Chapter 5

Environmental and Social Considerations for the Project

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5.1 Legal and Administrative Framework of Iraqi Kurdistan Region on Environmental Issues

5.1.1 Law and Regulation

(1) Law number 8 for the year 2008: Environmental Protection and Improvement In Iraqi Kurdistan Region

In 2008, “The Law of Environmental Protection and Improvement In Iraqi Kurdistan Region” was established independently as the own environmental law in Kurdistan.

According to the article 2, the goal of this law is to achieve the following purposes:

a) Maintaining the environment of the region, protecting, improving, developing and preventing it from pollution.
b) Protection of nature and public health from dangerous activities and harmful works to human and environment.
c) Maintaining and developing the natural resources, and rationing their utilization.
d) Making the environmental policy a part of general planning of the development in all respects (humanity, industrial, agricultural, urban, tourism fields and others).
e) Raising the level of environmental awareness, and establishing individual and community responsibility to environmental protection and improvement and encouraging the voluntary efforts in this field.

According to this law, a council is established under the name of "Environmental protection and improvement council in the region" related to the Ministry, which acted by the council president or his appointed agent and its membership consisted of president, deputy president, general director of technical affairs and other members stipulated in the article 4. The council performs the fundamental tasks of environmental administration and acts as authorities.

(2) Environmental Impact Assessment

Environmental Impact Assessment (hereinafter EIA) is defined in the article 1 provision 13 as follows:

Determination, analyzing and evaluating the effects of any project, establishment, or activities on environment. Pointing out the ways of preventing or limiting the negative effects on environment and natural resources on which the approval of a project depend or not.

Outline of EIA implementation are described as follows:

a) The Minister can request from moral or normal person, or from any agency, before execution of this law, perform an activity affecting the environment, to prepare a study for environmental impact assessment of their projects if they need requirements of protecting the environment. (Article 13)
b) The council puts the standards, specification, principles, and controls required to determine the projects and fields that have been submitted to evaluate the studies of environmental impact assessment, and prepares lists on these projects, and put system and procedures for environmental impact assessment. (Article 14)

(3) Regulation No.1 for the year 2007 "Information about categories (A, B, C) projects classification".

In 2007, "The regulation of Information about categories (A, B, C) projects classification " was established. In this regulation Environment Polluting Activities Categories are stipulated. There are three categories of A, B, C, and they are similar to the classification of the World Bank. Table 5.1.1 shows the characteristics of the three categories.

In Iraqi Kurdistan region classification of A, B and C is based on the regulation No.1 for the year 2007 "Information about categories (A, B, C) projects classification". Translation of this regulation is

under construction.

Table 5.1.1 Environment Polluting Activities Category[1]

Categories	Contents
A	Projects likely to cause a range of significant adverse impacts, the extent and magnitude of which cannot be determined without a detailed study.
B	Projects which are likely to cause a limited number of significant adverse impacts unless appropriate mitigation action is taken. These impacts and the means of mitigating them are reasonably well understood and it is expected that such projects will require only limited environmental study and the preparation of an appropriate mitigation plan.
C	Projects not expected to result in any significant adverse impacts and which do not require additional environmental study.

Table 5.1.2 List of Environment Polluting Activities Category "A", "B" and "C"[2]

Category A	Category B
(a) Dams and reservoirs (b) Forestry production projects (c) Industrial plants (Large-scale) and industrial estates, including major expansion, rehabilitation, or modification (d) Irrigation, drainage, and flood control (large-scale) (e) Aquaculture and mariculture (Large-scale) (f) Land clearance and leveling (g) Mineral development (including oil and gas) (h) Port and harbor development (i) Reclamation and new land development (j) Resettlement (k) River basin development (l) Thermal power and hydropower development or expansion (m) Manufacture, transportation, and use of pesticides or other hazardous and or toxic materials (n) New construction or major upgrading of highways or rural loads (o) Hazardous waste management and disposal	(a) Agro-industries (small-scale) (b) Electrical transmission (c) Irrigation and drainage (small-scale) (d) Renewable energy (except hydroelectric dams) (e) Rural electrification (f) Tourism (g) Rural water supply and sanitation (h) Watershed projects (management or rehabilitation) (i) Protected areas and biodiversity conservation (j) Rehabilitation or maintenance of highways or rural roads (k) Rehabilitation or modification of existing industrial facilities(small-scale) (l) Energy efficiency and energy conservation
	Category C
	(a) Education (b) Family planning (c) Health (d) Nutrition (e) Institutional development (f) Most human resources projects

5.1.2 Environmental Protection and Improvement Board

(1) Purpose and goal of the law

Environmental Protection and Improvement Board (hereinafter the Board) is established according to the Law No.3 for the year 2010 "The Law of Environmental Protection and Improvement Board in Iraqi Kurdistan Region".

For the purpose of environmental protection and keeping public health, natural resources and

[1] UNEP; Environmental Impact Assessment and Strategic Environmental Assessment: Towards on Integrated Approach p.44
[2] The World Bank Operational Manual: Good Practices, GP4.01-Annex B, p.81

biodiversity, following up affecting factors to environmental impact, removing and treating the effect of chemical weapons and the materials causing environmental pollution and also for the purpose of publishing the environmental awareness and cultural environment in Kurdistan region, the board was established to undertake this task therefore this law has been legislated.

The board has independent finance and administration which related to presidency of council of ministers administratively. And the Board performs the following tasks for achieving its goals:

a) Suggesting the general policy for environmental protection from pollution and work on improving its quality, and sending to council of ministers for approving.
b) Putting annual, medium and long planning for environmental protection and improvement.
c) Issuing special instructions for determinants, controls and required environmental information and auditing safety of environment for projects ,safety and reality of implementations of these instructions, taking into consideration the international covenants and agreements for the protection of the environment and the executive laws.
d) Performing surveys and tests related to environmental pollutants and the factors affecting the safety of environment and preparing environmental maps in coordination with the ministries and related agencies.

(2) Organization of Environmental Protection and Improvement Board

The organization chart of the Board is shown in Figure 5.1.1.

