

V-1 Minutes of Meeting

List of Minutes of Meeting

1. Meeting held on February 9, 1987
2. Meeting held on March 17, 1987
3. Meeting held on September 18, 1987
4. Meeting held on October 3, 1987
5. Agreement on October 7, 1987

MINUTES OF MEETING
ON THE INCEPTION REPORT
FOR THE MASTER PLAN STUDY ON THE
DISASTER PREVENTION PROJECT
IN THE RIMAC RIVER BASIN

Japanese side and Peruvian side held a meeting with attendants listed in the attachment, at Comité Nacional de Defensa Civil on February 9, 1987. The discussion in regard to the Inception Report was made between both parties. The agreement of discussion is summarized below:

(1) Transfer of Technology

Peruvian side showed much expectation on the technology transfer from the Study Team through various lectures or seminars by the Study Team. Japanese side agreed to positively provide transfer of technology, however commented that the primary objective of the Study Team is to prepare the master plan.

(2) Spanish Version of Reports

Japanese side stated that the Spanish version of the summary for the Draft Final and the Final Reports will be prepared for easy comprehension of the Peruvian side.

(3) Undertakings of Peruvian Government

Japanese side stated that it is important for Peruvian side to provide all the necessary undertakings to the Study Team as it is considered that the poor cooperation will seriously affect on the results of study. Peruvian side stated that they will make efforts to provide undertakings to the Study Team without delay and trouble.

(4) Aerophotographs

Japanese side requested to get permission from the Peruvian Government for carrying the aerophotographs from Peru to Japan if it is requested by the Study Team. Peruvian side accepted this request, but requested to prepare the list of necessary aerophotographs to be carried to Japan.

(5) Claim of equipments

Japanese side requested the Peruvian side to claim the vehicles, survey equipment and meteo-hydrological measuring apparatus from the custom house at the earliest opportunity. Peruvian side asked the information about bill number of loading.

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(6) River Survey

Japanese side confirmed to execute river survey by the Peruvian side based on a plan prepared by the Study Team. Peruvian side requested that the plan and specification for river survey are expected to be offered.

(7) Meteo-hydrological Equipments

Peruvian side stated that rainfall and water level gages will be installed by a government agency concerned and requested to make the plan of installation.

FOR JAPANESE SIDE

FOR PERUVIAN SIDE



R. NISHIKAWA
TEAM LEADER
JICA STUDY TEAM



JORGE DEL AGUILA SANCHEZ
DIRECTOR SUPERIOR DEL
COMITE NACIONAL DE
DEFENSA CIVIL

February 11th, 1987

Lima, Republic of Peru

ATTACHMENT

ATTENDANTS LIST

<u>NAME</u>	<u>BELONG TO</u>	<u>POSITION</u>
<u>Peruvian Side</u>		
1. Jorge del Aguila Sánchez	SE/CNDC	Director Superior of CNDC
2. César Arguedas M.	SE/CNDC	Ing. Asesor Técnico
3. Guillermo Chamorro R.	SE/CNDC	Jefe Div. Est. Prog. de Inv.
4. Oscar Trejo Oviedo	SE/CNDC	Planificador
5. Julio Gamarra V.	U.N.M.S.M.	Ing. Geólogo
6. Reynaldo Arellano S.	U.N.M.S.M.	Ing. Geólogo
7. Germán Reátegui Orbe	U.N.M.S.M.	Ing. Geólogo
8. Víctor Raúl Murill	SE/CNDC	Mast. Planif.

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ATTACHMENT

<u>NAME</u>	<u>BELONG TO</u>	<u>POSITION</u>
<u>Japanese Side</u>		
1. K. Yano	Advisory Committee	Chairman
2. Y. Ogawa	Advisory Committee	Member
3. K. Nakagawa	JICA Tokyo	Coordinator
4. R. Nishikawa	Study Team	Team Leader
5. H. Okada	Study Team	Member
6. M. Suzuki	Study Team	Member
7. Y. Motoki	Study Team	Member
8. M. Oba		Interpreter
9. G. Ito		Interpreter



Ryuzo

MINUTES OF MEETING
ON THE PROGRESS REPORT AND OTHERS
FOR THE MASTER PLAN STUDY
ON THE DISASTER PREVENTION PROJECT
IN THE RIMAC RIVER BASIN

JICA Study Team and Peruvian side held a meeting with attendants listed in the attachment, at Secretaría Ejecutiva Comité Nacional de Defensa Civil on March 17 and 24, 1987. The discussion was made between both parties on the following subjects.

