

バングラデシュ農業普及計画
専門家(普及計画)報告書

昭和53年9月

国際協力事業団
農業開発協力部

| |
|-------|
| 農 開 |
| JR |
| 78-12 |

バングラデシュ農業普及計画 専門家(普及計画)報告書

JICA LIBRARY



1012037[6]

昭和53年 9 月

国際協力事業団
農業開発協力部

農 開

JR

78-12

| | |
|--------------------|------|
| 国際協力事業団 | |
| 受入 月日 84. 4. 24 | 101 |
| 登録No. 03932 | 80.7 |
| | AD |

あ い さ つ

我が国のバングラデシュ国に対する農業技術協力は、旧パキスタン時代から数えて既に20年有余の実績を有しております。プロジェクト協力事業も協力方法や協力内容が時代とともに多格化、かつ大型化し発展しておりますが、1国に対してこれほど長期的な協力が続けられているということは、同国において農業の占める地位が極めて高いという反面、過去における協力実績、成果についてバングラデシュ国の我が国農業技術協力に対する評価と信頼度が一段と高いことを示すものと思われまふ。

現在、我が国は、去る昭和50年3月13日に締結された討議議事録に基づき、中央農業普及技術開発研究所の設立に対する技術協力をを行うこととなり、チームリーダーをはじめ、農業普及栽培、農業機械、かんがい農業、園芸等の分野における専門家の派遣と同時に機械供与及び研修員受入れを含む技術協力を実施しております。

このたび、同プロジェクトにより設置された3カ所のコミュニティーセンター（普及実験村＝濃密指導村）の普及計画の策定を目的として、水間健志氏を短期（2ヶ月間）派遣しました。同専門家は村落調査を基礎に、今後の普及活動の指針となる「普及計画作成の手引」をまとめられました。

本報告書は日本側専門家及びバングラデシュ側カウンターパートの技術指針となる内容をもっており、今後本プロジェクトの運営実施上欠かせないものと思われ、ここに印刷する次第であります。

おわりに酷暑の気候にもかかわらず所期の成果を収めていただいた水間健志専門家の労に深く感謝の意を表します。

昭和53年9月

農業開発協力部長

金 津 昭 治

目 次

| | ページ |
|--|-----|
| I. 活 動 概 要..... | 1 |
| II. 普及計画作成の手びき..... | 3 |
| III. 農 村 の 現 況..... | 9 |
| 附 録 | |
| I The Guide Book of Making Extension Planning..... | 15 |
| II Extension Programme Making in Bangladesh (Draft)..... | 22 |
| 参考資料 | |
| I Revised Integrated Scheme for CERDI Project..... | 29 |
| II Business programme for Five Years of CERDI Project..... | 93 |
| III バングラデシュ CERDI 技術協力 5 カ年計画 (試案)..... | 95 |

1. 活 動 概 要

Bangladesh 農業普及計画プロジェクトは昭和53年度から本格的な事業を開始することになっております。今般、昭和53年2月16日より4月15日までの2カ月間、普及計画作成の短期専門家として派遣されました。

派遣の目的は、本プロジェクトが本格的な事業を開始するにあたり、Central Extension Resources Development Institute (CERDI) 及び3カ所のCommunity Development Centre (普及実験村=濃密指導村) において普及活動を効率的に展開するにあたっての普及計画の作成指針を示してくるものであります。

短期間ではありますが、農村調査を基礎に、派遣済みの長期専門家各位のご協力により以下に述べるように普及計画作成にあたっての手引及び実際例を示してまいりましたのでここに報告いたします。

この成果がCERDIの諸事業に活用され、Bangladeshにおける農業普及体制の整備に役立つ、農業生産の増大、農民の生活水準の向上に貢献するようお願いいたします。

| 月 | 日 | 活 動 の 内 容 |
|----|----|----------------------------|
| 2. | 14 | 事業団オリエンテーション |
| | 15 | " |
| | 16 | 東京発——→バンコック着(1泊) |
| | 17 | バンコック——→ダッカ着 |
| | 18 | CERDI及びセンター、コミニティーセンター現地巡回 |
| | 19 | 休 務 |
| | 20 | オリエンテーション |
| | | ↓ |
| | | コミュニティーセンター所在部落農村、農家実態調査 |
| | | " |
| | | " |
| | | " |
| 3. | 31 | " |
| 4. | 1 | 農村、農家調査とりまとめ |
| | | " |
| | | " |
| | | ↓ |
| 4. | 7 | 普及計画書及びテキスト作成 |
| | | " |
| | | " |
| | | " |
| | | ↓ |
| 4. | 14 | バン格拉デッシュ発——→バンコック着 |
| | 15 | バンコック発——→東京着 |
| | 16 | 休 務 |
| | 17 | 事業団及び農林省へ帰国報告 |

Ⅱ. 普及計画作成の手びき

1. 普及計画作成の目的

普及計画作成の目的は、それによって普及員の日常活動を計画化し、一定の課題解決目標に向って、より効率的な普及活動を展開することにある。思いつきの無計画な活動や、公開性のない独善的な指導を避け、合理的な普及活動を進めることにより、究極的には農業者の技術、経営能力を向上させ、更には農業所得を増大させ、農業者の福祉発展に寄与することがその目的である。

2. 普及計画作成上の留意点

より優れた普及計画は普及活動を合理的に展開すると同時に、農民の課題を解決するためにあるもので、次のような事柄が考慮されて立案されなければならない。

(1) 農民のための普及計画であること。

ややもすると普及計画が役所ベースで作成され、そこには地域の実状、農民の要求等も無視され、上から下への一方的な押しつけになったり、又、単なるデスクプランになったりする可能性がある。少くともこのようなことは絶対に避けなければならない。

普及は相手のある対人的な働きかけの作用であり、働きかける相手の存在や、条件、さらには農業者が持っている欲求を軽視してはその成果を期待することは困難である。

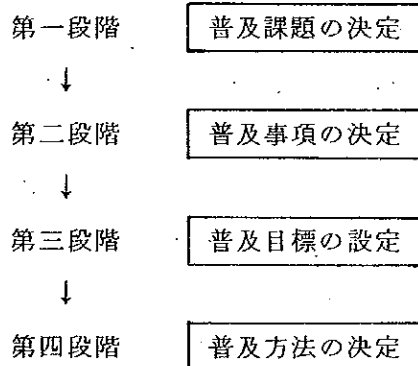
(2) 農業者の要求に沿った普及課題が設定されること。

そのためには対象農家をとりにくく地域農業の実状は勿論、農家が営農や生活上、当面解決を迫られている切実な課題は何であるかを充分調査把握する必要がある。

(3) 普及計画の課題には年度内又は数年以内に具体的に解決可能なものがとりあげられること。

3. 普及計画作成の手順と作成要領

普及計画書の構成は次の4つの事項からなり、作成の手順としては左記のような段階を追って作成されることが好ましい。



● 作成要領…………… 別 紙

(1) 普及課題の決定

(ア) 課題選定のための資料収集

適切、妥当な課題を設定するためには、それなりに当該地区内の実情、農家の要求を把握する必要があるが、なにがなんでも新規の資料を得るために大がかりな実態調査を行わねばならないというような窮屈な考えでなく、既存の資料を充分活用したり、普及の日常活動の中でつかんだ問題点の収集整理、又前年度の普及活動における実績評価からフィードバックした問題点、更には国、県の行政要求に対応するための諸資料を収集整理する必要がある。

(イ) 課題の設定

収集した情報、資料は分析検討され、問題別・事項別に整理され、いくつかの課題群が設定されることになる。それではどのような課題をいかにして選択整理し、これを配列、組織していけばよいか。一般的に言って、課題というのは、われわれがその実現を期待する理想像と現実の実態との間に横たわるギャップとして設定される。すなわち私達が将来、「バン格拉デッシュの農業や、農民の生活をこのようにしたい」というような具体的なビジョンをもち、そのビジョンを規準として現実のバン格拉デッシュ農業の実情や農家生活の実態をながめるとき、そこに大きな落差が見出される。そのギャップをうめるため普及員が農民を助けてその解決、打開に当たらなければならないような未解決の問題が多く存在することに気づくであろう。

普及課題はこのようにして発見し設定されるものである。

具体的な課題群の設定には次の4つの考え方がある。

- ① 先づ第一に考えられることは、農民の要求から問題を汲みとり、これを課題化していく方法である。すなわち、農民の営農、生活上最も緊急に課題解決をせまられている問題を課題としてとりあげていこうとするものである。この場合農民と常に接触を保ちながら彼等の実態を把握しておく必要がある。
- ② 二つには潜在的問題の発掘である。すなわち、現在はまだ農民の意識の中に何が問題であるか、問題が顕在化せず、農民自身も問題に気づいていないが、それが指導者（普及員）の幅広い知識と技術をもって見た場合、それを改良することは農業改良上又は生活改善上からも大へん重要なポイントになることが少なくない。例えばバングラデッシュにおける耕うん作業に用いられている犁などがそれである。農民が日常耕うんに使用している犁は極めて不安定で非能率的であり、これの改良効果は非常に高いものと考えられるが、農民たちは先祖伝来使われてきた犁にたいして少しも不合理的を感じていないのである。このように気づかずにいる技術にたいして農民に問題意識を起させ、改良のための動機づけをしながら課題を設定するのも普及員の大きな役割りである。

③ 三つには指導者のアイディアによる課題設定がある。普及とは農業に変化をもたらす仕事である。指導者の広い知識、技術と地域農業振興への情熱から生れる創造性によって、ある分野の生産性を積極的に拡大したり、又、地域の条件に適合した新しい作目を導入させることによって、一段と有利な営農条件を確保することが可能になるような予測的な、未来展望につながるような普及課題の選定が考えられる。

農民は一般的に保守的であり、先行きの不安な冒険や変化を好まない。したがって現状維持にとどまりやすく、積極的な拡大策や、新しい作目の導入を危険視しがちである。しかし投機的なことは好まないにしても、見通しのはっきりした確かな増収への道があれば、むしろ欲深くそれに集中する傾向があることも確である。農民のこのような営利性・利益追求欲を利用することを考える必要がある。

④ 最後に各試験研究機関や技術センター等で開発された技術、知識を農民に伝達し技術改良を図ろうとする課題、あるいは国、県（District）の農業政策を農家に浸透させていくための課題等がある。このように普及課題の設定の方法には以上の4つの考え方があがるが、計画作定にあたってはこの4つの考えはいずれも重要であり、これ等が複合され課題群が設定されることが好ましい。

(v) 普及課題の整理決定

以上のような考えのもとで設定された課題群を問題別・事項別に整理し、今年度において解決を試みようとする課題を重点的に決め、優先順位をつける。このようにして普及課題が決定される。

課題整理表 様式

| 問題点 | 現況 | 改善点 |
|-----|----|-----|
| | | |

(2) 普及事項の決定

普及課題が決定したら、その課題を解決するためにいくつかの具体的な技術対策事項が定められなければならないが、その技術対策を普及事項という。

普及事項を定めるにあたっては、先ず課題解決を阻害している諸要因を分析検討することから始まる。分析の結果これ等数々の阻害要因をどのような技術対策事項をもって排除するか、地域や農民に実現可能な普及事項をより具体的にとりあげて決定する。

(3) 普及目標の設定

定められた普及事項に沿って地区内の農民に指導援助していくことになるが、指導の主たるねらいとその目標をどこにおくかを明らかにしておく必要がある。ただ漫然と指導を

繰り返すのではなく、普及事項ごとに年度末における指導の到達目標を具体的に定めておくことが大切である。例えば、稲の高収量品種の普及を何パーセントまでもってゆくとか、稲の収量を何マウンドまで引きあげるとか、更には農民の知識、技術について何をどこまで理解させるか等具体的にその目標を定めておく必要がある。

(4) 普及方法の決定

(ア) 普及の方法・手段

普及課題、普及事項そして普及目標が定まったところで、それでは一体この普及課題を解決し、初期の目標を達成するためには、どのような普及の手段、方法を駆使すればよいのかということが問題になってくる。指導者がどんなに立派な技術や高い知識を持って農家に指導援助したとしても、その指導の方法を誤まればただ単なる lecture に終り農民を動機づけ、行動にいたらしめることは困難である。けっきょく農民は口先だけの指導や言葉だけの講義は信じない。しかし実際の物には耳を傾け、他の農民の行っているデモンストレーションには従うものである。そこで効率的な普及方法として演示会、デモンストレーションほ場の利用、実習や実験、現地検討会、フィルムフォーラム、ディスカッション、広報活動等、指導の内容によって普及指導の方法を考えていく必要がある。

(イ) 普及の重点指導対象地区の決定

普及計画にもとづいて普及指導活動を展開する場合、幅広く不偏的に指導することも必要であるが、当該地区の中でいずれかの部落 (Community) 又は集団 (group) を選定し、ここを濃密指導地区として重点的に指導援助を行い、その成果をもって他の地区の農民の問題意識と興味を引おこし、その波及効果をねらうものである。

(ウ) 教材 (普及器材) の準備

効果的な普及指導を展開しようとする場合、普及方法と併行してそれに用いる器材の選択が重要なポイントになる。すなわち、指導の内容、時期、場所、指導人数等により効果的な普及器材、普及指導テキスト等を準備する必要がある。

(エ) 指導時期、場所の選定

以上のような普及活動を何時 (日時・期間)、どこで、だれが、だれに対して行うかを予め計画の中で明らかにしておく必要がある。

以上、普及計画作成の手順と作成要領を簡潔にまとめてみると次のような表-1になる。

表 - 1 普及計画作成の手順と要領

| 作成の事項と手順 | 要 領 |
|-----------------|---|
| 普及課題の決定 | <p>(1) 普及課題選定のための資料収集 農村、農家の実態調査、日常普及活動の中から普及課題選定のための情報を収集する。</p> <p>(2) 課題の設定 収集した資料及び情報をもとにいくつかの課題を設定する。課題のとりあげ方に4つの考え方がある。</p> <p>① 農民の営農、生活上の要求を汲みとる方法。</p> <p>② まだ農民の意識の中にのぼっていない潜在的な問題の発掘。</p> <p>③ 指導者のアイデアによるもの。</p> <p>④ 既成技術の普及、国、県の農業政策への対応。</p> <p>(3) 設定された課題群の中から今年度において解決を試みようとする課題を重点的に決め、優先順位をつける。</p> |
| 普及事項の決定 | <p>課題解決のための具体的な技術事項を定めるには、まず課題解決を阻害している要因を分析する。阻害要因としては技術的、経営的、経済的、生活習慣的、自然的条件等が考えられる。数々の阻害要因を排除することが技術対策であるが、地域や農民に実現可能な諸事項を具体的にとりあげ決定する。</p> |
| 普及目標の設定 | <p>とりあげた普及事項ごとに年度末の到達目標を具体的に定める。目標は数字で表現できるものは数字で示す。</p> |
| 課題解決のための普及方法の決定 | <p>(1) 一般活動の外に今年度特に重点的に取りくむ地区（集団）を定める。</p> <p>(2) 具体的に定められた普及事項をどのような要領で農民を動機づけ、農民に伝達し理解させ行動を引きおこさせるか、そのための効果的な普及方法を考える。たとえば講習会、演示会、展示ほ設置、現地検討会、広報活動、フィルムフォーラム等が考えられる。</p> <p>(3) 教材（普及器材）の準備、指導の内容、時期、場所、人数等により効果的な普及器材、指導テキスト等を準備する。</p> <p>(4) 指導の時期、場所。以上のような普及活動を何時（日時・期間）どこで、だれを対象に、だれが行うかを明らかにする。</p> |

表一 普及指導計画画書（稲作を例として）

| 課題 | 普及事項 | 指導のねらいと目標 | 指導方法 | 指導対象 | 教材 (普及器材) | 時期 | 場所 | 担当者 | |
|--------------------|--|--|---|---------------------|---------------------------|---|-----------------------------------|------------------|--|
| 深井戸利用によるボロ稲栽培技術の向上 | (1) 深井戸ポンプの設置啓蒙 (2) ポンプ利用の組織育成 (3) 深井戸ポンプの設置 | 深井戸ポンプの経済性について理解させる。 ポンプ設置3ヶ所 | (1) パンプレットによる啓蒙指導 (2) ポンプ利用稲の現地検討会 (3) 水利用総合リダーの発掘とその研修 (4) 優良組合の視察研修 | PURABARI Boro 稲栽培農家 | ポンプ利用の経済効果についての一覧表 | 3月(1日) 5月(1日) | 農家 Community Center | --- | |
| | (4) 健苗育成について (7) 良い種子の条件について (8) 苗代設置場所と面積確保 (9) 適正な種量の決定 (10) 塩水選と種子消毒の重要性について (11) 苗代の施肥量決定 (12) 適期田植の励行 (13) ライン植の普及 (14) 浅植の励行 | 健苗育成の重要性が及ぼす影響について同時にその技術をマスターさせる。 | (1) 慣行と改善技術を比較検討しながら講習会、実物鑑定、デモンストラーションを行う (2) スライトによる研修 (3) 比較展示場の設置(改善区、慣行区) (4) 現地検討会 | 同上 | 同上 | 耕種基準一覧表 比重計 炊種サンブル 塩、農薬 スライド 図示 検討会資料 | 10月 11月 5月 | 同上 展示場 現地 | |
| | (8) 本田施肥量の増施 (9) N.P.Kの施肥時期の適正化 | 適期田植の必要と作業の適正化について理解させる。 田植時期は12月～1月下旬まで終らせる。 エーカー当り N P K 施肥技術の改善について習得させる。 | (1) 稲作技術講習会の開催 (2) 部落に教ヶ所掲示板を設置 (3) 比較展示場を設置 (4) デモンストラーション | 同上 | 同上 | 試験成績書 (田植時期別収量関係) 田植網 | 11月 12月 | Community Center | |
| | (10) 病害虫の早期発見 (11) 適期防除の励行 | 病害虫の早期発見と適期防除の励行ができる診断技術を開発させる。 | (1) 施肥設計について講習会 (2) 施肥効果についての展示場設置 (3) 展示場の現地検討会 | 同上 青少年グループ | 施肥設計書 展示場設計 施肥効果データ | 1月 5月 | “ ” 部落リダー は場 | | |
| | | | (1) 病害虫発見の診断技術 (2) 適期防除時期について村の教ヶ所に掲示して (3) 拠点農家を設置して病害虫発生予察を行う | 同上 拠点農家 | 病害虫図鑑 現物標本 掲示板 | 1月 5月 | Community Center 村の出入口 拠点農家 | | |

Ⅲ. 農村の現況

普及計画作定の条件として前年度普及計画の経過と実績を評価反省することと併せて前もって農村の実態を知り、農民の欲求をしっかりと把握しておくことが必要である。このために農村の調査、農家の実態調査を徹底して行うべきであるが、都合により充分ではないがCERDI Community Center 設置部落である3つの部落について調査し、併せて村の中堅農家で将来CERDIの協力農家として期待できそうな地域リーダーについて聞きとり調査を行った。このため対象農家数が少く地域農家全体の声をあらわし得ないきらいがあるが農家の口述をもとにとりまとめた。

1 NAUJORI

3つの部落の中ではもっともDaccaに近く総耕地面積は625エーカー、内水田面積は75%の470エーカーで部落の西端を流れるJorag河の水を利用して河沿ではポンプ利用によるBoro 稲が栽培されている。農家戸数209戸、内農地を所有している者は166戸であり、この中で米の販売できる農家は約30%の50戸である。残り43戸は全く農地を所有しない日稼ぎ農民で生活は苦しい様である。

集落の総人口は1,422人で内訳は男730人女692人で男がやや多い。村民の教育程度は低く識字率は28%である。しかし調査対象農家はかなりの識見を有し自らほ場に入って、農耕に従事するようなことは殆んどなく経営の管理者として又、部落の指導者としてかなりの影響をもっている様であり普及の拠点として或はCommunity Centerの協力農家として期待できる。

