being divided into the Western Desert and all other regions. The water supply directorates for the collection of water and sewerage charges are as shown in Table 2.3-2 below.

Ministry	Directorate		Number of S		Bypassing Water		
		House hold	Business	Governmental Organization	Total	INCL V	WOIK
	Nineveh	230,129	24,059	24,902	279,090	No I	Data
	Kirkuk	127,795	1,057	8,352	137,204	33,650	26.3%
	Saladin	61,412	1,522	982	63,916	No I	Data
	Anbar	75,587	1,600	1,101	78,288	No I	Data
Ministry of	Diyala	96,675	2,968	797	100,440	12,000	12.4%
Construction,	Babylon	152,351	4,663	1,745	158,759	No I	Data
Housing, and	Najaf	102,773	7,200	811	110,784	35,150	34.2%
and Public	Diwaniyah	86,798	2,913	1,003	90,714	4,359	5.0%
Works	Thi Qar	104,463	2,363	1,056	107,882	No Data	
General	Wasit	74,811	2,605	922	78,338	No Data	
Directorate of	Karbala	95,685	5,161	811	101,657	36,800	38.5%
Water	Muthanna	46,106	1,107	634	47,847	3,093	6.7%
	Maysan	48,093	1,503	501	50,097	No Data	
	Baghdad	65,731	1,110	574	67,415	No I	Data
	Basra	169,032	1,922	2,416	173,370	66,500	39.3%
	Western Desert	3,000	27	54	3,081	7,000	233.3%
Total		1,540,441	61,780	46,661	1,648,882		
Mayoralty of Baghdad	Baghdad City	545,517	72,674	6,877	625,068	107,007	19.6%
Total		2,085,958	134,454	53,538	2,273,950		

Table 2.3-2 Water Supply Directorates and the Number of Subscribers to Water Supply

(Source : Ministry of Construction, Housing, and Municipalities and Public Works)





Fig. 2.3-1 Number of subscribers to water supply at each directorate (inclusive of Mayoralty of Baghdad)

Fig. 2.3-2 Ratio of subscribers to water supply by 3types (inclusive of Mayoralty of Baghdad)

(3) Number of subscribers to water supply

The number of water supply subscribers in each of the 16 water supply directorates is shown in the Table 2.3-2 above (FY2017).

The number of subscribers is 1,648,882, and, looking at the number of contracts, the highest number is 279,090 at 16.9% in the Nineveh directorate, followed by 173,370 at 10.5% in the Basra directorate and 158,759 at 9.6% in the Babylon directorate.

The water supply subscribers are divided into Household, Business, and Government Organization. The number of subscribers is 1,540,441 at 93.4% in the Household, 61,780 at 3.4% in the Business and 46,661 at 2.8% in the Governmental Organization.

Table 2.3-2 above also shows the data for the Mayoralty of Baghdad extended from the General Directorate of Water. When looking at the number of subscribers, the Mayoralty of Baghdad has the overwhelming majority with 625,068 at 27.5%, followed by at 12.3% in the Nineveh directorate, at 7.6% in Basra directorate and at 7.0% in the Babylon directorate.

In addition, the Table above shows data extended from the General Directorate of Water regarding the number of those bypassing the water network. The data is uneven distributed across the directorates but, in the data that has been supplied, the Mayoralty of Baghdad has 107,007 cases at 19.6%, Basra has 66,500 cases at 39.3%, Karbala has 36,800 cases at 38.5%, Najaf has 35,150 cases at 31.7% and Kirkuk has 33,650 cases at 24.5%.

(4) Transition in collected water supply charge and sewerage charge

Table 2.3-3 shows the transition in the total amount of water supply charge and sewerage charge collected in the 16 jurisdictional directorates of the Ministry of Construction, Housing, and Municipalities and Public Works between fiscal 2013 and fiscal 2016. In the water supply sector,

although there was a decline in the total amount collected in 2014, the total amount in fiscal 2016 was approx. 47.9 billion Iraq Dinar, which is an increase of 23.5% over fiscal 2013. Equally, in the sewerage sector, although there was a decline in the total amount collected in 2014, the total amount in fiscal 2016 was approx. 8.38 billion Iraq Dinar, which is an increase of 103.9% over fiscal 2013. For the total of water supply and sewerage, the total amount collected in fiscal 2016 was approx. 56.28 billion Iraq Dinar, which is an increase of 31.2% over fiscal 2013.

 Table 2.3-3 Transition in Collected Water Supply Charges and Sewerage Charges

				(Iraq Dinar)
	Expected Water Supply Charge	Water Supply Charge Collection	Sewerage Charge Collection	Total
2013	40,000,000,000	38,800,000,000	4,108,279,909	42,908,279,909
2014	40,000,000,000	32,415,920,000	3,964,846,163	36,380,766,163
2015	41,900,000,000	41,141,000,000	7,817,597,668	48,958,597,668
2016	41,000,000,000	47,900,000,000	8,378,617,126	56,278,617,126

(Source : Ministry of Construction, Housing, and Municipalities and Public Works)





Fig. 2.3-3 Transition in collected water supply charges and sewerage charges

Fig. 2.3-4 Ratio of water supply charge against total charge collection

(5) Plan of improvement in electricity charge system

Although there are no plans to change the current system, following measures are under consideration.

- Introduction of Electronic Meter Reading System
- > Application of punitive measure for late or non-payment
- Introduction of Private Subcontracting System
- (6) Comparison of previous rates and current rates of water supply charge

Table 2.3-4 shows a comparison of the rates of water supply charge until December 2017 and the current

rates that were revised in January 2018. In these revisions, there is no change to the fixed cleaning charge, and a charge system was brought over in which an equal sewerage charge was added to the water supply charge. In the previous rate, a flat rate that had been applied to the Household was also applied to the non-government water consumers, which was 1,305 Iraq Dinar for homes with a total floor space of 100m<sup>2</sup> or less, and 3,105 Iraq Dinar for 100m<sup>2</sup> or more. In the current rate system, the flat rate for the Household is abolished, and the same rate as the Non-Government Sector is applied to them.

A 100% increase was made to the rate applied to Government Organizations, while, in the rates for the Non-Government Sector, a 100% increase was also made for the 1st 30m<sup>3</sup> and to the 2nd 30m<sup>3</sup>. In the rates for the Non-Government Sector, the 3rd 30m<sup>3</sup> almost doubled (77.8% increase), and the 4th 30m<sup>3</sup> and thereafter increased by 16.7%. In these revisions, remarkable increases can be seen in the water supply and sewerage charges, with the moderate difference in water consumption among the Non-Government Sector consumers, and a tendency toward widely seeking to share the cost burden of water supply and sewerage services even with the low-income earners is also seen.

Government of frag						
	Water Comsumption (30m <sup>3</sup> each)		Dravious Data	Current Rate		
			Previous Rate	(ID/m³)		
	1	1st 30m <sup>3</sup> : 0.01 - 30.00	6.0	12.0		
Non- Government	2	2nd 30m <sup>3</sup> : 30.01 - 60.00	15.0	30.0		
	3	3rd 30m <sup>3</sup> : 60.01 - 90.00	22.5	40.0		
	4	4th 30m <sup>3</sup> and Above : 90.00 $<$	60.0	70.0		
Government	1	1m <sup>3</sup>	60.0	120.0		

 Table 2.3-4 Comparison of Previous and Current Rates of Water Supply Charges:

 Comparison of Previous and Current Rates of Water Supply Charges:

(Source : Framed by survey team based on collected information)

### 2.3-2 Status of the collection of water and sewerage charges

(1) Department managing the collection of water and sewerage charges

The authority responsible for the collection of water and sewerage charges is the General Directorate of Water.

- (2) Total amount of charges collected against total expenditure
- (a) Water supply

Total expenditure in fiscal 2013 was approx. 770 billion Iraq Dinar and the total amount of charges collected was approx. 38.8 billion Iraq Dinar, so the ratio of the total amount collected against total expenditure was 5.0%. From fiscal 2014 and thereafter, operation costs have been reducing, and capital investment also greatly reduced by around 90% year-on-year across the two-year period from fiscal

2015 and fiscal 2016. Meanwhile, despite signs of a slight decrease in the total collected amount in fiscal 2014, there was an increase in fiscal 2015 and thereafter, and, as a result, the ratio of the total amount collected against total expenditure increased by more than double in fiscal 2015 and fiscal 2016 in comparison to fiscal 2013.

					(1,000 Iraq Dinar)	
	Water Supply					
	Expenditure in the Water Sector			Total Amount	D-4:-	
	Operational Cost	Investment	Total	Collected	Ratio	
2013	391,000,000	379,000,000	770,000,000	38,800,000	5.0%	
2014	368,000,000	372,000,000	740,000,000	32,415,920	4.4%	
2015	315,000,000	31,000,000	346,000,000	41,141,000	11.9%	
2016	324,000,000	48,000,000	372,000,000	47,900,000	12.9%	

Table 2.3-5 Ratio of Total Amount Collected against Total Expenditure for Water Supply

(Source : Ministry of Construction, Housing, and Municipalities and Public Works)



Fig. 2.3-5 Ratio of water supply charge in total cost

# (b) Sewerage

Total expenditure in fiscal 2013 was approx. 141.6 billion Iraq Dinar and the total amount of charges collected was approx. 4.1 billion Iraq Dinar, so the ratio of the total amount collected against total expenditure was 2.9%. From fiscal 2014 and thereafter, total expenditure has been steadily decreasing every year, and, despite the slight decrease in fiscal 2014, the total amount collected in fiscal 2015 increased 97.2% year-on-year, which was followed by a year-on-year increase of 7.2% in fiscal 2016.

		(	1,000 Iraq Dinar)		
	Sewerage				
	Total Expenditure	Amount Collected	Ratio		
2013	141,554,984	4,108,280	2.9%		
2014	120,892,477	3,964,846	3.3%		
2015	113,213,081	7,817,598	6.9%		
2016	100,800,548	8,378,617	8.3%		

Table 2.3-6 Ratio of Total Amount Collected against Total Expenditure for Sewerage

(Source : Ministry of Construction, Housing, and Municipalities and Public Works)



Fig. 2.3-6 Ratio of sewerage charge in total expenditure

(3) Water and sewerage charge collection method

A door-to-door visit method is used as the method of collecting water and sewerage charges whereby the water and sewerage charge collectors from each directorate visit each house, check the water meter and issue a bill for the collection of charges.

The water and sewerage charge collector issues a bill at the visit, while the recovery of charges is based on the following two methods. Charges that cannot be collected are brought forward and a bill for the total is issued at the following visit.

