Ministry of Planning
Ministry of National Economy

Palestinian National Authority (PNA)

Feasibility Study on Agro-industrial Park Development in the Jordan River Rift Valley (Part I of Phase II)

Summary

March 2008

JAPAN INTERNATIONAL COOPERATION AGENCY

KRI INTERNATIONAL CORP.
NIPPON KOEI CO., LTD.

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as of February 2008

(unless otherwise specified)

PREFACE

In response to a request from the Palestinian National Authority, the Government of Japan decided to conduct a feasibility study on Agro-industrial Park Development in the Jordan River Rift Valley in two phases, namely Phase I and Phase II, and entrusted the study to the Japan International Cooperation Agency (JICA). This is the final report of the Part 1 of Phase II.

JICA dispatched a study team to Palestine over the period from December 2007 to February 2008. The Study team consists of KRI International Corp. and Nippon Koei Co., Ltd., headed by Mr. TADA Munenori as Team Leader.

The Study team held a series of discussions with the officials concerned of the Palestinian National Authority and other parties concerned, and conducted field surveys at the study area. Upon returning to Japan, the Study team made further studies and compiled the final results in this report.

It is hoped that this report will contribute to the promotion of the Agro-industrial Park and to enhancement of friendly relationship between Palestine and Japan.

I wish to express my sincere appreciation to the officials concerned of the Palestinian National Authority and all the people involved in the course of the Study for their close cooperation extended to the Study.

March 2008

NAGATSUKA Seiichi
Deputy Vice President
Japan International Cooperation Agency

March 2008

Mr. NAGATSUKA Seiichi
Deputy Vice President
Japan International Cooperation Agency (JICA)

LETTER OF TRANSMITTAL

Dear Sir,

We are pleased to submit to you the Final Report for "The Feasibility Study on Agro-industrial Park Development in the Jordan River Rift Valley (Part 1 of Phase II)".

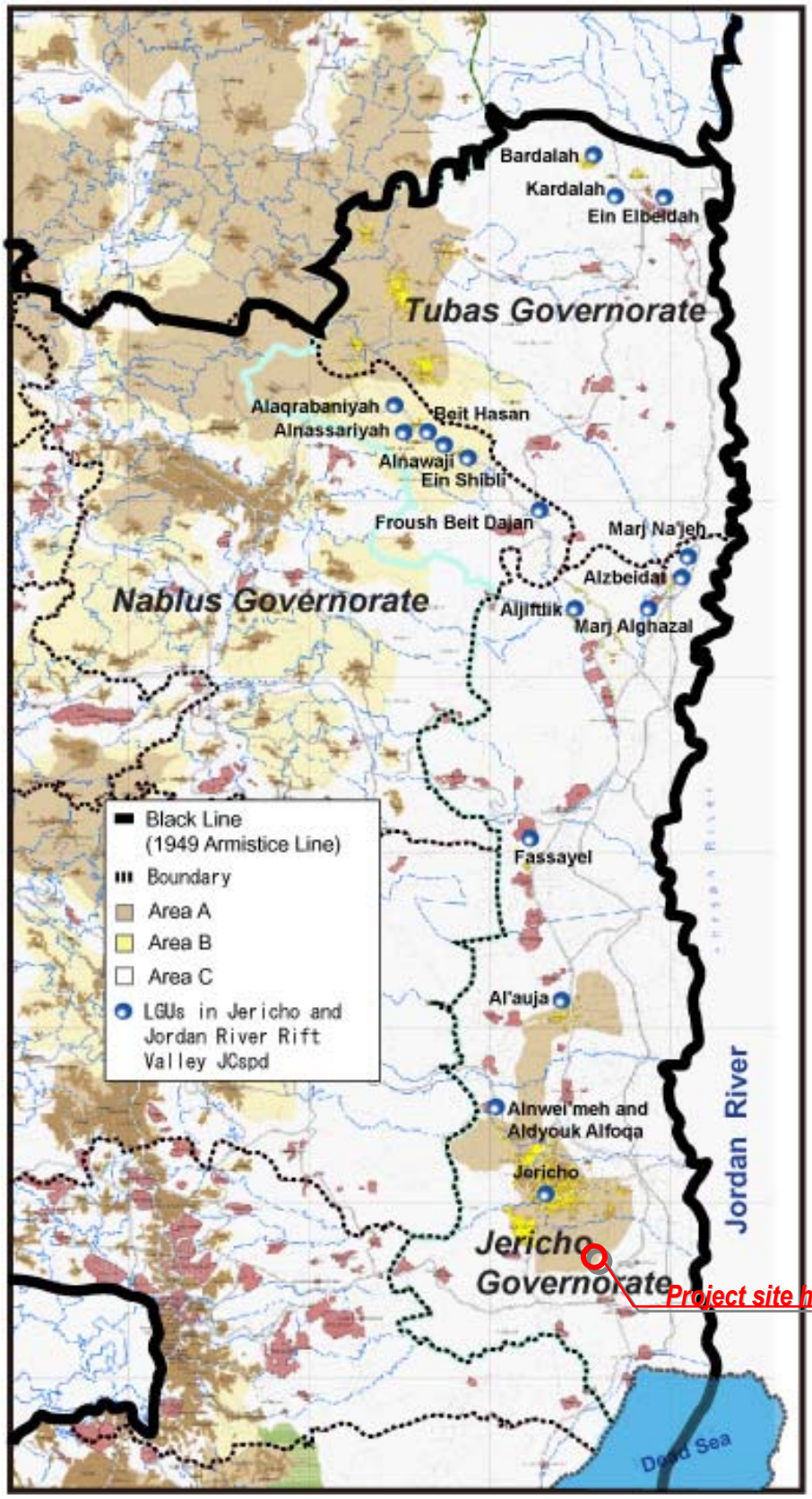
This Study has been conducted by the Study Team organized by KRI International Corp. and Nippon Koei Co., Ltd during the period from December 2007 to February 2008, in collaboration with counterpart experts assigned by the Ministry of National Economy and Ministry of Planning of Palestine.

