

Section 3 Noise Measurement Data Sheet

| | | | | |
|---|--------------------|------|---------|------|
| Name of Project: Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter AP. III | Part | Section | Page |
| Date: Feb 17, 1998 | Rev.: | | | |

Noise Measurement Data Sheet (1)

| | | | | |
|-------------------------|--|--------------------------------|---------------|------|
| 1. Date | 1997.8.15 N1 = 11:00~11:20 N2 = 11:40~11:50 1997.8.16 N3 = 16:20~16:25 | | | |
| 2. Weather | N1 = Cloudy N2 = Cloudy N3 = Cloudy | | | |
| 3. Location | Hanoi | | | |
| 4. Measurement Position | N1 = Nang Luong (Lake side) N2 = Pho Trang Tien (Down town book shop) N3 = (Residential area) | | | |
| 5. Surroundings | N1 = Heavy traffic near the Lake Ho Kiem N2 = Heavy traffic on the Pho Trang Tien Street N3 = Hammering noise of building construction | | | |
| 6. Measurement Device | | Noise Measurer (N.M.)+Recorder | N.M.+Recorder | |
| 7. Results | | N1 | N2 | N3 |
| | L eq | 78.6 | 73.9 | 63.7 |
| | L 5 | 82.4 | 78.0 | 66.8 |
| | L 10 | 79.7 | 76.3 | 63.9 |
| | L 50 | 72.9 | 72.3 | 55.0 |
| | L 90 | 69.7 | 68.4 | 50.9 |
| | L 95 | 69.0 | 67.4 | 50.2 |
| | Chart No. | 1 | 2 | 3 |
| 8. Remarks | I. Photo No. | | | |

| | | | | |
|---|---------|--------|---------|------|
| Name of Project: Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page |
| Date: Feb 17, 1998 | Rev.: | AP.III | | 1 |

Noise Measurement Data Sheet (2)

| | | | |
|-------------------------|---|-----------------------------------|---------------|
| 1. Date | 1997.8.17 N4 = 14:40~14:50 N5 = 6:50~6:55 | | |
| 2. Weather | N4 = Cloudy N5 = Cloudy | | |
| 3. Location | Hanoi | | |
| 4. Measurement Position | N4 = In the Thanh Cong Villa area N5 = On the street near VSC | | |
| 5. Surroundings | N4 = Intermitting passage of motor-bike N5 = Frequent passage of motor-bikes | | |
| 6. Measurement Device | | Noise Measurer (N.M.)+Recorder | N.M.+Recorder |
| 7. Results | | N4 | N5 |
| | L eq | 53.5 | 74.5 |
| | L 5 | 56.7 | 77.9 |
| | L 10 | 55.4 | 74.6 |
| | L 50 | 52.3 | 69.6 |
| | L 90 | 50.3 | 67.5 |
| | L 95 | 49.9 | 66.9 |
| | Chart No. | 4 | None |
| 8. Remarks | 1. Photo No. | | |

| | | | | |
|---|--------------------|------|---------|-----------|
| Name of Project: Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter AP. III | Part | Section | Page 2 |
| Date: Feb 17, 1998 | Rev.: | | | |

Noise Measurement Data Sheet (3)

| | | | |
|-------------------------|---|-----------------------------------|---------------|
| 1. Date | 1997.8.20 N6 = 15:35~15:40 N7 = 15:50~15:55 | | |
| 2. Weather | N6 = Sunny N7 = Sunny | | |
| 3. Location | Mui Ron | | |
| 4. Measurement Position | N6 = Inland N7 = Seaside | | |
| 5. Surroundings | N6 = Intermitting noise of cars N7 = Sound of wave and birds | | |
| 6. Measurement Device | | Noise Measurer (N.M.)+Recorder | N.M.+Recorder |
| 7. Results | | N6 | N7 |
| | L eq | 39.5 | 40.2 |
| | L 5 | 41.8 | 43.6 |
| | L 10 | 39.9 | 42.5 |
| | L 50 | 36.5 | 38.8 |
| | L 90 | 34.9 | 36.1 |
| | L 95 | 34.2 | 35.3 |
| | Chart No. | 6 | 7 |
| 8. Remarks | I. Photo No. | | |

Noise Measurement Data Sheet (4)

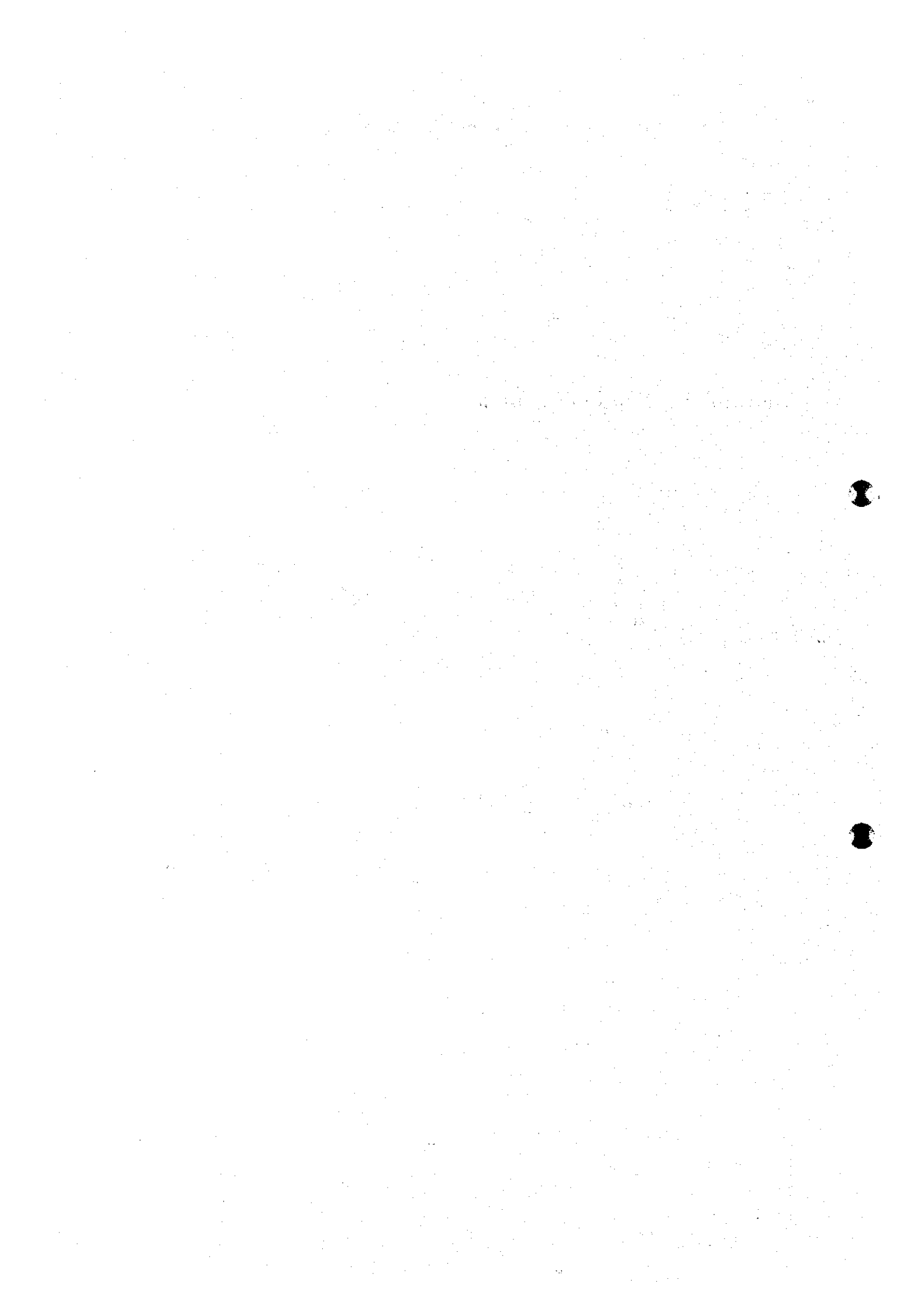
| | | | | |
|-------------------------|--|--------------------------------|---------------|---------------|
| 1. Date | 1997.8.21 N8 = 15:40~15:45 1997.8.22 N9 = 8:50~9:00 1997.8.22 N10 = 16:40~16:45 | | | |
| 2. Weather | N 8 = Sunny N 9 = Cloudy N10 = Cloudy | | | |
| 3. Location | N 8 = Ha Tinh N 9 = Vinh N10 = Vinh | | | |
| 4. Measurement Position | N8 = Conference room (3F) of People's Committee N9 = At Huu Nghi Hotel N10 = Crossing point in front of Huu Nghi Hotel | | | |
| 5. Surroundings | N8 = Noise of motor cycle, loud-speaker noise N9 = Noise of automobiles, motor cycles N10 = Noise of automobiles, motor cycles | | | |
| 6. Measurement Device | | Noise Measurer (N.M.)+Recorder | N.M.+Recorder | N.M.+Recorder |
| 7. Results | | N8 | N9 | N10 |
| | L eq | 58.5 | 57.8 | 73.8 |
| | L 5 | 63.9 | 60.6 | 78.5 |
| | L 10 | 61.1 | 59.4 | 76.5 |
| | L 50 | 53.8 | 56.4 | 70.9 |
| | L 90 | 49.1 | 54.8 | 67.2 |
| | L 95 | 48.3 | 54.5 | 66.2 |
| | Chart No. | None | 9 | 10 |
| 8. Remarks | I. Photo No. N8 = N9 = 3-~3-11 N10 = 3-12~3-16 | | | |

| | | | | |
|---|---------|------|---------|------|
| Name of Project: Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page |
| Date: Feb 17, 1998 Rev.: | AP. III | | | 4 |

