

14. नेपाल・ジャナカプールの農業開発計画・討議議事録

THE RECORD OF DISCUSSIONS
BETWEEN THE JAPANESE PROJECT FORMULATION TEAM
AND THE AUTHORITIES CONCERNED
OF HIS MAJESTY'S GOVERNMENT OF NEPAL
ON THE JAPANESE TECHNICAL COOPERATION
FOR THE JANAKPUR ZONE AGRICULTURAL
DEVELOPMENT PROJECT

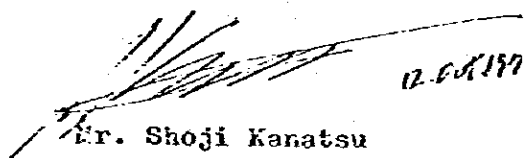
The Japanese Project Formulation Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as JICA) and headed by Mr. Shoji Kanatsu, Director, Department of Agricultural Development Cooperation, JICA, visited the Kingdom of Nepal from October 8, 1979 to October 15, 1979 for the purpose of working out the details of the technical cooperation programme concerning the Janakpur Zone Agricultural Development Project in the Kingdom of Nepal.


During its stay in the Kingdom of Nepal, the Team exchanged views and had a series of discussions with the Authorities concerned of His Majesty's Government of Nepal in respect of the desirable measures to be taken by both Governments for the successful implementation of the above-mentioned Project.

As a result of the discussions, the Team and the authorities concerned of His Majesty's Government of Nepal considered that the Janakpur Zone Agricultural Development Project under the Agreement between the Government of Japan and His Majesty's Government of Nepal signed at Kathmandu on November 7, 1974 has achieved

its expected results and accordingly agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Kathmandu, October 12, 1979


12.10.1979
Mr. Shoji Kanatsu
Leader,
Japanese Project Formulation
Team,
Japan International Cooperation
Agency,
Japan


B. N. S. Nepali
12.10.79.
Mr. S.B. Nepali
Director General,
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His Majesty's Government
of Nepal

THE ATTACHED DOCUMENT

I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of Japan and His Majesty's Government of Nepal will cooperate with each other in implementing the Janakpur Zone Agricultural Development Project (hereinafter referred to as "the Project") for the purpose of increasing farmers' income and improving their standard of living through food production in Janakpur Zone.

2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

II. DISPATCH OF JAPANESE EXPERTS

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense services of the Japanese experts as listed in Annex II through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. The Japanese experts referred to in 1 above and their families will be granted in the Kingdom of Nepal the privileges, exemptions and benefits including the following no less favourable than those accorded to experts of third countries working in the Kingdom of Nepal under the Colombo Plan Technical Cooperation Scheme:

(1) Identification card

Identification cards of the Japanese experts and their families, which will be issued by His Majesty's Government of Nepal, should contain an assurance that the Nepalese authorities concerned will assist them in performing their official functions.

(2) Road cess

The Japanese experts are exempted from road cess imposed in the Kingdom of Nepal.

III. PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense such machinery, equipment and other materials necessary for the implementation of the Project as listed in Annex III, through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. The articles referred to in 1. above will become the property of His Majesty's Government of Nepal upon being delivered c.i.f. to the Nepalese authorities concerned at the Kathmandu Airport and/or at the place on the Nepalese border and will be utilized exclusively for the implementation of the Project in consultation with the Japanese experts referred to in Annex II.

IV. TRAINING OF NEPALESE PERSONNEL IN JAPAN

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to receive at its own expense the Nepalese personnel connected with the Project for technical training in Japan through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. His Majesty's Government of Nepal will take necessary measures to ensure that the knowledge and experience acquired by the Nepalese personnel from technical training in Japan will be utilized effectively for the implementation of the Project.

V. MEASURES TO BE TAKEN BY HIS MAJESTY'S GOVERNMENT OF NEPAL

1. In accordance with the laws and regulations in force in the Kingdom of Nepal, His Majesty's Government of Nepal will take necessary measures to provide at its own expense:

(1) Services of the Nepalese counterpart personnel, administrative personnel and other personnel as listed in Annex IV;

(2) Land, buildings and facilities as listed in Annex V;

(3) Supply or replacement of machinery, equipment, instrument, vehicles, tools, spare parts and any other

materials necessary for the implementation of the Project other than those provided through JICA under III above;

(4) Transportation facilities and travel allowance for the Japanese experts for the official travel within the Kingdom of Nepal;

(5) Suitably furnished accommodations for the Japanese experts and their families.

2. In accordance with the laws and regulations in force in the Kingdom of Nepal, His Majesty's Government of Nepal will take necessary measures to meet:

(1) Expenses necessary for the transportation within the Kingdom of Nepal of the articles referred to in III above as well as for the installation, operation and maintenance thereof;

(2) Customs duties, internal taxes and any other charges, imposed in the Kingdom of Nepal on the articles referred to in III above;

(3) All running expenses necessary for the implementation of the Project.

VI. ADMINISTRATION OF THE PROJECT

1. The Project will be implemented in accordance with an operational work plan to be formulated annually by the Janakpur Zone Agricultural Development Board (hereinafter referred to as "the JADB") established on September 18, 1972 (2nd Aswin, 2029) by an order under

the Nepalese Development Board Act 1956 (B.S. 2013) for the successful operation of the Project. The operational work plan so formulated shall be approved by the authorities concerned of the two Governments.

2. The JADB will be responsible for the implementation of the Project and will meet when necessity arises. The Japanese Project Manager referred to in Annex II will serve as an advisor to the JADB for the purposes of the Project. An official of the Embassy of Japan in the Kingdom of Nepal and the Resident Representative of JICA may attend the meetings of the JADB as observers.

3. The Japanese experts and Nepalese counterpart officials will work together on technical matters for the implementation of the Project and the Nepalese Project Manager will be responsible for the administration of the Project.

4. For the successful implementation of the Project, there will be a joint committee comprising of the Japanese experts and Nepalese counterpart officials. The joint committee will meet regularly at the Project sites and will receive general instructions from the JADB.

VII. CLAIMS AGAINST JAPANESE EXPERTS

His Majesty's Government of Nepal undertakes to bear claims, if any arises, against the Japanese experts engaged in the Project resulting from, occurring in the

course of, or otherwise connected with the discharge of their official functions in the Kingdom of Nepal except for those arising from the willful misconduct or gross negligence of the Japanese experts.

VIII. MUTUAL CONSULTATION

There will be mutual consultation between the two Governments on any major issues arising from, or in connection with this Attached Document.

IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be three (3) years from November 7, 1979.

ANNEX I

MASTER PLAN

1. Objectives

The Project is designed to increase farmers' income and to improve their standard of living in the Project area through diffusion of improved farming techniques suitable for local conditions.

In the Project following activities will be carried out to attain the above objectives in an effective manner.

2. Activities

- (1) Promotion of agricultural extension
 - (i) Training of extension officers, workers and leading farmers;
 - (ii) Planning of extension services;
 - (iii) Reinforcement for extension organizations including Agricultural Development Offices.
- (2) Improvement of extension materials
 - (i) Introduction of improved varieties and multiplication and distribution to farmers;
 - (ii) Practical experiment and demonstration of extension materials;
 - (iii) Improvement of traditional farming practices.
- (3) Introduction of irrigated farming techniques
 - (i) Establishment and diffusion of suitable water management techniques at farm-level;
 - (ii) Fostering of water management organizations.

ANNEX II

JAPANESE EXPERTS

<u>Category</u>	<u>Field</u>
(1) Project Manager	
(2) Experts	Agricultural extension planning
	Agronomy
	Irrigation
	Faru machinery
(3) Liaison officer	

Note : (1) Some additional short-term experts in the fields mentioned above as well as others may be dispatched when necessary.

(2) Agronomy mentioned above includes horticulture.

ANNEX III

LIST OF THE ARTICLES

- (1) Construction machinery and equipment and their spare parts
- (2) Agricultural machinery and implements and their spare parts
- (3) Pesticides and fertilizers
- (4) Machine tools for repair work
- (5) Tools and implements for testing work
- (6) Vehicles
- (7) Teaching materials including audio-visual aids
- (8) Other necessary equipment, tools and materials to be mutually agreed upon.

ANNEX IV

LIST OF NEPALESE STAFF

<u>Category</u>	<u>Field</u>
(1) Project Manager	
(2) Counterpart officials	Agricultural extension planning
	Agronomy
	Horticulture
	Irrigation
	Farm machinery
(3) Liaison officer	
(4) Clerical and service personnel	
(5) Labourers	

Note: At least one Nepalese counterpart official will be provided for each Japanese expert mentioned in Annex II, category (2).

ANNEX V

LIST OF LAND, BUILDINGS AND FACILITIES

1. Land

- (i) for the Project Centre and housing
- (ii) for Hardinath Agriculture Farm
- (iii) for the Centre in Sindhulinadi
- (iv) for the Horticulture Farm, Janakpur

2. Buildings

- (i) Project Centre
 - (a) Office
 - (b) Housing
 - (c) Training facilities
 - (d) Workshop and other necessary facilities
- (ii) Hardinath Agriculture Farm
 - (a) Office
 - (b) Shed for machinery and equipment
 - (c) Store-house for farming materials
 - (d) Housing and dormitory
 - (e) Other necessary facilities
- (iii) Centre in Sindhulinadi
 - (a) Office
 - (b) Housing
 - (c) Other necessary facilities
- (iv) Horticulture Farm, Janakpur
 - (a) Office
 - (b) Housing
 - (c) Irrigation and drainage facilities
- (v) Agricultural Development Offices (5)

**AGREEMENT BETWEEN THE GOVERNMENT OF
JAPAN AND HIS MAJESTY'S GOVERNMENT OF
NEPAL CONCERNING TECHNICAL COOPERATION
FOR THE JANAKPUR ZONE AGRICULTURAL
DEVELOPMENT PROJECT**

Signed at Kathmandu, November 7, 1974

Entered into force, November 7, 1974

Décembre 1974

Ministère des Affaires Etrangères

- (i) その他必要な施設
- (ii) ハルデイクナート農場
- (iii) 事務所
- (iv) 機械及び設備用倉庫
- (v) 農業資材用倉庫
- (vi) 宿舍及び客宿舍
- (vii) その他必要な施設
- (viii) ラブテ、模範農場
- (ix) 事務所
- (x) 機械及び設備用倉庫
- (xi) 農業資材用倉庫
- (xii) 宿舍
- (xiii) 作業場及び車庫
- (xiv) その他必要な施設
- (xv) カトマンス連絡事務所

- (e) Other necessary facilities
- (ii) Hardwick Agriculture Farm
- (a) Office
- (b) Shed for machinery and equipment
- (c) Store-house for farming materials
- (d) Living quarters and dormitory
- (e) Other necessary facilities
- (iii) Rapti Model Farm
- (a) Office
- (b) Shed for Machinery and equipment
- (c) Store-house for farming materials
- (d) Living quarters
- (e) Workshop and passage
- (f) Other necessary facilities
- (iv) Kathmandu Liaison office

(参考)
この協定は、ネパールのジャナカプール農業開発計画の実施に対し日本政府が専門家及び設備、資材等を供与することによって協力することを定めたものである。

ネパールとのジャナカプール農業開発計画のための技術協力協定

ネパールとのジャナカプール農業開発計画のための技術協力協定

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- (3) 連絡官
- (4) 事務員及び乗務員
- (5) 労働者

注 付表Ⅰの専門家の種別(3)にいう日本人専門家各一名に對し、少くとも一名のネパール朝専門家が提供される。

付表Ⅳ ネパール王國政府が提供する土地及び建物

- (1) 土地
 - (i) ジャナカプールの計画事務所及び住宅用 十五 (クタール)
 - (ii) ハルディナート農場用 四十二 (クタール)
 - (iii) ラブティ模範農場用 七・六 (クタール)
- (2) 建物
 - (i) 計画センター
 - (ii) 事務所
 - (iii) 住宅
 - (iv) 実験室
 - (v) 作業場及び車庫

付表Ⅳがネパール王國政府に提供される土地及び建物

- (3) Liaison officer
- (4) Clerical and service personnel
- (5) Labourers

Note: At least one Nepalese counterpart official will be provided for each Japanese expert mentioned in Annex II, category (3).

Land and buildings to be provided by His Majesty's Government of Nepal

Annex VI

- (1) Land
 - (i) for the Project office and housing accommodations in Janakpur zone 15 ha.
 - (ii) for Hardinath Agriculture Farm 42 ha.
 - (iii) for Rapti Model Farm 7.6 ha.
- (2) Buildings
 - (a) Project Centre
 - (b) Office
 - (c) Housing accommodations
 - (d) Laboratory
 - (e) Workshop and Garage

付表Ⅴ
ネパール人専門家及びその他の職員の名簿
の並びに専門職の月別表

- (2) 農業機械、農具及びそれらの予備部品
- (3) 殺虫剤及び肥料
- (4) 修理作業用機械工具
- (5) 検査用工具及び器具
- (6) 公共用設備及び資材
- (7) 車両
- (8) 視覚教材を含む教材
- (9) 相互の同意によるその他の必要な設備、工具及び資材

付表Ⅴ ネパール人専門家及びその他の職員の名簿

- (1) 専門家の種別
- (2) 専門家

- 分野
- 農業技術
- 農場経営
- 灌漑技術
- 農業機械
- 土壌及び肥料
- 農業普及
- 農業組織

ネパールとのジャナカプール農業開発計画のための技術協力協定

- (2) Agricultural machinery and implements and their spare parts
- (3) Pesticides and fertilizers
- (4) Machine tools for repair work
- (5) Tools and implements for testing work
- (6) Equipment and materials for public utilities
- (7) Vehicles
- (8) Teaching materials including audio-visual aids
- (9) Other necessary equipment, tools and materials to be mutually agreed upon.

Annex V

List of Nepalese counterpart officials and other personnel

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- (1) Project Manager Agronomy
- (2) Counterpart officials Farm management
- Triridation engineering
- Farm machinery
- Soil and fertilizer
- Agricultural extension
- Farmer's organization

また、日本人専門家及びその家族は、個人の必要量の範囲内で医薬品、食料品、紙巻煙草、飲料（アルコール類を含む）及びその他の日常生活品を無税で輸入することができる。

(4) 同の規定にかかわらず、ネパール王国政府が、ネパールに派遣される外国及び国際機関の専門家に一般的にかつ等しく適用される関税に關する法令を制定するときは、これらの法令は、日本人専門家及びその家族に適用される。

(5) 医療上の便宜
日本人専門家及びその家族に対して、無料の医療及び歯科診療の便宜が政府病院又は診療所において提供される。

(6) 休暇
日本人専門家に対し、一年に十四日間の結婚休暇及び一年に六週間の年次休暇が認められる。

付表 N 日本国政府が供与する物品の表

(1) 建設用機械、教壇及びそれらの予備部品

Also, the Japanese experts and their families will be permitted to import duty free within the limits of their personal requirements, medicines, foodstuffs, cigarettes, beverage including liquor, and other articles of daily use.

(b) Notwithstanding the provisions of (a) above, in case His Majesty's Government of Nepal enacts laws and regulations on such duties and taxes to be applied generally and equally to the experts or foreign countries and of international organizations dispatched to Nepal, these laws and regulations will apply to the Japanese experts and their families.

(5) Medical facilities
Free medical and dental services and facilities for the Japanese experts and their families will be provided at governmental hospitals and health centres.

(6) Leave
Fourteen days' casual leave per annum and 6 weeks' vacation leave per annum will be permitted for the Japanese experts.

Annex IV

List of the goods to be provided by the Government of Japan

(1) Construction machinery and equipment and their spare parts

付表II 特権、免除及び便宜

- (1) 身分証明書
ネパール王国政府が発行する日本人専門家及びその家族の身分証明書には、ネパール関係当局は、日本人専門家が職務を遂行するに当たつて援助を与える旨の保証を付するものとする。
- (2) 所得税
日本人専門家及びその家族は、海外から送金される生活手当に対して又はこれに關連して課される所得税及びその他の課税金を免除される。
- (3) 道路税
日本人専門家は、ネパール国内で課される道路税を免除される。
- (4) 関税
(a) 日本人専門家及びその家族は、自己の使用に供するおめの物品を無税で、かつ、担保の提供なしにその滞在期間中輸入することができる。これらの物品の中には、一家族につき、自動車一台、冷蔵庫一台、食品冷凍庫一台、ラジオ一台、レコードプレーヤー一台、テープレコーダー一台、テレビ一台、小型電気器具並びに二人につき冷蔵庫一台、写真及び映画撮影器具一式並びにそれらの予備部品が含まれる。

ネパールとのジャナカプール果農産物貿易計画のための技術協力協定

Annex III

Privileges, exemptions and benefits

- (1) Identification card
Identification cards of the Japanese experts and their families, which will be issued by His Majesty's Government of Nepal, should contain an assurance that the Nepalese authorities concerned will assist them in performing their official functions.
- (2) Income tax
The Japanese experts and their families are exempted from income tax and charges of any kind imposed on or in connection with the living allowance remitted from abroad.
- (3) Road cess
The Japanese experts are exempted from road cess imposed in Nepal.
- (4) Customs duty
(a) The Japanese experts and their families will be permitted to import for the duration of their stay, free from duties and taxes and without providing security, articles for their personal use; such articles should include for each house-hold one motor vehicle, one refrigerator, one deep-freezer, one radio, one record-player, one tape-recorder, one television set, minor electrical appliances as well as for each person one air conditioner and one set of photographic and other equipment and their spare parts.

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付表 I
日本人専門家の表

ネパールのジャナカプール農業開発計画のための技術協力協定

次の活動がこの小計画に基づき実施される。

(a) 食糧作物栽培法の改良と園芸、畜産及び商品作物の導入を目的とするネパール人普及作業員と日本人専門家による巡回指導活動の実施

(b) ネパール王国政府の長期総合開発計画に基づく地域農業開発計画の作成

付表 I 日本人専門家の表

専門家の種別	分野
(1) 上級顧問	農業技術
(2) 理事長	農場経営
(3) 専門家	灌漑技術
	農業機械
	土壌及び肥料
	農業普及
	農民組織
(4) 連絡官	

The following activities will be carried out under this sub-project:

(a) Implementation of a round trip guidance activities by Nepalese extension workers and Japanese experts for the improvement of cultivation method of food crop and introduction of horticulture, animal husbandry and commercial crops;

(b) Formation of a regional agricultural development programme under the long-term comprehensive development plan of His Majesty's Government of Nepal.

Annex II

List of Japanese Experts

Category	Field
(1) Senior Advisor	
(2) Project Manager	
(3) Experts	Agronomy
	Farm management
	Irrigation engineering
	Farm machinery
	Soil and fertilizer
	Agricultural extension
	Farmer's organization
(4) Liaison officer	

給水管埋作業の改良を含む農業技術の指導

- (b) 伝統的農法の改良と普及啓蒙での農民に受け入れ可能な改良農業技術の指導
- (c) 普及啓蒙での農民組織の形成及び効果的な農業技術のための活動に関する指導

注 (b)にいう四百二十ヘクタールの本田は、北端はクムラウル村とハイワ村とを結ぶ道、東側はジャナカプーリ—マヘンドラ・ナガル街道、西側はドクドマチ川、南側はアクレスワ村に至る村道を境界とする地域である。

樹小計画 ラブテ、模範農場

ナラヤニ果のラブテ、模範農場は、ジャナカプーリ果の山間部の農業開発活動に寄与する。

- (a) この農場の機能は、次のとおりとする。
 - (b) 水稲、小麦及びその他の乾作物の改良農業技術の導入及び指示
 - (c) 普及活動用の各農作物の改良種苗の増殖及び配布
 - (d) 農業開発事務所との協力に基づく農場周辺での改良農業技術の普及
- 樹小計画 D ジ・ナカプーリ果の山間部での普及及びその他の活動

ネパールとのジャナカプーリ果農業開発計画のための技術協力協定

- (b) Improvement of traditional farming practices and guidance on improved farming techniques acceptable to farmers at extension plots;
- (c) Guidance on the formation of farmers' organizations and their activities for effective farming techniques at extension plots.

Note: The 420 ha. paddy field area referred to in (a) above is the area bordered on the north by the road connecting Kumaul village and Harawa village, on the east by Jankpur-Bahadra Nagar Highway, on the west by the Dudhmati road, and on the south by the village road to Agreewa village.

(iii) Sub-project III. Rapti Model Farm
Rapti Model Farm in Narayani Zone will contribute to the agricultural development activities in Killy area in Jankpur zone.

- The functions of the Farm are:
- (a) Introduction and demonstration of improved farming techniques of paddy, wheat and other upland crops;
 - (b) Multiplication and distribution of improved seeds and seedlings of various crops for extension work;
 - (c) Extension of improved farming techniques in the vicinity of the farm in cooperation with the Agricultural development office.
- (iv) Sub-project IV. Extension and other activities in Killy area in Jankpur zone

付表 I

付表 I 計画の概要

計画は、ダースーシ、区ナクタジー村に建設される本部として機能する計画センター及び次の四つの小計画から成る。

(A) 小計画 I ハルディ、ナート農場

ジャナカプールのハルディ、ナート農場は、高度に能率的な普及活動と訓練を促進するためのトライ平野における拠点としての役割を果たす。

この農場の機能は、次のとおりとする。

(a) 水稲、小麦及びその他の畑作物の改良農業技術の導入及び演示

(b) 水稲、小麦及びその他の畑作物の改良農業技術の普及のための試験

(c) 普及職員、普及作業員及び指導的農民に対する訓練

(B) 小計画 II ジャナカプールのトライ地区における普及活動

次の活動がこの小計画に基づきトライ平野において実施される。

(a) 四百二十ヘクタールの水田における井戸灌漑方式の導入の形をとる農業インフラストラクチャーの改良と未

小計画 I
ジャナカ
プールの
地区にお
ける普及
活動

小計画 I
ハルディ
ナート農
場

The Outline of the Project

Annex I

The Project consists of the Project Centre constructed in Nakataji Panchayat, Dhanuwa district, which will function as the headquarters, and the following four sub-projects.

(1) Sub-project I. Haridih Agriculture Farm

Haridih Agriculture Farm in Janakpur Zone plays a role of a key base in Terai plain for the promotion of highly efficient extension activities and training.

The functions of the Farm are:

(a) Introduction and demonstration of improved farming techniques of paddy, wheat and other upland crops;

(b) Experiments for extension of improved farming techniques of paddy, wheat and other upland crops;

(c) Training of extension officers, extension workers and leading farmers;

(d) Multiplication and distribution of improved seeds and seedlings of various crops for extension work.

(ii) Sub-project II. Extension activities in Terai area in Janakpur Zone

The following activities will be carried out in Terai plain under this sub-project:

(a) Guidance on farming techniques including the improvement of the agricultural infrastructure

協 議

第十條
両政府は、この協定から又はそれに関連して生ずることがあ
るいかなる事項についても、相互に協議する。

第十一條

この協定は、署名の日に効力を生じ、五年の期間効力を有す
る。もつとも、いずれの政府も、他方の政府に対していつでも
この協定を終了させる意思を通告することができ、その場合に
は、この協定は、そのような通告が行われた後六箇月で終了す
る。

効力発生
期及
終了

末
文

千九百七十四年十一月七日にカトマンズで、英語により本
書二通を作成した。

日本国政府のため
日本国大使 小林春高

ネパール王国政府のため
大臣次官 バラト・バハードゥル・ブラダン

ネパールとのジャナカプール農業開発計画のための技術協力協定

Article X
The two Governments will consult each other in
respect of any matter that may arise from or in
connection with this Agreement.

Article XI
This Agreement will come into force on the date
of signature and remain in force for a period of
five years.
However, either Government may at any time
give notice to the other Government of its
intention to terminate the Agreement, in which
case the Agreement will terminate six months
after such notice has been given.

Done in duplicate in English at Kathmandu on
the 7th day of November, 1974.

For the Government of Japan:
(Signed) Haruhisa Kobayashi
Ambassador of Japan

For His Majesty's Government of Nepal:
(Signed) Bharat Bahadur Pradhan
Secretary
Ministry of Finance

- (2) ネパール王國政府は、付表Bに掲げる物品につきネパール国内で課されることがある関税、内國税及びその他の課税金を免除する。
- (3) ネパール王國政府は、第一条(2)にいう委員会と農業改良公社及び農業開発銀行との密接な協力を確保するために必要な措置をとる。

第九条

計画の実地、運営における責任及び合同委員会の設立

- (1) 第一条(2)にいう委員会の監督及び指導の下に、日本人理事長とネパール人理事長は、計画の実地に關する技術上の問題について責任を負い、また、ネパール人理事長は、計画の運営についても責任を負う。
- (2) 委員会は、計画の実地に責任を負い、必要に応じて会合する。付表Iにいう日本人上級顧問及び日本人理事長は、計画の運用上委員会の顧問となる。在ネパール日本國大使館員、又は、大使館によつて指名されたその他適當な者一名は、委員会の会議にオブザーバーとして出席することができる。
- (3) 計画の実地を成功させるため、日本人専門家及びネパール人専門家で構成される合同委員会が設立される。合同委員会は、計画の所在地で定期的に会合し、また委員会から一時的指示を受ける。

(2) His Majesty's Government of Nepal will exempt customs duties, internal taxes and any other charges, if any, imposed in Nepal in respect of the goods as listed in Annex IV.