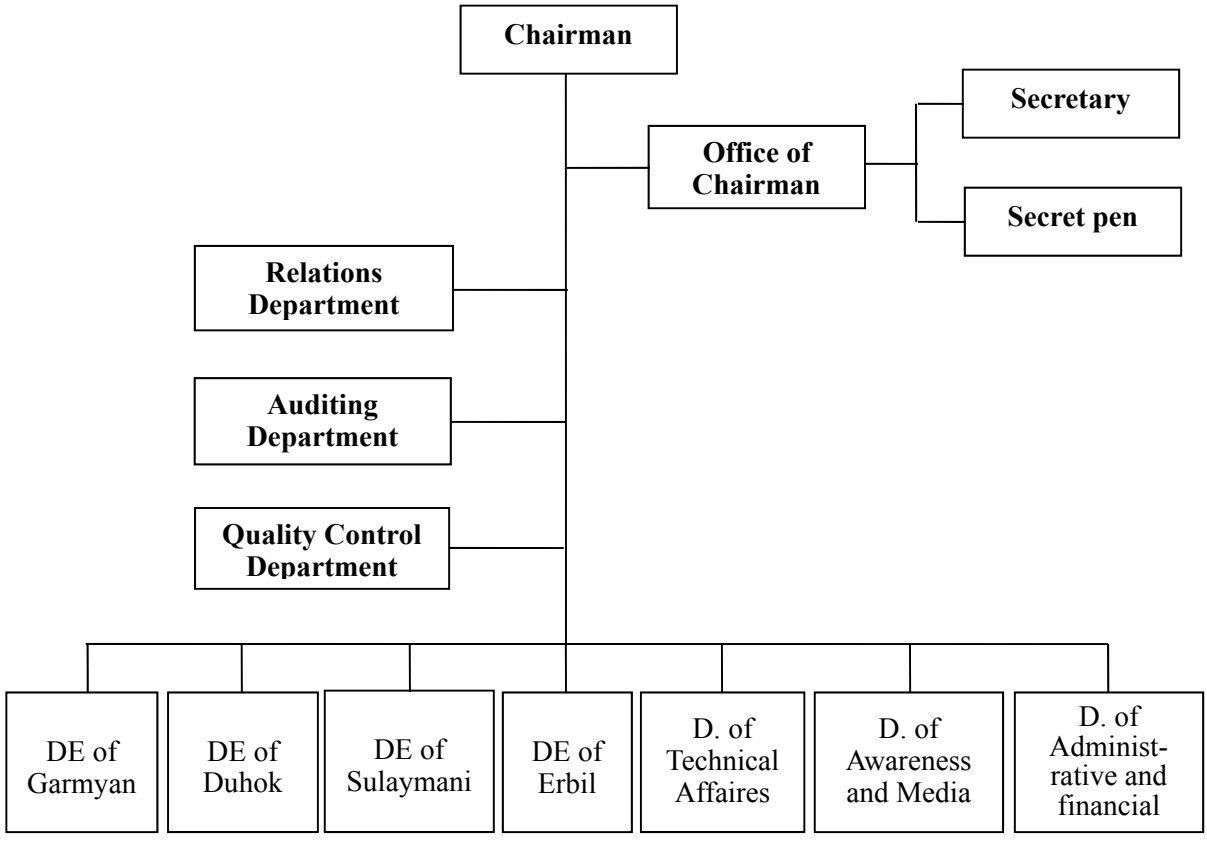

Figure 5.1.1 Organization chart of Environmental protection and improvement Board[1]
(DE: Directorate of Environment, D: Directorate)

The department of Technical Affairs is the most important for project developers, and EIA division which guides and evaluates EIA reports and other five divisions are included.

[1] Hearing from Environmental Protection and Improvement Board (2013)

5.2 JICA Guidelines for Environmental and Social Considerations

5.2.1 Project Categorization by JICA Guidelines

According to guideline for environmental and social consideration by JICA (2010), there are four project categorizations shown in Table 5.2.1.

Table 5.2.1 Project Categorization by JICA[1]

Categories	Contents
A	Proposed projects are classified as Category A if they are likely to have significant adverse impacts on the environment and society. Projects with complicated or unprecedented impacts that are difficult to assess, or projects with a wide range of impacts or irreversible impacts, are also classified as Category A. These impacts may affect an area broader than the sites or facilities subject to physical construction. Category A, in principle, includes projects in sensitive sectors, projects that have characteristics that are liable to cause adverse environmental impacts, and projects located in or near sensitive areas.
B	Proposed projects are classified as Category B if their potential adverse impacts on the environment and society are less adverse than those of Category A projects. Generally, they are site-specific; few if any are irreversible; and in most cases, normal mitigation measures can be designed more readily.
C	Proposed projects are classified as Category C if they are likely to have minimal or little adverse impact on the environment and society.
F1	Proposed projects are classified as Category FI if they satisfy all of the following requirements: JICA's funding of projects is provided to a financial intermediary or executing agency; the selection and appraisal of the sub-projects is substantially undertaken by such an institution only after JICA's approval of the funding, so that the sub-projects cannot be specified prior to JICA's approval of funding (or project appraisal); and those sub-projects are expected to have a potential impact on the environment.

JICA conducts environmental and social surveys at the Environmental Impact Assessment (EIA) level for Category A projects and at the Initial Environmental Examination (IEE) level for Category B projects. This transfer station and transfer line project is classified as B category.

5.2.2 Environmental Impact Assessment (EIA) and Initial Environmental Examination (IEE) by JICA Guidelines

Table 5.2.2 Environmental Impact Assessment (EIA) and Initial Environmental Examination (IEE) by JICA Guidelines[2]

Environmental Impact Assessment	Initial Environmental Examination
Category A	Category B
Study that includes the analysis of alternative plans, the prediction and assessment of environmental impacts and the preparation of mitigation measures and monitoring plans based on detailed field surveys.	Study that includes an analysis of alternative plans, a prediction and assessment of environmental impacts and a preparation of mitigation measures and monitoring plans based on easily available information including existing data and simple field surveys.

This transfer station and transfer line project requires Initial Environmental Examination as shown in Table 5.2.2 based on JICA guidelines.

[1] Guideline for Environmental and Social Consideration by JICA (2010)
[2] Guideline for Environmental and Social Consideration by JICA (2010)

5.3 Procedure of Environmental and Social Consideration for the Project

5.3.1 EIA process in Iraqi Kurdistan

Figure 5.3.1 shows the process to grant a certificate of environment. As described in Table 5.1.2, electricity transfer station and transfer line project is identified as Class B category. Then, a simple EIA report (IEE report) is required. Based on this figure, the actual methodology of environmental and social consideration on this project is described in the following sections.