The objectives of the Study are to make clear basic conditions necessary for the efficient and effective implementation of the Part 2 through Part 3 of Phase II, i.e. full-scale feasibility study, with focusing on the issues such as i) land procurement, ii) infrastructural conditions, iii) movement and access, and limitations on import, iv) potential products, industries and enterprises, and v) implementation scheme. There were a series of discussions and exchange of views with the officials concerned of Palestinian National Authority and the private sector people of the Palestine and its surrounding countries in the course of the Study, in order to share the basic conditions as well as the development approaches for the Agro-industrial Park.

The Study Team wishes to express its heartfelt gratitude for the valuable assistance and cooperation received from the counterpart experts and public and private institutions during the execution of the field study in Palestine. The Final Report is the fruit of cooperation and collaboration of all the personnel that joined the Study.

Very truly yours,

TADA Munenori
Study Team Leader



Note: JICA Study Team arranged the map based on that originally prepared by OCHA

Study Area Map

FEASIBILITY STUDY
ON
AGRO-INDUSTRIAL PARK DEVELOPMENT
IN
THE JORDAN RIVER RIFT VALLEY
(Part 1 of PHASE II)

FINAL REPORT

SUMMARY

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SUMMARY

Introduction

The Phase I Study was implemented during the period from March 2007 to August 2007, which has concluded that the agro-industrial park development would be a significant project to fulfill its missions in line with the industrial development strategy and the Japanese initiative of "*Corridor for Peace and Prosperity*". The following issues are necessary to be reviewed for clarification prior to the commencement of the full-scale feasibility study (Phase II).

Visual Image of Overall Concept for the Agro-industrial Park Development proposed in the Phase I Study

- Determination of project site and access road.
- Improvement of movement and access to and from the industrial park.
- Promotion of agro-industry and investment.

In the course of the Phase I Study, an inter-regional consultation platform, *the Four-party Consultative Unit*, was formulated under the initiative of "*Corridor for Peace and Prosperity*" involving PNA (Palestinian National Authority), Israel, Jordan and Japan for the purpose of promoting confidence-building through economic cooperation.

The First Technical Level Meeting was held on June 27, 2007, where regional cooperation issues were discussed actively among the participants. However, PNA and Israel had different views on the site selection, resulting in no agreement on it.

The Second Technical Level Meeting was held on October 25, 2007, in which the result of the Phase I Study was shared among the stakeholders and various opinions were exchanged. There were concrete steps forward marked, as follows, including agreement on the site selection.

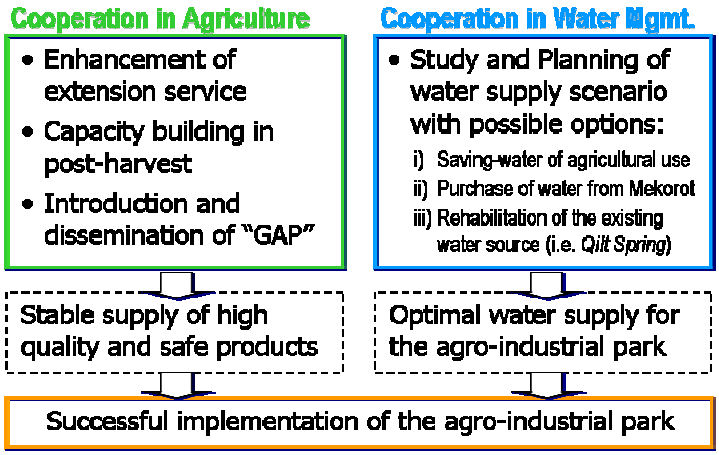
- The candidate site for the agro-industrial park covers 61.5 ha, and is next to an existing steel factory in south Jericho. The site is included in Area A where construction of the park will start. A future extension of the park into Area C would be subject to further discussion when and if it is required.
- As for an access road from the agro-industrial park to the Allenby Bridge, Israel recommends using the existing road through the checkpoint since the capacity of the existing road would be large enough to accommodate traffic volume to and from the agro-industrial park during the initial stage of the park operation. Meanwhile, the access route should be determined in consideration of both economic and security aspects.

- A consensus for regional cooperation was made in the field of agriculture.
- The Forth Technical Level Meeting is scheduled to be held in Spring 2008, which shall be followed by the Ministerial Level Meeting in June 2008 and the G8 Summit in July 2008.

Considering these results, it was announced in the Third Technical Level Meeting on December 3, 2007 that the Study should immediately be shifted to the Phase II, a full-scale feasibility study.

Approach to the Agro-industrial Park Development

The agro-industrial park development is closely linked to the agricultural project and the feasibility study on water resource development and management. Since the mission of the agro-industrial park is to enhance economy and industry in the JRRV (Jordan River Rift Valley) through agriculture sector improvement, it is expected that the technical cooperation in agriculture would bring out and maximize the agricultural potential in the JRRV, while the study on water resources development and management shall contribute to efficient and effective use of the precious water resources.

