

バングラデシュ  
家禽管理技術改良計画  
第2次長期調査報告書

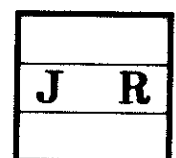
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国際協力事業団



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## 序 文

国際協力事業団は、バングラデシュ人民共和国政府の要請を受けて平成7年1月、バングラデシュ家禽管理技術改良計画に関する事前調査を、同年8月には第1次長期調査を実施しましたが、それら調査報告を踏まえ、平成8年10月4日から同26日まで、長期調査員3名を現地に派遣しました。

同調査員は、本プロジェクト開始に必要な現地調査及びバングラデシュ国政府関係者との協議を行いました。

本報告書は、同調査員による調査結果等を取りまとめたものであり、今後本プロジェクトの実施の検討にあたり、広く活用されることを望むものです。

終わりに、この調査にご協力とご支援を頂いた内外の関係各位に対し、心より感謝の意を表します。

平成8年11月

国際協力事業団  
農業開発協力部  
部長 太田 信 介

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## 1. 長期調査員の派遣

### 1-1 調査員派遣の経緯と目的

バングラデシュ国では、多くの国民が貧困に起因する食料の不足から栄養不良に陥っており、第4次5か年計画(1990～1995)に続いて第5次5か年計画(1996～2000)でも、貧困の解消(所得の向上)と栄養水準の向上を国家政策の重点目標としている。この目標達成のため、畜産分野では特に養鶏業の発展が重要課題と位置づけられている。

バングラデシュ国では、鶏は魚類に次いで最も入手しやすい動物蛋白源であり、小規模農家が少ない投資で短期間に肉・卵を生産でき、かつ現金収入を得る手段として、養鶏の振興が期待されている。しかし、それらの鶏は在来種であり、また不適切な飼養管理、疾病予防などと相まって、その生産性は極めて低い。このためバングラデシュ国政府は、小規模農家の所得・栄養水準の向上を図ることを念頭に、家禽管理技術の改良・普及に係るプロジェクトを計画し、我が国に技術協力を要請してきた。

これを受けて国際協力事業団は、1995年1月に事前調査を行って、要請背景とその妥当性を検討したのをはじめ、1995年8月には第1次長期調査を実施した。

今般は、第1次長期調査の結果に基づき、技術協力の実施に必要な課題をバングラデシュ側と具体的に協議し、技術協力のフレームワーク案を策定することを目的に、第2次長期調査を行う。調査員はバングラデシュ側の内部手続きとその準備状況を確認の上、必要に応じてこれを支援する。

本調査の主要課題は以下のとおりである。

- (1) バングラデシュ側のプロジェクト実施体制
- (2) プロジェクトの協力課題と協力活動
- (3) 協力のスケジューリング
- (4) 日本側協力の基本計画
- (5) 供与機材の概要協議
- (6) バングラデシュ側内部手続きの進捗状況調査

### 1-2 調査員の構成

- (1) 総括・家禽管理：岩間 達夫 農林水産省家畜改良センター兵庫牧場場長
- (2) 家禽疾病：吉村 政雄 畜産技術協会(元北里大学獣医畜産学部教授)
- (3) 協力企画：向井 一朗 国際協力事業団農業開発協力部畜産園芸課

1-3 調査日程

日順	月日	曜	日程			
			総括・家禽管理	家禽疾病	協力計画	
1	10/4	金	1100	NRT (TG641) 1515	BKK	
2	5	土	1120	BKK (TG321) 1240	DAC	
3	6	日	AM	JICA事務所訪問、漁業畜産省(MOFL)表敬		
			PM	畜産普及局(DLS)表敬、日本大使館表敬		
4	7	月	企画委員会(PC)、大蔵省対外経済協力局(ERD)表敬			
			バングラデシュ畜産試験場(BLRI)表敬			
5	8	火	BLRI現地調査・協議			
6	9	水	BLRI協議			
7	10	木	BLRI協議			
8	11	金	資料整理			
9	12	土	BLRI協議			
10	13	日	資料整理			
11	14	月	BLRI協議(JICA事務所長同席)			1310 NRT (JL723) 1920 KUL 2130 KUL (MH196) 2305 DAC
12	15	火	BLRI協議(JICA事務所長同席) JICA事務所長主催夕食会			
13	16	水	BLRI現地調査・協議			
14	17	木	日本大使館中間報告 BLRI協議			
15	18	金	資料整理			
16	19	土	第1回合同委員会(ERD、PC、国家歳入庁:NBR、MOFL、DLS、BLRI、JICA、大使館) BLRI協議			
17	20	日	BLRI協議			
18	21	月	第2回合同委員会(ERD、PC、MOFL、DLS、BLRI、JICA、大使館) ミニッツ署名 BLRI協議			
19	22	火	現地調査(N-N灌漑プロジェクト及び周辺農家) 日本大使館公使主催夕食会			
20	23	水	BLRI協議 MOFL主催夕食会			
21	24	木	JICA事務所報告、日本大使館報告 調査団長主催夕食会			
22	25	金	1230	DAC (BG074) 1810	KUL	
			2245	KUL (JL724)		
23	26	土	0635	NRT		

1 - 4 主要面談者

(1) Ministry of Fisheries and Livestock

Mr. ABU MUHAMMAD Deputy Chief

(2) Ministry of Finance

Mr. MD. AZIZUL ISLAM Deputy Secretary, Economic Relations Division

(3) Bangladesh Livestock Research Institute

Dr. NAZIR AHMED Director (in charge)

Director General, Department of Livestock Service,  
Ministry of Fisheries and Livestock

(4) J I C A バングラデシュ事務所

福田 義夫 所員

## 2. 要約

本第2次長期調査は、まず岩間(総括・家禽管理)、吉村(家禽疾病)両調査員が1996年10月5日、バングラデシュに入って、バングラデシュ畜産試験場(Bangladesh Livestock Research Institute: BLRI)と協議を重ねた。その後、14日に向井調査員(協力企画)が到着して、19日午前中に第1回合同委員会を開催し、漁業畜産省(Ministry of Fisheries and Livestock: MOFL)、大蔵省対外経済協力局(Economic Relations Division: ERD)、企画委員会(Planning Commission: PC)、国家歳入庁(National Board of Revenue: NBR)等、関係官庁も含めてミニッツ案を検討した。21日にはMOFL次官が出席して第2回合同委員会が開催され、さらに議論を重ねた結果、同日付でミニッツ(付属資料1.)の署名を取り交わした。

ミニッツ及びそれに添付した討議議事録案等で合意されたプロジェクトのフレームワーク案は、以下のとおりである。

- (1) 漁業畜産省畜産試験場(BLRI)を実施機関、畜産普及局(DLS)を支援機関とし、BLRIをプロジェクトサイトとして「バングラデシュ家禽管理技術改良計画」を実施する。BLRIはプロジェクト開始から2年以内に、サブサイト4か所を選定する。
- (2) プロジェクト目標は「家禽の飼養管理、疾病予防及び品種改良における適正技術の開発による家禽管理技術向上」とする。
- (3) 協力活動の内容は、①家禽飼養管理技術の改良、②適品種の開発技術の移転、③主要家禽疾病の調査、④家禽疾病予防技術の開発、⑤普及員指導者へのプロジェクトを通じて導入・開発した技術の指導とする。
- (4) 日本側は長期専門家4名(チームリーダー、業務調整、飼養管理、家禽疾病)を派遣するほか、必要に応じて短期専門家を派遣し、バングラデシュ側カウンターパートを日本研修に受け入れるとともに、プロジェクトに必要な機材供与を行う。
- (5) バングラデシュ側の強い要望にこたえて「飼料分野」の協力もプロジェクトに含めることとしたが、日本側は長期専門家を派遣せず、短期専門家で対応する。
- (6) バングラデシュ側は、プロジェクトに必要な施設等を供与するとともに、必要な数のカウンターパートを配置する。
- (7) プロジェクトの期間等は未定。プロジェクトの細目等と合わせて、実施協議調査時に決定する。

### 3. ミニッツの概要

ミニッツは、調査員と漁業畜産省(MOFL)がプロジェクトの詳細を協議し、合同レポート(Mutually Formulated Components of the Project)を取りまとめ、これを合同委員会が承認し、ミニッツで確認するかたちをとっている。詳細は付属資料1.を参照されたい。

合同レポートに記載された主要事項は、以下の各項である。

- (1) 技術協力に関する基本的な理解(バングラデシュ側の主体的プロジェクト運営、自助努力)
- (2) プロジェクトの背景(養鶏分野の現状、問題点、本プロジェクトの目的)
- (3) プロジェクト協力の内容(各分野の課題、活動と期待される成果)
- (4) バングラデシュ側によるプロジェクト成果の普及、支援活動の概要
- (5) プロジェクトの管理運営体制
- (6) プロジェクトサイト
- (7) 討議議事録(R/D)、暫定実施計画(TSI)の案文
- (8) 今後の準備スケジュール
- (9) 飼料分野の専門家派遣について

## 4. 主要協議事項

### 4-1 プロジェクト実施にあたっての先方主体性

バングラデシュ側は、主体的にプロジェクトを運営することを確認した。

### 4-2 プロジェクトの目的

バングラデシュ側、特に大蔵省対外経済局（ERD）、企画委員会（PC）から、本プロジェクトの裨益対象は、貧困にあえぐ小規模農家としたい旨、特別にコメントがあった（日本側の用意したプロジェクト目的も、この趣旨に添ったものである）。

### 4-3 プロジェクト協力の内容

#### (1) 「WID及び普及」分野の協力取りやめ

「WID及び普及」分野を本プロジェクトの直接的な協力対象外とし、普及事業はバングラデシュ側が主体となり、日本人専門家が、プロジェクトの範囲内で可能な協力を行うことになった。

#### (2) プロジェクトにおける普及・訓練支援活動

協議の結果、4つのサブサイトをプロジェクト開始後2年以内に日本・バングラデシュ双方の協議のうえ選定することとなった。これらサブサイトには、バングラデシュ畜産試験場（BLRI）の普及・訓練担当職員を1名ずつ配置し、畜産普及局（DLS）と協力しつつ、プロジェクトで開発された技術、選択した鶏の導入などを行う予定である。

これら、普及分野に関する日本側の協力は、以下のとおりである。

- 1) 専門家が野外調査の対象として巡回する。
- 2) サブサイトで普及活動に従事するDLS職員、NGOスタッフをバングラデシュ側予算でBLRIに招いて訓練する際に、リソースパーソンとなる。
- 3) 簡単な展示用資機材の一部の供与。
- 4) 普及・訓練用マニュアル、テキスト作成の協力

