Appendix 1.1.2 (III)

#### THE MINUTES OF DISCUSSION

## FOR

## PROGRESS REPORT (II) OF THE FEASIBILITY STUDY

ON

## SINDHULI ROAD CONSTRUCTION PROJECT

July, 1987

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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

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## THE MINUTES OF DISCUSSION

#### FOR

PROGRESS REPORT (II) OF THE FEASIBILITY STUDY

ON

## SINDHULI ROAD CONSTRUCTION PROJECT

Date	:	July 10, 1987	
Place	:	DOR Conference Room	
Attendance	:	DOR	
		Mr. N. D. Sharma (Chief Engineer)	n an an the state of the second states and the second states and the second states and the second states and the
		Mr. A. M. Tuladhar (Superintending	
		Mr. B. N. Pradhan (Chief Counterpar	
		Mr. K. B. Subba (Senior Div. Engine	rr)
		JICA Kathmandu Office	
		Mr. H. Ono (Representative of JICA	Kathmandu Office)
		JICA STUDY TEAM	:
		Mr. M. Koshiba (Team Leader)	
		Mr. H. Shinkai (Highway Planner)	an an Arian Arian Arian an Arian
		Mr. H. Tamura (Soil/Materials Engin	neer)
		Mr. M. Shimizu (Bridge Engineer)	

The Study Team for the above mentioned study, organized by the Japan International cooperation Agency (JICA), submitted thirty (30) copies of Progress Report (II) to the Department of Road ( DOR ), Ministry of Works and Transport, His Majesty's Government of Nepal ( HMG/N ), on July 10, 1987.

Prior to the discussion, Mr. M. Koshiba, Team Leader of the Study Team, made briefing of the Progress Report (II). Through the discussion, both DOR and the Study Team confirmed the following;

1. DOR acknowledged the receipt of thirty (30) copies of Progress Report (II).

2. The content of the Progress Report (II) was agreed in principle by DOR.

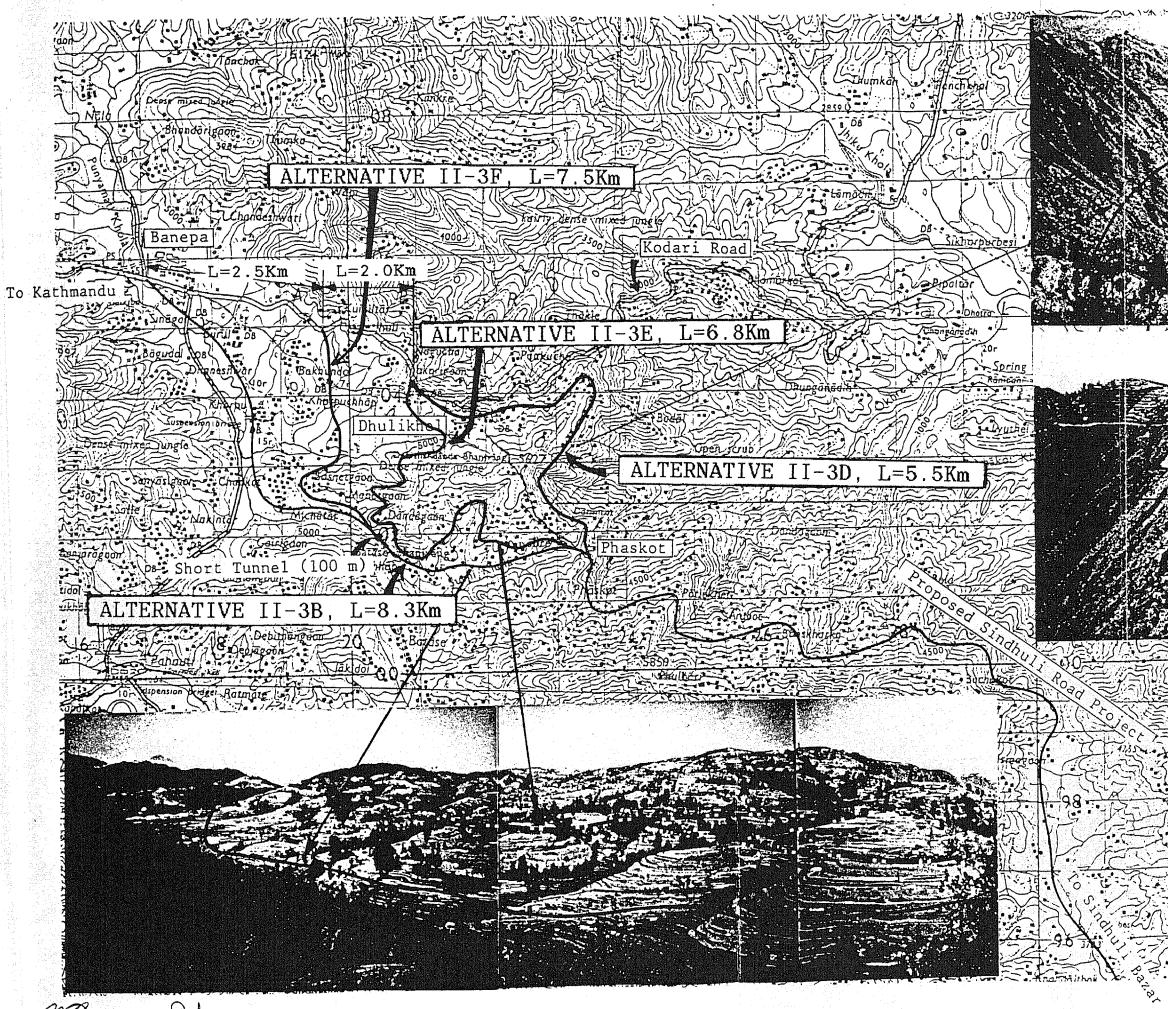
3. Alternative II-3E shown in figure attached herewith was determined by DOR as the optimum route for the Sindhuli Road Construction Project, in accordance with the instruction from HMG/N to link the project road with Dhulikhel.