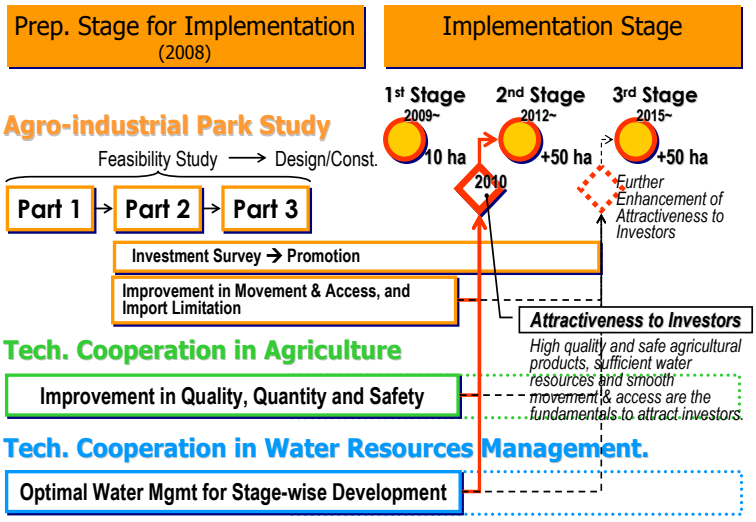


Linkages among the JICA Projects

Stage-wise Development of the Agro-industrial Park

The Study Team envisioned a stage-wise development concept of the agro-industrial park, with a time frame, which was provisionally shared among the stakeholders.

The year 2008 is the preparatory stage for implementation, where Feasibility Study on the Agro-industrial Park, technical cooperation in agriculture [1] and water resources management [2] shall be implemented concurrently in close coordination. The Feasibility Study on the Agro-industrial Park will last until November 2008, while part of it, i.e., investment promotion and



Stage-wise Development of the Agro-industrial Park (*provisional*)

[1] *The Project for Strengthening Support System Focusing on Sustainable Agriculture in the JRRV*
[2] *The Feasibility Study on Water Resources Development and Management in the JRRV*

improvement in movement and import are necessary to be continued even after 2009, aiming at sufficiently attracting the private investors. Likewise, technical cooperation in agriculture and the study on water resources are essential for reaching their goals by 2010, i.e., improvement in quality, quantity and safety of agricultural products, and optimal water supply management for the agro-industrial park development in stage-wise. Both of them are considered to be fundamental conditions for attracting private investors.

The year 2009 has been tentatively set for the first stage commencement, though the fundamental conditions would not be matured enough by then to attract private investors. Although at this premature stage, it is worthwhile to construct some core facilities with such service functions as product display, business meeting, sales, etc. on a small scale. These functions could be primer effects which would help potential investors to expect the successful implementation of the agro-industrial park in the near future.

The year 2010 could be set as a target year for the fundamental conditions to be matured enough for attracting investors to the agro-industrial park, when the second stage implementation would commence on a larger scale in parallel with the investment promotion activities. The third stage would come after 2015 when and if it is required.

Land Procurement

The likeliest candidate site for the agro-industrial park was identified and agreed among the stakeholders in the Second Technical Level Meeting on October 25, 2007 around two months after completion of the Phase I Study. The site is composed of three land parcels as summarized in the table below.

Profile of the Land Parcels

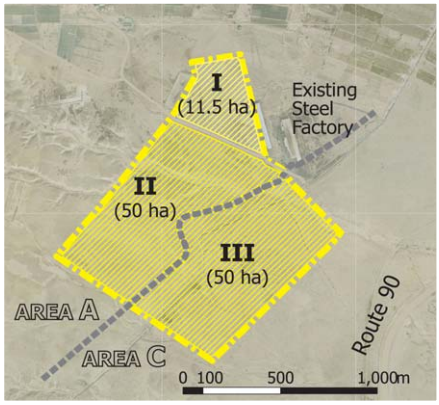
Lot	Area	Jurisdiction	Ownership
I	11.5 ha	Area A	State-owned Land (PNA)
II	approx. 50.0 ha	Area A	Privately-owned Land (Al Hussein Family)
III	approx. 50.0 ha	Area C	Privately-owned Land (Al Hussein Family)
Total	111.5 ha		

Note: Based on the information from Ministry of National Planning. Lot name I, II and III are tentative ones.

Lot I could be assessed as suitable for initial development in the first stage of implementation considering its small scale, jurisdiction of Area A and state-owned status, while Lot II would be reserved for the second stage which shall be developed on a larger scale after agreement with the private land owner. On the other hand, Lot III needs special coordination/agreement with Israeli authorities because of its location in Area C. For this reason, it would take a long time until the lot could be developed as the third stage.

It has been reported by the Ministry of Planning that the state-owned land (Lot I) is secured for the agro-industrial park use after a determination in the Cabinet meeting on February 18, 2008. Meanwhile,

PNA agencies have contacted the private land holder but no agreement has been concluded in any written form so far. Since the agro-industrial park development plan is still in a premature stage, it is difficult to talk and negotiate with the land holder in detail. However, considering the indispensability of land for this kind of development project, relevant agencies are requested to officially arrange a general terms of agreement with the land owner, as soon as possible before sifting to the Part 2 of the Feasibility Study.