- Collection at the time of the visit by a water and sewerage charge collector
- Collection at any time at a water and sewerage charge payment location at the directorate (Payment is made by subscribers themselves by paying a visit to the charge collection locations in the case that they are not at home or they do not have enough money to pay the bills when the water and sewerage charge collector visits.)

(4) Status of the collection of water and sewerage charges

Ratio of charges collected among water supply and sewerage service subscribers is recognized as "Very high" by the General Directorate of Water. Ratio of total amount of charges collected against the total billed amount for water and sewerage charges is also recognized as "Very high".

Table 2.3-7 shows the estimated amount of charge to be collected for water supply and the total amount collected. The total amount collected for water supply is almost the same as the estimated amount except for 2014 (2013: 97.0%; 2015: 98.2%). In fact, the estimated amount was exceeded by 16.8% in 2016.

			(1,000 Iraq Dinar)
		Water Supply	
	Estimated Amount	Amount Collected	Achievement Ratio
2013	40,000,000	38,800,000	97.0%
2014	40,000,000	32,415,920	81.0%
2015	41,900,000	41,141,000	98.2%
2016	41,000,000	47,900,000	116.8%

Table 2.3-7 Estimated Amount of Charge for Water Supply and Total Amount Collected

(Source : Ministry of Construction, Housing, and Municipalities and Public Works)

(5) Plan for the improvement of people's motivation toward paying water and sewerage charges

There are no plans or investigations as of month/year.

(6) Awareness of the General Directorate of Water regarding people's motivation toward paying water and sewerage charges

Regarding the water supply services (water outage and water quality), while it is recognized that people are dissatisfied, non-payment of charges is not an issue. Because the water and sewerage charges are cheap (approx. 30 USD per household every 6 months), and there is a recognition that these charges are generally not a burden.

# 2.3.3 Management, operations and maintenance systems for water supply and sewerage infrastructure

There has been no designated department in charge of operation and maintenance (O&M) of water supply and sewerage infrastructure in Ministry of Construction, Housing and Minicipalities and Public Works. O&M of water supply infrastructure is managed by the General Directorate of Water and O&M of sewerage infrastructure is managed by General Directorate of Sewerage respectively. There is not a structured plan for O&M of water supply and sewerage infrastructure, and the reality is that O&M is being carried out within the scope for which a budget can be secured in the operation of the two general directorates. The absence of department exclusively responsible for O&M of water supply and sewerage

infrastructure, the absence of structured O&M plan and the insufficient budget are causing the fragile situation on O&M.

(1) Organizational structure for O&M of water supply and sewerage infrastructure

There is no designated department responsible for O&M of water supply and sewerage infrastructure.

(2) Department responsible for O&M of water supply and sewerage infrastructure

O&M is separately administered so that the General Directorate of Water manages the operation of water supply infrastructure while the General Directorate of Sewerage operates sewerage infrastructure.

(3) O&M administration areas

Same as the 16 directorates for water supply and sewerage in 2.3.1 (4) above.

(4) Plan to improve O&M of water supply and sewerage infrastructure

There are no plans for improvement of O&M of water supply and sewerage infrastructure as of June 2019.

# 2.3.4 Budgetary provision for O&M of water supply and sewerage infrastructure

(1) Budget of the jurisdictional directorates for O&M of water supply and sewerage infrastructure

There is no systemized budget provision for O&M of water supply and sewerage infrastructure, which is included in operational costs.

(2) Budget to raise people's awareness toward making water and sewerage charge payments

There is no specified budget to raise people's awareness toward making water and sewerage charge payments.

(3) Measures to raise people's awareness toward making water and sewerage charge payments

There is no specified measure to raise people's awareness toward making water and sewerage charge payments.

(4) Use of collected water and sewerage charges for O&M

The collected water and sewerage charges are entirely withheld by each of the water supply and sewerage directorates and are used for operations including O&M.

Refer to Table 2.3-5 and Table 2.3-6 above for the total collection amount of water supply and sewerage charges.

(5) Difference between collected water supply and sewerage charges and annual expenditure

The difference between collected water supply and sewerage charges and annual expenditure for water

supply and sewerage is covered by the national treasury.

# 2.4 Regional Ministry of Municipalities and Tourism in Kurdistan

## 2.4.1 System for water supply charges

The rate of water supply charges in the Kurdistan Regional Government is established through a proposal by the Regional Ministry of Municipalities and Tourism with the approval of the Council of Ministers. Within the Ministry, drafts are formed by the General Directorates of Water and Sewerage. There is no time limitation for the revision of water supply rate, and it can be revised as and when necessary. The current rate of water supply charges was adopted in January 2018.

The application of water supply rate is uniform throughout the entire water and sewage directorate rather than having a fluctuating rate according to season, region or time of use. Equally, there is no reduced rate with respect to low-income earners.

In the Kurdistan Region, there are no sewerage charges since the sewerage facilities have yet been under development. Also, there is no fixed cleaning charge as established by the Government of Iraq.

## (1) Rate table for water supply and sewerage charges

The rate of water charges is established on a monthly basis. The rate is shown in Table 2.4-1.

Water supply charges are obtained by multiplying the usage amount by the rate established for the respective type of subscriber. There are six types of subscriber, including Residential Areas, Places of Worship, Governmental Institutions, Semi-government Sectors, Commercial, Industrial & Tourism, and Shop Washing of All Kinds. Shop Washing of All Kinds include such as hotels, cleaning and car washing businesses. The rate for residential areas is classified by five stages of usage volume, and a measured rate is applied whereby the rate increases according to higher usage volumes. The highest rate for 1 cubic meter is 2,000 Iraq Dinar for a monthly usage volume of 60.01m<sup>3</sup> or more, which is 40 times more than the lowest rate at 50 Iraq Dinar for 5.00m<sup>3</sup> or less. As for the five other categories, the rate for 1 m <sup>3</sup> for Places of Worship and Governmental Institutions is 500 Iraq Dinar, the rate for Semi-Government Sectors is 750 Iraq Dinar, the rate for Commercial, Industrial & Tourism is 1,000 Iraq Dinar and the rate for Shop Washing of All Kinds is 2,000 Iraq Dinar. The rate for Shop Washing of All Kinds, which has the highest rate, is four times greater than that of Places of Worship and Governmental Institutions, which has the lowest rate other than Residential Areas.

	Type of Subscribers	Monthly Usage (m <sup>3</sup> )		Wages (ID/m <sup>3</sup> )
	Residential Areas	А	0.01 - 5.00	50
		В	5.01 - 15.00	150
1		С	15.01 - 30.00	400
		D	30.01 - 60.00	600
		Е	60.01 above	2,000
2	Place of Worship	1		500
3	Governmental Institutions	1		500
4	Semi-government Sectors	1		750
5	Commercial, Industrial & Tourism	1		1,000
6	Shop Washing All Kinds	1		2,000

Table 2.4-1 Rate for Water Supply Charges: Kurdistan Regional Government

(Source : Regional Ministry of Municipalities and Tourism in Kurdistan)



Fig. 2.4-1 Ratio of subsucribers in each dierctorates

# (2) Directorates for charge collection

Jurisdiction for water supply and sewerage is divided into three general directorates, namely, Erbil General Directorate, Duhok General Directorate and Sulaymaniyah General Directorate. Erbil General Directorate comprises 6 directorates, Duhok General Directorate comprises 3 directorates and Sulaymaniyah General Directorate comprises 6 directorates, with a total of 15 directorates shared between the General Directorates in the Kurdistan Regional Government. The collection of water supply charges is separately presided over by 13 directorates excluding the Hawler sewerage directorate under Erbil General Directorate and the Duhok sewerage directorate under Duhok General Directorate.

Table 2.4-2 Directorates of Water Supply and Sewerage and Number of Subscribers

		Directorate	Number of Subscribers	Ratio
Ministry of	Ministry of Hawler Wa		251 820	20.10/
Municipalities	Erbil	Hawler Surroundings Water	251,839	30.1%

and Tourism in		Hawler Sewerage		
Kurdistan		Central Workshop		
Regional		Koya Water		
Government		Soran Water		
General		Duhok Water		
Directorate of	Duhok	Duhok Surroundings Water	185,874	22.2%
Water & Sewerage		Duhok Sewerage		
	Sulaymaniyah	Sulaymaniyah Water		47.6%
		Sulaymaniyah Surroundings Water		
		Garmian Surroundings Water	207 702	
		Kalar Water	397,702	
		Rapareen Water		
		Halabja Water		
		Total	835,415	

(Source : Regional Ministry of Municipalities and Tourism in Kurdistan)

(3) Number of water supply service subscribers

The number of water supply service subscribers in each of the 3 General Directorates is shown in Table 2.4-2 above. Water supply service subscribers are divided into Residential Areas, Places of Worship, Governmental Institutions, Semi-government Sectors, Commercial, Industrial & Tourism, and Shop Washing of All Kinds. The total number of subscribers is 835,415, with Erbil comprising 251,839 subscribers (30.1%), Duhok comprising 185,874 (22.2%) and Sulaymaniyah comprising 397,702 (47.6%) (As of January 2019).

(4) Plan of improvement in electricity charge system

The following two plans are moving toward implementation.

In billing and collecting systems, in order to study subcontracting to private companies that will lead to greater employment, the General Directorate of Water and Sewerage has made a request for JICA support and recommendation for the improvement of billing and collecting systems.

(a) Since January 2019, the introduction of new digital meter has been promoted as a method for collecting water supply charges. The new meter is installed with GPS positional information chips that are connected to the central control system with the aim of ascertaining the status of individual subscribers and the status of charge collection by region, for example. The installation of the new meter has been consigned to private companies and the ratio of installation as of March 2019 was 35-50% of all subscribers. The cost of installing the new meters is approx. 40 USD, which is charged to the subscribers. In order to promote the installation of the new meters, by providing fixed discounts against the monthly amount of water supply charges up to a maximum of the cost of installation for subscribers who have installed the new meter, consideration is being given so that the burden on subscribers for the cost of installation of the meters is essentially eliminated.

(b) Consideration is also being given to the privatization of water supply and sewerage services. As of March 2019, financial analyses and management simulations are being conducted in the case of privatization. Next, after preparation of a definite plan by performing studies into managing company structures, including representatives, officers and organization systems, with the approval of the Prime Minister of the Kurdistan Regional Government, it is expected that privatization will be implemented.

(5) Water supply and sewerage rate: Comparison between the Government of Iraq and the Kurdistan Regional Government

The following Table shows a comparison of water supply and sewerage rates in the Government of Iraq and the Kurdistan Regional Government. As described in 2.4.1 above, there are neither sewerage charges nor fixed cleaning charge laid in the Kurdistan Regional Government.