#### (3) 「飼料」分野の協力の再要請

協力の内容として、前回長期調査で合意した2本柱である「飼養管理」「疾病予防」に加えて「飼料」分野の協力をも含めたいとして、漁業畜産省（MOFL）次官表敬時及び第2回合同委員会の2度にわたり、非常に強い要望があった。

これに対し調査員側は、家禽生産の向上は本来「飼養管理」「疾病予防」「飼料」の3本柱が均

等に改善される必要があること、また、先方の要望が非常に強く、この分野での協力を考慮しなければ案件自体の存率が危うくなることなどを考慮して、①日本側は本分野に長期専門家は派遣せず、短期専門家派遣で対応する、②従って、本分野に対する機材供与も、他分野に比べて比較的小規模な機材のみとする — の2点を条件に、本分野の協力をプロジェクトに含めることで合意した。

#### 4-4 バングラデシュ側のプロジェクト実施体制

懸案になっていた“大センター”構想についてバングラデシュ側は、日本側の説得に応じ、本プロジェクトの関連分野に絞った最小限の人数、組織整備に規模縮小することで、いったんは合意した。しかし、結果としてBLRIは、ミニッツ ANNEX 2に記載のように、プロジェクト関連4分野に絞ってはいるものの50名を超える増員案を出してきた。この案は第2回合同委員会で検討された結果、既存の人員及び現在並行して実施中の世銀農業研究分野プロジェクトによる人員増分を差し引くことで、バングラデシュ側関係省庁と原則合意された。ミニッツ上は、カバーノートの最終センテンス「As a result of the discussions and field survey, both parties agreed the items described on the attached sheets hereto, subject to the approval of the both Governments.」を援用して、BLRI原案をそのまま記載したが、バングラデシュ側はその後、新規採用を42名程度(うちカウンターパート7名程度)とする改訂版を作成中で、JICA事務所を通じて日本側へ送付される予定である。

#### 4-5 プロジェクトの管理運営体制

バングラデシュ側は大筋で管理運営体制に合意したものの、用語にこだわりを見せたため、以下のように、プロ技協で一般に使用される用語と異なる呼称を採用することとなった。

##### (1) PROJECT DIRECTOR

プロジェクトの責任者をMOFL次官とすることに合意したが、DIRECTORは一般に低い官職を意味し、次官クラスには不相当とのことであり、結果としてPROJECT DIRECTORとは呼ばずに、合同委員会議長(Chairman of the Joint Coordination Committee)と呼ぶことになった。

##### (2) PROJECT MANAGER

これは、日本側ミニッツ案に記載した機能をそのままPROJECT DIRECTORと呼称することになった。(1)と同様、仕事の中身がMANAGERクラスの仕事ではなく、DIRECTORクラスの仕事だからとのこと。

### (3) 関係機関

D L S は、プロジェクト支援機関とすることで合意した。

#### 4-6 討議議事録(R/D)、暫定実施計画(T S I)の案文

ほぼ日本案どおりで合意されたが、合同委員会終了後、E R D はカバーノートの最終センテンスの「As a result of the discussions, the Team and the Bangladesh Authorities concerned agreed to recommend to their respective Governments the matter referred to in the document attached hereto.」を「As a result of the discussions, both parties agreed the items described on the attached sheets hereto, subject to the approval of the both Governments.」に変更するよう、個別に申し入れてきた。

#### 4-7 R/D締結前の準備スケジュール

基本的に日本側の用意した今後の作業スケジュールどおり、バングラデシュ側の準備作業を行うことで合意した。しかし合同委員会の席上、バングラデシュ側内部でかなり熾烈な議論があり、結果として、ミニッツには日本側への文書提出期限のみを明記し、バングラデシュ側の内部手続きの期限については明記しないことになった。調査員としては、バングラデシュ側が手続きのスケジュールを真剣に考えようとしていること、日本側への文書提出スケジュールがはっきりすればバングラデシュ側の内部手続きに立ち入る立場ではないことの2点を考慮して、ミニッツの修正に応じた。

J I C A 事務所の情報では、1996年上半期の総選挙による政権交代後は、経済閣僚会議(E C N E C)が頻繁に開催されるようになり、以前のようにE C N E C が四半期に1度しか開催されないでプロジェクト・コンセプト・ペーパー(P C P)の承認が滞るようなことはなくなったとされ、バングラデシュ側が日本側の提示したスケジュールに沿って準備を完了することは可能と考えられる。

#### 4-8 協力実施のスケジュール

##### (1) バングラデシュ側負担による施設整備、人員配置

バングラデシュ側は本プロジェクトの実施にあたり、施設の整備と人員の新規採用配置を行う予定であるが、このうちいくつかは、プロジェクト協力の開始時に必要不可欠なものである。特に疾病予防分野には現在カウンターパート(C/P)がいないため、新規採用予定の2名が採用され、ある程度B L R I の仕事に慣れた時点で専門家派遣を開始する必要がある。

一方、施設整備は必要なものの、当面の間、専門家はB L R I 内で、かつてF A O、U N D P の専門家が事務所として使っていた施設(現在全く使用されていない)を専門家事務室、居室として使用し、必要に応じてC/P執務室で技術指導にあたることが可能である。日本側協

力開始前のバングラデシュ側準備期間が、もっぱら新規C/P採用にかかる期間に左右される。バングラデシュ側は、P P (Project Proforma) が承認されれば、日本の協力開始時期に関係なく、独自の予算執行が可能であり、C/P新規採用手続きに約2か月、その後B L R Iでの基本的訓練に3か月を要するとしているので、専門家派遣前に約6か月の準備期間を設定すればよいと考えられる。バングラデシュ側の準備が順調に行われれば、P Pの承認は1997年2月頃の前定であり、日本側の協力は同年8/9月の開始が適当と判断される。

## (2) モデルインフラ整備事業による施設整備

事前調査、第1次長期調査の協議経緯から、本プロジェクトでは鶏舎等プロジェクト活動に必要な不可欠な施設の一部を、日本側のモデルインフラ整備事業により建設することが予定されている。しかし、モデルインフラ整備事業による施設が完成するまでに、プロジェクト開始から約2年かかるため、プロジェクト開始当初2年間は、現在の施設でできる範囲の活動を行うしか選択の余地はない。それら、活動の内容は以下のとおりである。

- 1) 野外調査による現状の把握
  - a. 農家レベルの飼養管理状況とその問題点把握
  - b. バングラデシュに現存する主な家禽疾病の調査
- 2) 日本からの種鶏の受入れ準備
  - a. B L R I 既存施設の清浄化
  - b. 既存飼養鶏群の清浄化及び能力把握
- 3) モデルインフラによる整備施設の計画立案及び施工監督
- 4) 後半3年間の詳細活動計画立案

## 4-9 日本側投入経費の積算

バングラデシュ側から、P C P及びP P作成のため、プロジェクト5年間の日本側投入経費の積算を明示してほしいとの強い要望があった。特に、第2回合同委員会の席上では、5年間の投入経費の「正確」な積算を「公文書」でバングラデシュ側に通報しないと、今後のP C P、P Pが作成できないなどといった発言が、P C及びM O F L計画部から出た。これに対し調査員は、日本側の予算制度を説明し、いかなる段階においても長期にわたる投入経費の正確な積算の通報は不可能であるとして、調査員が非公式にB L R Iに最大限の積算を提示することで了解を得た。この非公式積算額は、一般的なプロ技協経費の平均値に2割積み増した積算であり、日本側にはこの積算額に従って実際のプロジェクトに投入する義務は一切なく、将来にわたっても、この非公式積算を根拠に予算の投入を求めることは一切しないことを確認した上で、通報したものである。

## 5. 調査員所見

### (1) 先方の対応ぶり

バングラデシュ側は、本プロジェクトの執行が1996会計年度(1997年6月まで)に行われないと、国家計画から本案件が削除されること、新政権は日本の援助に大きく期待していること等の事情から、本プロジェクトの実現に向けて非常に前向きな対応を見せ、その熱意が感じられた。特に、先方実施機関の責任者Dr. Huqueが非常に協力的である。同氏は、過去に日本人専門家のカウンターパートを経験していることもあって日本側の考え方を良く理解しており、本プロジェクトの実現、スムーズな実施のキーパーソンになろう。

また、これまでの事前調査、長期調査に参加した吉村団員、他案件でバングラデシュを3度訪問している向井団員らは、今回のバングラデシュ側の前向きな対応に、正直なところ驚いている。

### (2) プロジェクト開始当初の専門家の構成

プロジェクト開始当初、モデルインフラ整備事業による種鶏舎完成までは、プロジェクトの1つの目玉である日本からの種鶏の導入ができず、従って飼養管理分野の活動は制限されてしまう。そこで、この期間は飼養管理分野の専門家をチームリーダーが兼務し、長期専門家の派遣は当面、チームリーダー兼飼養管理、家禽疾病、業務調整の3名とするのがよいと判断する。

### (3) モデルインフラ整備事業による施設整備

日本の種鶏を1日も早く導入するため、モデルインフラ整備事業による施設完成時期を早めるために、何らかの方策の検討が望ましい。そのために、以下の可能性を日本側で検討したい。

#### 1) プロジェクト開始前のコンサルタント雇用

R/D締結後、プロジェクト開始前に、JICA事務所でローカルコンサルタントを雇用して実施設計を行い、プロジェクト開始と同時に設計図面や精度の高い事業費積算が行われれば、モデルインフラ整備事業の実施時期をかなり繰り上げられる。

#### 2) 第3次長期調査員の派遣

平成8年度内に2名構成の第3次長期調査員を派遣する予定があるが、この長期調査員に鶏舎の大まかなコンセプトを決定させ、プロジェクト開始後の実施設計期間の短縮を図る。

### (4) 普及員のBLRIでの訓練にあたっての費用負担

「4-3(2)」に記載したBLRIでのDLS職員、NGO担当者など普及関係者の訓練について、詳細はまだ計画されていないものの、計画内容によっては「中堅技術者養成対策費」の日