(3) His Majesty's Government of Nepal will take necessary measures to ensure close cooperation of the Agriculture Marketing Corporation and the Agriculture Development Bank with the JADB referred to in Article I, paragraph (2).

Article IX

(1) Under the supervision and direction of the JADB referred to in Article I, paragraph (2), the Japanese Project Manager and the Nepalese Project Manager will be responsible for technical matters pertaining to the implementation of the Project and the Nepalese Project Manager will also be responsible for the administration of the Project.

(2) The JADB will be responsible for the implementation of the Project and will meet when necessary with the Japanese Senior Advisor and the Japanese Project Manager referred to in Annex II which will serve as advisors to the JADB for the purpose of the Project. An official of the Embassy of Japan in Nepal or any other appropriate person designated by the Embassy may attend the meetings of the JADB as an observer.

(3) For the successful implementation of the Project, there will be established a joint committee comprising of the Japanese experts and Nepalese counterpart officials. The joint committee will meet regularly at the Project area and will receive general instructions from the JADB.

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(1) Nepalese Government, in carrying out the project, shall bear the cost of the recruitment of Nepalese counterpart officials and other personnel as listed in Annex V and to provide at its own expense the services of such counterpart officials and personnel.

(2) His Majesty's Government of Nepal will take necessary measures to provide at its own expense:

(a) land and buildings as listed in Annex VI as well as incidental facilities;

(b) supply or replacement of equipment, machinery, implements, vehicles, tools, their spare parts and any other materials necessary for the implementation of the project other than those provided by the Government of Japan under Article III, paragraph (1);

(c) housing accommodations for the Japanese experts and facilities for their official travels within Nepal.

Article VIII

(1) His Majesty's Government of Nepal will take necessary measures to meet:

(a) expenses necessary for construction works of the Project;

(b) expenses necessary for the transportation of the goods as listed in Annex IV within Nepal as well as for the installation, operation and maintenance thereof;

(c) all running expenses necessary for the implementation of the Project.

ネパールとのジャナカプーリ渠農業開発計画のための技術協力協定

ネパールとのジャナカプール農業開発計画のための技術協力協定

8

人理事長は、(1)及び(2)の規定の適用について緊密に協議するものとする。

第五条

(1) 日本国政府は、日本国において施行されている法令に従い、コロンボ計画技術協力計画に基づく通常の手段によつて、計画に携わるネパール人職員を技術訓練又は視察のために日本国に受け入れるため必要な措置をとる。

(2) ネパール王国政府は、(1)にいうネパール人職員が日本国における技術訓練により得た知識及び経験が、計画の実施のために効果的に使用されることを確保するため必要な措置をとる。

第六条

ネパール王国政府は、計画に携わる日本人専門家のネパールにおける職務の遂行に起因し、その遂行中に発生し、又はその他の遂行に関連する日本人専門家に対する請求が生じた場合には、その請求に關する責任を負うことを約束する。ただし、日本人専門家の故意又は重大な過失から生ずる責任については、この限りでない。

第七条

Between the Japanese Project Manager referred to in Annex III and the Nepalese Project Manager referred to in Annex V as regards their application.

Article V

(1) In accordance with laws and regulations in force in Japan, the Government of Japan will take necessary measures to receive Nepalese officials associated with the Project for technical training or for observation tour in Japan through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

(2) His Majesty's Government of Nepal will take necessary measures to ensure that the knowledge and experience acquired by the Nepalese officials referred to in paragraph (1) above through technical training in Japan will be utilized effectively for the implementation of the Project.

Article VI

His Majesty's Government of Nepal undertakes to bear claims, if any arises, against the Japanese experts engaged in the project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in Nepal, except for those claims arising from the willful misconducts or from negligence of the Japanese experts.

Article VII

日本人専門家に対する請求の責任

ネパール人の職員

供与する
設備等

実施に必要な設備、機械、器具、車馬、工具及びその他の資材であつて、付表Ⅱに掲げるものを自己の負担において供与するため必要な措置をとる。

(2) (1)にいう物品は、カトマンズ空港又はネパール国境に於てO. I. T. 建ててネパール王国政府の供体当局に引き渡された時に、ネパール王国政府の財産となる。

(3) (1)にいう物品は、付表Ⅱにいう日本人理事長と協議の上、計画の実施のためにのみ使用される。

(4) 準備協力期間中に、日本政府により供与された物品は、計画の実施のためにのみ使用される。

第四条

供与し
た貨物
又は機
材の返
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(1) 第三条(1)にいう物品の一部は、両政府の供体当局間で相互に協議した後決定される地域内の農民に適正な料金を貸し付けることができ、かつ、肥料、殺虫剤のような消費物資の一部は同地域内の農民に適正な価格で強渡することができる。

(2) (1)にいう貸付け又は強渡から生ずる収益は、計画の実施のためにのみ使用される。

(3) (1)及び(2)の規定は、第一条(2)にいう作業計画に従つて適用される。また、付表Ⅱにいう日本人理事長と付表Ⅴにいうネパール

ネパールとのジャナカプール農業開発計画のための技術協力協定

force in Japan, the Government of Japan will take necessary measures to provide at its own expense such equipment, machinery, implements, vehicles, tools and other materials required for the implementation of the Project as listed in Annex IV.

(2) The goods referred to in paragraph (1) above will become the property of His Majesty's Government of Nepal upon being delivered c.i.f. at the Kathmandu Airport or at the place on the Nepalese border to the authorities concerned of His Majesty's Government of Nepal.

(3) The goods referred to in paragraph (1) above will be utilized exclusively for the implementation of the Project in consultation with the Japanese Project Manager referred to in Annex II.

(4) The goods provided by the Government of Japan during the period of preparatory cooperation for the Project will be utilized exclusively for the implementation of the Project.

Article IV

(1) A part of the goods referred to in Article III, paragraph (1) may be rented at reasonable rates to farmers in areas to be decided after mutual consultation between the authorities concerned of the two Governments and a part of consumable items such as fertilizers and pesticides may also be transferred at reasonable prices to the farmers in the above-mentioned areas.

(2) The proceeds from such rentals or transfers will be used exclusively for the implementation of the Project.

(3) The provisions of paragraphs (1) and (2) above will be applied in accordance with the operational work plan referred to in Article I, paragraph (2) above, and there will be close consultation

ネパールのとジャナカプール県農業開発計画のための技術協力協定

される。作成された作業計画は、両政府の関係当局によつて承認されるものとする。

第二集

日本人
専門家
の
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び
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- (1) 日本国政府は、日本国において施行されている法令に従い、付表Iに掲げる日本人専門家の任務を自己の負担において供与するため必要な措置をとる。
- (2) コロンボ計画技術協力計画に基づく自営の手段によつて、短期の専門家が必要に際して更に追加派遣されることがある。
- (3) (1)及び(2)にいう日本人専門家並びにその家族は、ネパールに於いて付表Iに掲げる特権、免状及び便宜を与えられ、かつ、同様の任務を遂行している第三国又は国際連合のような国際機関の専門家に与えられるものよりも不利でない特権、免状及び便宜を与えられる。
- (4) 千九百七十年二月二日に日本国政府とネパール王国政府との間で交された条約に基づいて派遣される日本青年海外協力隊も、計画に参加することができる。このために、上記条約の1にいう計画が両政府の関係当局で別個に合意される。

第三条

日本国政府は、日本国に施行されている法令に従い、計画の

successful operation of the Project. The operational work plan so formulated shall be approved by the authorities concerned of the two Governments.

Article II

- (1) In accordance with laws and regulations in force in Japan, the Government of Japan will take necessary measures to provide at its own expense the services of Japanese experts as listed in Annex II.
- (2) Additional experts on short term assignment may also be dispatched, as necessary arises, through the normal procedures under the Colombo Plan Technical Cooperation Scheme.
- (3) The Japanese experts mentioned in paragraph (1) and (2) above and their families will be granted in Nepal, privileges, exemptions and benefits as listed in Annex III and will be granted privileges, exemptions and benefits no less favourable than those granted to experts of third countries or of international organizations such as the United Nations performing similar missions.
- (4) Japan Overseas Cooperation Volunteers to be sent under the Notes exchanged between the Government of Japan and His Majesty's Government of Nepal on February 2, 1970 may participate in the Project. For this purpose the schedule referred to in 1 of the said Notes will be separately agreed upon by the authorities concerned of the two Governments.

Article III

- (1) In accordance with laws and regulations in

(訳文)

ジ・ナカプー爾農業開発計画のための技術協力に関する
日本国政府とネパール王國政府との間の協定

日本国政府及びネパール王國政府は、友誼の農業の分野における経済及び技術協力を推進し、それによつて両國間に存在する友好関係を一層強化することを希望して、次のとおり協定した。

第一条

(1) 両政府は、農民の所得の増加及び生活水準の向上を目的として、ジ・ナカプー爾農業開発計画（以下「計画」という。）と呼ばれるネパールのジ・ナカプー爾とナラヤニ農のラプテ、慘状農場の農業開発計画を相互に協力して実施する。計画の委員は、付表Iに定められている。ただし、この計画の委員は、全体としての計画の円滑かつ効果的な実施を確保するため、両政府の関係当局間で合意により修正することができる。

(2) 計画は、千九百五十六年（ネパール暦二千十三年）のネパール開発委員会法に基づく命令により千九百七十二年九月十八日（ネパール暦二千二十九年アスクイシ月二日）に設立されたジ・ナカプー爾農業開発委員会（以下「委員会」という。）が毎年計画の作業を成功させるため作成する作業計画に従つて実施

ネパールとのジ・ナカプー爾農業開発計画のための技術協力協定

AGREEMENT BETWEEN THE GOVERNMENT OF JAPAN
AND HIS MAJESTY'S GOVERNMENT OF
NEPAL CONCERNING TECHNICAL
COOPERATION FOR THE JANKAPUR ZONE
AGRICULTURAL DEVELOPMENT PROJECT

The Government of Japan and His Majesty's Government of Nepal, desiring to advance the economic and technical cooperation in the field of agriculture between the two countries and thereby to strengthen further the friendly relations existing between the two countries, have agreed as follows:

Article I

(1) The two Governments will cooperate with each other in implementing an agricultural development project in Jankapur zone and at the Rapti Roder Farm in Narayani Zone, Nepal, to be called the Jankapur Zone Agricultural Development Project (hereinafter referred to as "the Project") for the purpose of increasing farmers' income and improving their standard of living. The outline of the Project will be as specified in Annex I, provided that it may be modified by agreement between the authorities concerned of the two Governments in order to secure smooth and effective implementation of the Project as a whole.

(2) The Project will be implemented in accordance with an operational work plan to be formulated annually by the Jankapur Zone Agricultural Development Board (hereinafter referred to as "the JADB") established on September 18, 1972 (2nd Aashwin, 2029) by an order under the Nepalese Development Board Act 1956 (S.S. 2013) for the

	ネパールとのジャナカプーラ農業開発計画のための技術協力協定	
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◎ ジャナカプール県農業開発計画のための技術協力に関する
 日本国政府とネパール王国政府との間の協定

(略称) ネパールとのジャナカプール県農業開発計画のための技術協力協定

昭和四十九年十一月七日 カトマンズで署名

昭和四十九年十一月七日 効力発生

昭和四十九年十一月三十日 告示

(外務省告示第二二二号)

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(備考) 略称、署名その他の年月日、目次、覆外の見出し、
往書及び末尾の参考は執務上の便宜に資するため、編集に
あたり作成したものである。なお、署名は、署名者の氏
名を記載したものであつて、署名本書等の原本における署
名振りとは必ずしも一致していない。

条約集 (分冊)

(2392)

外務省条約局

昭和四十九年十二月編纂

ジャナカプール県農業開発計画のための技術協力に関する
日本国政府とネパール王国政府との間の協定

略称—ネパールとのジャナカプール県農業開発計画
のための技術協力協定

昭和四十九年(一九七四年)十一月七日にカトマンズで署名
同 年(同 年)十一月七日に効力発生

(出所—署名本書)

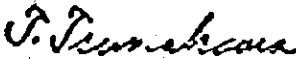
15. フィリピン・カガヤン農業開発計画・覚書

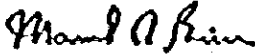
THE MEMORANDUM OF AGREEMENT BETWEEN THE JAPAN
INTERNATIONAL COOPERATION AGENCY AND THE CAGAYAN
INTEGRATED AGRICULTURAL DEVELOPMENT PROJECT OFFICE
OF THE GOVERNMENT OF THE REPUBLIC OF THE PHILIPPINES
ON THE JAPANESE TECHNICAL COOPERATION FOR THE
CAGAYAN AGRICULTURAL PILOT CENTER PROJECT

The Japan International Cooperation Agency (hereinafter referred to as "the JICA") held series of discussions through its Manila Office, represented by Mr. Tadakazu Tsunakawa, with the Cagayan Integrated Agricultural Development Project Office (hereinafter referred to as "the CIADPO") of the Republic of the Philippines, represented by Lt. Manuel A. Briones, in respect of the desirable measures to be taken by the Government of Japan and the Government of the Republic of the Philippines for the successful implementation of the Cagayan Agricultural Pilot Center Project to be executed in order to support the Cagayan Integrated Agricultural Development Project.

As a result of said discussions, the JICA and the CIADPO have agreed to recommend to their respective Governments the adoption of the measures referred to in the attached Implementing Arrangements which is made an integral part of this Memorandum of Agreement and which is to be executed by the said two implementing agencies.

Done in the Municipality of Iguig in the Province of Cagayan this
22nd day of February 1979.


TADAKAZU TSUNAKAWA
Resident Representative
JICA Manila Office


LT. MANUEL A. BRIONES
Officer-in-Charge
CIADPO

IMPLEMENTING ARRANGEMENTS

I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of Japan and the Government of the Republic of the Philippines will cooperate in implementing the Cagayan Agricultural Pilot Center Project (hereinafter referred to as "the Project"), in support of the efforts being made under the Cagayan Integrated Agricultural Development Project (hereinafter referred to as "the CIADP") for the purpose of promoting and accelerating the modernization and expansion of agriculture in the Province of Cagayan through the infrastructure and social development efforts of the CIADP.

2. The Project will be implemented in accordance with the Master Plan, as specified in Annex A, in coordination with other development projects included in the CIADP as well as other projects under economic and technical cooperation between the two Governments in the Province of Cagayan. An Annual Plan for the Project will be formulated on the basis of the Master Plan by the Joint Committee, as referred to in paragraph VI-2.

II. DISPATCH OF JAPANESE EXPERTS

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense services of the Japanese experts as listed in Annex B, through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. The Japanese experts referred to in paragraph 1 above and their families will be granted in the Republic of the Philippines the privileges, exemptions and benefits under the Colombo Plan Technical Cooperation Scheme, as enumerated below:

- (1) Exemption from income tax and charges of any kind imposed on or in connection with the living allowances remitted from abroad;
- (2) Exemption from customs duties, taxes, fees and other charges imposed in respect of personal and household effects of reasonable quantity which may be brought from abroad into the Republic of the Philippines, including one motor vehicle for each expert to be re-exported within six months upon the termination of their official duty;
- (3) Entitlement of same medical and health facilities enjoyed by the Philippine Government Officials; and
- (4) Suitably furnished accommodations for the Japanese experts and their families at the Project Site.

III. PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense such machinery, equipment and other materials necessary for the implementation of the Project as listed in Annex C through the

normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. The articles referred to in paragraph 1 above will become the property of the Government of the Republic of the Philippines upon being delivered c.i.f. to the CIADPO at the ports and/or airports of disembarkation, and will be utilized exclusively for the implementation of the Project in accordance with the Master Plan or the Annual Plan with due consideration of the recommendation of the Joint Committee.

IV. TRAINING OF PHILIPPINE PERSONNEL IN JAPAN

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through the JICA to receive at its own expense Philippine personnel connected with the Project for technical training or observation tour in Japan through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

2. The Government of the Republic of the Philippines will take necessary measures to ensure that the knowledge and experience acquired by the Philippine personnel from technical training in Japan will be utilized effectively for the implementation of the Project.

V. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF THE PHILIPPINES

1. In accordance with the laws and regulations in force in the Republic of the Philippines, the Government of the Republic of the Philippines will take necessary measures through the CIADPO to provide at its own expense:

- (1) Services of Philippine counterpart experts, technical and administrative personnel as listed in Annex D;
- (2) Land and buildings as listed in Annex E as well as incidental facilities thereto;
- (3) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided by the Government of Japan through JICA under paragraph III;
- (4) Transportation facilities and travel allowance for Japanese experts for their official travel within the Republic of the Philippines in accordance with the Colombo Plan Technical Cooperation Scheme.

2. In accordance with the laws and regulations in force in the Republic of the Philippines, the Government of the Republic of the Philippines will take necessary measures through the CIACPO to meet:

- (1) Expenses necessary for the construction or improvement of roads, irrigation facilities, and other facilities necessary for the implementation of the Project in and around the Agricultural Pilot Center (hereinafter referred to as "the APC") and the Leading Extension Areas (hereinafter referred to as "the LEA") as referred to in Annex A;

- (2) Expenses necessary for the transportation within the Republic of the Philippines of the articles referred to in paragraph III as well as for the installation, operation and maintenance thereof; and
- (3) All maintenance and other operating expenses necessary for the implementation of the Project.

3. In accordance with the laws and regulations in force in the Republic of the Philippines, the Government of the Republic of the Philippines will take necessary measures through the CIADPO to exempt the articles referred to in paragraph III-1 from customs duties, taxes, fees and other charges.

VI. ADMINISTRATION OF THE PROJECT

1. The Government of the Republic of the Philippines through the CIADPO as represented by the Project Director will have the authority and responsibility for the efficient and effective management and administration of the Project, and the Japanese experts will provide necessary technical guidance and advice for the implementation of the Project.

2. A Joint-Committee will be established for the successful implementation of the Project. The composition of the Joint-Committee is specified in Annex F. The Joint-Committee will meet regularly or upon the request of the Chairman of the Project Coordination Committee of the CIADPO and/or the Team Leader. The Joint-Committee may create sub-committees to deal with specific problems. The Joint-Committee will have the functions as listed in Annex G.

3. In accordance with laws and regulations in force in the Republic of the Philippines, part of the materials as referred to in paragraph III-2 may be rented out by CIADPO at reasonable rates, and part of consumable items such as fertilizers, pesticides may be transferred to farmers cooperatives or organizations in and around the Leading Extension Areas as referred to in Annex A.

4. The proceeds from such rentals or transfers will constitute as a special account for the Project, which will be used exclusively for its implementation in accordance with laws and regulations in force in the Republic of the Philippines. The annual plan for the effective utilization of the account will be formulated by the Joint-Committee as referred to in paragraph VI-2.

VII. CLAIMS AGAINST JAPANESE EXPERTS

The Government of the Republic of the Philippines shall be responsible for dealing with claims which may be brought by third parties against the Japanese experts, and shall hold them harmless in respect of claims or liabilities arising in the course of or otherwise connected with the discharge of their duties in the implementation of the Project, except when such claims or liabilities arise from the gross negligence or willful misconduct of the above-mentioned individuals. Should any question arise in connection with the foregoing both Governments shall immediately consult with each other.

viii. MUTUAL CONSULTATION

There will be mutual consultation between the two Governments for the effective implementation of these Implementing Arrangements.

ix. TERM OF COOPERATION

The duration of the technical cooperation for the Project under these Implementing Arrangements will be three (3) years from the date of signature. The JICA and the CIADPO may, by mutual agreement recommend to their respective Governments the extension of that duration.

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Annex A

The Master Plan of the Project

The objective of the Project is to contribute toward the agricultural development in the Province of Cagayan in general, and the introduction of intensive rice culture in particular, through the facilities of the Agricultural Pilot Center. The following activities shall be undertaken to support the efforts being made under the CIADP for infrastructure and social development with the loan from the Overseas Economic Cooperation Fund of Japan.

1. Agricultural Development

In order to support the CIADP Office in Tuguegarao, Cagayan which will function as the core for the integration, coordination and monitoring of progress of the related on-going and future development projects in Cagayan, the following activities shall be undertaken.

- (a) Coordination of field operations and necessary studies and continuous collections and analysis of data and information on the progress of related countryside development projects in Cagayan; and
- (b) Supportive operations to technical and/or economic cooperation and other projects such as assistance in designing of terminal irrigation and drainage facilities, soil and water management scheme and field surveys.

2. Agricultural Pilot Center (APC)

In order to supplement the package of improved agricultural technology, support farm resource requirements and increase the technical capability of

of personnel and farmers engaged in the Project, the Center shall undertake the following:

- (a) Trials, field studies and demonstrations centering on improved agricultural techniques at the farm level;
- (b) Enhance production of high quality seeds through research, training, and demonstration on seed production techniques;
- (c) Guidance and advice on post-harvest techniques on rice processing and demonstration thereof;
- (d) Guidance and advice for the purpose of strengthening the existing agricultural extension network;
- (e) Training of technical personnel and farmer leaders particularly within the Project areas;
- (f) Planning the transfer of farm inputs such as fertilizers/pesticides and agricultural chemicals and scheduling the operation, usage and maintenance of farm machineries to be rented out to farmer cooperatives and/or associations in and around the Leading Extension Areas; and
- (g) Conduct other educational, promotional, and informational services related to the transfer of packaged technology.

3. Leading Extension Areas (LEA)

The main objective of the LEA is to demonstrate improved agricultural techniques to farmers under the guidance and support from the APC. A package of improved technology will be extended to the farmers within the designated LEA where field conditions are similar to other CIADP area. Any

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potential problem identified in the LEA during the course of operations will be fed back to the APC for in-depth analysis and appropriate actions.

NOTE: Site and size of the Project

1. The APC will be located at Barrio Kinanga Norte, Iguig, Cagayan with the following facilities:
 - a. Buildings (office, incidental facilities and residence): about (4) hectares
 - b. Experimental plots: about six (6) hectares
2. The LEA will be located in Iguig (Barrios Sta. Rosa, San Lorenzo, Kinanga Norte and San Esteban) with an area of about 60 hectares, and in Alcalá (Barrios Baybayog and Jurisdicción) and Arulung (Barrios Dagayong, Jurisdicción and Baculud) with an area of about 240 hectares in total.
These areas of about 300 hectares will constitute the LEA I.
3. The site and size of the LEA II is to be established in Lower Cagayan.

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Annex B

List of Japanese Experts

<u>Category</u>	<u>Field</u>
(1) Team Leader	
(2) Experts (long-term assignment)	Agronomy Irrigation engineering Extension Agricultural machinery
(3) Liaison-Officer	

Note:

Additional experts on short term assignment in the fields mentioned above as well as in other fields may also be dispatched, as necessity arises.

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Annex C

List of Materials to be Provided by
the Government of Japan

- (1) Laboratory equipment, machinery, instruments, tools, their spare parts and other materials for Research
- (2) Agricultural machinery and implements including post-harvest equipment and their spare parts
- (3) Fertilizers, pesticides and other agricultural chemicals
- (4) Vehicles except sedan motor cars
- (5) Tools and implements for land survey
- (6) Teaching materials including audio-visual aide and mass media equipment
- (7) Technical books, pamphlets and other reference materials
- (8) Other necessary equipment and materials to be mutually agreed upon between the authorities concerned of the two Governments

Annex D

List of Philippine Experts and Other Personnel

<u>Category</u>	<u>Field</u>
(1) Project Director, CIADP	
(2) Technical Director, APC	
(3) Experts/Specialist	Agronomy Crop Protection Irrigation and Drainage Extension Farm Mechanization Soil Management
(4) Technical and Research Assistants and Aides	
(5) Clerical and Service Employees	
(6) Operators and Laborers	

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Annex E

List of Land and Buildings

- (1) Land
 - (a) Land for APC ten (10) hectares
 - (b) Pump site and right of way
for pipe line in Iguig
 - (c) Land for LEA I and LEA II
(to be selected from farmer's
owned land)
- (2) Buildings for the APC
 - (a) Office
 - (b) Laboratory and class rooms
 - (c) Store-house for farming materials
 - (d) Shed for agricultural machinery
 - (e) Workshop and garage
 - (f) Management house of experimental fields and of
fundamental seeds
 - (g) Milling house and drying floor
 - (h) Generator house
 - (i) Pump house
 - (j) Dormitory
 - (k) Living quarters
 - (l) Other necessary buildings and facilities

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Annex F

List on Members of the Joint Committee

<u>Japanese Side</u>	<u>Philippine Side</u>
(1) Team Leader	(1) Project Director, CIADP (Officer-in-Charge)
(2) Experts Agronomy Irrigation Engineer Extension Agricultural Machinery	(2) Technical Director, APC
(3) Liaison Officer	(3) Experts Agronomy Crop Protection Irrigation and Drainage Extension Farm Mechanization Soil Management
(4) Representative of JICA	(4) Representative of the Office of the Governor of Cagayan Province (5) Representative of BPI in Region II (6) Representative of BAEx in Region II (7) Representative of BS in Region II (8) Representative of NIA-CIADP

Notes:

1. As necessity arises, representative of Japanese Embassy in Manila, OECF Manila Office and other Philippine authorities involved in the implementation of the Project may join in this Joint Committee as observers.
2. BPI : Bureau of Plant Industry
BAExt : Bureau of Agricultural Extension
BS : Bureau of Soils
OECF : Overseas Economic Cooperation Fund
NIA-CIADP : National Irrigation Administration
(Irrigation Component of CIADP)

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Annex G

Functions of the Joint Committee

- a. Formulate the Annual Plan of the Project;
- b. Provide the forum for maintaining technical cooperation through technical assistance or advice;
- c. Thresh out technical problems that may arise in the course of the implementation of the Project;
- d. Conduct semi-annual review of the Project with the view of recommending measures to enhance and accelerate the implementation of the Project;
- e. Prepare periodic reports to respective Governments on the progress of the Project.