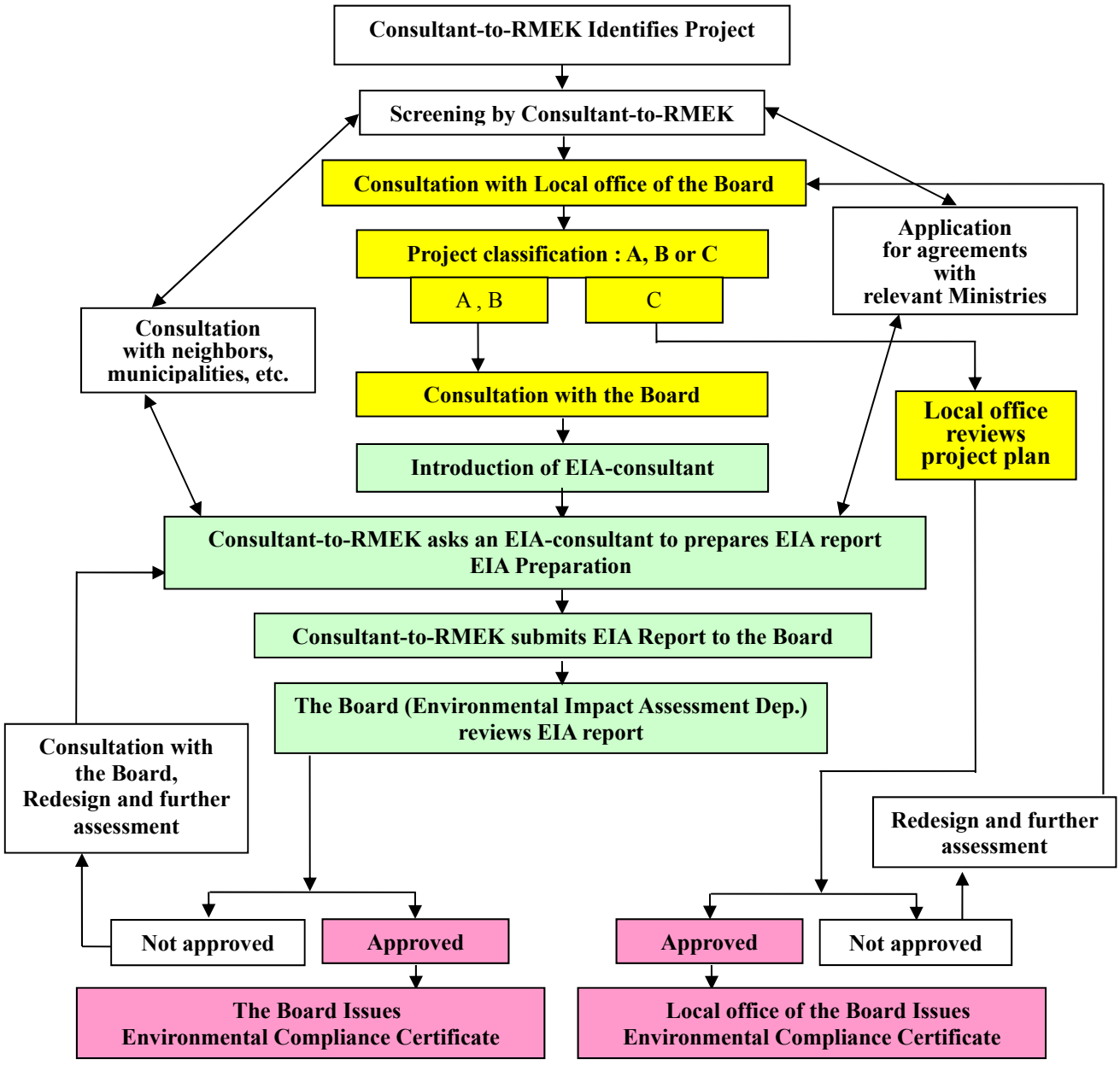

Figure 5.3.1 EIA process in Iraqi Kurdistan[1]

5.3.2 Screening

JICA specifies screening format "Environmental and Social Impact Assessment Check List", which is

[1] Hearing from Environmental Protection and Improvement Board (2013)

effective tool for screening. (Attached in JICA guideline.)
JICA's local consultants visited two candidate sites for substations and the route for the transmission line between Bazian substation and Arbat substation. The two sites are vast wheat farms, and then there found no serious environmental and social impacts. On the route of the transmission Line (High Voltage Tension Line (400kV)), no serious issues to the line construction are no found, either.

5.3.3 Preparation of EIA report

(1) After screening is completed, developer has to consult with the Board to prepare an EIA report.
(2) The Board will give advices to the developer for reducing environmental impacts, if necessary. And the Board introduces authorized local consultants who are familiar with EIA report preparation in Kurdistan. The Board has a list of such authorized local consultants described in section 5.3.4.
(3) Developer selects an adequate local consultant, and makes a contract for preparing an EIA report.
(4) The EIA report is essential for application for receiving license of project implementation.

5.3.4 Authorized consultants to prepare evaluation report of Environmental Impact Assessment (EIA)[1]

(1) The Consultant office of Kurdistan universities is carrying out this duty by receiving a formal letter from university presidency and takes the technical and scientific responsibility of the project.
(2) Foreign research companies authorized and permitted by KRG.
(3) Authorized local research companies are listed in Table 5.3.1, 5.3.2 and 5.3.3

Table 5.3.1 Local authorized companies of EIA consultant in Erbil

#	Company	Owner	Phone No.	Address
1	University of Saladdin/ Environmental Consultant office /Erbil			
2	Chast	Dr. Hoshyar Noor Al-Deen Dr. Emad	07507373763 07504450525	Erbil-Ankawa street opposite to Ishtar for Sweets
3	Mapcom	Hewa Arif	07504521308	Erbil- opposite to Italian Village
4	Arcade	Dr. Najdet Shaker	07504684165	Erbil-behind Naza Mall
5	Rabono	Abdul Kareem Hassen Dr. Omran Hussein	07501125065 07507484768 07504683216	Erbil-100 meter street, beside Today Rest.
6	Chavan	Hussein Hasen Murad	07504479094	Erbil- 100 meter street/Mehabat Neighborhood
7	Strategic Co.	Masud Hussein Hameed Musa Mohammad Tofiq	07504476035 07702100330	Erbil-40 meter/near to Kock Super Market
8	The center of Al-Shams for developing and Environmental Development	Omer Hussein Kamil Al-Khalidy	07503031593 07706998810	British University
9	Map Group	Ferhad Youssif Mohammad	07504521508	Erbil/Zanko Neighborhood