本側負担が可能と考える。「4-9」に記載した経費積算には、一応訓練経費を600万円程度見込んである。

#### (5) 専門家の勤務形態

##### 1) 通勤

生活環境から見て、専門家は首都ダッカの外国人居住地帯に住むしか選択の余地はないが、プロジェクトサイトまで通勤に片道約1時間を要し、その途上の交通はかなり危険である。そこで、専門家が個別に通勤するよりも、供与する車輛のうちミニバス(7~10人乗り程度)1台を専門家専用を使用することを先方に申し入れた。当地の慣例上、通勤にかかる燃料費及び運転手の賃金は専門家が共同で負担するものとする。この場合、本邦調達による車輛がプロジェクトに届くまで、プロジェクト開始から約1年かかるので、専門家赴任直後はJICA事務所の車輛を暫定的に借用し、一方で現地調達など、早期に車輛を確保する工夫が必要と判断する。

##### 2) 勤務時間など

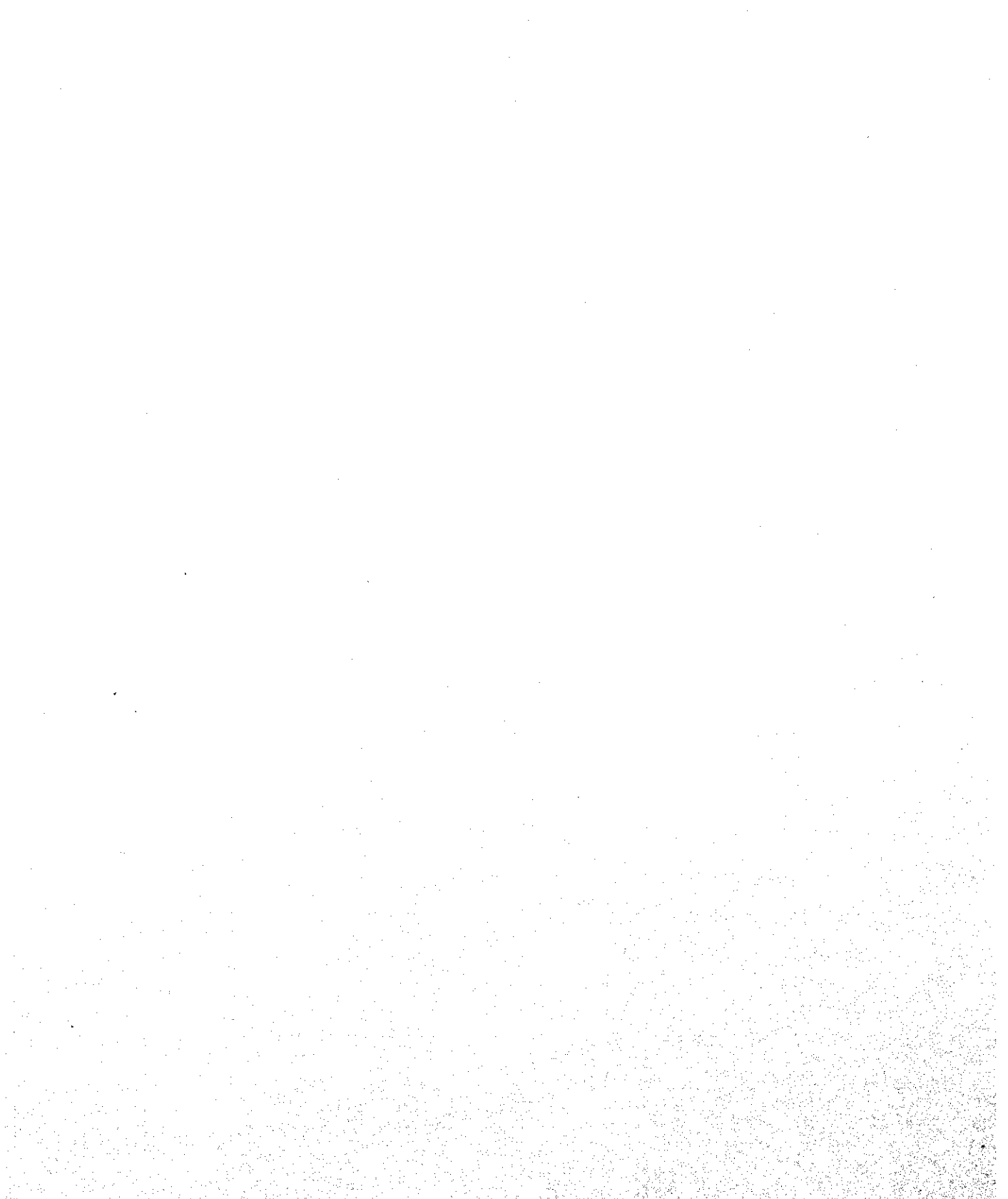
専門家の配属予定期間であるBLRIは現在、バングラデシュ政府の標準的な勤務形態である週6日勤務(金曜のみ休日)、勤務時間は午前8時から午後2時半までを採用している。この勤務条件では、昼食は勤務終了後、帰宅してとるのが一般的である。

日本から赴任する専門家にとっては、上述のように勤務にかなりの時間を要するため、健康面の配慮等から、BLRIの勤務条件をそのまま適用するのは不適當であり、先方の理解を求めてJICA事務所、日本大使館の週休日と同じく、金曜の他土曜も休日(週休2日)とし、勤務時間、昼食等を考慮した勤務時間の設定が必要と判断される。



# 付 属 資 料

## 1. ミニッツ



MINUTES OF DISCUSSIONS  
ON  
THE POULTRY MANAGEMENT TECHNIQUES IMPROVEMENT PROJECT  
IN  
THE PEOPLE'S REPUBLIC OF BANGLADESH  
(SUPPLEMENTAL STUDY)

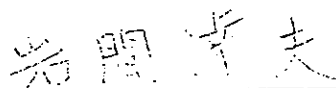
Japan International Cooperation Agency ( hereinafter referred to as "JICA" ), on behalf of the Government of Japan decided to conduct a supplemental study on "The Poultry Management Techniques Improvement Project" ( hereinafter referred to as "the Project" ) for the purpose to study and discuss the possible components of the Project under the Japanese Technical Cooperation Programme.

JICA sent to Bangladesh the Supplemental Study Team ( hereinafter referred to as " the Team" ) headed by Mr. Tatsuo IWAMA, Director, National Livestock Breeding Centre Hyogo Station, Ministry of Agriculture, Forestry and Fisheries from the 4th to the 26th of October, 1996.

The Team held a series of discussions with the authorities concerned and conducted field surveys in Bangladesh.

As a result of the discussions and field survey, the both parties agreed the items described on the attached sheets hereto, subject to the approval of the both Governments.

Dhaka, The 21st October, 1996



Mr. TATSUO IWAMA,  
Leader,  
The Supplemental Study Team, JICA



Mr. ABU MUHAMMAD,  
Deputy Chief,  
Ministry of Fisheries and Livestock,  
Bangladesh



Mr. MD. AZIZUL ISLAM,  
Deputy Secretary  
Economic Relations Division,  
Ministry of Finance, Bangladesh

Witnessed by:

福田義夫

Mr. MORIMASA KANAMARU,  
Resident Representative,  
JICA Bangladesh Office,

Nazir Ahmed 20/10/96

Dr. NAZIR AHMED,  
Director General,  
Department of Livestock Services, and  
Director ( in charge ),  
Bangladesh Livestock Research Institute,  
Ministry of Fisheries and Livestock,  
Bangladesh

## ATTACHMENT

### 1. COMPONENTS OF THE PROJECT

The Team and the MOFL have mutually prepared the components of the Project as per ANNEX 1. The document is presented to the meeting and approved.

### 2. SCHEDULE FOR PREPARING THE PROJECT

#### (1) Schedule of Japanese side

The Team explained the procedures for preparing to realize the Project by Japanese side. The Government of Japan reserves the budget to dispatch the Implementation Study Team ( hereinafter referred to as " the R/D Team " ) for the Project within this Japanese fiscal year, until the end of March, 1997, as its institutional arrangement. However the budget should be re-confirmed before the 17th January, 1997. Then the Government of Japan should be presented a concrete evidence to ensure that the Project is certainly to be ready within the fiscal year by the 14th of January, 1997. Therefore, the Team requested the Bangladesh side to submit an evidence letter to ensure that the preparation procedures would be completed as scheduled together with the approved PCP to the JICA Bangladesh Office before the 9th of January, 1997.

Another procedures that defines the final closure date for final confirmation from the Government of Bangladesh is the time necessary to prepare for the R/D Team assignment. It takes minimum one and a half month to dispatch the R/D Team after the inter-ministerial meeting to confirm the dispatch of the Team. So the inter-ministerial meeting needs to be held definitely before the 7th of February, 1997. The final confirmation from the Bangladesh side should arrive in the JICA Bangladesh Office before the 30th of January, 1997, taking it into the consideration the time for preparing papers for the meeting.

#### (2) Schedule of Bangladesh side

The Bangladesh side ensures that the procedures required by the Bangladesh Government will be cleared with following schedule and inform the proceedings to JICA Bangladesh Office periodically:

- 1) Before the 9th of January, '97: Ensure letter is to be issued to the JICA Bangladesh Office; and
- 2) Before the 30th of January, '97: The final confirmation from the Bangladesh side arrives in JICA Bangladesh Office.

*Handwritten initials/signature*

*Handwritten signature*

MUTUALLY FORMULATED COMPONENTS  
OF  
THE POULTRY MANAGEMENT TECHNIQUES IMPROVEMENT PROJECT  
IN  
THE PEOPLE'S REPUBLIC OF BANGLADESH  
(SUPPLEMENTAL STUDY)

Japan International Cooperation Agency ( hereinafter referred to as "JICA" ), on behalf of the Government of Japan decided to conduct a supplemental study on "The Poultry Management Techniques Improvement Project" ( hereinafter referred to as "the Project" ) for the purpose to study and discuss the possible components and the schedule of preparation of the Project under the Japanese Technical Cooperation Programme.

JICA sent to Bangladesh the Supplemental Study Team ( hereinafter referred to as "the Team" ) headed by Mr. Tatsuo IWAMA, Director, National Livestock Breeding Centre Hyogo Station, Ministry of Agriculture, Forestry and Fisheries from the 4th to the 26th of October, 1996.

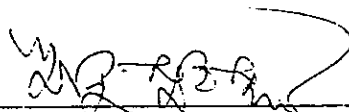
Besides conducting field surveys, the Team held a series of discussions on the issues regarding to the technical components of the Project with the responsible officials of Bangladesh Livestock Research Institute ( hereinafter referred to as "BLRI" ), Department of Livestock Services ( hereinafter referred to as "DLS" ), and other authorities concerned to the Project implementation as well as the Headquarter of Ministry of Fisheries and Livestock ( hereinafter referred to as "MOFL" ).