農家所得の大部分は米でありAus, Aman, Boro に依存しているが灌漑可能地を有しない農家はAus, Amanの生産を高かめるために一生懸命である。しかしAus, Amanは収量も低く不安定なためにポンプ利用によるBoro 栽培には関心が高い。現在ポンプの設置ヶ所数6ヶ所米の平均収量はAus 45~50 mound、Aman 20~25 mound、Boro 55 (イリ8号) moundとなっているが生産条件(肥料、農薬、田植時期等)を整えれば70 md/Acの収量をあげることができることが可能であると答えている。生産資材が少ないのと同時に栽培技術もかなり低いようである。又、ここはDaccaに近くでレンガ工場等もあり、したがって雇用の機会に恵まれているがBoroの植付時期には一時的ではあるが雇用労働の不足が見られる。今後犁の改良と併行して耕うん作業の機械化が検討されるべきであろう。

この部落の特徴として組織化ができてきていることである。31人からなる農業協同合があり機能としては毎週1回ミーティングと組合員による経営基金を蓄積しており困った者へ無利子で金を貸付ける制度を有している。現在7,000 TKを保有している。一方婦人グループ青少年グループも組織されているが生産活動としては機能していない様である。

2 PURABARI

農家戸数114戸、農家人口715人で内訳は男359人女356人となっている。この内識字者は207人と低い。

稲作が安全有利なために稲作についての関心度は強く生産意欲も高いようであるが、生産資材である農薬、肥料が購入できず低い収量にあまんじている。又、ポンプ設置によるBoro 稲栽培の面積拡大を希望しているが部落の組織化ができずポンプ設置利用の大きな粗害要因となっている。事例としては90AC灌漑可能なポンプを設置しながら水利用の組織がないためにわずか2ACしか利用されていないポンプもあり、これ等既設のポンプを最大限に利用することも大きな課題であろう。そのためには農業の組織を急がねばならない。

| 稲の収量 | Aus | Aman | Boro |
|-----------|---------------------|-------|-------|
| ローカルバライター | 18~20 ^{mo} | 20~28 | 30~40 |
| ハイバライター | 50~60 | 45~60 | 45~70 |

一方稲の栽培技術も低く、特に育苗技術については極度に悪く全体的に細いセンコウ苗を使っているため、活着、初期生育共に悪く、収量低下の原因となっている。

家畜は一農家当り1~2頭のCowを飼育し自家用飲用乳として利用されている。山羊はもっぱら肉生産でありこれを改善して乳肉兼用にできないものかと考えられる。

この部落の特徴としていくつかの池を利用して養魚(テラピアナイロティカ)に力を入れている者があり、進歩的な知識をもって新しい感覚にめざめつつある部落民もかなり多いようである。

3 Bhabanipur

3ヶ所のCommunity Centerの所在地としては最も遠隔地にあり農家戸数280戸、人口3,000人、耕地面積3,000エーカー、内水田面積1,000エーカー、1戸当り耕作面積は3~5エーカー経営が最も多い。水田利用はAus 200~250AC、Aman 500エーカー、Boro 300エーカーが作付され畑にはシュート200エーカーの外に甘藷、サトウキビその他自家用野菜が栽培されている。農家所得の主体は米でありBoro栽培には力を注いでいるが多くの問題点がある。例えばBoro灌漑用ポンプを設置したいが水利用組織がないため設置できない。又設置されたポンプが管理費や借用代(年間1,250TK)が払えず遊休施設となっているなど問題も多い。

| 水稻の収量 | Aus | Aman | Boro |
|-------|-------|------|-------|
| | mound | | |
| | 15 | 25 | 50~60 |

一方ポンプ設置の問題と共に水稻生産資器材の不足は米の収量に大きく影響している。例えば肥料、農薬の不足は勿論であるが仮にあっても価格が高く購入できない者も多い。生活費は両親と子供4人の6人家族で衣、食、住で月600~800TKを必要とし、米以外の

換金作物に対する興味は強い。

生活面における不合理も多く緑黄生野菜の摂取も少くバランスのとれた食生活とは云えない。

特にタンパク源としては魚が主体であるが魚も漸次少くなりつつある。

附 錄

I The Guide Book of Making Extension Planning

II Extension Programme Making in Bangladesh (Draft)

The Guide Book of Making Extension Planning

I. The objectives of Making Extension Planning:-

The objective of making extension planning lies in making a proper planning of daily life of the extension worker concerned and also in evolving more effective extension activities with an object of solving a definite them. In order to achieve this objective we should avoid unplanned activities and self-righteous guidance and encourage the rational extension activities. Finally we should improve the skill, technique and management ability and moreover increase the agricultural income and thus contribute in the social welfare of farmers.

II. Points to be considered in Making Extension Planning:-

The excellent extension planning means expanding extension activities rationally in the course of solving the problems of farmers. Therefore the following points must be considered carefully to make the extension planning successful.

1. The extension activities must be for the farmers.

If we do not make it carefully, there is a possibility that extension planning might be prepared by the officials without considering the actual conditions of the locality and the needs of farmers and it might turn into an unsuccessful one-side paper plan to be pushed by the top to the bottom. This trend must be avoided by all means.

The extension work is based a people activity. The existance of the people whom we deal with, their actual conditions and needs should not be neglected. If we do so, we cannot expect good result.

2. The extension themes must be set up considering the needs of farmers.

For this reason, in addition to knowing the actual conditions of agriculture of the locality around the farmers house, we should immediately investigate and have a clear idea about the main problems relating to the farm management, the daily life of farmers etc.

3. In the themes of extension planning, we must take up the

concrete themes which are possible to be achieved within a year or a few years whatever may be the case.

III. The procedures and Particulars of Making Extension Planning:-

The structure of extension planning comprises of the 4 particulars and it is preferable to make the extension planning following the stages mentioned below:-

| | | |
|------------|---|--------------------------------------|
| 1st. stage | - | Decision of themes of extension |
| 2nd stage | - | Decision of particulars of extension |
| 3rd stage | - | Settling up the target of extension |
| 4th stage | - | Settling up the method of extension |

N.B. - Procedures of Extension Planning in separate - sheets, Annex-2.

1. Decision of Themes:-

(1) To collect data for selecting extension themes:-

In order to select proper and reasonable themes, we should grasp the actual conditions of the locality and the needs of the farm houses. But we should not have rigid thinking that in order to obtain new data an extensive and vast survey must be carried out by all means. Instead, we should properly utilize the available data and collect the problems we will face while performing the everyday extension activities. We should also collect the data relating to the problems which are fed back from the apprisement of previous year's actual accomplishment and moreover, we should collect the data matching the needs according to the policy of the country, district etc. and analyse all the data for proper use.

(2) Decision of Themes:-

After analysing and investigating the collected data and informations, we should arrange them problem-wise or theme-wise and thus a few theme groups can be decided.

Then we have to think how to select and arrange different kinds of problems and organize them properly.

Generally speaking, the theme is something to bridge the gap between the ideal image and the existing situation. That is, we have a vision in our mind that "we want to make the agriculture and the life of farmers of Bangladesh like this" and if we look at the actual condition of agriculture and the real situation of farm life taking this vision as standard, we can find a big difference between these two conditions.

To bridge this gap, while the extension workers will go to help the farmers and solve their problems or overcome these, they will be easily able to notice that there are innumerable problems still unsolved.

Thus the extension themes will be discovered and decided.

For concrete decision of theme groups there are the following 4 lines of thinking:-

(a) First of all what we can think is that we have to grasp the problems from the needs of everyday life of farmers and make these problems as the desired themes. That is, we want to take up themes which deals with the problems of farm management, daily life etc. of the farmers which necessitates immediate solution. In this case, we have to mix with the farmers intimately and grasp their actual conditions as early as possible.

(b) Secondly, we have to find out the hidden problems of the farmers. That is at present there might exist some hidden problems among the farmers who might not know what are the problems or they might not even imagine of the some.

But if the leaders (extension workers) look into this matters with their extensive knowledge and technology, they might make necessary modifications of the existing problems. This fact might lead to the modifications of agriculture and reform the daily life and thus there might be a number of cases where this fact will be a major achievement towards development.

Let us take the example of the plows used for cultivation in Bangladesh. As the plows which the farmers use in everyday life are extremely unstable and ineffective, so if these are reformed properly, we think that the effect will

be tremendous. But the farmers do not at all find any inconvenience in using these plows which they are using from the time immemorial.

We should show the farmers such skill and technique which they do not notice and arouse them such a way that they can feel the existence of problems and be motivated to reform them. By this way the extension workers can decide the themes. This will be a major role played by the extension workers.

(c) Thirdly, theme decision may take place according to the idea of the leaders (Extension worker).

The extension works make changes in agriculture. By virtue of extensive knowledge and skill of the leaders and by virtue of the originality from the passion of agricultural development in some locality, the productivity of particular section of crops or animals might increase tremendously. Moreover, some new items of crop or animal might be introduced in some locality where it matches and it might be possible that the better condition of farm management will be ensured. Like this, a bright prospect of future might be predicted and this kind of theme decision may take place.

The farmers are generally conservative and they do not like future uncertainty and adventure. Therefore they are prove to preserve the present condition and they take the new extensive production and the introduction of new items of crops and animals as dangerous. But even if they do not like speculative things, if there is a prospective and clear way to increase their income, being tempted they will rather concentrate to this kind of prospective work. There is a necessity to think how to utilize this tendency of money-making, the greed for attaining profit etc. of the farmers properly.

(d) Finally, there are themes which communicate the technology and knowledge developed by each research laboratory, technical center etc. to the farmers in order to achieve the technological renovation. Or, there are also themes in order to infiltrate the agricultural policy of the country, district etc. into farm houses.

Thus it is evident that there are four lines of thinking

in the methods of deciding the extension themes. But in making and deciding the extension planning, all these four lines of thinking are very important and therefore, preferably the theme group should be decided compounding all these ideas together.

(3) Analysing and Deciding Extension Themes:-

The themes which have already been decided based on the above-mentioned lines of thinking are analysed problem-wise, item-wise and the themes to be dealt with this year are decided with emphasis and the order of priority is made. Thus the extension themes are decided.

Theme Analysis Table (Form)

| Facts of Problems | Present Situation | Facts of Renovations |
|-------------------|-------------------|----------------------|
| | | |
| | | |

2. Decision of Extension Particulars

When the extension themes are decided, the particulars of some concrete technical policies must be set up in order to solve these themes. These technical policies are termed as extension particulars. For setting up the particulars of extension, first of all we have to start from analysing the many causes which are obstructing to solve the themes. Taking the results of analysis into consideration, we have to make such particulars of technical policy so that these innumerable obstructing causes can be eliminated and most suitable particulars of extension which are possible to be achieved by the farmers in the locality, are taken up and thus the themes are finally decided concretely.

3. Setting up the Target of Extension

According to the particulars of extension already set up, we have to guide and help the farmers in the locality, but for this we have to make the main objectives and targets of guidance very clear from the start. We should not repeat the guidance aimlessly, we should rather set up the item-wise target of extension to be attained concretely by the end of the year. For example, what

will be the percentage of dissemination of high-yielding variety of rice and how many maunds of rice per acre will be produced and moreover as for the knowledge and skill of the farmers how far we have to teach them etc. the targets of these should be set up concretely.

4. Consideration of Extension Method.-

(1) When the extension themes, extension particulars and extension targets are all set up, then the problems remain in evolving the extension procedures and methods in order to solve the extension themes and to attain the initial target. Even if the extension workers render their extensive services with their wonderful skill, technique and extensive knowledge, still if the method of extension is mistaken, the extension services will end only in lectures failing to motivate the farmers and arouse them to carry on their activities. After all, farmers do not believe lip services or oral lectures, but they listen about real things and obey the demonstration by another farmers.

As an effective means of extension, method demonstration meeting demonstration plots training by practice and experiment, discussion meeting on the spot in the locality, film forum, discussion, publicity etc. are utilized. According to the contents of guidance, the method and means of extension guidance should be properly considered.

(2) Decision of Community or Group for Extension Guidance:-

In the case of expanding the extension guidance activities following the extension planning, it is true that extensive and impartial guidance is a must. But, in the locality of extension some particular community or group may selected and concentrated and intensive extension services may be rendered in that locality. This result may help us in attaining our objective of provoking the farmers of other locality so that they can feel about or take interest in their problems. In this way, good results can be disseminated the surrounding area just like the wave movement.

(3) Preparation of Teaching Materials (Extension Materials and Tools):-

In the case of expanding the effective extension guidance, the selection of materials and tools used in extension activities is as important as the selection of extension method. That is to say, we should arrange effective extension materials and tools suitable for the contents, time and place and also the number of persons to be guided.

(4) Selection of the Time and Place of Guidance:-

When (exact date, time and duration), where and who will perform the above, mentioned extension activities and for whom these will be carried out all these facts should be clearly planned before hand.

Extension Programme Making in Bangladesh (Draft)

by Kenshi Mizuma,
Short term expert to CERDI.

Extension Planning - Aims and Points to be considered

1. Aims:

The aim of making the extension planning is to make a proper planning of daily activity of the extension worker concerned and also evolve more efficient extension activities with an object on solving definite theme. In order to achieve this aim, we should avoid casual and unplanned activities and self-righteous guidance and encourage the rational extension activities and finally our aim is to improve the skill, technique and farm management ability and moreover increase the farmers' income and thus contribute in the social welfare of the farmers.

2. Points to be considered in making the Planning:-

As the excellent extension planning aims at expanding the extension activities rationally and also solving the problems of the farmers, the following points must be considered carefully in order to make the planning:-

(A) The extension planning must be for the farmers

If we do not make the planning carefully, there is a possibility that the extension planning might be drafted by the officials without considering the actual condition of the locality and the needs of farmers and thus it might turn into an unsuccessful desk plan to be pushed from the top to the bottom. This trend must be avoided absolutely.

The extension work is the activity based on farmers. The existence of the people whom we deal with, and their conditions and needs should not be neglected and if we do so, we cannot get desired result.

(B) The extension theme must be set up considering the needs of the farmers.

(C) As far the themes of extension planning, we must take up the target which is possible to be achieved in a year or a few years at

least whatever may be the case.

(D) Under these circumstances, the planning must not be made up individually, instead, it must be made by the cooperative effort of the experts and officers related to fertilizer, plant protection, agricultural machinery, irrigation etc.

Particulars and Procedures of Making the Extension Planning

I. Decision of the Extension Themes

(1) To collect data in order to select the extension theme.

To investigate the actual condition of the rural villages, farm house holds etc. and to collect the informations in order to select the themes of the extension activities.

(2) Deciding the themes:-

Basing on the collected data and informations, several themes should be taken up, there are four following lines of thinking in setting up the themes:-

(a) To consider the needs of daily life and of farm management.

(b) To find out hidden problems which the farmers do not yet imagine of.

(c) According to the idea of the extension worker by himself.

(d) To extend the recommended technology matching the agricultural policy of the country, district etc.

(3) Among the themes already taken up, the themes which will be dealt with this year, should be decided with emphasis and the priority order should be made.

II Decision of the Extension Particulars

In order to decide the technical particulars for solution of the theme, the main causes which obstruct in solving the themes should be analysed. The obstructing causes may be of the following categories:-

(i) technical (ii) management related (iii) economic (iv) related to habits of life (v) related to natural conditions etc.

Elimination of the innumerable obstructing causes needs a sound technical policy dealing with such particulars which are possible to be achieved by the farmers in the locality concerned.

III. Decision of the Target of Extension

For all the particulars which are taken up for coming year, the target to be fulfilled should be fixed concretely. The target should be expressed numerically where it is possible.

IV. Considering the Methods of Extension Activities to Solve the Themes

(1) In addition to the general extension activities, the specific are or the group to be tackled with emphasis this year, should be decided.

(2) Effective extension methods should be selected so that the extension particulars decided concretely, are communicated to the farmers properly, motivate the farmers and provoke them to carry out the activities. In order to do this, lecture class, method demonstration, result demonstration, discussion meeting on the local spot, advertisement, film show etc. may be considered.

(3) Teaching materials (extension materials and tools):- According to the contents, time, place no. of persons etc. of guidance, the effective guidance materials and tools and the texts of guidance are arranged.

(4) The time and place of guidance:- When (exact date, time and duration), where, and who will carry out the above mentioned activities and for whom these will be carried out, should be clarified from the start.

GUIDANCE PLAN OF EXTENSION (RICE CULTIVATION) - Example

| Themes | Extension Particulars | Objective of Guidance and Extension Target. | Method of Guidance | Guidance Recipients | Teaching Materials (Extension Materials and Tools) | Time | Place | Persons in Charge |
|---|--|---|--|---|---|------------------------------------|--|-------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Improvement of Technology for Boro rice cultivation by deep tubewell. | (1) Necessary instructions for installation of deep-tubewell pump. (2) To make organization for the pump use (3) Installation of deep-tubewell pump. | Let farmers understand fully about the economy of deep tubewell pump. Installation of pumps-3 places. | (1) Educating the public by pamphlets, Leaflets etc. (2) Discussion meeting in the area of rice cultivation by using pumps. (3) To select and train the leader of the Community where irrigation water will be used. (4) Study tour to the successful irrigation association. | Expecting Farmers to introduce Boro Rice at Porabari village. | Table on the result of economy of pump use. | March one day. May one-day. | Farm house Community Center | Mr. A.B.C. Khan. |
| | (4) On growing good seedlings. a) Procurement of good seeds. b) To ensure the place & area of seedbed. c) To determine the proper quantity of seeds. d) Importance of seed selection with salt solution & to sterilize the seeds. e) To determine the quantity of fertilizer in the seedbed | To instruct the importance of growing seedlings & how good seedlings increase the production per acre, and also teach the farmers the technique of growing good seedlings. | 1. For comparing the conventional technique with the reformed modern technique, lecture class, identification by real things and demonstration showing the actual differences should be held. 2. Training by slide 3. To hold demonstration plot comparing improved technique with conventional one. 4. Discussion meeting in the locality. | - do - | Standard table of rice cultivation. Specific gravity measuring instrument samples of rice seed salt. Agricultural chemicals slides. | October November | Farm house Community center Demonstration plot. | |
| | (5) Strict enforcement of transplanting in proper time. (6) Extension of regular planting (7) Strict enforcement of shallow planting. | To instruct about the importance of transplanting of rice in proper time & proper cultivation method. Transplanting should be finished between December & the end of January. | 1. To hold training classes on rice cultivation technique 2. To set up some notice boards in the village. 3. To hold comparing demonstration plots 4. To hold Demonstration meeting | - do - | Data of experiment about the yield according to the period of transplanting. Transplanting measure rope. | October November | Community Center | |
| | (8) To increase the fertilizer in the paddy field. (9) To determine the proper timing of application of fertilizer of N.P.K. | Per Acre N....Kg P....Kg K....Kg To make farmers master the technique of using fertilizer application by proper training. | 1. Lecture Classes on fertilizer. 2. Setup demonstration plots on the effect of fertilizer 3. Discussion meeting at the site of demonstration plot. | - do - and youth group. | Fertilizer application plan Demonstration plot plan Data on the effect of fertilizer application | January May | Community Center Paddy field of contact farmer | |
| | (10) To discover disease and insect damage quickly (11) Strict enforcement of plant protection in proper time. | To give training on the quick detection of disease and insect damage and in plant protection in proper time. | 1. The techniques of detection of disease & insect. 2. To serve notices in the village on plant protection in proper time. 3. To select contact farmers from where forecasting of occurrence will be done. | - do - and contact farmers. | Picture book on disease & insect damage. Specimen on actual object Notice board | January May | Community Center Exit and entrance of the village. Contact farmers' house. | |

参 考 資 料

I Revised Integrated Scheme for CERDI Project

II Business Programme for Five Years of CERDI Project

III বাংলাদেশ CERDI 技術協力5カ年計画(試案)

参 考 资 料 I

REVISED INTEGRATED SCHEME
FOR
CENTRAL EXTENSION RESOURCES DEVELOPMENT INSTITUTE
AND
THREE COMMUNITY DEVELOPMENT CENTRES

TOTAL COST - TAKA. 642.35 LAKH

F. E. C. - TAKA. 100.00 LAKH

PROJECT PROFORMA

PART-A

PROJECT DIGEST

1.