- (1) Progress Report
- (2) River Survey
- (3) Installation of new gaging stations
- (4) Data Collection
- (5) Work Schedule

The agreement of discussion is summarized below:

1. Progress Report

JICA Study Team explained the essential points of Progress Report and Peruvian side was contented in the Progress Report which would be officially submitted to Peruvian side on March 27.

2. River Survey

JICA Study Team confirmed the execution of river survey based on the specifications submitted on March 9.

Peruvian side informed that the river profile and cross section would be made from aerophotographs which will be newly taken soon.

JICA Study Team agreed to the method proposed by Peruvian side on the following conditions.

- (1) Accuracy shall be not lower than the level required in the specifications.
- (2) Results of survey carried out by the method using aerophotographs shall be checked by the ordinary method.
- (3) Ordinary method shall be taken for the stretches where the method using aerophotographs has difficulty.
- (4) Output of river survey shall be shown in detail as required in the specifications.
- (5) Two sets of output shall be provided to JICA Study Team in the middle of May.

3. Installation of New Gaging Stations

Four (4) sets of automatic rainfall recorder and two (2) sets of automatic water level recorder were presented from JICA to Peruvian side.

The field instruction about the installation of new gaging stations and discharge measurement were carried out on March 20 and 21 to hydrologists (Ing. Gómez, Ing. Nique, Ing. Mamani) of SENAMHI. The locations of gaging station were decided as follows:

(1) Automatic Rainfall Recorder

- (a) Chaute (Qda. Rio Seco)
- (b) Canchacalla (Qda. Rio Canchacalla)
- (c) Casapalca (Rio Rimac)
- (d) Autisha (Rio Santa Eulalia)

(2) Automatic Water Level Recorder

- (a) Rio Rimac (Lima)
- (b) Qda. Rio Suncha

The specific locations, installation method, operation and maintenance and schedule of installation were already instructed to the hydrologists of SENAMHI and the brief description were made in the report entitled "Recommendation on installation of new gaging stations" which would be officially submitted on March 25 or 26, 1985 with the letter (No. JPU -14).

Peruvian side agreed to the installation of new gaging stations based on the instruction and recommendation by JICA Study Team.

It was additionally agreed that one of JICA cars scheduled to be arrived in Lima in April should be used with priority by hydrologists of SENAMHI for the installation, operation and maintenance of new gaging stations.

4. Data Collection

JICA Study Team could collect many data and information as listed in Annex of Progress Report in regard to the Rimac river basin during the last two (2) months. However, JICA Study Team requested to Peruvian side to collect additional data

which would be available for the study. The following additional data are especially requested.

- (a) Records of Disaster happened in March 1987
- (b) Meteo-hydrological data
- (c) Aerophotographs
- (d) Data for Structural plan and design
- (e) Data for socio economy
- (f) Data for project evaluation
- (g) Data for institutional study

The specific breakdown of data mentioned above is to be submitted on March 25 or 26, 1987 with the letter (Nº JPU-15).

Peruvian side agreed to collect the data requested and present to Study Team in the middle of May.

5. Work Schedule

The work schedule of Study Team from the end of March was explained.

Peruvian side expressed the assistance and cooperation to the Study Team in accordance with the work schedule.

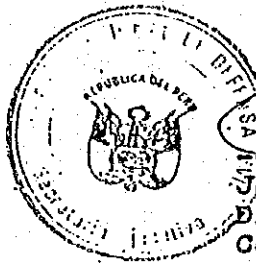
Study Team informed that the modification of work schedule, if any, would be informed to Peruvian side as early as possible.

For JICA Study Team

For Peruvian Side

Ryuzo Nishikawa

Ryuzo Nishikawa
Team Leader
JICA Study Team



Jorge Del Aguila S.
Jorge Del Aguila S.
Director Superior del
Comité Nacional de
Defensa Civil

March 27, 1987

Lima, Republic of Peru

MINUTES OF MEETING

OF

THE MASTER PLAN STUDY ON THE DISASTER PREVENTION PROJECT
IN THE RIMAC RIVER BASIN

DATE : September 18, 1987
TIME : 10:30 AM - 2:30 PM
PLACE : Comite Nacional de Defensa Civil
5 F Auditorium
ATTENDANTS : As attached

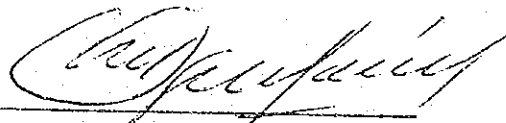
Following the introduction of attendants, a brief explanation by the JICA Study Team was made on the following items.