As a result of the discussions, both parties mutually formulated the components of the Project and confirmed the main items described on the attached sheets. The confirmed items will be explained and recommended by each party to the authorities of the respective Governments who take charges of further process in the Project realization.

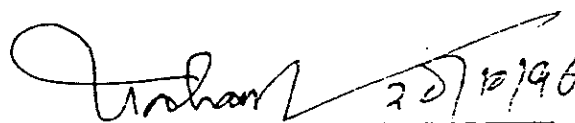
Dhaka, The 21st October, 1996



Mr. TATSUO IWAMA,  
Leader,  
The Supplemental Study Team, JICA



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Ministry of Fisheries and Livestock,  
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Department of Livestock Services, and  
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Bangladesh Livestock Research Institute,  
Ministry of Fisheries and Livestock,  
Bangladesh

Witnessed by:

福日義天

Mr. MORIMASA KANAMARU,  
Resident Representative,  
JICA Bangladesh Office,

## ATTACHMENT

### 1. BASIC UNDERSTANDINGS ON JAPAN'S TECHNICAL COOPERATION PROGRAMME

The Team has explained the basic concept of Japan's Official Development Assistance ( ODA ) to support " Self-help Efforts " of recipient countries in implementing technical cooperation projects is very important and is a key to implement any project successfully.

The Bangladesh side has understood the above concept of Japan's ODA, and ensured the self-reliant formulation, operation and administration of the Project will be sustained during and after the period of Japanese Technical Cooperation, through the full and active involvement in the Project by all related authorities, beneficiary groups and institutions.

However, the Project itself is implemented with the support of the Project-type Technical Cooperation Programme of JICA, therefore the contents of the Project should be finalized in consultation with JICA.

### 2. BACKGROUND OF THE PROJECT

Poultry is the vital source of food of animal origin in Bangladesh. Appropriate technologies are needed to improve and /or maintain the productive performances of the indigenous and synthesized breeds of chicken. Performances of poultry birds are mainly influenced by several factors like breed, age, dietary nutrients and climatic conditions. The technologies developed in abroad with the employment of breeding and dietary specifications as per the purpose of rearing may or may not suffice the poultry management practices under the existing conditions of Bangladesh relating to the above mentioned factors. Hence, there should have adequate facilities to generate and extend technologies with respect to poultry feeding, breeding and disease prevention and control measures suitable under the Bangladesh conditions.

Poultry can reduce the gap of protein supply in the country. To meet up the national demand for protein through meat and eggs, intensified research and development activities on poultry are needed. Therefore, the Poultry Management Techniques Improvement Project is essential for overall development of poultry specially for the rural farmers. This Project will reduce malnutrition problem, increase employment opportunities and alleviate poverty.

#### (1) Present Situation in the Poultry sector in Bangladesh

##### General situation

Poultry play a vital role providing major source of nutrition and cash income through meat and egg production. About 75-80% of eggs and poultry meat are produced under the rural scavenging system with little or no inputs. The indigenous scavenging hen produce 45- 50 eggs per year.

The rural poultry production system consists of different subsystems.



The small holder commercial enterprises usually rear up to 5000 layers or broilers and the larger ones rear more than 5000. Most of the rural farmers rear indigenous chickens on kitchen by-products, agro by-products and natural food items.

##### Improved chicken production

White Leghorn, Rhode Island Red and Fayoumi breeds are used for the improvement of indigenous chickens. Broilers and layers ( day-old chicks and/or parent stock ) are imported. Day-old chicks are produced by a limited number of hatcheries both in public and private sectors.

##### Poultry agribusiness

The poultry producers surrounding Dhaka city are generally engaged with layer rearing and producers surrounding Chittagong are generally engaged with broiler rearing. In other urban areas, the chicken ( broiler and layer ) are produced comparatively at lower rate.

### Poultry feeds and feeding

Feed costs accounts for 65-70% of the total production costs. Feed is expensive and there is acute shortage of the major feed ingredients. Commercially prepared feed and feed ingredients are sold to the farmers in and around the urban areas. There are limited number of feed ingredients and feed mills in Bangladesh.

### Housing facilities

In the village, the chickens and ducks are mostly housed in the ordinary earthen houses bedded with the conventional materials.

### Disease prevention and control measures

The rural small holder farmers vaccinate the birds irregularly, and large scale commercial poultry farmers vaccinate the birds accordingly. Sometimes the rural farmers use human drugs/medicines for treatment. Veterinary services are inadequate. Generally short term trained youths and distressed women vaccinate the birds in the rural areas through NGOs and public sectors.

### Research and development

Research for technology development and adoption and development programmes are conducted in the Poultry Production research Division of BLRI. Some academic research are conducted by the Bangladesh Agriculture University. In addition, some NGOs also conduct adoptive and developmental researches. However, the available research facilities are quite inadequate to generate technologies in BLRI. DLS performs extension activities through livestock officers and poultry development officers. In addition, the agricultural information services serves the purpose of publicity throughout Bangladesh.

### Poultry marketing system

There is no organized poultry marketing systems. The village farmers sell their eggs and birds to the retail consumers and/or middlemen. The middlemen bring the birds and eggs to the city retailers. The consumers buy from the retailers.

### (2) Problems identified under the present situation

- 1) Low productivity of the chickens,
- 2) Lack of high yielding breeds and/or hybrids suitable under rural condition.
- 3) Shortage of day-old chicks,
- 4) Limitation in improved chicks and parent stocks,
- 5) Problems of quality and quantity of the feed,
- 6) Problems of disease control and preventive coverage,
- 7) Problems of determining the nutritional composition of the feed ingredients and nutritional specifications,
- 8) Problems of conducting research to generate technologies for rural farmers,
- 9) Inadequate extension works regarding the dissemination of technology, and
- 10) Inadequate poultry marketing channels and facilities.

### (3) Purpose of the Project

Among the problems identified as above, both parties have been agreed to tackle with the problems 1) to 8) with setting the overall goal and the objective of the Project as follows.

#### 1) Overall Goal of the Project

The Project is to be set with the overall goal to enhance the poultry production at farmer's level, especially at small-scale poultry holders.

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Dany

## 2) Objective of the Project

The objective of the Project is to improve the poultry management techniques for small-scale poultry holders by developing the appropriate technology on poultry feeding management, diseases control and developing the appropriate breed suitable for small-scale farmers with the project-type technical cooperation of the Government of Japan at BLRI in collaboration with DLS under the coordination of MOFL.

## 3. TITLE OF THE PROJECT

As it is mentioned in the cover note, the title of the Project is "The Poultry management Techniques Improvement Project". However the title might be changed in the course of future discussions before the signing on the Record of Discussions ( hereinafter referred to as " R/D " ).

## 4. COMPONENTS OF THE PROJECT

The following fields are recommended to be covered under the Project with Japan's technical cooperation programme through JICA, which is shown as ANNEX 1.

- (1) Chicken Breeding and Feeding Management
- (2) Chicken Disease Control
- (3) Breeding Stock Support and Development of Appropriate Breed for Small-scale Farmers

## 5. PROJECT AND EXTENSION ACTIVITIES TO BE IMPLEMENTED BY THE BANGLADESH SIDE

### (1) Training and Extension Services

4 sub-sites of the Project will be selected in different part throughout Bangladesh, where a group of model farmers ( small-scale ) will be selected for introduction, demonstration, adaption of the techniques developed through the Project. Training will be provided to the small-scale farmers and the improved breed will be distributed. Farmers participation and acceptance will be identified. Technology adaption problem will be backed to the station.


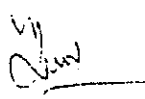
One poultry breeding technical scientist will be posted in each sub-site by BLRI. Training will be provided to the local trainer officers of BLRI, DLS and NGOs by BLRI in collaboration with DLS. The duration of the training may be about two to three weeks on poultry feeding, breeding, management and disease control techniques. The trainers will provide the training to the small-scale poultry farmers selected in the above-mentioned five location. The NGO and DLS participation will be confirmed.

### (2) Other Supporting Activities

Different types of training manuals will be prepared for the beneficiaries by BLRI. In addition to the manuals, feed support, birds, vaccination, vaccine, marketing information, etc. will be provided through DLS and NGOs by BLRI.

## 6. MANAGEMENT AND ADMINISTRATION OF THE PROJECT

For smooth and effective implementation of the Project, it is indispensable to appoint the agencies and position as follows, and the organization chart of the Project is shown in ANNEX 2.

(1) Responsible Agency

- 1) Ministry of Fisheries and Livestock ( MOFL ) will be a responsible ministry of the Project.
- 2) Secretary of MOFL will bear overall responsibilities of the Project.

(2) Joint Coordination Committee

For effective and successful Project administration and implementation, a Joint Coordination Committee will be constituted under the chairmanship of the Secretary of MOFL. The function and the composition of the Committee is shown in the Appendix 5 of the Draft R/D attached. And, all the concerned agencies to the Project will nominate their representative(s) to the Joint Coordination Committee as member.

(3) Project Director and Implementing Agencies

- 1) Secretary of MOFL will appoint the Project Director, who will be responsible for administrative, managerial and technical activities of the Project.
- 2) BLRI will be in charge of implementing the Project in collaboration with the Department of Livestock Services ( DLS ) and NGOs for smooth Project implementation.
- 3) DLS will be a supporting agency of the Project.

## 7. PROJECT SITE

(1) Project Sites

BLRI will be the main Project site. In addition, 4 sub-sites will be selected throughout the Bangladesh by BLRI in consultation with the Japanese Experts within the first two years of the Project period. The important criteria to select the sub-sites should depend on the availability of training facilities in terms of physical, skilled man-power and poultry farms.

(2) Preparation of BLRI

The Bangladesh side has explained the schedule of facilities, equipment and staff expansion and improvement as shown in ANNEX 3. The list of present BLRI facilities and staff are shown in ANNEX 4, and for the time being waiting for the facilities expansion and improvement. BLRI will provide proper working space for the Japanese Experts.

(3) Contribution of DLS

DLS will provide the available facilities and support service to the said sub-sites. The necessary facilities, equipment and technical staff support will be provided by DLS are shown in ANNEX 5.