The Japanese Agricultural Survey Team headed by Executive Director Kanji Endo visited the Philippines on February 2, 1976 to formulate the mechanics of technical cooperation for the Agricultural Pilot Center Project as a part of the Cagayan Integrated Agricultural Development Project.

The Team together with its Philippine counterparts mapped out specific measures to be taken by both Governments and conducted detailed design surveys for the effective implementation of the Agricultural Pilot Center Project.

As a result of the surveys and discussions, both parties have decided that the aforementioned project should be earmarked with a two year preparatory cooperation.

In view of the foregoing considerations, the Japanese Agricultural Survey Team and the Cagayan Integrated Agricultural Development Project Survey Team shall recommend to their respective Governments the immediate implementation of the technical cooperation for the Agricultural Pilot Center Project as specified in the Record of Discussions attached herewith.

27 February 1976

KANJI ENDO
Head of the Japanese
Agricultural Survey Team

HEGINO MA. ORTICIO
Project Director
Cagayan Integrated Agricultural
Development Project

RECORD OF DISCUSSIONS

- I. (1) The two countries through their appropriate agencies shall cooperate in implementing the Agricultural Pilot Center Project (hereinafter referred to as "the Project") as a part of the Cagayan Integrated Agricultural Development Project (hereinafter referred to as "the CIADP") for the purpose of contributing to the modernization of agriculture through the expansion of double-cropping of rice and the increase of agricultural productivity corresponding to the improvement of agricultural infrastructure of the CIADP.

The master plan of the Project is specified in Annex 1.

- (2) The Project shall be implemented based on the guidelines of an annual work plan to be formulated by the Joint Committee referred to in Article IX.

- II. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned shall take necessary measures to provide at their own expense the services of Japanese

experts as listed in Annex 2 through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

(2) Subject to existing laws and regulations in the Philippines, the Japanese experts mentioned above and their families shall be granted in the Philippines, privileges, exemptions, and benefits including customs duties and taxes on personal and household effects of reasonable amount as well as one motor car to be re-exported on termination of tour of duty unless resold and necessary taxes therefore paid, and exemption from income tax within the framework of the Colombo Plan Technical Cooperation Scheme.

III. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned shall take necessary measures to provide at their own expense such equipment, machinery, implements, instruments, vehicles, tools, spare parts and other materials as listed in Annex 3 required for the project through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

(2) The articles referred to above shall become the property of the Department of Agriculture of the Republic of the Philippines upon being delivered c.i.f. to the Philippine authorities concerned at the ports of disembarkation and/or international airports, and shall be utilized exclusively for the implementation of the Project.

IV. (1) A part of the articles referred to in Article III shall be leased to the farmers by the Center in the Leading Extension Areas (hereinafter referred to as the LEA) at reasonable rates to be determined by the Joint Committee, and a part of consumable items such as fertilizer, pesticides, etc. shall be transferred at reasonable prices.

(2) The proceeds from such lease or transfers shall be used exclusively for the implementation of the Project.

V. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned shall take necessary measures to receive the Philippine personnel engaged in the Project for technical training or for observational study in Japan through the normal procedures under the Colombo Plan Technical Cooperation Scheme.

(2) The Government of the Republic of the Philippines through the authorities concerned shall take necessary measures to ensure that the knowledge and experience acquired by the Philippine personnel from technical training in Japan shall be utilized for the effective implementation of the Project.

VI. (1) In accordance with laws and regulations in force in the Philippines, the Government of the Republic of the Philippines through the authorities concerned shall take necessary measures to provide at their own expense:

- a) the services of the Philippine specialists and other personnel as listed in Annex 4.
- b) acquisition of land and buildings as listed in Annex 5, as well as other incidental activities required herefor;
- c) supply or replacement of equipment, machinery, implements, instruments, vehicles, tools, spare parts and other materials necessary for the implementation of the Project other than those provided by the Government of Japan under Article III;

d) suitably furnished housing accommodations for the Japanese experts and their families.

(2) In accordance with laws and regulations in force in the Philippines, the CIADP through the authorities concerned shall take necessary measures to meet:

- a) expenses necessary for transportation within the Philippines of the articles as listed in Annex 3 as well as for the installation, operation and maintenance thereof;
- b) all running expenses necessary for the implementation of the Project;
- c) customs duties, internal taxes and any other charges, if any, imposed in the Philippines in respect to the articles to be brought in from Japan as listed in Annex 3 for the implementation of the project;

d) expenses for transportation facilities and internal travel in the Republic of the Philippines of the Japanese experts on duty;

e) free medical and dental services and facilities for the Japanese experts and their families.

VII. The Executive Director of the Cabinet Coordinating Committee on Integrated Rural Development Projects (CCC - IRDP) of the Government of the Republic of the Philippines shall be responsible for the administrative matters for the implementation of the Project and the Japanese experts shall provide the necessary technical guidance and advice for the project.

VIII. The Government of the Republic of the Philippines through the authorities concerned shall undertake to bear claims, if any accident or unforeseen events arises, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with, the discharge of their official functions in the Philippines, except for these claims arising from willful misconduct, incompetence, or gross negligence of the Japanese experts.

IX. There will be close consultation between the Japanese experts and the Philippine experts concerned for the successful implementation of the Project. For this purpose, a Joint Committee shall be established as specified in Annex 6.

X. This record of discussions shall remain into force for a period of two years.

There shall be mutual consultation between Governments within this period concerning a bilateral agreement for the technical cooperation thereafter.

This Record of Discussions shall serve as a basis for the implementation of the Project.

Annex 1. The Master Plan of the Project

The Master Plan of the Project consists of the following three (3) Programs to attain the steady and step-by-step proliferation of intensive farming techniques.

(1) The Center Program

This Program aims at development of improved farming techniques for extension to the CIADP area.

The Program consists of the following three major activities:

- a) Trial Activities
 - 1. Variety Trial
 - 2. Fertilizer Trial
 - 3. Water Management Trial
 - 4. Farm Mechanization Trial
 - 5. Pest Control Trial
 - 6. Cropping System Trial

- b) Seed Expansion Activities
 - 1. Adaptability Trial
 - 2. Seed Producers Association

- c) Extension Activities
 - 1. Training
 - 2. Data Collection and Information Service

(2) The Leading Extension Program

The main objective of the Leading Extension is to demonstrate improved farming techniques to farmers under the guidance of the Center.

A package of technology shall be extended to the farmers covered by the Leading Extension Areas, where farmers field conditions similarly exist in other CIADP areas.

Any potential problem identified in the LEA shall be fed back to the Center for in - depth analysis and the appropriate program of action.

Furthermore, the Program shall promote farmer organizations such as irrigation associations and co-operative designed for the utilization of mechanized paddy farming and shall assist farmers towards intensive and modernized agriculture.

(3) The Extension Service Program

Under the Extension Service Program, Extension Service Stations to be attached to the BAEx shall be established in each municipality to attain full completion of agricultural extension.

The Center Program and Leading Extension Program mentioned above shall be implemented through the technical cooperation between the two countries, while the Extension Service Program shall be primarily carried out by the Government of the Republic of the Philippines

(4) Site and Size of the Project

The Center will be established at Barrio Minanga Norte, Iguig with the size as follows: 2 hectares for building site and 8 hectares for experimental plots.

The Leading Extension Areas shall be located with about 50 hectares in Iguig, and with about 150 hectares in Alcala (Barrios Baybayog and Jirisdiccion) and Amulung (Barrios Dugayong, Jurisdiccion, and Baculud).

In the future, additional Leading Extension Areas shall be located in Aparri and Lallo.

Note: The CIADP program includes the following:

1. An Infrastructure Program for improving the agricultural infrastructure, mainly irrigation and drainage facilities.
2. A Social Development Program covering farm produce processing and distribution facilities.
3. An Agricultural Program for enhancing the effects of these social investments.

The Agricultural Pilot Center Project is included in the Agricultural Program mentioned in Item 3.

Annex 2 Japanese experts

Category	Field
1. Senior Advisor	
2. Project Leader	
3. Experts	Agronomy Irrigation Engineering Extension Mechanical Engineering
4. Liaison Officer	

Note: 1. Senior Advisor will be attached to the Manila Office of CIADP.

2. Japanese experts to be dispatched will concurrently total not more than ten (10) persons.

3. Short term experts in the field mentioned above as well as other fields will be able to be dispatched when necessity arises.

**Annex 3 Articles to be provided by the Government
of Japan**

1. Construction machinery and equipment and their spare parts.
2. Agricultural machinery and equipment and their spare parts.
3. Pesticides and fertilizer.
4. Machines tools for repair work.
5. Vehicles except for sedan motor cars.
6. Teaching materials including audio-visual aids.
7. Other necessary equipment, tools, and materials to be mutually agreed upon for the effective implementation of the Project.

Annex 4 Philippine Counterparts and other Personnel

Category	Field
1. Project Director	
2. Specialists	Agronomy Irrigation Engineering Extension Mechanical Engineering Agricultural Engineering
3. Research Assistants	

4. Clerical and Service Employees

5. Laborers

Annex 5 Land and Buildings

1. Land

1. Land for buildings
2. Experimental plot
3. The LEA in Iguig
4. The LEA in Alcala and Amulung

2. Buildings

1. Main Office
2. Laboratories and Lecture rooms
3. Storehouse for farming materials
4. Shed for machinery and equipment
5. Workshop
6. Management office for field trial and seed production
7. Hilling house and Drying house
8. Generator house
9. Pump house
10. Dormitory for trainees
11. Housing for staff

12. Guest house

13. Others

Annex 6 Composition of the Joint Committee

Chairman: Project Director, CIADP (Philippine side)

Japanese side

Philippine side

1. Senior Advisor and
Project Leader

2. Representative of
Experts

3. Representative of JICA

4. Liaison Officer

1. Office of the Governor

2. Permanent Representative
- BPI

3. Permanent Representative
- BAEx

4. Permanent Representative
- 3S

5. Permanent Representative
- PCAR

6. Permanent Representative
- DPWTC/PPD

7. Permanent Representative
- NIA

8. Permanent Representative
- NEDA and related agencies

on call

Note: An official of the Embassy of Japan and the Department of Foreign Affairs shall attend meetings of the Joint Committee as an observer if necessity arises.

2-2-2 和 文

国際協力事業団によって派遣された日本国農業調査団と総合地方開発計画のための農業調整委員会のカガヤン農業総合開発計画との間のパイロット・センタープロジェクトに関する討議議事録

遠藤寛二理事を団長とした日本国調査団は、カガヤン農業総合開発計画の一環として実施されるパイロットセンタープロジェクトのための体系的な技術協力を策定する目的をもって、1976年2月2日、フィリピン共和国を訪問した。

同調査団は、フィリピン人専門家と相互に共同して、パイロットセンタープロジェクトを成功に導くために、両政府によって実施されるべき特定の諸事項につき、詳細に議論するとともに、計画のための実務設計を行った。

同調査団による調査及び両当事者間の協議の結果、両国調査団は、前記プロジェクトをとりあえず2ヶ年間の協力を実施することを決定した。

上記諸点をふまえ、日本国農業調査団及びカガヤン農業総合開発計画調査団は、各々の政府に対し、別添討議議事録に記されたパイロットセンタープロジェクトのための技術協力をすみやかに実施するようリコメンドするものとする。

1976年2月27日

遠 藤 寛 二
日本農業調査団団長

HEGINO MA. ORTICIO
カガヤン農業総合開発計画局長

討 議 議 事 録

1. (1) 両国は、それぞれの関係機関を通じ、カガヤン農業総合開発計画（以下「CIADP」という）の一環として、CIADPの農業基礎整備によってもたらされる稲の二期作普及と農業の生産性の向上を通じ、農業の近代化に貢献することを目的として、ハイロップセンタープロジェクト（以下「プロジェクト」という）を、協力して実施する。
プロジェクトの基本構想は、付表Ⅰに定められている。
- (2) プロジェクトは、第9条にいう「合同委員会」によって作成される年次事業計画の線に基づき実施される。
2. (1) 日本国関係者は、日本国において施行されている法令に従い、付表Ⅱに掲げる日本人専門家の役務をコロソボ計画技術協力計画に基づく通常の手続きによって、自己の負担において供与するための必要な措置をとる。
- (2) (1)にいう日本人専門家並びにその家族は、フィリピン国において同様の任務に基づき活動している、第3国又は、国際連合のような国際機関の専門家に与えられているよりも不利でない特権、免除及び便宜を与えられる。
3. (1) 日本国関係者は、日本国において施行されている法令に従い、付表Ⅲに掲げられているようなプロジェクトに必要な設備、機材、写具、機差、車輛、工具、予備部品およびその他の資材をコロソボ計画技術協力計画に基づく通常の手続きによって、自己の負担において供与するため必要な措置をとる。
- (2) (1)にいう物品は、陸揚げ港または国際空港に於いてC、I、F、建てでフィリピン共和国政府関係者に引き渡されたときにフィリピン共和国農業省の財産となり、かつプロジェクト実施にのみ使用される。
4. (1) 第3条にいう物品の一部は、拠点普及地区（以下「LEA」という）の農民に合同委員会によって決定された適正な料金でセンターによって貸し付けることができ、かつ肥料、殺虫剤のような消費物資の一部は、適正な価格で譲渡することができる。
- (2) (1)による貸し付けまたは、譲渡から得た収益は、プロジェクト実施のためにのみ使用される。
5. (1) 日本国関係者は、日本国において施行されている法令に従い、プロジェクトに携るフィリッピン人職員をコロソボ計画技術協力計画に基づく通常手続きによって、日本国に受け入れ、訓練、または、視察研究を行うために必要な措置をとる。
- (2) フィリッピン共和国政府は関係者を通じ、フィリッピン人職員が日本国における技術訓練により得た知識および経験が、プロジェクトの実施のために効果的に利用されることを確保するため必要な措置をとる。
6. (1) フィリッピン国に於いて施行されている法令に従い、フィリッピン共和国政府は、関

係者を通じ、自己の負担において、次のものを供与するため必要な措置をとる。

- (a) 付表Ⅳに掲げるフィリピン側技員
- (b) 付表Ⅴに掲げる土地及び建物並びにこれ等の土地及び建物に必要な附帯施設
- (c) プロジェクトの実施のために必要な設備、機械、器具、機器、車輛、工具、予備部品およびその他の資材（第3条（1）に基づき日本政府によって供与されるものを除く）または、それらの代替品
- (d) 勤務中の日本人専門家の国内旅行のための交通手段および旅費
- (e) 日本人専門家及びその家族に対する無料医療便宜

7. フィリピン共和国政府の総合地方開発計画事業に関する調整調整委員会（CCC-IRDP）の理事は、プロジェクト実施のための行政的事項に関し責任を負い日本人専門家は、プロジェクト実行のために必要な指導および助言を行う。

8. フィリピン共和国政府は関係者を通じ、プロジェクトに携わる日本人専門家のフィリピン共和国における職務の遂行に起因し、その遂行中に発生し、またはその他その遂行に関連した事故ないしは予知しえない出来事が生じた場合には、その請求に関する責任を負う。ただし、日本人専門家の故意、無資格の者の事故または重大な過失から生ずる責任については、この限りではない。

9. プロジェクトを円滑に推進し成功させるために日本人専門家及びフィリピン人専門家は緊密に協議するものとする。この目的の為に付表Ⅵに掲げられた合同委員会を設置する。

10. この討議議事録は2ヶ年有効力を有するものとする。その期間中に両国政府はその後の技術協力協定に関して、相互に協議する。

なお、この討議議事録は、プロジェクト実施のための基礎となる。

付表Ⅰ プロジェクトの基本構想

本プロジェクトの基本構想は、着実にしてしかも段階的な契約的農業技術の定着化を図るために、次の三つのプロジェクトから成り立っている。

(1) センタープログラム

このプログラムは、CIADP 地域に普及すべき改良農業技術の開発を目的とし、下記の三つの機能から構成されている。

- (a) 実用試験
 - 1. 品種適応試験
 - 2. 施肥試験
 - 3. 水管理試験
 - 4. 農業機械化試験
 - 5. 病虫害試験

- b) 優良品種普及
 - 6. 作付体系試験
 - 1. 奨励品種選定試験
 - 2. 種子生産者の組織化
- c) 普及活動
 - 1. 訓練
 - 2. 情報の収集

ii) 拠点普及プログラム

拠点普及の主たる目的は、センターの指導の下に改良された農業技術を農民に展示すること。即ち灌漑施設の条件が他地域と同一である水田に対し、この技術を普及することである。若しE.A.に於いて問題が生じれば、分析と特別のプログラム作りのためにセンターにフィードバックされる。

更に稲作の機械化を計画的に促進するためにも、水利組合、農業協同組合のような農民団体を振興すると共に、集約化と農業の近代化を目指し農民を指導する。

3) 普及サービスプログラム

普及サービスプログラムに基づき、農業普及局所属の事務所は、農業普及を完全に成就させるために、各市町村に設置される。

上記センタープログラム及び拠点普及プログラムは二国間の技術協力によって実施されるが、普及サービスプログラムはフィリッピン共和国政府によって実施されなければならない。

ii) プロジェクトの場所及び規模

センターとしては、イグイグ町のミナガノルテとし、規模は数地として2 ha、実地実地として8 ha、又、拠点普及地区としては、イグイグ町に約50 haある。他の拠点普及地区は、アルカラ町（バイオグ及びジュラスディクシオン）及びアムルン町（ジュガノン、ジュラスディクシオン及びバクルド）に約150 haである。アバリ、ラロ地区についても将来拠点普及地区を設置する。

3) CIADP 事業の内容は以下のとおり

1. 農業基盤整備、主にかんがいと排水設備の改善を目的とした農業基盤整備事業。
2. 農産物の加工及び配給手段を含む社会開発事業。
3. これらの社会投資を効果的に促進するための農業事業。

パイロットセンタープロジェクトは、第3項の農業事業に含まれる。

付表Ⅱ 日本人専門家

専門家の職別	分野
(1) シニアアドバイザー	
(2) プロジェクトリーダー	
(3) 専門家	栽培 かんがい 普及 農業機械
(4) 連絡官	

- (注) 1. シニアアドバイザーは、CIADPのマニラ事務所の所属とする。
 2. 日本人専門家の数は10名以内とする。
 3. 短期の専門家は、必要に応じて追加派遣されることがある。

付表Ⅲ 日本国政府により供与される物品

- (1) 建築資機材および予備部品
- (2) 農業資機材および予備部品
- (3) 殺虫剤および肥料
- (4) 修理作業用機材工具
- (5) 車 輛 (4人乗り乗用者を除く)
- (6) 視聴覚教材を含む教材
- (7) プロジェクトの効果的実施のための相互の同意によるその他の必要な機材、工具および資材

付表Ⅳ フィリピン人職員

職員の種別	分野
(1) 所 長	
(2) 技 術 者	栽培 かんがい 普及 農業機械

③ 事務職員および業務員

(4) 労働者

付表V 土地および建物

- | | |
|-------|--------------------|
| 1) 土地 | 1. センター用地 |
| | 2. 試験用農場 |
| | 3. イグイグLEA |
| | 4. アルカラ及びアムルンLEA |
| 2) 建物 | 1. 事務所 |
| | 2. 実験室および講義室 |
| | 3. 農業資機材用倉庫 |
| | 4. 農業機械格納庫 |
| | 5. ワークショップ |
| | 6. 試験農場および原々種園場管理棟 |
| | 7. 精米所および乾燥所 |
| | 8. ジェネレーターハウス |
| | 9. ポンプ室 |
| | 10. 研修員用宿舎 |
| | 11. 職員用宿舎 |
| | 12. ゲストハウス |
| | 13. その他 |

付表VI 合同委員会の構成

委員長：プロジェクトの理事 CIADP (フィリピンサイド)

(日本側)

1. シニアアドバイザー及びプロジェクトリーダー
2. 専門家代表者
3. J.I.C.A. の代表者
4. 連絡官

(フィリピン側)

1. 知事
2. BPIの代表者
3. BAE xの代表者
4. BSの代表者
5. PCARの代表者
6. DPWTC/PPDOの代表者

7. NIAの代表者

8. NEDA及び求めに応じて関係機関の代表者

(注) 日本大使館及び外務省の代表者は、必要ならば合同委員会の会場にオブザーバーとして参加できるものとする。

16. タイ灌漑農業開発計画・討議議事録

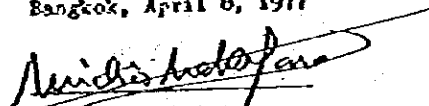
ON THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE AGRICULTURAL SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THAILAND CONCERNING TECHNICAL CO-OPERATION PROJECT ON THE IRRIGATED AGRICULTURE DEVELOPMENT IN THAILAND


The Japanese Agricultural Survey Team, organized by the Japan International Cooperation Agency and headed by Michio Nakahara, visited Thailand from February 13 to April 13, 1977, for the purpose of formulating concrete co-operation plans for the Technical Co-operation Project on the Irrigated Agriculture Development which will be carried out with the Chao Phya Pilot Project, the Mae Klong Pilot Project and the Suphan Buri Rice Experiment Station and Training Center for the Irrigated Agriculture Development as its cores.

During its stay in Thailand, the Team exchanged views with the authorities concerned of the Government of Thailand on the necessary measures to be taken by both Governments to successfully implement the Technical Co-operation Project on the Irrigated Agriculture Development in Thailand. The Team also conducted necessary survey for the implementation of the Project.

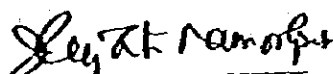
As a result of the exchange of views and survey, both parties agreed to recommend to their respective Governments to carry out the matters referred to in the Record of Discussions.

Bangkok, April 8, 1977


Mr. Michio Nakahara
Head of the Japanese Agricultural
Survey Team
Japan International Cooperation Agency


Mr. Prida Kamsat
Under-Secretary of State
Ministry of Agriculture
and Cooperatives

In the presence of


Mr. Kujati Prancoolpol
Director-General
Department of Technical
and Economic Cooperation

RECORD OF DISCUSSIONS

I. (1) Both Governments will co-operate with each other in implementing the Technical Co-operation Project on the Irrigated Agriculture Development in Thailand (hereinafter referred to as "the Project") with the Chao Phya Pilot Project, the Mae Klong Pilot Project and the Suphan Buri Rice Experiment Station and Training Center for the Irrigated Agriculture Development (hereinafter referred to as "the Suphan Buri Station") as its cores. The Project aims at contributing to the promotion of land consolidation, the improvement and extension of agricultural production technology, the development and strengthening of farmers' organization and other related activities which will be necessary for increase of rice yield and expansion of multi-cropping area.

(2) The Project will be implemented in accordance with the Master Plan as stipulated in Annex I.

(3) The Project will be implemented under the supervision and direction of the Project Director referred to in VIII.

(4) The Project will be implemented in accordance with the annual operational work plan to be formulated annually by the Joint Committee referred to in I.

The annual plan will be submitted to the authorities concerned of both Governments for their approval.

II. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to provide at their own expense the services of the Japanese experts as listed in Annex II through the normal procedures under the Colombo Plan Technical Co-operation Scheme.

(2) The Japanese experts referred to in (1) above and their families will be granted in Thailand the privileges, exemptions and benefits no less favourable than those accorded to experts of third countries working in Thailand under the Colombo Plan Technical Co-operation Scheme.

III. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to provide at their own expense such equipment, machinery, implements, vehicles, tools, spare parts and other materials required for the implementation of the Project as listed in Annex III through the normal procedures under the Colombo Plan Technical Co-operation Scheme.

(2) The articles referred to in (1) above will become the property of the Government of Thailand upon being delivered c.i.f. to the Thai authorities concerned at the ports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese Team Leader referred to in Annex II.