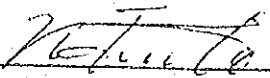
1. Outline and objective of Master Plan Study
2. Frame and procedure of the Rimac River Disaster Prevention Master Plan Study and objective of the Interim Report (present stage)
3. Interim Report (Draft)
An Outline of the description in the Interim Report (Draft) was explained chapter by chapter by using the summary note, tables and figures extracted from the Report.

After the explanation above by the Study Team, a discussion on the Report among all the attendants was made. During the discussion any official comments on the Draft Report from the Peruvian side were not issued to the Study Team except some comments on Socio-Economy, though it had been agreed that the comments would be given in this meeting. Through the discussion on the schedule for preparing the comments and finalization of the Interim Report, a dead line of the official comments was finally set at the end of the meeting as follows.

- (1) Sept. 21 (Mon)
for comments on Part I (Chapter I-XII)
- (2) Sept. 23 (Wed)
for comments on Part II (Chapter XIII-XVII)

It was mutually agreed that revision of the Draft Interim Report would be made based on the comments given by the above dates and that other comments after the dead line would be considered in the Draft Final Report.


Calm. Jorge A. Del Aguila S.
Director Superior del Comite
Nacional de Defensa Civil


Norizo Fujita
Acting Team Leader
of Rimac River Study Team

September 21, 1987

Lima, PERU

ATTENDANTS LIST

<u>Name</u>	<u>Institution</u>
1. Cesar Arguedas Madrid	SE/CNDC
2. Guillermo Chamorro Rodriguez	SE/CNDC
3. Victor Murillo P.	SE/CNDC
4. Hernan Cabanillas Sagastegui	SE/ SRDC
5. Juan Medina Montes	Ministry of Housing and Construction
6. Benjamin Villanueva N.	Ministry of Transportation and Construction
7. Jose Cordova Alva	SEDAPAL
8. Manuel Gonzalez Guillen	INGEMMET
9. Carlos Aldana Camacho	Universidad Inca Garcilaso de la Vega
10. Heriberto Yupanqui S.	SENAMHI
11. Cesar Benites Ch.	DGASI
12. Norizo Fujita	JICA Study Team
13. Hiroshi Okada	-do-
14. Shohei Ezaki	-do-
15. Yoshihiro Motoki	-do-
16. George Ito	Interpretor

MINUTES OF MEETING

THE MASTER PLAN STUDY ON THE DISASTER PREVENTION PROJECT
IN THE RIMAC RIVER BASIN

DATE : October 3, 1987
TIME : 10:00 AM - 12:00 AM
PLACE : Comite Nacional de Defensa Civil
5 F. Auditorium
ATTENDANTS : As attached
SUBJECT : Discussion on Interim Report

1. Opening Speech of Meeting

The JICA Advisory Committee made the opening speech of meeting as follows:

- A member of the Committee, Mr. Y. Ogawa, was changed to Mr. S. Ohkubo.
- The Study was started with the commencement of field investigation in February, 1987. Since then, the Interim Report has been prepared through two times of the field investigations and the study in Japan.
- The Interim Report was originally scheduled to include both structural and non-structural plans for the disaster prevention.
- It is expected that the requests from the Government of Peru, which will be confirmed through this discussion, will sufficiently be reflected on the Draft Final Report.

2. Explanations on the Present Situation by the Study Team

Following the opening speech by the Advisory Committee, the Study Team made an explanation on the present situation as follows:

- The Interim Report was handed over on September 14, 1987 for the review by the Government of Peru.
- A meeting was held on September 18, 1987 between the Government of Peru and the Study Team for making an explanation and discussing on the Interim Report. The explanations by the Study Team were made chapter by chapter.

- It was agreed in the meeting that the comments issued by September 23, 1987 would be incorporated in the Interim Report and that those after the above date be taken into consideration in the Draft Final Report.
- The Study Team prepared some questionnaires for confirming the requests or opinions of the Government of Peru in detail.
The questionnaires were given to the Government of Peru on September 28 for his examination.

3. Confirmation of the Objective of Meeting

Following the explanation on present situation as mentioned, the Study Team confirmed the objective of meeting as follows:

The objective of meeting is to establish the most desirable master plan by satisfactorily reflecting the Peru Government's request and opinion on the plan.