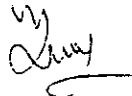
## 8. REQUIRED CONTENTS OF THE PROJECT

(1) Master Plan of the Project

After a series of discussions, both sides have agreed on the Draft of the Master Plan of the Project which is found in ANNEX 6. However, the contents of the Project will be further discussed on the occasion of the Implementation Study.

(2) PCP ( Project Concept Paper )

The Bangladesh side will finalize the PCP before the 4th of November, 1996, submit to concerned agencies for approval procedures and present to the Japanese side.

(3) Draft of R/D ( Record of Discussions )

Both sides have jointly prepared a draft of the R/D as shown in ANNEX 7. The formal R/D will be further discussed and signed between the Japanese Project Implementation Team and the representative of the Government of the People's Republic of Bangladesh.

(4) Draft of Tentative Schedule of Implementation

Both sides have jointly formulated a Tentative Schedule of Implementation ( hereinafter referred to as " TSI" ) as shown in ANNEX 8.

## 9. SCHEDULE FOR PREPARING THE PROJECT

### (1) Schedule of Japanese side

The Team explained the procedures for preparing to realize the Project by Japanese side. The Government of Japan reserves the budget to dispatch the Implementation Study Team ( hereinafter referred to as " the R/D Team " ) for the Project within this Japanese fiscal year, until the end of March, 1997, as its institutional arrangement. However the budget should be re-confirmed before the 17th January, 1997. Then the Government of Japan should be presented any concrete evidence to ensure that the Project is certainly to be ready within the fiscal year by the 14th of January, 1997. Therefore, the Team requested the Bangladesh side to submit an evidence letter to ensure that the preparation procedures would be completed as scheduled together with the approved PCP to the JICA Bangladesh Office before the 9th of January, 1997.

Another procedures that defines the final closure date for final confirmation from the Government of Bangladesh is the time necessary to prepare for the R/D Team assignment. It takes minimum one and a half month to dispatch the R/D Team after the inter ministerial meeting to confirm the dispatch of the Team. So the inter-ministerial meeting needs to be held definitely before the 7th of February, 1997. The final confirmation from the Bangladesh side should arrive in the JICA Bangladesh Office before the 30th of January, 1997, taking it into the consideration the time for preparing papers for the meeting.

### (2) Schedule of Bangladesh side

The Bangladesh side ensures that the procedures required by the Bangladesh Government will be cleared with following schedule and inform the proceedings to JICA Bangladesh Office periodically:

- 1) Before the 9th of January, '97: Ensure letter is to be issued to the JICA Bangladesh Office; and
- 2) Before the 30th of January, '97: The final confirmation from the Bangladesh side arrives in JICA Bangladesh Office.

## 10. PROVISION OF EXPERT SERVICES FROM JAPANESE SIDE

Japanese side will provide the Expert services as detailed as Appendix 2 of Draft R/D, which is page 27. However, the Japanese side cannot provide Long-term Experts on Feeding Management, therefore the available Short-term Experts will be dispatched when needs arises.

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LIST OF THE ANNEXES

- ANNEX 1 COMPONENTS OF THE PROJECT
- ANNEX 2 ORGANIZATION CHART OF THE PROJECT
- ANNEX 3 SCHEDULE OF FACILITIES, STAFF EXPANSION AND IMPROVEMENT OF BLRI
- ANNEX 4 LIST OF PRESENT BLRI FACILITIES AND STAFF
- ANNEX 5 THE COMMON FACILITIES OF DLS IN SUB-SITES AREAS OF THE PROJECT
- ANNEX 6 DRAFT OF THE MASTER PLAN OF THE PROJECT
- ANNEX 7 DRAFT RECORD OF DISCUSSIONS ( R/D )
- ANNEX 8 DRAFT TENTATIVE SCHEDULE OF IMPLEMENTATION( TSI )

*Dr. Zubin*

*Dr. Jyoti*

ANNEX 1  
 COMPONENT OF THE PROJECT  
 TENTATIVE PROJECT ACTIVITIES AND ANTICIPATED ACHIEVEMENTS (1/3)

ITEM	ACTIVITIES	ANTICIPATED ACHIEVEMENTS
I. FEEDING AND BREEDING MANAGEMENT 1. IMPROVEMENT OF CHICKEN BREEDING MANAGEMENT TECHNIQUES		Appropriate Feeding Management Techniques, based on Feeding, Disease Control and Improvement Plans, are Established. Performance of Chickens is Improved by Improvement of Feeding Management Techniques.
(1) Breeding Improvement and Cleanliness of Domestic Chicken in BLRI ( While constructing the facilities )	<ul style="list-style-type: none"> <li>• Conducting Cleanliness of Chicken</li> <li>• Study on Selection of Breeding Stock</li> </ul>	Useful Gene Breeding Stock is preserved
(2) Improvement of Hatchery Management	<ul style="list-style-type: none"> <li>• Selection of appropriate Hatching Eggs and Disinfection</li> <li>• Control of Temperature, Humidity and Hatching Environment</li> </ul>	High quality Chicken Production Techniques are Established Hatchability is Improved.
(3) Improvement of Brooding Management	<ul style="list-style-type: none"> <li>• Selection and preparation of Brooder</li> <li>• Control of Temperature and Humidity, and Ventilation</li> </ul>	Raising Rate is Improved by Improvement of Breeding Techniques.
(4) Improvement of Adult Chicken Management	<ul style="list-style-type: none"> <li>• Study of Appropriate Nutritious Components and Feeding</li> <li>• Understand the Flock Health Condition</li> </ul>	Egg Laying Performance is Improved. Viability is Improved.
(5) Improvement of Breeding Stock Management	<ul style="list-style-type: none"> <li>• Control of Stress, Lighting etc. and Feeding Report</li> <li>• Study on Selection Criteria and Data Analysis</li> </ul>	Accuracy of Breeding Stock Performance Evaluation is Improved. Performance of Breeding Stock is Improved.
(6) Experiment on Appropriate Chicken Strain	<ul style="list-style-type: none"> <li>• Performance Study on Present Chicken Strain held in Farms</li> <li>• Study on Appropriate Strain and Feeding Methods for Farms</li> </ul>	Appropriate Chicken Strain for Local Situation is Selected.

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TENTATIVE PROJECT ACTIVITIES AND ANTICIPATED ACHIEVEMENTS (2/3)

ITEM	ACTIVITIES	ANTICIPATED ACHIEVEMENTS
1. FEEDING AND BREEDING MANAGEMENT		
2. IMPROVEMENT OF CHICKEN FEEDING MANAGEMENT TECHNIQUES		
(1) Formulating Feeding Plan	<ul style="list-style-type: none"> <li>• Formulation of Computerized the least Cost Ration</li> <li>• Formulation of Nutrient from Local Feed Ingredient</li> </ul>	Appropriate Feeding Management Plan is Formulated. Data based Computerized Feed Formulation Developed.
(2) Study of Manure Management	<ul style="list-style-type: none"> <li>• Study of Composting by Piling Fermentation</li> </ul>	Chicken Manure is Utilized for Fertilizer.
3. TRAINING OF CHICKEN HUSBANDRY TECHNIQUES		Technical Capabilities of Farmers' Trainers are Improved Farmers' Trainers Extend the Techniques to Farmers in the Field.
(1) Training on Husbandry of Chicks and Layer	<ul style="list-style-type: none"> <li>• Techniques for Raising Healthy Chicks and Higher Laying Performance</li> </ul>	
(2) Training on Disease Control	<ul style="list-style-type: none"> <li>• Techniques for General Disease Control and Disinfection</li> </ul>	
(3) Chicken Husbandry Manual Making	<ul style="list-style-type: none"> <li>• Manuals for Farmers and Farmers' Trainers (Utilization of Audio-Visual Aids)</li> </ul>	
4. EXTENSION AND DEMONSTRATION OF ESTABLISHED TECHNIQUES (INCLUDING MODEL FARMERS)	<ul style="list-style-type: none"> <li>• Extension and Demonstration is Conducted by Bangladesh Side</li> </ul>	Production Performance is Improved with Technical Improvement in Breeding Stock Farm. The New Feeding Management Methods are Introduced by Farmers.

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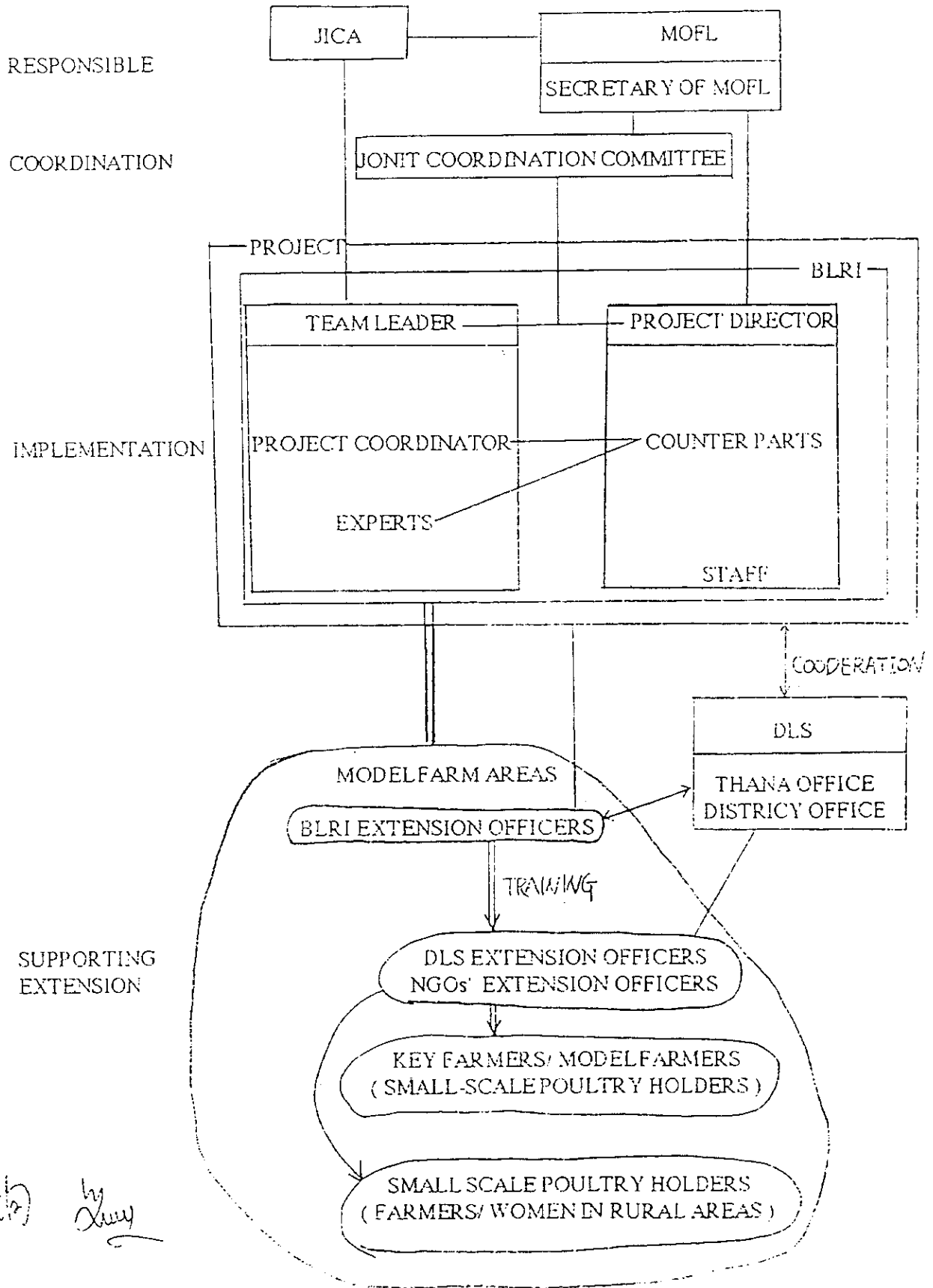
TENTATIVE PROJECT ACTIVITIES AND ANTICIPATED ACHIEVEMENTS (3/3)

