

ヴェトナム社会主義共和国 ハノイ農業大学強化計画 運営指導調査団報告書

平成 11 年 9 月

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国際協力事業団

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序 文

国際協力事業団は、ヴェトナム社会主義共和国（以下、ヴェトナムと略す）関係機関との討議議事録（R/D）等に基づき、ハノイ農業大学強化計画に関する技術協力を平成10年9月1日から開始し、今般、平成11年8月22日～28日まで、九州大学農学部長 坂井克己氏を団長とする運営指導調査団を現地に派遣しました。

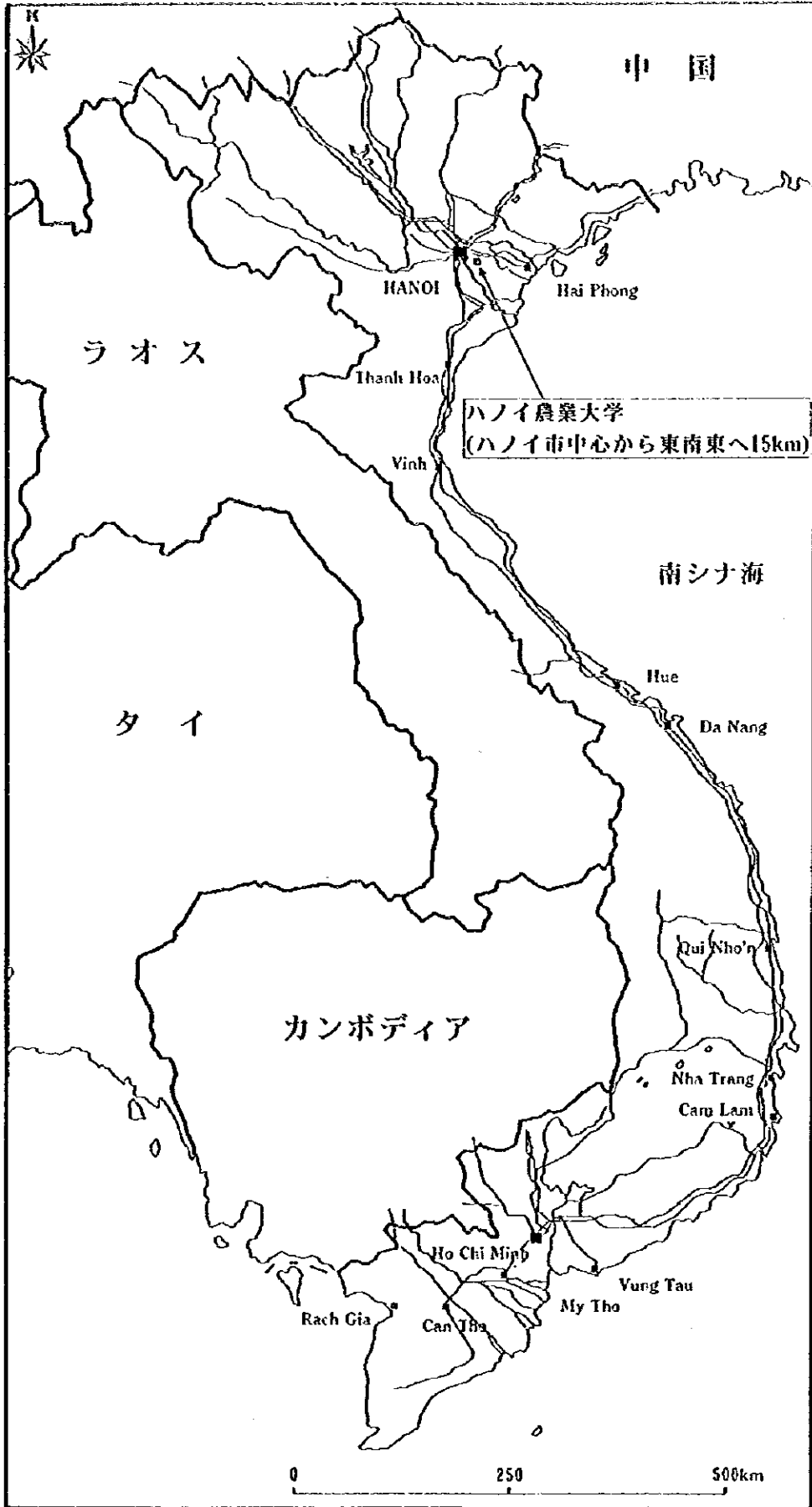
同調査団は、本プロジェクトの本格的展開にあたり、詳細年次計画を検討し円滑な運営を行うため、ヴェトナム政府関係者と協議及び現地調査を行いました。

本報告書は、同調査団による協議結果等を取りまとめたものであり、今後、本プロジェクトの運営にあたり活用されることを願うものです。

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

平成11年9月

国際協力事業団
農業開発協力部
部長 鮫島 信行



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1. 運営指導調査団の派遣

1-1 調査団派遣の経緯と目的

ベトナムにおける農業は、GDPの約28%、就業人口の約73%を占める基幹産業であり、農業生産の動向は国内経済を左右する重要な要素となっている。ベトナム政府は1986年よりドイモイ（刷新）政策を実施し、めざましい経済発展を遂げている。農業分野においても、市場経済化が浸透したことにより、市場経済にのっとった農業政策の立案・運営、近代農業に必要な技術の研究・開発、更に、農家の指導にあたる人材の育成が急務となっている。このため、政府は社会経済開発計画（1996～2000）において、大学教育の質を向上させることを重点政策と位置づけている。ハノイ農業大学（HAU）は、1956年の創立以来、農業農村開発省や国立農業試験研究機関等に多くの卒業生を送り出し、同国における農業高等教育の中核となってきた。政府は、HAUの教育・研究の強化を計画し、教育・研究及び組織運営の近代的な知識・技術の移転と、実験教材の充実を目的として、我が国にプロジェクト方式技術協力を要請してきた。

1998年9月1日の協力開始以来、4名の長期専門家（リーダー、業務調整、土地・水資源管理学、経済・農村開発学）による協力活動が行われている。初年度は、主にプロジェクト実施のための体制づくりとして、専門家執務環境の整備、プロジェクトオフィス・中央実験棟の建設、又、ベトナム側との協議推進体制の整備として「全体カウンターパート（C/P）会議」や、各種問題に応じたワーキンググループを設置する、といった活動に重点を置いた結果、プロジェクトを本格的に推進していく段階へ到達したといえ、次の項目を目的に運営指導調査団が派遣された。

- (1) 実施協議調査時に策定した討議議事録（Record of Discussions : R/D）、暫定実施計画（Tentative Schedule of Implementation : T S I）に基づき、詳細活動計画及び運営計画について、ベトナム側関係機関及び専門家チームとの協議を行う。
- (2) プロジェクト開始後、現在までの活動の進捗状況を調査し、問題点については関係者と協議し可能な限り解決策を提示する。
- (3) 調査の結果をミニッツに取りまとめる。

1-2 調査団の構成

氏名	分野	所属
坂井 克己	総括	九州大学 農学部長
村山 盛一	農学	琉球大学 農学部長
井村 隆	大学行政	文部省 学術国際局 国際企画課 庶務係長
森口加奈子	技術協力	JICA 農業開発協力部 農業技術協力課

1-3 調査日程

1999年8月22日(日)～8月28日(土)：7日間

日順	月日 (曜)	行程	調査内容
1	8/22 (日)	成田→香港(井村、森口) 那覇→福岡(村山)	移動 福岡待機：坂井、村山(事故による香港空港の混乱のため)
2	8/23 (月)	香港→ハノイ(井村、森口) 福岡→(坂井、村山)	移動
3	8/24 (火)	香港→ハノイ(坂井、村山)	9:30 HAUとの全体協議(第1回)(井村、森口) 13:30 同上 19:30 HAU農大主催夕食会
4	8/25 (水)		9:00 教育訓練省国際協力局長表敬(以下団員全員) 10:00 HAU農大経済・農村開発学部協議 13:30 HAU農大農学部協議 15:30 HAU農大土地・水資源管理学部協議
5	8/26 (木)		9:30 合同調整委員会(ミニッツ最終案協議) 13:30 大学内施設視察(中央実験棟、気象観測装置、図書資料室等) 15:00 第2回全体協議
6	8/27 (金)		10:00 ミニッツ署名・交換 14:00 JICA事務所報告 19:00 調査団主催夕食会
7	8/28 (土)	ハノイ→成田(井村、森口) →福岡(坂井、村山) →那覇(村山)	帰路

2. 要約

本調査団は、1999年8月22日～28日までの日程でヴィエトナムを訪問し、「ハノイ農業大学強化計画」プロジェクトの本格的展開に向け、運営指導調査を行った。その結果、ヴィエトナム側との合意事項をミニッツ（付属資料1.）に取りまとめ、署名を取り交わした。

本運営指導調査の概要は、次のとおりである。

(1) プロジェクト進捗状況

C/P及び専門家からの聞き取り調査を基に、プロジェクト開始後約1年間の活動の進捗状況を把握した。

プロジェクト活動は計画に沿っておおむね順調に進められている。又、各種問題に応じたワーキンググループの設置により、専門家とC/P間及びC/P間の意思疎通を図る態勢が取られていることを確認した。

「農学」の長期専門家は1999年度中に派遣予定であるが、これまで必要に応じて短期専門家を派遣し対応してきたため、活動に特段支障は生じていなかった。

先方からは、1998年度供与機材がまだ到着していないため、早急な対応を求める要請があった。これに対し調査団は、本邦における機材調達には時間がかかることについて先方の理解を求めるとともに、JICAとしても機材供与にかかる時間の短縮の必要性を認識していることから、早期の供与ができるよう、引き続き努力することを説明した。

(2) 詳細暫定実施計画、作業計画の作成等

HAU側との全体協議及び学部別協議を基に、詳細暫定実施計画、作業計画（Plan of Operation: PO）の作成及びプロジェクト・デザイン・マトリックス（Project Design Matrix: PDM）の改訂を行った。又、プロジェクト活動のモニタリング及び評価の今後の計画について説明を行い、先方の理解を得た。

(3) 中央実験棟の利用について

農学部及び土地・水資源管理学部のスタッフ（教員）の利用を目的とした中央実験棟の建設が進められた。既に実験室についてはHAU側による改装が終了しており、日本からの機材の到着を待っている状況であった。