IV. (1) A part of the goods referred to in III (1) may be rented at reasonable rates to farmers in areas to be decided after mutual consultations between the authorities concerned of both Governments and a part of consumable items such as fertilizer, agricultural chemicals, etc. may also be transferred at reasonable prices to the farmers in the above-mentioned areas.

(2) The proceeds from such rentals or transfers will be used exclusively for the implementation of the Project in accordance with laws and regulations in force in Thailand.

(3) The provisions of (1) and (2) above will be applied in accordance with the annual operational work plan referred to in I (4) above, and there will be close consultations between the Japanese Team Leader referred to in Annex II and the Thai Project Director referred to in Annex IV as regards their application.

V. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to receive the Thai personnel engaged in the Project for technical training or study tour in Japan through the normal procedures under the Colombo Plan Technical Co-operation Scheme.

(2) The Government of Thailand will take necessary measures to ensure that the knowledge and experience acquired by the Thai personnel mentioned in (1) above through technical training and study tour in Japan may be utilized effectively for the implementation of the Project.

VI. The Government of Thailand will take necessary measures to provide at its own expense:

(1) the services of the Thai counterparts and other personnel as listed in Annex IV;

(2) land and buildings as listed in Annex V as well as incidental facilities;

(3) supply or replacement of equipment, machinery, implements, vehicles, tools, and spare parts, and any other materials necessary for the implementation of the Project other than those provided by the Japanese authorities concerned under III (1);

(4) suitably furnished housing accommodations for the Japanese experts and their families;

(5) transportation facilities and the grant of the travel allowance for the Japanese experts for the official travel within Thailand.

VII. The Government of Thailand will take necessary measures to meet:

(1) expenses necessary for transportation within Thailand of the articles mentioned in III (1) as well as for the installation, operation and maintenance thereof;

(2) all running expenses necessary for the implementation of the Project;

(3) customs duties, internal taxes and any other charges, imposed in Thailand in respect of the articles referred to in III (1).

VIII. The Government of Thailand will appoint the Project Director who will be responsible for the administration and implementation of the Project, and the Japanese experts will provide primarily technical guidance and advice for the implementation of the Project.

IX. The Government of Thailand shall undertake to bear claims, if any arise, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with, the discharge of their official functions in Thailand, except for those claims arising from willful misconduct or gross negligence of the Japanese experts.

X. There will be close consultation between the Japanese experts and the officials concerned of the Government of Thailand for the smooth promotion and effective implementation of the Project. For this purpose, a Joint Committee will be established as specified in Annex VI. The Joint Committee will meet at least once a year.

XI. For the successful implementation of the Project, both Governments will consult with each other when deemed necessary.

XII. The period of the technical co-operation mentioned in this Record of Discussions will be five (5) years from the date of signature and co-operation thereafter will further be consulted between the authorities concerned of both Governments.

Annex I. Master Plan of the Project

The Project consists of the Project Center and three sub-projects, namely Chao Phya Pilot Project, Mae Klong Pilot Project and Experiment and Training Project, in order to promote the Irrigated Agriculture Development Plan in an integrated and effective manner.

1. The Project Center

The Project Center will be established in Bangkok and will function as the headquarter.

The activities of the Center are as follows:

(1) To give necessary technical advices for planning and implementation of the Irrigated Agriculture Development Plan in the Lower Greater Chao Phya Basin and the Greater Mae Klong Basin, centering around the pilot areas in respective Basins;

(2) To conduct managerial and coordinating works in order to promote smooth and effective implementation of three sub-projects.

2. The Chao Phya Pilot Project

The Chao Phya Pilot Project of about 500 ha for agricultural development of the flood irrigation area will be set up in Tambol Phraya Banlu, Amphoe Lat Bua Luang, Changwat Ayutthaya.

3. The Mae Klong Pilot Project

The Mae Klong Pilot Project (No. 1) of about 400 ha and the Mae Klong Pilot Project (No. 2) of about 500 ha will be set up in Tambol Maungchud and Banai, Amphoe Tha Kung, Changwat Kanchanaburi and in Tambol Taklanae, Amphoe Tha Haka, Changwat Kanchanaburi respectively for agricultural development by means of multi-cropping.

The activities of the Pilot Projects mentioned in 2 and 3 above are as follows:

(1) To plan and execute the improvement works of agricultural physical infrastructure, such as field rearrangement, farm roads, irrigation and drainage facilities and espoldering dikes (as required in Chao Phya), in each pilot area;

(2) To advise on technical matters to farmers in the pilot areas and staff concerned for effective water management;

(3) To conduct trials with improved agricultural techniques of rice cultivation mainly at the trial farm of about 10 ha;

(4) To provide training and guidance to farmers in the pilot areas and their vicinities on improved agricultural techniques;

(5) To introduce and demonstrate improved agricultural techniques at a few model farms which will be selected in the pilot areas;

(6) To foster and strengthen farmers' organizations for water management, joint co-operative activities for distribution of agricultural materials, collection and forwarding of agricultural products and other activities necessary in the pilot areas including their vicinities when necessity arises.

The implementation of the Mae Klong Pilot Project (No. 2) will be of extensive method.

4. Experiment and Training Project

The activities of the Suptan Buri Station located in Taabol Kua Yai, Amphoe Muang, Changwat Suptan Buri are as follows:

To conduct experiments and training on improved agricultural techniques for the successful implementation of the Irrigated Agriculture Development in the pilot areas and their vicinities.

The experiment mentioned above will be primarily carried out by the Government of Thailand and the trainees will be agriculture officers and staff concerned.

Annex II. List of Japanese Experts

Category	Field
1. Team Leader	
2. Experts and associated experts	Irrigation and Drainage Land Consolidation Agricultural Economy Agricultural Machinery Agronomy Extension Water Management
3. Liaison Officer	

- Note:
1. Team Leader, a land consolidation expert, an agricultural economy expert and a liaison officer will be attached to the Project Center.
 2. A sub-leader will be nominated from among experts in each sub-project.
 3. The number of long term experts including a few associated experts to be dispatched concurrently will not exceed 20 persons in total.
 4. Some additional short term experts in the fields mentioned above as well as others may also be dispatched when necessity arises.

Annex III. Articles to be provided by the Government of Japan

1. Construction machinery and equipment, including pumps and their accessories, and their spare parts.
2. Agricultural machinery and implements and their spare parts.
3. Fertilizer and agricultural chemicals.
4. Machines and tools for repair work.
5. Equipment, instruments, tools, their spare parts and other materials for experiment.
6. Equipment and materials for public utilities.
7. Vehicles and motor boats.
8. Teaching materials including audio-visual aids.
9. Other necessary equipment, tools, and materials to be mutually agreed upon for the effective implementation of the Project.

Annex IV. List of Thai Counterpart Officials and Other Personnel

Category	Field
1. Project Director	
2. Counterpart Officials	Irrigation and Drainage Land Consolidation Agricultural Economy Agricultural Machinery Agronomy Extension Water Management
3. Clerical and Service Employees	

4. Laborers

Note: Thai experts will be posted as counterparts to Japanese experts.

Annex V. Land and Buildings

1. Project Center

Buildings

- a. Project Director's room
- b. Team Leader's room
- c. Office room
- d. Working room
- e. Store room
- f. Meeting room
- g. Garage
- h. Others

2. Each Pilot Project

(1) Land

- a. Land for trial farm
- b. Land for buildings

(2) Buildings

- a. Offices including lecture room and meeting room
- b. Sheds for machinery and equipment
- c. Storehouses for farming materials
- d. Fuel storage
- e. Workshop
- f. Garage
- g. Management office for trial farm
- h. Housing for staff
- i. Guest house
- j. Others

3. Experiment and Training Project

Buildings, farms and other facilities attached to the Suphan Bari Station.

Annex VI. Composition of the Joint Committee

Chairman Under-Secretary of State KOAC

Japanese side

1. Team Leader
2. Experts designated by
Team Leader
3. Liaison Officer
4. Representative of JICA

Thai side

1. Project Director
2. Project Managers from
RID
CLCO
ALRO
DA
3. Coordinator from Foreign Relations
Div., KOAC
4. Representatives of
DAE, DCP, DLD, DTCC
Budget Bureau and NESDB

Note: An official of the Embassy of Japan may attend the meeting of the Joint Committee as an observer if necessity arises.

Abbreviations:

- (1) KOAC = Ministry of Agriculture and Cooperatives
- (2) RID = Royal Irrigation Department
- (3) CLCO = Central Land Consolidation Office
- (4) ALRO = Agricultural Land Reform Office
- (5) DA = Department of Agriculture
- (6) DAE = Department of Agricultural Extension
- (7) DCP = Department of Co-operatives Promotion
- (8) DLD = Department of Land Development
- (9) DTCC = Department of Technical and Economic Cooperation
- (10) NESDB = National Economic and Social Development Board
- (11) JICA = Japan International Cooperation Agency

タイ灌漑農業開発計画実施計画試案

TENTATIVE IMPLEMENTATION PROGRAM
TO THE RECORD OF DISCUSSIONS
CONCERNING TECHNICAL CO-OPERATION PROJECT
OF THE IRRIGATED AGRICULTURE DEVELOPMENT IN THAILAND
BETWEEN
MINISTRY OF AGRICULTURE AND COOPERATIVES
GOVERNMENT OF THAILAND
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

I. IMPLEMENTATION AGENCIES

Thai side : Ministry of Agriculture and Cooperatives
Japanese side : Japan International Cooperation Agency

II. PROJECT STAFF

The Project staff will consist of Japanese experts and Thai counterpart personnels to be attached to the Project Center and other three sub-projects. It must be noted that activities of the Project are mainly carried out by the Thai counterpart personnels with assistance of Japanese experts.

III. PROGRAM FOR THE IMPLEMENTATION

A. Implementation Schedule

The construction works of the Project will be implemented generally in accordance with schedule as shown in Annex 1.

The Japanese experts to be stationed in the Project will be assigned in accordance with the schedule as indicated in Annex 2.

B. Terms of Reference of Japanese Experts

The Japanese experts will discharge their duties in accordance with the Broad Terms of Reference as attached in Annex 3.

IV. TRAINING AND STUDY TOUR IN JAPAN

The training and study tour in Japan for Thai personnel will be carried out along the schedule as indicated in Annex 4.

V. EQUIPMENT AND FACILITIES TO BE PROVIDED

The equipment and machinery will be provided in accordance with the provisional list of equipment as shown in Annex 5.

Bangkok
April 8, 1977

Signed by Mr. Nichio Kakahara
Leader of the Japanese Agricultural
Survey Team

Annex 1. Tentative Construction Schedule

I. Chao Phya Pilot Project (500 ha)

- | | |
|--|--|
| 1. Field Office and Trial Farm | Starting in late 1977
Complete in 1979 |
| 2. Polder Dikes | Starting in early 1978
Complete in 1979 |
| 3. Pumping Station,
Main Station
Irrigation Stations | 1979 and 1980
1979 and 1982 |
| 4. Land Consolidation Works | Starting in early 1980
Complete in 1982 |

II. Mae Klong Pilot Project

- | | |
|--------------------------------|--|
| 1. Field Office and Trial Farm | Starting in late 1978
Complete in early half 1979 |
| 2. Land Consolidation | Starting in early 1979
Complete in 1982 |

Note: In Japanese Fiscal Year : starting April & ending next March

Annex 2 Assignment Schedule of Experts (*)

Speciality	Fiscal Year					
	1977	1978	1979	1980	1981	1982
1. Project Center						
a. Team Leader						
b. Agri'l Economist						
c. Land Consolidation Expert						
d. Liaison Officer						
2. Chao Phya Pilot Project						
a. Land Consolidation Expert						
b. Irrigation and Drainage Expert						
c. Agricultural Machinery Expert						
d. Agronomist						
e. Extension						
f. Water Management						
3. Mae Klong Pilot Project						
a. Land Consolidation Expert						
b. Irrigation and Drainage Expert						
c. Agronomist						
d. Extension						
4. Suphan Buri Station						
a. Agronomist						
b. Agronomist						
c. Extension						

(*) Subject to change in accordance with the progress of Project implementation.

Annex 3 Broad Terms of Reference for Experts

A. Team Leader :

1. To represent the Team of Japanese Experts and to maintain close contact and consultations with Thai authorities concerned;
2. To coordinate the activities of the Japanese experts to be assigned to the Project and to promote its smooth and effective implementation; and
3. To offer comments and advice to Thai officials concerned on matters related with the Project and other agriculture development in the Lower Greater Chao Phya and the Greater Mae Klong basins.

B. Land Consolidation Expert (Project Center) :

1. To assist the Team Leader and to represent him when the necessity arises;
2. To consult with, and advise to other land consolidation experts to be stationed in each sub-Project on layout, design criteria, implementation program and other related matters on land consolidation and irrigation and drainage development;
3. To offer comments and advice to Thai officials on matters related with land consolidation and others in and around the Project areas.

C. Agricultural Economist (Project Center) :

1. To assist the Team Leader in the fields of agriculture in general and agricultural economics relating to the Project and the development of its vicinities;
2. To collect and analyze the data and information on improvement to be achieved by the Project;
3. To carry out agricultural economic surveys in and around the Project areas, together with Thai and other Japanese experts, and to make proposals for improvement of farm operations and rural life; and
4. To assist Thai and other Japanese experts in (economic) evaluations on improvement trials in the Project and of other projects in the vicinities.

D. Irrigation and Drainage, Land Consolidation and Water Management Criteria:

1. To formulate, in consultation with Thai counterparts, the design criteria for irrigation and drainage development and for land consolidation suited to the conditions of the Project sites, and to assist Thai counterparts in the preparation of designs;
2. To assist Thai counterparts in the preparation of Project implementation, including preparation of schedule, specifications, cost estimates and tender documents;
3. To assist Thai counterparts in project implementation activities such as construction supervision, construction management and management of construction machinery;
4. To formulate, in consultation with Thai officials and other experts, the standard water management procedures, and to train the concerned staff with them with necessary modifications for better application to individual site conditions; and
5. To offer chances of in-service training to Thai field staff during the course of services.

E. Agroforestry, Extension, and Agricultural Machinery Services:

1. To study, with Thai counterparts, the existing cropping patterns, farming practices and operations in the Project areas and to formulate proposals for improvement;
2. To carry out trials at Trial Farms on improved farming methods and demonstrate them at model farms to be selected in the Project areas;
3. To participate in the training to be implemented at the Sukhan Farm Center, and to train agriculture officers and other personnel, as required, at the Trial Farms in the Project, including in addition to others use and maintenance of agricultural machinery;
4. To provide, together with Thai counterparts, extension services to the farmers in the Project areas and their vicinities;

5. To study, with Thai counterparts, on farmers' group activities/ organizations concerned with farming operations, use of agricultural machinery, processing and marketing, credit systems, etc., and to advise the beneficiaries of the Project and others concerned on ways and measures for improvement of such group activities, including promotion and guidance for formation of integrated farmers' cooperatives and for initial operation of such organizations;
6. To gather field data and information on farm operations for economic evaluation of the Project; and
7. To offer opportunities of in-service training to Thai counterparts.

- NOTE:
1. Details of the Terms of Reference for individual experts will be finalized through further consultations between two parties.
 2. Terms of Reference for short term experts to be dispatched by Japanese authorities will be prepared separately, when the necessity arises.

ANNEX 4 Training and Study Tour in Japan (*)

(Unit : person)

	1977	1978	1979	1980	1981
1. Study Tour (about 2 weeks)	2	1	1	1	1
2. Training (about 1 to 5 months)					
Irrigation and Drainage		1	1		
Land Consolidation		1	1	1	
Agricultural Economy			1		
Agricultural Machinery			1		1
Agency				1	
Agricultural Extension		1		1	1
Water Management		1			
Others	1**			1	2
<u>Total</u>	<u>3</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>

(*) This training program is subject to changes in accordance with the progress of project and annual country allotment of trainees.

(**) Water Resources for Agriculture

2. Machinery, Equipment and Materials for Total Farms
(Chao Phya and Kae Xlong)

<u>Item</u>	<u>Qty.</u>
A. <u>Machinery and Equipment for Field Trials & Training</u>	
Tractor 20 - 70 HP	10
Power Tillers 8 HP	10
Rice Planters	10
Combine Harvesters	4
Binders	6
Sprayer with Engine	4
Water Pumps	10
Trucks 2 - 4 t	6
Harrows	2
Wind Graders	2
Rice Milling Equipments	4
B. <u>Equipment for Training Services</u>	
Electronic Calculators	10
Slides (3 in) with Projector	2
Slide Projector	2
Copiers	2
Printers	2
Tape Recorders	2
Microscope	2
Microphones and Speakers	2
C. <u>Equipment for Laboratory</u>	
Temperature Control Equipment for Experiments	6
Freezers (Deep)	4
Engines for Boats	2
Balance 50 g. - 100 Kg.	6
Dryers	2
Moisture Meters	
Soil	2
Grain	2
Fertilizers and Agricultural Chemicals	
3. <u>Equipments and Materials for Suction Pump Center</u>	
A) <u>Laboratory Training:</u>	
Balances 1 - 100 Kg	12
500 g	2 (research)
500 g	2 (chemical balance)
Moisture Content Meters	
Soil	1
Grain	1
Dry Press with Ventilator	4

<u>Name</u>	<u>Qty.</u>
Insect Collectors	2
Soil Hardness Meters	2
Electric Calculators	5
Tools and Equipments for Photography	1 set
Movie Cameras (8 mm) and Projectors	1
Wax Recorders	1
Freezers (deep)	2
Drafts	2
Temperature Control Equipment for Experiments	3
Microscopes	5
Microphone and Speaker (Ordinary)	1
Photometers	2

ii) Outdoor Training

Micro Bus	1
Vehicle	1
Microphone and Speaker (Handy Type)	4

iii) Farming Equipments

Tractors 20 - 70 HP	3
Power Tillers 8 HP	2
Rice-planters	2
Combine Harvesters	2
Binders	2
Sprayers with Engine	1
Water Pumps	2
Truck	1
Generators (220 V)	2

4. Vehicles and Office Necessaries for the Project Center and Anti-Project Office

	<u>Project Center</u>	<u>Chao Phya</u>	<u>Lee Heng</u>	<u>Total</u>
Vehicles	2	1	2	5
Office Necessaries	L.S	L.S	L.S	L.S

5. Equipments and Tools for Kanchan

17. タイとろもろこし産業開発計画討議議事録

~~1.~~ RECORD OF DISCUSSIONS

ON THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE AGRICULTURAL SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THAILAND CONCERNING TECHNICAL CO-OPERATION PROJECT ON MAIZE DEVELOPMENT IN THAILAND

The Japanese Agricultural Survey Team, organized by the Japan International Cooperation Agency and headed by Mr. Motonaga Ohto visited Thailand from August 31 to September 17, 1976, for the purpose of formulating concrete co-operation plans for the Technical Co-operation Project on Maize Development which will be carried out with the Co-operative Demonstration Center as its core.

During its stay in Thailand, the Team exchanged views with the authorities concerned of the Government of Thailand on the necessary measures to be taken by both Governments to successfully implement the Technical Co-operation Project on Maize Development. The Team also conducted necessary survey for the implementation of the project.

As a result of the exchange of views and survey, both parties agreed to recommend to their respective Governments to carry out the matters referred to in the attached Record of Discussions.

Bangkok, September 17, 1976

Motonaga Ohto
Head of the Japanese Agricultural
Survey Team
Japan International Cooperation
Agency

Surin Cholpraserd
Director-General
Cooperatives Promotion
Department

in the presence of

**Wanchai Sirirattna
Deputy Director-General
Department of Technical
and Economic Cooperation**

RECORD OF DISCUSSIONS

- I. (1) Both Governments will co-operate with each other in implementing the Technical Co-operation Project on Maize Development (hereinafter referred to as the "Project") with the Co-operative Demonstration Center as its core for the purpose of promoting the enhancement of the productivity of maize, and contributing to the development and strengthening of the agricultural co-operatives and the modernization of agriculture through the quality improvement of maize and their production technology.
- (2) The Project will be implemented in accordance with the Master Plan as stipulated in Annex I and in close contact with the maize development project between Thai and Japanese agricultural co-operatives.
- (3) The Project will be implemented in accordance with the annual operational work plan to be formulated annually by the Joint Committee referred to in VI. The annual operational work plan will be submitted to the authorities concerned of both Governments for their approval.
- II. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to provide at their own expense the services of the Japanese experts as listed in Annex II through the normal procedures under the Colombo Plan Technical Co-operation Scheme.
- (2) The Japanese experts referred to in (1) above and their families will be granted in Thailand the privileges, exemptions and benefits no less favourable than those accorded to experts of third countries working in Thailand under the Colombo Plan Technical Co-operation Scheme.
- III. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to provide at their own expense such equipment, machinery, implements, vehicles, tools, spare parts and other materials required for the implementation of the Project as listed in Annex III through the normal procedures under the Colombo Plan Technical Co-operation Scheme.

(2) The articles referred to in (1) above will become the property of the Government of Thailand upon being delivered c.i.f. to the Thai authorities concerned at the ports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese team leader referred to in Annex II.

IV. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to receive the Thai personnel engaged in the Project for technical training or study tour in Japan through the normal procedures under the Colombo Plan Technical Co-operation Scheme.

(2) The Government of Thailand will take necessary measures to ensure that the knowledge and experience acquired by the Thai personnel mentioned in (1) above through technical training and study tour in Japan may be utilized effectively for the implementation of the Project.

V. The Government of Thailand will take necessary measures to provide at its own expense:

(1) the services of the Thai counterparts and other personnel as listed in Annex IV;

(2) land and buildings as listed in Annex V. as well as incidental facilities;

(3) foundation seeds of good varieties needed for the extension purposes;

(4) supply or replacement of equipment, machinery, implements, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided by the Japanese authorities concerned under III (1);

(5) suitably furnished housing accommodations for the Japanese experts and their families;

(6) transportation facilities and the grant of the travel allowance for the Japanese experts for the official travel within Thailand.

VI. The Government of Thailand will take necessary measures to meet:

(1) expenses necessary for transportation within Thailand of the articles mentioned in III (1) as well as for the installation, operation and maintenance thereof;

(2) all running expenses necessary for the implementation of the Project;

(3) customs duties, internal taxes and any other charges, imposed in Thailand in respect of the articles referred to in III (1).

VII. The Government of Thailand will be responsible for the administration and implementation of the Project, and the Japanese experts will provide primarily technical guidance and advice for the implementation of the Project.

VIII. The Government of Thailand shall undertake to bear claims, if any arises, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with, the discharge of their official functions in Thailand, except for those claims arising from willful misconduct or gross negligence of the Japanese experts.

IX. There will be close consultation between the Japanese experts and the officials concerned of the Government of Thailand for the smooth promotion and effective implementation of the Project. For this purpose, a Joint Committee will be established as specified in Annex VI. The Joint Committee will meet at least once a year.

X. For the successful implementation of the Project, both Governments will consult with each other when deemed necessary.

XI. The period of the technical co-operation mentioned in this Record of Discussions will be three (3) years from the date of signature and may be extended by mutual agreement between the authorities concerned of both Governments.

Annex I

Master Plan for the Project

A. Composition of the Project

1. The Co-operative Demonstration Center (hereinafter referred to as the "Center") which will include fields for trials, training, seed production and demonstration, will be established in Chaibadan, LOP BURI Province.

Trials, training and extension services, demonstration and other related activities in respect of technology for the improvement of maize production will be conducted at the Center.

2. For the purpose of effective extension of technical co-operation to the following five provinces, key extension bases will be established within these provinces.

Lop Buri Province
Sara Buri Province
Petchaboon Province
Pisanuloke Province
Sukhothai Province

(1) The following six agricultural co-operatives and five farmer's groups to be designated from each of the provinces mentioned in A2 above by the Joint Committee will be the key extension bases.

Chaibadan Agr. Co-op.
Prabuthabad Reclamation Agr. Co-op.
Petchaboon Agr. Co-op.
Prompiram Agr. Co-op.
Nongtom Agr. Co-op.
Sawankaloke Land Settlement Co-op.

(2) Demonstration fields of about 13 ha. will be set up at each of the eight key extension bases, excluding the Petchaboon Agricultural Co-operative, Nongtom Agricultural Co-operative and Sawankaloke Land Settlement Co-operative.

3. To ensure the smooth supply of extension seeds, seed production fields will be set up within the Center and at appropriate places in its vicinity.

The area required for the seed production fields will be approximately 100 ha in the first year, 140 ha in the second year and 160 ha in the third year of the Project.

B. Activities under the Project

1. Applied Experiments for Production Techniques

The following experiments will be conducted at the Center for the purpose of identification, utilization, confirmation of local adaptability and other items of specific techniques developed by agricultural experiment and research institutions.