- (a) Name of the Project : Expanded integrated Scheme for Central Extension Resources Development Institute (CERDI) and 3 Community Development Centres.
- (b) Objective of : The main objective of the project is to reactivate the extension efforts so that modern agriculture techniques developed both within and abroad be transmitted to the farmers. Presently there exists a substantial communication gap between the farmers and the research and extension service hindering greatly both the application of improved technology and finally the over-all development of agriculture sector.

Besides, the following shortcomings and deficiencies are also being observed which definitely need immediate attention and improvement.

- I. Lack of smooth information flow to feed the persons engaged in agricultural activities.
- II. Lack of qualified trainers and trainees in the field of agriculture.
- III. Lack of opportunity and facilities to develop farm family and rural youth to solve their own problems with the existing available resources under their possession.
- IV. Lack of guidance and training facilities to train farming community in different rural based industry for economic out-turn.

In order to remove the constraints as above CERDI was established as joint venture under the Record of Discussions (R/D) signed on the 4th March '75 between the Government of the People's Republic of Bangladesh and Japan.

The construction of CERDI Buildings along with other facilities has been completed in

March '78. Under CERDI Project three Community Development Centres have also been established as a side project under a new assistance from the Government of Japan. The construction of 3 (three) Community Development Centres at Bhabanipur, Porabari and Naojore under Joydevpur P.S. has been completed and handed over to the Bangladesh Government in April, 1978.

Considering the objective and activities and their inter-relationship both the project namely CERDI and three Community Development Centres have been proposed to be integrated which might have a better developmental and overall impact in the efficient implementation of the entire programme.

The Specific objectives of CERDI and 3 (Three) Community Development Centres can be summarised as under:

A. CERDI:

- I. To function as an institution to minimize the gap between agencies concerned with research and extension. It will also act as a bridge-up organization for smooth flow of information and communication between different Government agencies and farmers.
- II. To be the Central Institute for co-ordination of all the extension training programme to be conducted by different agencies and will train the Instructors of AETIs, TEO/TAO, SDAO, Field Officials of BADC and BKB, Plant Protection Mechanic, Sprayer Mechanic, BADC, and BKB's Operator, etc.
- III. To carry out experimental trials for evolving suitable field techniques in its own demonstration plots in collaboration with other Research Institutes.
- IV. To develop extension methods and to arrange its publication and dissemination through the trainees.

B. COMMUNITY DEVELOPMENT CENTRES:

The modern concept of extension is both educational and practical. The farmer with his family members should be developed and educated in such a manner that they can understand and accept the modern technique of farming by themselves and solve their own problems with the existing resources at their disposal. In the past no attempt was made to develop after indentifying the real problems which are generally being faced by a farm family. The farmer has not only technical problems but also social, economical and family problems. Guidance by individual approach will not be effective in solving their problems. The before, it is to be given by a Community approach or group approach. With this end in view three Community Development Centres were established under functional and administrative control of CERDI.

These Community Development Centres have been established in the Union of Bhabanipur, Porabari and Naojore under Joydevpur P.S. of Dacca district. The working relationship of the 3 (Three) Community Development Centres with CERDI will be as under:

- I. CERDI will approach the farmers for integrated development of Agriculture through diversification of farming for increased production and income from his land.
- II. CERDI will impart training to the farmers to improve their nutrition status through a balanced diet.
- III. Technical resources and extension methods developed by CERDI will be disseminated to the farmer's community.

Through these processes, CERDI will confirm the techniques developed as extension methods and also to make sure that these extension methods and means are suitable for Bangladesh.

- IV. All these trials must be conducted in an intensive way in small areas and the results will be evaluated continuously and the same than he compared with each other collected from several spots of different villages.
- V. CERDI will approach the farmers both technically and socio-economically by applying various methods and approach of extension, as it is very important to organize farmers, farmwives and farm youths for implementing the change in every different aspect of their living.
- VI. For the purpose of co-ordination a Community Development Centre will be managed by CERDI for the purpose of problems solving and development of the local community. A committee with the representatives of community people, local officers and CERDI officers, will be constituted. Composition of the committee may be seen at page 36.

SCOPE OF ACTIVITIES OF THE CERDI

- I. To begin with, CERDI is to collect and analyze the various research findings on improved techniques from organization as BRRI, BARI and other Research agencies at home and abroad.
- II. To find out the effective approaches from the viewpoint of extension purpose.
- III. To plan some of the trials and tests in its farm in order to reconfirm and to supplement the research finding before introducing it to farmers field.
- IV. To identify problems and limitation in introducing improved technology in the field through AETI and TEO/TAO, etc.
- V. To conduct trials on the farmers plots which are selected by CERDI or through AETI's. Evaluation of the results of such trials may be followed up by CERDI.
- VI. From the results of the above mentioned trial and tests by CERDI, various production-techniques

suitable for Bangladesh will be suitably identified.

Other activities of the CERDI will be to transmit such acquired resources to farmer's fields through the following practices:-

- I. To organize technical seminars and training courses for Instructors of AETI's on various subject matters.
- II. To draw curriculum, guidelines and teaching materials on different subject matters for use in AETI's.
- III. To carry out comprehensive technical training programme for Thana Extension Officers (TEO's) & Thana Agriculture Officers (TAO's).
- IV. To conduct symposia for senior field level officers.
- V. To publish and circulate pamphlets and leaflets etc. on specific subject for field officers.
- VI. To execute mobile consultation on technical subject matters among AETI's.
- VII. To maintain some separate research and test studies works on Agricultural mechanization.

Work in the field of Agricultural Mechanization will be carried out in the following manner:-

- I. Field practicability/demonstration tests of machinery made locally and abroad.
- II. To work of the standardization tests of on farm machinery to be conducted by national standardization committee.
- III. To conduct studies and tests on appropriate technology in the field of Farm Mechanization specially in consideration of socio-economic condition of the farmers and also climatic and topographical factors of the Country.

: Extension Resources thus created and accumulated by various activities of the CERDI will then be compiled and arranged in an orderly manner for

the publication of 'The Integrated Agricultural Techniques in Bangladesh' & "Extension Worker's Hand Book" which could be expected to be realized in the final stage of CERDI project of Five Years.

(c) Cost of the Project : Total Tk.642.35 lakh. FEC.TK.100.00 lk. (Grant).

2.

(a) Is the project included in the current five year plan? (Tick one).

Yes.

No.

(b) If yes, what allocation is provided?(In lakh Taka). : Taka 546.00 lakh.

3. Administrative authorities responsible for:-

- i) Sponsoring : Ministry of Agriculture.
 - ii) Execution : Director, Central Extension Resources Development Institute (C.E.R.D.I.)
 - iii) Operation and Maintenance : Director, Central Extension Resources Development Institute (C.E.R.D.I.).
-

4. Location of the Project : JOYDEVPUR, DACCA.

5. Proposed dates of

- i) Commencement : JULY, 1978
- ii) Completion : June, 1980 (Will be continued beyond June, 1980)

6.

| (a) Investment cost of the project (In lakh Taka). | Already incurred | To be incurred | Total |
|---|------------------|----------------|----------|
| i) Local currency | 336.83 | 443.00 | 779.83 |
| ii) Foreign currency | 358.00 | 100.00 | 458.00 |
| iii) Total | 694.83 | 543.00 | 1,237.83 |

(b) Foreign Assistance : An amount of Total Taka 100.00 would be available as foreign Aid in the form of grant from the Government of Japan.

7. Annual operation/
recurring ex-
penditure on
completion of the
Project.

| | Local currency | Foreign currency | Total |
|--|----------------|------------------|-------|
| | 51.02 | - | 51.02 |

8.

(a) Have any preliminary survey's investment feasibility reports etc. been prepared? (Tick one).

| | Yes. | No. |
|--|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> |

If yes, attach copies of such reports. : Not applicable.

(b) Indicate expenditure incurred on such studies, survey's etc. : Not applicable.

9. If any other consultant/contractor is involved in the project, give the following details.

M/S. Japan Engineering Consultant Co., Ltd. and M/S. Shimizu Construction Co. Ltd. were engaged for architectural design and constructions.

(a) Name of the consultant : Does not arise.

i) Local :

- ii) Foreign :
(b) Expenditure incurred on. :
i) Local consultant :
ii) Foreign consultant :
(c) Name of the construction contractors. :
i) Local :
ii) Foreign :
(d) Nature of the contract (Tick one) : Does not arise.
-

10. Name and Designation of Officer responsible for the preparation of this project proforma.

N. Akita
Director, Central Extension Resources Development Institute (C.E.R.D.I.).

S. Nakata
Dr. S. Nakata, Associate Director, Central Extension Resources Development Institute (C.E.R.D.I.) and Team Leader of Japanese group of Experts.

Date: 5, 7, '78.

PART - B
PROJECT DESCRIPTION

II. Give summary of the project concerning the following aspect:-

(a) Nature and purpose of the project.

(b) Importance of the project to the Sector and to the economy.

(c) Physical work involved.

(d) Physical Target.

(e) Any other useful information.

The Institute in the name of Central Extension Resources Development Institute (CERDI) was established as a joint venture between the Government of Bangladesh and Japan in the year of 1975 for overall development and improvement particularly in the field of Agriculture Extension in the Country. It was a three years project beginning from July, 1975, actually the ECNEC approved it on 28th April, 1976. At a total cost of Taka 738.78 with FEC component Tk. 337.92 in the form of grant from Japan Govt. The entire programme had two main component namely:-

- i) Technical Assistance programme.
- ii) Construction of Functional Buildings.

In order to expand the activities of CERDI in the rural area a scheme of three Community Development centres was also approved at an estimated cost of Tk. 110 lakhs including F.E.C. components of Tk. 60 lakhs in the form of grant in three Unions of Joydevpur P.S. namely: Naojore, Porabari and Bhabanipur.

The construction of CERDI three Community Development Centres buildings with other facilities have been completed. The achievement in respect of physical and financial progress can be summerized as below:-

CERDI: 1) Machinery worth Taka 130 lakhs was received from Japan. Services of 8 long term Experts and 4 short term Experts were also obtained during scheme period. The Experts

were initially engaged for supervising the conduction work, land development and planning of demonstration farm, survey, experimental field design and preparation of training materials and programmes.

: LIST OF THE JAPANESE EXPERTS

Dr. S. Nakata, Associate Director and Team Leader of Japanese Experts of CERDI.

Dr. Suteki Shinohara, Horticulture Expert.

Mr. Kinjiro Wada, Liaison Officer

Mr. Masamichi Numata, Agriculture Farm Machinery Engineer.

Mr. Kiichi Watanabe, Expert on Irrigation Agronomy.

Mr. T. Numba, Expert on Agronomy.

Mr. Keoshiro Mukawa, Expert on Agricultural Extension.

Mr. Y. Yoshizumi, Expert on Farm Mechanization.

2. Construction of 11 functional buildings and other facilities were completed at an estimated cost of 760 million Yen received as grant from Japan plus local cost of Taka 30 lakhs. Details of buildings are as follow:-

| Sl.No. | Name of the Building | Size of the Building | Data of completion |
|--------|-------------------------------------|----------------------|--------------------|
| 1. | Main Building - 1 | 2802.58 sq.m. | 16,3,1978 |
| 2. | Main Building - 2 | | |
| 3. | Audio-visual class room | 424.74 sq.m. | " |
| 4. | Machinery workshop | 1040.03 sq.m. | " |
| 5. | Machinery Training Building | 449.03 sq.m. | " |
| 6. | Assembly Hall | 309.67 sq.m. | " |
| 7. | Hostel - 1 | 1752.75 sq.m. | " |
| 8. | Hostel - 2 | | |
| 9. | Dinning room | 449.03 sq.m. | " |
| 10. | Sub-Station | 111.40 sq.m. | " |
| 11. | Farm Management | 619.33 sq.m. | " |
| 12. | Three Community Development Centres | 12315.00 sq.m. | 30th April '78 |

3. Land Development of the construction site has almost been completed and that of farm covering an area of 25 acres has been completed upto 50% (approximately).

4. As per approved scheme there was provision for recruiting 119 members of local Officers and Staff members. By the end of '76-77 the total strength of Officers and Staff was 72. During the last quarter of '77-'78 another 15 Staff members were recruited. The establishment has been shifted to newly construction site at Joydevpur.
5. Acquisition of land, land and road development, construction of building and recruitment of local staff of 3 (three) Community development Centres have been completed.

FINANCIAL ACHIEVEMENT

(In lakh Taka)

| Year | Scheme provision | | ADP provision | | Amount released | | Amount spent | |
|--------------------------|------------------|--------|---------------|-------|-----------------|--------|--------------|--------|
| | Local | FEC | Local | FEC | Local | FEC | Local | FEC |
| CERDI: | | | | | | | | |
| 1975-76 | 181.47 | | 4.36 | | 3.86 | 350.00 | 1.60 | 28.00 |
| 1976-77 | 446.83 | 337.92 | 35.00 | 320.0 | 160.50 | | 160.00 | 60.00 |
| 1977-78 | 85.48 | | 164.50 | 107.0 | 164.50 | | 164.50 | 421.00 |
| 3 Community Dev. Centres | | | | | | | | |
| 1977-78 | 43.99 | | 2.00 | | 8.53 | | 8.33 | 60.00 |
| Total | 757.77 | 337.92 | 205.86 | 427.0 | 337.39 | 350.00 | 334.43 | 569.00 |

CAUSES FOR THE NON-ACHIEVEMENT OF THE TARGET:

- i) Due to delay in fund release of revised ADP of 1977-78 and subsequent creation of posts sufficient time was not available to recruit technical personnel in the group of Specialist and Asstt. Specialist. Out of total 19 such officers only 9 could be recruited upto the end of scheme period leaving a big vacuum in this category for which training programme could not yet be started.
- ii) Non-availability of the site for land development and construction was the main bottlenecks as a results of which all these works had to be completed during the last year only of the project period though the target was to complete the same during second year of the project.

BALANCE OF WORK COMPONENTS OF THE ORIGINAL SCHEME OF
C.E.R.D.I.:

As per original scheme the following work components remain to be completed:

- I. Conduction of training of 1,200 personnel by CERDI and also 1,500 farmers, farm-wives and rural youth of Community Development Centres.
- II. Printing of manuals and Hand Books for Extension workers.
- III. Collection of Research findings from related organizations and analysis thereof is to be started.
- IV. Development of plots of Horticulture Garden, Irrigation canal and drainage system of the farm.
- V. Boundary fencing in the three Community Development Centres and installation of deep tube-well in the 3 Community Development Centres.
- VI. Development of tanks around the Community Development Centres for fish cultivation.
- VII. Construction of staff quarter for 200 officers and staff members.
- VIII. Construction of drainage canal, internal roads in the construction site.

(d) Physical target : Please see Bar diagram on page - 23A

(e) Any other useful :
information

12.

- (a) Have various alternative ways and techniques of providing the facilities, goods and service in question been examined (Tick one).

Yes.

No.

(b) If yes, indicate the results of the study in support of the choice of the project presented here : Not applicable.

13.

(a) Is the project a revision of an earlier project in terms of scope and objective (Tick one)

Yes.

No.

This is a revision and expansion of previous scheme in terms of both scope and objective.

(b) If so, indicate the main features of the revision. : Stated earlier under the item of scope and objects.

14. Justify the location of the project by giving details with respect of the following.

(a) Surrounding and tie in with transportation facilities such as : Situated at the Agriculture complex at Joydevpur.

i) Provision of service to special area, etc. :

ii) Any others :

PART - C

Cost Estimate:

15.

| | | | |
|---------------------|---|--------------|----------------|
| Total investment | : | <u>Total</u> | <u>F.E.C.</u> |
| cost of the project | | 543.00 | 100.00 (grant) |

Give date when cost estimate were prepared : JUNE, 1978

(c) If prepared more than six months ago, confirm that they are still valid. : Does not arise.

16. Giver annual breakdown of investment cost over the entire investment period as per below:-

See next page

TABLE - I

INVESTMENT COST (FOR CERDI MAIN)

| | Total | | | Year - I (78-79) | | Year - II (79-80) | | |
|---|---------|------|--------|------------------|------|-------------------|------|--------|
| | Local | F.E. | Total | Local | F.E. | Local | F.E. | Total |
| I. Pre-construction expenditure: | | | | | | | | |
| a) Advance expenditure | 6.00 | - | 6.00 | 6.00 | - | - | - | 6.00 |
| b) Land acquisition for staff quarter | 6.00 | - | 6.00 | 6.00 | - | - | - | 6.00 |
| c) Land Development including Road etc. | 2.00 | - | 2.00 | 2.00 | - | - | - | 2.00 |
| d) Right of way | 14.00 | - | 14.00 | 14.00 | - | - | - | 14.00 |
| e) Others-Boundary wall | | | | | | | | |
| Sub - Total of I: | 243.00 | - | 243.00 | 245.00 | - | 243.00 | - | 243.00 |
| II. Construction of works: | | | | | | | | |
| a) Functional Buildings | 130.00* | - | 130.00 | 130.00 | - | - | - | 130.00 |
| b) Residential Buildings | 3.00 | - | 3.00 | 3.00 | - | - | - | 3.00 |
| c) Roads, Internal | 10.00 | - | 10.00 | 10.00 | - | - | - | 10.00 |
| d) Roads, Accrss | | | | | | | | |
| e) Other construction works (specify) | | | | | | | | |
| Sluice gate, Farm Road, Irrigation canal, deep-tube-well etc. | 100.00 | - | 100.00 | 100.00 | - | - | - | 100.00 |
| f) Customs duty for building materials (project Aid (Arear)) | 243.00 | - | 243.00 | 245.00 | - | 243.00 | - | 243.00 |
| Sub - Total of II: | | | | | | | | |

* Estimated cost of residential buildings given on page 32.

(FOR C.E.R.D.I.)