この中央実験棟の基本的概念についてHAU側に確認したところ、前述の2学部による共同利用施設と位置づけており、2学部の代表者及びプロジェクト専門家からなる運営委員会によって運営される計画であった。又、利用対象者は2学部の教員及び学生が主であるが、他学部の利用も可能にすることで、大学全体の研究能力の向上へ寄与する

ことも期待していた。

調査団からは、中央実験棟への機材供与はあくまでも2学部が必要とする機材のみが対象であり、他学部も対象とした機材供与とはならないことを説明し、理解を得た。

3. プロジェクト活動の進捗状況

3-1 投入実績

(1) 日本側投入

1) 長期専門家

チームリーダー、業務調整、土地・水資源管理学、経済・農村開発学の各分野について計4名の長期専門家を派遣済みであり、1999年度中に農学の長期専門家を派遣する予定である。

2) 短期専門家

1998年度中に、3名の農学分野（栽培学、植物病理、農業気象）が、1999年度の調査時点までに、農学1名（昆虫学）、土地・水資源管理学1名（土壌水資源管理）、経済・農村開発学2名（農産物流通、農村開発）の4名、計7名が派遣された。

3) C/Pの日本研修

1998年度中に、「大学行政」、「農業経済」及び「農学（植物病理学）」の3名のC/Pを日本での研修に受入れ、1999年度には、農学2名（植物育種、農業気象）、経済・農村開発学1名（農業経済）、土地・水資源管理学1名（土壌管理）及び大学行政の計4名を受入れる予定である。

4) 機材供与

各学部の実験等のための機材及び車輛等、プロジェクト活動に必要な機材の調達は順次行っているが、機材の現地到着に時間を要している。

(2) ヴィエトナム側投入

1) C/P及び事務職員の配置

各分野とも、計画どおり適正な人数かつ適任なC/Pが配置されており、活動は円滑に行われている。

2) 土地、建物、その他必要な施設の提供

ヴィエトナム側からは、プロジェクト開始後改装した専門家執務室を提供されているほか、供与機材が設置される中央実験棟等、必要な施設が提供されている。

3) プロジェクト運営費用負担

ヴィエトナムの経済状況により、HAUも厳しい予算的制約の中で運営されているが、本プロジェクトに対する大学側の期待は大きく、管轄省庁である教育訓練省に対し、積極的に本プロジェクト関連の予算請求を行っている。

3-2 プロジェクト活動の進捗状況

(1) 概観

プロジェクトは1998年9月1日に開始され、これまでにチームリーダー、業務調整、土地・水資源管理学、経済・農村開発学の4名の長期専門家が着任し、精力的に活動を行っている。1999年度中に派遣予定の農学分野の長期専門家の着任により、日本人専門家チームの態勢が整うことになる。

短期専門家はプロジェクト開始から調査時までには7名派遣され、それぞれC/P等に積極的な研究指導を行ってきた。ただし、機材供与の遅れのため短期専門家の派遣時期に実験装置等が未到着で、機器使用・管理等の技術指導が不可能となるケースもあった。専門家派遣の効果を十二分に発揮できる機材供与時期を検討する必要があると感じられた。

機材供与の遅延をカバーする対応策の1つとして、HAU-JICA合同ワークショップが5回開催された。これには毎回40名以上の出席者があり、ベトナム側からの研究報告件数は総計31編に達した。HAU以外からの出席者も漸増傾向にあり、プロジェクトの存在意義の認識、研究意欲の増進、研究の方向の相互認識等にとって有意義であったものと思われる。

HAUの教官、特にRectorを中心とする首脳陣は、本プロジェクトの事業に大変熱心であると見受けられた。しかし、大学の学部内でも一般教官との情報連絡は必ずしも円滑でないようであった。これにはコピー機の普及等、ハード面の問題も原因と思われる。一方ソフト面の対策として、全体C/P会議をはじめ、課題別各種ワーキンググループを組織化して、協議・推進体制の確立を図っていることは、極めて適切であると感じられた。

HAU側の熱意はプロジェクトオフィス等の整備にも表れており、ベトナムにしてはかなり快適な執務環境が実現されていた。気象観測センターには機材が設置され順調にデータの採取が始まっており、今後のデータ蓄積と将来の活用が楽しみである。土地・水資源管理学部と農学部の教員が利用する中央実験棟の改装工事も完了し、機材の到着を待つばかりとなっていたが、実験の内容次第では給・排水の配管工事が必要と感じられた。一方、比較的廉価な実験機器を多数備えた学生実験室の設置によって、当該学部の自然科学系基礎実験に関する教育の改善強化を図る必要があるだろう。又、このように基本的な機器取り扱い等を教育しておくことが、前記の中央実験棟のような研究用実験施設を有効活用するためにも必要となるであろう。

C/P研修として1998年度に3名を日本に受入れ、コンソーシアム大学（九州大学を中心として中国・九州・沖縄地方の大学で構成）の協力の下に短期研修を行った。長期

(大学院) 留学生についてはプロジェクト現地で候補者選定の合理的ルールを定めている。コンソーシアム側としては、各大学で大学推薦等による奨学金枠の確保に努める必要がある。JICA枠への期待が大きいことは言うまでもない。

以上のように、協議・実施体制を整備したり、HAUとの合同ワークショップを開催して、そのプロシーディングスを出版するなど、活発な交流を通じて順調に活動が進められている。しかし、1998年度の供与機材については、現地調達ジェネレーター、パソコン、図書等は既に納品されているものの、本邦からのものは気象観測装置を除き未到着である。HAU側には機材が供与されればその機材を利用した先進的研究推進経費をベトナム国政府当局に申請する意図もあり、機材到着の遅れが活動推進の阻害要因とならないよう一層の配慮が望まれる。

(2) 研究活動について

プロジェクトの対象3学部それぞれにおいて、実施協議調査時までには絞り込まれてきた重点研究課題については、今回の詳細暫定実施計画策定によって、より現実に即した実施可能なテーマの設定を行ったが、これまでのプロジェクト活動で専門家とC/Pによる調査研究活動が既に開始されている。今後検討すべきテーマは、作物栽培分野のテーマであると思われる。

ベトナムにおける作物収量と品質の向上を図るには、栽培分野の研究と研究者の養成が必要である。花、野菜類、ジャガイモのような現金収入作物については、ウィルスフリー苗の生産を目的とした組織培養技術についての関心が大きい。しかし、同国の主食であるイネの栽培及び育種に関する研究分野は、詳細暫定実施計画に含まれておらず、今後重点的に研究を進める必要がある。

イネについては、国際イネ研究所(IRRI)から導入した品種について、ベトナムで適応性検定試験を実施し、普及しているとのことであった。しかし、ベトナムとフィリピンでは生態的条件が大きく異なっており、当然適した品種も異なるものと考えられるため、ベトナム独自で品種改良を行って多収性をめざすべきだと思われる。そのためには、それにつながる基礎的研究分野の充実も必要である。同国のように品種改良が十分進んでいない地域では、ハイブリッドライスによる多収効果も大きく、この分野の研究も重要である。今後、これら分野の研究の発展、研究者の養成及び必要な機具機材の供与についても考慮する必要があると思われる。

(3) 教育分野の活動について

プロジェクトは、教育分野に関して協力開始時点からHAUの現状把握に努めてきた。同国では、大学で使う教科書の執筆は、通常、教授への昇格人事と絡んで行われることとされ、執筆する内容も専門分野の如何を問わず決められるようである。したがって、優秀な若手教官（研究者）が容易に教科書を執筆できる環境ではない。

教育内容を抜本的に改訂することは非常に困難であり、プロジェクトによる供与機材等を利用して教育・研究環境の整備を図っているところ（例えば、図書館の蔵書の充実など）である。又、実験を教育カリキュラムに導入することによって、カリキュラムの改善を図ることを計画しているが、現状としては、機材の到着の遅れが教育面でのプロジェクト活動の進捗を阻害していると言える。現在のところ、どちらかと言えば「研究の質の向上」に焦点をあてて教官（研究者）の研究能力の向上を図るべく、長・短期専門家により指導・助言が行われているが、その成果が教育に還元され、教育カリキュラムの改善を促すことによって、「教育の質の向上」が達成されるものと考えている。

教育に関しては、プロジェクト活動期間の5年間で目に見える形で成果を出し、評価することは非常に難しい。今回、チームリーダーにより作成された総合達成度指数において、教育の質の向上には100点満点中30点が配分され、内容としてカリキュラムの改訂数、実験履修者の数、学部図書室の学生利用書籍数などから教育環境の充実度を通じて、教育の質の向上を計ることとしている。調査団としては、この評価方法を了承した。

(4) 機材について

中央図書館、経済学部図書館における学術図書、参考書、資料類は極めて少ない。しかも旧ソ連を主とした東欧諸国の図書が多く、英語の文献が少なかった。供与機材として現地調達で図書を揃え始めてはいるものの、一層の充実を図ることが肝要である。

最近の分析機器類は湿度の高い部屋に置くと壊れやすい。したがって、精密機器類は空調設備の整った部屋に設置する必要がある。又、これらの機器類を操作できる研究者を養成し、有効利用に努める必要がある。

中央実験棟については、既にHAU独自の予算で改装がなされており、日本からの機材の到着を待っている状況であったが、導入する機材の種類によっては、精密機器類を導入した場合にその保守との関係で、間仕切り、実験台、空調設備等をどうするか等、更に改装が必要であるように思われた。

気象観測装置は、既に設置されて運転を開始していた。この装置は設置場所近傍の気象データを得るとともに、作物栽培における気象管理にも効果を発揮する装置であり、今後、気象研究や作物栽培研究と関連したテーマを設定し、有効活用を図る必要がある。

(5) その他

C/P研修は、既に九州大学をはじめとするコンソーシアム大学での受入れが始まっているが、JICA枠の文部省国費留学生には新規プロジェクトからの推薦が困難であることから、前記コンソーシアム大学から大学推薦による文部省国費留学生での受入れを検討していた。今回、調査団は、大学推薦による留学については、文部省というより各大学での推薦順位の如何によるものである旨説明を行った。又、JICA長期研修員制度の派遣期間が延長されたことにより、学位の取得も可能になったことから、これを利用することも勧めた。JICA事務所への報告の際にこの旨を伝えたところ、事務所からは、本制度は今年度が初年度であり、推薦枠に若干余裕があるとのことであったため、早速推薦手続きをとることとなった。