[1] Given from EIA division of the Board

Table 5.3.2 Local authorized companies of EIA consultant in Sulymani

#	Company	Owner	Phone No.	Address
1	University of Sulaimani/ Environmental Consultant office /Sulymani			
2	Edrees Office	Dr. Bassim Jaffer	07701921021	Sulymani/Girdi Serchinar Neighborhood
3	Ryshkary Kurdistany	Dr. Hoshyar	07701509989	Sulymani/Ibrahim Pasha-Near to Darogha Mosque
4	Meran Office	Ibrahim Majeed	07701582524	Sulymani/Shorish Neighborhood
5	Geopetro Co.	Azad Abas Ahmed	07701233278	Sulymani/Salem street-Ferhad Building-3rd store-apartment 16
6	Tabia'at Al-Iraq (NI)	Araz Mustaffa Hama Rash	07701521537	Sulymani/Building No. 2 – King Mahmood Street-Industrial area No. 414

Table 5.3.3 Local authorized companies of EIA consultant in Duhok

#	Company	Owner	Phone No.	Address
1	University of Dohuk/ Environmental Consultant office /Dohuk			
2	Sroosh Office	Azad Abdullah	07504711478	Duhok Centre
3	Ecko Office	Ramadhan Hamza Mohammad	07504591810	Duhok/Nohedra Neighborhood, near to Sorish Bridge

5.3.5 Stakeholder Meeting

Stakeholder meeting should be arranged on each site during EIA report preparation. The procedure of meeting is as follows;

a) Identification of stakeholders on each site: provincial office of the Board, neighbors (residents, land users), municipalities, NGOs and so on.
b) The local consultant for EIA preparation will hold stakeholder meetings, gather social opinions and put them into the EIA report

Figure 5.3.2 An example of the stakeholder meeting[1]

[1] Republic of Iraq Kurdistan Regional Government Deralok-sersink HVTL-EIA report Annex

5.3.6 Environmental Compliance Certificate

(1) Developer (RMOE and contractor) submits an EIA report to the Board.
(2) The Board reviews the EIA report.
(3) If approved, the Board issues Environmental Compliance Certificate

5.4 Location of Candidate Facilities and their Environmental and Social Survey

5.4.1 Candidate Facilities

Three candidate facilities were selected by RMOE, and the locations and surrounding facilities was surveyed in the mission.

Table 5.4.1 Feature of Proposed Facilities

Name of Facilities	Governorate	Site Category
Gomaspan Substation	Erbil	Agricultural Area
Arbat Substation	Sulaymani	Agricultural Area
Bazian SS - Arbat SS Transmission Line	Sulaymani	Agricultural and Mountain Area

5.4.2 Gomaspan Substation

(1) Location of Gomaspan Substation

Gomaspan area is to the east- northeast, and about 25km far from the center of Erbil city. Figure 5.4.1 shows a map showing the location of Gomaspan area.

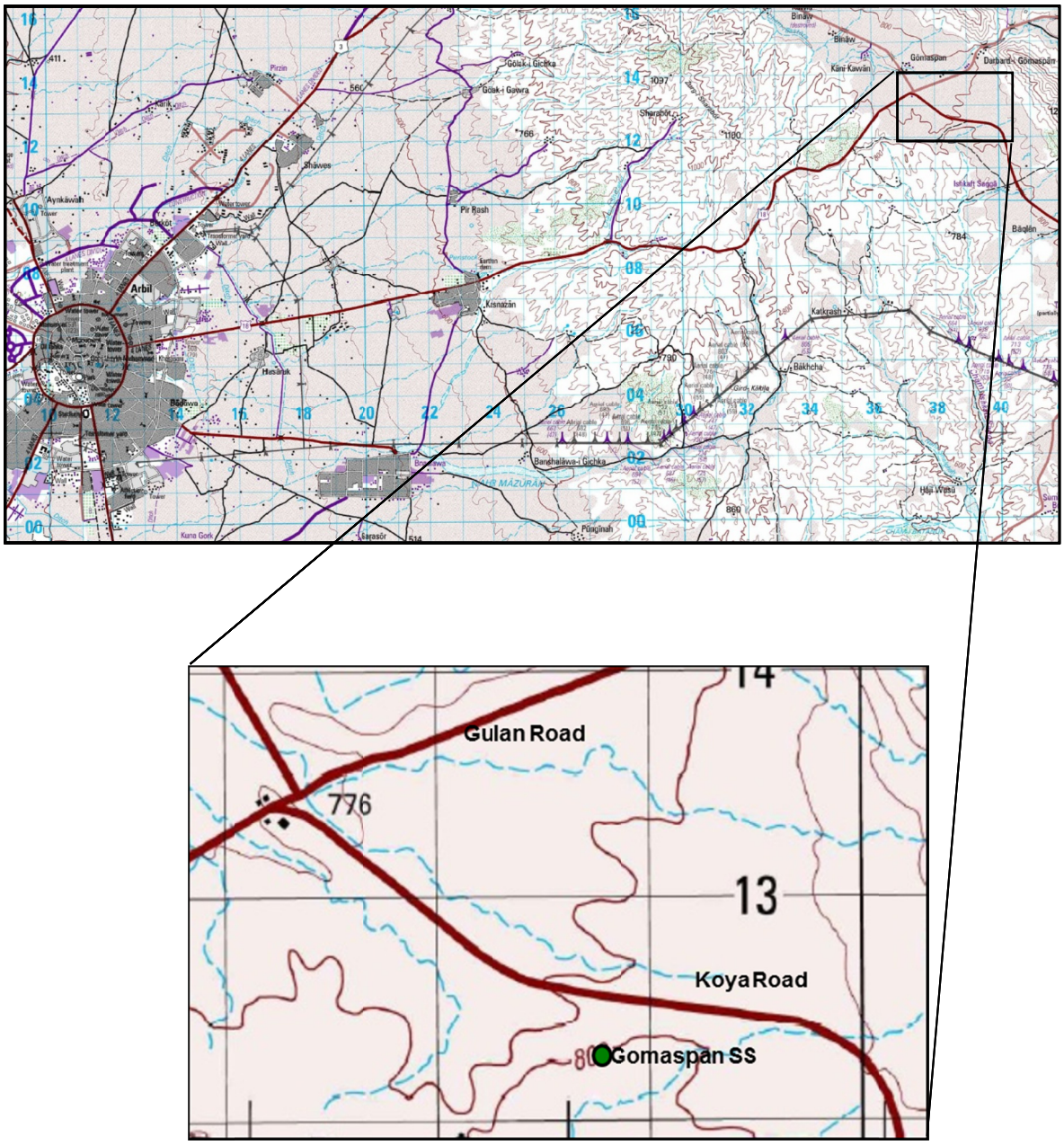

Figure 5.4.1 Location of Gomaspan area

Figure 5.4.2 Map around Gomaspan Substation (Google Earth view)
Red arrows indicate the locations where the following photos were taken.