Part 2

Section 1 Scope of Work

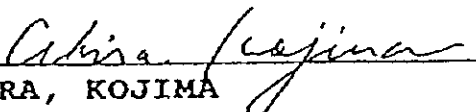
| | | | | |
|---|---------|------|---------|------|
| Name of Project: Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page |
| Date: Feb 17, 1998 Rev.: | AP. | 2 | 1 | |




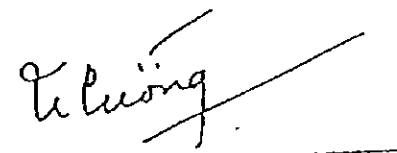
SCOPE OF WORK
FOR
THE MASTER PLAN STUDY
ON
THE DEVELOPMENT
OF
STEEL INDUSTRY
IN
THE SOCIALIST REPUBLIC OF VIET NAM

AGREED UPON BETWEEN
THE MINISTRY OF INDUSTRY
OF
THE SOCIALIST REPUBLIC OF VIET NAM
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

HANOI, JUNE 12, 1996


AKIRA, KOJIMA
LEADER,
PREPARATORY STUDY TEAM,
JAPAN INTERNATIONAL
COOPERATION AGENCY


TRAN MINH HUAN
GENERAL DIRECTOR,
DEPARTMENT OF
INTERNATIONAL COOPERATION,
MINISTRY OF INDUSTRY


PHAM CHI CUONG
VICE PRESIDENT,
VIET NAM STEEL CORPORATION

I INTRODUCTION

In response to the request of the Government of the Socialist Republic of Viet Nam (hereinafter referred to as "GOV"), the Government of Japan decided to conduct the Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of Viet Nam.

The present document sets forth the scope of work for the Study.

II OBJECTIVE OF THE STUDY

The objectives of the Study are to formulate a comprehensive master plan for the development of steel industry up to the year of 2010 in Viet Nam and to conduct a pre-feasibility study on installation of a new steel plant with high priority.

III SCOPE OF THE STUDY

The Study will be conducted in two phases: Phase I will be devoted to the preparation of a comprehensive master plan for the development of steel industry in Viet Nam, and Phase II to a pre-feasibility study of a selected steelworks development project.

In the course of Phase I and based on the findings obtained therein, the Viet Nam side and the Japanese side will have discussions on the selection of a prospective steelworks development project on which a pre-feasibility study will be conducted in Phase II. This project is to be decided by the Viet Nam side by the end of Phase I at the latest.

PHASE I MASTER PLAN

1. Present Situation of National Economy
 - 1-1. Economic situation of Viet Nam
 - 1-2. Present situation by industrial sector
2. Review of National Policy
 - 2-1. National development plan
 - 2-2. Development plan by industrial sector
 - (1)Petro-chemical industry
 - (2)Chemical industry
 - (3)Heavy industry

July
15

- (4)Textile industry
- (5)Food and beverage industry
- 2-3. Development plan of economic and social infrastructure
 - (1)Power generation and Power transmitting net-work
 - (2)Transportation(road & railway construction, port& port facilities)
 - (3)tele-communication net-work
 - (4)water supply and drainage
 - (5)Buildings, housings, etc
- 2-4. Exploitation plan of natural resources (iron ore, coking/steam coal, crude oil, natural gas, etc.)
 - (1)Reserves, location, properties of ROM(run of mine)
 - (2)Geology, topography, climate of mines .
 - (3)Exploitation plan of each mine
 - (4)Quality, quantity and price of mined products
 - (5)Production schedule of mined products
- 2-5. Current development plan for steel industry
- 2-6. The role of steel industry in Viet Nam economy

- 3. Present situation of steel industry in Viet Nam
 - 3-1. Situation of raw materials and energy supply
 - 3-2. Outline of Viet Nam Steel Corporation (hereinafter referred to as "VSC")
 - 3-3. Outline of the existing steelworks (Thai Nguyen, Southern, Da Nang, and other major steelworks)
 - (1)Configuration of the major productive facilities and production capacity
 - (2)Products mix
 - (3)Production and shipment record for the past five years
 - (4)Organization and manpower allocation
 - (5)Financial situation
 - 3-4. Product transportation and distribution system
- 4. Market study
 - 4-1. Present situation and past record (for 5 years) of steel demand
 - 4-2. Present situation and past record (for 5 years) of steel supply
 - 4-3. Present situation of international steel market
 - 4-4. Supply and demand forecast
 - (1)Demand forecast of steel products in each industrial sector
 - (2)Prospective supply of steel products on mid-term and long-term basis (taking expansion plans of existing plants and plans for newly installed plants under various joint venture projects into consideration)
 - (3)Import and export of steel products
 - 4-5. Expected needs for production capacity and product mix
- 5. Study on the applicable technology to the iron and steelmaking process in conformity with the circumstances
 - 5-1. Required raw materials and utilities for each iron and steelmaking process

- 5-2. Comparative study on the applicable iron and steelmaking processes and rough comparison of construction cost of each process
 - (1) Blast furnace process
 - (2) Direct reduction process
 - (3) Scrap-based electric steelmaking process
 - (4) Smelting reduction process
- 5-3. Suggested iron and steelmaking technologies and processes
6. Study on the sites where new steel production plants are to be constructed
 - 6-1. Location and Topography
 - 6-2. Infrastructure and utilities of the possible sites
 - (1) Transportation (road, railway, port & port facilities)
 - (2) Electricity
 - (3) Water
 - (4) Tele-communication
 - (5) Other infrastructure (township, hospital, school, etc.)
 - 6-3. Procurement of raw materials and fuel
 - 6-4. Availability of labor at each site
 - 6-5. Formulation of criteria for site selection and comparative study on the possible sites
 - 6-6. Suggested sites for the construction of new steel production plants
7. Introduction of the past experiences of Japan and other Asian countries in developing steel industry
8. Formulation of a comprehensive master plan for the development of steel industry
 - 8-1. Optimum development strategies for steel industry
 - 8-2. Stage-wise & region-wise steel industry development
 - 8-3. Modernization of existing plants of VSC (Thai Nguyen, Southern and Da Nang)
 - 8-4. Utilization of energy resources and raw materials
 - 8-5. Technological upgrading
 - 8-6. Measures for environmental protection
 - 8-7. Human resources development
 - 8-8. Improvement of transportation and distribution system
 - 8-9. Measures for improving corporate management
 - 8-10. Measures to be taken by government to promote steel industry
 - 8-11. Rough estimation of cost required for implementation of the master plan
9. Conclusion and recommendations

PHASE 2 PRE-FEASIBILITY STUDY

10. Conceptual study for a selected steel plant
 - 10-1. Optimization of production capacity

- 10-2. Product mix
- 10-3. Raw materials and energy conditions
- 10-4. Process flow
- 10-5. Major production facilities
- 10-6. Plot plan (General layout of the plant)

11. Impact on environment

- 11-1. Air
- 11-2. Water
- 11-3. Dust
- 11-4. Noise
- 11-5. Wastes

12. Total development cost requirements

- 12-1. Plant related infrastructure
- 12-2. Plant construction
- 12-3. Plant operation

13. Evaluation

- 13-1. Financial analysis
- 13-2. Economic analysis
- 13-3. Impact on Society

14. Overall conclusion and recommendations

IV WORK SCHEDULE

The Study will be carried out in accordance with the attached tentative work schedule.

V REPORTS

JICA shall prepare and submit the following reports in English to GOV in accordance with the attached tentative work schedule.

- Ten (10) copies of the Inception Report
- Ten (10) copies of the Progress Report I
- Ten (10) copies of the Progress Report II
- Fifteen (15) copies of the Interim Report
- Ten (10) copies of the Progress Report III
- Twenty (20) copies of the Draft Final Report
- Thirty (30) copies of the Final Report

VI UNDERTAKINGS BY THE GOVERNMENT OF VIET NAM

1. To facilitate smooth conduct of the Study, GOV shall take the necessary measures:

- 1-1 To secure safety of the Japanese Study Team (hereinafter

Jul
(15)

referred to as "the Team").