大学行政（経営）については、現在HAU副学長がこの分野でC/P研修を受入れているところであるが、HAU側から「Education Management」についても会議の席で発言があった。調査団からは、日本でも大学改革が現在進行中であり、その指針として1998年10月に出た、文部省大学審議会答申「21世紀の大学像と今後の改革方策について」の要旨英訳版をチームリーダーに手交したことを伝え、適宜活用してほしいと説明した。

このほかに、HAU側から、教官／研究者の英語能力向上のためのプランが必要であるとの要請があったことから、プロジェクト側でLL機材の導入等を検討していたが、実際は、他国から講師を招き研修コースを運営するための経費を要求するものであった。予算の効率的な執行という観点に立って、他国のHAUへの支援の内容についても把握するよう努め、他国の支援に要する経費を日本が負担するというものがないようにすべきである。

3-3 詳細暫定実施計画の策定とPDMの見直し

実施協議調査にて策定された暫定実施計画に基づき、専門家、C/Pと協議を行い、更に詳細な計画へと活動内容を具体化した（表-1参照）。又、長期調査の際にワークショップを行って作成したPDMについても、詳細暫定実施計画に沿って見直し、指標等をより現実に即したものとした（表-2参照）。

3-4 プロジェクトモニタリング計画の策定

プロジェクトモニタリング・評価について、プロジェクト終了時までの今後の計画、評価基準等を詳細暫定実施計画に沿って作成した（付属資料1、ミニッツ ANNEX II参照）。

表-1 詳細暫定実施計画

プロジェクト活動

①ハノイ農業大学3学部（農学部、土地・水資源管理学部、経済・農村開発学部）の研究スタッフによって行われる研究、実験のための調査、計画及びその実施に関する技術的支援

Categories	year					Remarks
	1 st	2 nd	3 rd	4 th	5 th	
1-1 農学部						
1-1-1 作物育種分野						
a. 紅河流域の米、大豆、サツマイモ育種の病害抵抗性、品質、高収量性の改善に関する研究						
b. 中山間地における作付体系の開発に関する研究						
1-1-2 作物保護分野						
a. 中山間地における総合害虫防除のための天敵利用に関する研究						
b. 熱帯作物・果樹の簡易病徴診断に関する研究						
1-1-3 バイオテクノロジー分野						
a. 米、大豆、イモ類の組織培養技術とその適用に関する研究						
1-2 土地・水資源管理学部						
1-2-1 土壌及び環境保全分野						
a. 環境保全のための土地利用及び土壌・水の汚染防止 - ハノイ及びその周辺での水質汚濁 - 農地の土壌汚染						
b. 脊薄土壌・硫酸性土壌の物理的科学的特性と窒素及び硫黄の循環						
1-2-2 植物栄養分野						
a. 問題のある土壌において作物生産を制限している条件の発見とその改善						
b. 作物生産性向上と環境保全のための合理的化学肥料の使用						

Categories	year					Remarks
	1 st	2 nd	3 rd	4 th	5 th	
1-2-3 水管理分野						
a. 紅河の上流地域における土壌保全と土壌浸食防止						
1-3 経済・農村開発学部						
1-3-1 農産物流通分野						
a. 紅河デルタにおける効率的な農産物流通システムの確立に関する研究						
- 青果物						
- 食肉						
- 米						
1-3-2 農村開発分野						
a. 農業構造問題と農地政策に関する研究						
b. 農村地域の経済的地位向上に関する研究						
1-3-3 農業経営分野						
a. 農業及び農村計画に関する研究						
b. 持続的ファーミングシステムの形成に関する研究						
- 紅河デルタ土壌脊薄地域における合理的ファーミングシステムの確立に関する研究						
c. 紅河デルタにおける稲作農家の収益性要因分析						
1-4 ワークショップ、セミナー、トレーニングセミナーの開催						
1-5 研究成果の編集と発行						
1-5-1 ワークショップ、セミナー、トレーニングセミナーの報告書						
1-5-2 ジャーナル						

② 3 学部の教育に携わるスタッフに対する技術的指導と助言

Categories	year					Remarks
	1 st	2 nd	3 rd	4 th	5 th	
2-1 教材に関する技術的指導と助言						
2-1-1 教材に関するモニタリングと実態調査						
2-1-2 上記のモニタリング、調査で抽出された問題点を改善するための検討会						
2-2 カリキュラム、特に実験に関する技術的指導、助言						
2-2-1 カリキュラムに関するモニタリングと実態調査						
2-2-2 上記のモニタリング、調査で抽出された問題点を改善するための検討会						
2-2-3 特に実験に関連する教育カリキュラムの改善						

③ 機材及びソフトウェアの利用とメンテナンスに関する技術的指導と助言

Categories	year					Remarks
	1 st	2 nd	3 rd	4 th	5 th	
3-1 機材及びソフトウェアの操作、運用システムに関する技術的指導と助言						
3-1-1 現行設備の基礎調査						
3-1-2 設備の設置計画の作成						
3-1-3 機材に関するワーキンググループの確立						
3-1-4 供与機材管理台帳のデータベース化						
3-1-5 供与機材の有効利用の促進						
3-2 メンテナンスシステムに関する技術的指導と助言						
3-2-1 メンテナンスシステムの改良						

表-2 P D M

プロジェクトの要約	指標	指標データ入手手段	外部条件
<p>スーパージョナル</p> <p>農業の近代化/産業化に貢献する質の高い人材を養成する</p>			<p>1 ユニエトナム政府の農業政策に大きな変更がない</p>
<p>上位目標</p> <p>ハノイ農業大学全学部の教育・研究の質が向上する</p>	<p>総合達成度指数 (成果指標の加重得点方式により算出)</p>	<p>教育訓練課 (HAU) 科学研究課 (HAU)</p>	<p>1 ユニエトナム政府 (教育訓練省・計画投資省・農業農村開発省) の支援が継続される</p>
<p>プロジェクト目標</p> <p>ハノイ農業大学3学部の教育・研究の質が向上する</p>	<p>総合達成度指数 (成果指標の加重得点方式により算出)</p>	<p>教育訓練課 (HAU) 科学研究課 (HAU)</p>	<p>1 プロジェクトの成果が他学部に波及する</p> <p>2 ユニエトナム政府 (教育訓練省・計画投資省・農業農村開発省) の支援が継続される</p>
<p>成果</p> <p>1 研究の質が向上する</p> <p>2 教育の質が向上する</p> <p>3 教育/研究のための機材が整備/拡充される</p>	<p>1-1 各学部の行う研究分野に係る協議実施回数</p> <p>1-2 各学部の行う研究分野に係る研究報告の件数</p> <p>1-3 開催されたワークショップ/セミナー/トレーニングセミナーの回数</p> <p>1-4 開催されたワークショップ/セミナー/トレーニングセミナーの参加者の数</p> <p>1-5 編集/発行されたワークショップ/セミナー/トレーニングセミナーの報告書の数</p> <p>1-6 編集/発行された研究成果/ジャーナルの数</p> <p>1-7 取得された修士/博士号の数</p> <p>1-8 国内/海外の会議での研究報告数</p> <p>1-9 国内/海外で出版された研究論文の数</p> <p>2-1 教材の改善件数</p> <p>2-2 実験に関連する教育カリキュラムの改善件数</p> <p>2-3 実験以外の教育カリキュラムの改善件数</p> <p>2-4 学生実験を受講した学生の延べ人数</p> <p>2-5 レポートの成績でAを取得した学生の比率</p> <p>3-1 教育/研究者1人当たりの機材の数</p> <p>3-2 機材に因するワーキンググループの会の頻度</p> <p>3-3 設置された機材の利用頻度</p> <p>3-4 機材の利用/維持管理の訓練を受けた教育/研究者の数</p> <p>3-5 修理/部品交換された機材の種類と数</p>	<p>1-1~1-2 各学部の記録&プロジェクトチームの記録</p> <p>1-3~1-6 プロジェクトチームの記録</p> <p>1-7 教育訓練課 (HAU)</p> <p>1-8&1-9 科学研究課&国際研究課 (HAU)</p> <p>2-1~2-5 教育訓練課 (HAU)</p> <p>3-1 施設設備課 (HAU)</p> <p>3-2 各学部の記録&プロジェクトチームの記録</p> <p>3-3&3-4 各学部の記録</p> <p>3-5 各学部の記録&プロジェクトチームの記録</p>	<p>1 調査値のサービスが向上する</p> <p>2 ユニエトナム政府 (教育訓練省・計画投資省・農業農村開発省) の支援が継続される</p>

プロジェクトの要約	指標	指針データ入手手段	外部条件
<p>活動</p> <p>1-1 農学部が行う研究に対し助言する</p> <p>1-1-1 作物産種分野に関する研究を促進する</p> <p>1-1-2 作物保護分野に関する研究を促進する</p> <p>1-1-3 バイオテクノロジー分野に関する研究を促進する</p> <p>1-2 土地・水資源管理学部が行う研究に対し助言する</p> <p>1-2-1 土壌及び環境保全分野に関する研究を促進する</p> <p>1-2-2 植物栄養分野に関する研究を促進する</p> <p>1-2-3 水管理分野に関する研究を促進する</p> <p>1-3 経済・農村開発学部が行う研究に対し助言する</p> <p>1-3-1 農産物流通分野に関する研究を促進する</p> <p>1-3-2 農村開発分野に関する研究を促進する</p> <p>1-3-3 農業経営分野に関する研究を促進する</p> <p>1-4 各学部が行う研究に益するワークショップ、セミナー、トレーニングセミナーをHAUと共同で開催する</p> <p>1-5 各学部が行う研究活動に関する印刷部の編集と発行を実施する</p> <p>2-1 各学部の教材への技術的指導と助言を行う</p> <p>2-2 各学部の教育カリキュラム、特に実験に関連するカリキュラムへの技術的指導と助言を行う</p> <p>3-1 機材/ソフトウェアの操作、運用システムに関する技術的指導と助言を行う</p> <p>3-2 メンテナンスシステムに関する技術的指導と助言を行う</p>	<p>投入</p> <p>ウィエトナム側</p> <p>1 専門家(C/P)</p> <p>2 研究施設・部屋</p> <p>3 水道光熱関連整備</p> <p>4 管理・運営費</p>	<p>日本国側</p> <p>1 専門家の派遣</p> <p>2 ウィエトナムの研修員の受入れ</p> <p>3 機材供与</p> <p>4 ローカルコスト負担</p>	<p>1 HAUの教官/研究者の英語能力が高まる</p> <p>2 ウィエトナム政府(教育訓練省・計画投資省・農業農村開発省)の支援が継続される</p>
前提条件			
<p>1 中央実験棟が整備される</p> <p>2 経済・農村開発学部のセミナールームが整備される</p> <p>3 気象観測場が整備される</p> <p>4 機材の保管倉庫が用意される</p> <p>5 電気・水道が安定して供給される</p>			