Looking at the water supply rate, in the non-governmental categories, except for the rate applied to water supply usage volumes of 5.00m<sup>3</sup> or less in residential areas, the rate applied by the Kurdistan Regional Government is more than 10 times greater than that of the Government of Iraq. In the same way, a rate that is approx. 4.2 times greater than that of the Government of Iraq is applied to government institutions and 6.25 times greater to semi-government sectors.

					Kurdistan Regional Government			
		Government of Iraq			Residential Area	Place of Worship	Commercial, Industrial & Tourism	Shop Washing All Kinds
		Water Consumption (per 30 m <sup>3</sup> )	Rate (ID/m <sup>3</sup> )	Water Consumption (m <sup>3</sup> )		Rate	(ID/m³)	
				0.01 - 5.00	50	500	750	
	Non- Government	Non- vernment	12	5.01 - 15.00	150			2,000
Water				15.01 - 30.00	400			
Supply Charges		30.01 - 60.00	30	30.01 - 60.00	600			
enages		60.01 - 90.00	40	(0.01	2 000			
		90.00 over	70	60.01 över	2,000			
		Government 1m <sup>3</sup> 120		Government		500		
	Government		Semi- Government		750			
Sewerage Charges		100% of Wa	ter Charges	N/A				
Cleaning Charges		Central Are Rural Are	a : 1,000 ea :500	N/A				

Table 2.4-3 Water Supply and Sewerage Rate Comparison

(Source : Framed by survey team based on collected information)

# 2.4.2 Status of collection of water supply charges

(1) Department managing the collection of water supply charges

The authority responsible for the collection of water supply charges is the General Directorate of Water.

(2) Total amount of charges collected against total expenditure

Data regarding the total amount of charge collected were not available, so the ratio against total expenditure is not known.

In the "Water Supply and Sanitation Policy for the Kurdistan Regional Government: Policy Document April 2017," "Non-Revenue Water" (NRW) is the difference between "Supplied Water" and "Sold Water," which is defined as the volume of lost water. NRW is water that is produced in a network but never reaches the consumer, and this might be due to water leakage, water theft or unmetered authorized consumption, or non-payment of charges by water supply subscribers. The water supply volume of the Kurdistan Regional Government in fiscal 2016 was 380 lcd, whereas the volume of water consumed by water supply subscribers was approx. 222 lcd, so approx. 150 lcd, which equals 35-40% of the produced water supply, was lost water for which no bill is issued. In the same document, it is recognized that NRW accounts for more than 40% of the produced water.

(3) Method of collecting water supply charges

A door-to-door visit method is used as the method of collecting water supply charges whereby the water charge collectors from each directorate visit each house, check the water consumption meter and issue a bill for the collection of charges.

The water supply charge collector issues a bill at the visit, while the recovery of charge is based on the following two methods. Charges that cannot be collected are brought forward and a bill for the total is issued at the following visit.

- > Collection at the time of the visit by a water supply charge collector
- Collection at any time at a water supply charge payment location at the directorate (Payment is made by subscribers themselves by paying a visit to the charge collection locations in the case that they are not at home or they do not have enough money to pay the bills when the water supply charge collector visits.)

#### (4) Status of the collection of water supply charges

Ratio of charges collected among water supply service subscribers is "Very high" and the collection is made from more than the majority. Ratio of total amount of charges collected against the total billed amount for water supply charges is "Very high" and the collection is made from more than the majority.

(5) Difficulties and challenges for the collection of water supply charges

In the collection of water supply charges, although there are no particular issues, there are the following causes for concern.

- > Presence of consumers who refuse to install a water meter
- > Presence of subscribers who delay in making payments
- In the suburbs, in particular, there is a limited awareness of the system of water supply charge collection

(6) Plan for the improvement of people's motivation toward paying water supply charges

There are no plans or investigations.

(7) Awareness of the General Directorate of Water and Sewerage regarding people's motivation toward paying water supply charges

Regarding the water supply services (water outage and water quality), while it is recognized that people are dissatisfied, non-payment of charges is not an issue. Water supply charges are cheap (approx. 30 USD per household every 6 months), and there is a recognition that these charges are generally not a burden.

# 2.4.3 Management, operations and maintenance systems for water supply and sewerage infrastructure

There has been no designated department in charge of operation and maintenance (O&M) of water supply and sewerage infrastructure in Regional Ministry of Minicipalities and Tourism in Kurdistan. O&M of water supply and sewerage infrastructure is managed by the General Directorate of Water and Sewerage. There is not a structured plan for O&M of water supply and sewerage infrastructure, and the reality is that O&M is being carried out within the scope for which a budget can be secured in the operation of the General Directorate of Water and Sewerage. The absence of department exclusively responsible for O&M of water supply and sewerage infrastructure, the absence of structured O&M plan and the insufficient budget are causing the fragile situation on O&M.

(1) Organizational structure for water supply and sewerage infrastructure O&M

There is no designated department responsible for O&M of electric power infrastructure. O&M is managed by the General Directorate of Water and Sewerage as a part of its general operations. Support from JICA is required in order to create a structured O&M organization and to improve O&M management systems.

(2) Department responsible for water supply and sewerage infrastructure O&M

The General Directorate of Water and Sewerage manages O&M of water supply and sewerage infrastructure.

# (3) O&M administration areas

Same as the 15 directorates for water supply and sewerage as per 2.4.1 (2) above.

(4) Plan to improve O&M of water supply and sewerage infrastructure

Although there is an awareness that it is important to improve O&M, there is no plans as of June 2019.

# 2.4.4 Budgetary provision for O&M of water supply and sewerage infrastructure

(1) Budget of the jurisdictional directorates for O&M of water supply and sewerage infrastructure

There is no structured budget provision for O&M of water supply and sewerage infrastructure, which is included in the operational costs.

(2) Budget to raise people's awareness toward making water supply charge payments

There is no specified budget to raise people's awareness toward making water supply charge payments.

(3) Measures to raise people's awareness toward making water supply charge payments

People have a good awareness of water supply charge payments, and there are no specified measures to raise people's awareness.

(4) Use of collected water and sewerage charges for O&M

Collected electricity charges are included in their entirety as the state revenue managed by the Ministry of Finance. It is allocated to the budget for the Ministry of Municipalities and Tourism, which is used for O&M of water supply and sewerage infrastructure.

(5) Difference between collected water and sewerage charges and annual expenditure

The difference between collected water and sewerage charges and annual expenditure is covered by the national treasury.

# **3**. Communication Strategies Study and Advocacy Campaign

# **3.1 Outline of targeted projects**

JICA selected six ODA Loan Projects and two Technical Cooperation Projects as target projects of communication strategies and advocacy campaign. Following table shows overview of each target project.

Project	Outline
Irrigation Sector Loan	Agriculture based on irrigation is indispensable in Iraq because most of the coutry belongs to the desert climate. The project aims to improve and upgrade the existing irrigation systems, by rehabilitation of pumps and related facilities and provision of necessary equipment and machineries for operation and maintenance, thereby contributing to increasing agricultural production and economic / social recovery.
Khor Al-Zubair Fertilizer Plant Rehabilitation Project	Through supplying urgently necessary equipment to an aged fertilizer plant, this project expanded the production capacity of the plant. Also, the project aims to contribute to the improvement of the agricultural productivity in Iraq and the socia- economic reconstruction through increased fertilizer supply.
Electricity Sector Reconstruction Project in Kurdistan Region	Due to lack of new investment and insufficient operation and maintenance caused by the chronic budget shortfall, electricity supply meets only 40% of the power demand in the Kurdistan Region. This project aimed to contribute to recover the electricity network in the Kurdistan region by providing the necessary equipment and machinery for rehabilitation of the transmission and distribution systems, thereby contributing to improved levels of reliability and availability of the electricity development.
Water Supply Improvement Project in Kurdistan Region	Because the infrastructures for water service were greatly neglected in Kurdistan region under the former regime, the facilities have aged, markedly decreasing the capacity to draw and purify water. The project aims to improve water supply services by constructing and expanding water intake and treatment facilities and constructing water transmission and distribution facilities in the Kurdistan region, thereby contributing to economic and social reconstruction in the region.
Hartha Thermal Power Plant Rehabilitation Project	The electricity sector in Iraq is facing a lack of capacity in generation, transmission and distribution due to insufficient operation and maintenance in the past. The electricity sector is thus one of the most important sectors for socio-economic reconstruction in the country. This project rehabilitated exsiting Al-Hartha Thermal Power Plant constructed through Japan's assistance in 1982 and aimed to contribute to the stable electric power supply, additionally, to revitalize economic activities which is indispensable for social development and reconstruction in this country.
Port Sector Rehabilitation Project	The Umm Qasr Port and the Khor Al-Zubair Port in southern Iraq are two of the most important freight transit port facilities, with no alternative port of such scale in the country. The project aimed to contribute revitalizing economy and social reconstruction in Iraq through supporting port facilities and route development.
The Project for Sustainable Irrigation Water Management through Water Users Associations	This project aimed to achieve development of sustainable water management model and spread of efficient irrigation water management by Water Users Associations (WUAs) through basic training such as water management for WUA Management Team (WMT) and implement participatory irrigation project plans at model sites in southern Iraq.
The Project on Horticulture Technology Improvement and Extension	Horticultural crops (fruit trees and vegetables) can be used as a means of obtaining cash income for small scale farmers. The overall goal of this project is to contribute to increase income from horticultural crops of farmers in the Kurdistan region through introduction and dissemination of suitable horticulture technologies and promotion of marketing strategies.

 Table 3.1-1
 Target ODA Loan / Technical Cooperation Projects Outline

(Source : Framed by survey team based on information from JICA HP)

As for the target ODA loan project, "Basra Water Supply Improvement Project" was assumed as one of the target projects at the project preparation stage. However, in southern Iraq, which is the target area of the project, there was a shortage of infrastructure such as water and electricity. In addition, due to the drinking water pollution problem, intense protests by local residents have continued. Considering such ciecumstances, "Port Sector Rehabiliation Project" which is implemented in the same area was selected as an alternative project. In addition, the technical cooperation project, "Project for Spreading Water Users Associations for the Efficient Use of Irrigation Water" (ended March 2015) was planned to be one of target projects. Since the "The Project for Sustainable Irrigation Water Management through Water Users Associations", the subsequent project, was being implemented when shooting short films and was suitable for photography, this project was selected as the target project.

# 3.2 Advocacy Campaign

### 3.2-1 Production of Short Films

A total of 25 short films of about 70 to 120 seconds were produced for the six ODA loan projects and two technical cooperation projects based on the following three different themes. The language used in shor films is basically Arabic narration with English subtitles. In addition, for Kurdistan narration video, both English and Arabic subtitles are added.