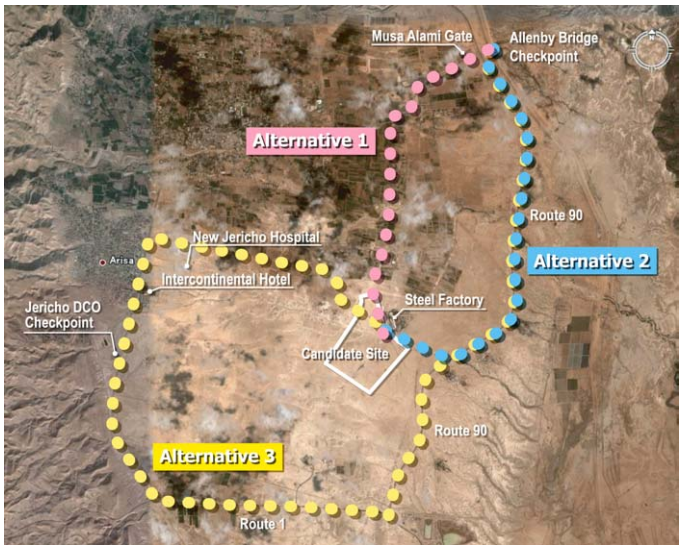


Candidate Site

Cargo Access

Following the general agreement made in the Second Technical Meeting and further discussions with the parties concerned, the Study Team provisionally set three alternatives for the cargo access.

Alternative 1 is a road section which would extend from the site to the north while passing through the eastern part of Jericho City where agricultural fields and new housing area spread. This alternative would be the shortest access (approx. 6.0 km, of which 5.5 km needs to be constructed) to the Allenby Bridge. Alternative 2 would include a direct connection to Route 90 which needs to be constructed in Area C. This alternative is the second shortest route to the Allenby Bridge (approx. 7.0 km, of which 1.2 km needs to be constructed) without passing through the developed area. Alternative 3 would include a new road construction, which has been planned in Jericho Municipality (from the site to the north point of the New Jericho Hospital). This alternative would be the longest access to the Allenby Bridge (approx. 22.0 km, of which 9.0 km needs to be constructed up to the connection to Route 1) while passing through Route 1 and Route 90.

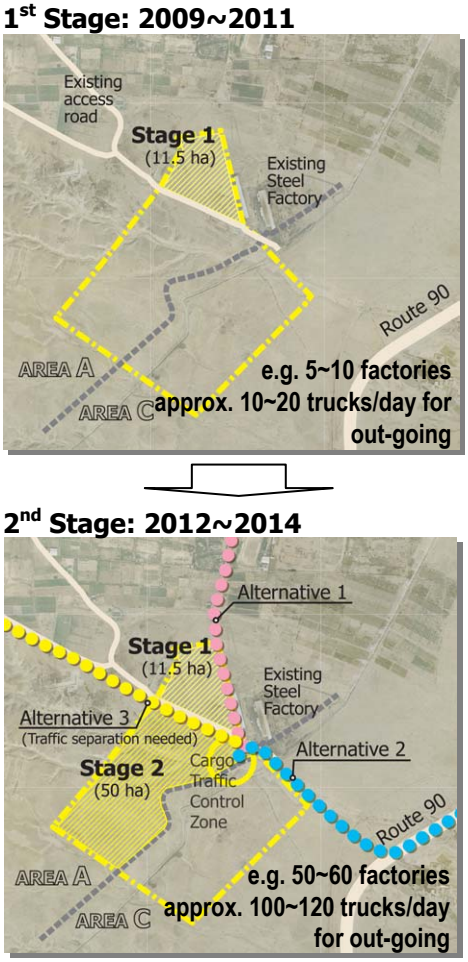


Cargo Access Alternatives

The Study Team has preliminarily assessed the three alternatives from the technical points of view, i.e. transportation efficiency, environmental impact, land use effect, social and economic concern, financial concern, and other specific aspects if any, in reference to the assessment criteria commonly applied in Japan, and concluded that Alternative 2 is considered to be most appropriate when the situation allows, since the alternative could be technically assessed as more preferable than the others in terms of distance to the Allenby Bridge, land acquisition and construction cost. However, as a matter of practice,

Alternative 2 has a difficulty in land use because of its area jurisdiction, i.e. Area C, which would require further discussion and coordination with the Israeli authorities. While Alternative 1 is considered to be a practical one because of its situation in Area A, there are potential problems of land acquisition. Likewise, Alternative 3 is considered to be practical to the extent of Area A but with possibly a large amount of construction including widening of the road section in Area C to Route 1.

Assuming that the agro-industrial park would be developed in a stage-wise, the exclusive cargo access would not be necessary in the first stage since the traffic volume to and from the agro-industrial park is estimated to be small enough to be accommodated by the existing road[3]. For instance, suppose two trucks per day would be generated from 5 to 10 factories in the first stage area, the total number of trucks would turn out to be 10 to 20. While in the second stage, it is expected to have 50 to 60 factories in total, thus the total number of trucks from the agro-industrial park would be 100 or more. In this sense, it is recommendable that cargo access alternative should be determined before commencement of the second stage, and the determination should be promptly shifted into implementation to cope with the possible large increase of industrial traffic in the future.



Stage-wise Development of Cargo Access

Water Supply

A preliminary estimate of water supply is shown in the following table, for each development stage.