ITEM	ACTIVITIES	ANTICIPATED ACHIEVEMENTS
<p>II. CHICKEN DISEASE CONTROL</p> <p>1. UNDERSTANDING OF MAJOR INFECTIOUS DISEASES</p> <p>(1) Isolation and Identification of Pathogens</p> <p>1) Viral Diseases</p> <p>2) Bacterial Diseases</p> <p>(2) Pathological Determination</p>	<ul style="list-style-type: none"> <li>• Conducting Field Survey, Sample Collection Embryonated Egg Inoculation, Cell Culture, Cultured Cell Inoculation, Determination and Serological Tests</li> <li>• Conducting Field Survey, Sample Collection Medium Culture, Identification, Biochemical Tests and Serological Tests</li> <li>• Conducting Field Survey, Sample Collection, Preparation of Pathological Samples, Observation, Determination</li> </ul>	<p>Major Infectious Diseases are Identified through Field Surveys and Post Mortem Inspection of Abnormal Death Cases.</p> <p>Pathogens Isolation and Identification Techniques are Transferred.</p> <p>Pathological Diagnosis Techniques are Transferred.</p> <p>Related Techniques, eg. Various Embryonated Egg Inoculation Methods, Primary Cell Culture, Determination of Changes caused by sample inoculation, Various Serological Tests, Various Biochemical Tests.</p> <p>Pathological Diagnostic Techniques on Cross Sections</p>
<p>2. DEVELOPMENT OF DISEASE CONTROL AND MANAGEMENT MEASURES TECHNIQUES</p>	<ul style="list-style-type: none"> <li>• Data Collection, Formulating of Vaccination Programme, Training of Vaccination Implementation, Training and Demonstration of Disease Control Measures</li> </ul>	<p>Daily Disease Control Techniques are Established, including Vaccination and Medication Programming. Regular Serological Tests are Demonstrated and Implemented.</p>
<p>3. DEVELOPMENT OF DISEASE CONTROL MEASURES AT FARMERS</p>	<ul style="list-style-type: none"> <li>• Demonstration and Training of Regular Field Survey including Serological Tests</li> <li>• Training of Vaccination and Medication Programme</li> <li>• Manuals for Farmers and Farmers' Trainers (Utilization of Audio-Visual Aids)</li> </ul>	<p>Regular Serological Tests through Serological Tests are Implemented and Vaccination and Medication for Farmers are Instructed and Guided.</p>

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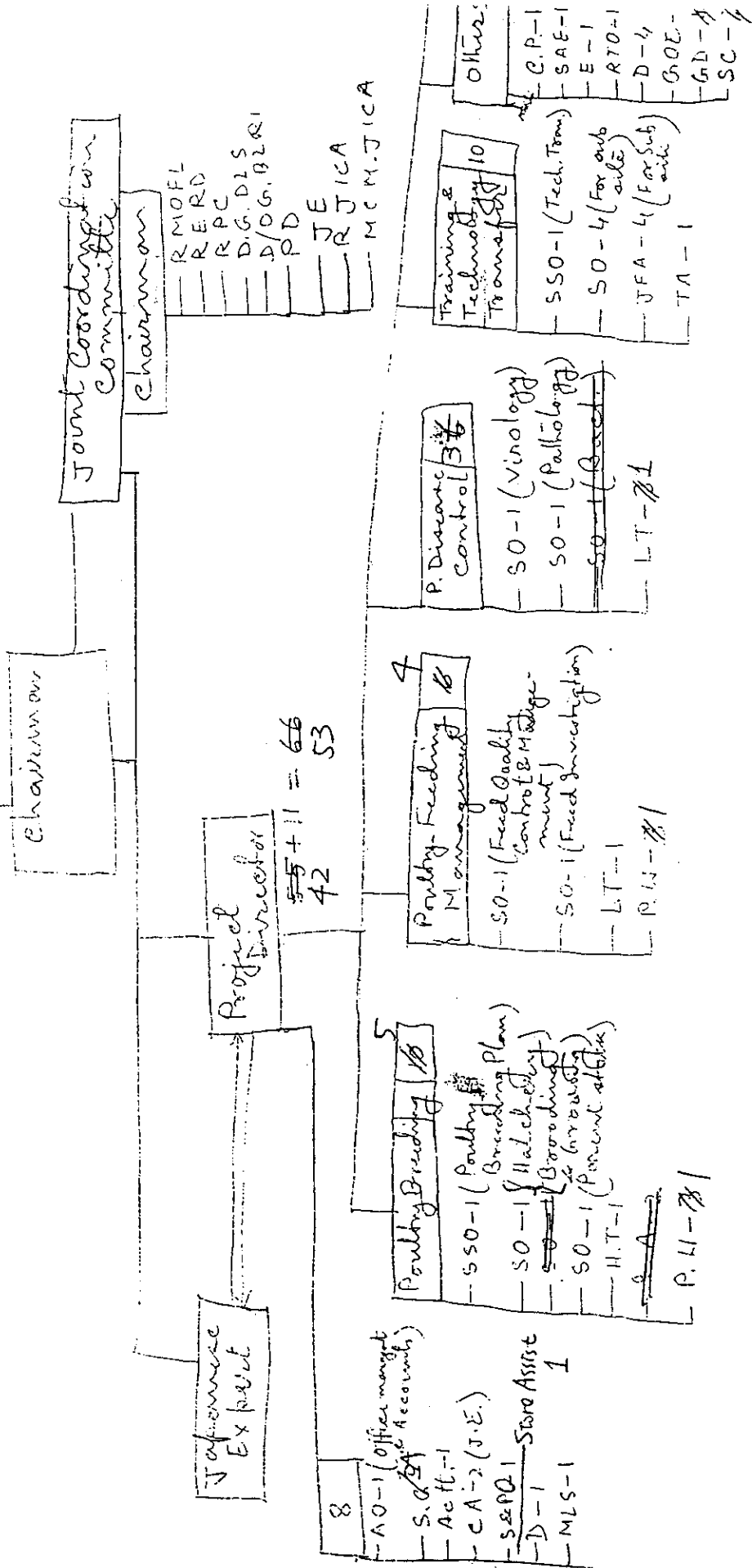
ANNEX 2  
 ORGANIZATION CHART OF THE PROJECT



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# ANNEX-2 Organization chart



LEGEND:

S.S.O. : Senior Scientific Officer  
S.O. : Scientific Officer  
AC/AD : Account/ Administrative Officer  
H.T. : Hatchery Technician  
I.A. : Incubator Attendant  
P.W. : Poultry House Worker  
L.T. : Laboratory Technician  
T.A. : Training Assistant  
C.P. : Computer Programmer  
J.F.A. : Junior Field Assistant  
S.A.E.E. : Sub Assistant Engineer ( Electronics )  
E. : Electronician  
R.T.O. : Receptionist cum Telephone Operator  
A/C : Accountant/ Cashier  
D : Driver  
GD : Guard  
SC : Sweeper/ Cleaner  
C.A. : Computer Assistant  
SG/OA : Stenographer/ Office Assistant  
SK : Store Keeper  
MLSS : MLSS  
GOE : Generator Operator cum Electrician

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ANNEX 3

SCHEDULE FOR FACILITIES IMPROVEMENT AND STAFF ALLOCATION BY THE BANGLADESH SIDE

FACILITIES	PREPARATION			1ST PROJECT YEAR			2ND PROJECT YEAR			3RD PROJECT YEAR			
BANGLADESH SIDE:													
Staff Room/ Training Room													
Garage for Vehicles													
Feed Analysis Lab.													
Treatment House													
Feed Formulation													
Training House for Breeding													
Training House for Layer													
Inter Connecting Road													
Necessary Boundary Wall													
JAPANESE SIDE:													
IMPROVE PHYSICAL STRUCTURES													
STAFF ALLOCATION													
PROJECT DIRECTOR													
FEEDING MANAGEMENT													
DISEASE CONTROL													
FEED ANALYSIS													
TRAINING CDN.													

Note: 1) Special Measures to improve Physical infrastructures by Japanese side may be considered according to the official request from the Government of Bangladesh after the cooperation for the Project will begins. The above schedule is shown with two pre-conditions that the Bangladesh side present the official request not later than the 3rd month of the Project period and the Government of Japan will approve to fund such infrastructure development requested.

2) Japanese side may not begin the Project cooperation even after the R/D signed, if the above schedule is not to be fulfilled.

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ANNEX 24

Present facilities of Poultry Production Division of ELRI.

Buildings

<u>Name of buildings</u>		<u>Specification</u>
Hatchery	-	105 m <sup>2</sup>
Poultry shed (Isolation)	-	120 m <sup>2</sup>
Feed store room	-	52 m <sup>2</sup>
Brooding and growing house	-	186 m <sup>2</sup>
Duck house	-	235 m <sup>2</sup>
L ayer house	-	235 m <sup>2</sup>
Internal Road	-	1 km

Manpower

<u>Designations</u>	<u>Number</u>
Chief Scientific Officer	1
Principal Scientific Officer	1
Senior Scientific Officer	2
Scientific Officer	1
Laboratory Technician	1
Field Assistant	1
Stenotypist	1
LDA-cum-typist	1
Poultry Attendant	1
MLSS	1
Total	11

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ANNEX 6  
MASTER PLAN OF THE PROJECT

1. OBJECTIVE OF THE PROJECT

(1) Overall Goal

The Project is to be set with the overall goal to enhance the poultry production at farmer's level, especially at small-scale poultry holders in Bangladesh.