4. 協力分野別の進捗状況と詳細活動項目

4-1 研究

供与機材の活用と長期・短期専門家の活動を結び付け、C/Pを対象とした教育研究能力の向上というプロジェクト目標を効果的に達成していくためには、実施協議の過程で絞り込まれてきた対象3学部それぞれにおける重点研究課題について、何らかの調査研究活動の推進が必要であるというプロジェクト関係者の認識の下に、1999年度第2四半期から各協力対象学部において、C/Pが日本人長期/短期専門家の指導の下、調査研究活動を推進した。その成果の1部は、HAUとプロジェクト両者による学術報告書として、既に出版された。各学部の研究成果は次のとおりである。

なお、各学部の活動進捗状況報告として、本調査中にプロジェクト側より資料の提出があったので、付属資料2.として添付する（その他、各学部において課題ごとに設置しているワーキンググループ及び、プロジェクトで作成した総合達成度指数による活動進捗状況についても同資料を参照のこと）。

4-1-1 農学分野

(1) 作物育種

農学部の試験場において数種のミニトマトの評価を行った。

(2) 作物保護

農学部の試験場において米、大豆、サツマイモ、トマトに係る病害虫の体系に関する調査及び、Nha ho、Ninh thuan両県における害虫実態調査を行った。

(3) 合同ワークショップの開催

「日本とヴェトナムにおける農学の進歩と成果」「日本とヴェトナムにおける作物害虫の総合防除のための生物的防除」をテーマに、日本・ヴェトナム双方の報告者による発表を行い、それぞれ40名ほどの参加者を得た。

4-1-2 土地・水資源管理分野

(1) 土壌・環境保全、ハノイ市内及び近郊での水質汚染

3度にわたって水質に関する基礎調査を行い、C/Pにより報告書が作成された。

(2) 農地の土壌汚染

紅河の上流地域にある製紙・肥料工場では、工場の排水路が整備されていないために、工場廃液が周辺の農地に流出し、比較的広い範囲にわたって農地の土壌汚染が発生している。その報告を含め、9つの研究報告がなされた。

4-1-3 経済・農村開発分野

(1) 農産物流通システム

ハノイ近郊の野菜栽培地域、ハノイ市内の卸売市場や青果・豚肉生産地域のフィールド調査を行うとともに、「紅河デルタ地域における野菜・果実の市場流通に関する研究」と題する合同研究を開始した。

(2) 農村開発

コーヒー生産地域及び稲作地域における農業の構造的問題や、ハノイ等における農村の伝統的産業に関するフィールド調査を行った。

(3) 農業経営

紅河デルタの土壌脊薄地域での、地力回復と経営の収益性向上のための合理的かつ持続的なファームリングシステムの構築に関するフィールド調査を開始した。

(4) 合同ワークショップの開催

「日本とヴェトナムにおける農産物市場」「日本とヴェトナムにおける農業協同組合政策」というテーマで、日本・ヴェトナム双方から発表者をたてたワークショップを行い、それぞれ40名ほどの参加者を得た。

4-2 教育

研究者である教官の研究能力の向上を図ることによって、その成果が教育の質の向上に結びつくという考えから、教育カリキュラムの改善に直接かかわる活動にはまだ着手していない。しかし、付属資料2.の総合達成度指数による活動進捗度に示したように、教育環境がどれだけ充実したか、つまり、カリキュラムを改訂した数、実験履修者の数、学部図書室の学生利用書籍の数などから、プロジェクトにおいては目標の3割は達成したものと評価している。これはすなわち、これまでの研究を中心とした活動が、間接的に教育の質の向上に寄与したという評価である。

4-3 機材

気象観測装置用の機材の到着は遅延していたものの、1999年5月末に到着し、本邦から派遣した技師による据え付けを完了した。その他、中央実験棟関係機材、経済・農村開発学部関係の図書等の申請手続きを計画どおり進めてきた。

5. プロジェクト運営・活動上の課題及び提言

5-1 供与機材の早期送付

機材の到着の遅れは、学部別の協議及び全体協議の場でHAU側より指摘されたが、調査団からは、早期送付の必要性は十分認識しているが、本邦からの購送には時間がかかることについて理解を求めた。機材の購送に時間がかかることは当初より予想していたため、少なくともプロジェクトが開始された1998年度分については、プロジェクト開始までに機材リストが大体できあがっており手続きのスタートは早く、現地調達分の機材については迅速に対応することができた。しかし、本邦からの購送は、機材の仕様等を確認のうえ、内容を確定、業者に発注するまで、又、発注してから輸送、現地での引き取り等、一定の時間を要することは避けられない。当面は、内容確認をできるだけ迅速に行う、急を要する機材については他の機材に先がけて送付する、といった対応以外に、これといった有効な対策はない。

5-2 現地業務費の効果的活用

全体協議の場で、日本人専門家とヴィエトナム側C/PのJoint Researchに対する経費支援の要望が表明されるとともに、プロジェクトからも、TSIの項目に沿ったフィールド調査に係る活動費として、車代、謝礼、業務補助費等の支援が要請された。調査団からは、プロジェクトとして詳細な活動計画を策定のうえ、本部に提出するよう申し入れた。これまでプロジェクトが行ってきたJoint Researchや、ワークショップ、セミナーといった活動は、地域の振興・住民の生活改善に資する調査や、啓蒙普及活動費として現地業務費の適用が可能な活動である。今後はTSI、POに沿った形で、年度ごとの計画を策定するにあたり、効果的に現地業務費を活用していくことが肝要である。

5-3 教育・研究の相互補完関係

教官の教育能力は、その基礎となっている各々の教官の科学的研究能力の強化によって高められるものである。教育・研究の2つの活動をバランスをとりながら行うことが、プロジェクト目標を達成する鍵となることから、カリキュラムや教材の開発を通じて、教官の教育・訓練能力の向上に更に留意する必要がある。

5-4 実験教育・研究の拡充

1986年以来ヴィエトナムは、ドイモイ（刷新）政策の下、顕著な発展を遂げてきた。国際市場において経済をより競争力のあるものにするためには、基礎的研究と調和のとれた形で政策や社会経済の要請に対応する、様々な実践的課題に重点をおいていく必要がある。

5-5 中央実験棟のコンセプト

調査団は、中央実験棟のコンセプト、機能及び使用者についてベトナム側に確認したところ、プロジェクト協力対象の3学部の中の2学部（農学部、土地・水資源管理学部）の管理下にあり、中央実験棟の主な使用者もその2学部のスタッフであるという回答であった。加えて、ベトナム側は、これら2学部が主体となるものの、それらの研究活動だけでなく、将来的にはHAUのすべての学部の近代化に寄与することが望ましい旨、表明した。

調査団は、日本側の機材供与はこれら2学部に関するものに限られるであろうものの、協力対象の学部が効果的に利用することによって、重要な成果を導くことができること、機材の持続的な管理システムを構築するために、利用システムを更に検討すべきであることをベトナム側に伝えた。

5-6 その他

その他HAU側からの要望として、学生実験室、HAUスタッフの英語研修への支援について調査団に申し入れがあった。又、プロジェクト側からは、学生実験用の実験機器の供与（付属資料4、参照）によって学生実験室が整備されれば、教育内容・方法の改善に寄与するとして、HAU側と同様の要望が表明された。

英語研修への支援については、プロジェクト側がLL教材導入も案として検討していたようであるが、HAUにも独自の語学研修プログラムがあることから、現有の研修プログラムを独自に発展させる努力が必要であり、プロジェクトの活動の中で語学に関する支援をしていくことは、基本的に無理であろうことを調査団より伝えた。又、学生実験室への支援については、本部に持ち帰り検討することとした。

付 属 資 料

資料1 ミニッツ

資料2 各学部の活動進捗状況報告及び総合達成度

資料3 第2回合同調整委員会資料

資料4 学生実験室実験用機材に係る要望調査票（案）

MINUTES OF UNDERSTANDINGS
BETWEEN THE JAPANESE CONSULTATION TEAM AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE SOCIALIST REPUBLIC OF VIETNAM
ON JAPANESE TECHNICAL COOPERATION FOR
THE EDUCATION AND RESEARCH CAPABILITY BUILDING PROJECT OF
HANOI AGRICULTURAL UNIVERSITY

The Japanese Consultation Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Prof. Dr. Kokki Sakai, visited the Socialist Republic of Vietnam from August 23 to 28, 1999, for the purpose of formulating the detailed Tentative Schedule of Implementation (hereinafter referred to as "TSI") for the Education and Research Capability Building Project of Hanoi Agricultural University (hereinafter referred to as "the Project") as well as discussing major issues related to the implementation of the Project.

During its stay in the Socialist Republic of Vietnam, the Team exchanged views and had a series of discussions with the authorities concerned of the Government of the Socialist Republic of Vietnam in respect of various issues for sharing common understanding on the Project.

Understandings between the Team and the authorities concerned of the Government of the Socialist Republic of Vietnam are recorded as shown in the document attached hereto.

Hanoi, August 27, 1999



Prof. Dr. Kokki Sakai
Team Leader
Consultation Team
Japan International Cooperation Agency
Japan



Prof. Dr. Tran Van Nhung
Director,
International Relations Department
Ministry of Education and Training
Socialist Republic of Vietnam



Prof. Dr. Nguyen Viet Tung
Rector, Hanoi Agricultural University
Socialist Republic of Vietnam

ATTACHED DOCUMENT

1. Purpose of the Project

The Team and the Vietnamese side confirmed the purpose of the Project that was mentioned in the master plan of the Record of Discussions signed in Hanoi on June 24, 1998.