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Masaru Koshiba Team Leader of the Study Team, JICA, Japan

N. D. Sharma Chief Engineer Deparment of Roads Ministry of Works and Transpotation, Nepal

Fig. 2.2 ALTERNATIVE ROUTES BETWEEN PHASKOT AND KODARI ROAD



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## Appendix 1.1.2 (IV)

#### THE MINUTES OF DISCUSSION

#### FOR

## INTERIM REPORT OF THE FEASIBILITY STUDY

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#### SINDHULI ROAD CONSTRUCTION PROJECT

December, 1987

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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

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"别说是,多为无处于在中国主要的人们,要以为为自己的人们的人,并有些有效的人,自己的意义。"

#### THE MINUTES OF DISCUSSION

#### FOR

## INTERIM REPORT OF THE FEASIBILITY STUDY

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SINDHULI ROAD CONSTRUCTION PROJECT

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Date : December 11, 1987 Place : DOR Conference Room Attendance : DOR

> Mr.N.D.Sharma (Chief Engineer) Mr.B.N.Pradhan (Chief Counterpart) Mr.K.B.Subba (Senior Div. Engineer)

## JICA

Mr.E.Obata (Coodinator of JICA Headquarter)

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Advisory Committee

Mr.K.Yamamoto (Chairman, HEPC/MOC Japan) Mr.T.Meta (Member, JHPC Japan)

#### JICA STUDY TEAM

Mr.H.Shinkai (Acting Team Leader/Highway Planner) Mr.F.Fujii (Highway Engineer) Mr.T.Kozawa (Construction Planner and Cost Estimater) Mr.M.Suzuki (Surveyor)

The Study Team for Sindhuli Road Construction Project, organized by the Japan International Cooperation Agency (JICA), submitted thirty(30) copies of Interim Report to the Department of Road (DOR), Ministry of Works and Transport, His Majesty's Government of Nepal(HMG/N) on November 17, 1987. Mr.M.Koshiba, Team Leader of the Study Team, made briefing of the Interim Report, and requested DOR to look through the report and to give the Study Team comments if any before December 7, 1987.