(All Taka Figure in lakh)

| | Total | | Year - I (78-79) | | Year - II (79-80) | | |
|---|--------|-------|------------------|-------|-------------------|-------|-------|
| | Local | F.E. | Local | F.E. | Local | F.E. | Total |
| III. Machinery & equipments including spares and transport vehicles:- | | | | | | | |
| a) Imported Machinery and equipments | | | | | | | |
| i) C & F. COST | - | 80.00 | - | 40.00 | - | 40.00 | 40.00 |
| ii) Duties and taxes | 60.00 | - | 30.00 | - | 30.00 | - | 30.00 |
| iii) Arear, Custom charges & transportation cost to site | 100.00 | - | 100.00 | - | - | - | - |
| iv) Transportation and landing charges | 10.00 | - | 5.00 | - | 5.00 | - | 5.00 |
| Sub - Total of III: | 170.00 | 80.00 | 135.00 | 40.00 | 35.00 | 40.00 | 75.00 |
| b) Local produced Machinery and equipments | 1.00 | - | .50 | - | .50 | - | - |
| iv) Other costs | | | | | | | |
| Sub - Total of III: | 171.00 | 80.00 | 251.00 | | | | |
| Total Investment Cost: | | | | | | | |
| Total of I, II & III: | 428.00 | 80.00 | 508.00 | | | | |

(FOR THREE COMMUNITY DEVELOPMENT CENTRES)

INVESTMENT COST:

(All Taka Figure in lakh)

| | Total | | Year - I (78-79) | | Year - II (79-80) | |
|---|--------|--------|------------------|-------|-------------------|-------|
| | Local | F.E. | Local | F.E. | Local | F.E. |
| III. Machinery and equipments including spares and transportation vehicles: | | | | | | |
| a) Imported Machinery and equipments | | | | | | |
| i) C. and F. Cost | - | 20.00 | - | 10.00 | - | 10.00 |
| ii) Duties and taxes | 15.00 | - | 7.50 | - | 7.50 | - |
| iii) Arrear, Customs charges and transportation cost to site | | 15.00 | | | | |
| iv) Transportation and landing charges | | | | | | |
| Sub - Total of III: | 15.00 | 20.00 | 7.50 | 10.00 | 7.50 | 10.00 |
| b) Local produced Machinery and equipments | | | | | | |
| iv) Other cost | | | | | | |
| Total Investment cost: | | | | | | |
| Total of I, II & III: | 15.00 | 20.00 | 35.00 | | 17.50 | 10.00 |
| Grand Total: C.E.R.D.I.: | 428.00 | 80.00 | 508.00 | 40.00 | 432.50 | 40.00 |
| 3 Community Development Centres: | 15.00 | 20.00 | 35.00 | 10.00 | 17.50 | 10.00 |
| Total: | 443.00 | 100.00 | 543.00 | 50.00 | 450.00 | 50.00 |
| | | | | | 42.50 | 75.00 |
| | | | | | | 17.50 |
| | | | | | | 666 |
| | | | | | | 93.00 |

17. Indicate conversion rate : 1 Taka = 20¥ (Yen)
18. Incase of commercial, industrial projects give estimate of working capital requirement : Does not arise
19. If the project is a revision of an earlier project, fill Annexure-B : It is a revision and expansion of the on going project

TABLE - II
OPERATION/REQUIRING COST
FOR CERDI AND THREE COMMUNITY DEV. CENTRES

(all Taka figure in lakh)

| Items of cost | 1st Year | | | 2nd Year | | | Total | | |
|--|----------|------|-------|----------|------|-------|-------|------|-------|
| | Local | F.E. | Total | Local | F.E. | Total | Local | F.E. | Total |
| I. Raw materials and suppliers | | | | | | | | | |
| II. Fuel and Power | | | | | | | | | |
| a) Foreign | | | | | | | | | |
| b) Local | | | | | | | | | |
| i) Petrol, Oil & Lubricant for vehicles | 7.00 | - | 7.00 | 7.00 | - | 7.00 | 14.00 | - | 14.00 |
| ii) -Do- for workshop (Machinery) | 2.00 | - | 2.00 | 2.00 | - | 2.00 | 4.00 | - | 4.00 |
| iii) Maintenance & Spares for vehicles | 1.50 | - | 1.50 | 1.50 | - | 1.50 | 3.00 | - | 3.00 |
| iv) -Do- for machineries | 0.50 | - | 0.50 | 0.50 | - | 0.50 | 1.00 | - | 1.00 |
| Sub - Total:- | 11.00 | - | 11.00 | 11.00 | - | 11.00 | 22.00 | - | 22.00 |
| III. Labour Cost: | | | | | | | | | |
| a) Foreign personnel | | | | | | | | | |
| b) Local technical administrative staff | 21.31 | - | 21.31 | 22.00 | - | 22.00 | 43.23 | - | 43.23 |
| c) Unskilled labour wages | 1.00 | - | 1.00 | 1.00 | - | 1.00 | 2.00 | - | 2.00 |
| Sub - Total:- | 22.31 | - | 22.31 | 23.00 | - | 23.00 | 45.23 | - | 45.23 |
| IV. Other cost | | | | | | | | | |
| a) Contingencies: | | | | | | | | | |
| i) Incidental cost for training & conduction of experiment | 1.00 | - | 1.00 | 1.00 | - | 1.00 | 2.00 | - | 2.00 |
| ii) T.A., D.A. | .50 | - | .50 | .50 | - | .50 | 1.00 | - | 1.00 |
| iii) Seminar & Workshop | 2.00 | - | 2.00 | 2.00 | - | 2.00 | 4.00 | - | 4.00 |

(all Taka figure in lakh)

| Items of Cost | 1st Year | | | 2nd Year | | | Total | | |
|--|----------|------|-------|----------|------|-------|-------|------|-------|
| | Local | F.E. | Total | Local | F.E. | Total | Local | F.E. | Total |
| * iv) Training allowances for trainees | 3.37 | - | 3.37 | 3.37 | - | 3.37 | 6.74 | - | 6.74 |
| v) Allowances for guest Lecturer | 0.10 | - | 0.10 | 0.10 | - | 0.10 | 0.20 | - | 0.20 |
| vi) Rent & Taxes | 0.10 | - | 0.10 | 0.10 | - | 0.10 | 0.20 | - | 0.20 |
| vii) Books & Printings | 1.25 | - | 1.25 | 1.25 | - | 1.25 | 2.50 | - | 2.50 |
| viii) Maintenance and Buildings | 2.00 | - | 2.00 | 4.00 | - | 4.00 | 6.00 | - | 6.00 |
| ix) Electricity Cost. for 11.K.V. line | 1.80 | - | 1.80 | 1.80 | - | 1.80 | 3.60 | - | 3.60 |
| x) Miscellaneous | 3.00 | - | 3.00 | 3.00 | - | 3.00 | 6.00 | - | 6.00 |
| Sub - Total:- | 15.02 | - | 15.02 | 17.02 | - | 17.02 | 32.04 | - | 32.04 |
| Total Operation Cost | | | | | | | | | |
| Total of I,II,III & IV | 48.33 | - | 48.33 | 51.02 | - | 51.02 | 99.35 | - | 99.35 |

* Cost estimate given on page no. 31.

PART D

FINANCING OF THE PROJECT

21. Is the Project included in the current five year plan? : The Project is included in the 2 Years interim Plan period.

(a) If so, specify actual allocation: : CERDI: Total F.E.C.
451.08 160.00
Communi- Total F.E.C.
ty Dev. 95.00 50.00
Centres:
Total 546.08 210.00 (Grant)

(b) If not, how is it now proposed to be accomodated? (Interansectional adjust- : Does not arise.
ment in allocation or other resources may be indicated)

(c) If the project is proposed to be financed out of block provision for a programme indicate: : Does not arise.

- i) Total block provision :
- ii) Amount already committed :
- iii) Amount proposed for this project. :
- iv) Balance available . :

22. Was the Project included in: Yes.
the previous five year plan?
If so specify.

(a) Allocation in the Plan : CERDI: Community Dev.
Centres:
Total: 713.78 Total: 110.10
F.E.C.:337.92 F.E.C.: 60.00

(b) Actual expenditure incurred: CERDI: Community Dev. Centres:
 Total : 664.02 Total : 68.33
 F.E.C.: 337.92 F.E.C.: 60.00

23. Indicate sources & amount : CERDI: Community Dev. Centres:
 of Taka cost of the 375.86 50.10
 Project

(a) Government sources:

i) Grant : CERDI: 375.86 Com.Dev.Centres:50.10
 ii) Loan :
 iii) Equity :

(b) Sponsoring agencies own resources

(c) Private investment

(d) Local Body

(e) Non-Government borrowing

(f) Other sources

24. Indicate likely sources and amount of Foreign exchange cost on the project

(a) Source : Government of Japan

(b) Amount : Tk. 100.00 lakh (grant)

25. It is proposed to recover cost of the project from the beneficiaries? If so, how? : Does not arise.

PART - E
BENEFITS OF THE PROJECT

26. To which of the following groups does your project belong?

Group "X" Self-financing project, i.e., Project which will earn revenue through the sale of their output (goods and/or services).

Group "Y" Production but non-revenue earning projects, i.e. projects which give rise to tangible output, benefits of which do not accrue directly to the projects themselves but to other parties.

Group "Z" Service sector service projects, i.e., projects which do not give rise to tangible output but provides service benefits to the community.

27. Indicate:

(a) The year when normal capacity output is expected to be reached : 1978-79.

(b) Economic life of the Project : The project aims to impart technical knowledges to the Instructors of AETI's Extension worker and to the farmers in general for better production in the Agricultural sector to attain self-sufficiency in food production. In order

to achieve the end, CERDI has also established 3 Community Development Centres. CERDI Community Development Centres Project aims at improving the condition of the farmers economically and socially. In this project farmers will be trained to accept diversified Agriculture techniques. They will be trained to grow rice, vegetables, fruit trees, live-stock, poultry and fishes. Also be given training on nutrition. The women folks will be trained in home-living and cottage Industry. They will also be trained in fruits, vegetable preservation and nutrition. Rural youths will be organized and trained through organization of young farmers club and to improve the economy and living condition. Present term of agreement is going to be signed for a period of 5 (five) years at this with a possibility for further extension.

- 28. In the case of a group "X" project, give annual value of output for the entire life period of the project in accordance with the model for one year. : Does not arise.
- 29. Give details of any other direct or indirect benefits. : Does not arise.
- 30. In case of group "Y" Project give estimate of : Does not arise.

annual benefits of the project to other parties for the entire life period of the project as per model for one year.

31. Give details of any other direct or indirect benefits : Does not arise.
32. For both "X" & "Y" group projects indicate foreign exchange earning of the project, if any. : Does not arise.
33. In the case of a group "Z" project describe in details the nature of the service benefits, the number and type of people who will be benefitted and the impact of the project on the economy. Give as much quantitative details as possible. : The following areas will be covered by the Project:
- (a) It will act as a communication link between extension and research in order to help the farmers to increase production.
 - (b) It will activated the training facilities in the AETI's by providing training to the Instructors. Thana Agri-cultural and Thana Extension Officers will also be trained.
 - (c) It will develop resources by collection and analysis of research findings and demonstration results and develop extension methods.
 - (d) It will publish and distribute information on Extension Resources Developed, in the form of Books, Book-lets and Leaf Lets for the use of extension workers and farmers.
 - (e) The Project aims to prepare comprehensive syllabi with modern information on Agri-

cultural techniques suitable for Bangladesh condition for the students of AETI's students after receiving the training will be posted in the village to communicate these improved techniques of Agriculture to the farmers. Thus the farming community will be acquainted with new knowledge of Agriculture and increase their production thereby increasing the production level for the whole country.

- (f) Further more CERDI has three Community Development Centres which are integrated type of extension programme. The farmers around the Community will be trained and developed in diversified agricultural techniques. By this the farmers will learn modern technique and knowledge of growing field crops, vegetables, fruits, livestock, poultry etc. The farm-wives and village girls will be trained in home improvement and cottage Industry. The young farmers of the Community will be organized through young farmers club and their organization.

The results of CERDI experimental plots will be communicated to the community projects by CERDI's foreign and local Experts. In this way farmers with all members of his family will be developed socially and economically.

The trained farmers and his family members will become enlightened in the locality with the knowledge imparted to them through the Community Centres. These farmer families will be able to teach their friends and relatives. Thus the modern Agricultural techniques will sprayed out to a wider range of the country and help in the programme of attaining self-sufficiency. Every year about 450 extension workers and about 1,290 farmers will be trained from the organization. But to consider the end result it may be safely

claimed that the intime farming Community of the country will be directly benefited from its activities.

PART - F

34. Approximate number of people who will be trained per year and the kind of skills to be learnt. : Given in the following page.

DETAILED PROGRAMME FOR DIFFERENT GROUP OF TRAINEES TO BE TRAINED IN CERDI

| Type of Participants | No. of participants in each course | Duration of each course | No. of course for each group of participants in a year | Subject fixed for Training | Total No. of course in a year | No. of participants covered in a year | Methods of Training for respective group of participants | Remarks |
|--|------------------------------------|-------------------------|--|--|-------------------------------|---------------------------------------|--|---------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Instructors of AETIS | 10 | 12 days | 3 course | 6 (six) Agronomy-I & II, Plant Protection, Farm-Machinery, Horticulture and Extension & Home Economics | 18 course | (60x3) = 180 | Lecture, Practice, Observation, Exercise and discussion & evaluation | |
| Thana Extension Officer | 25 | 12 days | 1 course | - do - | 16 course | (25x16) = 400 | - do - | |
| Sub-Divisional Agril. Officer | 15 | 1 week | 1 course | - do - | 4 course | (15x4) = 60 | - do - | |
| Plant Protection Mechanic & Sprayer Mechanic | 15 | 1 week | 1 course | Mechanism of sprayer Machine its operation and maintenance and observation | 6 course | (15x6) = 90 | Practice, Lecture, group discussion and evaluation | |
| BADC & BKB's Mechanics | 15 | 2 weeks | 1 course | Mechanism of power pump Tractor, their operation and maintenance | 6 course | (15x6) = 90 | Practice, Lecture, group discussion and evaluation | |






Number of persons to be trained in three Community Development Centres @ of 40 per month per centre:

= 40 x 12 x 3 = 1,440 farmers

TRAINING PROGRAMME OF A.E.T.I.'s
INSTRUCTORS AND TEO/TAO IN C.E.R.D.I.

| Course Month. | Total Week. | Agronomy | Horticulture | Farm Machinery | Ex-tension | Plant Protec-tion | TEO/TAO. | S.D.A.O | Plant Protec-tion mechanic- & sprayer Mechanic | BADC AND BKB opera-tion. |
|---------------|-------------|----------|--------------|----------------|------------|-------------------|----------|---------|--|--------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| <u>1978</u> | | | | | | | | | | |
| JULY | | | | | | | | | | |
| AUG. | 2 | | | | | | | | | |
| SEPT. | 8 | | | | | | | | | |
| OCT. | 8 | | | | | | | | | |
| Nov. | 5 | | | | | | | | | |
| Dec. | 6 | | | | | | | | | |
| <u>1979</u> | | | | | | | | | | |
| JANU. | 8 | | | | | | | | | |
| FEB. | 6 | | | | | | | | | |
| MARCH. | 5 | | | | | | | | | |
| APRIL | 8 | | | | | | | | | |
| MAY | 4 | | | | | | | | | |
| JUNE | 5 | | | | | | | | | |
| JULY | 4 | | | | | | | | | |
| AUG. | 5 | | | | | | | | | |
| SEPT. | 6 | | | | | | | | | |
| OCT. | 9 | | | | | | | | | |
| NOV. | 6 | | | | | | | | | |
| DEC. | 9 | | | | | | | | | |
| <u>1980</u> | | | | | | | | | | |
| JANU. | 7 | | | | | | | | | |
| FEBR. | 8 | | | | | | | | | |
| MARCH. | 7 | | | | | | | | | |
| APRIL | 7 | | | | | | | | | |
| MAY | 8 | | | | | | | | | |
| JUNE | 5 | | | | | | | | | |
| Total | 116 weeks | 12 weeks | 12 weeks | 12 weeks | 12 weeks | 12 weeks | 64 weeks | 4 weeks | 6 weeks | 12 weeks |

REMARKS:

-  Two-week training of AETI Instructors
-  Two-week training of TEOs/TAOs
-  One-week training of SDAOs
-  One-week training of Plant Protection Mechanics
-  Two-week training of BADC and BKB operation

MNG *

35. Total manpower requirements
(given specific occupation titles rather than general groupings) particularly for :
persons requiring special training)

(a) For execution

| Type of Employees | Number rate of salary wages per month (In Taka) | Annual salary rates during period of employment during execution. | Rates salary wages during execution |
|---|--|---|-------------------------------------|
| 1. Managerial 2. Technical/Pre peovincial 3. Skilled workers 4. Unskilled workers 5. Others | As per Agreement with the Government of Japan: Japanese construction and consultant firms were entrusted for the execution of the projects of CERDI and 3 Community Development Centres. | | |

(b) For operation. : Table VII given below:-

TABLE - VII:
PAY OF OFFICERS & STAFF

| Name of the post | No.of post. | Basic pay and allowances.* | '78-79 | '79-80 | Total |
|--------------------------------------|-------------|----------------------------|--------|--------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| Director.2850/=(fixed) | 1 | 2850+1780=4630 | 55560 | 55560 | 111120/= |
| Associate Director. 2350-2750/= | 1 | 2350+1730=4080 | 50160 | 51360 | 101520/= |
| <u>ADMINISTRATIVE DIVISION:</u> | | | | | |
| Deputy Director 1850-2375/= | 1 | 1850+1355=3205 | 39360 | 40260 | 79620/= |
| Administrative Officer 750-1470/= | 1 | 750+555=1305 | 16260 | 16860 | 33120/= |
| Dormitory Manager 625-1315/= | 1 | 625+330=955 | 12000 | 12540 | 24540/= |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|----|-------------------|---------|---------|----------|
| Head Asstt.400-825/= | 1 | 422+187.70=609.70 | 7616.40 | 7916.40 | 15532.80 |
| P.A. to Director. 400-825/= | 3 | 422+187.70=609.70 | 28849.2 | 23749.2 | 46598.40 |
| Receptionist.370-745/= | 1 | 392+177.20=569.20 | 7070.4 | 7310.4 | 14380.80 |
| Care Taker.370-745/= | 1 | 392+177.20=569.20 | 7070.4 | 7310.4 | 14380.80 |
| Lower Division Asstt. 324-610/= | 2 | 347+161.45=508.45 | 12562.8 | 12922.8 | 25485.60 |
| Cook. 325-610/= | 2 | 347+161.45=508.45 | 12562.8 | 12922.8 | 25485.60 |
| Kitchen Boy.225-315/= | 2 | 255+129.25=348.25 | 9366 | 9510 | 18876/= |
| Accounts Officer. 750-1470/= | 1 | 750+555=1305 | 16260 | 16860 | 33120/= |
| Accountant.400-825/= | 1 | 422+187.70=609.70 | 7616.4 | 7916.4 | 15532.80 |
| Cashier.370-745/= | 1 | 392+177.20=569.20 | 7070.4 | 7310.4 | 14380.80 |
| Bill Assistant.370-745/= | 2 | 392+177.20=569.20 | 14380.8 | 14380.8 | 28761.60 |
| Steno-Typist.370-745/= | 10 | 392+177.20=569.20 | 70704 | 73104 | 143808/= |
| Typist. 325-610/= | 6 | 347+161.45=508.45 | 37688.4 | 38768.4 | 76456.80 |
| Store Keeper (Establish- ment). 525-610/= | 1 | 347+161.45=508.45 | 6281.4 | 6461.4 | 12742.80 |
| Electrician.325-610/= | 2 | 347+161.45=508.45 | 12562.8 | 12922.8 | 25485.60 |
| Peon. 225-315/= | 14 | 255+129.25=384.25 | 65562 | 66570 | 132132/= |
| Watchmen-cum-Guard. 225-315/= | 20 | 255+129.25=384.25 | 93660 | 95100 | 188760/= |
| Sweeper. 225-315/= | 6 | 255+129.25=384.25 | 37464 | 38044 | 75508/= |
| Mali. 225-315/= | 5 | 255+129.25=384.25 | 23415 | 23775 | 47190/= |
| <u>AGRONOMY DIVISION:</u> | | | | | |
| Principal Agronomist and Head of Resources Division.1850-2375/= | 1 | 1850+1355=3205 | 39360 | 40260 | 79620/= |
| Agronomist.1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Asstt.Agronomist 750-1470/= | 1 | 800+555=1355 | 16860 | 17460 | 34320/= |
| Irrigation Agronomist 1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Assist Irrigation Agronomist.750-1470/= | 1 | 800+555=1355 | 16860 | 17460 | 34320/= |
| Plant Protection Specialist.1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Assist.Plant Protection Specialist.750-1470/= | 1 | 800+555=1355 | 16860 | 17460 | 34320/= |
| Soil & Fertility Specialist.1400-2000/= | 1 | 1475+1155=2630 | 52460 | 33360 | 65820/= |
| Asstt.Soil & Fertility Specialist.750-1470/= | 1 | 800+555=1355 | 16860 | 17460 | 34320/= |