# > Overview :

The scenario for the first type of video is explaining the project, JICA's role, and the project's impact. The video showcase various components of the projects, profiling the workers as they conduct their daily tasks, and the video interviewed a member of the project's PMT. The goal of the first video is showcasing the "action" taking place on the site of the project.

# ➢ Human element :

The second video focus on the human element by profiling an employee or a direct beneficiary of the project. The subject talk about how the JICA's contribution transformed their lives and community. The video document how the subject goes about their daily life, and the pride they take in the work

# Influencers' visit :

The third video for each of the selected projects is the "influencer's visit" to the project site. Depending on the local circumstances, the influencer will guide the audience through the project by interviewing workers and beneficiaries and explaining the importance of the project.

Following Table 3.2-1 shows breakdown of producted short films.



# Table 3.2-1 Short Films Breakdown



<sup>&</sup>lt;sup>4</sup> This project was not one of target projects originally, however, filming team visited the site and created video through the introduction by PMT.



# 3.2-2 Social Media

(1) Social Media use in Public Relation (Global trend)

Social media use in public relations at private company, organization and/or institution has been global trend since 2010 and governmental institution is not an exception. According to OECD (Organization for Economic Co-operation and Development) in 2014<sup>5</sup>, 26 of is 34 member countries already implemented some form of social media strategy in its public relation in 2014 and Facebook was used in 18 of them. Also, as OECD published "Recommendation of the Council on Digital Government Strategies<sup>6</sup>", OECD Public Governance and Territorial Development Directorate" in 2014 in which each member countries are advised to actively expand its social media use for public relation strategy together with world-wide increase of mobile devise, it is reasonable to presume that social media use for public relation at governmental institutions has become active.

# (2) Internet and social media use in Iraq

Due to Iraq war since 2003, internet environment had been significantly deteriorated and therefore its development lagged behind other middle east nations. In fact, broadband establishment at household was only available at 0.1% of entire Iraqi population in 2011. However, according to BBC Monitoring, with rapid development in digital infrastructure, the ratio was improved to 13% between 2014 and 2016 and progress has been continuously seen until today. Meanwhile, mobile devise and its network system were comparatively developed much faster as 87% of population was covered already in 2011, according to the survey the Broadcasting Board of Governors (BBG) and Gallup. Also, BBG-Gullup survey found that 92.2% of Iraqi own mobile phone in 2014. Despite deterioration of internet environment has been seen since 2014 due to terrorism act by ISIL, the situation has recovered the post-ISIL level as major terror act is now somewhat under control.

The most widely used social media tool in Iraq is Facebook. According to BBG-Gullup survey, 94.3% of respondents reported that they made access to Facebook in last seven days. The second most accessed social media was Google+ (41.8%) followed by Twitter (25.8%). As Google terminated its social media platform Google+ service for private user in April 2019, it can be predicted that access and concentration to Facebook in Iraq would increase.

Organization	Facebook	Twitter
Government of Iraq	1,198,255	89,377
Ministry of Electricity	45,880	7
Ministry of Construction, Housing and Municipalities and Public Works	1,991	Not found
Kurdistan Regional Government	174,069	454,509
Regional Ministry of Agricultiure and Water Resources in Kurdistan	50,955	N/A?

# Table 3.2-2Number of followers of social media in Iraq(government organization and civil society organization)

<sup>&</sup>lt;sup>5</sup> OECD Working Papers on Public Governance No.26 "Social Media Use by Governments: A Policy Primer to Discuss Trends, Identify Policy Opportunities and Guide Decision Makers 2014

<sup>&</sup>lt;sup>6</sup> http://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf

Regional Ministry of Electricity in Kurdistan	Not Accessible	N/A?
Regional Ministry of Municipalities and Tourism in Kurdistan	Not Accessible	N/A?
UNDP Iraq office	186,504	17,220
KOICA Iraq Office Baghdad	1,799	Not found
Human of Mosul <sup>7</sup>	130,438	525
New Anbar Youth (NAY) <sup>8</sup>	49,519	41

(Source : Framed by survey team based on collected information) As of 16 Octobr 2019

Comparing the number of followers of Facebook and Twitter at Iraqi federal government and related institutions, the difference is more than obvious. As seen at Table. 3.2-2, the number of followers of Iraqi federal government Facebook exceeds 1.2million while its Twitter followers are less than 90,000. As some ministerial institution including the Ministry of Construction & Housing, Municipalities and Public Works, do not even have Twitter account nor have not yet actively engaged in its service, it is reasonable to see that Twitter is not being used as the most important social media tool for public relations. Only exception may be the Kurdistan Regional Government which has three times more followers of Twitter than Facebook.

Concentration of Facebook usage as the social media platform can also be seen in the international organization and other foreign aid agencies. For an example, UNDP (United Nations Development Programme) Iraq Office has more than 180,000 followers on its Facebook page whereas the number for Twitter remains one tenth of Facebook. KOICA, Korean International Cooperation Agency in Iraq has its Facebook for public relation but not Twitter. Also, the similar trend can be seen at civil group which engage actively on reconstruction work of Iraq. Human of Mosul which has its operation base in northern Iraq has its platform on Facebook and it has more than 130,000 followers whereas on Twitter, it barely exceeds 500. New Anbar Youth (NAY), another civil group also has similar status.

Considering the above mentioned, it can be concluded that the most effective social media tool in Iraq for the moment is Facebook. However, as social media platform has been diversified in recent year as not only Twitter, but Instagram and Snapchat also gained more users. Therefore, it is not certain whether the Facebook can maintain its advantage in Iraq and therefore it must be advised to follow carefully the trend of followers at each platform.

## (3) Advantage of videos on internet (social media) in Iraq

One of the characteristics in internet usage among Iraqi people is that they have heavy access to video related page compare to non-video (text oriented) website. According to BBG-Gullup survey, 73.9

<sup>&</sup>lt;sup>7</sup> Human of Mosul: Local civil organization in Mosul and Nieve established in August 2019. An independent media platform focused on the Mosul community, seeking to create a conscious youth generation that contributes to the restoration of life in the city. The total number of staffs is 23 and its facebook followers are 131,082.

<sup>&</sup>lt;sup>8</sup> New Anbar Youth (NAY): Local civil organizationin Anbar region. A media platform based on Facebook that shares moderate ideas and news regarding reconstruction and restoration of the region. The total number of staffs is 23 and its facebook followers are 53,582.

respondents accessed some sort of video programme (TV programmes, news reports, etc.,) whereas 63.3% of respondents accessed to internet for text-oriented news or other content. This can be an important aspect when it comes to consider and determine social media strategy for public relations in Iraq. In fact, many of Iraqi governmental institution engage in posting video related information for publication of their news and announcements.

#### (4) Key findings and impact of the online campaign

Taking above (1) to (3) into consideration, the project set up a platform on JICA Iraq Office Facebook page for posting the videos. Dissemination to related organization and civil groups were then followed.

ARK Group, subcontractor for advocacy campaign, and its outreach team ran quantitative and qualitative analysis on all videos posted across different platforms including YouTube, Instagram and Facebook pages such as JICA Iraq Office Facebook page, New Anbar Youth (NAY) and Humans of Mosul (HoM). Qualitative data was gathered in the form of content analysis through posts and comment analysis during the reporting period from 3<sup>rd</sup> of September 2019 to 22<sup>nd</sup> of September 2019. Current Key Performance Indicators (KPI) Summary is as shown in Table 3-2-3. Throughout the survey by posting 15 videos in total, JICA Iraq Office's Facebook page gained 211,681 total reach for the videos which indicate that the video had more than 14,000 reach on average. This is 2.6 times higher than the number of the followers of the page and therefore it can be said that posting video saw successful impact to some degree.

Meanwhile, current KPI for each video is shown in Table 3-2-4. As each viewer has different interest, it is inevitable to find rather big gap in the number of reach, impression and views among the posted videos. However, it can be summarized that overall reaction was positive and affirmative that there were only two negative comments reported and, on average, 937 Like! were gained for each video. Some positive comments include;



"Work is not merely an honor, nor is it a place of pride. Thank you for your wonderful efforts, and for your work and cooperation for the advancement of this institution, which you would not have progressed and prospered."

The video in this post features the Hartha Thermal Power Plant Rehabilitation Project that aimed at rehabilitating Unit 4 of Hartha Thermal Power Plant. As a result of JICA's work, the production capacity of the plant has increased and improved the supply of electricity for the neighbouring residents. The video reached 24,313 users and gained 196 reactions, 13 comments, and 10 shares.

Alaa A. Shati فكرا jica وانثر تدعمون الزراعة وجمعيات مستعدمي المياد وكل ماله شأن في اعاده الانتشطة الاقتصادية، انثر بلد صديق واخره بالانسانية "Thank you JICA for supporting the agriculture and water support organizations and everyone involved in developing the economics. Your country is a friend and you are brothers for us."



Hamid Abdulla Great work JICA .... congratulations

"Wonderful efforts in Iraq. Thank you JICA!"

*"we really appreciate these efforts from you..thank you"* 

"Great work JICA... congratulations"

The video in this post features Khor Al-Zubair Fertilizer Plant Rehabilitation Project, which increased the production capacity of the plant from 50% to 70%. Mr. Talib, a farmer in Basra shared the benefit

of this project on the video. The video reached 1,512 users, 52 reactions, 3 comments and 5 shares.

 Table 3.2-3
 KPIs to uploaded videos at JICA Iraq office facebook page in total

Number of Page Fans	5,241
Number of Page Followers	5,438
Percent of Engaged Female Audience	14%
Page Engagement rate	1.90%
Number of Posts	15
Total Reach for the videos	211,681
Total impressions	242,068

Key Definitions Fans: People who liked the Facebook page. Reach: People who had the Page's post enter their screen. Posts include statuses, photos, links, videos and more. Impressions: The number of times the Page's post entered a person's screen. Posts include statuses, photos, links, videos and more Engagement: Unique people who engaged in certain ways with the Page post, for example by commenting on, liking, sharing, or clicking upon particular elements of the post over the number of reached people.