A1-28

The Study Team was informed by DOR of comments on the Interim Report as scheduled, and made discussion with DOR together with Advisory Committee. Through the discussion, both DOR and the Study Team confirmed the following;

1. DOR acknowledged the receipt of thirty(30) copies of Interim Report.

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- 2. The contents of Interim Report were agreed in principle by DOR however the following engineering subjects shall be confirmed in this minutes;
  - 2-1 Both horizontal and vertical alignments including critical sections along Rosi Khola shown in Annex B attached with the Interim Report shall be reviewed to attain the better alignment of road on the basis of field survey conducted by the Study Team from November 22 to December 3, 1987, and finalized in the Draft Final Report scheduled to be submitted to DOR in late March, 1988.
  - 2-2 DOR has no objection to change the road design from tunnel structure, which has been designed at Nepalthok so as to avoid the existing pedestrian suspension bridge across the Rosi Khola, to the open road in view of economy of construction cost, provided that;

(1) temporary pedestrian bridge shall be provided nearby the existing bridge during the construction period of roadway in this section.

(2) same type of the existing pedestrian suspention bridge shall be reconstructed at this place after constructing the roadway in the section.

2-3 Design Standards to be applied for Section 1 and 11 shown in Table 3-3, Interim Report, have been approved by DOR.

2-4 Type of bridges and other major structural works shown in the Interim Report shall be reviewed after finishing the study on construction unit cost, construction plan and construction method. These design will be finalized in the Draft Final Report. 2-5 The Study Team and DOR jointly made the inspection for Section I during the field survey conducted from November 22 to December 3, 1987.

Based on the above inspection, DOR requested the Study Team to include the whole section (not only the design sections proposed in Annex B of the Interim Report) in the design of Section I to meet the design standards of the Project.

The Study Team has agreed to the request of DOR taking the present road condition into account.

H.SHINKAI Acting Team Leader of the Study Team, JICA, Japan Al Sharp

N.D.SHARMA Chief Engineer Department of Roads, Ministry of Works and Transport, HMG of Nepal

Witnessed by;

K. YAMAMOTO

Chairman

Advisory Committee JICA, Japan

# Appendix 1.1.2 (V)

## The Minutes of Discussion for Draft Final Report of the Feasibility Study on Sindhuli Road Construction Project

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[2] 法监督部门、书前公司部、书部款公司、部立委员、通过委员会部门、建国公司部、 委员会部门、法律委托的合同部员、书籍公司、书籍公司部员、信任委员员、法国委员员、法国委员会部委、 法部门部门部署第三部署公司、管理的法律委员会部、 的时间考虑的最佳委员、 法律法律部份公司部委 公司部门部署第三部署、资源的法律委员会部、 的时间考虑的最佳委员会 、 等于法律部份委员、 等于 一部门、副部署署、资源方法等、金属、公司公司、 这时公司、 这时公司 (法法法律部份委员会)、 等于法律

Japan International Cooperation Agency (JICA)

#### A1-31

The Minutes of Discussion for Draft Final Report of the Feasibility Study on Sindhuli Road Construction Project

: March 29, 1988 Date : DOR Conference Room Place Attendance : DOR Mr. N.D. Sharma (Chief Engineer) Mr. B.R. Thapa (Superintending Engineer) Mr. K.B. Subba (Senior Divisional Engineer) Mr. B.N. Pradhan(Chief Counterpart) Mr. H.P. Dhakal (Couterpart Engineer) Advisory Committee Mr. K. Yamamoto (Chairman, HEPC/MOC, Japan) Mr. T. Meta (Member, JHPC Japan) JICA (Representative of JICA Kathmandu Mr. H. Ono Office) (Coordinator of JICA headqurter) Mr. K. Mori JICA Study Team Mr. M. Koshiba (Team Leader) (Highway Engineer) Mr. H. Shinkai Mr. K. Matsuda (Transport Planner/Economist)

The Study Team for Sindhuli Road Construction Project, organized by the Japan International Cooperation Agency (JICA), submitted thirty(30) copies of Draft Final Report to the Department of Roads (DOR), Ministry of Works and Transport, His Majesty's Government of Nepal (HMG/N) on March 20, 1988.