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|-------------------|---------|---------|----------|
| Horticulture Specialist. 1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Assist.Horticulture Specialist.750-1470/= | 1 | 800+555=1355 | 16860 | 17460 | 34320/= |
| Farm Management Specia Specialist.1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Asstt.Farm Management Specialist.750-1470/= | 1 | 800+555=1455 | 16860 | 17460 | 34320/= |
| Store-Keeper (Farm products, Fertilizer etc) 325-610/= | 1 | 347+161.45=508.45 | 6281.4 | 6461.4 | 12742.80 |
| Laboratory Assist. 325-610/= | 4 | 347+161.45=508.45 | 25125.6 | 25845.6 | 50971.20 |
| Overseer. 425-1035/= | 5 | 447+186.45=603.45 | 38008 | 39808.2 | 77816.40 |
| <u>FARM MECHANIZATION DIVISION:</u> | | | | | |
| Farm Mechanization Specialist and Head of Mechanization Division 1850-2375/= | 1 | 1850+1355=3205 | 39360 | 40260 | 79620/= |
| Agriculture Engineer 1400-2000/= | 1 | 1475+1155=2630/= | 32460 | 33360 | 65820/= |
| Asstt.Agriculture Engineer.750-1470/= | 1 | 800+555=1355 | 33720 | 34920 | 68640/= |
| Mechanical Engineer 1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Electrical Engineer 1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Executive Engineer 1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Chief Mechanic. 625-1315/= | 2 | 625+330=955 | 64320 | 66240 | 130560/= |
| Mechanic.370-745/= | 8 | 392+177.20=569.20 | 58483.2 | 58483.2 | 115046.4 |
| Draftsman.370-745/= | 2 | 392+177.20=569.20 | 14140.8 | 14620.8 | 28761.6 |
| Plumber.325-610/= | 1 | 347+161.45=508.45 | 6281.4 | 6461.4 | 12742.8 |
| Electrical Foremen 625-1315/= | 1 | 625+330=955 | 12000 | 12540 | 24540/= |
| Audio-visual Car Driver 370-745/= | 1 | 392+177.20=569.20 | 7070.4 | 7310.4 | 14380.8 |
| Senior Store-Keeper (Machinery and other equipments)370-745/= | 1 | 392+177.20=569.20 | 7070.4 | 7310.4 | 14380.8 |
| Asstt.Store-Keeper 300-540/= | 1 | 322+152.70=474.70 | 5840.4 | 5984.1 | 11824.8 |
| Bus-Driver-cum-fitter 370-745/= | 1 | 392+177.20=569.20 | 7070.4 | 7310.4 | 14380.8 |

| 1 | 2 | 3 | 4 | 5 | 6 |
|------------------------------------|---|-------------------|---------|---------|---------|
| Crane Truck Driver 370-745/= | 1 | 392+177.20=569.20 | 7070.4 | 7310.4 | 14380.8 |
| Bus Driver Mate. 225-315/= | 1 | 255+129.25=384.25 | 4683 | 4755 | 9438/= |
| Carpenter.325-610/= | 1 | 347+161.45=508.45 | 6281.4 | 6461.4 | 12742.8 |
| Tractor & Pump-Driver 325-610/= | 6 | 347+161.45=508.45 | 37688.4 | 37688.4 | 76456.8 |
| Vehicles Driver 325-610/= | 7 | 347+161.45=508.45 | 43869.8 | 45229.8 | 89099.6 |

INFORMATION DIVISION:

| | | | | | |
|--|---|-------------------|--------|--------|---------|
| Principal information Officer,Head of Infor- mation and Training Division and Training coordinator. 1850-2375/= | 1 | 1850+1155=3205 | 39360 | 40260 | 79620/= |
| Publication Officer 750-1470/- | 1 | 800+555=1355 | 16860 | 17460 | 34320/= |
| Training Officer 750-1470/= | 1 | 800+555=1355 | 16860 | 17460 | 34320/= |
| Editor.750-1470/= | 1 | 800+555=1355 | 16860 | 17460 | 34320/= |
| Photographer.625-1315/= | 1 | 625+330=955 | 12000 | 12540 | 24540/= |
| Librarian.625-1315/= | 1 | 625+330=955 | 12000 | 12540 | 24540/= |
| Cataloguer.625-1315/= | 1 | 625+330=955 | 12000 | 12540 | 24540/= |
| Translator.625-1315/= | 2 | 625+330=955 | 24000 | 25080 | 49080/= |
| Artist. 625-1315/= | 1 | 625+330=955 | 12000 | 12540 | 24540/= |
| Book Binder.325-610/= | 1 | 347+161.45=508.45 | 6281.4 | 6461.4 | 12742.8 |
| Senior Printing Machine Operator.625-1315/= | 1 | 625+330=955 | 12000 | 12540 | 24540/= |
| Printing Machine Operator 370-745/= | 1 | 392+177.2=569.2 | 5840.4 | 5984.4 | 11824.8 |
| Designer.625-1315/= | 1 | 625+330=955 | 12000 | 12540 | 24540/= |
| Calligrapher.370-745/= | 1 | 392+177.2=569.2 | 5840.4 | 5984.4 | 11824.8 |
| Packer-Cum-Despatcher 240-345/= | 1 | 262+131.7=393.7 | 4796.4 | 4868.4 | 9664.8 |
| Duplicating Machine Operator.240-345/= | 1 | 262+131.7=393.7 | 4796.4 | 4868.4 | 9664.8 |

EXTENSION AND EDUCATION DIVISION:

| | | | | | |
|---|---|----------------|-------|-------|---------|
| Principal Extension Specialist & Head of Division.1850-2375/= | 1 | 1850+1355=3205 | 39360 | 40260 | 79620/= |
| Extension Specialist 1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |

| 1 | 2 | 3 | 4 | 5 | 6 |
|--|---|-------------------|-------------------------------|---------|----------|
| Extension Specialist (Rural youth), 1400-2000/= | 1 | 1475+1155=2630 | 32460 | 33360 | 65820/= |
| Asstt. Extension Specialist. 750-1470/= | 2 | 800+555=1355 | 16860 | 17460 | 34320/= |
| Home Economic Officer 750-1470/= | 1 | 750+555=1305 | 16260 | 16860 | 33120/= |
| Film Projector Operator 370-745/= | 1 | 392+177.2=569.2 | 7070.4 | 7310.4 | 14380.8 |
| Home Improving Agent. 400-825/= | 3 | 422+187.7=609.7 | 22849.2 | 23749.2 | 46598.4 |
| V.E.A. 370-745/= | 3 | 392+177.2=569.2 | 21211.2 | 21931.4 | 43142.6 |
| Store-Keeper. 325-610/= | 3 | 347+161.45=508.45 | 18844.2 | 19384.2 | 38228.4 |
| Mechanic. 370-745/= | 3 | 392+177.2=569.2 | 21211.2 | 21931.4 | 43142.6 |
| Tractor Driver & Pump Operator. 325-610/= | 3 | 347+161.45=508.45 | 18844.2 | 19384.2 | 38228.4 |
| Driver. 325-610/= | 4 | 347+161.45=508.45 | 25125.6 | 25845.6 | 50971.2 |
| Peon. 225-315/= | 3 | 255+129.25=383.25 | 18732 | 19022 | 37754/= |
| Darwan. 225-315/= | 9 | 255+129.25=383.25 | 56196 | 57066 | 113262/= |
| Mali. 225-315/= | 3 | 255+129.25=383.25 | 18732 | 19022 | 37754/= |
| Sweeper. 225-315/= | 3 | 255+129.25=383.25 | 18732 | 19022 | 37754/= |
| Grand Total: | | | 2131471.4/2191071.5/4322542.9 | | |

* Includes House rent, Teaching allowance,
Medical allowance and Transport allowance:

i) @250/= for Director

(Teaching allowance @Tk.200/= per month was
sanctioned in the on going scheme for the
post of Director).

ii) @200/= for Head of the Division.

MNH/*

36. Describe briefly the proposed : Page No.
arrangements and programme of
training.
37. In case of expected shortage : Does not arise.
of manpower, indicate what
steps are proposed to be taken
to assure availability of the
required manpower.

PART - G

PHYSICAL & FINANCIAL SCHEDULE OF WORK

38. Proposed Dates of
- (a) Commencement of the Project : July, 1978.
(month in which ground work
is started)
- (b) Completion of the Project : June, 1980, but expected to
continue.
- 39.
- (a) Give a procurement Schedule : Given on the following page.
of both foreign and local
equipment and materials for
the project. (attach a bar
diagram showing the major
item wise procurement of
equipment and materials.
- (b) Give year wise (financial)
phasing of physical work
on the project throughout
the investment period as

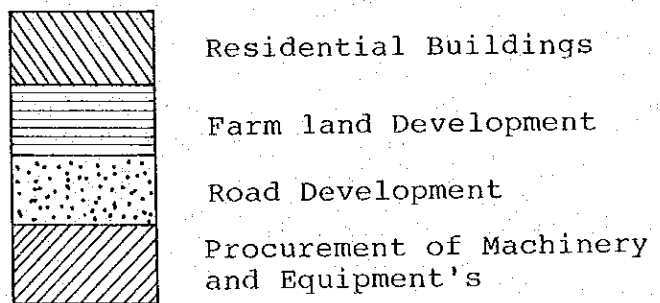
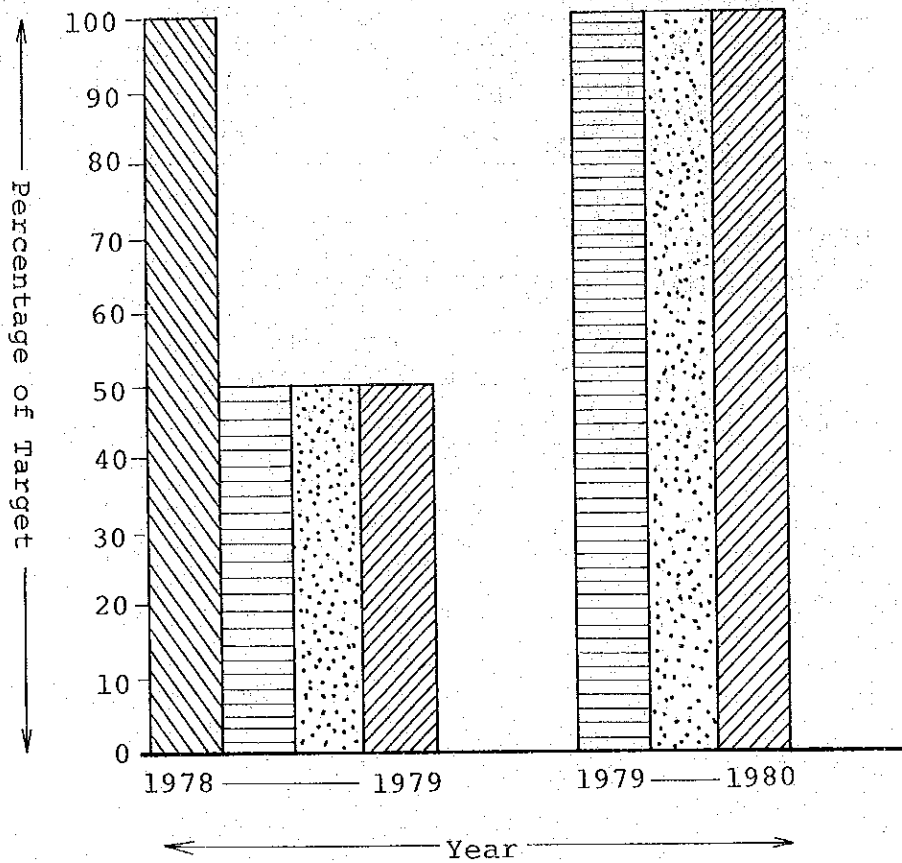
TABLE - VIII
Physical Schedule of Work

| Year | Road Development | Farm land | Construction | Installation of equipments and Machinery |
|---------|------------------|-------------------------------|-------------------------|--|
| | | Development including fencing | Residential Residential | |
| | | Target | Target | Target |
| 1978-79 | 50% | 50% | 67% | 50% |
| 1979-80 | 50% | 50% | 33% | 50% |

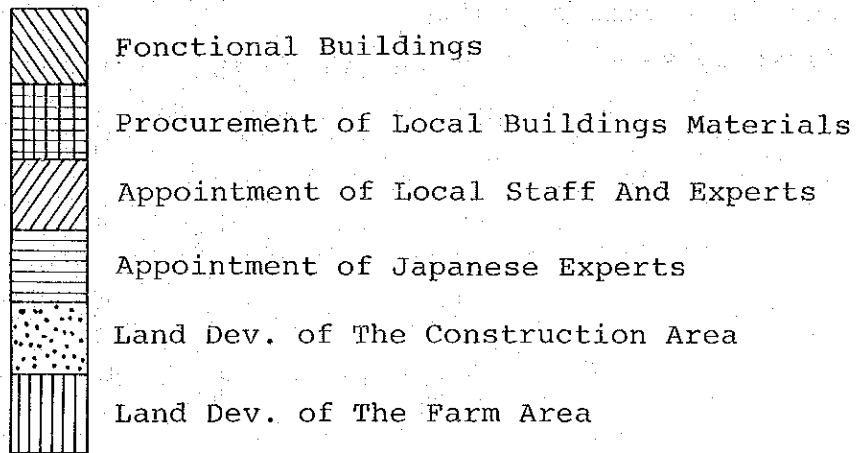
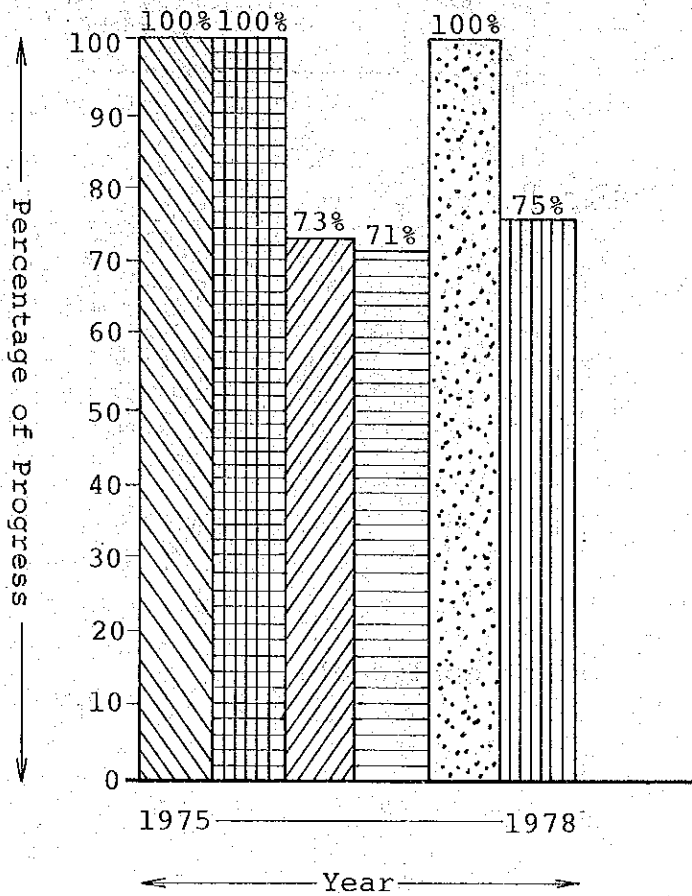
- (c) Attach a bar diagram showing the major item-wise progress : Given on the following page of physical work of the project. 23 B.

Bar Diagram Showing:

- i) Major Itemwise Progress of Physical Work and
- ii) Procurement Schedule of Project Aid Equipment of the Project



The Bar Diagram Showing Major Item-Wise Progress of Physical Work of the Project.



40. Give financial schedule of work as per following table :

TABLE - IX

| Year | Local | F.E.C. | Total | Remarks |
|---------|--------|--------|--------|---------|
| 1978-79 | 448.33 | 50.00 | 498.33 | |
| 1979-80 | 94.02 | 50.00 | 144.02 | |
| Total | 542.35 | 100.00 | 642.35 | |

PART - H

41. For "X" and "Y" category projects, indicate the following:
- (a) Benefit cost ration of the project:
- i) Financial :
- ii) Economic :
- (b) Internal rate return : Not applicable of the project
- i) Financial :
- ii) Economic :
- (c) Annual financial rate of return in the year out put : reaches normal capacity (specify year).

ANNEXURE : B (1)

1. Comparative Cost Estimate of the Original & Revised Scheme:

| Items | Original Scheme | | | Revised Scheme | | |
|---|-----------------|------------------|--------|----------------|------------------|--------|
| | Local | Foreign Currency | Total | Local | Foreign Currency | Total |
| 1. Pay, T.A., D.A., Fuel and other contingencies | 27.73 | - | 27.73 | 99.35 | - | 99.35 |
| 2. Construction and mainte nance of building including technical equipments | 39.28 | 377.32 | 416.60 | 157.00 | 100.00 | 157.00 |
| 3. Local equip- ments with transporta- tion and landing charges | 90.47 | - | 90.47 | 11.00 | - | 11.00 |
| 4. Custom and taxes | 178.98 | - | 178.98 | 275.00* | - | 275.00 |
| Total | 336.46 | 377.32 | 713.78 | 542.35 | 100.00 | 642.35 |

* Note:- Of which Tk.200 lakh is the arrear from
the previous project.

ANNEXURE - B (2)

2. Give reasons for the revision in cost estimate:

| Items | Reasons for revision |
|---|--|
| 1. Pay, T.A., D.A., Fuel and other contingent. | <p>1. In the expanded (revised) scheme 89 nos. of</p> <p>(a) Additional Officers and staff have been proposed.</p> <p>(b) Number of Agril. Machinery and vehicles has been increased by 50%.</p> <p>(c) Conduction of training of officers of 5 categories has been proposal which need additional cost for training allowances, dormitory management cost etc.</p> <p>(d) The activities of the programme of Community Development Centres will be expanded and intensified.</p> <p>(e) Farm improvement, demonstration in Community Development and construction of quarters for the low paid residential staff.</p> |
| 2. Land Development, Construction and Maintenance of Buildings. | <p>The cost for construction of the low paid Staff Residential Buildings and land development will have to be done by local fund, so that the cost in local capital has increased.</p> |
| 3. Customs and Taxes | <p>Last year due to shortage of fund in the local capital, custom duty for equipments and foreign building materials could not be cleared off. This year the arear custom duty of Taka 200 lakhs has been included in the expanded Scheme.</p> |

ANNEXURE - B : 3.

3. Total Expenditure incurred so far:

(In lakh Taka)

| Items | Expenditure | | |
|---|-------------|----------|--------|
| | Local | Foreign | Total |
| 1. Pay, T.A., D.A., fuel and other contingencies | 15.10* | - - | 15.10 |
| 2. Construction and maintenance of building including technical equipments. | 211.00 | 337.92** | 548.92 |
| 3. Local equipments, Transportation and landing charges. | | | |
| 4. Custom and duties | | | |
| | 226.10 | 337.92 | 564.02 |

* In addition of Taka 100 lakh was incurred as capital expenditure allotted in Revenue head. So actual amount spent is $564.02 + 100.00 = \text{Tk. } 664.02$ lakh.