- 1-2 To permit the members of the Team to enter, leave and sojourn in Viet Nam for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees
 - 1-3 To exempt the members of the Team from taxes, duties and any other charges on equipment, machinery and other materials brought into, and out of, Viet Nam for the conduct of the Study
 - 1-4 To exempt the members of the Team from income tax and charges of any kind imposed on, or in connection with, any emoluments or allowances paid to them for their services for the implementation of the Study
 - 1-5 To provide necessary facilities to the Team for remittance as well as utilization of the funds introduced into Viet Nam from Japan in connection with the implementation of the Study
 - 1-6 To try to secure permission for entry into private properties or restricted areas for the implementation of the Study.
 - 1-7 To secure permission for the Team to take all data and documents including photographs and maps related to the Study out of Viet Nam
 - 1-8 To provide medical service as needed. Its expenses will be chargeable on the members of the Team.
2. GOV shall bear claims, if any arises, against the member of the Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the Team members.
 3. VSC shall act as a counterpart agency to the Team and also as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
 4. VSC shall, at its own expense, provide the Team with the following in cooperation with other organizations concerned :
 - 4-1 Available data and information related to the Study
 - 4-2 Counterpart personnel
 - 4-3 Suitable office space with necessary equipment in Hanoi
 - 4-4 Credentials or identification cards

Wiley
 (K) *the*

VII UNDERTAKINGS BY JICA

For the implementation of the Study, JICA shall take the following measures :

1. To dispatch, at its expense, a series of study teams to Viet Nam
2. To pursue technology transfer to the Vietnamese counterpart personnel in the course of the study.

VIII OTHERS

JICA and VSC shall consult with each other in respect of any matters that arise from, or in connection with, the Study.

TENTATIVE WORK SCHEDULE

| Year | 1996 | | | | | | | | | | | | 1997 | | | | | | | | | | | |
|---------------------------------------|------|------|------|----|---|------|---|------|---|----|----|----|------|----|----|------|--|------|--|--|--|-----|--|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | | | | | | | | |
| Project Month | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | | | | | | |
| Calendar Month | | | | | | | | | | | | | | | | | | | | | | | | |
| Preparatory Work in Japan | □ | | | | | | | | | | | | | | | | | | | | | | | |
| Work in Viet Nam | | ■ | | | ■ | ■ | | | | ■ | ■ | | | | | | | | | | | | | |
| Work in Japan | | | □ | | | | □ | | | | | □ | | | | | | □ | | | | | | |
| Presentation of Draft Final Report | | | | | | | | | | | | | | | | | | | | | | ■ | | |
| Reports | △ | | ▲ | | | ▲ | | △ | | | | | | | | ▲ | | △ | | | | △ | | |
| | IC/R | P/R1 | P/R1 | | | P/R2 | | It/R | | | | | | | | P/R3 | | DF/R | | | | F/R | | |

IC/R : Inception Report

P/R : Progress Report

It/R : Interim Report

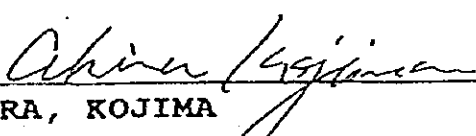
DF/R : Draft Final Report


F/R : Final Report

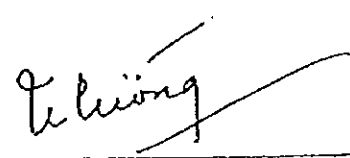
15
ue
B

MINUTES OF MEETING
ON
THE SCOPE OF WORK
FOR
THE MASTER PLAN STUDY
ON
THE DEVELOPMENT
OF
STEEL INDUSTRY
IN
THE SOCIALIST REPUBLIC OF VIET NAM

HANOI, JUNE 12, 1996


AKIRA, KOJIMA
LEADER,
PREPARATORY STUDY TEAM,
JAPAN INTERNATIONAL
COOPERATION AGENCY


TRAN MINH HUAN
GENERAL DIRECTOR,
DEPARTMENT OF
INTERNATIONAL COOPERATION,
MINISTRY OF INDUSTRY


PHAM CHI CUONG
VICE PRESIDENT,
VIET NAM STEEL CORPORATION

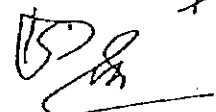
The Preparatory Study Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (JICA) and headed by Mr. Akira Kojima visited the Socialist Republic of Viet Nam from June 6 to June 15, 1996 for the purpose of discussing with the Vietnamese authorities concerned the Scope of Work (hereinafter referred to as "the S/W") for "The Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam" (hereinafter referred to as "the Study").

During the stay of the Team in Viet Nam, a series of meetings were held between the Team and the Vietnamese authorities on the S/W. The list of attendants appears in the appendix.

The S/W was agreed and signed on June 12, 1996, and concerning it, both sides confirmed the following points:

1. Concerning the item III.6 of the S/W, Viet Nam side shall propose candidate sites for the comparative study through discussion with the Study team based on the existing data and information. The maximum number of the candidate sites shall be three (3).
2. Concerning the item VI.4-1 of the S/W, Viet Nam side assured that it shall provide data and information which belong to the governmental organizations free of charge.
Viet Nam side requested that if the Study team requires data and information from consulting companies and service companies, the expense shall be paid by the Study team.
Japanese side promised to convey this request to JICA headquarters.
3. Concerning the item VI.4-3 of the S/W, Viet Nam side requested that the Study team shall arrange necessary equipments such as copy machines, facsimile machines etc. Viet Nam side also requested that telephone and facsimile fees shall be paid by the Study team.
Japanese side promised to convey these requests to JICA headquarters.
4. Steering committee (hereinafter referred to as "the Committee") shall be organized for the purpose of smooth and effective implementation of the Study. The participants in the Committee shall include, but not be limited to, the members of the following authorities and its secretariat shall be set up within VSC.
The Chairman of the Committee shall be appointed by the first visit of the Study team to Viet Nam at the latest.

- (1) Ministry of Planning and Investment
- (2) Ministry of Industry

24


- (3) Ministry of Science Technology and Environment
- (4) Ministry of Construction
- (5) Ministry of Transportation
- (6) Viet Nam Steel Corporation

5. Japanese side explained that JICA was planning to accept two counterpart personnel for the training in Japan in order to make the technical transfer effective in the course of the Study.

The C/P trainees are expected to visit Japan during the second analytical work of the Study tentatively scheduled from March to April in 1997.

Handwritten initials and signature
① *Handwritten mark*
Handwritten signature

Section 2 Minutes of Meetings and Relevant Letter

| | | | | |
|---|---------|------|---------|------|
| Name of Project: Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page |
| Date: Feb 17, 1998 Rev.: | AP. | 2 | 2 | |

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Minutes of Meeting Between Steering Committee, VSC and MP Team

1. Date and place: Oct 23, 1996 at Conference room of VSC (2-nd floor)
2. Participants:

| | | |
|---------------------|--------------------------------|--------------------------|
| Steering Committee: | Mr. Nguyen Van Hoc (MPI), | Dr. Ho Ngoc Xiem (MOI) |
| | Mrs. Phan Thi Nhung (MOT), | Mr. Vuong Dinh Cat (MOC) |
| | Mr. Le Van Thac (MDSIE), | Dr. Tran Van Quy (VSC) |
| VSC: | Mr. Phan Chi Cuong, and others | |
| JICA: (Tokyo) | Mr. Minoru Yamada | |
| (Viet Nam) | Mr. Hisatoshi Okubo | |
| MP Team: | Mr. Kenji Kobayashi, | Mr. Akira Teramae |
| | Mr. Tadahiko Nishi, | Mr. Akihiko Ochi |
| | Mr. Fuku Fukawa, | |
3. Major Items of Discussion:
 - (1) Contents of Inception Report and overall schedule of the Study
 - (2) Applicable process technology
 - (3) Criteria for site selection
4. Discussions and Conclusions:
 - (1) For the purpose of smooth and effective implementation of the Study, Steering Committee, VSC and the Master Plan (MP) Team confirmed that MP Team should work under the coordination of VSC counterparts during their staying period in Viet Nam. If MP Team necessitates any data or information from the governmental agencies such as MPI, MOI, MOC, GSO, etc., VSC counterparts and their subordinate personnel will make efforts to obtain such data and information.
 - (2) As for the site selection of the new steel production plant which is foreseen as necessary as the results of the Master Plan Study, Steering Committee confirmed that it will select three (3) sites among ten (10) possible sites according to the Criteria for Site Selection suggested by MP Team by the date of the next steering committee which is expected to be held during the week starting from Nov 25, 1996.
 - (3) Steering Committee members were confirmed as above written. It was confirmed by the parties that the Steering Committee should have the highest decision-making function for the Study. The chairman of the Committee is Dr. Tran Van Quy.
 - (4) Mr. Yamada of JICA Tokyo explained the "Counterparts Training Scheme" in Japan. As the trainees, one person each from VSC and MPI/MOI, total two persons, are expected to be received in Japan during Feb-Mar 1997. Steering Committee confirmed that it will select 2 persons by the date of the next Steering Committee.
5. Related Documents:
 - Inception Report (Oct 1996, JICA)
 - Criteria for Site Selection (MP Team)
 - Steering Committee member list (VSC)

Confirmed by:

Tran Van Quy
Chairman of Steering Committee
Date:

Kenji Kobayashi
Leader of MP Team, JICA
Date:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Minutes of Meeting between VSC and MP Team

1. Date and Place: December 4, 1996 at Conference room of VSC
2. Participants: Refer to Attachment.
3. Major Items of Discussion:
 - (1) Confirmation of the results of meeting with Steering Committee on November 27, 1996
 - (2) Confirmation of Progress Report I
 - (3) Schedule Change of the Second Site Survey and Confirmation of the Revised Schedule
 - (4) Confirmation of the First Seminar at the time of the Third Site Survey

4. Discussions and Conclusions:

- (1) Confirmation of the results of meeting with Steering Committee on November 27, 1996

VSC and the Master Plan (MP) Team confirmed the results of the second meeting with Steering Committee which was held on Nov. 27, 1996 as per the attached minutes of meeting including the selection of three candidate sites decided by Steering Committee.