Mr. M. Koshiba, Team Leader of the Study Team, made briefing of the Draft Final Reprot, and exchanged their views with the government authorities concerned regarding the result of finding and recommendations made by the Study Team.

After discussion, the Department of Roads acknowledged the receipt of 30 copies of the Draft Final Report and jointly confirmed the followings;

1. The Draft Final Report should be reviewed and in respect to the items pointed out during the Meeting as shown in Appendix 1, for the preparation of the Final Report.

- 2. JICA requested HMG/N to send official comments on the Draft Final Report, if any, to JICA within one month from the date of signing of this minutes of discussion. JICA will submit the Final Report to HMG/N within two months after receiving the comments.
- 3. HMG/N expressed thier strong desire for earliest realization of the Project, in cooperation with the Government of Japan, considering not only the necessity of the reliable international route between Kathmandu and Indian border but also the great impacts on reginal socio-economic activities in isolated hill area of Bagmati and Janakpur Zones. The Study Team will convey this matter to Japanese Authorities concerned.

Masaru Koshiba Team Leader of the Study Team, JICA, Japan

Seet conders 291 N.D.Sharma N.D.Sharma Chief Engineer, / 3/80 Department of Roads, Ministry of Works and Transport, HMG/N

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K / Yamamoto (Chairman, Advisory Committee JICA, Japan

#### Appendix 1

- 1. The Study Team is requested to update certain information, such as organization chart of the Ministry of Works and Transport, road statistic, etc. using the authentic data from DOR.
- 2. Retaining wall structures to be constructed on the river bed of Rosi Khola in Section II-3 shall be reviewed taking into consideration the scouring effects. And accordingly necessary modification to the structure design shall be made.
- 3. In Section I, the Study Team is requested to review the design of multi-box culverts taking into account of the stream effects of logs carried by the streams during floods.
- 4. Land aquisition and compensation costs shall be reviewd in the detailed design stage on the basis of actual land aquisition map and prices prepared by the government concerned.
- 5 A link connecting Ramechhap with Jiri Road is being implemented by DOR. The Study Team is therefore requested to study the possibility of constructing Section I and Section II-1 concurrently, instead of the proposed construction schedule given in Case 3.
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Phone | Hove His Majesty's Government MINISTRY OF WORKS & TRANSPORT DEPARTMENT OF ROADS Cable 'Sadak' Babar Mahat Kathmandu, Nepal 1. B.S 137-1 Chai NO! S'20 Date April 28, 1988. Subject :- Sindhuli Road Construction Project Comments on Draft Final Report. Mr. H. Ono Representative JICA Kathmandu Office Nepal Dear Sir, With reference to the Minutes of the Discussion signed by both the Study Team and DOR on March 28, 1988, we are pleased to inform you of our comments on the Draft Final Report as follows : 一点后后了公共派称了单大器 铺放口 海急战行 DOR appreciates the result of design made by the Study Team. However 1) in view of the Project cost being on higher side, DOR feels that in order to realize the Project, the cost, if necessary be decreased to a certain extent, by deduction of structure provided that the design standard and quality of the works are maintained unchanged. Construction period of 10 years (Case 3) recommended by the Study Team 2) seems to be too long. Since this Project plays vital role for not only development of the regional development but also improvement of the basic human needs for the inhabitants living in isolated area of hill area, DOR has given the highest priority on this project for earlier realization. DOR therefore requests the Study Team to shorten construction period from 10 years to shorter period.

Contd on  $\ldots$   $\cdots$  P/2

A1-35



# His Majesty's Government MINISTRY OF WORKS & TRANSPORT DEPARTMENT OF ROADS

Cable 'Sadak' Babar Mahal Katlimandu, Nepal

Date ... ... ... ...

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Subject :-

3)

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As stated in the Minutes of Discussion signed on March 28, 1988 Jiri-Ramechap Road connecting Busti with Kurkhot is under construction by DOR since the beginning of this year and supposed to complete by the end of 1993 according to the schedule attached herewith.