** Amount actually incurred as per contact agreement including technical equipments.

ORGANIZATION CHART OF THE EXISTING STAFF

Associate Director Director
 (Chief of Japanese Advisory Group) P.A. - 1
 P.A. - 1 Steno - 1
 Peon - 1 Peon - 1

Crop Production Specialist
 Horticulture Specialist
 Soil & Fertility Specialist
 Extension Specialist
 Agriculture Mechanization Specialist
 Agricultural Machine Engineer
 Irrigation Agronomist
 Liaison Officer/Co-ordinator

Japanese Advisory
 Group

| <u>ADMINISTRATIVE DIVISION:</u> | | <u>RESOURCES DIVISION:</u> | <u>POOL SERVICE:</u> | <u>INFORMATION & TRAINING DIVISION:</u> |
|---------------------------------|------|-------------------------------------|-------------------------------|---|
| (Finance & Accounts wing): | | | | |
| Accounts Officer | - 1 | Principal Agronomist | - 1 Overseer | - 5 Principal Information Officer |
| Accountant | - 1 | Agronomist | - 1 Tractor and Pump Operator | - 4 Publication Officer |
| Cashier | - 1 | Asstt. Horticulture Specialist. | - 1 Drafts man | - 1 Translator |
| Bill Assistant | - 1 | Asstt. Soil & Fertility Specialist. | - 1 Workshop Helper | - 3 Librarian |
| <u>ADMINISTRATIVE WING:</u> | | | | |
| Administrative Officer | - 1 | Extension Specialist | - 1 Store-keeper | - 1 Printing Machine Operator |
| U.D.A. | - 1 | Asstt. Extension Specialist | - 1 Carpenter | - 1 Home Improving Agent |
| L.D.A. | - 2 | Farm Management Specialist | - 1 Mali and Sweeper | - 3 Mechanic-Cum-Operator |
| <u>POOL SERVICE:</u> | | | | |
| Steno-Typist | - 8 | Asstt. Plant Protection Specialist | - 1 | - 3 Store-keeper |
| Typist | - 4 | <u>FARM MECHANIZATION Division:</u> | | - 3 Driver |
| Peon | - 10 | Farm Mechanization Specialist | - 1 | - 3 Peon |
| Vehicles Driver | - 8 | | | - 3 Mali |
| Store-keeper | - 1 | | | - 9 Darwan |
| Electrician | - 1 | Agril. Engineer (Machine) | - 1 | |
| Watchman and Guard | - 6 | Agril. Engineer (Engine) | - 1 | |
| Operator | - 1 | Chief Mechanic | - 2 | |
| | | Asstt. Mechanic | - 2 | |

ORGANIZATION CHART OF THE SANCTIONED STAFF AS PER APPROVED SCHEME

Associate Director Director
 (Chief of Japanese Advisory Group) | P.A. - 1
 P.A. - 1 | Steno - 1
 Steno - 1 | Peon - 1
 Peon - 1 |
 Crop Production Specialist |
 Horticulture Specialist |
 Soil & Fertility Specialist |
 Extension Specialist |
 Agril. Mechanization Specialist |
 Agril. Machine Engineer |
 Irrigation Agronomist |
 Liaison Officer/Co-ordinator |
 Japanese Advisory Group

| ADMINISTRATIVE DIVISION: | POOL SERVICE: | FARM MECHANIZATION DIVISION: | INFORMATION & TRAINING DIVISION |
|-----------------------------|--|---|---------------------------------|
| (Finance & Accounts wing): | | | |
| Accounts Officer - 1 | Electrician - 1 | Farm Mechanization Specialist - 1 | Editor - 1 |
| Accountant - 1 | Watchman & Guard - 6 | | Translator - 2 |
| Budget Assistant - 1 | Air Conditioning - 1 | Agril. Engineer (Machine) - 1 | Librarian - 1 |
| Cashier - 1 | Operator - 1 | Agril. Engineer (Engine) - 1 | Cataloger - 1 |
| Bill Assistant - 1 | <u>RESOURCES DIVISION:</u> | Chief Mechanic - 2 | Printing Machine Operator - 1 |
| L.D.A. - 1 | Principal Agronomist - 1 | Asstt. Mechanic - 2 | Asstt. P. Machine Operator - 1 |
| <u>ADMINISTRATIVE WING:</u> | Agronomist - 1 | <u>POOL SERVICE:</u> | Operator - 1 |
| Deputy Director - 1 | Irrigation Agronomist - 1 | Overseer - 7 | Book Binder - 2 |
| Administrative Officer - 1 | Plant Protection Specialist - 1 | Tractor & Pump Operator - 4 | <u>MOBILE FILM WING:</u> |
| U.D.A. - 1 | Horticulture Specialist - 1 | Drafts Man - 2 | Unit Operator - 1 |
| L.D.A. - 2 | Asstt. Horticulture Specialist - 1 | Workshop Helper - 3 | Asstt. Unit Operator - 2 |
| <u>POOL SERVICE:</u> | Soil & Fertility Specialist - 1 | Store-keeper - 1 | <u>3 COMMUNITY DEV. CENTRES</u> |
| Steno-Typist - 8 | Asstt. Soil & Fertility Specialist - 1 | Carpenter - 1 | Home Improving Agent - 3 |
| Typist - 4 | Extension Specialist - 1 | Mali and Sweeper - 5 | Mechanic-cum-Operator - 3 |
| Peons - 10 | Asstt. Extension Specialist - 2 | <u>INFORMATION AND TRAINING DIVISION:</u> | Store-keeper - 3 |
| Vehicles Driver - 8 | Farm Management Specialist - 1 | Principal Information Officer - 1 | Driver - 3 |
| Telephone Operator - 2 | Asstt. F. Management Specialist - 1 | Information Officer - 1 | Peon - 3 |
| Care-Taker - 1 | Asstt. P.P. Specialist - 1 | Training Officer - 1 | Mali - 3 |
| Store-keeper - 1 | | Publication Officer - 1 | Darwan - 9 |

PROPOSED ORGANIZATION CHART FOR THE INTEGRATED SCHEME FOR CERDI & 3 COMMUNITY DEV. CENTRES

Director - 1
 P.A. - 1
 Steno - 1
 Peon - 1

Associate Director
 P.A. - 1
 Steno - 1
 Peon - 1

Chief of Japanese Advisory Group and Team Leader
 P.A. - 1
 Steno - 1
 Peon - 1

Agronomy Expert
 Horticulture Specialist
 Soil & Fertility Specialist
 Extension Specialist
 Agricultural Mechanization Specialist
 Agricultural Engineer (Machine)
 Irrigation Agronomist
 Liaison Officer/Co-ordinator

Japanese Advisory Group

| ADMINISTRATIVE DIVISION: | INFORMATION DIVISION: | AGRONOMY DIVISION: | FARM MECHANIZATION DIVISION: |
|---|---|---|---|
| 1. Deputy Director - 1 | 5. Photographer - 1 | 8. Soil & Fertility Specialist - 1 | 12. Senior Store-keeper (Machinery) - 1 |
| 2. Administrative Officer - 1 | 6. Librarian - 1 | 9. Assist. Soil & Fertility Specialist - 1 | 13. Audio-visual Car Driver - 1 |
| 3. Dormitory Manager - 1 | 7. Cataloger - 1 | 10. Horticulture Specialist - 1 | 14. Asstt. Store-keeper - 1 |
| 4. Head Assistant - 1 | 8. Translator - 1 | 11. Assist. Horticulture Specialist - 1 | 15. Bus Driver-Cum-Fitter - 1 |
| 5. Receptionist - 1 | 9. Artist - 1 | 12. Farm Management Specialist - 1 | 16. Crane Truck Driver - 1 |
| 6. Care-Taker - 1 | 10. Book Binder - 1 | 13. Assist. Farm Management Specialist - 1 | 17. Bus Driver Mate - 1 |
| 7. L.D. Assistant - 2 | 11. Senior Printing Machine Operator - 1 | 14. Store-keeper (Farm products) - 1 | 18. Carpenter - 1 |
| 8. Cook - 2 | 12. Printing Machine Operator - 1 | 15. Overseer - 5 | 19. Tractor & Pump Operator - 6 |
| 9. Kitchen Boy - 2 | 13. Designer - 1 | 16. Laboratory Asstt. - 4 | 20. Vehicles Driver - 7 |
| 10. Accounts Officer - 1 | 14. Calligrapher - 1 | <u>FARM MECHANIZATION DIVISION</u> | |
| 11. Accountant - 1 | 15. Packer-cum-Des-patcher - 1 | 1. Farm Mechanization Specialist & Head of Mechanization Div. - 1 | 5. Home Economic Officer - 1 |
| 12. Cashier - 1 | 16. Duplicating Machine Operator - 1 | 2. Mechanical Engineer - 1 | 6. Film Projector Operator - 1 |
| 13. Bill Assistant - 2 | <u>AGRONOMY DIVISION:</u> | | 7. Home Improving Agent - 3 |
| 14. Steno-Typist for six Officer's & City Office - 7 | 1. Principal Agronomist & Head of Agronomy Division - 1 | 3. Agril. Engineer - 1 | 8. Village Extension Agent - 3 |
| 15. Typist - 6 | 2. Agronomist - 1 | 4. Assist. Agril. Engineer - 2 | 9. Store-keeper - 3 |
| 16. Store-keeper - 1 | 3. Irrigation Agronomist - 1 | 5. Executive Engineer (C) - 1 | 10. Mechanic - 3 |
| 17. Electrician - 2 | 4. Agronomist - 1 | 6. Electrical Engineer - 2 | 11. Tractor Driver & Pump Operator - 4 |
| 18. Peon - 11 | 5. Asstt. Irrigation Agronomist - 1 | 7. Chief Mechanic - 2 | 12. Driver - 4 |
| 19. Watchmen-cum-Guard - 20 | 6. Plant Protection Specialist - 1 | 8. Drafts man - 2 | 13. Peon - 3 |
| 20. Sweeper - 6 | 7. Asstt. Plant Protection Specialist - 1 | 9. Mechanic - 8 | 14. Darwan - 9 |
| 21. Mali - 5 | | 10. Plumber - 1 | 15. Mali - 3 |
| <u>INFORMATION DIVISION:</u> | | 11. Electrical Foremen - 1 | 16. Sweeper - 3 |
| 1. Principal Information Officer & Training Co-ordinator & Head of Information Division - 1 | | | |
| 2. Publication Officer - 1 | | | |
| 3. Training Officer - 1 | | | |
| 4. Editor - 1 | | | |

CALCULATION FOR TRAINING ALLOWANCES:

C.E.R.D.I.:

| | | | |
|----|--|-----------------------------------|-----------------|
| 1. | Instructors | = 180 x 13 (days) | = 2340 (Manday) |
| 2. | TEO/TAO | = 400 x 13 " | = 5200 " |
| 3. | S.D.A.O. | = 60 x 7 " | = 420 " |
| 4. | Plant Protection Mechanic and sprayer | = (15 x 6) " | = 630 " |
| | Mechanic | 90 x 7 | |
| 5. | B.A.D.C. & B.K.B.'s Officers | = (15 x 6) " | = 630 " |
| | | 90 x 7 | |
| | | | <hr/> |
| | | Total | = 9220 " |
| | Total amount involved | = 9220 manday x 35 Taka (per day) | |
| | | | = 3,22,730 |

FOR 3 COMMUNITY DEVELOPMENT CENTRES:

20 person in every fortnight.

i.e., 40 person in every month in one Centre.

Total amount involved = 40 x 12 x 3 = 1440 manday
in three (3) Community Development
Centres: = x 10

Taka = 14,400/=

So, Grand Total = Taka 3,22,730
Taka 14,400

Total = Taka 3,37,130/=

RESIDENTIAL QUARTER FOR THE STAFF OF CERDI (JOYDEVPUR)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------|-------------------------|---------------|--------------|---------------|---------------|----------|
| Location | Staff House | Type of House | No. of Plats | Sft. per flat | Total sq. ft. | Remarks: |
| | Director | A | 1 | 1,800 | 1,800 | |
| | Associate Director | B | 1 | 1,500 | 1,500 | |
| | Senior Officers | C | 5 | 1,250 | 6,250 | |
| | Specialist | D | 12 | 1,000 | 12,000 | |
| | Asstt. Specialist | E | 15 | 858 | 12,870 | |
| | Other Officers | H | 12 | 700 | 8,400 | |
| | Clerks/ Typist etc. | I | 95 | 550 | 52,250 | |
| | Guard, Sweeper and Mali | J | 69 | 500 | 34,500 | |

Total cost for construction of = 129570 sft.
Staff Quartersft x 150 = Tk. 1,94,35,500/=

Tk. 130.00 lakh has been shown against construction of residential quarter as the first phase of the programme enquiring total of Tk. 130.00 lakh.

The costing and calculation of each quarter has been made as per the specification laid down planning Commission.

TRAINING SCHEDULE ALLOTTED FOR SUBJECTS (ONE UNIT 15 HOURS) (17 UNIT IN A WEEK)

| AGRONOMY | | HORTICULTURE | | FARM MACHINERY | | EXTENSION | |
|--|------|---|------|--|------|---|------|
| Course | Unit | Course | Unit | Course | Unit | Course | Unit |
| I. 1. Orientation & Evaluation | 2 | 1. Orientation | 1 | 1. Tendency of mechanised farming in the world and Bangladesh | 1 | 1. Orientation | 3 |
| 2. Diagnosis of rice plant, its growth and yield | 10 | 2. Counter measure on short-age season of vegetables | 4 | 2. Engines (Including identification, assembling, disassembling) | 12 | 2. Technical contest | 3 |
| 3. High yield technology | 2 | 3. Leaf and root vegetables with standing in the rainy season | 12 | 3. Pump for irrigation (including checking & maintenance of economical & effective using etc.) | 4 | 3. Planning of Extension programme a) Farmer house visit b) Contact with leader c) Farming Extension Programme | 3 |
| 4. Agril. Extension (Technical contest) | 3 | | | | | | |
| II. 1. Orientation & Evaluation | 2 | 1. Introduction of Horticulture | 3 | 1. Electric Motor (assembling and dis-assembling) | 5 | 1. Project Planning | 1 |
| 2. Management method of rice cropping | 2 | 2. Leaf & root vegetables with standing in the rainy season | 1 | 2. Tractor & Engineering (Function of each part assembling maintenance) | 6 | 2. Project Programming | 2 |
| i) Growth of rice plant | 2 | 3. Temperate zone vegetables (Dry season vegetables) | 6 | 3. Tractor and Field machinery (identification, maintenance, assembling, dis-assembling) | 6 | 3. Rice cultivation technology a) Characteristic of HVV of rice b) Yield estimation c) Component factors of rice yield d) Mechanization in rice cultivation | 3 |
| ii) Water Management | 5 | 4. Past harvest physiology and market system in vegetables | 7 | | | | |
| iii) Weed and Weed control | 2 | | | | | | |
| iv) Top dressing | 2 | | | | | | |
| v) Plant Protection | 2 | | | | | | |
| 3. Agril. Extension (Programming of Extension) | 3 | | | | | | |
| III. 1. Rippingening of rice | 2 | 1. Seed production of vegetables. | 8 | 1. Soil preparation method of economical & effective way: | | 1. Demonstration Farm Planning | 1 |
| 2. Extension of yield | 6 | 2. Extension activities in Horticultural Development | 7 | a) Ploughing | 3 | a) Aim, function and theme | 2 |
| 3. Harvesting practices | 2 | 3. Examination - I | 2 | b) Leveling | 3 | b) Designing plot | 3 |
| 4. Special Management in seed production field | 2 | | | c) Paddling | 3 | c) Measurement & information | 2 |
| 5. Agril. Extension (Project Planning) | 3 | | | d) Rotage | 2 | d) Utilization, demo, farm | 1 |
| | | | | e) Harrowing | 2 | e) Generalization | 1 |
| | | | | f) Ditching | 2 | f) Evaluation | 1 |
| | | | | g) Ridging etc. | 2 | 2. Horticulture Vegetables: a) Point in vegetable production b) Raising seedling method c) Cultivation method | 2 |

| AGRONOMY | | HORTICULTURE | | FARM MACHINERY | | EXTENSION | |
|--|------|---|------|---|------|---------------------------------------|------|
| Course | Unit | Course | Unit | Course | Unit | Course | Unit |
| I. 1. Orientation & Evaluation | - 2 | 1. Fruits, vegetables with standing in the raining season | - 10 | 1. Power tiller | - 1 | 1. Group guidance principle | - 17 |
| 2. Raising seedling method | - 2 | 2. Propagation method of fruit trees | - 7 | a) Introduction & construction | - 1 | a) Group meeting techniques | - 3 |
| a) Germination of seed | - 2 | | | b) Rotting tiller attachment | - 1 | b) Sample Extension Planning | - 2 |
| b) Seed Treatment | - 2 | | | c) Working performance | - 1 | c) Study tours planning | - 3 |
| c) How to get reality seedling | - 3 | | | d) Assembling & dis-assembling | - 1 | d) Farm Youth club Orgn | - 3 |
| d) Characteristic of seedling | - 2 | | | e) Maintenance | - 1 | e) House wives club Orgn | - 3 |
| 3. Agriculture Extension: | - 1 | | | f) Judgement of trouble | - 10 | f) Farmers club Orgn | - 2 |
| a) Demonstration | - 1 | | | g) Method of economic & effective using way | - 1 | | |
| b) Plant designing | - 1 | | | h) Function of parts | - 1 | | |
| c) Sample Extension | - 1 | | | | | | |
| II. 1. Orientation & Evaluation | - 2 | 1. Fruits, vegetables with standing in the rainy season | - 2 | 1. Field Machinery | - 1 | 1. Extension techniques | - 1 |
| 2. Soil & Fertilizer Characteristics of submerged soil | - 2 | 2. Temperate zone vegetables rainy season | - 2 | a) Fertilizer distributor & seedling equipment | - 1 | a) Communication by speaking | - 2 |
| b) Analysis of soil | - 3 | 3. Cultivation method of fruit trees | - 13 | b) Rice transplanter | - 1 | b) Communication by writing | - 2 |
| c) Planning of Fertilizer application | - 2 | | | c) Grain Harvester & thresher | - 1 | c) Communication by visual aid | - 12 |
| d) Fertilizer application use | - 3 | | | d) Classification & construction | - 1 | d) Picture, sliden radio and TV. etc. | |
| e) Deficiency of minor elements | - 1 | | | e) Driving way & relation between dry & tractor | - 1 | | |
| 3. Agriculture Extension: | - 1 | | | f) Identification | - 1 | | |
| a) Photography | - 1 | | | g) Assembling & dis-assembling | - 11 | | |
| b) Picture usage slide | - 2 | | | h) Method of Economic & effective using way | - 10 | | |
| III. 1. Orientation & Evaluation | - 2 | 1. Potato, sweet potato onion and garlic | - 7 | 1. Farm Machinery | - 1 | 1. Evaluation method | - 2 |
| 2. Transplanting | - 4 | 2. Temperate zone vegetables (dry season) | - 6 | a) Processing machine & graindye | - 2 | a) Principa Objectives | - 1 |
| a) Transplanting | - 4 | 3. Cultivation method of fruit trees-11 | - 2 | b) Identification & mechanism | - 1 | b) Product & process | - 3 |
| b) Ploughing & paddling | - 3 | 4. Examination 11 | - 2 | c) Maintenance | - 1 | c) Procedure & techniques | - 3 |
| c) Transplanting practice (test plot) | - 5 | | | d) Assembling & disassembling | - 3 | 2. Training farmer: | - 3 |
| 3. Agriculture Extension-1 (Communication media) | - 1 | | | e) Method of economic and effective using way | - 3 | a) Farm youth training | - 2 |
| | | | | f) Judgement of trouble | - 3 | b) Farm house wives training | - 3 |
| | | | | g) Method of grain inspection | - 3 | c) Leadership training | - 1 |
| | | | | h) Method of test machine operation | - 2 | 3. Final Evaluation: | - 1 |
| | | | | | | a) Product assignment | - 2 |
| | | | | | | b) By staff & participants | - 2 |

Appendix - I

:CO-ORDINATION COMMITTEE:

A Committee as under will co-ordinate all activities and proper utilization of all resources of C.E.R.D.I.

1. Secretary, Ministry of Agriculture - Chairman
2. Executive Vice-Chairman, BARC
3. Director, BRRI
4. Director of Agriculture (Research & Education)
5. Director of Agriculture (Extension & Management)
6. Head of the Department of Agricultural Extension & T.T.B.A.U.
7. A representative from the UNDP
8. Director, C.E.R.D.I.-Member-Secretary
9. Associate Director, C.E.R.D.I.
10. A representative from the IBRD.