(Source : Framed by survey team based on collected information)

Table 3.2-4	KPIs to uploaded videos	at JICA Iraq office	facebook page per video
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Date of upload	Project	Reach	Impression	Negative comment	Like !	Number of views <sup>9</sup>
3 Sep 2019	Irrigation Sector Loan (Overview/East Gharraf)	32,498	38,303	0	917	0
4 Sep 2019	Irrigation Sector Loan (Overview/Wasit)	28,018	33,263	0	713	0
5 Sep 2019	Irrigation Sector Loan (Human Element)	29,296	35,375	0	751	0
6 Sep 2019	Khor Al-Zubair Fertilizer Plant Rehabilitation Project (Overview)	476	752	0	659	0
7 Sep 2019	Khor Al-Zubair Fertilizer Plant Rehabilitation Project (Human Element)	2,573	3,672	0	559	0
11 Sep 2019	Port Sector Rehabilitation Project (Overview/UQP)	27,749	30,407	0	1,220	448
12 Sep 2019	Port Sector Rehabilitation Project (Overview/KZP)	4,754	6,946	0	1,196	2,096

<sup>&</sup>lt;sup>9</sup>At the beginning, "The number of views" did not increase as much as expected. However, shifting way of playing video from YouTube-redirected to direct view on JICA's facbebook, the number saw significant increase by several hundreds. \*Original video of Irrigation Sector Loan videos was re-posted.

13 Sep 2019	Port Sector Rehabilitation Project (Human Element)	34,898	34,932	0	826	294
14 Sep 2019	Hartha Thermal Power Plant Rehabilitation Project (Overview)	24,313	27,723	1	1,352	547
15 Sep 2019	Hartha Thermal Power Plant Rehabilitation Project (Human Element)	22,567	24,150	0	1,209	386
17 Sep 2019	Khor Al-Zubair Fertilizer Plant Rehabilitation Project (Overview)	925	1,380	0	1,078	322
19 Sep 2019	Khor Al-Zubair Fertilizer Plant Rehabilitation Project (Humana Elements)	1,518	2,135	1	1,170	665
20 Sep 2019	Irrigation Sector Loan (Overview/East Gharraf)	889	1,291	0	788	236
21 Sep 2019	Irrigation Sector Loan (Overview/Wasit)	783	1,175	0	879	269
22 Sep 2019	Irrigation Sector Loan (Human Element)	571	805	0	735	163

(Source : Framed by survey team based on collected information)

On the other hand, through dissemination of videos to civil groups, following KPIs have been gained.

	KPI	Human of Mosul	New Anbar Youth
	Number of Page Fans	125,801	46,918
General Page Metrics	Number of Page Followers	130,438	49,519
	Percent of Engaged Female Audience	33%%	21%

0.58%

5

7,022

10,618

1.12%

5

4,146

6,195

 Table 3.2-5
 KPIs to disseminated videos to civil groups in total

(Source : Framed by survey team based on collected information)

Total Reach for the videos

Page Engagement rate

Number of Posts

Total impressions

Campaign-related

Metrics

Table 3.2-6	KPIs to disseminated	videos to civil	groups per video <sup>10</sup>
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Posted	Video	Reach	Impression	Engagement	% of engagement			
	Human of Mosul							
14 Sep 2019	Irrigation Sector Loan (Overview/Wasit)	2,325	3,632	69	3%			
16 Sep 2019	Khor Al-Zubair Fertilizer Plant Rehabilitation Project (Human element)	2,704	3,945	57	2%			
18 Sep 2019	Khor Al-Zubair Fertilizer Plant Rehabilitation Project (Overview)	1,993	3,041	63	3%			
New Anbar Youth								
15 Sep 2019	Khor Al-Zubair Fertilizer Plant Rehabilitation Project (Human element)	1,749	2,571	57	3%			
12 Sep 2019	Irrigation Sector Loan (Overview/Wasi)	979	1,464	47	5%			
11 Sep 2019	Irrigation Sector Loan (Overview/East Gharraf)	1,418	2,160	40	3%			

(Source : Framed by survey team based on collected information)

<sup>&</sup>lt;sup>10</sup> Each of two civil groups posted five videos initially (as seen in Table 3.2-6), Some of the videos featured the government as a critical partner of JICA and this was perceived negatively by the administrators of these facebook pages, they have deleted two of them from their own Facebook. Therefore, there are only three videos available for analysis.

### Humans of Mosul (HoM) Facebook Page

Humans of Mosul was launched on 13<sup>th</sup> September 2017 as part of the Strategic Communications Support to Stabilization Operations project in Mosul. The page is run by a network of youth reporters and has the objective of promoting positive messaging on stabilization and reconstruction efforts in Nineveh province. Increasing youth self-agency is also another key objective for the page.

#### New Anbar Youth (NAY) Facebook Page

New Anbar Youth (NAY) is a network of youth reporters established in Anbar as part of the Strategic Communications Support to Stabilization Operations project. The objective of the network is to promote positive messaging within their communities and the wider Iraqi community on reconstruction, stabilization, and peacebuilding efforts while creating self-agency among Anbari youth. NAY's Facebook page was launched in May 2017.

Additional Facebook Page-Related Metrics for each institution are shown in Table 3.2-7

	Followers Origin (% & actual number)		Iraqi Public (% & actual number)		First language (% & actual number)		Gender (% & actual number)					
JICA Iraq	Iraq	78%	4,242	Baghdad	34%	1,849	Arabic	56%	3,045	Male	83%	4,514
Number of followers	Japan	5%	272	Erbil	14%	761	English	33%	1,795			
5,438	Other (USA Turkey)	17%	924	Sulay maniy ah	13%	707	Japanese	4%	218	Female	17%	924
Human of Mosul (HoM)	Iraq	96%	125,220	Mosul	38%	49,566	Arabic	94%	122,612	Male	70%	91,307
Number of followers	Turkey	1%	1,304	Baghdad	24%	31,305	English	4%	5,218			
130,438	Other(Jordan,Ger man)	3%	3,913	Erbil	6%	7,826	Other (Portugie etc)	2%	2,609	Female	30%	39,131
New Anbar Youth	Iraq	97%	48,033	Baghdad	57%	28,226	Arabic	96%	47,538	Mala	770/	29 120
(NAY)	Turkey	1%	495	Anbar	16%	7,923	English	2%	990	Male	1170	50,150
Number of followers	Other			Mosul	3%	1,486	Other					
49,519	(Jordan, German)	2%	990	Others (Basra, Erbil)	24%	11,885	(Turkish etc)	2%	990	Female	23%	11,389

 Table 3.2-7
 Metrics for each institution's facebook page followers

(Source : Framed by survey team based on collected information)

In each Facebook page, most of its followers are Iraqis. Meanwhile, as per audience of JICA Iraq Office Facebook page, the highest percentages of the page's audience are from Baghdad (34%), Erbil (14%), Sulaymaniyah (13%), and the 39% remaining are based in other cities in Iraq such as Najaf, Duhuk, Kirkuk and Karbala. For HoM, the highest percentages of the page's audience are based in Mosul (38%), Baghdad (24%), Erbil (6%), and the 38% remaining are based in other cities in Iraq such as Kirkuk, Basra, Najaf and Tikri whereas at NAY, the highest percentages of the page's audience are based in Baghdad (57%) despite the organization is based in Anbar, following Anbar (16%), Mosul (3%), and

the 24% remaining are based in other cities in Iraq such as Basra, Erbil, and Najaf. Looking at the first language, more than 90% of audience at the civil group use Arabic as the first language whereas at JICA Iraq Office's audience, it was found that 56% of the audience use Arabic as their first language, 33% use English as a first language. As per gender, most audiences are men in all three platforms.

The project assigned well-known figures as "Influencer" for dissemination strategy. Each influencer went to the project site for reporting and introducing the project and their work was recorded in the form of videos. On 12<sup>th</sup> September 2019, one of Influencers posted the video onto his Instagram which has around 82,000 followers. As the video gained about 12,000 views and this figure is well above the number for the videos posted on JICA Iraq Office Facebook (on average 540 times), it can be said that the impact and the dissemination effect of the influencer were huge.

On the other hand, the survey ran Facebook Advertising. That is, to post related materials to targeted Facebook users who are likeky to show their interest. The overall result is as follow.

Project	Advertising date	Duration	Clicks	Reach	Male (%)	Female (%)
Irrigation Sector Loan Project: Overview:	4 - 6 Sept.	2 days	438	31,360	94.6	5.4
Irrigation Sector Loan Project: Overview	4 - 6 Sept.	2 days	401	24,008	85.6	14.4
Irrigation Sector Loan Project: Human Element	6 - 8 Sept.	2 days	878	29,240	98.9	1.1
Port Sector Rehabilitation Project – Human Element	16 - 18 Sept.	2 days	3,173	27,552	96.9	3.1
Port Sector Rehabilitation Project – Overview	16 - 18 Sept.	2 days	4,943	33,719	94.7	5.4
Hartha Thermal Power Plant Rehabilitation Project-Overview	17 - 19 Sept.	2 days	2,636	23,217	96.9	3.1
Hartha Thermal Power Plant Rehabilitation Project - Human Element	17 - 19 Sept.	2 days	2,183	21,712	94.9	5.1
	Average		2,093	27,258		

Effect of Advertising

Video without Advertising	Click	Reach
Khor Al-Zubair Fertilizer Plant Rehabilitation	59	925
Project (Overview)	(c)	( <b>d</b> )
Khor Al-Zubair Fertilizer Plant Rehabilitation	16	1518
Project (Human element)	(e)	( <b>f</b> )

(a)/(c)	35.5
(a)/(e)	130.8
(b)/(d)	29.5
(b)/(f)	18.0

(Source : Framed by survey team based on collected information)

The posts which ran Facebook Advertising gained more than 20,000 Reach on average while Port Sector Rehabilitation Project – Overview viedo gained the most Reach of 33,719. This video also gained the most

(a)

(b)

Clicks of 4,943 clicks where the average was 2,093. Comparing this result with the videos WITHOUT Advertising, the effect is obvious. Both Overview and Human Element video of Khor Al-Zubair Fertilizer Plant Rehabilitation Project which did not ran the Advertising only had Reach of 925 and 1,518 respectively. Also, the number of Clicks did not exceed 59 and 16 respectively. The average number of Clicks and Reach with and without the Advertising can be found at "Effect of Advertising" on the same table. The result is clear that the Click with the Advertising had 130 times and the Reach had nearly 30 times of those without the Advertising. Comparing the results, the posts WITH the Advertising service gained significantly more views and access. It can be therefore concluded that the Advertising is one of the effective tools for communication strategies.

Since it is generally believed that the lack of awareness and dissatisfaction of Iraq public over public works is causing low utility charge payments, one of the aims of this project is to examine whether effective PR and awareness-rising activities could result in the improvement of such attitude.