- Applied experiments for production techniques
- Varieties adaptability tests
- Fertilizer tests
- Water management tests
- Disease and insect control experiments
- Cropping system experiments

2. Seed Multiplication

In collaboration with the Department of Agricultural Extension, the foundation seeds which are to be supplied by the Department of Agriculture will be multiplied to produce extension seeds at the seed production fields.

The extension seeds thus produced will be distributed to maize producing farmers in the five provinces mentioned in A2, through agricultural co-operatives and farmer's groups.

3. Disease and Insect Control

Co-operation activities of the Center will be extended to the projects on the control of maize disease and insect which will be carried out by the Department of Agricultural Extension in the provinces mentioned in A2.

4. Extension and Demonstration

Improved cultivation techniques developed by the Center will be demonstrated at the demonstration fields mentioned in A2, and experts will conduct round trip guidance activities to promote their effective extension to the key extension bases.

5. Technical Training in Seed Production and Improved Cultivation Techniques

Technical training in seed production and improved cultivation techniques will be provided at the Center for the farmers associated with the seed production fields mentioned in A3 and also for the maize producing farmers.

6. Agricultural Mechanization System

To establish a system for the mechanization of maize cultivation and to promote its extension, applied experiments for the systematization of agricultural mechanization as well as training activities for agricultural machinery operation and repair will be conducted at the Center. At the same time, the agricultural mechanization system will be demonstrated at the Center and at the demonstration field mentioned in A2.

7. Guidance on the Management of Agricultural Co-operatives

To develop and strengthen agricultural co-operatives and farmer's groups, staff officials of agricultural co-operatives and other personnel will be trained and educated at the Center, and experts will conduct round trip guidance activities to the key extension bases.

Annex II

List of Japanese Experts

Category	Field
1. Team leader	
2. Experts	Seed production Cultivation Farm machinery Agricultural co-operatives and extension
3. Coordinator	

Notes: Short-term experts may be dispatched, when necessity arises.

Annex III

List of the articles to be provided
by the Government of Japan

1. Equipment, machinery, implements, spare parts and fertilizer for crop production.
2. Equipment, machinery, implements and spare parts for seed processing and storage.
3. Equipment, machinery, and chemicals for insect and disease control.
4. Machinery and tools for repair work at the Centre.
5. Equipment, instruments, spare parts and other materials for laboratory work.
6. Vehicles.
7. Teaching materials including audio-visual aids.
8. Other necessary equipment, tools and materials to be mutually agreed upon.

Annex IV

List of Thai Counterpart Officials
and Other Personnel

Category	Field
1. Project Manager	
2. Counterpart Officials	Seed production Cultivation Soil and fertilizer Pathology and insects Farm machinery Irrigation Extension Agricultural co-operatives Farm management
3. Clerical and service employees	
4. Labourers	

Annex V

List of Land and Buildings

1. Land
 - (1) Land for the Center about 16 ha
 - (2) Seed production fields about 160 ha
(in the third year)
 - (3) Demonstration fields about 104 ha
(total area for the eight
key extension bases)

2. Buildings in the Center
 - (1) Office
 - (2) Garage
 - (3) Guest house
 - (4) Classrooms
 - (5) Laboratory
 - (6) Fuel storage
 - (7) Storage for farming materials
 - (8) Shed for agricultural machinery
 - (9) Workshop
 - (10) Seed drying station
 - (11) Seed processing station
 - (12) Seed storage
 - (13) Dormitory

Annex VI

Composition of the Joint Committee

Chairman Under-Secretary of State, MOAC

Japanese Side	Thai Side
1. Team Leader	1. Director-Generals of CPD, DA and DAE
2. Expert(s) designated by the team leader	2. Project Manager
3. Coordinator	3. Coordinator from Foreign Relations Div, MOAC.
4. Representative of JICA	4. Representatives of DIEC, Budget Bureau and NESDB.

Notes:

- (1) An official of the Embassy of Japan may attend the meeting of the Joint Committee as an observer.
- (2) MOAC : Ministry of Agriculture and Cooperatives
- (3) CPD : Cooperatives Promotion Department
- (4) DA : Department of Agriculture
- (5) DAE : Department of the Agricultural Extension
- (6) DIEC : Department of Technical and Economic Cooperation
- (7) NESDB: National Economic and Social Development Board
- (8) JICA : Japan International Co-operation Agency

タイとうもろこし開発計画に対する技術協力のための
日本国農業調査団とタイ国政府との討議議事録

国際協力事業団によって組成された大戸元長氏を団長とする日本国農業調査団は、協同組合展示センターを中心として実施するとうもろこし開発プロジェクトの具体的協力計画を策定する計画をもって1976年8月31日から9月17日までタイ国を訪問した。

同調査団はタイ国滞在中、同国政府関係者ととうもろこしプロジェクトを成功させるため、両当事者により実施されるべき諸事項につき、意見を交換するとともにプロジェクトのための実施設計を行った。

同調査団による調査及び両当事者間の協議の結果を両当事者は各々の政府に対して、別添討議議事録中にある事項につき勧告することにつき合意に達した。

1976年9月17日

(署名)

大 戸 元 長
調査団団長 JICA

(署名)

スリン・チョシプラサート
農業協同組合省協同組合促進局局長

立 会 人

(署名)

ワンチーイ・シリラタオ

DTEC 次長

討 議 事 録

- 第1. (1) 両国政府は農業協同組合展示センターを中心として、とうもろこしの品質改善生産技術の改良を行い、その生産性の向上を推進するとともに併せて農業協同組合の育成及び農業の近代化に貢献することを目的として、とうもろこし開発技術協力プロジェクト（以下「プロジェクト」と呼ぶ）を相互に協力して実施する。
- (2) プロジェクトは付表1に定める基本計画に基づき実施される。なおプロジェクトは日・タイ農協間のとうもろこし開発事業と緊密に連携を保ちつつ実施される。
- (3) プロジェクトは第Ⅱ表にいう「合同委員会」が毎年作成する年次事業計画に従って実施される。作成された年次事業計画は両政府の関係当局によって承認されるものとする。
- 第2. (1) 日本国政府関係当局は、日本国において施行されている法令に従い、付表Ⅱに掲げる日本人専門家の役務をコロンボ計画技術協力計画に基づく通常の手続きによって、自己の負担において供与するための必要な措置をとる。
- (2) (1)の日本人専門家とその家族は、タイ国において他の国のコロンボプラン専門家に与えられていると同等の特権、免除及び便宜を与えられる。
- 第3. (1) 日本国政府関係当局は、日本国において施行されている法令に従いプロジェクトの実施に必要な設備、機械、器具、車輛、工具、予備部品及びその他の資材を、コロンボ計画技術協力計画に基づく通常の手続きによって、自己の負担において供与するため必要な措置をとる。
- (2) (1)にいう物品は、陸揚港においてc.i.f.建てでタイ国政府関係当局に引き渡されたときに、タイ国政府財産となり、かつこれらの物品は、日本人プロジェクトリーダーと協議の上、プロジェクト実施のための

み使用される。

第4. (1) 日本国政府関係当局は、日本国において施行されている法令に従いプロジェクトに携わるタイ国人を、コロンボ計画技術協力計画に基づく通常の手続きによって日本国に受入れ訓練又は視察旅行を行うために必要な措置をとる。

(2) タイ国政府は、(1)のタイ国人が日本国における技術訓練により得た知識及び経験がプロジェクトの実施のために効果的に利用されることを確保するために必要な措置をとる。

第5. タイ国政府は、自己の負担において次のものを確保するために必要な措置をとる。

(1) 付表Ⅳに掲げるタイ国職員

(2) 付表Ⅴに掲げる土地及び建物、並びに付帯施設

(3) 普及すべき優良品種の原種子

(4) プロジェクトの実施のために必要な設備、機械、器具、車輛、工具、予備部品及びその他の資材(第3の(1)に基づき日本国政府によって供与されるものを除く。)

(5) 日本人専門家及びその家族のための適当な家具付宿舍

(6) タイ国内の日本人専門家の公用旅行のための便宜及び旅費

第6. タイ国政府は次のものを負担するため必要な措置をとる。

(1) 第3の(1)にいう物品のタイ国内における輸送並びにこれらの物品の据付け、操作及び維持に必要な経費

(2) プロジェクトの実施に必要なすべての運営費

(3) 第3の(1)にいう物品につきタイ国内で課せられることのある関税、内国税及びその他の課税金等

第7. タイ国政府はプロジェクトの運営及び実施について責任を負い、日本人専門家はプロジェクトの実施のために必要な技術上の指導及び助言を与える。

第8. タイ国政府は、プロジェクトに携わる日本人専門家のタイ国における職務の遂行に起因し、その遂行中に発生し、又はその他その遂行に関連し、日本人専門家に対する請求が生じた場合には、その請求に関する責任を負う。

ただし、日本人専門家の故意又は重大な過失から生ずる責任については、この限りではない。

第9. プロジェクトを円滑に推進し、効果的に実施させるために、日本人専門家及びタイ国政府関係者は緊密に協議するものとし、付表Ⅳに掲げる構成による合同委員会を設置する。

委員会は少なくとも年1回は開催されるものとする。

第10. プロジェクトの実施を成功させるため、両国政府は必要に応じ、相互に協議を行う。

第11. この討議議事録による日本国の技術協力期間は署名の日より3ヶ年とする。その後の技術協力に関しては、協力期間中に両国政府間において相互に協議する。

付 表 Ⅰ

プロジェクトの基本計画

A プロジェクトの構成

1. 試験圃、実習圃、採種圃及び展示圃を含む協同組合展示センター（以下センターという）をロッブリ県チャイバダン郡に設置する。

センターにおいては、とうもろこしの栽培改良技術に関する実用試験、訓練教育及び普及展示等の事業を実施する。

2. 技術協力の効果的普及を図るため下記の5県の地域内に普及拠点を設ける。

- | | |
|------------|-------------|
| 1. ロッブリ県 | 4. ビンサヌロック県 |
| 2. サラブリ県 | 5. スコタイ県 |
| 3. ベチャブーン県 | |

- (1) 下記の6農協、及び合同委員会によって定められる上記A2、5農家集団が普及拠点となる。

- | | |
|--------------|--------------|
| 1. チャイバダン農協 | 4. ブロンピラム農協 |
| 2. プラブダバード農協 | 5. ノントン農協 |
| 3. ベチャブーン農協 | 6. サワンカローク農協 |

- (2) 普及拠点の中、ベチャブーン農協、ノントン農協、サワンカローク開拓農協を除く8拠点につき、各々約13 haの展示圃を設置する。

3. 普及種子の円滑な供給を確保するため、センター内及びその周辺の適切な場所に採種圃を設置する。採種圃は各々第1年次100 ha、第2年次140 ha、第3年次160 haを必要とする。

B プロジェクトの事業内容

1. 基礎技術組立実用試験

農業試験研究機関で開発された基礎研究をもとに個別技術の実証、組立実用化、及び地域適応性の確認等を行うため次の試験をセンターで行う。

基礎技術組立実用試験

品種適応試験

施肥試験

水管理試験

病虫害試験

作付体系試験

2. 種子増殖事業

農業普及局との連携のもとに農業技術号から供給される原種子を採種圃において増殖し、普及用種子を生産する。生産された普及用種子は農協及び農家集団等を通してA(2)に示された5県内管轄下のとうもろこし栽培農家に配布される。

3. 病虫害防除事業

農業普及局で実施するとうもろこし病虫害防除事業に協力する。

4. 普及展示

A(2)において設置された展示圃において、センターで開発された栽培改良技術を表示し、併せてその普及拠点への効果的普及を促進するため、専門家による巡回指導を行う。

5. 採種及び栽培改良技術の訓練

A(3)の採種圃に係る農家及びとうもろこし栽培農家等を対象にセンターにおいて普及用種子の採種及び栽培改良技術の訓練を行う。

6. 農業機械化体系事業

とうもろこし栽培の機械化体系の確立、及びその普及促進のため、センターにおいて農業機械化体系組立実用試験及び農業機械操作補修訓練を行うとともに、センター内及びA(2)の展示圃において農業機械化体系の展示を行う。

7. 農業管理指導事業

農協及び農家集団の育成、強化を目的として、センターにおいて農協等職

員の訓練、教育を行い、普及拠点の6農協、5農家集団に対し専門家による巡回指導を行う。

付 表 Ⅰ
日 本 人 専 門 家

専門家の職別	分 野
(1) プロジェクトリーダー	
(2) 専 門 家	採 種 栽 培 負 業 檢 核 農 協 及 び 甘 及
(3) 調 整 員	

註：必要に応じ短期専門家を派遣する事ができる。

付 表 Ⅰ

供 与 機 材

1. とうもろこし生産のための、器械、機械、器具、スペアパーツ、肥料
2. 種子調整貯蔵のための機器材及びスペアパーツ
3. 病虫害防除のための機器材及び化学薬品
4. センター用機器材修理用機材
5. 試験研究事業のための資機材
6. 車 輛
7. 訓練指導事業のための視聴覚機材
8. その他必要資機材

付 表 Ⅳ

タイ人専門家及びその他の職員

職員の種別	分野
(1) 所 長	
(2) 技 術 者	採 種 栽 培 土壌肥料 病理昆虫 農業機械 灌 漑 苗 及 農 畜 農業経営
(3) 事務職員及び業務員	
(4) 労働者	

付 表 V
土 地・建 物

1. 土 地

(1) センター用地	約16 ha
(2) 採種圃	約160 ha (第3年次)
(3) 展示圃	約104 ha 8普及拠点地区

2. センター内建物

(1) 事務所	(8) 農機具庫
(2) 車庫	(9) 農機具整備場
(3) ゲストハウス	(10) 種子乾燥場
(4) 教室	(11) 種子調整作業場
(5) 実験室	(12) 種子格納庫
(6) 資材庫	(13) 研修員宿舎
(7) 資材庫	

付 表 II

合同委員会の構成

議 長 農業協同組合省次官

日 本 側

1. チームリーダー
2. 専門家代表
3. 調整員
4. JICA代表

タ イ 側

1. 協同組合促進局、
農業局及び農業普及局
の局長
2. プロジェクト・マネージャー
3. 農業協同組合省
海外部コーディネイター
4. 技術経済協力局、予算局及び
国家経済社会開発庁の代表

(注) 日本国大使館館員はオブザーバーとして合同委員会に
出席することができる。

タイとろもろし産業開発計画了解事項

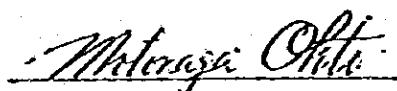
NOTE OF UNDERSTANDING

The Japanese Technical Guidance Team, organized by the Japan International Cooperation Agency, visited Thailand from July 27 to August 10, 1978, for the purpose of assisting the Thai authorities concerned in formulating the operational plans of "The Technical Cooperation Project on Maize Development in Thailand".

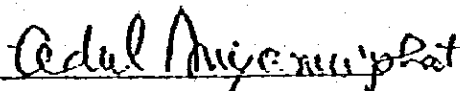
In the discussions between the Team and the authorities concerned of the Government of Thailand, the latter party reported the implementing status of the Project and asked for the agreement of Japanese Government on the change of the site of the Cooperative Demonstration Center from Amphur Chai Badan, Lop Buri Province, which was originally planned in the Record of Discussions of September 17, 1976, to Amphur Muang, Lop Buri Province. The Team, after investigation of this site, judged that it is suitable for the project in respect of location, topography, soil conditions and other circumstances.

Consequently, the Team and Thai Government authorities concerned agreed that the Team would recommend to the Government of Japan to approve the change of the site of the Center as mentioned above.

Bangkok, August 9, 1978



Motonaga Ohno
Head of the Japanese Technical
Guidance Team,
Japan International Cooperation
Agency



Asil Niyosaviphat
Director-General
Cooperatives Promotion
Department

The Summary Report of the Japanese
Technical Advisory Team for the Technical Cooperation
Project on Maize Development in Thailand

In order to expedite the implementation of "The Technical Cooperation Project on Maize Development in Thailand" the Japan International Cooperation Agency (JICA) organized the Technical Advisory Team, headed by Mr. Motonaga Ohts, and dispatched to Thailand for the period of two weeks from 27 July 1978.

The main tasks assigned to the Team were :

(1) To investigate, in respect of its suitability, the site of the Cooperative Demonstration Center at Prabuthabat which had been selected by the Thai government in place of Chaibadan mentioned in the Record of Discussion (R/D) of September 1976.

(2) To be informed of the progress of the project implementation and the causes of the delay thereof.

(3) To discuss with the Thai officials concerned and Japanese experts assigned to the project on various problems of implementation and assist them in preparing the plan of operation to be submitted to the Joint Committee.

Upon arrival at Bangkok, the Team visited, primarily for courtesy call, the Deputy Under - Secretary of the Ministry of Agriculture and Cooperatives (MOAC), Director - General of the Department of Cooperative Promotion (DCP), Agriculture (DA) and Agricultural Extension (DAE) in the Ministry and also the Director - General of Technical and Economic Cooperation (DTEC).

The Team then made an over - night trip to Prabuthabat to investigate the site of the Center. The Team also made brief visits, during the trip, to the Corn and Sorghum Center, Thai - Danish Dairy Farm and the Foot and Mouth Disease Center recently established with Japanese cooperation.

1. Discussion with Thai Authorities

After the courtesy calls and field trip, the Team had intensive meetings with the Thai officials of the three Departments of MOAC and the Japanese experts assigned to this project on various matters of project implementation. The main subjects discussed at the meetings were as follows.

(1) Progress of the project implementation.

The Team was informed of the progress and present situation of the project. The Thai officials prepared a paper entitled "Development and Present Situation" for submission to the Joint Committee, a copy of which is attached hereto.

The main reason of the delay of the project implementation, as the Team understood, was the difference of fiscal year between Japan and Thailand.

The date of signing R/D (17 September 1976) was only two weeks before the starting of Thai fiscal year 1977 and it was too short for the Thai Government to include the project expenses in its national budget for 1977. Thus the budget decision at the cabinet was not made until July 1977 for fiscal year 1978 which commenced from October 1977. Furthermore, the sharp rise of land price which took place thereafter made it difficult for the government to acquire the land in Chaibadan as originally scheduled in R/D. And the government decided on 9 March 1978 to establish the Center in the site of Praphuthabat Agricultural Experiment Station.

The Team was informed that the designing of the buildings to be constructed in the Center had been completed and the construction work would be completed by the end of March 1979 except for seed storage house.

(2) Site of the Center

The Team, informed to the Thai officials that the site of the Center in the Praphuthabat Agricultural Experiment Station seemed to be suitable, in respect of location, topography, soil conditions, infrastructure such as electricity and other circumstances. The Team also felt that close cooperation between the Center and the experiment station would be best secured at this location.

(3) Expert Services.

There are two Japanese experts working for the project, i. e., Mr. Tanaki, the leader expert and Mr. Sakamoto, expert on cultivation, since October last year. The Team informed to the Thai officials that three more experts would be assigned; an expert on agricultural machinery in late August, two experts on cooperatives and seed production by the end of March next year.

With respect to the coordinator mentioned in R/D, Thai officials desired that the incumbent should be a technical person who could work on technical field in addition to the task of coordinator. The Team agreed on this proposal and thought that the person might well be an agronomist to assist in part the seed production expert.

(4) Fellowships

A trainee on agricultural machinery is now studying in Japan under the project. The Team informed that three fellowships for observation tour and two for training on seed production were scheduled from late August 1978.

Regarding the fellowships in fiscal 1979, the Thai officials proposed several fields of training and observation tours for JICA'S consideration.

(5) Provision of machinery and materials.

The Team informed that the provision of machinery, equipment and materials in the fiscal 1977 amounted to ¥ 89,730,000. This amount of disbursement exceeded the initial budget for that year. The Thai officials confirmed that all these machinery and materials had arrived and received by the Thai government.

The Team further informed that the budget for the current fiscal year (1978) is ¥ 74 billion which would be used mainly for the provision of seed-processing equipment, audio - visual aids, repair machines and tools, testing equipment, fertilizers and chemicals. The budget for fiscal 1979 is not yet decided, but at least ¥ 60 billion is expected for the provision of machinery and equipment. The major part of the 1979 budget would be for the equipment of air - conditioned seed storage and drying bins.

2. Plan of Operation.

The Team assisted the Thai officials and Japanese experts in preparing the draft plan of operation which is attached hereto.

It must be noted, in particular, that the target of the seed production in the fiscal period (May - Sept 1979) is set at 552 tons. This amount conforms with the full capacity of the air - conditioned storage houses to be built in the Center and larger than the amount (400 tons) envisaged in the Master Plan in R/D. The representative of DA which is responsible for the production of stock seed assured that his Department can supply the necessary amount of stock seeds for the production of 552 tons of extension seeds.

The seed production of the project will be implemented on contract with seed farmers under the guidance and supervision of the staff of the Center and Japanese. The area required for the production of 552 tons of extension seed will be about 230 hectares.

In the Master Plan in R/D the production of seeds within the Center was planned in addition to the production on contract, but the draft plan of operation abandoned the idea of seed production in the Center, in consideration of possible danger of contamination from different varieties which might be planted for experiment in the experiment station.

In order to attain the final target of 552 tons of seed production in the rainy season of 1979, the air - conditioned seed storage has to be completed by the end of October 1979. The procurement and shipment of the equipment for the storage, the cost of which will be budgeted in 1979 fiscal year (starting April 1979), have to be done in a speedy way on the part of JICA, likewise, the procedure for custom clearance at Bangkok port and installation work in the Center have to be done quickly on the part of Thai government.

3. Joint Committee

The first meeting of the Joint Committee of the Project, as stipulated in R/D, was held in the afternoon of 7 August 1978 at the conference hall of KOAC. The meeting was chaired by the Deputy Under - Secretary of State for KOAC and attended by the Committee members and observers. The list of attendants and the agenda are attached herewith.

After listening the explanation on the progress and present situation of the project, the Committee discussed on the draft plan of operation and adopted it without amendment. The Team was impressed by the enthusiasm and confidence for the project with which the Thai members of the Committee discussed the operation plan.

Under the agenda item 4, the Thai members expressed their strong desire for the extension of the period of technical cooperation beyond September 1979 when the cooperation period under the R/D will expire. The representative of JICA, who attended the meeting as the Japanese member of the Committee, stated that he took note of the desire of Thai members for extension and would report to his headquarter. He explained that an evaluation team would be sent by JICA in a near future for making the decision on this matter. He added also that almost all technical cooperation project of JICA in the field of agriculture were carried out for at least five years of period.

Thai members emphasized that their government must be informed of the affirmative decision of the Japanese government by the end of this year in order to be in time for the preparation of the project budget for 1980 fiscal year.

Since the implementation of the project is behind the schedule and only one year is left before the expiration of the cooperation period, the Team feels that the extension of the period is essential if the objectives of the project set forth in the R/D are to be attained. The decision of the Japanese government should be made in time for the

^{preparation}
budget on Thai side. The Team will recommend to the Japanese government to send promptly the evaluation Team for this purpose.

4. Exchange of Note of Understanding.

On the eve of the departure of the Team from Bangkok, the leader of the Team and the Director-General of CPD exchanged a note of understanding in respect of the change of the site of the Cooperative Demonstration Center mentioned in 1-(2) above, a copy of the note is attached herewith.

5. Acknowledgement.

The Team acknowledges and highly appreciates the cooperation and hospitality of the Thai authorities extended to the Team. The discussions between the Team and Thai authorities were carried out most friendly and effectively. The Team leader, in particular, enjoyed the opportunity of renewing the friendship with his old friends in MOAC and DICC.

August 9, 1978, Bangkok.

Leader
Technical advisory Team for
The Technical Cooperation
Project on Maize Development in Thailand.

Technical Cooperation Project on Maize
Development in Thailand

Development and Present Situation

I. Description of Project

1.1 The project has been initiated under the Record of Discussions (R/D) of September 17, 1976, a copy of which is attached hereto. The R/D adopted a 3 - year mutual cooperation for the purpose of promoting the enhancement of the productivities of maize, and contributing to the development and strengthening of the agricultural cooperatives and the modernization of agriculture through the quality improvement of maize and their production technology.

1.2 The project will be implemented in accordance with the Master Plan and in close contact with the maize development project between Thai and Japanese agricultural cooperatives.

1.3 The project will be implemented in accordance with the annual operational work plan to be formulated annually by the Joint Committee.

Master Plan for the Project

1.4 The Master Plan for the Project is as follows :

1.4.1 Composition of the Project

The project is composed of three main elements namely:

(1) The establishment of Cooperative Demonstration Centre in Lopburi Province for conducting the activities in order to achieve the desired purposes.

(2) The project covers the provinces of Lop Buri, Sara Buri, Petchaboon, Pisanuloke and Sukhothai. Following six agricultural cooperatives and five farmer's groups in the project area will become key extension bases.