Appendix - II

CO-ORDINATION COMMITTEE OF COMMUNITY DEVELOPMENT CENTRES

| | |
|--|--------------------|
| Director | - Chairman |
| Associate Director & Chief of Japanese Group of Experts | - Vice-Chairman |
| Farm Mechanization Specialist | - Member |
| Principal Information Officer and Training Co-ordinator | - Member |
| Principal Agronomist | - Member |
| Thana Extension Officer | - Member-Secretary |
| Thana Co-operative Officer | - Member |
| Thana Live-Stock Officer | - Member |
| Thana Family Planning Officer | - Member |
| Village Extension Agent | - Member |
| Project Officer (IRDP) | - Member |
| Chairman/member of the Union Council | - Members |
| Three Leading Farmers of the Area | - Members |
| Three Head Master | - Members |
| Three Young Farmers | - Members |
| Three Farm-Wives | - Members |
| One Representative from each Community of the Village like: Fisherman, Weaver etc. | - Members |

Appendix - III

TRAINING IN JAPAN:

4 Senior Staff member of CERDI have been trained in Japan upto May '78 and another 5 member are in Japan now for this purpose.

Under Japanese technical training schedule to be sent to Japan for training every year about more than 5 Officers and Staff.

GROUP TRAINING COURSES SHOULD BE ON THIS
FOLLOWING DISCIPLINE

- Rice cultivation and its extension course.
- Rice cultivation and Mechanization course.
- Horticulture course
- Irrigation and drainage course
- Farm Machinery repair and maintenance course
- Pest and disease control course
- Agricultural Extension course
- Soil & Fertility course
- Rural Youth and Development course.

Except for group training courses, as above specific individual courses also such as Librarian, Vehicle maintenance, Home Improvement and so forth should also be engaged under technical training schedule.

Appendix - IV

LIST OF MACHINERY AND EQUIPMENTS RECEIVED FROM JAPAN UNDER
TECHNICAL ASSISTANCE PROGRAMME:

A. AGRICULTURE MACHINERY RECEIVED UPTO 1977-78.

| | | |
|----------------|---|----------|
| Tractor | - | 20 Units |
| Power tiller | - | 18 |
| Rice Harvester | - | 9 |
| Rice Mill | - | 1 |
| Sprayer | - | 50 |
| Grain dryer | - | 9 |
| Pump | - | 33 |
| Others | - | |

B. VEHICLES AND EQUIPMENTS RECEIVED UPTO 1977-78.

| | | |
|------------------------|---------|----|
| <u>VEHICLES:</u> | 13 unit | |
| (Including | | 13 |
| Audio-Visual Extension | | |
| Car | - | 1 |
| Crane Truck | - | 1 |
| Fork lift | - | 1 |
| Bulldozer | - | 2 |

C. AUDIO-VISUAL AIDS:

- i) VTR Film Projector
- ii) Slide Projector
- iii) Over head Projector
- iv) Furniture for class room
- v) Library facilities with W/punch card system
- vi) Office furniture and Office supply for all sections
- vii) Full Workshop unit
- viii) All equipment machinery for Carpentry unit
- ix) Printing press with all accessories
- x) Photo studio unit (fully equiped) One unit.

D. LABORATORY FACILITIES: EQUIPMENT MATERIALS FOR

- a) AGRONOMY
- b) HORTICULTURE
- c) SOIL
- d) PLANT PROTECTION
- e) IRRIGATION

- i) Field Training equipment and materials
 - Green heaves
 - Irrigation Facilities
- ii) Agriculture Hand Tools.

FARM FIELD UTILIZATION PLANT OF CERDI:

| | | |
|---|---|----------|
| Total area of Farm Field | | |
| Total Area of Farm Field | | 27 acres |
| | | |
| 1. <u>Field for Demonstration Test:</u> | | |
| a) Rice Production Field | - | 8 |
| i) For specimen field of comparative cropping methods (7.00) | - | |
| ii) For other purpose (1.00) | - | |
| b) Vegetable production field | - | 3.00 |
| i) For specimen field for inter-cropping (0.5) | - | |
| ii) For others (single crop tests) (2.50) | - | |
| c) Other Crop Production Field | - | 2.00 |
| i) For wheat and other cereals (0.50) | - | |
| ii) For Potato, Sweet Potato, Cassava etc (0.50) | - | |
| iii) Pulses, Soyabeen etc. (0.50) | - | |
| iv) For oil seed such are mustard, Sunflower etc. (0.50) | - | |
| | | |
| 2. <u>Field for Test/Trial of Machineries and Practice Fields for Training:</u> | | |
| a) Test/Trial | - | 5.00 |
| i) Efficiency Test (1.00) | - | |
| ii) Application Test (4.00) | - | |
| b) Operation Practice of Training | - | 3.00 |
| i) Driving Course (2.00) | - | |
| ii) Bare Field (1.00) | - | |

| Designation | Qualification | Nature of Duties |
|--------------------------------|--|---|
| <u>Director</u> | Minimum Master Degree in Agricultural Extension From a recognised University and at least 25 years of total service effective experience in Research, teaching and extension and Farm Management will be treated as additional qualification. Must have wide administrative experience of at least 15 years. For Ph.D. Degree holders 20 years of total service and 12 years service in B.H.A.S. and or equivalent and or higher cadres. <u>Age: 40 to 50 Years</u> | (1) Administrative and Academic Head of CERDI. (2) Planning and execution of the technical programme of CERDI. (3) Overall supervision of CERDI activities |
| <u>Associate Director</u> | Minimum Master Degree in Agriculture from a recognised University. Must have 20 years of total service in Extension Research and Teaching line. Must have wide administrative experience in the line for at least 15 years. For Ph.D. Degree holders 15 years of total service 10 years in B.H.A.S. or equivalent and or higher cadres. <u>Age: 40 to 50 Years</u> | Will assist the Director in administrative and academic function. Help the Director for planning execution of technical programme and overall operation of CERDI. |
| <u>Deputy Director (Admn.)</u> | Minimum Graduate in Agriculture Degree with 15 years experience in Government rules on Administration and establishment. Must have wide Administrative experience of 10 years. <u>Age: 40 to 50 Years.</u> | Assist the Director in all Administrative matters. |
| <u>Accounts Officer</u> | Minimum M. Com. with 5 years or B. Com. with 12 years experience having dependable knowledge in rules and procedure. <u>Age: 30 to 35 Years.</u> | Assist the Dpty. Director in matters connected with Accounts. |

| <u>Designation</u> | <u>Qualification</u> | <u>Nature of Duties</u> |
|--|---|--|
| <u>Principal Agronomist</u> | Minimum Master Degree in Agronomy and Entomology. Preference will be given to candidates having higher training in other allied subjects. Training in Japan and experience of working with Japanese Experts may be treated as special qualifications. Research and Teaching experience for 10 years and total service of 15 years. For Ph.D. Degree holders total service 12 years and effective experience of 8 years. | Service as the Head of the respective Divisions and Assist the Director in Planning and execution of the programme of the Division concerned. |
| <u>Principal Information Officer</u> | Minimum Master Degree in Agriculture Extension. Preferably from abroad. Training in Japan and experience of working with Japanese Experts may be treated as special qualifications. Field experience in Extension and Teaching experience for 10 years and total service of 15 years. For Ph.D. Degree holders total service 12 years and effective experience of 8 years. | Serve as the Head of the respective divisions and Assist the Director in planning and execution of the programme of the Division concerned. |
| <u>Principal Extension Specialist</u> | Minimum Master Degree in Agriculture Extension preferably from abroad. Training in Japan in Extension Programming and planning will be treated as special qualification. Field experience in Extension and Teaching for at least 12 years of total service and effective experience of 8 years are required. | Serve as Head of the Division Extension and Education. Assist the Director in Planning and Execution of the Programme of the Division concerned. |
| <u>Agronomist. Irrigation Agronomist, Plant Protection Specialist,</u> | Minimum Master Degree in Agronomy/ Irrigation Agronomy/Plant Pathology, Entomology, Horticulture/Soil & Fertilizer/Appl. Extension/Farm Management/Agril. Engineering, Training in Japan and experience of working with | Work as subject matter specialists in the respective fields and serve as counterparts. |

| Designation | Qualification | Nature of Duties |
|--|---|---|
| <u>Horti- Specialist, Soil & Fertility Specialist, Agricultur- al Engineer</u> | Japanese Experts may be treated as special qualifications. Research, teaching and extension experience in the respective field will be treated as additional qualifications. Total service 10 years with experience in the line total service 3 years. Educational qualifications relaxable in case of highly experienced hand. | |
| <u>Asstt. Agronomist, Asstt,Plant Protection Specialist, Asstt. Horticultu- re Specialist, Asstt. Soil & Fertility Specialist, Asstt. Extension Specialist, Asstt.Farm Management Specialist, Asstt. Agriculture Engineer.</u> | Master Degree in Agronomy/Plant Pathology/Horticulture/Soil & Fertility/Agril. Extension/Farm Management or Agronomy/Agriculture of Agril. Information or Agril. Education or Agril.Extension,Agril.Engineer. Training in Japan and experience of working with Japanese Experts may be treated as special qualification.For Ph.D.Degree holders 5 years total service and experience in the line for 3 years. | Teaching and Research.Assist the respective subjects matter specialists in collection sorting and preparation of technical informa-tion.Assist them in preparing lesson and audiovisual aids. |
| <u>Home- Economic Officer</u> | Minimum Master Degree in Home Econo-mics. Must have experience for at least 5 years in teaching and manage-ment of the subject concern with home management activities. Practical ex-perience in organising and training in rural area will be treated as additional qualification | Work as subject matter specialist in the respective field and assist the Head of divi-sion in Home Management prog-ramme. |
| <u>Publication Officer</u> | Degree in Agriculture with experience in Agricultural publications. Ex-perience in Editing work is essential. | For information section(Printing publication, editing etc.) as required for docu-mentation of ex-tension resource development by CERDI. |

| <u>Designation</u> | <u>Qualification</u> | <u>Nature of duties</u> |
|-----------------------------------|---|--|
| <u>Translator</u> | Minimum Master Degree in English or Bengali having at least 2 years experience in the line. | Asist Publication Officer. |
| <u>Librarian</u> | Degree with Diploma in the line with having 2 years experience as Librarian not below College level Degree with 5 years experience in the line. For Master Degree holders in the line 3 years experience. | Overall management of the Library and Assist Publication Officer. |
| <u>Cataloguer</u> | Degree with Diploma in respective lines having 2 years experience in the line. | Assist Librarian. |
| <u>Chief Mechanics</u> | Diploma in Agril.Engineering (Machines and Engine)with at least 5 years experience in the line. | Assist Machinery Expert and Maintenance of the Workshop. |
| <u>Training Officer</u> | Minimum Bachelor Degree in Agriculture having training and extension experience. | Assist Principal Information Officer in preparing training programme, lesson Plan. |
| <u>Editor</u> | Minimum Bachelor Degree in Agriculture having experience in Editing Agricultural Publication. | Edit all the Publications of CERDI. |
| <u>Electrical Engineer</u> | B.Sc. Engineer, having at least 7 years experience in the line. Total service 10 years. | Selection, maintenance and supervision of electrical equipments. |
| <u>Mechanical Engineer</u> | B.Sc. Engineer (Mechanical) should have 7 years experience in the line. | Selection, maintenance and supervision of Agricultural machinery. |
| <u>Executive Engineer (Civil)</u> | B.Sc. Engineer (Civil) having at least 7 years experience in the line. Total service 10 years. | Supervision of all Civil works. |
| <u>Photographer</u> | H.S.C. with diploma in photography having at least 7 years experience in the line. | Work as a Photographer |

| Designation | Qualification | Nature of duties |
|--|--|--|
| <u>P.A. to Director And Associate Director</u> | Graduate good in Bengali and English Steno-graphy speed of 100 words and Typing of 40 words per minute. Experience in Office work. | Work as personnel Assistant to Director and Associate Director including all confidential matters. |
| <u>Steno-Typist</u> | H.S.C. with Bengali and English Steno-speed 120 and 80 Typing speed 50/40 words per minute with experience. | Work as Steno-Typist |
| <u>Administrative Officer</u> | Minimum Graduate Degree with at least 12 years experience in Office administration and management. | Assist the Deputy Director in matters connected with office administration and supervision. |
| <u>Accountant</u> | Graduate with at least 3 years experience in Accounting rules and procedures in Government Office. | Help the Senior Accounts Officer and Accounts Officer (F&A) in all matters of Accounts. |
| <u>Bill Assistant</u> | H.S.C. with at least 3 years experience in preparing, checking and presentation of bills. | Prepare and maintain all Bill of CERDI and maintain related records. |
| <u>Cashier</u> | H.S.C. with experience in maintaining cash books and other related records and in handing of cash. | Handle cash of CERDI maintain cash book and contingent register related records. |
| <u>U.D.A.</u> | H.S.C. with at least 3 years experience in office work. | Help in office work and Assist the administrative Officer in CERDI. |
| <u>L.D.A.</u> | S.S.C. with experience in Office work in issue, receipt, maintenance of stationary and stamp records. | Help in Office work. |
| <u>Printing Machine Operator</u> | H.S.C. with dependable experience in the line. | Operate and maintenance printing machine of CERDI. |
| <u>Book Binder</u> | S.S.C. with experience in Book Binding. | Binding work of all books records and documentation of CERDI. |

| Designation | Qualification | Nature of duties |
|-------------------------------------|--|---|
| <u>Film Projector Operator</u> | H.S.C. with experience in the line. | Operate the mobile Film unit of CERDI. |
| <u>Peon</u> | Must have read upto class VI or more. Must know cycling. | Work as orderly to Officers and Office attendants and measenger peon etc. |
| <u>Watchmen and Guard</u> | Must have read upto class VIII or more. Must have cycling. | Watching and Guarding all properties of CERDI. |
| <u>Electrical Foreman</u> | Diploma in Engineering (Electrical) with at least 5 years experience. | To assist the Electrical Engineer. |
| <u>Artist</u> | Degree in fine are or Commercial art from any recognized College of Institution. 3 years experience in the line. | Design pamphlets, poster, block etc. |
| <u>Duplicating Machine Operator</u> | S.S.C. with experience in the line. | Operate the duplicating machine. |
| <u>Designer</u> | H.S.C. with 7 years experience. Diploma or any other degree in designing is preferable. | Design the all printing works in CERDI. |
| <u>Kaliographer</u> | S.S.C. with 3 years experience in the line. | Kaliographic work for CERDI printing works. |
| <u>Packer-Cum-Despatcher</u> | S.S.C. with 2 years experience in the line. | Work as a packer and despatching in the CERDI printing section. |
| <u>Laboratory Assistant</u> | H.S.C. with science group. Must have experience in Laboratory work. | Help in Laboratory work. Keeping record of all the appratus of the Laboratory & Assists the exper in the Laboratory work. |
| <u>Machinery Operator</u> | H.S.C. with experience in Operation of the different Agricultural Machineries. | To Operate Agri-cultural Machinery. |
| <u>Plumber</u> | S.S.C. with 5 years experience in Plumbing work. | Maintain and operate the water connection line for smooth operation of work in the Project. |

| <u>Designation</u> | <u>Qualification</u> | <u>Nature of duties</u> |
|------------------------------|---|---|
| <u>Asstt. Plumber:</u> | S.S.C. with 2 years experience in plumbing work. | Asstt. the Plumber |
| <u>Bus Driver</u> | Class VIII. Working experience in Driving for at least 5 years experience with vehicles licence. | To operate the CERDI Bus. |
| <u>Bus Driver Mate:</u> | Should have experience in the line. | Asstt.the Bus Driver. |
| <u>Store- Keeper:</u> | H.S.C. with experience in Store- Keeping and management of the Store. | Maintain all records Accounts of the Store and overall management of the Store. |
| <u>Fieldman/ VEA:</u> | Diploma in Agriculture not below 2nd. Division with at least 5 years experience in farming. | Management of the Community Development Centres in respect of operation and conduction of training work and Farm Management work. |
| <u>Home Improving Agent:</u> | Graduate preferably in Home Economic. Work experience in Home Economics will be treated as special qualification. | Training of Farm-wives and Farm girls in home management work. |
| <u>Machine Operator:</u> | H.S.C. with experience in the line. | Operate and maintain the machinery of C.E.R.D.I. |
| <u>Clerk-Cum-Typist:</u> | S.S.C. with typing speed of 40 words per minute. Experience in office work like, issue, receipt etc. | Typing work of office and other office records. |
| <u>Store- Keeper:</u> | H.S.C. with experience in Store- Keeping. | Maintain all Store Accounts records and Stores. |
| <u>Driver:</u> | Must have read upto Class VIII with valid driving licence for vehicles. At least 5 years experience in the line. | Drive Vehicles of C.E.R.D.I. |
| <u>Typist:</u> | S.S.C. with typing speed of 40 words per minute. Experience in office work like, issue, receipt etc. | Do type work of office and other office records. |

| Designation | Qualification | Nature of duties |
|-----------------------------------|--|---|
| <u>Vehicles Driver:</u> | Must have read upto Class VIII with valid driving licence for vehicles. Having at least 5 years experience. | Drive vehicles of C.E.R.D.I. |
| <u>Care-Taker:</u> | H.S.C. with good physique and Ex-Army man with requisite qualification will be preferred. | Do the care taking work and cerdi properties. |
| <u>Store-Keeper:</u> | H.S.C. with experience in Store-Keeping. | Maintenance all Store Accounts, records and Stores. |
| <u>Electrician:</u> | Must have read upto Class VI with experience in Electrical fitting fixtures and maintenance work. Educational Qualification relaxable in case of really suitable hand. | Maintenance of the total electrical work of CERDI. |
| <u>Overseer:</u> | Diploma in Agriculture not below 2nd. 2nd. Division with at least 5 years experience in farming. | To help the Principal Agronomist in experimental farming and other normal farming work. |
| <u>Tractor and Pump Operator:</u> | Be able to read and write Bengali and English. Experience and valid licence required of or operation of Tractor/Pump. | Maintain, operate Tract or/Pump of CERDI and maintain log books. |
| <u>Draftsman:</u> | S.S.C. with Diploma/Certificate in Draftsmanship. | Do all draftsman ship work of CERDI. |
| <u>Carp enter:</u> | Diploma in Carpentry with Experience in the line | Work as Carperter of C.E.R.D.I. |
| <u>Workshop Helper:</u> | Must have read upto class experience in operation and maintain workshop equipments. | Work as workshop helper. |