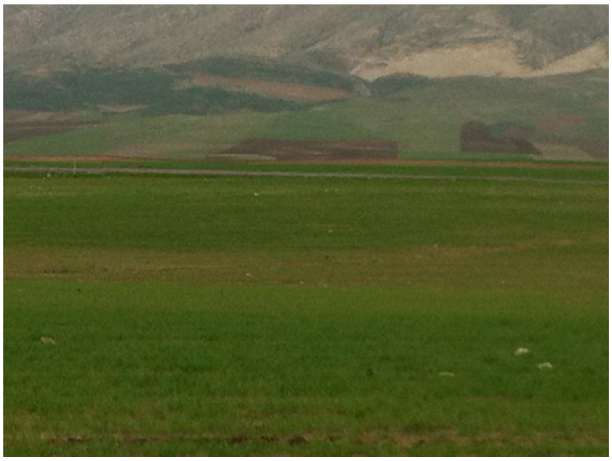

Figure 5.4.3 View around Gomaspan SS
(Arrow 1 in Figure 5.4.2)

Figure 5.4.4 View around Gomaspan SS
(Arrow 2 in Figure 5.4.2)

Figure 5.4.5 View around Gomaspan SS
(Arrow 3 in Figure 5.4.2)

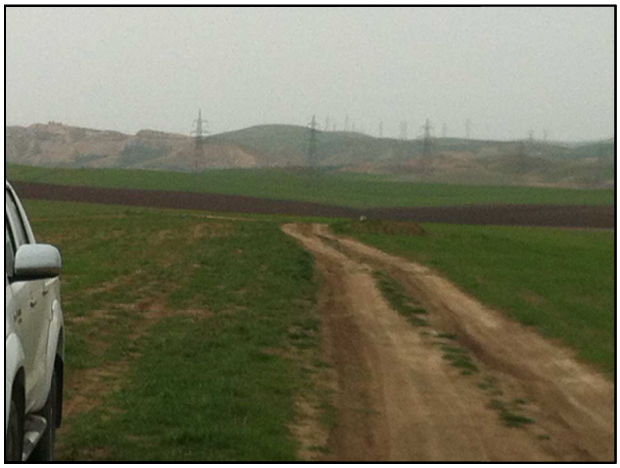

Figure 5.4.6 View around Gomaspan SS
(Arrow 4 in Figure 5.4.2)

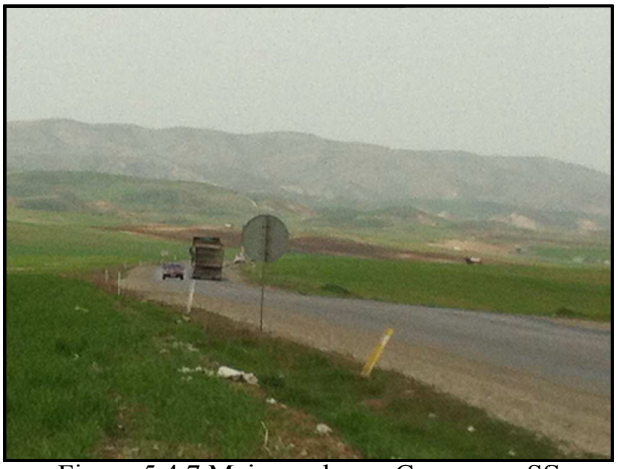

Figure 5.4.7 Main road near Gomaspan SS
(Arrow 5 in Figure 5.4.2)

Figure 5.4.8 Main road near Gomaspan SS
(Arrow 6 in Figure 5.4.2)

(2) General Description of the Site

a) The site is on the southeast of the dirt road.
b) It is an agricultural land planted with rain fed wheat. In chatting with farmers, some figures on their production rates of wheat per unit area were obtained. They also have some cattles.
c) The site is contracted by the government (Ministry of Agriculture) to five farming families with a total area of 900,000 square meters
d) There is a double 132kV TL running across the southern end of the site.
e) There is a very mild slope across the site towards the southeast.
f) The road near the site is a main road called Koya Road, and visible from the site.

(3) Summery of Environmental and Social Matters

Table 5.4.2 Summery of Environmental and Social Matters[1]

1	Facility Name	Gomaspan 400 kV SS
2	Name of the Governorate, city	Erbil Governorate
3	Area Identification	Agricultural area The site is currently planted with wheat and is rain fed.
4	Land Acquisition	Owned by the Ministry of Agriculture and leased to five farming families Farmers indicated that they do not mind if the facility is located on their farm as long as they are compensated.
5	Residential houses inside	No
6	Water appearance	None. There is no apparent surface water resources in the area. Farmers have tried to drill wells but the water is too deep.
7	Access road condition	The average traffic flow on the main road to the site is 420 vehicles per hour in both directions on a 2-lane facility. The traffic was a mix of passenger cars and heavy vehicles. The capacity of such facilities is estimated at 2,800 vehicles per hour, so less than 20% of the road capacity is currently utilized. It is informed by farmers that the road is significantly busier on Fridays in the spring due to family picnics and activities.
8	Any facilities such as school, hospital, etc.	The nearest population gathering is at least 3 kilometers from the site
9	Topographical details	The total available area is nearly 900,000 square meters. It is possible to construct a SS abutting on a dirt road. If not, an access road for construction and operation is necessary. The difference in elevation between the dirt road and the extreme edge of the site is not more than 1 to 1.5 m over a distance of about 1500 m.
10	Resident Relocation	Not necessary
11	Ethnic issues	None
12	Sanctuary	None
13	Rare species of Fauna and Flora	None
14	Cultural heritage	None
15	Landscape obstruction	None
16	Any other obstructions	No apparent obstructions

[1] Rare species of Fauna and Flora: Based on Report "Key Biodiversity Survey of Nature Iraq, 2010 Site Review"

5.4.3 Arbat Substation

(1) Location of Arbat Substation

Arbat area is to the south-east, and about 15km far from Sulaymani city. Figure 5.4.9 is a map showing the area around Arbat SS.