Preliminary Estimate of Water Supply[4]

Stage/Year	1st Stage 2009~2011	2nd Stage 2012~2014	3rd Stage after 2015
Total Development Area	11.5 ha	61.5 ha	111.5 ha
No. of factories	5~10	50~60	100~110
Water Supply	0.1 MCM	0.5 MCM	1.0 MCM

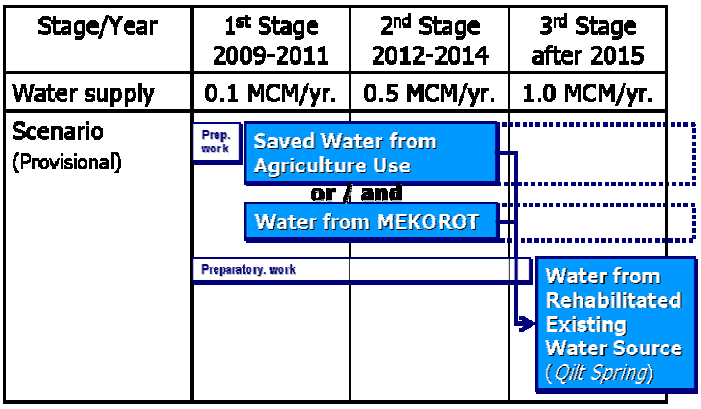
Source: JICA Study Team

[3] Some improvement or upgrading works might be necessary.
[4] Based on the estimate (0.45 MCM/yr. for 50 factories) which was calculated in the Phase I Study.

There are several options for securing water to the agro-industrial park. Option 1 is to utilize water possibly to be saved from agricultural use. Option 2 is to purchase water in bulk from Mekorot[5], Israeli Water Supply Corporation. And Option 3 is to use potential surplus water from rehabilitation of existing water source, i.e. *Qilt Spring*. These options were tentative results[6] of technical discussion with the JICA Study Team for the Feasibility Study on Water Resource Development and Management in the JRRV. All the options have constraints in data availability. Therefore further data collection as well as field verification is necessary to be conducted in the Part 2 in cooperation with the stakeholders.

The three options may be different in immediate availability. For instance, Option 1 could be effective after verification of potential amount of water to be shifted from agricultural use to industrial use, while it must be a prerequisite that the current water users (farmers) would understand and agree to shift the saved water to other use. Option 2 is considered to be the most immediate water source if the amount of water available is enough to cover the demand, while this option would require other discussion and coordination between Israel and PNA. Option 3 would require a long-term approach for realization because of its location in Area C and the natural reserve area. Starting from data collection at several points along the water flow for 3 to 5 years, because of no accurate data available so far, estimating potential amount of surplus water with facilities rehabilitation to be used for the agro-industrial park, while economic ways to secure and carry the water to the site need to be planned.

Based on these possible options, the Study Team proposes a provisional scenario for securing water to the agro-industrial park, as shown in the following figure. While conducting the study and planning work on rehabilitation of the existing source in cooperation with the stakeholders, the other options (Option 1 or/and Option 2) shall accommodate the industrial water demand as far as possible. This is the basic idea of the scenario. However, it is not sure at the moment if enough amount of water could be secured for the demand even after rehabilitation of the existing water source. For this reason, it is recommended to involve an engineering study for recycling waste water in the Part 2, which would contribute to saving water supply.



A Scenario based on the Likely Options

[5] The Study Team tried to collect information and data of Mekorot's service capacity in the JRRV, while so far not available.

[6] There is another possibility to utilize existing unused wells (which had been transferred from Mekorot to PWA), while no data is available without location after 2000. However, their water quality is considered to be too salty to be used directly for industry.

Power Supply

A preliminary estimate of power supply is shown in the table below, for each development stage.

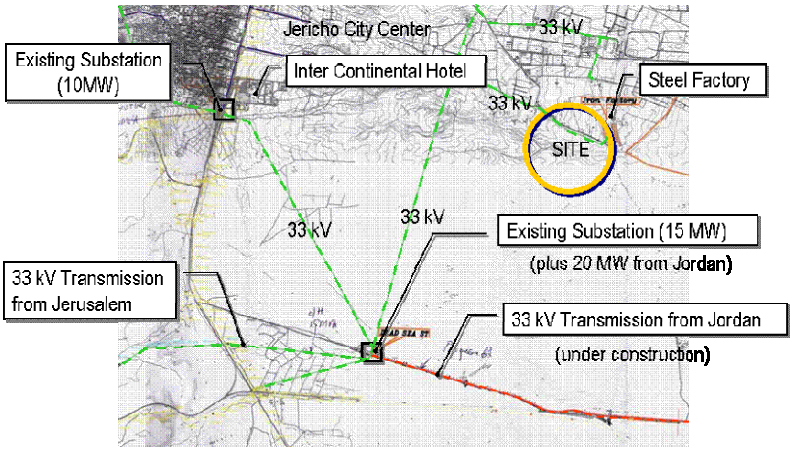
Preliminary Estimate of Power Demand[7]

Stage/Year	1st Stage 2009~2011	2nd Stage 2012~2014	3rd Stage after 2015
Total Development Area	11.5 ha	61.5 ha	111.5 ha
No. of factories	5~10	50~60	100~110
Power Demand	2 MW	10 MW	20 MW

Source: JICA Study Team

Currently, electricity for the Jericho area is supplied by JDECO (Jerusalem District Electricity Company) with its total capacity of 45 MW[8].