2. Inputs of the Technical Cooperation Program

2-1. Japanese inputs

2-1-1. Long-term experts

Four long-term experts have been dispatched as Chief Advisor, Coordinator, and Experts in the fields of "Land and Water Resources Management" and "Economics and Rural Development". The expert in the field of "Agronomy" will be dispatched in Japanese fiscal year (FY) 1999.

2-1-2. Short-term experts

Three short-term experts have been dispatched in the fields of agricultural weather, plant pathology and cultivation during the FY 1998.

For the FY 1999, five short-term experts are planned to be dispatched, four of whom were already dispatched in the fields agricultural marketing, entomology, land and water resources management and rural development.

2-1-3. Acceptance of the Vietnamese counterpart personnel for training in Japan

Three counterparts were accepted by JICA for the technical training in Japan in order to upgrade the technical skills in the fields of university management, agricultural economy and plant pathology in the FY 1998. All the training programs have been efficiently conducted in cooperation with universities in Kyushu region, Okinawa and Yamaguchi prefecture.

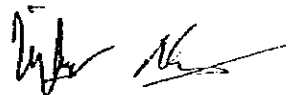
Five counterparts are scheduled in the FY 1999.

2-1-4. Provision of equipment, machinery and materials

Vehicles and equipment for central laboratory of the FY 1998 were partly provided and the rest are now on procedure of provision.

2-1-5. Supplementary Expenditure for Local Costs

The Japanese side provided part of the project management cost in order to implement the Project activities in a timely manner.



2-2. Vietnamese inputs

2-2-1. Assignment of counterpart personnel and administrative staff

A project director, a project manager, eleven counterparts in Agronomy, ten in Land and Water Resources Management, nine in economics and rural development and nine administrative staff have been assigned to work with Japanese experts.

2-2-2. Provision of land, buildings and facilities

The Vietnamese side provided office space for Japanese experts, central laboratory building and other necessary facilities. All the facilities of the Project site have been very effectively utilized for the Project.

2-2-3. Allocation of running expenses necessary for the Project

The Vietnamese side allocated running expenses from the commencement of the Project, up to the present.

3. The detailed Tentative Schedule of Implementation (TSI)

The Team and Vietnamese side exchanged views for the detailed TSI of the Project, and formulated the detailed TSI for the remaining cooperation period, as shown in the ANNEX I.

This schedule shows detailed project activities based on the TSI signed in Hanoi on June 24, 1998.

4. Outputs and progress of project activities

The Team and Vietnamese side confirmed outputs and progress of project activities from the commencement of the Project, up to the present, based on the items of project activities settled in the detailed TSI mentioned above.

4-1. Technical advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the following three faculties.

4-1-1. Faculty of Agronomy

4-1-1-1. Plant Breeding Research

There was no plan for carrying out this item within the first year. It will be started in the second year.

4-1-1-2. Plant Protection Research

Two field surveys on present situation of utilization of natural enemies in integrated pest management in Northern Vietnam have been implemented by a short-term expert and C/Ps. One report on these surveys has been made. Interviews Ministry of Agriculture and Rural Development and related organizations on the present situation of IPM also conducted by a short-term expert and C/Ps.

Surveys on the present situation of application of advanced technologies of rapid disease diagnosis for tropical fruit and vegetable crops have been implemented by a short-term expert and C/Ps.

Technical advice for experimental activities with basic and simple equipment has been done and C/Ps have started to conduct experimental activities according to those advice.

4-1-1-3. Biotechnology Research

There was no plan for carrying out this item within the first year. It will be started in the second year.

4-1-2. Faculty of Land and Water Resources Management

4-1-2-1. Soil and Environmental Conservation Research

The field researches on two themes; water pollution at and around Hanoi, soil contamination in agricultural field have been started by a long-term expert and C/Ps. Basic survey on water pollution at and around Hanoi has been conducted three times. A report on these survey has been made by C/Ps. Basic survey on soil contamination has been conducted once and one report has been made by C/Ps.

The field research on physical and chemical properties of degraded soil has been started by long term expert and C/Ps. The basic survey has been conducted once.


4-1-2-2. Plant Nutrition Research

There was no plan for carrying out this item within the first year. It will be started in the second year.

4-1-2-3. Water Management Research

There was no plan for carrying out this item within the first year. It will soon

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be started in the second year.

4-1-3. Faculty of Economics and Rural Development

4-1-3-1. Marketing Research

Five field researches on Vegetable production areas in suburb of Hanoi; Wholesale market in Hanoi; Vegetable processing in Ninh Binh province; Fruit production area ; Pork production area in Hanoi province, have been conducted by long and short-term experts and C/Ps. On each theme, one report has been made by C/Ps.

The joint research activity in the title of "Study on vegetables and fruits marketing in the Red River Delta" has been just started .

4-1-3-2. Rural Development Research

Two field researches on the agricultural structural problems in coffee production areas in Dak Lak province; The agricultural structural problems in rice farming areas in the Red River Delta, have been conducted.

4-1-3-3. Farm Management Research

The field research on establishment of sustainable farming system in degraded soil in Red River Delta has been started by a long-term expert and C/Ps.

4-1-4. Workshops /seminars /training-seminars

Workshops of Faculty of Agronomy on : The achievements and future development on agriculture in Japan and Vietnam; Biological control on integrated pest management for controlling insect pests for crops in Japan and Vietnam were held.

Workshops of Faculty of Land and Water Resources Management on: Soil and water issues in sustainable agricultural development were held.

Workshops of Faculty of Economics and Rural Development on: Agricultural Products Marketing Issues in Japan and Vietnam ; Agricultural structural problems and agricultural cooperatives in Japan and Vietnam were held.

4-1-5. Editing and issue of the results of academic activities

4-1-5-1. Proceedings of workshops, seminars or training - seminars

Proceedings of workshop on The achievements and future development on agriculture in Japan and Vietnam has been edited and issued already and

distributed to related organizations, ministries and universities. Proceedings of the five workshops above-mentioned are now on editing.

4-1-5-2. Academic journals

There was no plan for carrying out this item within the first year. It will soon be started in the second year.

4-2. Technical guidance and advice for teaching materials and curriculum to the training staff of the three faculties

4-2-1. Technical guidance and advice for teaching materials

4-2-1-1. Monitoring and fact finding survey on teaching materials

The basic survey on present materials of each three faculties has been conducted by long and short term experts.

4-2-1-2. Study on measures to improve problem issues extracted from the above-mentioned monitoring and survey

There was no plan for carrying out this item within the first year. It will soon be started in the second year.

4-2-2. Technical guidance and advice for curriculum, especially related to experimental activities

4-2-2-1. Monitoring and fact finding survey on curriculum

The basic survey on present curriculum of each three faculties has been conducted by long and short term experts.

4-2-2-2. Study on measures to improve problem issues extracted from the above-mentioned monitoring and survey

There was no plan for carrying out this item within the first year. It will soon be started in the second year.

4-2-2-3. Supporting educational activities with special reference to practical programs

There was no plan for carrying out this item within the first year. It will soon be started in the second year.

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4-3-2. Technical guidance and advice for maintenance system

Each working group mentioned above also aims the improvement of maintenance system.

5. Monitoring and Evaluation Plan

The Team and Vietnamese side exchanged views for the Monitoring and Evaluation Plan of the Project, and formulated the Monitoring and Evaluation Plan as shown in the ANNEX II.

6. Project Design Matrix (PDM)

The Team and the Vietnamese side revised the PDM through their discussions as shown in the ANNEX III. Particularly, indicators and assumptions were well examined.

7. Project Management

The Team and the Vietnamese side confirmed the importance of efficient and effective project management in order to make the project much more smoothly. Thus, both sides agreed to make every possible effort continuously.

8. Recommendations

8-1. How to make an interactive approach to education and research in the Project is crucial. Educational capability of teaching staffs is based on their scientific background which could be enhanced by strengthening scientific research capability. Balancing these two activities must be one key issue to realize the target of the Project. Therefore, in this context, it is requested to pay more attention to the improvement of education and training capability of teaching staffs of HAU through the development of curriculum and teaching materials.

8-2. The Socialist Republic of Vietnam is making a remarkable development under the "Doi Moi" policy aiming at a socialistic market-oriented economy by the Vietnamese Government since 1986. In order to make an economy more competitive in an international market, putting emphasis on practical studies of various subjects is highly recommended in order to meet with governmental policy and social needs in harmony with basic study.

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8-3. The Team asked the Vietnamese side about the concept, function and users of the Central Laboratory. The Vietnamese side explained that the facility was under the management of two of three project target faculties, faculty of agronomy and faculty of land and water resources management, and that the main users of the facility were also the staff of those two faculties. Although the focus is on those two faculties, the HAU side additionally explained that it would be expected to contribute to the modernization of all faculties of HAU, not only for research activities of those two faculties in the future.

The team pointed that the provision would be limited to equipment related to those two faculties, and the team further stated that the effective use by target faculties would lead to significant outputs, therefore above-mentioned issue on utilization system should be further discussed later to build up sustainable management system of facility and equipment.