Within the survey period, such verification, that media campaign through social media site affected positively on improvement in awareness on public utility payment, has yet to be seen. As explained above, total of 15 videos were posted on JICA Iraq Office Facebook page (as well as on civil groups media platform). Most responces by users/viewers are appreciation to JICA for their effort on assisting public works in Iraq while we could not confirm any comments nor responces regarding awareness-rising on utility charge payments.

This could be due to the following reasons. Frist, the videos (Overview and/or Human Element) did not specifically focus on improvement of utility charge payments nor explicitly emphasize the importance of paying the bill. Rather, the contents and the purpose of the video remains the scope of introducing the overall project (public works) and did not largely go beyond that. Although some of those who appear in the videos mention about utility charge payement, those parts are very much limited. Therefore, the viewers were not necessarily motivated to show their strong interest and/or affirmative response on the improvement of utility charge payment. Secondly, the lead sentences of the videos on the post only contained the name and the outline of the project. Should the explanation of the post have explicitly and directly mentioned about its purpose of questioning the awareness of the beneficiaries, the viewers were more likely to have responded accordingly. (Such response includes commenting on utility charge payment, agree or disagree). This also can be assumed from the result of questionnaires from the screening event. 98% of participants answered that they could understand the importance of paying utilities after watching short films of JICA's projects. (please see Fig.3.2-4). It is therefore considered to be possible to intentionally enocourage viewers to recognize importance and necessity of being aware of public utility payment by adding related explanation and/or setting up query in addition to the videos.

(5) Issues over social media use for public relations:

(a) Posting methods: JICA Iraq Office Facebook page initially posted videos in the form of linking to YoutTube. That is, audiences must be re-directed to YouTube site to watch the video. This way of playing the video had rather negative effect in terms of gaining viewers. For an example, Overview video of Irrigation Sector Loan (East Gharaf), the first video posted, only had few dozen views for two days posting. JICA Iraq Office was therefore advised to directly show videos on its Facebook page. This method was applied from the foruth video (Khor Al-Zubaiar Fertilizer Plant Rehabilitation Project-Overview) and had significant effect as video gained more than few hundred views since then. This indicates that using Facebook as the platform of posting videos, the format needs to be user friendly.

Also, as it has been a global trend to make hush tag on each post to motivate viewers to access to the post of their interest, it should be considered to make effective hush tags as possible in additional posting.

- (b) Wider dissemination: Some of the civil group platforms were used for dissemination of the videos. It can be advised to expand its dissemination site to Iraqi governmental Facebook. As mentioned above, Iraqi central government has more than one million followers at its Facebook, posting video there would result in gaining more access and therefore better dissemination.
- (c) Political instability and internet blackout: As already mentioned above, there was a protest erupted intermittently while the project was underway. Following the protest, government shut down the internet and therefore the project had to face internet blackout for certain period and as a result, the number of access to social media platform was decreased. Also, considering the situation it was inevitable to postpone posting some videos for a certain period. Political instability in Iraq can be occurred in the future time and accordingly it can be easily predicted that internet blackout might happen. It is extremely difficult to make pre-measurements to avoid the blackout especially if it is related to the Iraqi government operation. This is one the major regulations and/or external factor for any organization or institution to face in public relation strategy with social media.

#### **3.2-3 Screening Event**

For the purpose of introduction of the filmed projects funded and implemented by JICA and the government of Iraq, the screening events were held in the southern and northern (Kurdistan) region in the country. At the beginning of this study, it was planned to hold event in the middle region including Baghdad as well. However, it was decided to carry out only in the southern and Kurdistan regions after consideration that higher interests, specific reaction and publicity can be obtained from the areas where the pilot projects have been implemented.

(1) Methodology

In each region where the screening event were held, community member and public affiliation staff who are directly benefitted by the pilot projects were invited. In the notice of the event, the invitation was distributed directly by ARK with the civil society organization in each region, considering that there is no bias in specific party, sect, religion and political trends, etc.

At the event, several short films were screened after explanation of each project's outline by the moderator. Then, after the short film screening ended, participants answered to the questionnairs which includes both general questions and project specified questions. Through those answeres and comments, changes of feelings and concisousness before and after the offline screening event were investigated. The questionnairs were rougly divided into four categories such as 1) awareness of JICA's projects, 2) government role in implementation and sustainable development, 3) changes of attitude (paying taxes for sustaining projects), and 4) links to stabilization and peacebuilding. The collected data was uploaded to a data intelligence platform called Social Cops Collect for analysis.

(2) Results

Table 3.2-9 shows the results of each screening event. With respect for the local custom in the southern region refraining from hosting festive events just after the Isramic new year which was 1<sup>st</sup> September 2019, the event was conducted in a simple manner and the number of participants at Basra city and Nassiriyah city was less than expected.

	Basra city, Basra	Nassiriyah city, Thi Qar	Erbil city, Erbil
Date	28 September 2019 18:00 – 20:00	30 September 2019 11:30 – 13:30	2 October 2019 12 :00 – 14 :00
Venue	Mnawi Bash Hotel	Orkida Restaurant	Krestal Hotel
Participants	Total 31 (Male 26、Female 5)	Total 32 (Male 25、Female 7)	Total 39 (Male 30、Female 9)
Screened films	<ul> <li>Irrigation Sector Loan Project– Overview</li> <li>Hartha Thermal Power Plant Rehabilitation Project – Overview</li> <li>Port Sector Rehabilitation Project – Overview</li> </ul>	<ul> <li>Irrigation Sector Loan Project-Overview</li> <li>The Project for Sustainable Irrigation Water Management through Water Users Associations-Overview,</li> <li>Khor Al-Zubair Fertilizer Plant Rehabilitation Project- Overview</li> </ul>	<ul> <li>The Project on Horticulture Technology Improvement and Extension-Human Element</li> <li>Water Supply Improvement Project in Kurdistan Region- Overview</li> <li>Deralok Hydropower Plant Construction Project- Overview</li> </ul>
#### (3) Feedback from the audience

In general, feedback gathered reflected a positive assessment of the three screening events; the audience reported a positive shift in their awareness of the prevalence and diversity of JICA's projects, an appreciation of the government's role in sustaining these projects, and an understanding of the public's role in sustaining these projects and their linkages to post conflict stability and peacebuilding. The following sections represent a detailed analysis and key findings of the video screenings according to the four main outcomes/ objectives as follows:

#### Awareness of JICA's Projects

The survey indicated that 55% of the events' participants had no awareness of JICA's project prior to the screening, however, 88% of the participants noted that the screening events somewhat to substantially helped them to understand the variety of projects JICA implementing in their respective communities. Additionally, when asked about some of the most important aspects that caught their attention in terms of JICA's work, prevalence and diversity of the projects (57%), the implementation of large-scale projects (52%), and impact on local communities (49%) were rated the highest among others as shown in the graph below.





#### Government Role in Implementation and Sustainable Development

After the screening, the audience was asked to indicate whether they had prior awareness/knowledge of the Iraqi government's role in sustaining such projects and only 38% reported awareness of the government's efforts/involvement. However, awareness and confidence in the Iraqi government's role have increased as a result



Fig. 3.2-2: Responses to "To what extent did the screening help to increase your confidence in the government efforts to provide similar services? "

of the screening as shown in Fig.3.2-2. The government's role, according to the targeted audience, mainly focuses on: creating effective tax collection methods (52%), raising awareness of the importance of similar projects (18%), and the proper utilisation of taxes (14%) among others (16%).



# Figure 3.2-3: Responses to "In your opinion, what is the role of the government in sustaining such projects?"

> The Iraqi Public's Role in Sustaining and Supporting Development Projects

The surveys revealed that the video screening helped 98% of the events' participants to somewhat to substantially understand the importance of paying utilities as part of their role in sustaining these projects. Reflecting on their role after attending the events, respondents answered the following.



## Fig. 3.2-4 Responses to "After the screening, how do you rate your role as a citizen in sustaining these projects?"

The majority of participants indicated that the videos facilitated a better understanding through explaining how paying taxes and bills ensure the sustainability of public services (79%), demonstrating the success of these projects and their impact on communities (78%), and raising awareness of the funding mechanisms of these projects (73%).



Fig. 3.2-5 Responses to "How do these projects influence your perception of the importance of paying taxes and bills for obtaining public services?"

Links to Stabilization and Peacebuilding

The majority of respondents (95%) believe that the screened projects somewhat to substantially target major obstacles to post-conflict stability and peace (as shown in Fig.3.2-6). Various ways were reported by respondents on how they perceive the impact of JICA's projects on targeted communities and post-conflict peacebuilding efforts including: 1) improving the quality of life, 2) providing essential services for daily lives; 3) revitalizing the local economy; 4) building technical knowledge and expertise; 5) supporting post-war reconstruction in Iraq; 6) contributing to national unity and peacebuilding; 7) building a foundation for livelihoods; 8) strengthening basic economic infrastructure; 9) promoting and diversifying industry for economic growth. The graph below represents the data collected.



Fig. 3.2-6 Responses to "To the extent of your knowledge and/or based on the video screening, please describe the impact of JICA's work on you and in Iraq?"

#### 4. Findings and Recommendations

This project conducted 1) the studies of public utility charges and management of O&M on the public infrastructure and, 2) PR and awareness-raising activities through social networking sites. The scope is to improve understanding of Iraqi citizens for the public works including the development of public infrastructure, and the awareness of paying public utility charges, which are all expected to lead to better management on the operation and maintenance of sustainable public infrastructure.

For awareness-raising activities, short films were produced. The major scope of the videos is to show the overview of JICA's engagements in public infrastructure development in Iraq and those films were introduced and played at the screening events with civil society organizations as well as posted on the JICA's Facebook page and social media networking sites.

The social media campaign was found very effective and successful to execute the awareness-raising activities in the purposes of improving citizens' understanding of importance on public infrastructure and willingness to pay the public utility charges. It should be valued of the fact that 98% of the participants in the public viewing answered that it was useful to be sensitized the importance of paying public utility charges.

It should also be valued of the fact that, throughtout the posting of produced films via social media, the number of "Like" which shows favorable reaction from the viewer was accumulated over 14,000 among the total number of REACH of which was accumulated over 210,000. In addition to the favorable responses, it was confirmed that the number of negative comments was only two. It is an evidence that JICA's engagements on the public infrastructure development in Iraq is very well received by the viewers in Iraq.

The internet connection was cut off several times in Iraq during this survey. It was reported that it had happened due the instability caused by the protest activities against vulnerable infrastructure. The awareness-raising activities such as posting to social media in this survey were proved to be fragile and seriously interfered with the plan. Although security situation in Iraq saw improvement over the last coupole of years, there seems to be a certain level of discontent against the government remaining among the public. There will be the social environment risk that this kind of unexpected civil disorder may be borne at least for the time being.