In order to maximize the Project benefit by connection with Jiri-Ramechap Road, the Phase 1 (Sec. ~ I and Sec. II-1) between Bardibas and Kurkhot (Nabughat) should be completed by 1993.

The Study Team is therefore requested to make a implementation plan of Phase I considering the construction plan of Jiri-Ramechap Road.

The name of village which the Project Road passes through at the end point of Sec II-1 is not Nabughat but Khurkot.

The Study Team is requested to correct the name accordingly.

Yours faithfully,

( N. D. SHARMA )

Chief Engineer

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## JAPAN INTERNATIONAL COOPERATION AGENCY IN NEPAL

Ward No. 1, Bakundole Pulchowk, Patan, Nepal Tel: 5-21541, 5-22088 5-22188, 5-22211 TLX: 2362 JICAKT NP

Date; June 6,1985

Mr.N.D. Sharma Chief Engineer Department of Roads Ministry of Works and Transport His Majesty's Government of Nepal

Dear Sir,

Subj; Sindhuli Road Construction Project Reply to your comment on Draft Final Report

We have the pleasure of informing you of our reply to your comments on the Draft Final Report of Sindhuli Road Construction Project, made as per your letter No.BS 137-1 No.820 dated on April 28, 1988.

1) Project Cost

Project cost excluding price contingency (NRs.3,884 million) was estimated on the basis of preliminary design made by the Study Team employing the following criteria;

(1) to provide slope protection work properly taking into consideration exremely steep and unstable slope of the Mahabharat Range,

(2) to minimize the maintenance cost of the Project Road taking account of the difficulty in financial arrangement for maintenance cost, and

(3) to apply reasonable design standard paying attention to the terrain condition as well as the function of the proposed road expected as trunk road.

In order to achieve the purpose of the project originally expected to ensure reilaible alternative road between Kathmandu and Terai, it is necessary to maintain the present design made by the Study Team. It has been concluded therefore that the present design shall be unchanged, thus no cost deduction be made.

#### 2) Construction Period

It has been concluded that the construction period of each construction section shall be remained unchanged from engineering point of view, however, total construction period of the Project be shortened from 10 years to 8 years taking into consideration the construction schedule of Jiri-Ramechhap Road, as follows;

PHASE	SECTION	YEARS	1	2	3	4	5	6	7	8
Phase 1	Sec. I Sec. Il-1	4 5						•		
Phase 2	Sec. II-2 Sec. II-3	4 5								

Since the construction of Section II-1 is most difficult section of the project, it is desired that the construction period of this section shall be 5 years from engineering point of view. However, if necessary, it might be possible to shorten its construction period from 5 years to 4 years by introduction of additional construction units and work in two shifts.

#### 3) Construction Method

It was confirmed by the Study Team that HMG/N gave a high priority for the implementation of Jiri-Ramechap(J-R) Road Project in order to improve the basic human needs for the people living in isolated hill area of Janakpur Zone. It was also confirmed that the construction of J-R Road was under construction by DOR and expected to be completed in 1993.

In order to maximize the benefit of the project, it has been concluded that Section I and Section II-1(Bardibas-Sindhuli Bazar-Khurkot) shall be implemented in Phase 1 as requested.

4) Name of the Village

The Study Team will correct the name of village at the end point of Sec.II-1 from Nabughat to Khurkot.

Your kind attention on the above would be highly appreciated.

truly yours,

M. Koshiba

Team Leader The Study Team, JICA

c.c JICA Headquaters JICA Kathmandu Office Embassy of Japan in Nepal Nippon Koei, Tokyo Nippon Koei, Kathmandu

# Appendix 1.1.3 Major Events of the Study

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## Appendix 1.1.3 Major Events of the Study

- The objectives and the scope of work of the Study were determined by the Scope of Work signed between DOR and JICA on July 15, 1986.
- The Study Team visited Kathmandu in early November, 1986 and carried out the preliminary alternative route study using existing 1/50,000 aerial photograph and topographic map. Three possible routes connecting Nepalthok with the place nearby Banepa on Kodari Road, namely Alternatives II-3A, II-3B and II-3C, were selected by the Study Team among various alternative routes as shown in Fig. A.1.1. The Alterntaive II-3B having its end at Banepa on Kodari Road was selected by the Study Team as the optimum route of the Project Road and approved by DOR in late November, 1986.
- Aerial photographic survey was conducted by the Study Team along the approved Alternative II-3B route for preparation of topographic map with a scale of 1/2,000. Topographic map of 1/10,000 in scale were also prepared by the Study Team during the period between December 1986 and February, 1987.