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TENTATIVE SCHEDULE OF IMPLEMENTATION

I Activities of the project

- (1) Technical advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the three faculties (Faculty of Agronomy, Faculty of Land and Water Resource Management and Faculty of Economics and Rural Development)

Categories	year					Remarks
	1 st	2 nd	3 rd	4 th	5 th	
	SEP. AUG.	SEP. AUG.	SEP. AUG.	SEP. AUG.	SEP. AUG.	
1-1. Faculty of Agronomy						
1-1-1 Plant Breeding Research						
a. Rice, soybean and sweet potato breeding for disease resistance, grain quality and high yield potential in the Red River Delta						
b. Development of cropping systems for sloping highland in midland and highland regions						
1-1-2 Plant Protection Research						
a. Utilization of natural enemies in integrated pest management in midland and highland regions						
b. Application of advanced technologies of rapid disease diagnosis for tropical fruit and vegetable crops						
1-1-3 Biotechnology Research						
a. Application of in vitro culture technologies to plant breeding and multiplication for rice, soybean and potato plants						
1-2. Faculty of Land and Water Resource Management						
1-2-1 Soil and Environmental Conservation Research						
a. Land use for environment and prevention of pollution of soil and water -Water pollution at and around Hanoi -Soil contamination in agricultural field						
b. Physical and chemical properties and nitrogen and sulfur recycling in degraded and acid sulfate soils						
1-2-2 Plant Nutrition Research						
a. Detection and improvement of limiting factors for crop production in problem soils						

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(1) Technical advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the three faculties (Faculty of Agronomy, Faculty of Land and Water Resource Management and Faculty of Economics and Rural Development)

Categories	year					Remarks
	1 st	2 nd	3 rd	4 th	5 th	
	SEP-AUG	SEP-AUG	SEP-AUG	SEP-AUG	SEP-AUG	
b. Rational use of chemical fertilizers aimed at increasing crop productivity and conserving environments						
1-2-3 Water Management Researches						
a. Soil conservation and prevention of soil erosion in upstream region of the Red River						
1-3 Faculty of Economics and Rural Development						
1-3-1 Marketing Research						
a. Agricultural products marketing system in Red River Delta						
- Vegetable and Fruits						
- Pork and Beef						
- Rice						
1-3-2 Rural Development Research						
a. Land Reform Policy						
b. Rural Economy						
1-3-3 Farm Management Research						
a. Agricultural and Rural Planning						
b. Sustainable Farming System						
- Establishment of sustainable farming system in degraded soil area in the Red River Delta						
c. Farm household economy and farm income factors in rice farming in the Red River Delta						
1-4 Workshops / Seminars / Training- seminars to be organized by HAU and the JICA project team						
1-5 Editing and issue of the results of academic activities						
1-5-1 Proceedings of workshops, seminars or training-seminars						
1-5-2 Academic journals						

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(2) Technical guidance and advice for teaching materials and curriculum to the training staff of the three faculties

Categories	year					Remarks
	1 st	2 nd	3 rd	4 th	5 th	
	SEP-AUG	SEP-AUG	SEP-AUG	SEP-AUG	SEP-AUG	
2-1 Technical guidance and advice for teaching materials						
2-1-1 Monitoring and fact finding survey on teaching materials						
2-1-2 Study on measures to improve problem issues extracted from the above-mentioned monitoring and survey						
2-2 Technical guidance and advice for curriculum, especially related to experimental activities						
2-2-1 Monitoring and fact finding survey on curriculum						
2-2-2 Study on measures to improve problem issues extracted from the above-mentioned monitoring and survey						
2-2-3 Supporting educational curriculum with special reference to experimental activities						

(3) Technical guidance and advice for utilization and maintenance of equipment and software

Categories	Year					Remarks
	1 st	2 nd	3 rd	4 th	5 th	
	SEP-AUG	SEP-AUG	SEP-AUG	SEP-AUG	SEP-AUG	
3-1 Technical guidance and advice for operation and managed system of equipment and software						
3-1-1 Basic survey on the present facility						
3-1-2 Establishment of the design for equipment installation						
3-1-3 Establishment of working group on equipment						
3-1-4 Establishment of equipment database system						
3-1-5 Effective utilization of equipment						
3-2 Technical guidance and advice for maintenance system						
3-2-1 Improvement of maintenance system						

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Date : 1999.08.27

Project	The Education and Research Capability Building Project of Hanoi Agricultural University		
Duration of Cooperation	September 1, 1998 ~ August 31, 2003		
Mission Name	Consultation Team	Leader	Prof.Dr.Kokki Sakai
Mission Period	August 22, 1999 ~ August 28, 1999		
Section in JICA	Agricultural Technical Cooperation Division, Agricultural Development Cooperation Department	Officer in charge	Mayumi Ando

I. Project structure and activities

1. Project Design Matrix (PDM : ANNEX III)

The PDM was prepared by HAU Japanese experts and Vietnamese counterparts in charge in consultation with Japanese consultation team. And which was endorsed by the Joint Coordinating Committee.

2. Plan of Operations (PO : ANNEX IV)

The PO was prepared by HAU Japanese experts and Vietnamese counterparts in charge in consultation with Japanese consultation team. And which was endorsed by Joint Coordinating Committee.

II. Monitoring and Evaluation activities

1. Monitoring System

In accordance with the monitoring schedule (III), the Project hold regular meeting chaired by the project manager to monitor the Progress of activities. Sufficient data for monitoring should be provided by the responsible person for each activities. Monitoring reports should be prepared under the format "Project Achievement Chart (ANNEX V)

2. Evaluation System

In accordance with the evaluation schedule, an evaluation mission will be dispatched by JICA. The mission and Vietnamese authorities concerned will formulate a joint evaluation team. The team will evaluate the Project, based on "Items of evaluation" (ANNEX VI).

An evaluation report should be prepared, which should be signed by both (Japanese and Vietnamese) sides.

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III. Schedule of Monitoring and Evaluation (provisional)

Time	Types of monitoring and evaluation	Conducted by	Reported by
June, 1998	Agreement on cooperation	Implementation study team	R/D and TSI
September, 1998	Commencement of cooperation		
August, 1999	Monitoring & evaluation plan	Consultation team	Minutes
February, 2000	1st monitoring	C/P & JICA experts	Monitoring report
August, 2000	2nd monitoring	C/P & JICA experts	Monitoring report
February, 2001	3rd monitoring	C/P & JICA experts	Monitoring report
August, 2001	Intermediate evaluation	Joint evaluation team	Minutes
February, 2002	4th monitoring	C/P & JICA experts	Monitoring report
August, 2002	5th monitoring	C/P & JICA experts	Monitoring report
February, 2003	Final evaluation	Joint evaluation team	Joint evaluation report
August, 2003	Completion of the program		

IV. Criteria and Items for Monitoring and Evaluation

1. Criteria for Monitoring

Targets / Indicators listed in "Plan of Operations" should be utilized for monitoring.

2. Criteria of Evaluation

Suggested list of criteria for evaluation is shown in ANNEX VI.

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PROJECT DESIGN MATRIX

ANNEX III

SUPER GOAL	Narrative Summary	Verifiable Indicators	Means of Verification	Important assumption
High quality manpower for modernization and industrialization of agriculture is trained				Agricultural policies will not be drastically changed
OVERALL GOAL	Quality of training and researching of entire HAU is improved	Comprehensive Achievement Index of on the HAU	1 Training Office (HAU) 2 Scientific Research Department (HAU)	1 Support by Vietnamese Government (MPI, MOET, MARD) is continued
PROJECT PURPOSE	Quality of training and researching of the three faculties of HAU is improved	Comprehensive Achievement Index of the three faculties	1 Training Office (HAU) 2 Scientific Research Department (HAU)	1 The result of the project is extended to other faculties of HAU 2 Support by Vietnamese Government (MPI, MOET, MARD) is continued
OUTPUTS	1 Quality of research is improved 2 Quality of education is improved 3 Equipment for training and researching is enhanced	1-1 No. of meetings related to each research field of the three faculties 1-2 No. of research reports related to each research field of the three faculties 1-3 No. of workshops/seminars/training-seminars held 1-4 No. of attendants of workshops/seminars/training-seminars held 1-5 No. of proceedings of workshops/seminars/training-seminars edited and issued 1-6 No. of journals edited and issued 1-7 No. of Master and Ph.D. degrees obtained 1-8 No. of research presentations at conferences held in and out of Vietnam 1-9 No. of research reports published in and out of Vietnam	1-1-1-2 Records of three fac. 1-3-1-6 Record of project team 1-7 Training Office (HAU) 1-8&1-9 Scientific Research Department (HAU) & International Relations Office (HAU) 2-1-2-4 Training Office (HAU)	1 Library service is improved 2 Support by Vietnamese Government (MPI, MOET, MARD) is continued
		2-1 No. of teaching materials improved 2-2 No. of curriculum improved 2-3 No. of students attended to experimental practice 2-4 Percentage of Grade A scientific report of students 3-1 No. of equipment per training and research staff 3-2 Frequency of meeting of working group on equipment 3-3 Frequency of utilization of installed equipment 3-4 No. of staff trained on equipment's utilization and maintenance 3-5 No. and types of equipment repaired/replaced parts	3-1 Equipment Management Office (HAU) 3-2 Records of three fac. & Record of project team 3-3&3-4 Record of three fac. 3-5 Records of three fac. & Record of project team	

Narrative Summary	Verifiable indications	Means of verification	ACTIVITIES	INPUTS	Important assumptions
<p>1-1 Advise for each field of research conducted by Fac. of Agronomy</p> <p>1-1-1 Promote the research on Plant Breeding</p> <p>1-1-2 Promote the research on Plant Protection</p> <p>1-1-3 Promote the research on Biotechnology</p> <p>1-2 Advise for each field of research conducted by Fac. of LW/RM</p> <p>1-2-1 Promote the research on Soil and Environmental Conservation</p> <p>1-2-2 Promote the research on Plant Nutrition</p> <p>1-2-3 Promote the research on Water Management</p> <p>1-3 Advise for each field of research conducted by Fac. of ERD</p> <p>1-3-1 Promote the research on Marketing</p> <p>1-3-2 Promote the research on Rural Development</p> <p>1-3-3 Promote the research on Farm Management</p> <p>1-4 Organize workshops/seminars/training; seminars related to each research with HAU</p> <p>1-5 Edit and issue the academic activities</p> <p>2-1 Guide and advise for teaching materials of each faculty</p> <p>2-2 Guide technically and advise for curriculum especially related to experimental activities</p> <p>3-1 Guide technically and advise for operation/managed system of equipment/software</p> <p>3-2 Guide technically and advise for maintenance system</p>	<p>VIETNAMESE SIDE</p> <p>1 Experts (C/P)</p> <p>2 Facilities and rooms</p> <p>3 Utilities</p> <p>4 Management/operation cost</p> <p>JAPANESE SIDE</p> <p>1 Dispatch of experts</p> <p>2 Acceptance of Vietnamese C/P training in Japan</p> <p>3 Provision of equipment</p> <p>4 Supplementary cost for project activities</p>	<p>1 HAU training and research staff improve English language skill</p> <p>2 Support by Vietnamese Government (MPI, MOET, MARD) is continued</p> <p>Pre-conditions</p> <p>1 Central laboratory is constructed</p> <p>2 Seminar room for Faculty of Economics and Rural Development is repaired</p> <p>3 Weather station is constructed</p> <p>4 A stock room for equipment is reserved</p> <p>5 Electricity and water are supplied stable</p>			

K.S.