Given the current power peak load in the Jericho area is 15 MW at maximum, the electricity demand estimated for the second stage of the agro-industrial park (10 MW) could be covered within their capacity. However it is not certain at this point if the electricity demand for the third stage would be covered, since other electricity demand (mainly for domestic use) could possibly increase in accordance with the change of social and economic situation in years to come by 2015.



Transmission Grid of JDECO in the southern Jericho

Detailed arrangement of the facilities such as transmission line extension, power transformer installation, distribution feeder lining, etc. shall be technically discussed in the Part 2 with the technical division of JDECO together with cost estimate and sharing.

Waste Water Treatment

Waste water quantity is estimated to be roughly 80 % of the total industrial water consumption. This should be firstly treated by individual factories so that the effluent quality could meet the requirements of the Palestinian Standards for discharge to public sewers[9]. After individual treatment, effluent would be collected through the waste water collection system, which would be appropriately laid down alongside the on-site roads. This is the basic idea for how to treat waste water on an individual treatment basis. In the meantime, it is worthwhile considering a waste water recycling plant as an on-site common

[7] Based on the estimate (approx. 10 MVA for 50 factories) which was calculated in the Phase I Study.
[8] Since February 25, 2008, electricity supply is increased to 45 MW from the original 25 MW, after the completion of the transmission line extension from Jordan.
[9] Refer to the Technical Note II: Environmental and Social Consideration of the Phase I Report.

facility which could reproduce industrial water, resulting in saving water supply. A preliminary estimate is shown in the table below, which would provide an idea for saving water supply to approximately 40 % of that without a recycling plant.

Preliminary Estimate of Waste Water

Stage/Year	1st Stage 2009~2011	2nd Stage 2012~2014	3rd Stage after 2015
Waste Water	0.08 MCM/yr.	0.40 MCM/yr.	0.80 MCM/yr.
Recycled Water (70%)	---	0.28 MCM/yr.	0.56 MCM/yr.
Water Supply w/ Recycling	0.10 MCM/yr.	0.22 MCM/yr.	0.44 MCM/yr.
Water Supply w/o Recycling	0.10 MCM/yr.	0.50 MCM/yr.	1.00 MCM/yr.

Source: JICA Study Team

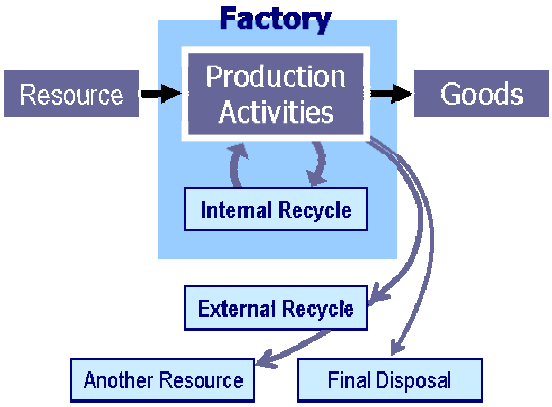
Note: Waste water is estimated to be 80 % of the total water consumption.

Water supply issues and water treatment issues could be considered together, which may contribute to effective use of the precious water resource and to environmentally-friendly project implementation as well.

Solid Waste Management

Solid waste from food related industries could be disposed of by the factories, as their waste materials (organic waste) could be composted and recycled for generating another source of income. There might be other types of waste materials which are solid, that need to be transported to the final disposal place. Jericho Municipality is currently undertaking improvement work to extend the existing dumping site to prolong the lifetime to cope with the future increase in solid waste. The agro-industrial park would need close coordination for solid waste management issues.

Meanwhile, following the concept of the agro-industrial park "Human Well-being", it is worthwhile aiming at "Zero Emission Recycle Initiative" in the agro-industrial park by dissemination of the activities to the factories and installation of a common recycling facility on the site. The solid waste issue is an unending issue, so that the Study Team would recommend involving an engineering study in the Part 2 for introduction of a common recycling facility, which may contribute even to the surrounding society in the Jericho area.



Source: JICA Study Team

Schematic Image of Zero Emission

Movement and Access, and Import Limitation

It was identified through the foregoing Study how to improve movement and access inside and across the West Bank is one of the most crucial conditions for the potential investors and enterprises to take

interest in the agro-industrial park. In the meantime, import limitations due to Israeli security measures are considered to be one of the constraints in the operation of enterprises in PNA. Given this context, an interview survey on movement and access and import limitation was conducted in order to identify major difficulties and constraints facing Palestinian companies in the West Bank, aiming at drawing ideas for improvement in movement and access and in import limitations.

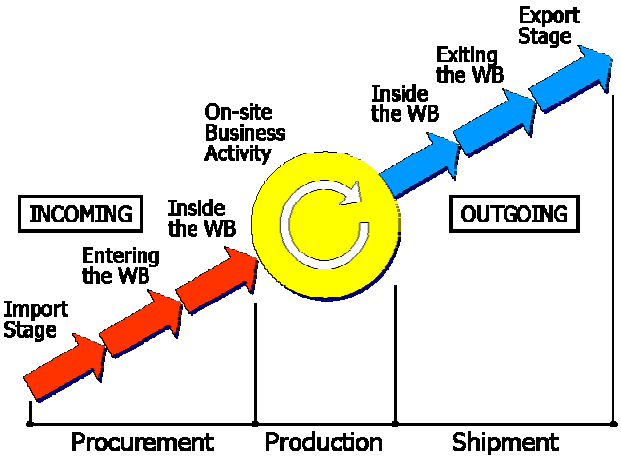
Outline of Interview Survey

The interview survey was conducted in accordance with the following criteria:

- Surveyed Companies : 16 companies which are active in the West Bank in the sub-sectors such as agribusiness, food processing, pharmaceutical and supporting industries (i.e. packaging materials and freight)
- Selection Criteria : Companies which,
  - Currently sell products in multiple cities in the West Bank.
  - Currently export products or are willing to export.
  - Procure raw materials/equipment from abroad.