- (2) Confirmation of Progress Report I

MP Team submitted and explained to VSC the Progress Report I. Both parties confirmed the contents of Progress Report I.

- (3) Schedule Change of the Second Site Survey and Confirmation of the Revised Schedule

MP Team explained the schedule change of the second site survey. The original schedule was to visit Viet Nam in early January next year. However, according to the suggestion of JICA Tokyo the second site survey will be commenced after "TET" so that the survey be performed efficiently. MP Team stated that the second survey would start on Monday, February 17, 1997 and the submission of the Interim Report will be shifted from the original schedule of the end of March to the middle of May 1997 accordingly. The overall schedule of the "Study" would not be affected despite the above schedule change.

VSC understood the explanation and accepted the revised schedule.

- (4) Confirmation of the First Seminar at the time of the Third Site Survey

MP Team reconfirmed the necessity of holding the First Seminar at the time of "Interim Report Explanation" (the third site survey) which had been explained and discussed at the first meeting with Steering Committee. VSC confirmed that it was Steering Committee's intention that the Seminar be held as MP Team advised and it includes such item as "Development Pattern and Progress of Steel Industry in the Developing Countries, particularly in Neighboring Countries". MP Team appreciated VSC's confirmation and promised to convey Steering Committee's intention to JICA Tokyo.

5. Related Documents:

Minutes of Meeting (Steering Committee, November 27, 1996)
Progress Report I
Revised Schedule of the Second Site Survey

Confirmed by:

Phan Chi Duong
Vice President, VSC

Kenji Kobayashi
Leader of MP Team, JICA

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Attachment to the Minutes of Meeting between VSC and MP Team on December 4, 1996

Participants of the Meeting:

VSC: Mr. Phan Chi Cuong, Vice President
 Mr. Nguyen Huu Tho, Deputy Director of Planning & Investment Dept.,
 Mr. Nguyen Trong Sang, Planning & Investment Dept. (Market study)
 Mr. Trinh Khoi Nguyen, Planning & Investment Dept. (Infrastructure)
 Mr. Dinh Van Tam, Planning & Investment Dept. (Inormaking)

MP Team: Mr. Kenji Kobayashi,
 Mr. Akira Teramae,
 Mr. Kunio Otsuka,
 Mr. Tadahiko Nishi,
 Mr. Fuku Fukawa

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Minutes of Meeting Between Steering Committee, VSC and Master Plan Team

~~(Draft)~~

ly ty

1. Date and place: March 5 and 6, 1997 at Conference Room of VSC (Second floor)

2. Participants:

Refer to the Attachment.

3. Major Items of Discussion:

- (1) Site selection, Thach Khe iron ore and iron/steelmaking process
- (2) Process between continuous casting and hot strip mill equipment
- (3) Steel demand forecast up to the year of 2010 in Viet Nam

4. Discussions and Conclusions:

4.1 Site selection, Thach Khe iron ore and iron/steelmaking process

(1) Site selection

Three (3) candidate sites were carefully surveyed by Master Plan (MP) Team members. Three sites were selected by the Steering Committee on November 27, 1996 at the second meeting with them, i.e., Thach Khe area, Mui Ron and Dung Quat. The criteria for the evaluation was explained and the results of the evaluation were reported as follows:

- There was no significant difference between Thach Khe area site (Cua Sot/Thach Van) and Mui Ron site in terms of various evaluation items of the criteria; however, as for the Dung Quat site, port construction cost, land preparation cost (earth moving volume) and construction cost for water reservoir were evaluated less advantageous than those of the other two (actually three) sites.
- In this connection, MP Team suggested that one (1) site shall be selected by the time of the next opportunity of the meeting, i.e., by the timing of the Interim Report Explanation, among the sites surveyed at this time taking into consideration the evaluation results of MP Team.
- VSC and Steering Committee members agreed to this suggestion.

(2) Thach Khe iron ore and iron/steelmaking process

- MP Team explained that it made a comparative study on the proposed four (4) processes, that is, (i) BF/BOF process, (ii) DRI/EAF process, (iii) smelting reduction (SR) process, and (iv) scrap/EAF process, and that BF/BOF process and SR process would remain for the further study and two other processes would not be worthy for the further study due to raw materials and fuel conditions of Viet Nam.
- MP Team also explained that during the course of discussion with VSC people the common agreement was obtained to select BF/BOF process because of the production scale foreseen for the new integrated steelworks, more than 4.5 million tons a year, and actually operating SR process (COREX), that is only 2,000 t/day.

MP Team suggested that the step-wise construction method should be examined since the construction cost of an integrated steelworks would be high and that the advanced construction of downstream processes be studied to reduce the initial investment. Under such condition, the construction of upstream processes would be realized sometime at a later stage.

MP Team advised to restudy the upstream process selection at that stage taking into account then-established process technology and up-dated information of raw materials and fuels in Viet Nam.

- MP Team explained its concern about the quality of Thach Khe iron ore. Although the quality data of the iron ore is not officially obtained by MP Team, it might have the possibility of including some harmful elements to BF and/or SR operation such as Zn at a certain level (say 0.06%).

ly ty

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

(Minutes of Meeting, March 5 & 6, continued)

MP Team stated that BF operation must limit the use of Thach Khe iron ore to the level of less than 10% of iron-bearing materials, if such level of Zn content is proven. This means that the annual use of Thach Khe iron ore will be about 500,000 tons and the major portion of iron source must be imported.

- VSC asked MP Team to study another process capable of using Zn containing iron ore. MP Team replied that DRI process can utilize such iron ore, however, DRI process is excluded from the further study due to the above stated reasons and suggested that the MP study would be proceeded with the assumption of using 10% of Thach Khe ore under the present state of lack of technical data, and that the usage of Thach Khe iron ore would be increased, if Zn content is proven to be less than such level.
- VSC and Steering Committee members agreed to this suggestion.

4.2 Process between continuous casting and hot strip mill equipment

MP Team explained salient points of the possible four (4) processes between continuous slab caster and hot strip mill, that is, (i) thin slab type compact strip production process (CSP), (ii) medium slab production process (MSP), (iii) conventional coil box mill (C/B), and (iv) conventional three-quarter hot strip mill (3/4).

The major points explained were as follows:

- CSP and MSP should be regarded as mini-mill type process and they will be possible to exist only when steelmaking facilities such as BOF or EAF are simultaneously constructed.
- Scrap based EAF is not worthy to study for the production of good flat steel products. In case of producing flat products via EAF process, HBI (or DRI) must be used as substantial raw material due to quality reason.
- The total construction cost required for an integrated steelworks will be a huge amount of investment, therefore, a step-wise construction method is recommended to save heavy initial investment. In case hot strip mill construction is to be realized prior to the construction of upstream processes (BF/BOF), slabs must be procured at international market. It was confirmed that the internationally available slab is normally standard thickness slab and that in such a case, CSP and MSP should be excluded from the further MP study.

After the above explanation and exchange of views with each other, it was agreed by the parties that the conventional coil box mill (C/B) should be selected as the most suitable process and that the JICA study be proceeded with this process.

4.3 Steel demand forecast up to the year of 2010 in Viet Nam

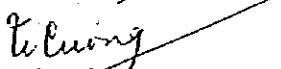
MP Team explained the basis of demand forecast for steel products up to the year of 2010. The obtained results were 3.5 million tons a year for the flat products and 2.9 million tons for the non-flat products; and the total amount was 6.4 million tons in 2010.

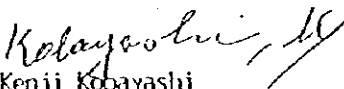
MP Team stated that a new integrated steelworks would be planned based on the above figures deducting the production capacity foreseeable of the possible new joint venture mills. The parties confirmed the above statement.