- Chaibadan Ag.Coop in Lopburi Province,
- Prabuthabadi Reclamation Ag.Coop in Sara-Buri Province,
- Petchaboon Ag.Coop in Petchaboon Province,
- Proopirak Ag.Coop in Pisanuloke Province,
- Nongton Ag.Coop in Pisanuloke Province,
- Sawankaloke Land Settlement Ag.Coop in Sukhothai Province.

/ The demonstration.....

The demonstration field of about 80 rai (13 ha) will be set up at each of the cooperatives and farmer's group in the project area excluding the Petchaboon Agricultural Cooperative, Nongtoa Agricultural Cooperative and Sawankhaloke Land Settlement Cooperative.

(3) The seed production fields will be set up within the centre and at appropriate places in vicinity. The area required for the seed production fields will be approximately $\frac{1,000}{4,000}$ rai (225 ha) in the third year of the Project.

1.4.2 Activities under the Project

- (1) Applied Experiments for Production Techniques.
- (2) Seed Multiplication.
- (3) Disease and Insect Control.
- (4) Extension and Demonstration.
- (5) Technical Training in Seed Production and Improved cultivation Techniques.
- (6) Agricultural Mechanization System.
- (7) Guidance on the Management of Agricultural Cooperatives.

1.5 This project is an attempt to integrate activities of agricultural and cooperative development. There are three Departments under the Ministry of Agriculture and Cooperatives in charge of implementing this project as follows.

1.5.1 Cooperatives Promotion Department (CPD) The CPD is responsible for the administration and management of this project in close cooperation and collaboration with the Departments concerned as well as to take responsibility directly to conduct the activities in extension and demonstration, training, agricultural mechanization system, guidance on the management of agricultural cooperatives, maintenance and repairing of agricultural machinery and equipment.

1.5.2 Department of Agriculture (DA) The DA is responsible for conducting the activities in applied experiments for production techniques and disease control as well as to produce foundation seed of good varieties to supply to the DAF for seed multiplication activity. This Department will also provide technical assistance in extension and demonstration, and training activities.

1.5.3 Department of Agricultural Extension (DAE) Responsibilities for seed multiplication and insect and disease control are placed with the DAE. Cooperation and Collaboration with

/ this Department.....

this Department in extension, demonstration and training activities are also created.

Finance

1.6 This project is to be financed jointly by the Government of Japan and the Government of Thailand, under the Colombo Plan Technical Cooperation Scheme, during the three years of project implementation.

1.6.1 Japan's Contribution The contribution from the Government of Japan covers experts in the various fields concerned, materials and equipment, and fellowships to the counterparts of the project. Estimates of the total Japan's contribution are summarized in the following.

a. Cost of materials and equipment for carrying out the activities under the project during 1977 - 1979.

1977	disburse	¥	89,731,578
1978	approved budget	¥	74,000,000
1979	estimated budget	¥	60,000,000
	Total		<u>223,731,578</u>

(Approximately Baht 22,000,000 at current exchange rate)

b. Fellowships. Two fellowships in the fields of co-operatives and farm machinery were provided in 1977 - 1978. Two fellowships in the field of seed technology will be released in August 1978, and three fellowships for study tour in Japan will be included also in the same period. Fellowships for the various fields concerned are being allocated in 1979.

c. Experts. Two short-term experts were dispatched during March 1977 - May 1977 for providing assistance in formulating plan of operation under the R/D. Two long-term experts with a period of two years have been assigned since October 1977. In January - February 1978 Processing Plant Design Team was sent for providing assistance to DAE. The other four experts are being dispatched in accordance with the R/D.

1.6.2 Thailand's Contribution The estimated costs to be met by the Government of Thailand cover land and buildings, salaries and wages, supplies and equipment for office work and running expenses necessary for the implementation of the Project. Estimated costs to be met by Thailand are summarized as follows.

/ 1978

1978	Buildings	¥	4,290,000
1979	Expected for Buildings and others	¥	<u>8,030,000</u>
	Total	¥	<u>12,320,000</u>

11. Results of Work in F.Y 1977/1978

The first budget contribution from the Government of Thailand with a total amount of 4.29 million Baht was born in the fiscal year of 1977/1978 (October 1977 - Sept 1978). The following works have been carried out since October 1977.

2.1 altered the location of the centre from Chaitadan District, Lop Buri Province, as mentioned in R/D, to Muang District, Lop Buri Province. This is situated on about 110 rai of land (17.5 La) in the Prabuthatad Experiment Station of DA. It is the suitable area which can provide the infra-structural service in electricity supply.

2.2 prepared for construction works of 13 buildings to house the centre.

2.3 made known the cooperative officials in the project area to grasp with the Project. In order to strengthen the cooperative centers to participate actively the project activities, the meeting of the board of directors and the cooperative members will be arranged in the next step.

2.4 conducted the experimental work for seed production and seed multiplication during the rainy season as follows.

2.4.1 Applied experiment cum demonstration 1 ha in the centre.

2.4.2 Seed multiplication 59 ha by contract farmers.

2.5 prepared the construction works of an under-ground deep well water at the centre. The budget financed for this work has been provided by the Government of Japan at the amount of 5 million Yen. The construction will be started around the beginning of August.

2.6 prepared the draft annual operational work plan for 1979.

2.7 prepared first meeting of the Joint Committee.

Planning Division
Cooperatives Promotion Department
August 3, 1978

Plan of Operation
 Technical Cooperation Project
 On Maize Development
 1978 - 1979

1. Applied Experiment

Applied experiment will be conducted at the area of the centre during 1978 - 1979 as follows :

<u>Period</u>	<u>Total Area(ha)</u>	<u>Activity</u>
April 1978-Sept 1978	1.0	1. Cropping Pattern 2. Varietal test 3. Planting time 4. Plant population 5. Fertilizer test.
Oct 1978-Feb 1979	0.5	1. Cropping Pattern 2. Irrigation system
May 1979-Sept 1979	2	1. Cropping Pattern 2. Varietal test 3. Planting time 4. Fertilizer test 5. Weed control 6. Pest control 7. Land preparation.

2. Seed Multiplication

In order to supply extension seeds of a good variety to cooperative members and farmers in the project area, seed production field will be set up at the area of the cooperatives and at appropriate places within the project area as follows.

<u>Period</u>	<u>Place of Production Fields</u>	<u>Total Area (ha)</u>	<u>Approx. Seed Production (ton)</u>
April 1978-Sept 1978	Pratnathabud	15	36
	Packchong	40	100
Oct 1978-Feb 1979	Savankaloke		
	Land Settlement Coop.	6	14
May 1979-Sept 1979	Project Area.	230	552

3. Demonstration, Extension and Mechanization System

It will be carried out to demonstrate improved techniques of maize production to the farmers concerned as follows:

<u>Period</u>	<u>Place</u>	<u>Area(ha)</u>	<u>Activity</u>
April 1978-Sept 1978	Centre	1.0	In combination with applied experiment.
Oct 1978-Feb 1979	Centre	1.0	Developed techniques for seed production (Land preparation, varieties, Fertilizer, Irrigation etc.).
May 1979-Sept 1979	Centre	2	Developed techniques for maize production (Land preparation, varieties, Fertilizer, Irrigation, mechanization etc.).
	Chaitadan Coop. Prabuthabad Coop. Froopirax Coop. 5 Farmers Group each.		Developed techniques for maize production (Land preparation, varieties, Plant population, Fertilizer, Mechanization etc.).

4. Insect and Disease Control

Insect and disease control will be extended in cooperation with DAE to the farmers in the project area.

5. Training

Essential courses offering at the Centre to the cooperative staff, cooperative masters and farmers in the project area will be commenced around March 1978 after the completion of the facilities at the Centre. The courses will be focused on maize cultivation techniques, practical operation, maintenance and repair of farm machinery, credit and marketing of cooperative and cooperative management. Detailed programs and curriculums will be worked out in consultation with the Japanese experts of respective fields after they arrived.

In order to strengthen activities of the cooperatives, cooperative members and farmers, the staff of the Centre will also conduct round trip to provide guidance and consultation for problem solutions. Attachment is the Schedule of Plan of Operation for 1978 - 1979.

Schedule of Plan of Operation, from 1978 to 1979

	1978	1979
Applied Experiment	Feb. Mar. Apr. May. Jun. Jul. Aug. Sep. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May. Jun. Jul. Aug. Sep.	Centre 2 ha
Seed Multiplication	Centre 1.0 ha	Centre 0.5 ha
Insect and Disease Control	Prabuthabad Co-op 15 ha Pakhong 40 ha	Savankaloke Co-op 6 ha
	Project Area (Co-op) 250ha	
	Cooperation with the Operations of D.A.R. in the Project Area	
Demonstration and Extension	Centre (1.0 ha) (incubation with Applied experiment)	Centre 1 ha
		Centre 2 ha
Mechanisation System of Maize Production.		Chaidan Co-op Prabuthabed co-op Prompiram Co-op 5 Farmers' group
Training on Agricultural Machinery and on Agricultural Cooperatives Management		Training
		Outsider Attitudes to the Cooperative Concerned of the Project

Joint Committee
Technical Cooperation Project
on Rubber Development

I. Thai - Side

- | | |
|---|----------------------|
| 1. Deputy-Secretary of State for MOAC.
(Mr. Surin Cholprasert) | Chairman |
| 2. Director-General of DAT. | |
| 3. Director-General of CPD. | |
| 4. Deputy-Director General of DA.
(Mr. Soobhot Suranvong) | |
| 5. Mr. Vanlop Vithayaprat | Project Manager |
| 6. Mr. Chansan Chelkay | Coordinator for DA. |
| 7. Mr. Fatcharat Vassapee | Coordinator for DAS. |
| 8. Miss Peerarat Anugarat | Coordinator for CPD. |
| 9. Mr. Suthin Susira | DTAC. |
| 10. Mrs. Prachit Kanya | Budget-Bureau. |
| 11. Mr. Pechank Sritheodes | Budget-Bureau. |
| 12. Mr. Sthrongwith Insoon | NSDB. |
| 13. Mr. Yaacob Israngkara Ka Ayulhya | MOAC. |
| 14. Mr. Vanlop Nisaden | CPD. |

II. Japan - Side

- | | |
|--|--|
| 1. Director - J.I.C.A. Office in Bangkok
(Mr. Yasuo Kitano) | |
| 2. Mr. Tetsuji Tanaki | Chief of Japanese Experts |
| 3. Mr. Easuhito Sakamoto | Japanese Expert |
| - Observers - | |
| 4. Mr. Hiroshi Inafuji | Embassy of Japan |
| 5. Mr. Motonaga Oho | Chief of Technical Advisory -
- Team, |
| 6. Mr. Tadashi Itabashi | Member of the team |
| 7. Mr. Yoshifumi Akai | Member of the team |
| 8. Mr. Hiroshi Nishimura | Member of the team |

**First Meeting of Joint Committee
Technical Cooperation Project on Maize Development
MOAC Conference Room, August 7, 1978
At 13.30 hrs.**

Agenda

1. Opening Statement by the Chairman.
 2. Development and Present Situation of the Project.
 3. Plan of Operation for 1978-1979.
 4. Extension of the period of technical cooperation for the project.
 5. Others.
-

18. タイ家畜衛生改善計画討議議事録

THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE AGRICULTURAL SURVEY TEAM AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF THAILAND CONCERNING TECHNICAL CO-OPERATION PROJECT ON ANIMAL HEALTH IMPROVEMENT PROGRAMME IN THAILAND.

The Japanese Agricultural Survey Team, organized by the Japan International Cooperation Agency and headed by Dr. Hideo Ogata visited Thailand from February 17 to March 2, 1977, for the purpose of formulating concrete co-operation plans for the Technical Co-operation Project on Animal Health Improvement Programme which will be carried out with the Diagnostic Laboratory Centre and the Foot-and-Mouth Disease Vaccine Production Centre as its cores.

During its stay in Thailand, the Team exchanged views with the authorities concerned of the Government of Thailand on the necessary measures to be taken by both Governments to successfully implement the Technical Co-operation Project on Animal Health Improvement Programme. The Team also conducted necessary survey for the implementation of the Project.

As a result of the exchange of views and the survey, both parties agreed to recommend to their respective Governments to carry out the matters referred to in the attached Record of Discussions.

Bangkok, March 2, 1977



Dr. Hideo Ogata
Head of the Japanese Agricultural
Survey Team
Japan International Cooperation Agency



Dr. Siri Subbaratkean
Director-General
Department of Livestock Development

In the presence of



Mr. Vanchai Sirirattana
Deputy Director General
Department of Technical
and Economic Co-operation

RECORD OF DISCUSSIONS

- I. (1) To contribute to improvement of the animal health situation and its turn to livestock development in Thailand, both Governments will co-operate each other in implementing the Technical Co-operation Project on Animal Health Improvement Programme (hereinafter referred to as "the Project") with the Diagnostic Laboratory Centre and the Foot-and-Mouth Disease Vaccine Production Centre as its cores for the purposes of promoting the techniques of animal health, through animal health survey, diagnosis and the practical experiments for vaccine production.
- (2) The Project will be implemented in accordance with the Master Plan as stipulated in Annex I.
- (3) The Project will be implemented in accordance with the annual operational work plan to be formulated annually by the Joint Committee referred to in VIII.
- II. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to provide at their own expense the services of the Japanese experts as listed in Annex II through the normal procedures under the Colombo Plan Technical Co-operation Scheme.
- (2) The Japanese experts referred to in (1) above and their families will be granted in Thailand the privileges, exemptions and benefits no less favourable than those accorded to experts of third countries working in Thailand under the Colombo Plan Technical Co-operation Scheme.
- III. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to provide at their own expense such equipment, machinery, implements, vehicles, tools, spare parts and other materials required for the implementation of the Project as listed in Annex III through the normal procedures under the Colombo Plan Technical Co-operation Scheme.

(2) The articles referred to in (1) above will become the property of the Government of Thailand upon being delivered c.i.f. to the Thai authorities concerned at the ports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese adviser (or the Team leader) referred to in Annex II.

IV. (1) In accordance with laws and regulations in force in Japan, the Japanese authorities concerned will take necessary measures to receive the Thai personnel engaged in the Project for technical training or study tour in Japan through the normal procedures under the Colombo Plan Technical Co-operation Scheme.

(2) The Government of Thailand will take necessary measures to ensure that the knowledge and experience acquired by the Thai personnel mentioned in (1) above through technical training and study tour in Japan may be utilized effectively for the implementation of the Project.

V. In accordance with laws and regulations in force in Thailand, the Government of Thailand will take necessary measures to provide at its own expense:

(1) the services of the Thai counterparts and other personnel as listed in Annex IV;

(2) buildings and incidental facilities as listed in Annex V;

(3) supply or replacement of equipment, machinery, implements, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided by the Japanese authorities concerned under III (1);

(4) suitably furnished housing accommodations for the Japanese experts and their families;

(5) transportation facilities and the grant of the travel allowance for the Japanese experts for the official travel within Thailand;

(6) expenses necessary for transportation within Thailand of the articles mentioned in III(2) as well as for the installation, operation and maintenance thereof;

(7) all running expenses necessary for the implementation of the Project;

(8) customs duties, internal taxes and any other charges, imposed in Thailand in respect of the articles referred to in III (1).

- VI. The Government of Thailand will be responsible for the administration and implementation of the Project, and the Japanese experts will provide primarily technical guidance and advice for the implementation of the Project.
- VII. The Government of Thailand shall undertake to bear claims, if any arises, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with, the discharge of their official functions in Thailand, except for those claims arising from willful misconduct or gross negligence of the Japanese experts.
- VIII. There will be close consultation between the Japanese experts and the officials concerned of the Government of Thailand for effective implementation of the Project. For this purpose, a Joint Committee will be established as specified in Annex VI.
- The Joint Committee will meet at least once a year.
- IX. For the successful implementation of the Project, both Governments will consult with each other when deemed necessary.
- X. The period of the technical co-operation mentioned in this Record of Discussions will be three (3) years from the date of signature and may be extended by mutual agreement between the authorities concerned of both Governments.

Annex I

Master Plan of the Project

Activities under the Project

1. Diagnostic Laboratory Centre

The following activities will be implemented in the Administrative Regions No. 8 and 9 with the Diagnostic Laboratory Centre in Tung Song, Nakhon Si Thammarat Province as its core, in close collaboration with the related institutions (refer to the attached chart).

(1) Survey of the important animal diseases in the regions and diagnosis of animal diseases to be performed mainly in the veterinary fields of bacteriology, virology, pathology, parasitology and epidemiology

(2) Establishment of the channels of sample collection from the field, storage and distribution of veterinary biologics, extension of animal health knowledge and participation in the disease control scheme to be carried out by the Thai authorities concerned in the Regions

(3) Technical training in animal disease survey, diagnosis and control of animal diseases for technicians engaged in animal health activities, at the Centre and the related institutions.

2. Foot-and-mouth Disease Vaccine Production Centre

The following activities will be implemented with the Foot-and-mouth Disease Vaccine Production Centre in Pak Chong, Nakhon Ratchasima as its core.

(1) The practical experiments for establishment of mass production techniques of foot-and-mouth disease vaccine and training of technicians at the Centre

(2) Diagnosis and identification of types of foot-and-mouth disease virus for the whole area of the country in collaboration with the related institutions

Annex II

List of Japanese Experts

Category	Field	Organization
1. Adviser		DLD
2. Experts	Veterinary microbiology	DLC
	Veterinary pathology	DLC
	Epidemiology	DLC
	Vaccine production techniques of foot-and-mouth disease	FVDC
	Diagnosis of foot-and-mouth disease	FVDC

- Notes:
1. Short-term experts of the above-mentioned fields or others may be dispatched, when necessity arises.
 2. The Adviser will coordinate the activities of the Project and may advise about animal health improvement in Thailand.
 3. A Team Leader will be nominated by JICA among the experts.
 4. DLD: Department of Livestock Development
DLC: Diagnostic Laboratory Centre
FVDC: Foot-and-Mouth Disease Vaccine Production Centre
JICA: Japan International Cooperation Agency

Annex III

**List of the articles to be provided by
the Government of Japan**

1. Equipment, machinery, implements and spare parts for disease survey, diagnosis and control of animal diseases
2. Veterinary biologics and medicines including disinfectants for disease survey, diagnosis and control of animal diseases, and treatment
3. Equipment, machinery, implements, spare parts and other materials for the practical experiment work of vaccine production and diagnosis of foot-and-mouth disease
4. Teaching materials including audio-visual aids
5. Vehicles
6. Other necessary equipment, machinery, tools and materials to be mutually agreed upon.

Annex IV

List of Thai Counterpart Officials and
Other Personnel

Category	Field	Organization
1. Project Director		DLD
2. Counterpart Officials		
	Veterinary Bacteriology	DLC
	Veterinary Virology	DLC
	Veterinary Pathology (including Veterinary Parasitology)	DLC
	Epidemiology	DLC
	Vaccine production techniques of foot-and-mouth disease	FADC
	Diagnosis of foot-and-mouth disease	FADC
3. Clerical and service employees		
4. Labourers		

Annex V

List of Buildings and Facilities

1. Department of Livestock Development
Office for the Japanese adviser
2. Diagnostic Laboratory Centre
 - (1) Main building (including laboratories, autopsy room etc.)
 - (2) Experimental animal shed
 - (3) Garage
 - (4) Other necessary buildings and facilities
3. Foot-and-Mouth Disease Vaccine Production Centre
 - (1) Main Laboratory
 - (2) Factory
 - (3) Power house
 - (4) Shed for challenged animals
 - (5) Open type animal shed
 - (6) Breeding house of laboratory animals
 - (7) Aluminium hydroxide gel plant
 - (8) Garage
 - (9) Other necessary buildings and facilities

Note: The existing buildings and facilities of the Foot-and-Mouth Disease Laboratory will be utilized for the work mentioned in 2 of Annex I before completion of the Foot-and-Mouth Disease Vaccine Production Centre.

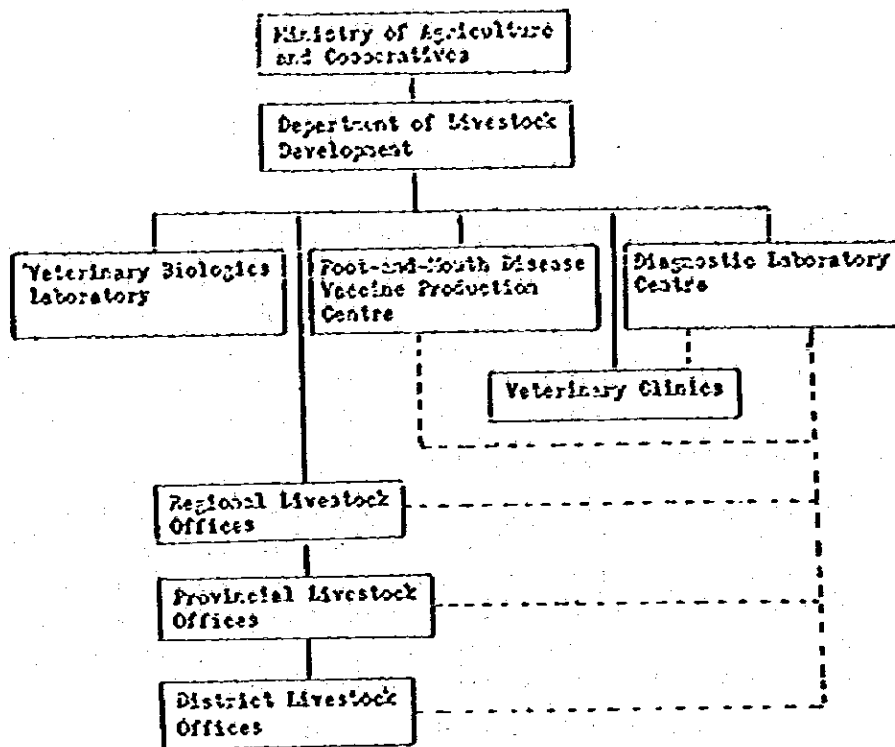
Annex VI

Composition of the Joint Committee

Chairman	Director-General of DLD
<u>Japanese side</u>	<u>Thai side</u>
1. Adviser	1. Project Director
2. Team Leader	2. Director of Veterinary Biologics Division of DLD
3. Expert(s) Designated by the Team Leader	3. Director of Veterinary Research Division of DLD
4. Representative of JICA	4. Representative of Organizations concerned

Note: An official of the Embassy of Japan may attend the meeting
of the Joint Committee as an observer.

(Attached chart) The related Institutions of the Project



Notes: _____; Administrative channel
 _____; Technical linkage channel

2--(1)

SUPPLEMENTARY NOTES TO THE RECORD OF DISCUSSIONS
CONCERNING ANIMAL HEALTH IMPROVEMENT PROGRAMME

Article II (1) "Japanese Experts"

a. Foot-and-Mouth Disease Vaccine Production Centre (FNDC)

Two (2) experts, one for suspension cell culture techniques and one for serology, will be assigned around July 1977 to the FNDC for commencing the necessary preparatory work of the Centre. The present assignment of Japanese staff from the Tropical Agricultural Research Centre might be discontinued by the end of June 1977.

b. Diagnostic Laboratory Centre (DLC)

Three (3) to four (4) experts in the fields of microbiology, pathology and epidemiology will be assigned around October 1977. Necessary arrangement for operation of the Centre by Thai side will be terminated by September 1977. A field of parasitology will be covered by the expert of pathology and that of microbiology may be divided into two (2) units; bacteriology and virology.

c. The term of office of Japanese experts will be continued in principle for three (3) years. However, some of the experts will relay his position to another new one during the period of cooperation prescribed in the Record of Discussions.

d. Experts will be requested to have experience in his field for not less than five (5) years.

Article III (2) "Provision of equipment etc."

a. Equipment, materials etc. listed in Annex III will be provided from Japan in each three (3) year to promote the Project.

b. In 1977, however, provision of those will be concentrated on the work at the DLC in Tung Song, and some of them for the first implementation of activity will be delivered by the end of September of the year (estimated value; about 50,000,000 yen or 173,000 US\$).

c. For this purpose, the list of equipment etc. to be attached to the so-called A4 form will be forwarded from the Department of Livestock Development to the authorities concerned through the DTEC at the earliest stage.

Article IV (1) "Training and Study tour of Thai Staff in Japan"

In connection with the activities of the DLC,

a. Two (2) staff will be invited to Japan for about six (6) month training each three year. One (1) may participate in the group training course of Animal Health, while another will participate in the individual course.

b. The staff to be appointed as head of the DLC will be sent to Japan for the study tour for about one (1) month to acquire the general knowledge and information on administration and operation of the Centre, before September 1977.

In connection with the activities of the FMDC,

a. The following training programme will be considered during a period of cooperation.

b. First priority will be given to training on Aluminium gel production.