PLAN OF OPERATIONS

ANNEX IV

Project Purpose : Quality of training and researching of the three faculties of Hanoi Agricultural University is improved

Plan of Operations for activity 1: Technical Advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the three faculties

Activities	Targets/indicators	Year/(fiscal)												Responsible persons in the project	Inputs	Remarks		
		1998		1999		2000		2001		2002		2003						
		III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	
1.1. Faculty of Agronomy 1.1.1. Plant Breeding Research a. Rice, soybean and sweet potato breeding for disease resistance, grain quality and high yield potential in the Red River Delta b. Development of cropping systems for sloping highland in midland and highland regions 1.1.2. Plant Protection Research a. Utilization of natural enemies in integrated pest management in midland and highland regions b. Application of advanced technologies of rapid disease diagnosis for tropical fruit and vegetable crops 1.1.3. Biotechnology Research a. Application of in vitro culture technologies to plant breeding and multiplication for non-soybean and potato plants 1.2. Faculty of Land and Water Resource Management 1.2.1. Soil and Environmental Conservation Research a. Land use for environment and prevention of pollution of soil and water Water pollution at and around Hanoi	No. of field surveys, No. of discussions, No. of reports No. of field surveys, No. of discussions, No. of reports No. of field surveys, No. of discussions, No. of reports No. of field surveys, No. of discussions, No. of reports No. of field surveys, No. of discussions, No. of reports No. of field surveys, No. of discussions, No. of reports No. of field surveys, No. of discussions, No. of reports No. of field surveys, No. of discussions, No. of reports No. of field surveys, No. of discussions, No. of reports																	

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Plan of Operations for activity 1: Technical Advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the three faculties

Activities	Targets/Indicators	Year (Fiscal)												Responsible persons in the project	Inputs	Remarks																
		1998				1999				2000							2001				2002				2003							
		I	II	III	IV	I	II	III	IV	I	II	III	IV				I	II	III	IV	I	II	III	IV	I	II	III	IV				
Soil contamination in agricultural field	No. of field surveys, No. of discussions, No. of reports																													LWRRM exp. / C/Rs chemicals	Equipment survey cost	
Physical and chemical properties and nitrogen and sulfur recycling in degraded and acid sulfate soil	No. of field surveys, No. of discussions, No. of reports																													LWRRM exp. / C/Rs	Equipment survey cost chemicals	
1.2.2 Plant Nutrition Research a. Detection and improvement of limiting factors for crop production in problem soils	No. of field surveys, No. of discussions, No. of reports																													LWRRM exp. / C/Rs	Equipment survey cost chemicals	
b. Rational use of chemical fertilizers aimed at increasing crop productivity and conserving environments	No. of field surveys, No. of discussions, No. of reports																													LWRRM exp. / C/Rs	Equipment survey cost chemicals	
1.2.3 Water Management Researches a. Soil conservation and prevention of soil erosion in upstream region of the Red River	No. of field surveys, No. of discussions, No. of reports																													LWRRM exp. / C/Rs	Equipment survey cost	
1.3 Faculty of Economics and Rural Development 1.3.1 Marketing Research a. Agricultural products marketing system in the Red River Delta . Vegetable and Fruits . Pork and Beef . Rice	No. of field surveys, No. of discussions, No. of reports																													ERD exps. / C/Rs	Equipment, technical advice survey cost	
1.3.2 Rural Development Research a. Land Reform Policy	No. of discussions, No. of reports																													ERD exps. / C/Rs	Equipment, technical advice survey cost	

Plan of Operations for activity 1: Technical Advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the three faculties

Activities	Targets/Indicators	Year												Responsible persons in the project	Inputs	Remarks						
		1998			1999			2000			2001						2002			2003		
		I	II	III	I	II	III	I	II	III	I	II	III				I	II	III	I	II	III
<p>b Rural Economy</p> <p>No. of field surveys, No. of discussions, No. of reports</p>	<p>No. of field surveys, No. of discussions, No. of reports</p>																			<p>ERD exp. / C/Rs</p> <p>Equipment, technical advice survey cost</p>		
<p>1.3.3 Farm Management Research</p> <p>a. Agricultural and Rural Planning</p> <p>No. of field surveys, No. of discussions, No. of reports</p>	<p>No. of field surveys, No. of discussions, No. of reports</p>																			<p>ERD exp. / C/Rs</p> <p>Equipment, technical advice survey cost</p>		
<p>b. Sustainable Farming System</p> <p>• Establishment of sustainable farming system in degraded soil area in the Red River Delta</p> <p>No. of field surveys, No. of discussions, No. of reports</p>	<p>No. of field surveys, No. of discussions, No. of reports</p>																			<p>ERD exp. / C/Rs</p> <p>Equipment, technical advice survey cost</p>		
<p>c. Farm household economy and farm income factors in the farming in the Red River Delta</p> <p>No. of field surveys, No. of discussions, No. of reports</p>	<p>No. of field surveys, No. of discussions, No. of reports</p>																			<p>ERD exp. / C/Rs</p> <p>Equipment, technical advice survey cost</p>		
<p>1.4 Workshops / seminars / training - seminars</p> <p>No. of holdin g's, No. of participants</p>	<p>No. of holdin g's, No. of participants</p>																			<p>All long term exps, (short term exps.), C/Rs</p>	<p>Printing & binding cost</p>	
<p>1.5 Editing and issue of the results of academic activities</p> <p>1.5.1 Proceedings of workshops, seminars or training - seminar</p> <p>No. of proceedings, No. of articles</p>	<p>No. of proceedings, No. of articles</p>																			<p>All long term exps, (short term exps.), C/Rs</p>	<p>Printing & binding cost</p>	
<p>1.5.2 Academic journals</p> <p>No. of journals, No. of articles</p>	<p>No. of journals, No. of articles</p>																			<p>All long term exps, (short term exps.), C/Rs</p>	<p>Printing & binding cost</p>	

Plan of Operations for activity 2 : Technical guidance and advice for teaching materials and curriculum to the training staff of the three faculties

Activities	Targets/Indicators	Year (fiscal)												Responsible persons in the project	Inputs	Remarks									
		1998			1999			2000			2001						2002			2003					
		I	II	III	I	II	III	I	II	III	I	II	III				I	II	III	I	II	III			
2.1 Technical guidance and advice for teaching materials	No. of monitorings, No. of surveys																						All exps. / C/Ps	stationary	
2.1.1 Monitoring and fact finding survey on teaching materials	No. of meetings held																						All exps. / C/Ps	stationary	
2.1.2 Study on measures to improve problem issues extracted from the above-mentioned monitoring and survey	No. of materials improved																						All exps. / C/Ps	stationary	
2.2 Technical guidance and advice for curriculum, especially related to experimental activities	No. of monitorings, No. of surveys																						All exps. / C/Ps	stationary	
2.2.1 Monitoring and fact finding survey on curriculum	No. of meetings held																						All exps. / C/Ps	stationary	
2.2.2 Study on measures to improve problem issues extracted from the above-mentioned monitoring and survey	No. of curriculums improved																						All exps. / C/Ps	stationary	
2.2.3 Supporting educational curriculum with special reference to experimental activities	No. of curriculums improved																						All exps. / C/Ps	stationary	

Plan of Operations for activity 3 : Technical guidance for utilization and maintenance of equipment and software

Activities	Targets/Indicators	Year (Fiscal)												Responsible persons in the project	Inputs	Remarks		
		1998		1999		2000		2001		2002		2003						
		III	IV	I	II	III	IV	I	II	III	IV	I	II					
3.1 Technical guidance and advice for operation and managed system of equipment and software																		
3.1.1 Basic survey on the present facility	No. of surveys																	All exps. / CRs stationary
3.1.2 Establishment of the design for equipment installation	No. of discussions																	All exps. / CRs stationary
3.1.3 Establishment of working group on equipment	List of member, No. of meetings																	All exps. / CRs computer
3.1.4 Establishment of equipment database system	Collected data																	
3.1.4 Effective utilization of equipment	List of utilization, No. of edited brochure																	All exps. / CRs tools, issue cost
3.2 Technical guidance and advice for maintenance system																		
3.2.1 Improvement of maintenance system	No. of repaired equipment																	All exps. / CRs tools

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PROJECT ACHIEVEMENT CHART

ANNEX V

Project Purpose : Quality of training and researching of the three faculties of Hanoi Agricultural University is improved

Project Achievement Chart for activity 1: Technical Advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the three faculties

Activities	Targets/Indicators	Year(fiscal)												Progress(%)	Distinguished Achievement	Problems & countermeasures		
		1998		1999		2000		2001		2002		2003						
		III	IV	I	II	III	IV	I	II	III	IV	I	II					
1-1. Faculty of Agronomy 1-1-1 Plant Breeding Research a. Rice soybean and sweet potato breeding for disease resistance, grain quality and high yield potential in the Red River Delta b. Development of coping systems for sloping highland in midland and highland regions	No. of field surveys, No. of discussions, No. of reports																	
1-1-2 Plant Protection Research a. Utilization of natural enemies in integrated pest management in midland and highland regions b. Application of advanced technologies of rapid disease diagnosis for tropical fruit and vegetable crops	No. of field survey a, No. of discussions, No. of reports																	
1-1-3 Biotechnology Research a. Application of in vitro culture technologies to plant breeding and multiplication for rice soybean and potato plants	No. of field surveys, No. of discussions, No. of reports																	
1-2 Faculty of Land and Water Resource Management 1-2-1 Soil and Environmental Conservation Research a. Land use for environment and prevention of pollution of soil and water -Water pollution at and around Hanoi	No. of field surveys, No. of discussions, No. of reports																	

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Project Achievement Chart for activity 1: Technical Advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the three faculties