(2) Objective of the Project

The objective of the Project is to improve the poultry management techniques for small-scale poultry holders by developing the appropriate technology on poultry feeding management, disease control and developing the appropriate breed suitable for small-scale farmers.

2. OUTPUTS AND ACTIVITIES OF THE PROJECT

(1) Outputs

- 1) The Chicken Feeding and Breeding Management Techniques are improved;
- 2) Appropriate Chicken Strain Development Technology is transferred to Bangladesh;
- 3) Major Chicken Diseases in Bangladesh are identified;
- 4) Chicken Disease Control Measures are developed; and
- 5) Trainers of Field Extension Officers are trained with the Improved and Developed Techniques.

(2) Activities

- 1) Improving the Chicken Feeding and Breeding Management Techniques,
- 2) Transferring the Appropriate Chicken Strain Development Technology to Bangladesh,
- 3) Identifying the major Chicken Infectious Diseases in Bangladesh,
- 4) Developing Chicken Disease Control Measures, and
- 5) Conducting Training for Extending the Improved and Developed Techniques

3. SITES OF THE PROJECT

- (1) Main-site: Bangladesh Livestock Research Institute, MOFL, Savar
- (2) Sub-site : 4 model farm locations including small holder chicken farms will be selected by BLRI in consultation with the Japanese Experts within the first two years of the Project period

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ANNEX 5  
THE COMMON FACILITIES OF DLS IN SUB-SITE AREAS

1. District Livestock Office
2. Thana Livestock Office
3. Regional Poultry Farm
4. District level Poultry Farm
5. Poultry Rearing Farm
6. Training Facilities

ANNEX 7 DRAFT RECORD OF DISCUSSIONS

THE RECORD OF DISCUSSIONS  
BETWEEN  
THE JAPANESE PROJECT IMPLEMENTATION STUDY TEAM AND  
THE REPRESENTATIVE OF THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF  
BANGLADESH  
ON  
THE JAPANESE TECHNICAL COOPERATION  
FOR  
THE POULTRY MANAGEMENT TECHNIQUES IMPROVEMENT PROJECT  
IN  
THE PEOPLE'S REPUBLIC OF BANGLADESH

The Japanese Project Implementation Study Team ( hereinafter referred to as " the Team " ) assigned by Japan International Cooperation Agency ( hereinafter referred to as " JICA " ) , which is headed by \_\_\_\_\_ , stayed in Bangladesh for the purpose of working out the technical cooperation programme concerning to the Poultry Management Techniques Improvement Project in the People's Republic of Bangladesh.

During its stay in Bangladesh, the Team exchanged views and had a series of discussions with the Bangladesh authorities concerned in respect of the desirable measures to be taken by both Governments for the successful implementation of the Project.

As a result of the discussions, the Team and the Bangladesh authorities concerned agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Dhaka, Signed date

\_\_\_\_\_  
Mr.  
Leader,  
The Implementation Study Team,  
JICA

\_\_\_\_\_  
Mr.  
Ministry of Fisheries and Livestock,  
Bangladesh

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\_\_\_\_\_  
Mr.  
Secretary,  
Economic Relations Division, Bangladesh

## THE ATTACHED DOCUMENT

### I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of the People's Republic of Bangladesh will implement the Poultry Management Techniques Improvement Project in Bangladesh ( hereinafter referred to as "the Project" ) in cooperation with the Government of Japan.
2. The Project will be implemented in accordance with the Master Plan which is given in Appendix 1.

### II. MEASURES TO BE TAKEN BY THE GOVERNMENT OF JAPAN

In accordance with the laws and regulations in force in Japan, the Government of Japan will take, at its own expenses, the following measures through JICA according to the normal procedures under the Japan's Technical Cooperation scheme.

1. Assigning of Japanese Experts ( hereinafter referred to as "the Expert" )  
The Government of Japan will provide the services of the Japanese experts ( hereinafter referred to as "the Expert" ) as shown in Appendix 2.
2. Provision of Machinery and Equipment  
The Government of Japan will provide such machinery, equipment and other materials ( hereinafter referred to as " the Equipment " ) necessary for the Project implementation as listed in Appendix 3. The Equipment will become the property of the Government of the People's Republic of Bangladesh upon being delivered Cost, Insurance and Freight ( C. I. F. ) to the Bangladesh authorities concerned at the ports and/or airports of disembarkation.
3. Training of Bangladesh Counterparts in Japan  
The Government of Japan will receive the Bangladesh personnel connected with the Project for technical training in Japan.
4. Special Measures to be taken by the Government of Japan  
To ensure the smooth implementation of the Project, the Government of Japan will take, in accordance with the laws and regulations in force in Japan, special measures through JICA with the purpose of supplementing a portion of the local cost expenditures necessary for the execution of the physical infrastructure.

### III. MEASURES TO BE TAKEN BY THE GOVERNMENT OF BANGLADESH

1. The Government of Bangladesh will take necessary measures to ensure the self-reliant operation of the Project will be sustained during and after the period of Japanese Technical Cooperation, through the full and active involvement in the Project by all related authorities, beneficially groups and institutions.
2. The Government of Bangladesh will ensure that the technologies and knowledge acquired by the Bangladesh nationals as a result of the Japanese Technical Cooperation will be contribute to the economic and social development of the People's Republic of Bangladesh.

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3. The Government of Bangladesh will grant in the People's Republic of Bangladesh privileges, exemptions and benefits no less favorable than those granted to experts of third countries working in Bangladesh under the Colombo Plan Technical Cooperation Scheme or international organizations performing similar missions to the Experts referred to in II-1 above and their families.
4. The Government of Bangladesh will ensure that the Equipment referred to in II-2 above will be utilized effectively for the Project implementation in consultation with the Experts referred to in II-1 above.
5. The Government of Bangladesh will take necessary measures to ensure that the knowledge and experience acquired by the Bangladesh personnel from technical training in Japan will be utilized effectively in the Project implementation.
6. In accordance with the laws and regulations in force in Bangladesh, the Government of Bangladesh will take, at its own expenses, the following necessary measures adequately for the smooth Project implementation to provide:
  - (1) Services of the Bangladesh Counterpart personnel and administrative personnel as listed in Appendix 4;
  - (2) The following facilities for the Project implementation:
    - 1) Space, building(-s), and facilities necessary for the Project implementation.
    - 2) Space, building(-s), and facilities necessary for installation and storage of the Equipment provided by the Government of Japan.
    - 3) Offices and facilities for the Experts at the Project site for the Project activities, and
    - 4) Other facilities mutually agreed for the Project implementation.
  - (3) Supply or replacement of machinery, equipment, vehicles, tools, spare parts and any other materials necessary for the Project implementation other than the Equipment provided through JICA under II-2 above;
  - (4) Means of transportation and travel allowances for the Experts for their official travel within Bangladesh; and
  - (5) Suitably furnished accommodation for the Japanese experts and their families.
7. In accordance with the laws and regulations in force in Bangladesh, the Government of Bangladesh will take, at its own expenses, the following necessary measures adequately for the smooth Project implementation to meet:
  - (1) Expenses necessary for transportation of the Equipment referred to in II-2 above from the port of disembarkation to the Project site within Bangladesh, as well as their installation, operation and maintenance thereof;
  - (2) Expenses for customs clearance and any other charge might be necessary in Bangladesh on the Equipment referred to in II-2 above.

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- (3) Exemptions from customs duties and taxes, internal taxes, and any other fiscal levies might be imposed in Bangladesh on the Equipment referred to in II-2 above.
- (4) All other running expenses for the Project implementation.

#### IV. ADMINISTRATION OF THE PROJECT

1. For the effective and successful implementation of technical cooperation for the Project, a Joint Coordination Committee will be established whose functions and composition are described in Appendix 5.
2. Secretary, Ministry of Fisheries and Livestock will bear overall responsibility of the Project as the chairman of the Joint Coordination Committee.
3. \_\_\_\_\_, as the Project Director will be responsible for the administrative, managerial and technical activities of the Project.
4. The Japanese Team Leader will provide necessary recommendation and advice to the Chairman of the Joint Coordination Committee and the Project Director on any matters pertaining to the implementation of the Project.
5. The Experts will give necessary technical guidance and advice to the Bangladesh counterpart personnel on technical matters pertaining to the implementation of the Project.
6. The Organization Chart of the Project is shown in Appendix 6.

#### V. JOINT EVALUATION

Evaluation of the Project will be conducted jointly by the both Governments through JICA and the Bangladesh authorities concerned, at the medium of and during the last six months of the Project term in order to evaluate the level of achievement.

#### VI. CLAIMS AGAINST JAPANESE EXPERTS

The Government of the People's Republic of Bangladesh undertakes to bear claims, if any raise, against the Experts engaged in Technical Cooperation for the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in Bangladesh expect for those arising from the willful misconduct or gross negligence of the Experts.

#### VII. MUTUAL CONSULTATION

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

#### VIII. TERM OF COOPERATION

The duration of the Technical Cooperation for the Project under this Document will be [ ] years from the \_\_\_\_\_, 1997.

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Appendix 1  
MASTER PLAN OF THE PROJECT

1. OBJECTIVE OF THE PROJECT

(1) Overall Goal

The Project is to be set with the overall goal to enhance the poultry production at farmer's level, especially at small-scale poultry holders in Bangladesh.

(2) Objective of the Project

The objective of the Project is to improve the poultry management techniques for small-scale poultry holders by developing the appropriate technology on poultry feeding management, disease control and developing the appropriate breed suitable for small-scale farmers.

2. OUTPUTS AND ACTIVITIES OF THE PROJECT

(1) Outputs

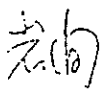

- 1) The Chicken Feeding and Breeding Management Techniques are improved;
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- 5) Trainers of Field Extension Officers are trained with the Improved and Developed Techniques.