Survey Method

In order to identify difficulties and constraints regarding import and movement of raw materials and products, the information collected in the interview survey is classified and summarized in each stage of the supply chain.



Model of Supply Chain

Identification of Constraints in Supply Chain

As a result of the interview survey, the following difficulties and constraints in respect of the movement of goods and import limitation of raw materials and equipment are identified.

- Delay in delivery : Time consuming security check, Use of detour
- Unpredictability of delivery : Unpredictability of time to go through checkpoints and terminals, Sudden closure of checkpoints, Closure on Israeli holidays
- Increase in transportation cost : Extension of travel time, Two vehicles' arrangement for back-to-back at terminals
- Damage to raw materials and products : Delay in delivery due to extension of travel time, Unloaded outside for hours during back-to-back process, Narrow, sloping and winding road conditions, Inappropriate handling

Ideas for Improvement

Most of constraints are related to security inspection at checkpoints and commercial terminals. Because of such constraints, enterprises suffer from delay in delivery, unpredictability of delivery, increase in transportation cost, and damages to raw materials and products. For the purpose of relaxing such constraints, several ideas are proposed for improvement in movement and access, and import limitation. Ideas for improvement in movement and access are categorized into operational improvement, facility improvement, and institutional improvement, as shown in the figure.

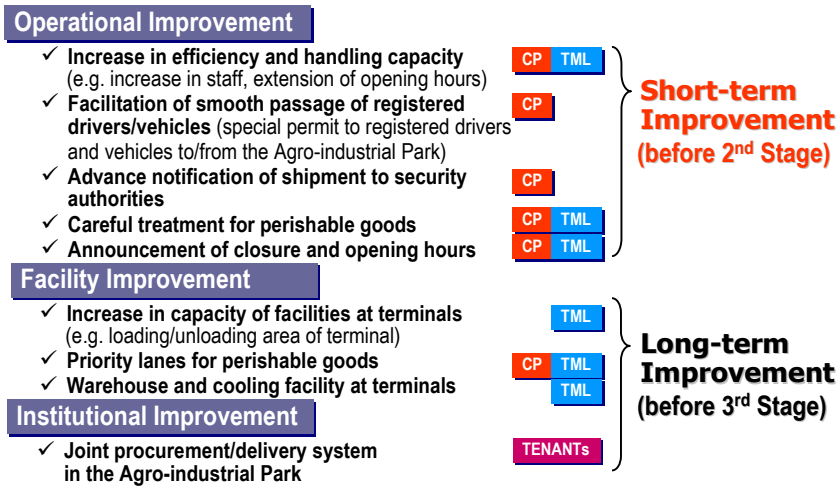
Ideas for Improvement in Movement and Access

With respect to improvement in import limitation, there exists unpredictability of importing certain materials which are restricted for security reasons. They are mainly chemicals and raw materials for pharmaceutical production such as H_2O_2 (Hydrogen Peroxide). Some fertilizer is also regarded as a restricted material. Considering the dependency on imported raw materials for Palestinian industries, it is crucial to procure raw materials in a convincing way by agreeing between PNA and the Israeli authorities on an arrangement for removing unpredictability caused by import limitation.

Application to the Agro-industrial Park

For the purpose of procuring raw materials to and delivering products from the agro-industrial park in Jericho, highly used checkpoints and commercial terminals which are adjacent to the agro-industrial park are: Jericho DCO checkpoint, Jericho North checkpoint (Yitav checkpoint), Mousa Alami checkpoint and the Allenby Bridge Terminal. Therefore, measures for improvement should be introduced at the above mentioned checkpoints and terminal in the first place.

Operational improvement will take place as short-term improvement before the second stage from 2012, which will be followed by facility and institutional improvement as long-term improvement by the third stage. Some measures are applied to both the checkpoints (as shown with red CP in the figure) and the terminal (as shown with blue TML), whereas others are applied to either of them.



Ideas for Better Implementation of the Agro-industrial Park

With respect to improvement in import limitation, pharmaceutical enterprises can import such restricted items for security reasons by applying to the Ministry of Health in PNA and to Israeli authority through Beit El. However, the application is not always accepted, which is a source of unpredictability for the enterprises. One idea would be an arrangement for enterprises in the agro-industrial park to be able to import raw materials any time with certain conditions such as usage proof (date, quantity, means, etc.) of restricted items. Though it seems difficult for each enterprise to negotiate or resolve the issue of import limitation by itself, it will be reasonable to consider a collective arrangement for enterprises in the agro-industrial park.

Role Sharing in Implementation

The basic approach for role-sharing between public- and private-sector in this kind of industrial area development is that the public sector shall undertake off-site infrastructure development such as access road, water supply pipeline and main power transmission, while the private sector would implement on-site development to create real estate of market value.