Then, the Study Team requested the comments from the Government of Peru on the Interim Report.

4. Comments from the Government of Peru

In response to the above request from the Study Team, the Government of Peru presented his comments as follows:

- The Report was required to be translated into the Spanish.
- There is no comment on the Part-I of Interim Report.
- There are some comments on the Part-II of Interim Report.
A part of comments was already informed to the Study Team.
Other comments will be given to the Study Team later.
- Is a discussion on ecology made in the Report?
- How does the Study Team consider about the environmental effect due to the implementation of construction work?
- The realization of master plan will require a large investment cost. How about the evaluation for the above?

The Study Team replied for the above questions as follows:

- The importance of protecting the ecology in the basin is discussed in the Report, although the Report is not provided with a particular chapter for the ecology.
- A sufficient care for the adverse effect on the environment will be required.

The overall control of the whole river basin including the control on construction of road and railway, disposal of garbage or development of mining, etc. is essential.

- The technical and economic evaluations will be made on the proposed alternative plans in the preparation of Draft Final Report.
The most desirable plan will be selected through the above evaluations.

5. Confirmation of Peru Government's Opinion.

The Study Team proposed to confirm the opinions of Government of Peru through some questionnaires. Then, the following questionnaires and confirmation of opinions were made.

- The Study Team requested some opinions or comments on the basic concepts for study provided in Chapter XIII.

The Government of Peru had no comment on the basic concepts. Then, the basic concepts were mutually agreed.

- The Peru Government's opinions or comments on the classification made for the study areas of debris flow disaster prevention were requested.

The Government of Peru requested to take up Qda. Cashahuacra as the study area with the highest priority. The reason is its high frequency in the disaster occurrence.

The Advisory Committee expressed his opinion as follows: It is most desirable to provide the countermeasure in the upper reaches of quebrada. However, the above will require a huge amount of cost in view of its large scale of the basin. Then, it is recommended to provide a countermeasure to tentatively protect the residential houses from the debris/mud flow.

After discussion, the above opinion of Advisory Committee was mutually agreed.

- The Government of Peru asked whether or not the disaster prevention with vegetation is applicable.

The Study Team expressed his opinion that the vegetation seems to be difficult due to the limited water and the vast area of basin.

However, the Advisory Committee advised that the examination on the possibility of vegetation should be tried.

Then, the Study Team agreed to try to examine the possibility of vegetation.

The Government of Peru was requested to collect the actual data such as the kinds of vegetation and process of growth, etc.

- The Study Team showed that the following two alternative countermeasures are contemplated for the inundation disaster prevention near Chosica:

- (i) The case that the river channel is planned in accordance with the existing river bank as much as possible.
- (ii) The case that the river channel will have a reasonable width (40-50m) and alignment for the design flood.

Then, the Study Team requested the Peru Government's opinion for the selection of plan.

The Government of Peru had an opinion that the master plan should be a technically desirable plan: that is, the case (ii) is more desirable.

After discussion, it was agreed that the above opinion of the Government of Peru will be regarded as important in the selection of plan. It was also confirmed that the political matters should not be disregarded.

- The Study Team showed the following two alternative countermeasures contemplated for the narrow gorge in the downstream reaches of Rimac river.

- (i) The case that the gorge is widened along the present river channel.
- (ii) The case that a short-cut is provided in the portion of sharp bend.

Then, the Study Team expressed his opinion for the selection of plan as follows:

The case (ii) will be accompanied with much more social constraint as compared with the case (i). The case (i) is recommendable since the merit of case (ii) is not so large in comparison with its remarkable increase of social constraint.

The Government of Peru agreed to the above opinion.

- The Study Team requested the Peru Government's opinion on the five non-structural measures proposed in the Interim Report.

The Government of Peru expressed his opinion that it is desirable an organization like Rio Rimac Committee controls the whole river basin including the tributaries.

The Study Team agreed that the organization chart for the river management will be modified in accordance with the above opinion of the Government of Peru.

- The Study Team asked whether or not the Government of Peru has any comments on the proposed organization chart for the emergency disaster relief. The Study Team also asked whether or not the Government of Peru has any inconvenience for the descriptions in the Report which mention the necessity of the organization.

The Government of Peru proposed to revise the term of "CNDC" in the organization chart into "INDC" *correct*
The Government of Peru also confirmed that the descriptions in the Report will not give any inconvenience to the Government of Peru.