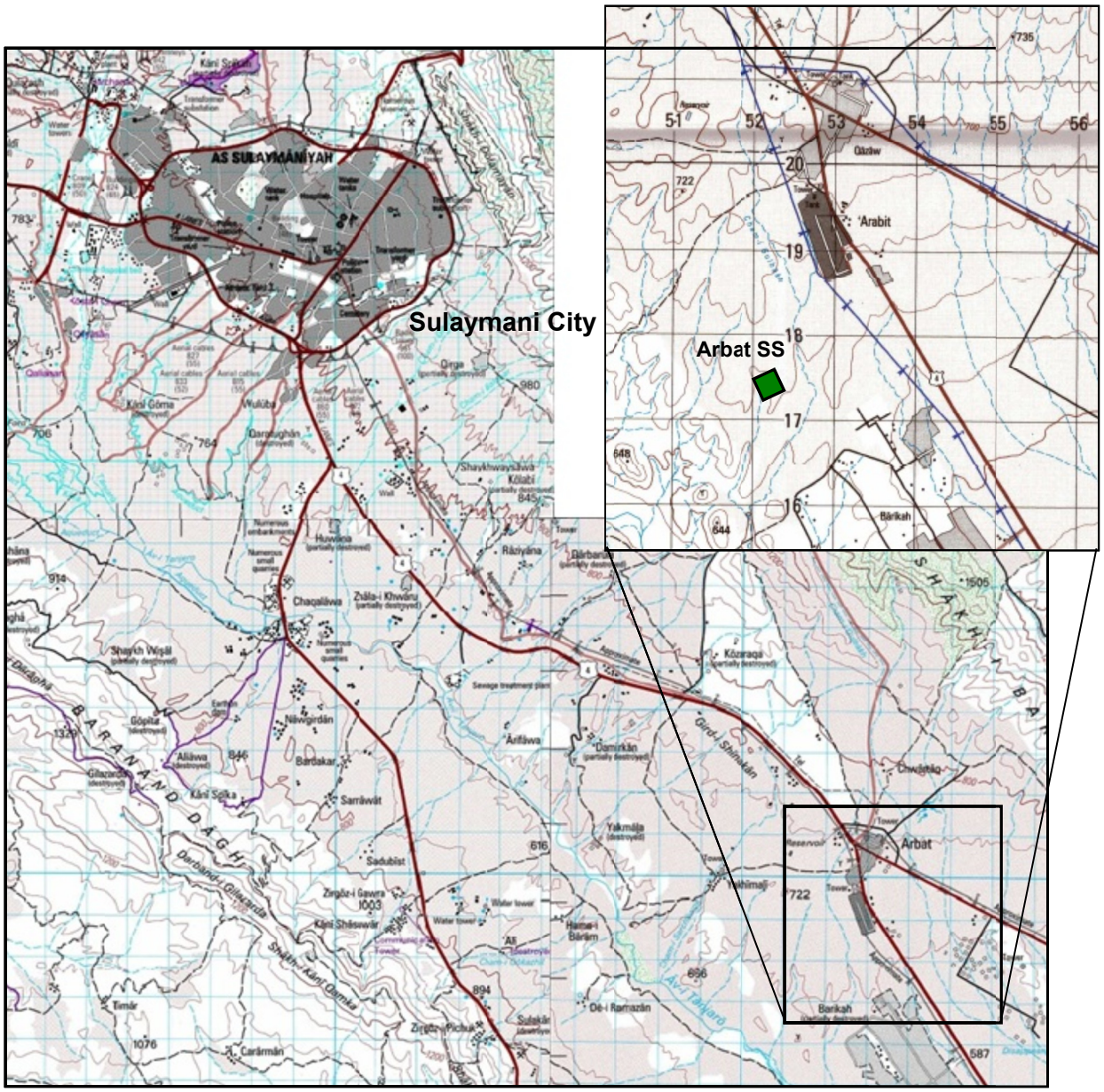

Figure 5.4.9 Map of Sulaymani City and Arbat area
(Box shows the Arbat SS area)

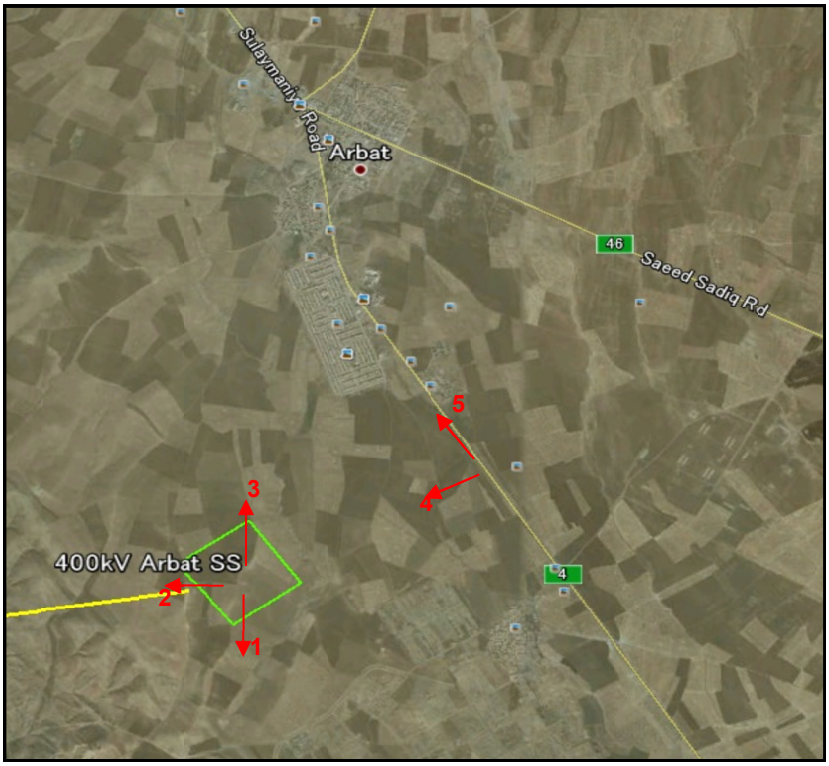

Figure 5.4.10 Map around Arbat Substation
(Google Earth view)
Red arrows show the locations where the following photos were taken.