(Training programme for staff of the FMDC)

a) Vaccine production;

Aluminium gel production	One person	4-6 months
General technique in virology	Two	6 months for each
Technique in cell culture with the emphasis on mass production	Two	6 months for each

b) Diagnosis;

Immunology	One	6 months
Production and health of laboratory animals	One	6 months

c) Miscellaneous;

Maintenance and repair of scientific apparatus and electrical work	One	6 months
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Bangkok
March 2, 1977



Made by Dr. Mutsu Ogata
leader of the Agricultural Survey
Team

タイ家畜衛生改善計画に対する技術協力のための日本
国農業調査団とタイ国政府との討議議事録（仮訳）

国際協力事業団によって編成された、緒方宗雄氏を団長とする日本国農業調査団は、家畜衛生センター及び口蹄疫ワクチン製造センターにおいて実施する家畜衛生改善計画プロジェクトの具体的協力計画を策定するため、1977年2月17日から3月2日までタイ国を訪問した。

同調査団は、タイ国滞在中、同国政府関係者と家畜衛生改善計画プロジェクトを成功させるため、両当事者により実施されるべき諸事項につき意見を交換した。

同調査団による調査及び両当事者間の協議の結果を両当事者は、各々の政府に対して別添討議議事録中にある事項について勧告することにつき合意に達した。

バンコク 1977年3月2日

緒方宗雄
日本国農業調査団団長
国際協力事業団

Dr. Siri Subharngkasen
畜産振興局長

Mr. Wanchai Sirirattna
技術経済協力局次長
の前において

討 議 事 録

- 第1 (1) 両国政府は、タイ国における家畜衛生の改善を図り、もって畜産振興に貢献することを目的として、家畜衛生センター及び口蹄疫ワクチン製造センターを中心に家畜疾病の調査、診断並びに口蹄疫ワクチンの製造のための実用試験等を行い、家畜衛生技術の改善を推進するため、家畜衛生改善計画技術協力プロジェクト（以下「プロジェクト」と呼ぶ。）を相互に協力して実施する。
- (2) プロジェクトは付表Ⅰに定める基本計画に基づき実施される。
- (3) プロジェクトは第Ⅱ表にいう「合同委員会」が毎年作成する年次事業計画に従って実施される。
- 第2 (1) 日本国政府関係当局は、日本国において施行されている法令に従い、付表Ⅰに掲げる日本人専門家の役務をコロンプ計画技術協力計画に基づく通常の手続きによって、自己の負担において供与するための必要な措置をとる。
- (2) (1)の日本人専門家とその家族は、タイ国において、他の国のコロンププラン専門家と与えられていると同等の特権、免除及び便宜を与えられる。
- 第3 (1) 日本国政府関係当局は、日本国において施行されている法令に従い、付表Ⅰに掲げるプロジェクトと実施に必要な設備、機械、器具、車輛、工具、予備部品及びその他の資材をコロンプ計画技術協力計画に基づく通常の手続きによって、自己の負担において供与するための必要な措置をとる。
- (2) (1)にいう物品は、差揚港において、c. i. f. 建てでタイ国政府関係当局に引き渡されたときに、タイ国政府財産となり、かつ、これらの物品は、附表Ⅰに示す日本人アドバイザー（又はプロジェクトリーダー）と協議のうえ、プロジェクト実施のためにのみ使用される。
- 第4 (1) 日本国政府関係当局は、日本国において施行されている法令に従い、

プロジェクトに携わるタイ国人を、コロンボ計画技術協力計画に基づき通常の手続きによって、日本国に受入れ、訓練又は視察旅行を行うために必要な措置をとる。

(2) タイ国政府は、(1)のタイ国人が日本国における技術訓練により得た知識及び経験がプロジェクトの実施のために効果的に利用されることを確保するために、必要な措置をとる。

第5 タイ国政府は、タイ国において施行されている法令に従い、自己の負担において、次のものを準備するために必要な措置をとる。

(1) 付表Ⅱに掲げるタイ側職員

(2) 付表Ⅴに掲げる建物及び附帯施設

(3) プロジェクトの実施のために必要な設備、機械、器具、車輛、工具、予備部品及びその他の資材（第3の(1)に基づき、日本国政府によって供与されるものを除く。）

(4) 日本人専門家及びその家族のための適当な家具付宿舍

(5) タイ国内の日本人専門家の公用旅行のための便宜及び旅費

(6) 第3の(1)にいう物品の、タイ国内における輸送並びにこれらの物品の据付け、操作及び維持に必要な経費

(7) プロジェクトの実施に必要なすべての運営費

(8) 第3の(1)にいう物品につき、タイ国内で課せられることのある関税、内国税及びその他の課徴金等

第6 タイ国政府は、プロジェクトの運営及び実施について責任を負い、日本人専門家はプロジェクトの実施のために必要な技術上の指導及び助言を与える。

第7 タイ国政府は、プロジェクトに携わる日本人専門家のタイ国における職務の遂行に起因し、その遂行中に発生し、又はその他その遂行に関連し、日本人専門家に対する請求が生じた場合には、その請求に関する責任を負う。

ただし、日本人専門家の故意又は重大な過失から生ずる責任について

は、この限りでない。

第8 プロジェクトを円滑に推進し、効果的に実施させるために、日本人専門家及びタイ国政府関係者は緊密に協議するものとし、付表Ⅰに掲げる構成による合同委員会を設置する。

委員会は少なくとも年1回開催する。

第9 プロジェクトの実施を成功させるため、両国政府は必要に充じ、相互に協議を行う。

第10 この討議議事録による技術協力期間は、署名の日より3カ年とするが、その後の技術協力に関しては両国政府関係機関の相互の合意による。

付 表 Ⅰ

プロジェクトの事業内容

1. 家畜衛生センター

ナコンシタマラト県ツンソンの家畜衛生センターを中心として、関連機関（附函参照）の協力を得て、行政区域6、8及び9を対象に次のことを行う。

- (1) 細菌学、ウイルス学、病理学、寄生虫学及び疫学の獣医分野を中心に、区域での重要家畜疾病の診断
- (2) 病性鑑定材料の採取ルートの確立、動物用生物学的製剤の保管配布、家畜衛生知識の普及を図るとともに、地域においてタイ関係当局により実施される家畜伝染病の防疫への参画
- (3) センター及び関連機関において、家畜衛生技術者に対し、家畜疾病の調査、診断及び家畜伝染病の防疫技術に関する訓練

2. 口蹄疫ワクチン製造センター

ナコンラーチャシマ県バクチョンの口蹄疫センターを中心に、次の事業を行う。

- (1) センターにおいて、口蹄疫ワクチンの大量製造技術の確立のための実用試験、技術者の養成
- (2) 関連機関の協力を得て、タイ国一円を対象とした口蹄疫の診断

付 表 Ⅰ
日 本 人 専 門 家

(専 門 家 の 職 別)	(分 野)	(所 属 実 施 機 関)
1. アドバイザー		畜産振興局
2. 専 門 家	家 畜 微 生 物	家 畜 衛 生 セ ン タ ー
	家 畜 病 理	”
	疫 学	”
	口 蹄 疫 ワ ク チ ン 製 造 技 術	口 蹄 疫 ワ ク チ ン 製 造 セ ン タ ー
	口 蹄 疫 診 断	”

- 備考 1. 必要に応じ、上記及びその他の分野について短期の専門家を派遣することができる。
2. アドバイザーは、プロジェクト業務の調整を行うほか、タイ国の家畜衛生改善について助言することができる。
3. プロジェクト・リーダーは、国際協力事業団が専門家の中から指名する。

付 表 Ⅱ
供 与 機 材

1. 家畜疾病調査、診断及び防疫のための負機材及びスペアパーツ
2. 家畜疾病調査、診断、防疫及び家畜疾病治療のための生物学的製剤並びに消毒薬を含む医薬品
3. 口蹄疫ワクチン製造のための実用試験用及び診断に必要な負機材
4. 訓練指導事業のための視聴覚機材
5. 車輛
6. その他必要負機材

付 表 Ⅱ

タイ人専門家及びその他の職員

(職員の種別)	(分 野)	(所属実施機関)
(1) プロジェクト・ディレクター		畜産振興局
(2) 技 術 者	家 畜 細 菌	家畜衛生センター
	家畜ウイルス	"
	家畜病理(家畜寄生虫を含む)	"
	疫 学	"
	口蹄疫ワクチン製造技術	口蹄疫ワクチン製造センター
	口 蹄 疫 診 断	"
(3) 事務職員及び業務員		
(4) 勞 務 者		

付 表 Ⅴ

建物及び附帯施設

1. 畜産振興局
 - 日本人アドバイザーのための事務室
2. 家畜衛生センター
 - (1) 本 館
 - (2) 実験動物舎
 - (3) 車 庫
 - (4) その他必要な建物及び附帯施設
3. 口蹄疫ワクチン製造センター
 - (1) 本 館
 - (2) 製 造 棟
 - (3) 動 力 棟

- (4) 感染牛舎
- (5) 免疫用動物舎
- (6) 実験動物生産棟
- (7) 水酸化アルミゲル製造棟
- (8) 車庫
- (9) その他必要な建物及び附帯施設

備考 口蹄疫ワクチン製造センターの完成までは、既存の口蹄疫研究所建物・施設が提供される。

付 表 Ⅱ
合同委員会の構成

委員長 畜産振興局長

日本側

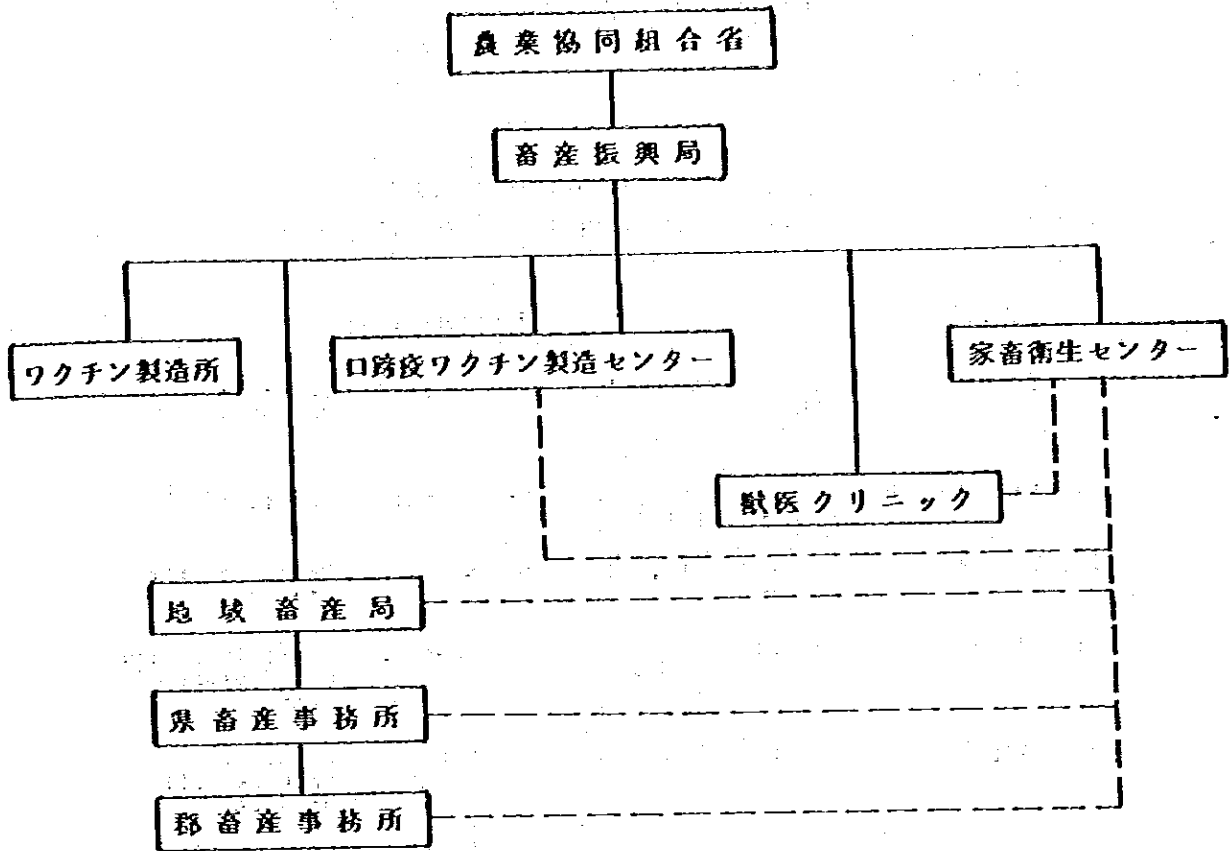
- 1. アドバイザー
- 2. プロジェクト・リーダー
- 3. プロジェクト・リーダーが必要と認める専門家
- 4. JICA代表

タイ側

- 1. プロジェクト・ディレクター
- 2. 畜産振興局動物用生物学的製剤部長
- 3. 畜産振興局獣医研究部長
- 4. 関係機関の代表

備考：在タイ国日本国大使館員は、合同委員会の会合にオブザーバーとして出席することができる。

(附図) プロジェクト関連機関



——：行政チャネル

- - - -：技術連携チャネル

タイ家畜衛生改善計画会議議事録要旨

SUMMARY OF MINUTES OF FINAL MEETING FOR TECHNICAL
COOPERATION PROJECT ON ANIMAL HEALTH IMPROVEMENT
PROGRAMME

Date & Time: 10.00-12.00 a.m. August 8, 1977
Place: Department of Livestock Development (DLD)
Attendance:

<u>Thai side</u>		<u>Japanese side</u>	
Dr. Siri	Director General, DLD	Dr. Kuragai	Leader of the Consultation team
Dr. Udom	Director, Vaccine & Serum Division, DLD	Dr. Okamoto	Member of the team
Dr. Phint	Veterinarian, FMDC	Mr. Ono	Member of the team
Dr. Vises	Veterinarian, DLD	Mr. Inafuji	First Secretary the Embassy of Japan
Dr. Prapahd	Veterinarian, DLD	Mr. Kitano	Director, Bangkok Office of JICA
		Mr. Suva	Bangkok Office of JICA

The meeting was held to discuss the matters and finalise the issues concerning the operational plan for the Technical Cooperation Project on Animal Health Improvement Programme which was mutually signed by the representative of the Thai and Japanese parties on March 2, 1977 as "the Record of Discussion", taking the occasion of the visit of the Japanese Consultation Team headed by Dr. T. Kuragai from August 2 to August 14, 1977.

Being based on the preliminary meeting on August 3 at Department of Livestock Development, Dr. Siri welcomed to the Japanese Team headed by Dr. T. Kuragai and presided the meeting.

Firstly, Dr. T. Kuragai reported the outcome of the observation and discussions with the Thai officials concerned at the Foot-and-Mouth disease laboratory, Pak Chong.

Later on, some comments has been made by Dr. Siri particularly concerned to the term of experts as well as some technical problems.

After through discussions, both parties are agreed the operational plan for an effective implementation of the Project.

Dr. Siri also expressed appreciation and thanks to the Japanese Team.

**1. Veterinary Activities under the Technical Cooperation
Project on Animal Health Improvement Programme**

FMD Vaccine Production:

A. Vaccine Production

1. Basic policy of vaccine production.

- a. The vaccine production is to start with the rolling bottle cell cultures.
- b. The volume of production is to be increased gradually up to 800,000 doses per year.
- c. At the first phase, the suspension culture in an experimental scale is to start.
- d. The size of suspension cell culture tanks is to be enlarged gradually up to 300 liters.
- e. The cell produced at an experimental phase will be used as the seeding cell for rolling bottle cell cultures, as well as used for experimental vaccine production in suspension culture tank.
- f. The regular production of vaccine with suspension cultures should start as early as possible.
- g. The target of annual vaccine production is five (5) million mono-valent doses.
- h. The production of swine vaccine (250,000 doses) will be considered annually.

2. Selection of cells.

- a. BHK-13 may be a base for the vaccine production.
- b. Haku (Hamster Lung Cell Line) and CKY (Calf Kidney Cell Line) are possibly applicable.

3. Collection of bovine serum for culture medium.

- a. At least, one thousand (1,000) liters of bovine serum from 700cattles are necessary for the production of five (5) million doses of vaccine.
A half of them must be free from FMD virus antibody.
- b. The collection system of the FMD virus-antibody-free bovine serum should be established in Thailand at the early stage of the Project.

- c. Abattoirs with proper facilities for blood collection should be specified.
- d. The blood and serum are transported by a vehicle with refrigerator.
- e. Some amount of the bovine serum will be replaced by buffalo serum when experimental result proves usefulness of the buffalo serum.

4. Virus.

- a. Selection of strains is based on;
 - a) Antigenic differences among field isolates and vaccine strains determined by the serological methods (see "Diagnosis and Epidemiology")
 - b) Antigenicity:
 - 1) ability to stimulate antibody production in cattle.
 - 2) In vitro markers relating to antigenicity such as plaque size
- b. Viruses must be adapted to new cell culture systems.

5. Control of antigen and potency test.

- a. Estimation of 140 S particle antigen by CF test is to be introduced.
- b. Potency tests in animals are performed by estimation of neutralizing antibody titer before challenge inoculation and clinical responses after challenging.
 - 1) Test in the cattle is performed routinely.
 - 2) Test in the buffalo and guinea-pig is sometimes performed in parallel with cattle test.

6. Diagnosis and epidemiology:

- 1. The diagnostic methods being applied at the World Reference Laboratory is to be introduced.
 - a. Typing by microtiter-CF
 - b. Inoculation to calf or lamb thyroid cells and suckling mice.
- 2. The virus is to be isolated from lesion samples collected as many outbreaks as possible. The isolates are typed and subtyped.

Subtyping is initiated by "Profile CF test". Selected strains are examined quantitatively together with vaccine strains by cross CF test.

3. The representative strain of the isolates and vaccine viruses are to be sent to the WFL for the antigenic comparison with reference strains.
4. Seroepidemiology in domestic and wild animals will be considered.

C. Small experimental animal.

Pure line of mice will be introduced.

D. Assignment of experts;

The following experts are expected to be assigned for FID Vaccine Production Centre. These assignment schemes are subjected to normal procedure of the Colombo Plan.

- a. Three (3) experts in vaccine production, cell culture with rolling bottle and suspension method;
 - one expert 6 months from January, 1978
 - two experts 2-3 years from November, 1977 to March, 1980
- b. Two (2) experts in diagnosis epidemiology and virology for vaccine production;
 - one expert 6 months, from November, 1977
 - one expert 1 year, from November, 1977
- c. The assignment of short-term experts in above-mentioned fields will be followed continuously for effective implementation of the Project, taking into consideration the consistency of the activities under the operational plan.

II. Diagnostic Laboratory Centre in Tung Song.

- A. Being based on the activities mentioned in "Record of Discussions" and Supplementary Note, the survey and the diagnostic system for the important diseases among listed below, should be established.

1. Hemorrhagic septicaemia
2. Hog Cholera
3. Parasitic diseases

These diseases are listed in order, considering the priority in the views of the economic loss in the Region covered by the Project. The other diseases should be investigated and listed after one year implementation of the Project.

B. Assignment of Experts

Three (3) experts in microbiology, pathology and epidemiology are expected to arrive in February, 1978, when the equipment will be disembarked at Bangkok seaport.

C. Preparation of Facilities.

To install the equipment properly, the facilities and utilities including water and fuel supply, enough electric capacity should be prepared by Thai side.

III. Advisory service in DLD, Bangkok

The adviser is expected to be assigned in December, 1977 to coordinate the activities of the Project and advise about animal health improvement in Thailand.

IV. Procedure for Colombo Plan Scheme

A. Experts;

The application (Form A1) for experts to be assigned to FMD Vaccine Production Centre should be forwarded to the Government of Japan at the earliest stage.

B. Equipment;

The application (Form A4) for equipment of which items were discussed between the Team and the Thai officials concerned, should be forwarded to the Government of Japan as early as possible.

The equipments listed in the Annex are supposed to be provided by Japanese side in Japanese fiscal year 1977 and 1978 within the budgetary appropriation.

C. Fellowship;

According to "Training Programme in Japan" mentioned in the Supplementary Note to the Record of Discussion, the application for the fellowship (Form A2, A3) should be expedite to forward to the Government of Japan. The following participants are expected to be sent

to Japan in Japanese fiscal year 1977.

Albumin gel production, 4 months	Mr. Tongdee Kuant, Scientist FMD Laboratory
Observation Tour 1 month	Dr. Prapahd Nerabitransook Education and Research Division, DLD Dr. Vises Prasert Coordinator of DLC Project, Tung Song
Diagnosis of Animal Health, 6 months	A candidate from DLC, Tung Song (or a candidate from FMDS, Pak Chong)

The application forms should reach the Government of Japan by January 1978 for necessary arrangements for training (or observation) schedule.

V. Assignment Scheme of Thai Staff

A. FMDC

In January 1978, the following staff would be available;

	Total	(1) existing staff	(2) newly assigned staff, Jan 78	(3) staff as of Jan, 78	(4) staff for Frenkel Method
Qualified veterinarian	15	11	4	14	1
Certified veterinarian	5	5		4	1
Pharmacist	1	1		1	
Biologist	2	0	2	2	
Electrician	2	1	1	2	
Metal engineer	1	1		1	
Animal Husbandry technician (non qualified)	2	0	2	2	
Administrative officer	1	1		1	
Worker	86	60	26	71	15
Total	115	80	35	98	17

Note

1. Number of existing staff in FMD Laboratory
2. Number of newly assigned staff in fiscal year 1978
3. Number of staff at FMD Vaccine Production Center as of January 1978.
4. Number of staff to work at FMD laboratory.

B. DIC, Tung Song

At the first stage, the director and three veterinarians are to be temporarily appointed from the Research and Education Division for preparation of the project and around January, 1978 these three veterinarians will be replaced by the newly assigned veterinarians.

	as of Jan. '78
Director (qualified vet.)	1
Qualified veterinarian	5
Certified veterinarian	9
Worker	11
Scientist	3
Mechanic	1
Administrative officer	1
Typist	1
Driver	5
Total	<u>37</u>

Counterpart Fund for the Project

The counterfund to implement the Project in Tung Song and Pak Chong will be provided by Thai side.

ex 1: List of equipment, machinery for the Foot-and-Mouth Disease Vaccine Production Centre, Pak Chong

ex 2: Supplemental list of equipment for the Diagnostic Laboratory Centre, Tung Song.

SUPPLEMENTARY NOTE TO THE SUMMARY OF MINUTES
OF FINAL MEETING FOR TECHNICAL COOPERATION
PROJECT ON THE ANIMAL HEALTH IMPROVEMENT
PROGRAMME, CONCERNING THE DIAGNOSTIC LABORATORY
CENTRE IN TUNG SONG

The Japanese Consultation Team headed by Dr. T. Kunagai made an observation trip to the Diagnostic Laboratory Centre in Tung Song and its surrounding area on August 9-10, 1977.

Following up the discussions at the final meeting on August 8, 1977, the Team made the following comments and recommendations to the Department of Livestock Development for the effective implementation of the Project.

The issues which are raised in this note, will be discussed by the Joint Committee to be held upon the arrival of the Advisor and Experts from Japan.

1. Water Supply

The existing water supply facilities are insufficient for the laboratory works. The water supply system to meet the demand of the Centre should be established as soon as possible.

- 1) to enlarge to a greater depth the existing well.

It is necessary to conduct boring test in the near future.

- 2) to dig and build a reservoir.

2. Air-conditioners

The provision of an additional five (5) units of air-conditioners, ten (10) in total, will be considered by the Japanese side, for the six (6) laboratories and four (4) sterile rooms.

3. Incinerator

An incinerator is a necessity for the veterinary laboratories.

- 1) An incinerator is expected to be set up in the early

state.

2) It is desirable to build another post-mortem room for large animals, annexed to the incinerator.

4. Fittings

1) Each laboratory will be equipped with sink, bench and working table by November, 1977. Cupboarded, desks, chairs and other fittings will be furnished shortly.

2) The gas facilities such as gas container, plastic tube and burner will be provided in the laboratories upon the arrival of Experts from Japan.

5. Water Distilling Apparatus

A tank with a filter for rain water will be built next to the main building of the Centre to supply the water to each laboratory for producing the distilled water. In case of a shortage of rain water, the transportation of the distilled water from FMD Vaccine Production Centre in Pak Chong or other facilities should be considered.

6. Experimental Animals

At the first stage, the following experimental animals are required; at least, two(2) sheep, ten(10) chickens and twenty(20) guinea-pigs. The Thai side will provide the cages for these animals except cages for the guinea-pigs.

7. Communication Facilities

To keep close cooperation between the Centre and related institutions as well as between the Advisor in DLD and the Experts in the Centre, a telephone should be installed.

8. Garage

The garage, mentioned in Annex V of the Record of Discussions is expected to be built in time for the arrival of the vehicles (one mini-bus, one station wagon and motor cycles)

9. Coordination with related institutions

The coordination with the related institutions, mentioned in Annex I of Record of Discussion particularly in Southern Regions, should be emphasized in order to implement

the Project smoothly.