5. Related Documents:

Progress Report II for the Steering Committee (Second Study Team) dated March 6, 1997

Confirmed by:


Pham Chi Cuong
Vice President
Viet Nam Steel Corporation
Date:


Kenji Kobayashi
Leader of MP Team, JICA
Date:

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Attachment to the Minutes of Meeting dated March 5 and 6, 1997

List of Participants

Steering Committee: Mr. Le Van Hoc (MPI) Dr. Ho Ngoc Xiem (MOI)
Mrs. Pham Thi Nhuong (MOT) Mr. Le Van Thac (MOSTE)
Dr. Tran Van Quy (VSC)

Viet Nam Steel Corporation Mr. Pham Chi Cuong: Vice President
 Mr. Dao Duc Dinh: Director of Planning & Investment
 Mr. Nguyen Huu Tho: Deputy Director of Planning & Investment
 Dr. Dinh Huy Tam: Director of Thach Khe Iron Ore Project
 Mr. Lam Kim Thanh: Planning & Investment Dept.
 Mr. Bui Quang Huy: Planning & Investment Dept.
 Mr. Nguyen Trong Sang: Planning & Investment Dept.
 Mr. Nguyen Phuc: Planning & Investment Dept.
 Mr. Trinh Khoi Nguyen: Planning & Investment Dept.
 Mr. Dinh Van Tam: Technical Dept.

JICA Viet Nam Mr. Hiroshi Tsujino (March 6)

JICA Master Plan (MP) Team: Mr. Kenji Kobayashi Mr. Akira Teramae
 Mr. Kunio Otsuka Mr. Tadahiko Nishi
 Mr. Tetsuya Akahoshi Mr. Hiroshi Shibata
 Mr. Michiru Nakagome Mr. Yasuhiko Igawa
 Mr. Keiichi Katahira Mr. Takayuki Ikeda
 Mr. Kazuhiko Kondo Mr. Akihiko Iwatsuki
 Mr. Fuku Fukawa

Handwritten signature

Minutes of Meeting between Steering Committee, VSC and Master Plan Team

1. Date and Place: June 26, 1997 at Conference Room of VSC (Second Floor)
2. Participants: Refer to Attachment
3. Major Items of Discussion
 - (1) Site selection
 - (2) Process to be studied
 - (3) Survey plan of the 4th study team
 - (4) Plants to be incorporated in the new integrated steelworks
4. Discussion and conclusion
 - (1) The 1st seminar on June 25, 1997
VSC and Steering Committee members stated that the 1st seminar conducted jointly by JICAMOI/VSC was successfully held on June 25, 1997 and the lecture "Economic Consideration on Steel Industry in Developing Countries" addressed by Dr. Hiromoto Toda, Managing Director, Japan Iron and Steel Federation, was highly appreciated by the attendants of the Seminar.
 - (2) Interim Report
The Interim Report of "the Master Plan Study on the Development of Steel Industry in Viet Nam" was explained by the Master Plan(MP) Team during June 23-26, 1997 and accepted and well understood by VSC and Steering Committee members.
 - (3) Site selection
After the exchange of views from technical, economic and political points of view, Steering Committee members proposed "Mui Ron" as the site for new integrated steelworks. MP team explained that it would need some lead-time to prepare preliminary layout drawings of the site in order to discuss with VSC counterparts at the occasion of the 4th site survey which is scheduled for August 11, 1997 and thereafter, and requested Steering Committee members and VSC counterparts that they should inform MP Team by July 15, 1997 of the possible change of the proposed site due to political or some other reasons.
 - (4) Process to be studied
It was reconfirmed that the BF/BOF and conventional slab casting + coil box type hot strip mill process should be studied in Phase II as stated in the Minutes of Meeting of March 5 and 6, 1997.
 - (5) Survey plan of the 4th study team
MP Team explained the proposed schedule of the 4th site survey based on "Survey Plan of the 4th Study Team" and requested VSC counterparts their cooperation in advance for the arrangements to be required for the 4th site survey. VSC agreed to the above request.
 - (6) Plants to be incorporated in the new integrated steelworks
MP Team asked VSC counterparts the possibility of eliminating construction of up-stream process plants due to profitability and financial reasons. VSC replied that an integrated production process based on iron ore should be studied as a prerequisite, since the self sufficiency of steel products should be secured as a basic policy of Viet Nam's industrialization policies.

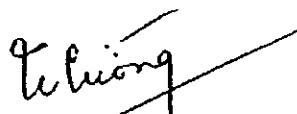
kyj
kyj

MP Team understood the above reply of VSC and confirmed that the final configuration of the production process should be BF/BOF, conventional slab casting plant and hot/cold rolling mills with the full production capacity equipped with necessary coating plants, however, that the case study will be made taking into account the step-wise construction to see the difference of IRR according to the phasing of construction timing of related plants.

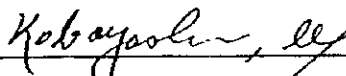
5. Related Documents

- (1) The Master Plan Study on the Development of Steel Industry in the Republic of Viet Nam(Interim Report)
- (2) Excerpts of the above report
- (3) Survey Plan of the 4th Study Team

Confirmed by



Pham Chi Cuong
Vice President
Viet Nam Steel Corporation



Kenji Kobayashi
Leader
MP Team of JICA

Date: June 27, 1997

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Attachment to the Minutes of Meeting dated June 26, 1997

List of Participants

Steering Committee: Mr. Le Van Hoc (MPJ)
Dr. Ho Ngoc Xiem (MOI)
Mrs. Pham Thi Nguong (MOT)
Mr. Le Van Thac (MOSTE)
Dr. Tran Van Quy (VSC)

Viet Nam Steel Corporation: Mr. Pham Chi Cuong (Vice President)
Mr. Nguyen Huu Tho (Deputy Director of Planning & Investment)
Mr. Bui Quang Huy (Planning & Investment Dept.)
Mr. Nguyen Phuc (Planning & Investment Dept.)
Mr. Trinh Khoi Nguyen (Planning & Investment Dept.)
Mr. Nguyen Trong Sang (Planning & Investment Dept.)
Mr. Dinh Van Tam (Technical Dept.)

JICA Viet Nam : Mr. Hiroshi Tsujino
JICA Tokyo: Mr. Minoru Yamada

JICA Master Plan Team: Mr. Kenji Kobayashi
Mr. Akira Teramae
Mr. Kunio Otsuka
Mr. Tetsuya Akahoshi
Mr. Michiru Nakagome
Mr. Keiichi Katahira
Mr. Kazuhiko Kondo
Mr. Akihiko Ochi
Mr. Fuku Fukawa

dy

ky



VIETNAM STEEL CORPORATION

Address: 35 Lang Ha Str., Dong Da Dist., Hanoi.
Tel. 856 1798 Fax: 856 1815

To : JICA HANOI REP. OFFICE
Attn.: Mr. MASARU TODOROKI
Resident Representative
Ref. Request for studying Dung Quat Site

Hanoi 11th August, 1997

Dear Sirs;

Thank you for your kind attention and support rendered to VSC in promoting Steel Industry in Vietnam.

As you already know, to realize the Agreement signed between the Ministry of Industry (MOI) and Japan International Cooperation Agency (JICA) on JICA's assistance to Vietnam in preparation of Master Plan for development of Steel Industry up to 2010, including preparation of Pre-Feasibility Study (PFS) for establishment of Integrated Steel Plant with capacity of 3 - 4.5 million ton per year, JICA study Team already surveyed, in cooperation with VSC, 10 candidate sites for selecting appropriate one to locate proposed integrated steel plant. From 10 sites surveyed, JICA Study Team proposed VSC 3 sites namely Thach Khe, Mui Ron and Dung Quat, with the most favorable conditions so that VSC can adopt one of them.

Vietnam Steel Corporation already asked JICA Study Team to prepare PFS for Integrated Steel Plant with MUI RON site condition.

However, according to the information we've got recently, Japanese Government might grant ODA fund to Vietnam for development of Infrastructure of Dung Quat area. In order to consider whether we can mobilize infrastructure developed with Japanese ODA fund at Dung Quat serving for our proposed steel plant so that we can save certain amount of initial investment, Vietnam Steel Corporation hereby propose JICA, apart from studying Mui Ron site conditions, to arrange additional survey for Dung Quat site so that JICA can give its advice to our Government to select right location to construct our first integrated steel plant in Vietnam.

We understand that our request would cause some delay of the original time schedule for the study.

However, we believe that such delay would not affect to the total scheme of our Master Plan and PFS schedule.

We do hope JICA will support our suggestion.
With thanks and best regards.