However, there is no clear boundary in the role-sharing in a practical sense. Sometimes the private sector would bear part of the cost for widening the access road even if the road is a public road. On the contrary, the public sector would construct some facility (e.g. solar energy generation with advanced technology) which is exclusively used for the on-site development area for the public purpose of monitoring and dissemination of it. In this wise, boundary of the role-sharing may alter depending on what, why, where and how the infrastructures/facilities would be developed. Therefore role-sharing could not be fixed at this premature stage of planning, which will be discussed repeatedly in accordance with the progress of the further engineering study in the Part 2 and Part 3.

In principle, the off-site infrastructure/ facility all over the development shall be developed under the responsibility of the public sector because they would serve not only the factories in the agro-industrial park but also others somehow in the region. The public sector may ask the private sector for some type of monetary contribution or in-kind for developing the infrastructure/facility, but it would depend to what extent the infrastructure/facility would be occupied in use by the agro-industrial park.

1st Stage 2009-2011	**2nd and 3rd Stage** 2012-2014 / after 2015
Off-site Infra./facility	**Off-site Infra. /facility**
✓Access road improvement ✓Water supply pipeline ✓Power transmission	✓Cargo access development ✓Water supply enhancement ✓Power transmission expansion
On-site Infra. /facility	**On-site Infra. /facility**
✓Land preparation including on-site common infra. ✓Center facility with functions such as product display, business meeting, sales, etc.	✓Land preparation including on-site common infra. ✓Factories/enterprises

Infrastructure/Facilities by Development Stage

On the other hand, the on-site infrastructure/facility shall be developed basically by the private sector (developer) as aforementioned. However, public support would be needed in the first stage since the necessary conditions, such as stable supply of high quality and safe products, optimal water supply, and

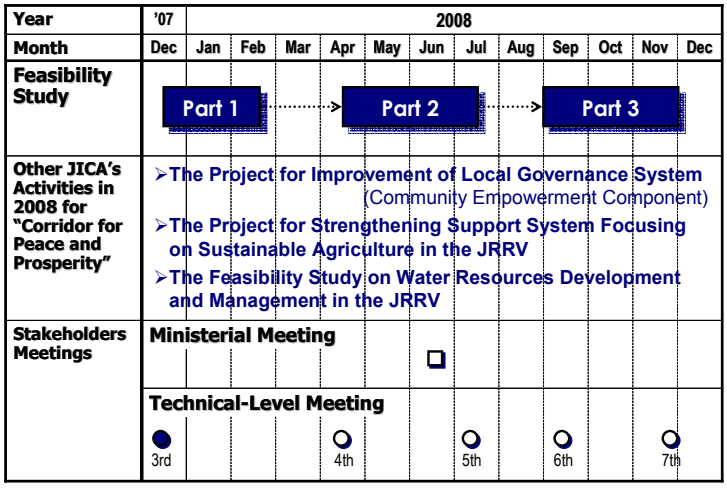
improvement in movement and access, in order to attract investors to the agro-industrial park would not be matured yet by this stage. Therefore, a kind of PPP (Public and Private Partnership) would be required for implementation of the first stage. The basic idea for PPP in the first stage is that from the majority to all of the investment for facility construction and service providing would be undertaken by the private sector, while the public sector would be asked to bear some part of the investment depending on the public nature of the facilities.

The on-site infrastructure/facility development in the second and third stage could be fully undertaken by the private sector after the prerequisites are all matured enough to attract investors to the agro-industrial park. What the public sector could do for the successful implementation is to further enhance those prerequisites, to support the private sector in investment promotion, and to assist some part of the on-site infrastructure/facility if they would meet public policy or program. For instance, assuming that waste water treatment plant or/and solid waste recycling plant would be installed as common facilities in the agro-industrial park, the public sector may support the construction for the possible reasons of service providing capability to the surrounding communities, or environmentally friendly pilot project.

Further Study Schedule

The further Study would continue in accordance with the stakeholders meetings, i.e. Ministerial Meeting and Technical Level Meeting, in close relation to other JICA activities.

The Part 2 Study is scheduled to commence in April 2008 and last until July 2008 with its main components of "investment demand and promotion strategy" and "preliminary planning on agro-industrial park". The results of the Part 2 will be reported to the Fifth Technical Level Meeting to further discuss specific issues to be identified during the Part 2.



Further Study Schedule

The Part 3 would consist of "investment promotion" and "agro-industrial park development plan", which would be the final stage of the Feasibility Study to be implemented from September to November 2008. The results of the Part 3 shall be reported to the Seventh Technical Level Meeting to further discuss necessary actions to be taken for the successful implementation of the agro-industrial park.

Provisional scope of works for the Part 2 and Part 3 is shown in the following table.

Scope of Works: Part 2 and Part 3 (*provisional*)

Scope of Work: Part 2

- **Investment Demand and Promotion Strategy**
  - Demand analysis (survey of potential investors)
  - Strategy and action plan for investment promotion
- **Preliminary Planning on Agro-industrial Park**
  - Soil exploitation, geographical and topographic survey
  - Land use of each stage
  - Off-site infra. & facilities (access road, water supply, power)
  - On-site infra. & facilities (cargo handling and distribution, waste water treatment, solid waste management)
  - Social and environmental consideration
  - Preliminary cost estimate

Scope of Work: Part 3

- **Investment Promotion**
  - Technical assistance to PNA's investment promotion
  - Public relation
- **Agro-industrial Park Development Plan**
  - Land use plan
  - Infrastructure and facilities development plan
  - Cost estimate and financing plan
  - Economic and financial evaluation
  - Social and environmental consideration (continued)
  - Implementation scheme of the agro-industrial park development and management