- Route refinement on Alternative II-3B was conducted by the Study Team using topographic map with a scale of 1/10,000, which was compiled in Progress Report (I).

- The result of refinement, submitted to DOR on March 23, 1987, was accepted by DOR subject to approval of HMG and confirmed in the Minutes of Discussion mutually signed by DOR and the Study Team on March 25, 1987.
- The Study Team, however, was informed by DOR as per the letter dated April 25, 1987 that the project route was approved by HMG with condition that the route passes through the headquarter of Kabhrepalanchok District, namely

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Dhulikhel. Thus Alternative II-3B originally proposed by the Study Team and approved by DOR was not accepted by HMG.

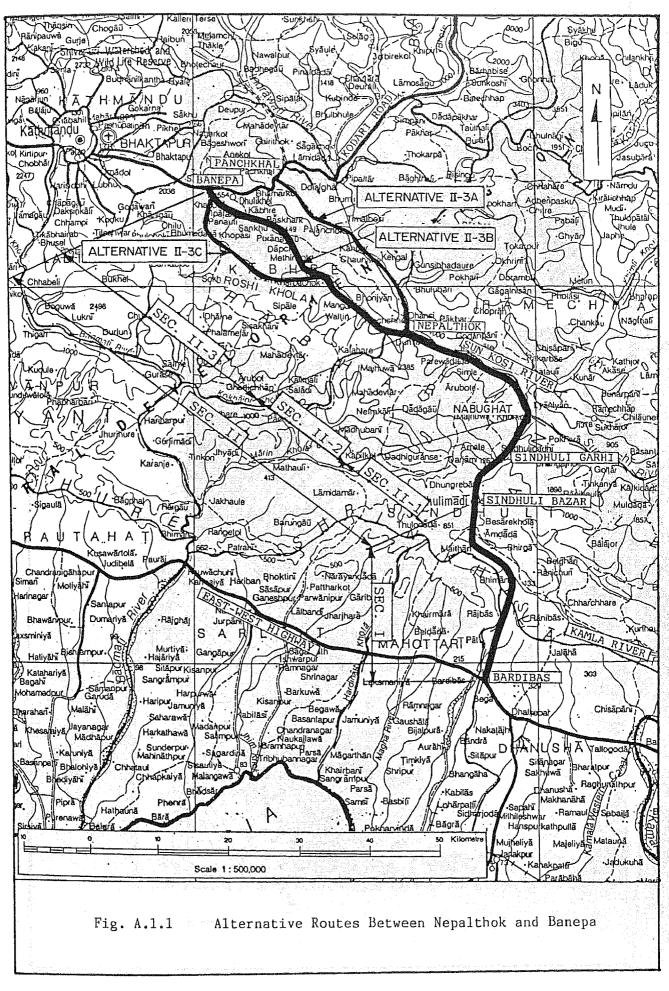
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- Supplemental route study including field survey was conducted by the Study Team in June in compliance with HMG's policy to find possible routes connecting Dhulikhel. As the result, three alternative routes, namely Alternatives II-3D, II-3E and II-3F were selected supplementary to Alternative II-3B as shown in Fig. A.1.2, although these routes were not advantageous in every engineering and socio-economic aspects comparing with Alternative II-3B originally proposed by the Study Team.