HO NGHIA DZUNG
President/VSC

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Minutes of Meeting Between Steering Committee, VSC and Master Plan Team

1. Date and place: September 4 & 5, 1997 at Conference Room of VSC (Second floor)
2. Participants:
Refer to the Attachment.
3. Major Items of Discussion:
 - (1) Meeting with VSC counterparts on September 4, 1997
 - Explanation of Progress Report III and exchange of views
 - (2) Meeting with Steering Committee members and VSC counterparts on September 5, 1997
 - Concept of Stepwise Construction
 - Concept of General Layout
 - Summary of 4th Survey
 - Additional Survey for Dung Quat

4. Discussions and Conclusions:

4.1 Meeting with VSC counterparts on September 4, 1997

Progress Report III was explained by Master Plan (MP) Team.

The major points of explanation were as follows:

- (1) Explanation of general and individual survey schedule

- (2) Concept of general layout

Preliminary layout drawings at Mui Ron site were explained by MP Team.

- (3) Concept of stepwise construction schedule

Stepwise construction in three (3) steps was introduced and each of the steps was explained. Namely, Step 1 is to construct hot and cold strip mills at first by importing slabs. Step 2 is to construct one unit of BF and two units of converter vessels to feed semi-products (slabs) to hot and cold strip mills. Step 3 is the final phase where the final plant configuration is to be completed.

Emphasized issues were the importance of slab import with stable supply, good quality and reasonable price, and advanced construction of product berth.

The concept explained by MP Team was understood by VSC. However, stepwise construction plan and timing of each step will be confirmed by Board of Management (BOM) of VSC and informed to JICA MP Team by the end of September 1997.

- (4) Confirmation with VSC relating to the pre-conditions for Pre-F/S

Confirmed items and data obtained through interview survey in the following areas were explained by MP Team and confirmed by both parties that these items and data should be the preconditions of the Pre-Feasibility Study to be undertaken in Japan by MP Team.

- Conditions of raw materials and semi-products
- Demand mix, size and steel grade mix
- Basis of planning for production processes
- Financial and economic analysis method
- Site description

The product width for hot and cold strip mills was confirmed to be less than 1,600mm (5-foot mill) and 1,300mm, respectively.

- (5) Environmental preservation

The concept of introducing environmental preservation equipment was explained by MP Team so as to minimize the initial investment amount, however, MP Team stated that it would restudy to introduce the desulphurization equipment to the main exhaust gas system of sintering plant, since the major SOx source from an integrated steelworks.

leg

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

(Minutes of Meeting, September 4 & 5, continued)

is considered to be sintering plant. VSC understood this statement.

- (6) Concept of plant management and organization to compute total manpower requirement. It was confirmed that the total manpower to be estimated for the integrated steelworks should be based on the organization chart explained by MP Team and that the central maintenance shops to be provided in the integrated steelworks should also be based on the explanation made by MP Team.
- (7) Non-flat rolling
Discussion was made whether or not non-flat rolling plants be installed inside the integrated steelworks as part of the steelworks plants. MP Team explained the advantages of installing quality bar mill and wire rod mill inside the integrated steelworks, however, it was confirmed by both parties that the non-flat rolling plants should be constructed somewhere outside the integrated steelworks to minimize the initial capital investment.

4.2 Meeting with Steering Committee members and VSC counterparts on September 5, 1997

Major items explained by MP Team were as follows:

- (1) Concept of stepwise construction
- (2) Concept of general layout for Mui Ron site
- (3) Summary of the 4th survey
- (4) Objectives and schedule of additional survey for Dung Quat site

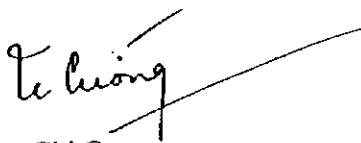
The parties confirmed the following points:

- (1) Stepwise construction presented by MP Team should be the basis of financial evaluation.
- (2) Earlier construction of BF and related upstream plants should also be examined.
- (3) Main raw materials such as iron ore, coal should be imported in principle.
In this connection, a question was raised by MOI representative concerning stable procurement of raw materials abroad. MP Team explained the Japanese example of importing raw materials from foreign countries by investing mines abroad from long-term viewpoints.
- (4) Hot strip plant should be of 5-foot mill to reduce initial capital investment and cold strip plant should have the mill to produce max. 1,300mm wide products.
- (5) In Dung Quat area, no mini-mill project based on EF process is envisaged regardless the project of the integrated steelworks.

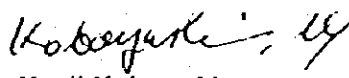
5. Related Documents:

- (1) Progress Report III (Fourth Study Team) dated September 5, 1997
- (2) Agenda for Steering Committee

Confirmed by:



Pham Chi Cuong
Vice President
Viet Nam Steel Corporation
Date: Sept 9, 1997



Kenji Kobayashi
Leader of MP Team, JICA
Date Sept. 8, 1997

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Attachment to the Minutes of Meeting dated September 4 and 5, 1997

List of Participants

| | | |
|--------------------------------------|---|--|
| Steering Committee: (September 5) | Mr. Le Van Hoc (MPI) | Dr. Ho Ngoc Xiem (MOI) |
| | Mrs. Pham Thi Nhung (MOT) | Mr. Vuong Dinh Cat (MOC) |
| | Dr. Tran Van Quy (VSC) | |
| Viet Nam Steel Corporation | Mr. Nguyen Huu Tho: | Deputy Director of Planning & Investment |
| | Mr. Lam Kim Thanh: | Planning & Investment Dept. |
| | Mr. Bui Quang Huy: | Planning & Investment Dept. |
| | Mr. Nguyen Trong Sang: | Planning & Investment Dept. |
| | Mr. Nguyen Phuc: | Planning & Investment Dept. |
| | Mr. Trinh Khoi Nguyen: | Planning & Investment Dept. |
| | Mr. Dinh Van Tam: | Technical Dept. |
| JICA Viet Nam | Mr. Hiroshi Tsujino (September 5, 1997) | |
| JICA Master Plan (MP) Team: | Mr. Kenji Kobayashi | Mr. Seiji Kataoka |
| | Mr. Tadahiko Nishi | Mr. Tetsuya Akahoshi |
| | Mr. Michiru Nakagome | Mr. Hiroshi Shibata |
| | Mr. Keiichi Katahira | Mr. Takayuki Ikeda |
| | Mr. Kazuhiko Kondo | Mr. Kaku Hashimoto |
| | Mr. Hiroshi Miyauchi | |

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Minutes of Meeting Between Steering Committee, VSC and Master Plan Team

1. Date and place: October 14, 1997 at Conference Room of VSC (Second floor)

2. Participants:
Refer to the Attachment.

3. Major Item of Discussion:
Summary of 5th site survey (Dung Quat)

4. Discussions and Conclusions:

JICA Master Plan (MP) Team explained the results of 5th site survey jointly conducted with JICA Port Development Group at Dung Quat area based on the Progress Report IV.

The major points of explanation and discussions were as follows:

- (1) Facts and findings newly obtained through site survey were summarized in the Attachment and the topics of the interview with the local Authority people were explained as well.
- (2) Preliminary idea of the steelworks' general layout was introduced by MP Team based on the above information. MP Team stated that it would proceed with the pre-feasibility study in Japan and conduct a comparative study on the site evaluation in accordance with the ideas described in item 4 of the Progress Report IV.
- (3) MOC representative stated that the priority of selecting the location of the site should be suggested in the draft final report only from the technical points of view. MP Team replied that it would take note of the above suggestion.
- (4) MP Team asked that the sharing rule of construction cost of common infrastructural facilities such as waterbreaking dike or the like among the other plant(s) and the government. After the exchange of views, it was confirmed by the parties that MP Team would clearly indicate in its draft final report the items included in its estimate to avoid any missing items of capital cost estimate.

5. Related Documents:

- (1) Progress Report IV dated October 14, 1997


Confirmed by:



Dr. Tran Van Quy
Chairman
Steering Committee

Board of Management
Vietnam Steel Corporation

Date: 15 Oct. 1997



Kenji Kobayashi
Leader of MP Team, JICA

General Manager
Technical Cooperation Division
Nippon Steel Corporation

Date: 15 Oct 1997

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Attachment to the Minutes of Meeting dated October 14, 1997

List of Participants

Steering Committee: Mr. Le Van Hoc (MPI)
Mrs. Pham Thi Nhuong (MOT)
Mr. Vuong Dinh Cat (MOC)
Dr. Tran Van Quy (VSC)

Viet Nam Steel Corporation

| | |
|------------------------|-----------------------------|
| Mr. Trinh Khoi Nguyen: | Planning & Investment Dept. |
| Mr. Bui Quang Huy: | Planning & Investment Dept. |
| Mr. Nguyen Trong Sang: | Planning & Investment Dept. |
| Mr. Nguyen Phuc: | Planning & Investment Dept. |
| Dr. Phan Duc Lap: | Technical Dept. |