However, such risk cannot be an appropriate reason for the government to either hesitate or withdraw from the PR activities and/or awareness-raising. Since the major cause of popular discontent is seemed to be rooted in insufficient quality of public services, it is rather necessary to expand such PR activities through social media, which is increasingly prevalent, by the government agencies in Iraq although appropriate risk management and caution for unexpected political situation are needed.

## Annex I Field Survey Schedule

### 1 . First Study in Baghdad & Erbil $1^{st} - 9^{th}$ March 2019

Date	Day	Koji TAKAMATSU (Project Manager)	Yusuke MAEKAWA (Media Support)
1 March	Fri	Travel (Tokyo—Baghdad)	
2 March	Sat		
3 March	Sup	Meeting with JICA Iraq Office	
4 March	Mon	Meeting with Ministry of Construction Housing Municipality and Public Works	
- Watch	WIOII	Travel (Baghdad-Erbil)	
5 March	Tue	Meeting with JICA Erbil Office	
6 March	Wed	Meeting with Regional Ministry of Electricity in Kurdistan, Regional Ministry of Municipalities and Tourism in Kurdistan	
7 March	Thu	Meeting with Ministry of Agriculture and Water Resources, Kurdistan Regional Government	
8 March	Fri	Reporting	Project site visit
		Travel (Erbil—Tokyo)	
9 March	Sat		

#### 2. Second Study in Baghdad, Erbil and Amman 28<sup>th</sup> June – 6<sup>th</sup> July 2019

Date	Dav	Koji TAKAMATSU	Yuriya TERAGAKI	
Duit	Duy	(Project Manager)	(Project Coordinator)	
28 June	Fri	Travel (Tokyo—Baghdad)		
29 June	Sat			
		Internal meeting with national coordinator		
30 Juna	Sup	Meeting with Ministry of Construction, Housing, Municipality and Public Works, Ministry of		
30 Julie	Suii	Electricity, UN Consultant, JICA Iraq Office		
		Meeting with Ministry of Construction, Housing, Municipality and Public Works		
1 July	Mon	Travel (Baghdad-Erbil)		
2 July	Tuo	Meeting with Regional Ministry of Municipalities and Tourism in Kurdistan, Regional Ministry of Electricity in Kurdistan, JICA Erbil Office		
2 July	Tue			
Travel (Erbil-Amman)				
3 July	Wed	Internal meeting with sub-contractor		
4 July	Thu	Internal meeting for editing, evaluation and offline event organization		
5 July	Fri	Reporting		
July	111			
6 July	Sat	Travel (Amman—Tokyo)		

#### Annex II Questionnaire

#### QUESTIONNAIRE

We appreciate your help in evaluating this event. Please indicate your answers to each question below by using (X) next to the appropriate answer. Please fill out both sides of this form:

#### Awareness of JICA's Projects

- 1. Have you heard about JICA prior to this screening? No \_\_\_\_ Yes 2. Have you heard about JICA's projects prior to this screening?
- Somewhat \_Yes No
- 3. To what extent did the video screening help you understand JICA's work in Iraq? \_Substantially Somewhat
- at all
- 4. What was the most thing that caught your attention in terms of JICA's work? (Check all that apply)

Not

)

- Prevalence and diversity of JICA's projects
- The implementation of large-scale projects
- Relevance to local needs
- Impact on local communities Focus on essential services
- Impact on local economy
- Sustainability of projects Other (Please specify
- 5. What specific things did you like least about JICA's work?
- 6. List any other things you would be interested to know about JICA's projects:

#### Government Role in Implementation and Sustainable Development

1. -	Were you aware of the Iraqi gover Yes	nment role is similar projects prior to No	o this screening?
2.	To what extent did this screening providing such services?	help you to understand the role of th	e Iraqi Government in
	Substantially	Somewhat	Not
ata	all		
3.	To what extent did the screening h	nelp to increase your confidence in th	he government efforts to
	provide similar services?		-
	Substantially	Somewhat	Not
ata	all		

4. In your opinion, what is the role of the government in sustaining such projects?

Effective tax collections methods

Proper utilization of taxes to pay for maintenance of projects

Raise awareness on how to sustain projects

Other (Please specify

#### Change of Attitude (paying taxes for sustaining projects)

1. Did this screening make you understand the importance of paying utility bills in order to sustain these projects?

Substantially

Somewhat

Not

at all

- 2. After the screening, how do you rate your role as a citizen in sustaining these projects?
- Strong role

Somewhat strong

- No role at all
- 3. How do these projects influence your perception of the importance of paying taxes and bills for public services such as electricity and water bills? (Check all that apply)

Through explaining how water and electricity bills ensure the sustainability of public services.

- Through demonstrating the success of these projects and their impact on communities.
- Through raising awareness on the funding mechanisms of these projects.
- Other (Please specify
- To what extent this screening creates awareness and influences people's perception of the importance of paying taxes and bills for public services such as electricity and water bills, and why?
  - To a large extent
  - To some extent
  - \_\_ Not at all (reason

)

)

- 5. As a result of attending this event, I see the value to me in the following ways (Check all that apply):
  - \_\_\_\_I gained one or more specific ideas about JICA work in my community
  - I gained more knowledge of the impact of these projects on my community

I am more aware of the importance of paying taxes and bills for public services such as electricity and water bills

I do not see any impact of this event on my understanding of JICA's work nor the importance of the projects )

\_\_\_Other (Please specify

#### Links to Stabilization and Peacebuilding

1. Do you think that this type of projects helps with the stabilization and development of Iraq? Substantially Somewhat Not

at all

In your opinion, to what extent did the screened projects target major obstacles to post conflict 2. stability and peace? Substantially Somewhat Not

at all

- To the extent of your knowledge and/or based on the video screening, please describe the 3. impact of JICA's work on you and in Iraq? (Check all that apply)
  - Provided essential services for daily lives
  - Improved the quality of life
  - \_ Revitalized local economy
  - Built technical knowledge and expertise

- Supported post-war reconstruction in Iraq
- Contributed to national unity and peacebuilding
- Building a foundation for the livelihoods Strengthened basic economic infrastructure
- Promoted and diversified industry for economic growth
- Other (Please specify

#### )

#### GENERAL

Please choose the appropriate answer by circling the number using a scale of 1 (low) through 5 (high).

- 1. Video contents were presented clearly and effectively
- 2 Ż 4 5 2. Video contents presented were useful for me
  - 3 4 5 2 1
- 3. Presenters were responsive to questions/comments 2 3 4 5
- 4. Content met expectations 5 1 2 3 4

#### FACILITY

1. Was the facility adequate and appropriate for video screening?	Yes	No
<ul> <li>Somewhat</li> <li>Was the facility comfortable and did it provide adequate space?</li> <li>Somewhat</li> </ul>	Yes	No

#### Overall

I would rate this screening as:

Excellent

Good

Average

\_Poor

#### **Suggestions**

How could this event be improved to better communicate ideas to the audience? If the screening was repeated, what should be left out or changed?

## Annex III Data Analysis

Awareness of JICA's Projects	
Have you heard about JICA's projects prior to this screening?	
Yes No To what extent did the video screeping belo you understand JICA's work in Irag?	Percentage 45% 55%
To what extent did the video screening help you dhaerstand SICA's work in hay?	Dorcontago
Substantially Somewhat Not at all	26% 62% 12%
What was the most thing that caught your attention in terms of JICA's work?	
Prevalence and diversity of JICA's projects The implementation of large-scale projects Relevance to local needs Impact on local communities Focus on essential services Impact on local economy Sustainability of projects	Percentage 57% 52% 33% 49% 43% 8% 25%
Government Role in Implementation and Sustainable Development	
Were you aware of the Iraqi government role is similar projects prior to this screening? No Yes	Percentage 62% 38%
To what extent did this screening help you to understand the role of the Iragi Government in providing su	ch services?
Substantially Somewhat Not at all	Percentage 28% 60% 12%
To what extent did the screening help to increase your confidence in the government efforts to provide si	milar services?
Substantially Somewhat Not at all	Percentage 38% 52% 10%
In your opinion, what is the role of the government in sustaining such projects?	
Effective tax collections methods Proper utilization of taxes to pay for maintenance of projects	Percentage 52% 14%