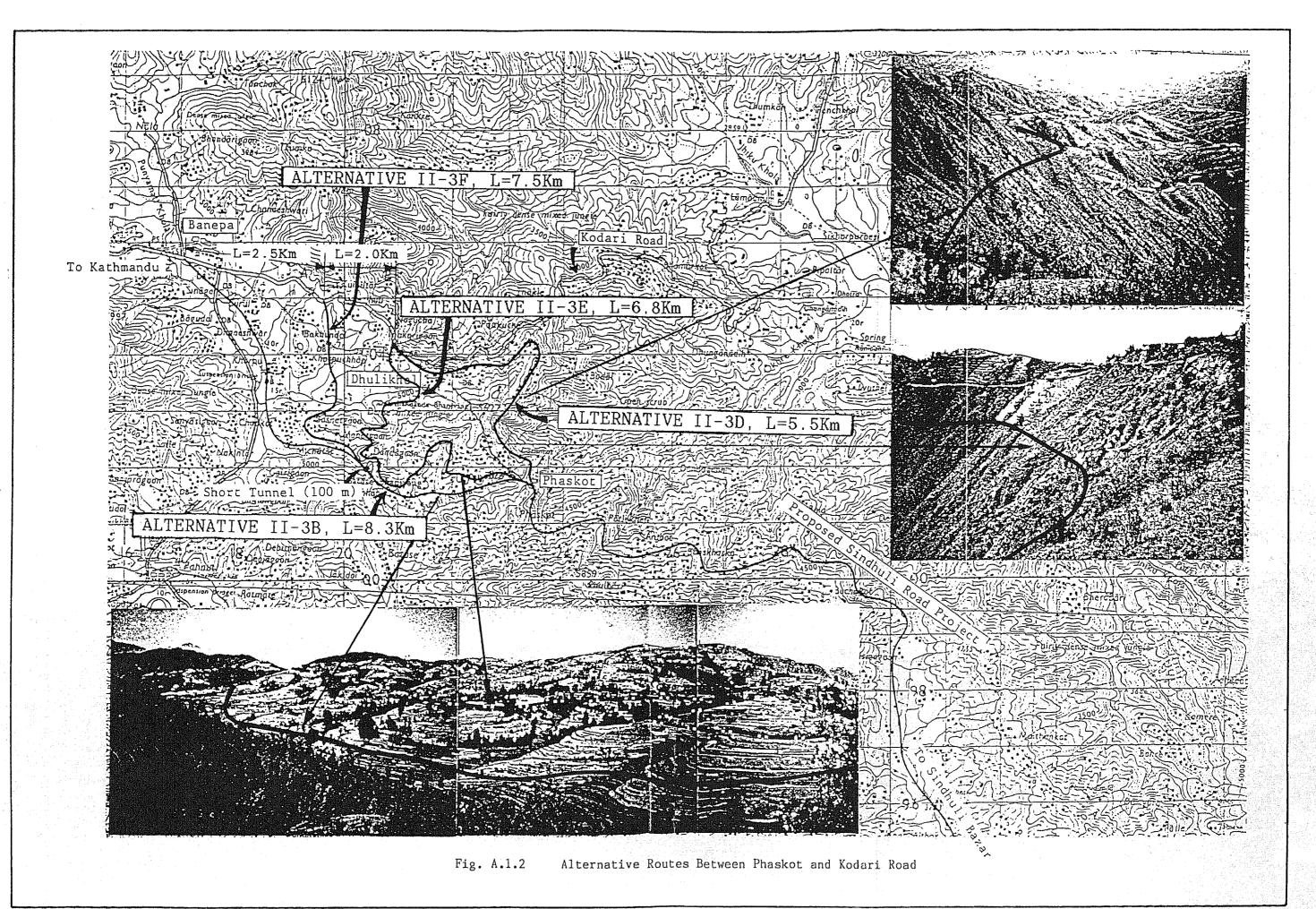
- The Study Team submitted study result on these three alternative routes to DOR for HMG's reconsideration, showing advantage and disadvantage of each alternative route. HMG finally selected Alternative II-3E as the optimum route of the Project instead of Alternative III-3B, in compliance with his policy that such an important trunk road as Sindhuli road should pass through the headquarter of Kabhrepalanchok District, namely Dhulikhel.

The result of optimum route selection was compiled in Progress Report (II) which was submitted on July 10, 1987, and approved by DOR in the Minutes of Discussion mutually signed by DOR and the Study team on July 10, 1987.

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