II BUSINESS PROGRAMME FOR FIVE YEARS OF C.E.R.D.I. (3rd Draft March, 1978)

| Sl. No. | Project guide line | R/D Programme 1975-76 | R/D Programme 1976-77 | R/D Programme 1977-78 | Agreement 1st. Year 1978-79 | Agreement 2nd Year 1979-80 | Agreement 3rd Year | Ag |
|---------|---|---|---|---|---|---|---|--|
| 1. | Collecting research findings and re-search documentations from CTIO, BARD, BARI, BARC, BARI, Sugar Crop. & other agencies at home and abroad for adjustment and analysis. | To start collection mainly from within the country. | To continue collection | To continue collection | To continue collection and classify the document into different subject-matters and analyze them. | To continue collection and to make library for efficient utilization of documents. | To continue. | To continue. |
| 2. | Extension resources development by project method: 1) To identify technical problems at farmers level, in research findings and also from concerned Govt. organization in each subjectmatter. 2) Planning for practicability test. 3) Execute the practicability test according to the Plan-2. a) Experiment at CERDI farm. b) Trial test at the experimental villages. c) Trial test at AETI's farms. 4) Comprehensive evaluation from the stand-point of extension resources. | To make preparations for identifying technical problems for the following subjects Extension Rice cultivation. Upland crops. 2) 3) & 4) are not yet started. | 1) Continue as the preceeding year & begin the following new items also. Irrigation Agronomy Horticulture. | 1) Continue as the preceeding year and begin the following new items also. Soil & Fertilizer, Plant Protection, Farm Management. 2) Planning for practicability test on every subject matter. | 3) To start all the test and trials as mentioned in the guide line. 4) To start evaluation programme where possible. | To continue as in previous year with necessary repetitions and with new problems some of the problems are to have more evaluation. It may be necessary to prolong some of the problems from the previous year. | To continue as before always giving more stress to find out more vital problems and to solve them for the benefit of the farmers. | Stress to mal Inter Stand Bangla |
| 3. | Extension resources development of Agril. Tools and Machineries. 1) To collect the locally used hand tools and also some of the animal drawn ones and to develop necessary improvements in them. 2) To study the development of some appropriate technology in this country. 3) Adaptability study through field test of practicability and suitability of the imported machinery. 4) Concluding standardization test of the above machinery from CERDI's point of view as technical resources. | 1) Start to collect hand tools and animal drawn ones now used. 2) To study the real conditions of present technology. 3), 4) Continue from F.M.T.I. business at F.M.T.I. | 1) Continue. 2) Continue and examine them for improvement. 3) 4) Continue from F.M.T.I. business. | 1) Continue 2) Continue 3), 4) Can't start during construction period. | 1) To start at new workshop and farm. 2) To start improvement of hand tools and animal drawn ones. | 1) Continue 2) Continue 3) Continue 4) Continue | 1) Continue 2) Continue 3) Continue 4) Continue | 1) Con 2) Con 3) Con 4) Con |
| 4. | Development of extension method and materials: 1) To study extension Planning and extension activity. 2) Investigation into the usefulness of different methods and means. 3) To study and prepare different kinds of Audio-Visual aids. 4) To study rural youth education and home-living improvement. | To study the existing conditions at the trial area. | Sampling study of farm-household at experimental villages where community Center will be located. | Complete survey of whole farm household at three experimental villages and make household cards. | 1) To make guide line about the experiment plan of extension for the three experimental village. 2) To apply various kind of extension means to the trial area. 3) To guide about different kinds of simple Audio-Visual aids. 4) To make guide line about home-living improvement groups. | 1) To make guide-line about the extension planning extension activities. 2) Continue & evaluate. 3) To develop simple Audio-visual aids by the extension workers themselves. 4) To make guide line of technical training of rural youth. | 1) Continue 2) Continue 3) Continue | 1) Con 2) Con 3) Con |
| 5. | Training and Guidance 1) To improve the curriculum of AETI. 2) To arrange technical seminars for AETI's instructors. 3) To arrange comprehensive technical seminars for TAO's and TEO's. 4) To arrange seminars or workshops for higher grade officials. 5) To follow up services by mobile cars to AETI's, TAO (TEO)'s already trained in CERDI. | 1) To study the real conditions of AETI's curriculum now in apply. 2) To assess the training requirement of TAO's & TEO's. | 1) To prepare improved curriculum of AETI's for each subject-matter. 2) To prepare the curriculum of technical seminar in each subject-matter. | 1) To study real conditions of teaching about each subject-matter at AETI's. 2) To prepare details of experiment and practice for AETI's instructors. 3) To prepare curriculum of technical seminar for TAO's and TEO's | 1) Further improvement in the curriculum already prepared. 2) To start technical seminars for AETI's instructors at CERDI. 3) To start technical seminars for TAO's (TEO's) 4) To start seminars or workshops for higher grade officials. 5) To start followup services. | 1) To make guide line of curriculum stressing experiment and farm practice. 2) Continue. 3) & 4) Continue 5) To follow up AETI's instructors and TAO's, TEO's who attended technical seminars at CERDI. | 1) Continue 2) Continue 3) Continue | 1) Con 2) Con 3) Con 4) Con 5) Con |
| 6. | Extension information 1) To compile and print pamphlets of extension resources for extension workers and instructors at AETI. 2) To prepare leaflets of extension resources for farmers. 3) To prepare and print 'The Integrated Agriculture Standard Techniques in Bangladesh'. 4) To prepare and print 'Extension Workers' Hand book | 1) Adjustment and analysis of documentations collected in I. 2) To collect extension booklets already delivered in BD and other countries. 3), 4) not yet to start but data and documents must be collected domestically and from abroad. | 1) Start preparation 2) Start preparation 3) Continue 4) To start draft making for every subjectmatter. | 1) Continue 2) Continue 3) Continue 4) Continue | 1) To start print at CERDI printing press. 2) Continue 3) Draft making and start printing. 4) Draft making, continue and printing. | 1) Continue 2) Continue 3) Start to compile in every subjectmatter. 4) Draft making and revising the draft. | 1) Continue 2) Continue 3) To make systematize 4) Drafts of every subject matter are accumulated. | 1) Con 2) Con 3) To the sta 4) Com various prepar |

II. BUSINESS PROGRAMME FOR FIVE YEARS OF C.E.R.D.I. (3rd Draft March, 1978)

| R/D Programme 1976-77 | R/D Programme 1977-78 | Agreement 1st. Year 1978-79 | Agreement 2nd Year 1979-80 | Agreement 3rd Year | Agreement 4th Year | Agreement 5th Year | Remarks |
|--|---|---|---|---|--|---|---|
| continue collection | To continue collection | To continue collection and classify the document into different subject-matters and analyze them. | To continue collection and to make library for efficient utilization of documents. | To continue. | To continue | To complete the Library for Extension in BD. | - |
| Continue as the seeding year & begin following new items 1. Irrigation 2. Horticulture. | 1) Continue as the preceeding year and begin the following new items also. Soil & Fertilizer, Plant Protection, Farm Management. 2) Planning for practicability test on every subject matter. | 3) To start all the test and trials as mentioned in the guide line. 4) To start evaluation programme where possible. | To continue as in previous year with necessary repetitions and with new problems some of the problems are to have more evaluation. It may be necessary to prolong some of the problems from the previous year. | To continue as before always giving more stress to find out more vital problems and to solve them for the benefit of the farmers. | Stress should be given to making up of "The Intergrated Agr. Standard Techniques in Bangladesh". | To continue as before and to finalize the evaluation and recommendations as far as possible. | 1) Technical problem in every subjectmatter will be discussed and steered by 'Technical Subcommittee' mentioned earlier. 2) Attached farm of three Community Centers may be used for tests and trials. |
| Continue. Continue and examine for improvement. Continue from T.I. business. | 1) Continue 2) Continue 3),4) Can't start during construction period. | 1) To start at new workshop and farm. 2) To start improvement of hand tools and animal drawn ones. | 1) Continue 2) Continue 3) Continue 4) Continue | 1) Continue 2) Continue 3) Continue 4) Continue | 1) Continue 2) Continue 3) Continue 4) Continue | To finalize the evaluation and recommendation about agricultural tools and machineries, and their adoption for farming practices. | Same as above. |
| Planning study of farm-household at experimental villages where community center will be located. | Complete survey of whole farm household at three experimental villages and make household cards. | 1) To make guide line about the experiment plan of extension for the three experimental village. 2) To apply various kind of extension means to the trial area. 3) To guide about different kinds of simple Audio-Visual aids. 4) To make guide line about home-living improvement groups. | 1) To make guide-line about the extension planning extension activities. 2) Continue & evaluate. 3) To develop simple Audio-visual aids by the extension workers themselves. 4) To make guide line of technical training of rural youth. | 1) Continue 2) Continue 3) Continue | 1) Continue 2) Continue 3) Continue | To accumulate and organize the extension methods already studies at the stand point of adapting for the real conditions of BD. | Study and investigate about extension activities in operation mainly at the trial village designated by CERDI. Community Center may be used as a base of this purpose. |
| To prepare improved curriculum of AETI's for 1 subject-matter. To prepare the curriculum of technical seminar in each subject-matter. | 1) To study real conditions of teaching about each subject-matter at AETI's. 2) To prepare details of experiment and practice for AETI's instructors. 3) To prepare curriculum of technical seminar for TAO's and TEO's | 1) Further improvement in the curriculum already prepared. 2) To start technical seminars for AETI's instructors at CERDI. 3) To start technical seminars for TAO's(TEO's) 4) To start seminars or workshops for higher grade officials. 5) To start followup services. | 1) To make guide line of curriculum stressing experiment and farm practice. 2) Continue. 3) & 4) Continue 5) To follow up AETI's instructors and TAO's, TEO's who attended technical seminars at CERDI. | 1) Continue 2) Continue 3) Continue | 1) Continue 2) Continue 3) Continue 4) Continue 5) Continue | 1) Continue 2) Continue 3) Continue 4) Continue Evaluate the trainings already conducted and make up programmes for future. | |
| start preparation start preparation continue to start draft making every subjectmatter. | 1) Continue 2) Continue 3) Continue 4) Continue | 1) To start print at CERDI printing press. 2) Continue 3) Draft making and start printing. 4) Draft making, continue and printing. | 1) Continue 2) Continue 3) Start to compile in every subjectmatter. 4) Draft making and revising the draft. | 1) Continue 2) Continue 3) To make systematize 4) Drafts of every subject matter are accumulated. | 1) Continue 2) Continue 3) To amend and revise the standard technique 4) Compiling the various drafts already prepared. | 1) Continue 2) Continue 3) Printing into book 4) Printing into book | Every printing material will be published after discussion and decision by the 'Information Subcommittee'. |

参 考 資 料 Ⅲ

バングラデシュ

CERDI 技術協力 5 年計画

1 9 7 6

バングラデシュ
CERDI 技術協力 5 年計画 (試案)

目 次

| | |
|--|-----|
| I. ま え が き | 98 |
| II. 拠 点 づ く り (協 力 作 戦) | 98 |
| III. 研 究 資 源 集 収 事 業 | 100 |
| IV. 普 及 素 材 開 発 事 業 | 100 |
| V. 農 機 具 普 及 素 材 開 発 | 103 |
| VI. 普 及 方 法、普 及 教 具 教 材 の 開 発 | 104 |
| VII. 圃 場 運 営 計 画 | 105 |
| VIII. 研 修 指 導 事 業 | 107 |
| IX. 情 報 活 動 計 画 | 108 |
| X. 実 験 村 の 設 定 と 普 及 実 験 | 109 |
| XI. 長 期 専 門 家 お よ び 短 期 専 門 家 の 要 請 | 117 |
| XII. 現 地 ス タ ッ プ 等 の 日 本 へ の 派 遣 研 修 計 画 | 119 |
| XIII. CERDI 業 務 5 年 計 画 表 | 121 |

I. ま え が き

CERDIはバングラデシュにおける農業の研究と普及とのギャップ、言葉を変えれば、農業の研究と農民の農業とのギャップをうめる橋わたしをするために作られようとしている。しかし、こうした施設は未だどこの国にもその例を見ないものである。先進諸国では、基礎研究で得た成果を実用化して、農民に渡すための試験を何段階にも行うことによって、普及のための技術素材を作りだしている。その素材を現場の普及員に伝える機能は専門技術員 (Subjectmatter Specialist) が果している。

日本では実用化試験のため47の都道府県にそれぞれ農業試験場が設けられ、専門技術員の数は800名近くに達する。

バ国には従来実用化試験の施設は皆無であり、専門技術員の制度も出来ていない。この2つの機能をもつものとして今回CERDIが日本の協力で新設されることになった。

ところがCERDI一つで研究と普及、すなわち研究のレベルと農民のレベルとの大ギャップを直ちに埋めつくすことは思いも及ばないことである。しかしバングラデシュの現段階では、食糧増産の至上命令を背景として、それは止むをえざる緊急措置、あるいはギャップをうめる最初の試みであると考えてよい。

したがって、CERDIがいま差当って行うことを予定している事業内容が永く固定して継続されるものとは思われない。CERDIを突破口として、研究と普及のギャップを埋める有力な第2段、第3段の措置が将来とられることを希望したい。

私たち日本の協力はその意味で、バングラデシュの普及事業に活を入れる応急的措置を担当するものであり、それ自身完全なものでもなく、万能なものでありえないことを自覚しながら差当っての5カ年計画、全力をつくしてみたいと思う。

(注) 普及素材 (Extension Resource) というばあい2つの意味が考えられる。一つは普及のための技術的素材であり、いま一つは普及の方法的素材である。CERDIではこの兩者について開発したいが、技術的素材の開発に主力を注ぐべきことは言うまでもない。

II. 拠点づくり (協力作戦)

CERDIの新設はあくまで、バングラデシュにおける農業の研究と普及の橋わたしをする中央拠点 (Central Base) を作ることである。しかもそれは国の中央段階における機能を果すことになっている。末端段階、すなわち普及員の養成、研修等を行っているAETI (Agricultural Extension Training Institute)、および現場の普及活動の強化拡充については、資金面で世銀が技術面でUNDP (FAO) が協力する。

わがCERDIの機能を要約していえば、まず研究機関で開発された研究成果を集め、それらを組立て直して、普及に移すための技術素材を作り出すことが主たる事業である。その

ために実用化試験を必要とする。また普及方法や普及のための教具教材の開発をも行う。

合わせて、普及員の養成研修にたずさわる A E T I の全職員、さらに技術行政官である T A O (Thana (郡) Agriculture Officer) の研修をも行うことが予定されている。同時に A E T I の標準カリキュラムを作ること、すなわち普及員の養成教育の内容・方法について指導することも事業の一部となっている。

また、C E R D I 施設には印刷所を設置することが一つの特色であり、ここで普及員向けの簡単なリーフレット類については、C E R D I で原稿だけを作成する。

以上が C E R D I の主たる機能であるが、中央政府直属の機関であり、普及事業の末端まで直接足をふみ入れないという性格をもっている。したがって、ややもすれば末端から浮きあがるおそれなしとしない。

また、バ国の普及事業については、目下末端普及員の数を増やすこと、そのための新規養成に全力を注ぐという構えであり、その面で世銀と F A O とが協力しようとしている。ところがバ国においては普及組織の体系全体に欠陥があるばかりか、普及活動のパターンも未だ整っていない。

したがって、国の中央機関としては、せめて普及活動の方法についての骨組みだけでも日本の協力で整える必要があるし、それは C E R D I の一つの機能として挙げられているところである。

以上の2点、すなわち、① C E R D I が常に農村の末端をふまえながら活動すること、② 農村の現場を実験の場として普及の方法についての素材を作成して普及員および、A E T I に提供する、ことが必要と考えられる。ことに②については、農村の現場以外に実験の場はありえない。

そうした理由で、C E R D I の直属において実験村というサブの拠点を C E R D I の近くに持つことにしたい。その拠点は、できれば条件の異なる2カ村を選びたい。(なお、コミラのアカデミーにおいても Kotursi Thana を実験郡としたことはよく知られている。)

けっきょく、C E R D I への協力作戦としては、C E R D I の施設拠点と実験村という副拠点の2つで仕事を固くまとめたい、というのが我々の意見である。もちろん、われわれの協力としては、絶えずバ国の普及事業全体を踏まえながらの拠点づくりと、影響を全国に及ぼすための拠点活動であることは言うまでもない。

バ国の普及事業における「面」は、まさにこの国の洪水のごとく泥沼であり、不用意に面へとび込むと泥沼作戦となって限られた人員と期間の協力ではまとまりがつかなくなる。

したがって、全体の面をたえず意識しながら点活動を進めたい、というのが我々の見解である。

上述の考えから、協力作戦として次の2拠点を構えたい。

1 CERDI Base (Joidebpur) 技術拠点
 (これに80%のエネルギーを注ぎこみたい)

| | | | |
|-------------|---------------------|------------------------|----|
| (Energy 配分) | | 建物施設 | 圃場 |
| 80% | 50% | 1) 普及素材の開発 ○ | |
| | | 実用化試験 ○ | |
| | | 展 示 ○ | |
| | 20% | 2) 訓練 (AETI教師) ○ | ○ |
| | | T A O | |
| 10% | 3) 情報活動 | | |
| | 技術素材の編集, 印刷 ○ | | |

20% 2. 実験村 現地拠点

条件の異なる2カ村を選定する。

主として普及方法確立のための実験と農家における技術のトライアルを行う。

(これに20%のエネルギーを使いたい)

以上にCERDI活動のEnergy配分を考えたが、CERDIの施設拠点における活動も、実験村におけるものも、すべての目標は普及素材開発の1本にしぼられるものであり、それ以外のものにはできるだけ手をつけたいことを原則としたい。

III. 研究資源収集事業

普及素材の開発に当って、その開発の元になるものは、これまで研究され、蓄積された研究資源である。こうした研究資源は国内に存在するものもあるし、海外から得られるものもある。本事業を成功させるためには当国の研究機関であるARI (Agricultural Research Institute)、BRI (Bangladesh Rice Research Institute)をはじめ、この国に存在する研究、教育、および各種事業機関、この国に協力した、また協力しつつある各国や国際機関から研究成果や研究資料を集めることがまず第一の着手であろう。それらの研究成果をよく理解すること、その資料はよく整理し、分析することが必要である。この事業は最初から取りかかるべき事業で、しかも事業量も大きく、かつ永く続けるべき性質の事業である。

IV. 普及素材(技術的普及素材)開発事業

CERDIの事業全体が普及素材の開発であり、普及素材の開発がすべての活動のcoreとなるべきものである。ところが、普及素材の開発には2つの道程が考えられる。1つは研究成果や研究資料を元とし、それを農民が現場で使えるような形に加工し、構成し直すことである。いま1つは、現に農民が採用している技術を集め、それに改良を加えて、再び農民に返すことである。

1) 普及課題の設定

普及素材はもともと農民の要望 (need) するものと、社会 (または国家) が要請するものがある。それらを整理、検討することによって普及課題が判明してくる。この国の農民の need には、農民自身にはっきり解っている顕在的 need と、農民の意識にのぼっていない潜在的 need とがある。また食糧の自給度を高めるといった社会や国の強い要請もある。それらの諸要請を勘案して、緊急に解決を要する普及課題を各部門別に整理し、緩急の序列をつけて決定することがまず第1の段階である。

2) 実用化試験計画の作成

それぞれの普及課題の性格によって、課題解決の方法が異なるであろうことは言うまでもない。あるものは圃場試験を必要とし、あるものは試験研究機関の協力を要請しなければならないものもあろう。何れにしても第2段階として、普及課題解決のための詳細な計画を作らねばならない。そのばあい、絶対に必要なものは集められた研究資源である。これまで、その課題についてどこまで研究が進んでいるか、外国ではその問題はどのようにして解決しているかは、すでに集められ、整理された研究資料に頼る他はない。それらの資料をさらに分析し、当面する普及課題解決のための計画書を作らねばならない。あるものはそれによって、まず仮説をたて、その仮説にしたがって設計書を作る必要がある。もちろん、こうした設計を作るに当って、現実のバングラデシュの農民がどんな技術を採用しているか、その技術のどこに欠陥があるか等について十分検討することは、1) におけると同様に、計画過程においても重要である。

3) 実用化試験の実施

2) において作成された計画に従って、その通りに圃場において正確に実施すればよい。実施の経過や結果は設計通りに記録する必要がある。

バ国における普及素材の開発は長年月をかけて行うことを許されないので、最短距離で結論が得られることが望ましい。したがって C E R D I の圃場での実用化試験を補足確認するため、同時に実験村における農家の圃場において実施したい。

また、幸い A E T I が各地にあり、各 A E T I に日本の青年協力隊が実習を担当しているので、A E T I の圃場で試作してもらうことも、異なる地方、条件における技術確認の助けとなろう。A E T I の教師の技術セミナーが始れば、彼等の協力を得ることも可能となろう。

4) 普及素材としての総合評価

3) において実施した実用化試験の結果をとりまとめ、普及員に渡すべき普及素材として適当なりや否や、について総合的に評価する。適当なりと認められたものは直ちに普及員用テキスト、農民用リーフレットにまとめて印刷配布するということになる。

ある技術については2回、3回と繰り返しを必要としよう。またある技術については大筋はよいとしても、部分的に再検討を要し、実用化試験を、さらに設計を変えて続ける必