JICA Master Plan (MP) Team:

| |
|----------------------|
| Mr. Kenji Kobayashi |
| Mr. Tetsuya Akahoshi |
| Mr. Hiroshi Shibata |
| Mr. Noboru Takahisa |
| Mr. Hiroshi Miyauchi |

ly

Minutes of Meeting between Steering Committee, VSC and JICA Study Team

1. Date and place: January 15, 1998 at Conference room of VSC (2nd floor)
2. Participants: Refer to the Attachment.
3. Major Items of Discussion:
 - (1) Confirmation of the second seminar
 - (2) Exchange of views relating to the promotion of the construction of an integrated steelworks
 - (3) Final report preparation and its treatment
 - (4) Others
4. Discussions and Conclusions:
 - (1) The parties confirmed that the second seminar jointly held by VSC/MOI and JICA on January 13, 1998 was successfully conducted and that the presentation made by Mr. Kobayashi, the leader of JICA study team, on the master plan for the development of steel industry in Viet Nam and the results of pre-feasibility study was well understood by the participants of the seminar, and further that the special key note speech addressed by Dr. Hiromoto Toda, the Managing Director of Japan Iron and Steel Federation-JISF, on the various aid schemes of Japan and international organizations and specific features and examples of development patterns of steel industry in developing countries was also well appreciated by the participants of the seminar.
 - (2) Exchange of views relating to the promotion of the construction of an integrated steelworks
 - (a) VSC asked JICA study team's views on the following three points:
 - i) Modernization policy of the existing small steel plants
 - ii) Relation between joint venture flat rolling mini-mill which is under planning and the integrated steelworks of JICA study project for flat production
 - iii) Potentials of the integrated steelworks location other than the present candidate sites of Mui Ron and Dung Quat
 - (b) JICA study team replied to the above three items as follows:
 - i) The existing small steel plants should be modernized step by step taking into consideration of the effectiveness of investment, i.e., it should be concentrated on the effective modernization projects including rationalization of small scale steel mills. Modernized equipment installed in some joint venture mills, such as Vinakyoei, VSC-POSCO and Vinausteel would show the direction of modernization, absorbing the production capacity of the existing mills. In this case, however, how to secure

| | | | | |
|--|---------|------|---------|------|
| Name of Project: Draft Final Report | | | | |
| Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page |
| Date: Jan 16, 1998 Rev.: | | | | 1 |

He
6/10/98

employment would be a crucial problem. This is an inevitable path to modernize the existing facilities.

- ii) If scrap based mini-flat rolling mill is realized, the essential portion of JICA master plan and the contents of pre-feasibility study would have to be reviewed, since there would be no need of installing two units of hot strip mill up to the year 2010. Investment for two hot strip mills is regarded as double investment in this case. The plan to operate a reversing cold mill in the southern Viet Nam by 2001 will be an effective investment to satisfy market need and the investment for a new integrated steelworks will be effectively utilized by supplying hot coils to the reversing cold mill.
- iii) Deep sea port construction is required for the integrated steelworks to accommodate large size ore vessels, since ore and coal must be imported. From this point of view, the most appropriate site should be selected.

(3) Final report preparation and its treatment

i) Amendment to the draft final report

The draft final report was accepted by the steering committee and VSC, however, VSC stated to forward its request of clarification, addition or correction relating to the draft final report by 27th day of January 1998 by means of facsimile transmission. JICA study team replied that it would incorporate VSC's request into the Final Report as far as possible by viewing the time schedule and reflecting the basic concept of the Scope of Work agreed on June 12, 1996. VSC agreed to this reply.

ii) Treatment of Final Report and its Excerpts Edition

JICA and JICA study team stated that any JICA reports are, in principle, treated as the documents to be disclosed to the public. JICA study team asked VSC's agreement to that principle of treating documents.

VSC understood the general rule of JICA's treatment of its document, however, VSC stated that it will give a definite answer in a written form to JICA Viet Nam office by 27th day of February 1998 after consultation with the ministries concerned, clearly indicating the nature of treatment, disclosure or non-disclosure including the conditions of non-disclosure, if such non-disclosure obligation is required, such as the portions of the report which require non-disclosure obligation, duration of non-disclosure obligation, e.g. three years or other terms, treatment of the Excerpts edition as to whether or not the Excerpts edition can be freely disclosed publicly, etc.

JICA study team understood the above VSC's reply in principle, and added that the permanent non-disclosure obligation will not be accepted by JICA and further stated that

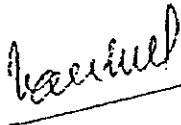
| | | | | |
|---|---------|------|---------|-----------|
| Name of Project: Draft Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page 2 |
| Date: Jan 16, 1998 | Rev.: | | | |

6/2/98

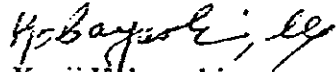
in case such reply is not given by the above date, the JICA's general rule of disclosing the documents publicly will be applied to this case. JICA study team further requested VSC to send by facsimile transmission one copy of VSC's reply concurrently to JICA study team in Tokyo (Nippon Steel). VSC understood the above additional comments and agreed to the request.

- (4) JICA study team stated that one specialist, under the JICA scheme, will be dispatched by the end of March this year and asked VSC's cooperation in receiving the specialist by providing necessary conveniences such as office space and other related facilities. VSC understood the situation and promised to provide such conveniences.

Confirmed by:



Tran Van Quy
Chairman of Steering Committee
Date: 16. Jan 1998.



Kenji Kobayashi
Leader of MP Team, JICA
Date: 16 - JAN - 1998

| | | | | |
|---|---------|------|---------|------|
| Name of Project: Draft Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page |
| Date: Jan 16, 1998 Rev.: | | | | 3 |

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

Attachment to the Minutes of Meeting dated January 15, 1998

Participants of the Meeting:

Steering Committee: Mrs. Pham Thi Nhung (MOT),
Mr. Vuong Dinh Cat (MOC)
Mr. Le Van Thac (MOSTE),
Dr. Tran Van Quy (VSC)

VSC: Mr. Pham Chi Cuong, Vice President
Mr. Dao Duc Dinh, Director of planning & Investment Dept.
Mr. Nguyen Huu Tho, Deputy Director of Planning & Investment Dept.
Mr. Nguyen Trong Sang, Planning & Investment Dept.
Mr. Trinh Khoi Nguyen, Planning & Investment Dept.
Mr. Dinh Van Tam, Technical Dept.
Mr. Nguyen Phuc, Planning & Investment Dept.
Mr. Bui Quang Huy, Planning & Investment Dept.

JICA Tokyo: Mr. Satoshi Nakamura

JICA study team: Mr. Kenji Kobayashi, Mr. Seiji Kataoka
Mr. Kunio Otsuka, Mr. Tetsuya Akahoshi
Mr. Michiru Nakagome, Mr. Keiichi Katahira
Mr. Kazuhiko Kondo, Mr. Hiroshi Miyauchi

Observer Mr. Hiroshi Shibata, Mr. Akihiko Ochi

| | | | | |
|---|---------|------|---------|------|
| Name of Project: Draft Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page |
| Date: Jan 16, 1998 Rev.: | | | | 4 |

Section 3 Records of Schedule for Survey Team

| | | | | |
|---|---------|------|---------|------|
| Name of Project: Final Report Master Plan Study on the Development of Steel Industry in the Socialist Republic of Viet Nam | | | | |
| JICA/Nippon Steel | Chapter | Part | Section | Page |
| Date: Feb 17, 1998 Rev.: | AP. | 2 | 3 | |

追加業務現地調査 計画作成及びスケジュール表 (General Schedule of the supplementary Study Team)

2104 MF 10AM

| Group No. | Name (Assignment) | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----------|--------------------------|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| A | 1 (Leader, NSC) | | | | | | | | | | | | | | | | |
| D | 4 (Chief, NSC) | | | | | | | | | | | | | | | | |
| D | 5 (Chairman, NSC) | | | | | | | | | | | | | | | | |
| C | 12 (Environment, NSC) | | | | | | | | | | | | | | | | |
| A | 15 (Implementation, JDD) | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| A | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| Site | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point | Meeting Point |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 0/SITE: DAMANG/SITE | | | | | | | | | | | | | | | | | |
| 11/C/01Y-11/C/01WASSY | | | | | | | | | | | | | | | | | |
| 11/C/01A | | | | | | | | | | | | | | | | | |
| 11/C/01B | | | | | | | | | | | | | | | | | |