Figure 5.4.11 View around Arbat SS
(Arrow 1 in Figure 5.4.9)

Figure 5.4.12 View around Arbat SS
(Arrow 2 in Figure 5.4.9)

Figure 5.4.13 View around Arbat SS
(Arrow 3 of Figure 5.4.9)

Figure 5.4.14 View around Arbat SS
(Arrow 4 of Figure 5.4.9)

Figure 5.4.15 Main road near Arbat SS
(Arrow 5 in Figure 5.4.9)

(2) General Description of the Site

a) The site is located in an agricultural area with a slightly densely populated area nearby, with nearly 200 individuals. Residents are distributed in Arbat residential complex at almost 1.5 km to the north, and other residents gather at about 2-3 km southeast of the site.
b) The site is an agricultural land planting rain fed wheat and peas. Some light cattle grazing activities are observed near the site.
c) At a distance of less than 1.5 km to the eastern end of the site the 11 kV TL is noted, while a double 132 kV TL is observed northwest of the site.
d) Main road near the site is Route 4 and called Arbat Road. It is 1.5 km far from the site.

(3) Summery of Environmental and Social Matters

Table 5.4.3 Summary of Environmental and Social Matters[1]

1	Facility Name	Arbat 400 kV SS
2	Name of the Governorate, city	Sulaymani Governorate, Arbat city
3	Area Identification	Agricultural area The site is currently planted with wheat and peas and is rain fed. Grazing light cattles is taken place.
4	Land Acquisition	Owned by the Ministry of Agriculture By RMEK the Ministry of Agriculture would most probably compensate for farmers by giving other lands to farm.
5	Residential houses inside	A residential gathering is observed at about 1.5 km north of the site.
6	Water appearance	None. There are no apparent surface water resources in the area. Unclean small water flow (wastewater) is observed that originates in a residential community on the opposite side of the main street.
7	Access road condition	The average traffic flow on the 4-lane main road to the site is 612 vehicles per hour in both directions of the main road. The traffic was a mix of passenger cars and heavy vehicles. The capacity of the road is estimated at 4,400 vehicles per hour in each direction, so less than 10% of the road capacity is currently utilized. Traffic volume could increase during weekends. There is a need for an access road from the main road to the proposed site during both construction and operation phases.
8	Any facilities such as school, hospital, etc.	None
9	Topographical details	The total available area is nearly 300,000 square meters. Flat ground expand widely. The difference in elevation between the entrance point on the main road and the extreme edge of the site is not more than 3 m over a distance of about 1,750 m.
10	Resident Relocation	Not necessary
11	Ethnic issues	None
12	Sanctuary	None
13	Rare species of Fauna and Flora	None
14	Cultural heritage	None
15	Landscape obstruction	None
16	Any other obstructions	No apparent obstructions

[1] Rare species of Fauna and Flora: Based on Report "Key Biodiversity Survey of Nature Iraq, 2010 Site Review"

5.4.4 Transmission line between Bazian Substation and Arbat Substation

(1) Location of the Transmission Line

The transmission line will connect 400kV Bazian Substation and Arbat substation as shown in Figure 5.4.16. Bazian Substation will be constructed in a flat land at 2km far from Takya-i Kara Hasan Town in the direction of south. The line runs to south-east along Qara Dagh and Qarah Dagh mountain ranges. It turns to east at the point of about 40 km from the Bazian substation, and crosses to Shakh-i Darmana mountain range, whose height is more than 1600m. It still runs on Shakh-i Kani Bi mountain. From this point it runs for 20 km to the east almost on the straight to Arbat Substation. .

The route goes through a basin shaped valley, and hills between Shakuh-i Sagirma mountain and Shakh-i Zirgoz mountain, which is the last highland of the route. And the route goes into flat land, which tilts to south-east and whose altitude is 600 - 700 m. It is about 9km from the foot of Shakh-i Zirgoz to Arbat SS. Figure 5.4.17 shows the altitude change of the route of the transmission line, and maximum altitude is more than 1600 m.