(2) Activities

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3. SITES OF THE PROJECT

- (1) Main-site: Bangladesh Livestock Research Institute, MOFL, Savar
- (2) Sub-site : 4 model farm locations including small holder chicken farms will be selected by BLRI in consultation with the Japanese Experts within the first two years of the Project period

## Appendix 2

### ASSIGNMENT OF JAPANESE EXPERTS

#### 1. Long-term Experts

Three (3) to four (4) Long-term Experts may be assigned under the Project, including the following fields

- a) Team Leader
- b) Project Coordinator
- c) Chicken Breeding Management
- d) Chicken Disease Control

#### 2. Short-term Experts

Short-term Experts may be assigned for the specific fields of technology transfer, the installation of machinery and equipment, and for the training of technical personnel in relation to the scope of the Project, when necessary arises.

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### Appendix 3

#### LIST OF MACHINERY AND EQUIPMENT

1. The Equipment necessary for
  - 1) Improving the Chicken Feeding and Breeding Management Techniques,
  - 2) Studying the appropriate Chicken Strain in Bangladesh,
  - 3) Understanding the major Chicken Infectious Diseases in Bangladesh,
  - 4) Developing Chicken Disease Control Measures, and
  - 5) Conducting Training for Extending the Improved and Developed Techniques
  
2. Other machinery, equipment, reference books and documents, vehicle and materials mutually regarded by both Japanese and Bangladesh sides necessary for the effective and smooth implementation of the Project.

Appendix 4

COUNTERPART AND ADMINISTRATIVE PERSONNEL OF BANGLADESH SIDE

1. Chairman of the Joint Coordination Committee
2. Project Director
3. Administrative personnel
4. Technical personnel
5. Maintenance personnel
6. Planning Supporting Personnel
7. Other necessary supporting personnel

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Appendix 5  
JOINT COORDINATION COMMITTEE

1. Functions of the Committee

The functions of the Committee are:

- 1) To formulate the Annual Work Plans of the Project in line with the TSI formulated under the framework of the R/D;
- 2) To review the overall progress of the Technical Cooperation programme as well as the achievement of the above mentioned Annual Work Plans;
- 3) To review those measures taken by the both Japanese and Bangladesh sides;
- 4) To review and exchange views on major issue arising from or in connection with the Technical Cooperation Programme; and
- 5) To recommend necessary issues to the both Governments.

2. Composition of the Committee

1) Chairperson;

Secretary of MOFL will chair the Committee

2) Members;

Bangladesh side

Representative(-s) from the Ministry of Fisheries and Livestock

(not below the rank of Joint Secretary/ Joint Chief)

Representative(-s) from the Economic Relations Division

(not below the rank of Joint Secretary/ Deputy Secretary)

Representative(-s) from the Ministry of Finance ( Finance Division )

(not below the rank of Joint Secretary/ Deputy Secretary)

Representative(-s) from the Planning Commission

(not below the rank of Joint Chief/ Deputy Chief)

Representative(-s) from the Implementation Monitoring and Evaluation Division

(not below the rank of Director General/ Director)

Project Director ( Member Secretary )

Director General/Director of the BLRI

Director General of the DLS

Japanese side

The Experts of the Project

Representative from the JICA Bangladesh Office

Members of the Consultation Mission dispatched by JICA to join the Committee

3) Observers of the Committee



Representative(-s) from the Embassy of Japan will attend the Meeting as observer member.

4) Frequency of the Meeting

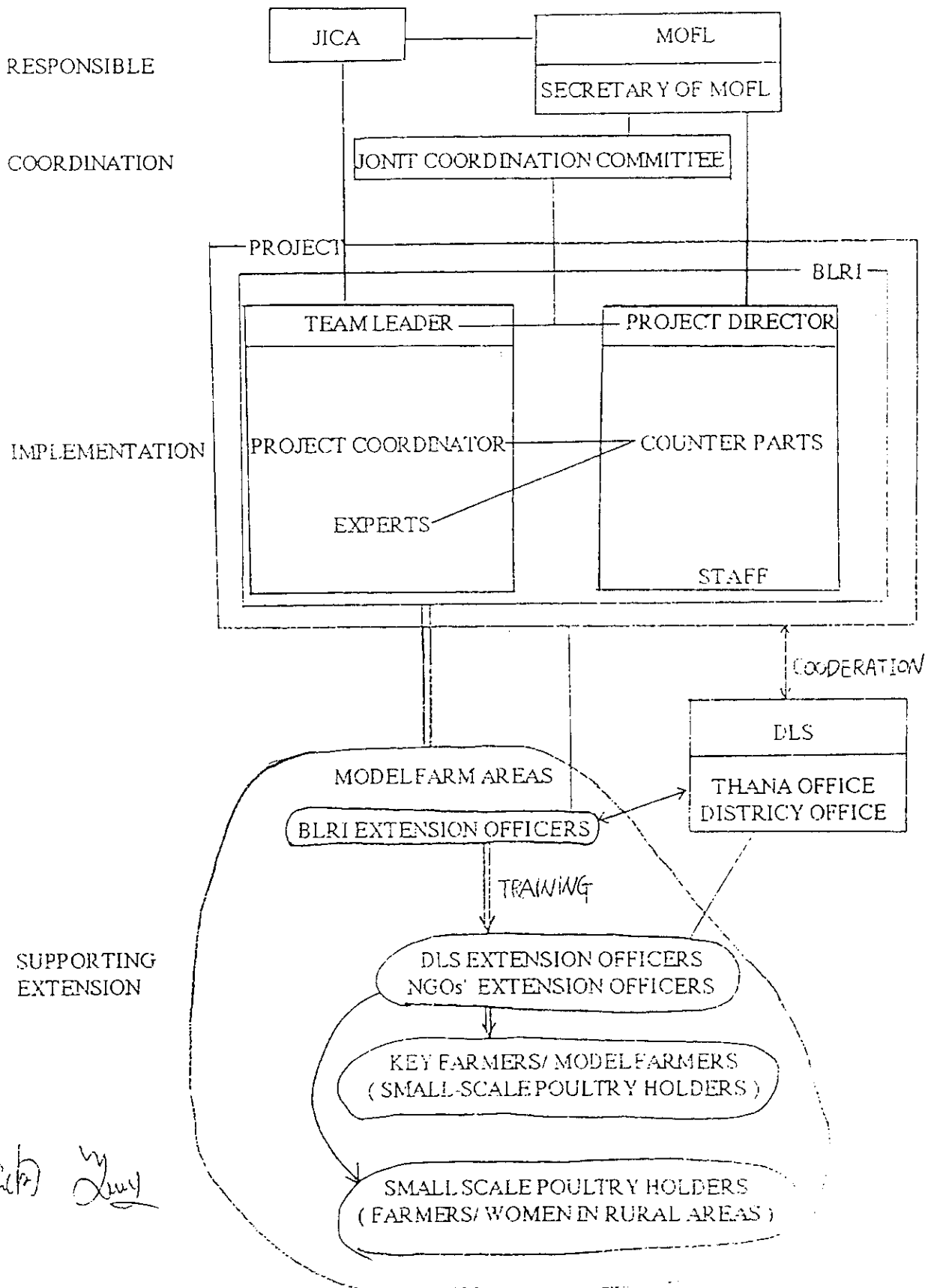
The meeting will be held at least once a year and whenever necessary.

Note;

- 1) Any other concerned personnel may attend the committee with the permission of the Chairpersons as observer member

Appendix 6  
 ORGANIZATION CHART OF THE PROJECT



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ANNEX 8  
TENTATIVE SCHEDULE OF IMPLEMENTATION( TSI )

ITEM	PROJECT YEAR				
	1ST	2ND	3RD	4TH	5TH
1. Feeding and Breeding Management					
(1) Improvement of Chicken Breeding Management Techniques					
(2) Improvement of Chicken Feeding Management Techniques					
(3) Training of Chicken Husbandry Techniques					
(4) Extension and Demonstration of Established Techniques					
2. Chicken Disease Control					
(1) Understanding of Major Infectious Diseases					
(2) Development of Disease Control and Management Measures Techniques					
(3) Development of Disease Control Measures at Farmers					

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TECHNICAL COOPERATION PROGRAMME

ITEM	1ST	2ND	3RD	4TH	5TH
1. Japanese side					
(1) Long-term Experts					
a. Team Leader					
b. Project Coordinator					
c. Experts in the fields of:					
a) Chicken Breeding Management					
b) Chicken Disease Control					
(2) Short-term Experts		( When	needs	arises )	
(3) Counter-parts Training in Japan					
(4) Provision of Machinery and Equipment					
(5) Special Measures for Physical Infrastructure Development		( When	needs	arises )	
(6) Dispatch of Survey Missions		( When	needs	arises )	
2. Bangladesh Side					
(1) Counterparts and administrative personnel					
a. Chairman of Joint Committee					
b. Project Director					
c. Counterpart personnel to the Japanese Experts					
d. Administrative personnel					
e. Other necessary supporting personnel					
(2) Land, buildings, facilities and equipment					
a. Offices and facilities necessary for the Japanese Team Leader and other experts					
b. Laboratories and attached facilities					
c. Other facilities mutually agreed upon as required					
(3) Provision of running expenses of the Project					

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## ESTIMATION OF THE COST BORNE BY THE JAPANESE SIDE ( NON-PAPER )

### IMPORTANT NOTE:

It is clearly stated by the Japanese side that this estimation is purely for the purpose to prepare PCP by BLRI, and the Japanese side has no obligation to fulfill the above estimation through the Project. Therefore, the practical budget input will be determined according to the annual working plan approved by the Joint Coordination Committee of the Project and it might be affected by the availability of Japanese budget. And the Bangladesh side shall not refer this estimation to request the Japanese side to borne Project cost in any occasion.

- 1 . COSTS FOR JAPANESE EXPERTS (97,630,000TK)
  - ( 1 ) Long-Term Experts  
 $244\text{MM} \times 320,000\text{TK} = 78,080,000\text{TK}$
  - ( 2 ) Short-term Experts  
Average cost for one Experts  
 $85\text{MM} \times 230,000\text{TK} = 19,550,000\text{TK}$
  
- 2 . Cost for Training in Japan ( 28,800,000TK)  
 $80\text{MM} \times 360,000\text{TK} = 28,800,000\text{TK}$
  
- 3 . Equipment and Birds Provision .. ( 96,000,000TK)
  
- 4 . Model Infrastructure Development ( 12,000,000TK)
  
- 5 . Local Training and Othres ( 2,400,000TK)
  
- TOTAL COST ESTIMATION FOR PCP ( 236,830,000TK )

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