The Study Team agreed that the term of "CNDC" will be revised to "INDC" in the organization chart.

- The Study Team showed that the training of engineers is proposed in the Report, and then, asked whether or not the descriptions of present situation of engineers in Peru are proper.

The Government of Peru confirmed that the description in the Report is quite proper.

The Government of Peru expressed his opinion that the training of engineers will be essential. Also, the Government of Peru desired the aid by the Japanese Government as for the training of engineers and relatives. *necessary*

Then, the Advisory Committee suggested that a proper procedure will be required to realize it since this matter requires a new agreement on the aid finance between the Government of Peru and Government of Japan.

- The Study Team informed that all the members of the Study Team and Advisory Committee conducted the field inspection together with CNDC's staff on October 1 and 2, and that some modifications will be required for the layout of structures proposed in the Report for the debris flow control.

Then, the Study Team proposed that the necessary modifications will be made in Japan and be sent to the Government of Peru by the end of October, 1987.

The Government of Peru showed his understanding for the above proposal.

- The Advisory Committee asked the Peru Government's preparedness for further promoting the projects which will be finally proposed in this Master Plan.

The Government of Peru replied as follows: *not*
The preparedness will be insufficient considering the present condition of the domestic economics in Peru. Peru still needs international aid from governments or banks in foreign countries not only for implementation of the project but also for further detailed studies.

- The Advisory Committee informed that some projects for which an urgent implementation is required will be shown in the Draft Final Report.
The above completely met with the requirement of the Government of Peru.

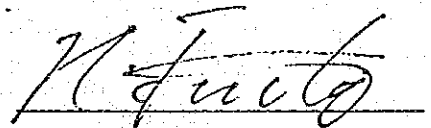
6. Confirmation of the Schedule for Signature on Minutes of Meeting

Finally, the schedule for signature on the minutes of meeting was confirmed as follows:

- (1) Draft minutes of this meeting will be shown to the Government of Peru at 8:30 AM on Oct. 5 for getting agreement beforehand.
- (2) The minutes of meeting on which both Peru and Japan sides agreed will be officially signed at 10:00 AM on the same day.



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Calm. Jorge A. Del Aguila S.
Director Superior del Comité
Nacional de Defensa Civil



Norizo Fujita
Acting Team Leader
of Rimac River Study
Team

October 5, 1987

Lima, PERU

Attachment

ATTENDANTS LIST

<u>Name</u>	<u>Institution</u>
1. Jorge A. Del Aguila	CNDC
2. Cesar Arguedas M.	-do-
3. Victor Murillo	-do-
4. Pedro Abad	-do-
5. Oscar Trejo	-do-
6. Fernando Moreno G.V.	PIBA-- COOPOP*
7. K. Yano	JICA Advisory Committee
8. S. Ohkubo	-do-
9. K. Nakagawa	JICA Head Quarter
10. E. Terasawa	JICA Lima Office
11. H. Soeda	-do-
12. N. Fujita	JICA Study Team
13. H. Okada	-do-
14. S. Ezaki	-do-
15. Y. Motoki	-do-
16. Jorge Ohba	Interpreter
17. Jorge Ito	-do-

Remarks: *, Cooperacion Popular (Popular Cooperation)

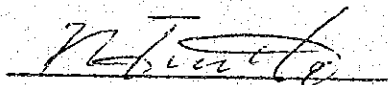
Agreement on River Survey for
Upper Reach of the Rimac River

The following matters are mutually confirmed and/or agreed each other on October 7, 1987.

1. The results of river survey for the lower reach, from the river mouth to the Chaclacayo stretch, were already submitted to the Study Team.
2. The river survey for the upper reaches, from the Chaclacayo stretch to the San Mateo Stretch of the Rimac river and to the Carampoma stretch of the Santa Eulalia river, is not carried out as of October 7.
3. The Peruvian side will carry out the river survey for the upper reach and send the results to the Study Team in Tokyo within this month, October 1987.
4. The Study Team will incorporate the survey results in the Draft Final report if the results are received in October.
5. The Peruvian side will send the official letter at the end of this month to JICA Tokyo office to explain the progress and reason if the results of river survey can not be sent to Tokyo within this month.

For JICA Study Team

For Peruvian Side



Norizo Fujita
Acting Team Leader
JICA Study Team



Calm. Jorge Del Aguila S.
Director Superior del
Comite Nacional de
Defensa Civil