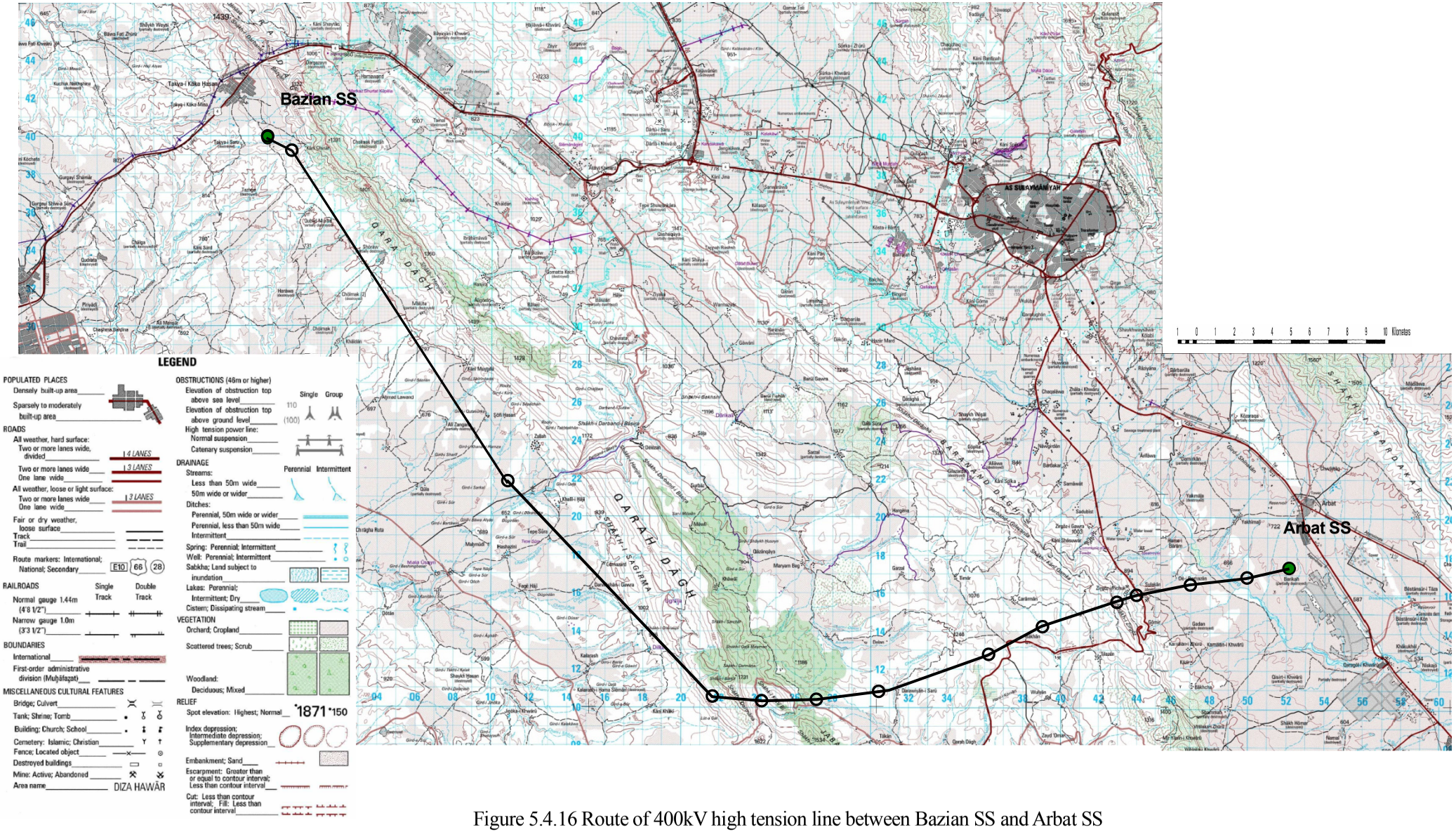

Figure 5.4.16 Route of 400kV high tension line between Bazian SS and Arbat SS

Figure 5.4.17Altitude change of the Transmission line route

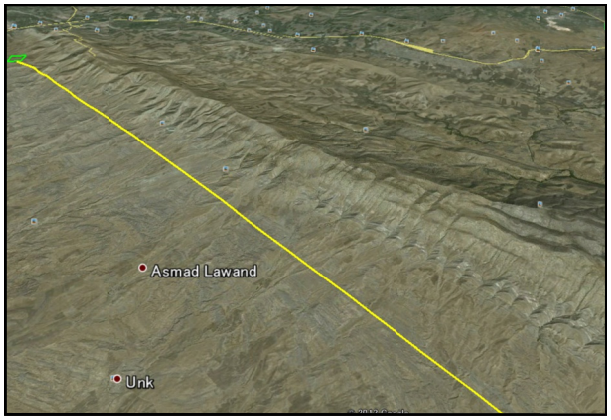

Figure 5.4.18 Transmission line route -1
The route runs along Qara Dagh mountain range from Bazian SS.

Figure 5.4.19 Transmission line route -2
The route crosses over Shakh-i Darmana. and Shakh-i Kani Bi mountains.

Figure 5.4.20 Transmission line route -3
Outlook of a hill between Shakh-i Darmana and Baranand Dagh mountain range

Figure 5.4.21 Transmission line route -4
Scene from Shakh-i Zirgoz mountain .

Figure 5.4.22 Transmission line route -5
Av-i Tanjaro river in the flatland following to Arbat Substation

Figure 5.4.23 Transmission line route -6
The approach road to Arbat area

(2) Situation of land utilization on the route

The route of initial 35 km is along to a mountain range. Partially a few agricultural land exist, but the land is mainly base of mountains. Some forests can be found, but trees are scattering. No house is found. No farms exist between Shakh-i Darmana mountains and Shakh-i Zirgoz mountain. Also few trees are found.

Flat land continues for 8 km after Shakh-i Zirgoz mountain. Av-i Tanjaro tiver flows, and the flat land is used as farms.

In the mountainous area, there are many forested places. However the transmission line route is designed to steer clear of the forested places and trees

Public facilities such as schools and hospitals are not found along to the line route. Rare species of fauna and flora, cultural heritage don't exist.

The owner of mountain lands is mainly the ministry of agriculture, same as the farming land.

(3) Summary of Environmental and Social Matters

Table 5.4.4 Summary of Environmental and Social Matters[1]

1	Facility Name	High Voltage Tension Line (400kV) between Bazian SS and Arbat SS
2	Name of the Governorate, city	Sulaymani Gov., / Arbat, Bazian
3	Area Identification	Agricultural area, Mountain area
4	Land Acquisition	the Ministry of Agriculture
5	Residential houses inside	None
6	Water appearance	None
7	Access road condition	Main road is from Sulaymani Road to Shakh-i Darmana mountain. But there is no main road between Bazain SS to Shakh-i Darmana mountain.
8	Any facilities such as school, hospital, etc	None
9	Topographical Survey at site	Route length is about 69km. Main road along to the line route does not exist. Maximum height of the route is over 1600m. Altitude change of the transmission line is shown in Figure 5.4.16.
10	Resident Relocation	Not necessary
11	Ethnic issues	None
12	Sanctuary	None
13	Rare species of Fauna and Flora	None
14	Cultural heritage	None
15	Landscape obstruction	None
16	Any other obstructions	No apparent obstructions

5.5 Summary of Environmental and Social Consideration Survey

5.5.1 Results of Environmental and Social Evaluation

The three candidate facilities were evaluated from the view point of environmental and social consideration. Table 5.5.1 shows the results of environmental and social impact evaluated. As per the table, no environmental and social impact can be found.

[1] Rare species of Fauna and Flora: Based on Report "Key Biodiversity Survey of Nature Iraq, 2010 Site Review"

Table 5.5.1 Environmental and Social Impact of Three Candidate Facilities

Environmental and Social Impact	Gomaspan SS	Arbat SS	Transmission Line Bazian SS-Arbat SS
Resident Relocation	None	None	None
Ethnic Issues	None	None	None
Sanctuary	None	None	None
Rare species of Fauna and Flora	None	None	None
Cultural Heritage	None	None	None
Landscape Obstruction	None	None	None
School, Hospital, etc.	None	None	None
Any Other Obstructions	None	None	None

5.5.2 Summary of Environmental and Social Consideration

The three candidate facilities were evaluated from the view point of environmental and social consideration. Table 5.5.2 shows summary of environmental and social consideration on the three facilities in Iraqi Kurdistan.

Table 5.5.2 Summary of Environmental and Social Consideration

Project	Governorate	Project Category	Land Use	Conclusion
Gomaspan SS	Erbil	B	Agricultural Area	Acceptable
Arbat SS	Acceptable	B	Agricultural Area	Acceptable
Transmission Line Bazian SS-Arbat SS	Acceptable	B	Agricultural Area Mountains	Acceptable

Accordingly, all three projects are acceptable from the environmental and social aspects.