10. Collection system of the bovine serum for FMD vaccine

Concerning the summary of minutes of the final meeting, the article I-A-3-b "collection system of the FMD Virus-antibody-free bovine serum" should be revised as follows:

The collection system of the bovine serum for FMD vaccine should be established at the early stage of the Project.

Concerning the way to collect FMD antibody free serum, it is desirable to establish a herd of donor cattle in a site suitable for protection of cattle from FMD infection.

An alternative is to import the serum from Japan or any other country which is free from FMD.

August 11, 1977

Dr. T. Kuragai
Leader, The Japanese Consultation
Team for the Technical Cooperation
Project on Animal Health
Improvement Programme

1. 討議議事録要旨(8月8日)

タイ家畜衛生改善計画技術協力プロジェクトに関する最終会議議事録要旨

日時 : 1977年8月8日 午前10時~12時

場所 : 畜産振興局

出席者 :	(タイ側)	(日本側)
Dr. Siri	局長	熊谷 計画打合チーム団長
Dr. Udom	製剤部長	岡本 / 団員
Dr. Phinit	口蹄疫研究所所長	小野 / 団員
Dr. Viset	研究教育部	今藤 日本大使館一等書記官
Dr. Prapahd	研究教育部	北野 JICAバンコック事務所長
	(ソノノ/DLD所長予定) 諏訪	/ 所員

1977年3月2日、日・タイ両国関係者の間で署名された「タイ家畜衛生改善計画技術協力プロジェクト」討議議事録に関する事業実施計画について協議するため、熊谷博士を団長とする計画打合チームの訪タイの機会(8月2日~8月14日)を利用して、この会議が開催された。

8月3日の第一回会議において、討議された事項をうけて、Siri 局長の主宰のもとに会議は行われ、まず、熊谷博士を団長とするチームを歓迎する旨、表明があった。

はじめに、熊谷団長より、バクチョンの口蹄疫研究所関係者との協議結果等について報告が行われた。

ひきつづき、Siri 局長より、いくつかの技術上の諸問題および専門家の任期について意向表明があった。

討議の後、両国関係者は、プロジェクトを効率的に実施するため(別紙の)事業実施計画について合意した。

最後に、Siri 局長よりチームに対し、感謝の意の表明があった。

1 タイ家畜衛生改善計画技術協力プロジェクト 事業実施計画
口蹄疫ワクチン製造センター

A. ワクチン製造

1. ワクチン製造の基本的方針

(* 2)

- a. ワクチン製造を回転培養法により開始する。
- b. ワクチン製造量は徐々に増やし、年間80万ドーズまで達するようになる。
- c. 第一段階においては、浮游培養法を実験的規模において開始する。

(* 1) 当初、日本側より示された専門家派遣計画に対し、Siri局長より、専門家の任期をできるだけ長期に、短期専門家の場合も少なくとも6カ月間に、との要望があった。

(* 2) 現在、口蹄疫研究所においては、フレンケル法により年間約100万ドーズ、またBHK細胞静置培養法により10万ドーズのワクチンを製造している。

- d. 浮游培養タンクの大きさは徐々に拡大し、300ℓまでにする。
- e. 実験的規模の浮游培養法により、つくられた細胞は、浮游培養タンクによる実験的ワクチン製造の培養細胞として、使われると同時に、回転培養法の種細胞としても使われる。
- f. 浮游培養法による本格的ワクチン製造を、できるだけ早期に開始する。
(* 3)
- g. ワクチン製造量の目標は500万ドーズ(単価)とする。
- h. 豚の口蹄疫ワクチン製造についても年間(1978年には)、25万ドーズを検討する。
(* 4)

2. 細胞の選択

- a. ワクチン製造のベースとして、細胞BHK-13が選択される。
- b. Balu またはCKT系統の細胞も使用可能と考えられる。

3. ワクチン培養液に用いる牛血清の採取システム

- a. 500万ドーズのワクチンを製造するには、少なくとも、牛700

頭からの1000ℓの血清が必要となる。

そのうち、半分(500ℓ)の血清は口蹄疫ウイルスの抗体をも
(・5)
たないものでなければならない。

b. プロジェクトの初期の段階において、タイ国内に、口蹄疫ウイルス無抗体の血清の採取システムを確立する必要がある。

b. (改訂条項)

口蹄疫無抗体血清の採取システムについては、口蹄疫に罹らないように防護策を講じた適当な地域(南部タイ)に、血清採取用の牧場をつくるのが望ましい。(フリーゾーン)代替策としては、口蹄疫無抗体血清を日本または口蹄疫のない国から、輸入することが考えられる。

(・7)

c. 血清採取のため、設備の整った屠場を指定する必要がある。

d. 血液、血清は冷蔵施設車により、輸送される。

e. 水牛血清の有効性が明らかとなった場合、牛血清の同等かを水牛血清をもって充てる。

4. ワクチン用ウイルス

a. ワクチン用ウイルス株の選択は次の方法に拠る。

a) 血清学的方法により、ワクチン株と野外流行株との間の抗原的差異を調べ、よく一致した株を用いる。

(・3) 当初、日本側は1979年に本格的ワクチン製造開始を説明したが、Dr. Siriより「可能な限り、早期に」との要望があった。

(・4) 現在、口蹄疫研究所において、豚用ワクチンを試験的に生産し、好成績をあげており、1978年度25万ドーズの生産を目標にしている。

(・5) 口蹄疫無抗体血清の確保について、タイ側は当初、しばらくの間は日本、オーストラリア等から輸入したいと述べたが、

日本側は強く、タイ国内における特定の血清採取牧場の設立
が望ましい旨、述べた。

(* 6) 南部タイ、関係施設見学後、口蹄疫抗体のない血清採取用
の牧場を南部に設立することが可能との感觸を得て、8月11
日の会議(D L D)の際、追加した。

(* 7) Udom 部長より、現在バンコックの屠場より血液採取して
いると説明があった。

b) 免疫原性

1) 牛における抗体産生刺激能力

2) プラークサイズのような免疫原性と関連のある試験管内
標識

b. ウイルスは新しい細胞培養法に順応させる必要がある。

5. 抗原量測定および力価試験

a. 橋体結合反応による 1 4 0 S 粒子抗原の測定を導入する。

b. 動物による力価試験は攻撃接種前の中和抗体測定と攻撃接種後の臨
床反応で判定する。

1) 牛による効力試験を常時行う。

2) 水牛およびモルモットによる効力試験を牛による効力試験と平
行して遠時行う。

B. 診断および疫学

1. 世界口蹄疫センター(イギリス)で用いられている診断方法を導入
する。

a. マイクロタイター、橋体結合反応によるクイピング(タイプ決定)

b. 仔牛または仔羊の甲状腺細胞、乳のみマウスの接種

2. できるだけ多く、口蹄疫発病家畜の病変からサンプルを集め、ウイ
ルスを分離する。分離されたウイルスについてはクイピング、サブク
イピングを行う。サブクイピングは「プロフィール C F テスト」により

行う。選抜されたウイルス株は、ワクチン株とともに定量的交差CFテストを行う。

3. 分離されたウイルス株およびワクチンウイルス株の代表サンプルは標準ウイルス株との抗原性比較のため世界口蹄疫センター(WRL)に送付する。^(・8)
4. 家畜および野生動物の血清疫学調査は今後の検討課題とする。^(・9)

C. 小実験動物

純系マウスの導入を計画する。

D. 専門家派遣計画

口蹄疫ワクチン製造センターに、次の専門家の派遣が予定されている。この派遣計画はコロポ計画にもとづく通常の手続にしたがって実施される。

- a. ワクチン製造—細胞培養(回転培養法, 浮遊培養法)分野の専門家
3名

短期専門家1名 6カ月 (1978年1月~)

長期専門家2名 2~3年 (1977年11月~1980年3月)

- b. 診断(ワクチン製造のための疫学, ウイルス学)の分野の専門家
2名

短期専門家1名 6カ月 (1977年11月~)

長期専門家1名 1年 (1977年11月~)

- c. 上記の短期専門家については、プロジェクトの効果的運営のため、経時的に、後任専門家を派遣するとともに、事業実施計画にもとづく、活動の一貫性を十分考慮しつつ、実施する。^(・10)

(・8) 以前、口蹄疫研究所より、WRLにウイルス株を送付した事例はあったが、WRLより回答がなかったとのタイ側の説明があった。今後、日本側よりもWRLの積極的協力を要請することを約した。

(・9) Siri局長より野生動物の調査は現実的に困難をともなう旨の説明があった。

(・10) Siri局長より、短期専門家の交替により、(研究)活動の一貫性、計画性が損われないように配慮を望むとの要望があった。

ツンソン家畜衛生センター

討議議事録および付属ノートに記載された事業活動にもとづき、下記に掲げる重要な家畜疾病について、調査、診断システムの確立をはかる。

1. 出血性敗血症(牛)
2. 豚コレラ
3. 寄生虫病

これらの疾病は、プロジェクトの対象とする地域(行政地域8および9)において、経済的損失の観点から、優先順に掲げたものである。その他の多くの家畜疾病については、十分調査を行い、プロジェクトを一年間実施した後、リストアップすることとする。

専門家派遣計画

微生物学、病理、疫学分野の専門家3名(各々1名)は、供与機材がバンコック港で荷揚されると予想される1978年2月頃、派遣される予定である。

施設の整備

機材を適確に設置、使用するために、給水、ガス、十分な容量の電気等の設備がタイ国によって準備されることが必要である。

畜産振興局、アドバイザーの派遣

プロジェクトの諸活動の調整、およびタイ国の家畜衛生改善についてアドバイザーするため、1977年12月頃アドバイザーの派遣が予定されている。

コロンボ計画の諸手続

専 門 家

できるだけ早期に、口蹄疫ワクチン製造センターに派遣される専門家の要請書（A1フォーム）を日本政府に送付する。

機 材

できるだけ早期に、本チームとタイ側関係者の間で討議、作成された機材リストにもとづき、要請書（Aフォーム）を日本政府に送付する。

付表に、リストアップされた機材は、日本側の予算の範囲内で1977および1978会計年度に供与される予定である。

研 修 員

「討議議事録」付属ノートに記載された「日本における研修計画」にもとづき、研修員受入要請書（A2、A3フォーム）を早期に日本政府に送付するように手続を迅速に行う。

日本の1977会計年度内に、次の研修員がタイ側より派遣される予定である。

アルミゲル製造	4 カ月	Mr. Tongdee 口蹄疫研究所、科学的研究員
(家畜衛生事情) 視察	1 カ月	Dr. Prapahd DLD 教育研究部 (DLD 所長予定) Dr. Visess DLD 教育研究部 (DLD 担任)
家畜衛生・診断	6 カ月	DLC の候補者 (* 11) (または FMD 研究所の候補者)

研修員受入要請書は、事前に研修計画等必要な準備をするために遅くとも1978年1月までに、日本政府に送付されねばならない。

Y タイ側隊員の配置計画

A 口蹄疫ワクチン製造センター

		1)	2)	3)	4)
	計	現在の職員	新規採用職員 (78年1月)	センター職員 (78年1月)	研究所に 残る職員
獣医師	15	11	4	14	1
獣医師補	5	5	0	4	
薬剤師	1	1	0	1	1
生物学研究員	2	0	2	2	
電気技師	2	1	1	2	
機械技師	1	1	0	1	
畜産技術者	2	0	2	2	
事務長	1	1	0	1	
補助員(worker)	86	60	26	71	15
計	115	80	35	98	17

注1) 口蹄疫研究所の現在の職員数(1977年8月)

2) 1978年会計年度に採用される職員数(1978年1月の予定)

3) 1978年1月時点における口蹄疫ワクチン製造センターの総職員数

4) (1978年1月時点において)ひき続き、口蹄疫研究所に残留する職員数(フレンケル法によるワクチン製造)

B 家畜衛生センター、ツンソン

第一段階(1978年10月頃)において、プロジェクトの諸準備のため、畜産振興局教育研究部より所長および3名の獣医師を任命し、ツンソンに派遣する。

このうち3名の獣医師は、1978年1月頃新規採用される獣医と交替する。

1978年1月時点

所 長(獣医師)	1
獣医師	5
獣医師補	9
補助員	11

(+11) 1978年に、少なくとも3名の新卒の獣医師がDLC(ツンソン)に配属される予定であるが、タイ政府の規則により6カ月間は海外研修が困難な事情がある。その場合EMDからの候補者を受入れる予定。

科学的研究員	3
機械技師	1
事務長	1
タイピスト	1
運転手	5
計	37

N プロジェクト、タイ側予算

(+12)

タイ側は、プロジェクトの実施に必要なカウンターファンドを準備する。

付表1. 口蹄疫ワクチン製造センター向 機材リスト

付表2. 家畜衛生センター向 補充 機材リスト

2. 討議議事録要旨(8月11日)

(ツンソン家畜衛生センターに関する補足メモ)

熊谷博士を団長とする討議打合チームは1977年8月9日~10日、ツンソンの家畜衛生センターおよび周辺の施設を見学した。

8月8日の会議の際の討議を補足して、本チームは、プロジェクトを効率

的に実施するため、次の意見、勧告を畜産振興局に対し、述べた。

ここにあげたいいくつかの問題点は、アドバイザーおよび専門家が赴任した後、開催される「合同会議」においても討議されるであろう。

1. 給水施設

現在の給水施設は、センターの活動に十分ではない。できるだけ早期に、センターの活動に十分な給水設備を設置する必要がある。

- 1) 地下水を利用できる、深井戸を掘削する。今後、ボーリングテストも試みる必要がある。
(+13)
- 2) 貯水池をつくる。

(+12) ツンソン家畜衛生センター関係の1978会計年度の子算要求

内容は次のとおり。

1. 土地、建物整備費 (給水タンク等)	42,500	US\$
2. 備品、文房具購入費	13,810	
3. 旅費、維持費 (ガソリン、電気、郵便、電話等)	55,758	
4. 人件費	8,274.5	
計	194,813	US\$
	(389万Bahts)	= 約5150万円

既に予算局の査定を受けたが、最終的に10%程度の増減が予想されるとのことである。

- (+13) Chua 次長は、十分な給水を得るため、近くの川よりの水をポンプアップし、貯水池に貯め、給水塔からセンターおよび住宅に給水する方法を講じると説明した。

2. 空調設備

実験室6室、無菌室4室に設置するため必要な空調設備を5台追加し、

合計10台供与することを日本側で検討する。

3. 焼却炉

焼却炉は家畜衛生施設に不可欠である。

- 1) 早期に、焼却炉設備を建設することが望ましい。(*14)
- 2) 焼却炉に併設し、大動物用解剖室を新たに設置することが望ましい。

4. 設備、備品等

- 1) 1977年11月までに、実験室にそれぞれ、洗し台、実験卓(ベチ)、実験台を設置する。また(器具)戸棚、机、椅子その他の備品も近く備える。
- 2) ガス設備(ガスボンベ、プラスチック管、バーナー)は専門家の赴任時に実験室にそれぞれ設置する。

5. 純水性造装置

実験室に純水を供給するため、センター本部建物に、遠送装置付天水タンクを併設する。

雨水が不足する場合、パクチョンの口蹄疫センターまたは(近くの)他(*15)の施設から純水(蒸留水)の輸送し、純水を確保することを検討する。

6. 実験動物

第一段階においては次の実験動物が必要となる。

羊2頭、鶏10羽、モルモット20匹

タイ側はモルモット用以外の実験動物のケージ等を準備する。

7. 通信設備

センターと関係施設(周辺)との緊密な協力関係を維持し、同時にセンターに赴任する専門家と畜産振興局(バンコク)に赴任するアドバイザー(*16)との連携を保つため、電話を設置する必要がある。

8. 車庫

「討議議事録」付表Vに記載する車庫については、日本から供与される車輦(マイクロバス1台、ジープ1台、ステーションワゴン1台、モーターサイクル)が到着するまでに、建設されることが予定される。

9. 関係機関との協力調整

「討議議事録」付表1に記載する「関係機関との協力調整」について、とりわけ南部地区(の機関)において、プロジェクトを円滑にするため、その必要性が強調される。

「最終会議議事録要旨」の1-A-3-b「口蹄疫ワクチン用牛血清採取システム」の項を次のように改訂する。

(+14) Chua 次長より、焼却炉設置について1978会計年度(1977年10月～)に追加要求することは不可能であるので、とりあえず簡易焼却炉(ブロック)を仮設するとの説明があった。

(+15) Chua 次長より、パクチョンより純水を移送することはコスト高くなるので、ソンソン周辺の都市より純水を購入する措置を講じたいと説明があった。

(+16) Chua 次長より電話設置に努力するとの説明があった。

なるべく早期に牛血清の採取システムを確立する必要がある。

口蹄疫無抗体、血清の採取について、口蹄疫に罹らないよう防護策を講じた適当な地域に血液採取用の牧場をつくることが望ましい。

代替策として、口蹄疫無抗体血清を日本または口蹄疫のない国から輸入することが考えられる。

バンコック 1977年8月11日

総 務 団 長

計画打合チーム

タイ家畜衛生改善計画合同会議議事録要旨

Summary of Minutes of the Joint Meeting for Technical
Cooperation Project on Animal Health Improvement
between Japan and Thailand.

In pursuance of activities under the Record of Discussions (R/D) signed on March 2, 1977, the Japanese Consultation Team organized by the Japan International Cooperation Agency (JICA) and headed by Dr. Shigetaka Shibata, visited Thailand from December 3 to 12, 1978 in order to discuss and investigate the detail of working programmes for the successful implementation of the Project.

During the period, the Team visited the Project sites at Foot-and-Mouth Disease (FMD) Vaccine Production Center, Pakchong and Diagnostic Laboratory Center (DLC), Tung Song, Nakorn Sri-Thammarat, and observed the present activities of the Project and exchanged views and opinions with relevant officials including Japanese experts assigned.

The Joint Meeting under the R/D was held at Bangkok on December 11, 1978 in attendance of the representatives of respective authorities concerned (see attached list). Presenting their deep condolence to Dr. W. Fujiwara, a Japanese Expert to DLC, who passed away by traffic accident on October 28, 1978, following discussions were made.

L. Assignment of the Japanese Experts.

1) Since February 1978, 4 long term and 4 short term experts have been assigned to the FMD Center, and 4 long term and 1 short term experts to the DLC of Tung Song, respectively, according to the R/D.

2) As normal procedures of the assignment under the Colombo Plan formalities require considerable time (approximately 3 months), prompt and close follow up action should be

arranged in both sides for future assignment. Especially such expert who intend to deal with emergency purpose (for example, investigation of particular disease) should be given highest priority to meet its urgent needs.

3) Among long term experts, 2 experts of the FID Center and 3 experts of the DLC of Tung Song will terminate their term of office in February to April 1970. It is agreed to follow the same field by successive experts at the time of their termination or extending their term of office. Request for the successive experts under the Colombo Plan should be made in due course.

4) For FID Center, 4 short term experts on suspension culture, vaccine production, vaccine control and mechanics, for one to three months respectively, are needed in 1970.

5) A short term expert of virology should be considered to the DLC of Tung Song for about 1 month in 1970. His main purpose should be application of Fluorescent antibody techniques on diagnosis of viral diseases such as Newcastle disease, hog cholera and rabies.

6) Necessity of the Project Advisor who will supervise and arrange the project progress and animal health activities was discussed. If his assignment as long term expert is found difficult, his regular visit (at least twice a year, each for 2 months) should be arranged.

2. Thai Counterparts and other Personnels of the Project.

1) The staffs and other personnels of the FID Center and the DLC of Tung Song have been steadily strengthened. However, a capable engineer is urgently needed, in particular for smooth and efficient operation of the FID Center.

2) Moreover, social and economic conditions for the staffs should be improved as much as possible in order to attract capable and talented staffs to the Project. Due consideration should also be given to the staffs of pharmacist, chemist, mechanical engineers and electrician, etc. who support veterinary laboratory works.

3) Training of the Thai counterparts in Japan in the fiscal year of 1979 (April 1979-March 1980) was discussed. There is no Animal Health Group Training Course at National Institute of Animal Health, Tokyo, for the year but one official for observation tour and four counterparts for individual training are requested.

3. Provision of Equipment, etc.

1) In 1977 fiscal year, a total of 120 million yen equivalent equipments and chemicals including vehicles were introduced from Japan to the FHD Center and the DLC. And in 1978 fiscal year, 70 million yen is allocated for the same purpose for which application of equipment under the Colombo Plan (Form A4) has been made through DIEC in July 1978. Procurement of these commodities are now in underway at JICA, Tokyo and will be arrived by January 1979.

2) Budget for 1979 in Japan has not yet fixed but anticipated approximately 50 million yen. The items to be applied should be discussed in detail and formulated in the form of the Colombo Plan Application by the end of February 1979.

3) In connection with the provision of equipment certain difficulties and problems on custom clearance, acquisition and transportation of these commodities were reported during 1978. Some of the commodities had to be detained at custom-house for several months waiting for clearance and the same were also happened at the Department of

Livestock Development for transportation to the Project sites although utmost efforts of relevant officials were devoted.

4) This situation often resulted not only considerable economic losses (increase of bonded warehouse charge, etc.) deterioration or damage of commodities, and inconvenience of insurance claim but also caused unnecessary delay of the project progress. Therefore, the commodities of 1978 fiscal year, this kind of constraint should be minimized by establishing well prepared custom formalities and allocation of necessary budgets for warehouse charge and transportation fee, etc.

5) Acquisition, storage and management of these commodities at the each Center are found satisfactory in general. Registration of non-expendable equipment, control of outlay of expendable materials were also arranged.

6) Provision of the equipment from Japan can be partially procured at local market if available. This new system should be further strengthened and expanded with close collaboration of Thai officials.

7) It is obvious that all the equipment and materials needed for the operation of the Projects could not be supported throughly by the Japanese provision. Therefore Thai side should further devote her efforts to strengthen the funds for operation especially after the Third year cooperation period.

4. Activities of the Project-Present and Future Plan.

FID Center

1) Activities and progress of the Project have been reported in the monthly progress reports by the Experts. The activities were executed with full cooperation between the

Thai and Japanese staffs. However, there have been certain problems encountered due to delayed delivery of Japanese instruments and chemicals, difficulty of local procurement of laboratory materials and disorder or improper operation of laboratory facilities and equipment .

2) After the preparatory work of the new production facility which took first several months, laboratory works have been focussed to the selection of cell lines and culture media to be introduced to mass production of FMD vaccine as well as quality control of laboratory water. The serial trials and experiments have been conducted at the Center, and necessary data were collected and fully evaluated for the efficient production of the vaccine. Then the production of seed cell was commenced according to this findings.

3) The selection of seed viruses for vaccine production was another subject to be considered. This still need considerable time and further work for evaluating antigenicity and immunogenicity and other properties of the virus strains. Virological and serological survey of field strains was also needed. Since the laboratory technique for this purpose was already established at the Center, positive efforts to collect field samples (strains) should be made continuously.

For the time being, the virus strains which are presently used for vaccine production at the Center should be employed as seed viruses.

4) Operation of rolling bottle culture and cell suspension culture have been launched with favorable results. Establishment of mass production technique should be given highest priority as for the immediate future plan. All the effort and arrangements including personnel should be concentrated into this purpose.

5) Secondly, systematic and efficient method of quality control of the vaccine should be arranged including production and arrangement of tests animals.

6) To accomplish these plans, procurement of chemicals, laboratory commodities and other necessary materials for vaccine production should be properly considered and arranged by the Thai side including budgetary appropriation.

DLC of Tung Song

1) The activities and progress of the Project have been reported monthly by the Progress Report of the Project. Due to incomplete laboratory facilities and equipment, shifting of some veterinary officers of the Center, delayed delivery of Japanese commodities and others, the activities of the first several months were mostly devoted to preparatory arrangement for DLC services.

2) Water supply, dissecting room for autopsy, incinerator, preparatory room for washing, cleaning and sterilization of equipment, etc. are still needed further arrangement. In spite of the above-mentioned inconveniences, laboratory services of the Center are gradually increased and expanded to surrounded areas and other particular institutions in the region of operation. Organized disease investigation and survey were also conducted in 3 provinces of the region.

3) As the results of diagnostic services and investigation, disease situation in the region has being clarified in some extent. However, more clear picture will be established by expanding and accumulating these activities in the future.

4) For immediate future, systematic channel of sample collection in the service areas should be established in practical ways. Institutional structure of the DLC should be formulated for efficient implementation of DLC services.

5) The importance of animal nutrition was revealed since the majority of non-infectious diseases in the field were

closely attributed to nutritional disorders. The necessary guidance to the farmer in this subject is considered essential. DIC should be equipped and deal with feed inspection and analysis. Equipment concerned for this purpose would be included in the provision of 1979 fiscal year.

5. Others.

Considering increasing importance of the FMD control in the Southeast Region, the Workshop on FMD Control for ASEAN member countries was discussed. It is hoped that the Government of Thailand will be hosted and JICA and APHCA be co-sponsored for the Workshop in early December 1979. Detailed schedule should be discussed and arranged by relevant authorities later on.