Raise awareness on how to sustain projects     19%       Other     16%       Charge of Attitude (paying taxes for sustaining projects)     Percentage       Did this screening make you understand the importance of paying taxes and bills in order to sustain these projects?     Percentage       Substantially     76%       Somewhat     22%       Not at all     2%       After the screening, how do you rate your role as a citizen in sustaining these projects?     Percentage       Strong role     66%       Somewhat strong     29%       No role at all     5%       How do these projects influence your perception of the importance of paying taxes and bills for obtaining public services.     79%       Through explaining how paying taxes and bills ensure the sustainability of public services.     79%       Through explaining how paying taxes and bills ensure the sustainability of public services.     79%       Through explaining how paying taxes and bills ensure the sustainability of public services.     79%       Through explaining how paying taxes and bills ensure the sustainability of public services.     79%       To what extent this screening creates awareness and influences peoplet's perception of the importance of paying taxes and bills for public services?     28%       To what extent this screening creates awareness and influences people's perception of the importance of paying taxes and bills for public services?     28%       To a large extent		
Change of Attitude (paying taxes for sustaining projects) Did this screening make you understand the importance of paying taxes and bills in order to sustain these projects? Percentage Substantially 22% Not at all 22% After the screening, how do you rate your role as a clitzen in sustaining these projects? For centage Strong role 66% Somewhat strong 29% No role at all 5% How do these projects influence your perception of the importance of paying taxes and bills for obtaining public services? For centage Through explaining how paying taxes and bills ensure the sustainability of public services. Through raising awareness on the funding mechanisms of these projects. To what extent this screening creates awareness and influences people's perception of the importance of paying taxes and bills for public services? Fercentage To a large extent 28% No at all 68 Some what 156 Some what Some Now Some Some 156 Some Now Some Some Some 156 Some Now Some Some Some Some Some Some Some Some	Raise awareness on how to sustain projects Other	18% 16%
Did this screening make you understand the importance of paying taxes and bills in order to sustain these projects?       Percentage         Substantially       76%         Somewhat       22%         After the screening, how do you rate your role as a citizen in sustaining these projects?       Percentage         Strong role       66%         Somewhat strong       29%         No role at all       5%         How do these projects influence your perception of the importance of paying taxes and bills for obtaining public services?       Percentage         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         To what extent this screening creates awareness and influences peoplers perception of the importance of paying taxes and bills for public services?       9%         To what extent this screening treates awareness and influences peoplers perception of the importance of paying taxes and bills for public services?       9%         To some extent       66%       66%         No at all (Reason       16%         As a result of attending this event, I see the value to me in the following ways       28%         I amorea ware of the importance of paying taxes a	Change of Attitude (paying taxes for sustaining projects)	
Substantially       76%         Somewhat       22%         Not at all       2%         After the screening, how do you rate your role as a citizen in sustaining these projects?       Percentage         Somewhat strong       29%         No role at all       5%         How do these projects influence your perception of the importance of paying taxes and bills for obtaining public services?       Percentage         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through taising awareness on the funding mechanisms of these projects.       73%         Other (Please specify:       0%         To what extent this screening creates awareness and influences people's perception of the importance of paying taxes and bills for some extent       56%         No at all (Reason       16%         As a result of attending this event, I see the value to me in the following ways       Percentage         1 gained once rome specific ideas about JICA work in my community       3%         1 gained once rome specific ideas about JICA work in my community       3%         1 gained once drift himportance of paying taxes and bills       24%	Did this screening make you understand the importance of paying taxes and bills in order to sustain thes	e projects? Percentage
After the screening, how do you rate your role as a cilizen in sustaining these projects?       Percentage         Strong role       66%         Somewhat strong       29%         No role at all       5%         How do these projects influence your perception of the importance of paying taxes and bills for obtainity users       Percentage         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through demonstrating the success of these projects and their impact on communities.       78%         Through raising awareness on the funding mechanisms of these projects.       73%         Other (Please specify:       0%         To a large extent       28%         To some extent       56%         No at all (Reason       16%         Sa a result of attending this event, I see the value to me in the following ways       Percentage         1 gained oner on more specific ideas about JICA work in my community       38%         1 gained more knowledge of the impact of these projects on my community       35%         1 gained more knowledge of the impact of these projects on my community       35%         1 gained more knowledge of the impact of these projects on my community       35%         1 gained more knowledge of the impact of these projects on my community       35%         1 gained more knowledge of the impact	Substantially Somewhat Not at all	76% 22% 2%
Strong role       66%         Somewhat strong       29%         No role at all       5%         How do these projects influence your perception of the importance of paying taxes and bills for obtaining power paying taxes and bills ensure the sustainability of public services.       Percentage         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through demonstrating the success of these projects and their impact on communities.       78%         Through taxing awareness on the funding mechanisms of these projects.       73%         Other (Please specify:       0%         To what extent this screening creates awareness and influences people's perception of the importance of paying taxes       Percentage         10 a large extent       56%         No at all (Reason       16%         As a result of attending this event, I see the value to me in the following ways       Percentage         1 gained one or more specific ideas about JICA work in my community       38%         1 gained more knowledge of the impact of these projects on my community       35%         2 more aware of the impact of these projects and bills       24%         2 hor out think that this type of projects helps with the stabilization and development of Iraq?       3%         2 uot think that this type of projects helps with the stabilization and development of Iraq?       5%	After the screening, how do you rate your role as a citizen in sustaining these projects?	
How do these projects influence your perception of the importance of paying taxes and bills for obtaining public       Percentage         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through explaining the success of these projects and their impact on communities.       78%         Through raising awareness on the funding mechanisms of these projects.       0%         Other (Please specify:       0%         To what extent this screening creates awareness and influences people's perception of the importance of paying taxes and bills for public services?       Percentage         To a large extent       56%         No at all (Reason       16%         As a result of attending this event, I see the value to me in the following ways       Percentage         I gained one or more specific ideas about JICA work in my community       35%         I am more aware of the importance of paying taxes and bills       24%         I do not see any impact of thise vent on my understanding of JICA's work nor the importance of the projects       3% <b>Links to Stabilization and Peacebuilding</b> Percentage         Substantially       59%         Somewhat       37%         At all       4%	Strong role Somewhat strong No role at all	Percentage 66% 29% 5%
Services?       Percentage         Through explaining how paying taxes and bills ensure the sustainability of public services.       79%         Through demonstrating the success of these projects and their impact on communities.       78%         Through raising awareness on the funding mechanisms of these projects.       73%         Other (Please specify:       0%         To what extent this screening creates awareness and influences people's perception of the importance of paying taxes and bills for public services?       Percentage         To a large extent       28%         To some extent       56%         No at all (Reason       16%         As a result of attending this event, I see the value to me in the following ways       Percentage         1 gained one or more specific ideas about JICA work in my community       38%         1 gained more knowledge of the importance of paying taxes and bills       24%         1 do not see any impact of this event on my understanding of JICA's work nor the importance of the mortance of the projects       3% <b>Links to Stabilization and Peacebuilding</b> Se%         Somewhat       37%         No at all       4%	How do these projects influence your perception of the importance of paying taxes and bills for obtaining	public
To what extent this screening creates awareness and influences people's perception of the importance of paying taxes and bills for public services?       Percentage         To a large extent       28%         To some extent       56%         No at all (Reason       16%         As a result of attending this event, I see the value to me in the following ways       Percentage         I gained one or more specific ideas about JICA work in my community       38%         I gained more knowledge of the impact of these projects on my community       35%         I am more aware of the impact of these projects on my community       3%         I do not see any impact of this event on my understanding of JICA's work nor the importance of the       3% <b>Links to Stabilization and Peacebuilding</b> Percentage         Substantially       59%         Somewhat       37%         Not at all       4%	Through explaining how paying taxes and bills ensure the sustainability of public services. Through demonstrating the success of these projects and their impact on communities. Through raising awareness on the funding mechanisms of these projects. Other (Please specify:	Percentage 79% 78% 73% 0%
Percentage 28% 26% 56% 16%To a large extent to some extent28% 26% 56% 16%No at all (Reason16%As a result of attending this event, I see the value to me in the following waysPercentage 38% 35% 24%I gained one or more specific ideas about JICA work in my community an more aware of the impact of these projects on my community arm more aware of the importance of paying taxes and bills do not see any impact of this event on my understanding of JICA's work nor the importance of the 3%Links to Stabilization and PeacebuildingPercentage 3%Substantially Somewhat Not at all59% 37%	To what extent this screening creates awareness and influences people's perception of the importance of and bills for public services?	f paying taxes
As a result of attending this event, I see the value to me in the following waysPercentageI gained one or more specific ideas about JICA work in my community38%I gained more knowledge of the impact of these projects on my community35%I am more aware of the importance of paying taxes and bills24%I do not see any impact of this event on my understanding of JICA's work nor the importance of the3% <b>Links to Stabilization and Peacebuilding</b> PercentageSubstantially59%Somewhat37%Not at all4%	To a large extent To some extent No at all (Reason	Percentage 28% 56% 16%
I gained one or more specific ideas about JICA work in my community38%I gained more knowledge of the impact of these projects on my community35%I am more aware of the importance of paying taxes and bills24%I do not see any impact of this event on my understanding of JICA's work nor the importance of the projects3%Links to Stabilization and PeacebuildingDo you think that this type of projects helps with the stabilization and development of Iraq?PercentageSubstantially59%Somewhat37%Not at all4%	As a result of attending this event, I see the value to me in the following ways	Dorcontago
Links to Stabilization and Peacebuilding Do you think that this type of projects helps with the stabilization and development of Iraq? Percentage Substantially Somewhat Not at all	I gained one or more specific ideas about JICA work in my community I gained more knowledge of the impact of these projects on my community I am more aware of the importance of paying taxes and bills I do not see any impact of this event on my understanding of JICA's work nor the importance of the projects	38% 35% 24% 3%
Do you think that this type of projects helps with the stabilization and development of Iraq?          Percentage         Substantially       59%         Somewhat       37%         Not at all       4%	Links to Stabilization and Peacebuilding	
Substantially59%Somewhat37%Not at all4%	Do you think that this type of projects helps with the stabilization and development of Iraq?	Percentage
	Substantially Somewhat Not at all	59% 37% 4%

In your opinion, to what extent did the screened projects target major obstacles to post conflict stabilit	y and peace?
	Percentage
Substantially	65%
Somewhat	30%
Not at all	5%
<b>.</b>	
To the extent of your knowledge and/or based on the video screening, please describe the impact of a you and in Irao?	JICA'S WORK ON
	Percentage
Provided essential services for daily lives	17%
Improved the quality of life	36%
Revitalized local economy	15%
Built technical knowledge and expertise	9%
Supported post-war reconstruction in Iraq	6%
Contributed to national unity and peacebuilding	9%
Strengthened basic economic infrastructure and livelihood	8%
Querall	
Uverall	

I would rate this screening as:

Excellent Good Average Poor	Percentage 38% 45% 13% 3%
Facility Was the facility adequate and appropriate for video screening? Was the facility comfortable and did it provide adequate space?	Percentage 89% 89%
General	Percentage
Video contents were presented clearly and effectively	89%
Video contents presented were useful for me	85%
Content met expectations	87%

#### Annex IV Screening Event Invitation and Agenda sample

تدعوكم منظمة JICA اليابانية التي تعمل في مشاريع تخص وزارة الموارد المائية و وزارة الكهرباء لحضور مؤتمر تعريفي عن منظمة JICA و المشاريع التي انشأتها في أربيل لتحسين الخدمات في قطاعات الطاقة والمآء والصرف الصح التاريخ: ٢ / ١٠ / ٢٠ الساعة:٢١ - ٢ ظهرا للأستقسار: ٧٧٠٥٨٢٧٧٤٩. المكان: فندق كريستال

#### Translation :

Invitation for screening event to introduce projects funded and implemented by JICA in partnership with the government which improved infrastructure such as water and electricity in Erbil. Date : 2 October 2019 Time : 12:00pm – 2:00pm Venue : Cristal Hotel

## Erbil Event Agenda

(Stoed) 122

12:00.pm - 2:00 pm

Opening and introduction	12:00 - 12:10	
MC Speech	12:10 - 12:40	
Screening for three videos	12:40 - 12:55	
Feedback questionnaire and writing down questions from participants	12:55 - 1:25	
Closing speech by MC	1:25 - 1:30	
Dinner and music band	1:30 - 2:00	

### Annex V List of invited government representatives

- Local government (a representative of the governor or a deputy governor)
- Basra Provincial Council Services Committee
- Basra Provincial Council Electricity Committee
- Erbil Distribution Manager
- Erbil Electricity Production Manager
- Erbil Fertilizer Manager
- Director of Erbil Municipality
- Basra Housing Manager
- Erbil Director of Contracts Section at the Ministry of Water Resources
- Erbil Manager of Erbil Sewer
- Manager of Erbil Water
- Erbil Director of Health
- Erbil Director of Agriculture
- Erbil / Basra Transportation Managers
- PMTs