ST ENG C MT: STIPULING COMMITTEE

D: DAMANG

11: 11/01

C/M: GENERAL MEETING

PORT PROJ.: IICA PORT PROJECT

11/0: NA NO1/DAMANG

SITE: DUNG QUAT

| Group No. | Name (Assignment) | SEP '97 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|---|---|---|
| | | 10 Sun | 11 Mon | 12 Tue | 13 Wed | 14 Thu | 15 Fri | 16 Sat | 17 Sun | 18 Mon | 19 Tue | 20 Wed | 21 Thu | 22 Fri | 23 Sat | 24 Sun | 25 Mon | 26 Tue | 27 Wed | 28 Thu | 29 Fri | 30 Sat | 31 Sun | 1 Mon | 2 Tue | 3 Wed | 4 Thu | 5 Fri | 6 Sat | 7 Sun | 8 Mon | 9 Tue | 10 Wed | 11 Thu | 12 Fri | 13 Sat | | | |
| A | KOBAYASHI/Kenji (Leader RSC) | N/A | H | GM | H | H | SC | H | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | | | | |
| B | KATANO/Saiki (Management RSC) | N/A | H | GM | H | H | SC | H | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | | | |
| C | MISHI/Tadashi (Demand YC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | | |
| D | AKAHOSHI/Tetsuya (Infra RSC) | N/A | H | GM | H | H | SC | H | H | H | H | W/ site | W/ Site | Site | D/S | D/S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | | |
| E | SHIBATA/Kiroya (Utilities RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | D/S | D/S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | | |
| F | HARAGOME/Shigehiko (Ironmaking RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | |
| G | SAKO/Kirotsugu (DM/Cokes RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | |
| H | KATAMURA/Koji (Steelmaking RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | |
| I | KUROKI/Kazuhiko (Hot Rolling RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H |
| J | IKASUMOTO/Taku (Cold Rolling & Coating RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | |
| K | IEDA/Takayuki (Iron Blast Rolling RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H |
| L | TAKAHASHI/Shoichi (Environment RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H |
| M | WATSUMI/Akiniko (Cost analysis RSC) | N/A | | | | | | N/A | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H |
| N | OCHI/Akiniko (Coordinator RSC) | N/A | H | GM | H | H | SC | H | H | H | H | W/ site | W/ Site | Site | H/N | H/N | | | | | | | | | | | | | | | | | | | | | | | |
| O | WYUUCHI/Kiroya (Interpreter JIS) | N/A | H | GM | H | H | SC | H | H | H | H | W/ site | W/ Site | Site | S | S | S | S | S | S | S | S/N | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | |
| A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

H/STE: HANOI/SITE I/STE: INTERNAL MEETING H/R: HANOI/MARITA SC: STEERING COMMITTEE
 G/M: GENERAL MEETING S: SOUTH R: HANOI
 T: TIAI NGUYEN D: DANANG

Survey Plan of the 3rd. Study Team

Jun 23, 1997 by Teramae

| Date | Schedule | Remarks |
|--------------|--|---|
| Jun 22, 1997 | Leave for Viet Nam | |
| Jun 23, 1997 | a.m. Official visit (JICA, Embassy Government offices) p.m. 14:00-16:00 Meeting with VSC(Schedule) | |
| Jun 24, 1997 | /8:00- Meeting with Japanese trading companies a.m. 8:30-11:30 Meeting with VSC(Interim report) p.m. 14:00- Preparation for the seminar (VSC counterparts and JICA Team) | |
| Jun 25, 1997 | Seminar 1. Dr. Toda: Economic consideration on steel industry in developing countries 2. JICA Team: Interim report (at ARMY GUEST HOUSE in Hanoi) | |
| Jun 26, 1997 | a.m. 9:00-11:30 Steering Committee p.m. 14:00-16:00 Meeting with VSC (Survey plan of 4th study team) | Dr. Toda Thai Nguyen Steelworks Party (in evening) |
| Jun 27, 1997 | a.m. 9:00-11:30 Final meeting with VSC p.m. Official visit (JICA, Embassy) | |
| Jun 28, 1997 | Leave for Japan | |

General Schedule of The Second Study Team

| GR. NO | NAME (ASSIGNMENT) | Items | Feb. 1997 | | | | | | | Mar. 1997 | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--------------------------------------|---|-----------|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| 1 | Kobayashi/Kunoh (Leader NSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 2 | Terao/Mura (Management NSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 3 | Otsuka/Kuno (Econ. TCI) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 4 | Nishiyama/Tadanobu (Demand TCI) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 5 | Matsumoto/Tanaka (Infra NSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 6 | Shibata/Hiroshi (Utility KSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 7 | Igarashi/Yasuhiko (Natural Res. KSL) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 8 | Nakagawa/Michiru (Ironmaking NSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 9 | Sakoi/Hironobu (DR KSL) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 10 | Kashira/Yemichi (Steelmaking NSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 11 | Kondo/Kazuhiko (Flat-Rolling NSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 12 | Heda/Tadayuki (H-F Rolling SMI) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 13 | Watsuki/Yasuhiko (Cost anal NSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 14 | Ogata/Yukihiro (Coordinator NSC) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
| 15 | Fukaya/Fuku (Interpreter JCS) | Feb 17 GUJ/Feb 18 Demand Supply (VSC) Feb 19-21 Proceed (VSC) Feb 22-23 HCAC / Mar 6 S.C. | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed |

FIRST TEAM SITE SURVEY SCHEDULE

2-Oct-06 NSC

| GR. NO GUP | NAME (ASSIGNMENT) | Oct. '06 | | | | | | | Nov. '06 | | | | | | | Dec. '06 | | | | | | | |
|---------------|---|----------|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-----|
| | | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun |
| 1 | Kobayashi/Kami (Leader NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| 2 | Teramata/Ahira (Management NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| A | Ito/Okada/Kuno (Econd. TC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| B | Mitsui/Tachino (Demand TC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| C | Akiyoshi/Tsuyane (Info NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| D | Kishikawa/Kishich. (Steelmaking NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| E | Iwawa/Yasuhiko (Natural Res. NSL) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| | Nakagawa/Michio (Ironmaking NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| | Sakoh/Noboru (DR. NSL) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| | Kishikawa/Kishich. (Steelmaking NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| | Takahashi/Noboru (Environment NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| | Kanda/Kazuhiko (Pit-Rolling NKK) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| | Iwawa/Yasuhiko (Coordinator NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| | Fukawa/Fujii (Interpreter JDS) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |

| GR. NO GUP | NAME (ASSIGNMENT) | Oct. '06 | | | | | | | Nov. '06 | | | | | | | Dec. '06 | | | | | | | |
|---------------|---|----------|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-----|
| | | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun |
| 1 | Kobayashi/Kami (Leader NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| 2 | Teramata/Ahira (Management NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| A | Ito/Okada/Kuno (Econd. TC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| B | Mitsui/Tachino (Demand TC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| C | Akiyoshi/Tsuyane (Info NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| D | Kishikawa/Kishich. (Steelmaking NSC) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |
| E | Iwawa/Yasuhiko (Natural Res. NSL) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | MRT | M | M | M | M | M | M | M |

Sheet1

The sixth site survey schedule of JICA's team for the Viet Nam Master Plan

1. Period of the survey

January 11 (Sunday) to 17 (Saturday)

2. Details of the schedule

- Jan. 11(Sun.) Travel from Japan to Viet Nam
- Jan. 12(Mon.) Visiting governmental officials of Viet Nam and Japanese authorities
Discussion with VSC on overall schedule and preparation for the Seminar
- Jan. 13(Tue.) Seminar
- Jan. 14(Wed.) Technical discussion with VSC of the Draft Final Report
Free or reserved for the future discussion
- Jan. 15(Thu.) Final Meeting with Steering Committee members
Reserved for further discussion
- Jan. 16(Fri.) Confirmation of minutes of the meeting and free discussion with VSC
Visiting governmental officials of Viet Nam and Japanese authorities
- Jan. 17(Sat.) Travel from Viet Nam to Japan

3. Team make-up

- 1) Mr. Kenji Kobayashi (Leader)
- 2) Mr. Seiji Kataoka
- 3) Mr. Kunio Otsuka
- 4) Mr. Tetsuya Akahoshi
- 5) Mr. Michiru Nakagome
- 6) Mr. Keiichi Katahira
- 7) Mr. Kazuhiko Kondo
- 8) Mr. Hiroshi Miyauchi (Interpreter)

- 9) Dr. Hiromoto Toda (Special Lecturer)
- 10) Mr. Satoshi Nakamura (JICA Officer)

4. Supporter of the team

- 1) Mr. Akihiko Ochi
- 2) Mr. Hiroshi Shibata

Programme of the Seminar

Revised 24 Dec., 1997

1. Date : January 13 (Tuesday), 1998

2. Time : 09:30 - 16:30

3. Detailed schedule:

| | | |
|--|-------------|---------------|
| (1) Opening Ceremony | 9:30-10:05 | (35 minutes) |
| 1) Opening | | |
| 5 minutes | | |
| 2) Welcome Address of Viet Nam side | | 15 minutes |
| 3) Address of Japanese side | | 15 minutes |
| (2) Technical report by JICA team | 10:15-12:15 | (120 minutes) |
| Mr. Kobayashi Kenji | | |
| Mr. Kunio Otsuka | | |
| Lunch Time | 12:15-13:30 | (75 minutes) |
| (3) Key note speech by Dr. Hiromoto Toda | 13:30-15:00 | (90 minutes) |
| (4) Discussion | 15:00-15:30 | (30 minutes) |



1

2



3

D



JICA