Activities	Targets/Indicators	Year (Fiscal)												Progress(%)	Distinguished Achievement	Problems & countermeasures	
		1998		1999		2000		2001		2002		2003					
		I	II	I	II	I	II	I	II	I	II	I	II				
Soil contamination in agricultural field	No. of field surveys, No. of discussions, No. of reports																
1.2.2 Plant Nutrition Research	a. Detection and improvement of limiting factors for crop production in problem soils b. Rational use of chemical fertilizers aimed at increasing crop productivity and conserving environments																
1.2.3 Water Management Researches	a. Soil conservation and prevention of soil erosion in upstream region of the Red River																
1.3 Faculty of Economics and Rural Development	1.3.1 Marketing Research																
1.3.2 Rural Development Research	a. Agricultural products marketing system in the Red River Delta - Vegetable and Fruits - Pork and Beef - Rice																
1.3.2 Rural Development Research	a. Land Reform Policy																

Project Achievement Chart for activity 1: Technical Advice for survey, planning and implementation of practical research and experimental activities conducted by academic staff of the three faculties

Activities	Targets/Indicators	1999							Progress(%)	Distinguished Achievement	Problems & Countermeasures
		I		II		III		IV			
		J	F	M	A	M	J	J			
b.Rural Economy	No. of field surveys, No. of discussions, No. of reports										
1-3-3 Farm Management Research	a. Agricultural and Rural Planning										
b.Sustainable Farming System	- Establishment of sustainable farming system in degraded soil area in the Red River Delta										
c.Farm household economy and farm income factors in rice farming in Red River Delta	No. of field surveys, No. of discussions, No. of reports										
1-4 Workshops / seminars / training - seminars	No. of holding, No. of participants										
1-5 Editing and issue of the results of academic activities	1-5-1 Proceedings of workshops, seminars or training - seminar										
1-5-2 Academic journals	No. of journals, No. of articles										

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Project Achievement Chart for activity 3 : Technical guidance for utilization and maintenance of equipment and software

Activities	Targets/Indicators	Year (Fiscal)												Progress(%)	Distinguished Achievement	Problems & Countermeasures		
		1998	1999	2000	2001	2002	2003	1	2	3	4	5	6					
3.1 Technical guidance and advice for operation and management system of equipment and software																		
3.1.1 Basic survey on the present facility	No. of surveys																	
3.1.2 Establishment of the design for equipment installation	No. of discussions																	
3.1.3 Establishment of working group on equipment	List of member, No. of meetings																	
3.1.4 Establishment of equipment database system	Collected data																	
3.1.4 Effective utilization of equipment	List of utilization, No. of edited brochure																	
3.2 Technical guidance and advice for maintenance system																		
3.2.1 Improvement of maintenance system	No. of repaired equipment																	

ITEMS OF EVALUATION

ANNEX VI

Items of evaluation		Indicators
1. Effectiveness	1-1. Achievement of Project Purpose	1. Comprehensive achievement index
	1-2. Contribution of outputs to achieve project purpose	1. Research activities of three faculties 2. Improved teaching materials and curriculum 3. Conditions of utilization and maintenance of equipment and facility
	1-3. Contribution of activities to achieve outputs	1. Research activities on each field of each three faculties 2. No. of workshops/ seminars/ training seminars held 3. No. of edited and issued materials 4. No. of improved teaching materials and curriculum 5. Detail of improved experimental program 6. Established utilization and maintenance system of equipment and facility
2. Efficiency	2-1. Timing, quality and quantity of inputs to produce outputs	1. Input for planned activities is provided as scheduled. 2. Sufficient quality and quantity of input is provided to produce output. * Input from Japan: experts, op training, equipment, subsidy of local running cost Input from Vietnam: CP personnel, land, buildings, local running cost. 3. Sufficient output is produced as schedule.
3. Impact	3-1. Direct impacts on project purpose level	1. Active research activities by academic staff of each three faculties 2. No. of reports using provided equipment 3. Level of students' understanding level of lecture 4. Contents of experimental program
	3-2. Indirect impacts on overall goal	1. Research activities of other faculties of HAU 2. Improved teaching materials and curriculum of other faculties of HAU 3. Joint utilization system for provided equipment and facility
4. Rationale	4-1. Rationale of overall goal	1. Priority of provision of manpower for modernization and industrialization of agriculture on agricultural policy 2. Needs of beneficiary for provision of manpower on agriculture
	4-2. Rationale of project purpose	1. Relation between project purpose and overall goal 2. Needs/ interests of Hanoi Agricultural University
	4-3. Rationale of project design	1. Relation among overall goal, project purpose, outputs, activities and inputs designed in PDM
5. Sustainability	5-1. Institutional aspects	1. Government policy of agriculture is remained unchanged. 2. Organization of the project is maintained/strengthened 3. Project counterparts stay in the project and continue to work
	5-2. Financial aspects	1. Sufficient budget is allocated to continue activities
	5-3. Technical aspects	1. Established utilization and maintenance system of facilities and equipment works well.

R.P

Report of JICA - HAU ERCB Project Implementation Of Agronomy Faculty

1. General situation

Agronomy is one of the biggest faculties of Hanoi Agricultural University. The total academic staff is 106, of which there are 4 professors, 11 Associate professors and 27 Senior lecturers. The faculty has 9 doctors, 39 Ph.D. and 13 Masters teaching in 10 departments: Food crops, Industrial and Medicinal crops, Fruit trees and Vegetables, Plant Breeding and Genetics, Plant Physiology, Entomology, Plant Pathology, Agro-ecology and Environmental Sciences, General Biology and Sericulture.

Agronomy faculty offers undergraduate and graduate programs and awards degree of B.Sc. in 6 scientific fields : Crop Science, Plant Protection, Plant Breeding, Horticulture, Sericulture and Agro-ecology and Environmental Sciences. The faculty also offers in-service training program in two fields: Crop Science and Plant Protection and Post graduate study, Master and Ph.D. degree in three Specific fields: Crop Production, Plant Protection and Plant Breeding. The total number of students (Freshmen and Senior Students) is about 700 annually. Beside training work, the faculty participates in or conducts many national research programs and transfers the new varieties and technologies to farmers. These activities are regarded to contribute greatly to the national agricultural development.

However, in order to improve the teaching and researching capacity of the faculty, the good research and education facility as well as competent scientists and teachers who are able to utilize effectively the sophisticated equipments must be greatly needed.

In the presently existing conditions the HAU-JICA ERCB Project supported by Japanese government plays an important role to assist the faculty and Hanoi Agricultural University for further building the teaching and researching capacity.

2. Dispatch of Japanese experts

2.1. Fiscal year 1998:

2.1.1 Long term experts

There was no long term expert in the field of agronomy in the first year. A long term expert will be dispatched in the second year.

2.1.2. Short term experts

- Prof. Dr. Fumitake Kubota (March 30, 1999 - April 14, 1999), plant physiologist offering two presentations for the first joint workshop titled "Achievements and Future Development on Agriculture in Japan and Vietnam". Crop culture, Crop Breeding and Plant Protection with topics:
 - + " Leaf Photosynthesis and Tuberos Root Production in Sweetpotato, *Ipomoea Batatas lam*, Cultivar".
 - + "Production and Photosynthesis in Rice Genotypes for Yield Improvement"
- Dr. Masaru Matsumoto (March 30 - June 30, 1999), Tropical plant pathologist, for the presentation titled "Taxonomic Study on *Rhizoctonia spp.*, the Causal Agents of Soil Borne Diseases Using Chemtaxonomic Methods".
- Assoc. Prof. Dr. Shizuo Hayashi (April 9 - August 8, 1999), Meteorologist for construction and installation of the Weather Observation Station, held a seminar with Agro-ecology and Environmental Sciences Department on world and Japan weather observation system.

2.2 Fiscal Year 1999

2.2.1. *Long term experts*, will be dispatched by the end of this year.

2.2.2. Short term experts

- Dr. Masami Takagi (July 6 - August 14, 1999), Entomologist, for a presentation for the workshop titled on "Insect Ecology in IPM".

3. Organization of counterpart personal

1. Prof. Dr. Nguyen Huu Te Dean of Faculty
2. Dr. Phan Huu Ton Vice Dean of the Faculty
3. Dr. Dang Thi Dung Entomology Dept.
4. Dr. Nguyen Van Hoan Deputy head of Genetics and Plant Breeding
5. Dr. Tran Duc Vien Head of Dept. of Agro-ecology and Environmental Sciences
6. Dr. Doan Van Diem Deputy head of Dept. of Agro-ecology and Environmental Sciences
7. Ms. Nguyen Thi Bich Yen Dept. of Agro-ecology and Environmental Sciences
8. Dr. Nguyen The Hung Deputy head of Food Crops Dept.
9. Mr. Tran Dinh Chien Deputy head of Entomology Dept.
10. B.Sc. Pham Van Cuong Food Crops Dept.

4. Provision of equipment

4. 1. For Central lab. : Equipment for Central lab. in Fiscal year 1998 have not received yet except for air-conditioners.

4. 2. Weather Observation Station

- Portable equipment

- Unportable equipment of the Weather Station received with the assistant from 2 engineers from Ogasawa company for installation for a month from July to Aug. 3.

5. Provision of land, building and facilities from HAU side

5.1 For Central lab. 3 rooms with total area 290 m² and other necessary facilities such as water and electric system, experimental cement tables.

5. 2. Weather Observation Station:

- Data collection house.

- Weather observation garden with area about 200 m².

6. Counterpart training

6.1. Fiscal year 1998:

- Dr. Dang Thi Dung, Entomology Dept. for 3 months

6.2. Fiscal year 1999:

- Dr. Nguyen Van Hoan, Genetics and Plant Breeding Dept.
- Ms. Nguyen Thi Bich Yen, Agro-ecology and Environmental Sciences Dept.

6.3. Fiscal year 2000:

- M.Sc. Tran Dinh Chien, Dept. of Entomology

7. Organization of Joint-Workshop

7.1. First joint workshop lasted from April 7 - April 9, 1999 on "Achievements and Future Development on Agriculture of Japan and Vietnam". 3 presentations from Japanese experts, 4 presentations from Vietnamese Scientists. Total participants number is about 40 and publishing of the proceeding was completed.

7.2. Second joint workshop titled on "Biotic Control in IPM on Crops of Vietnam and Japan" lasted from July 27 to 29, 1999. Presentation number: 11 (from Japan side: 3 and from Vietnam: 8). Participants number is also 40.

8. Present Situation of Research on each specific field

8.1. Plant breeding research: Evaluation of some vegetable minitomato varieties at the faculty experimental Station.

8.2. Plant protection research:

- Survey of pest - disease component on rice, soybean, sweetpotato, tomato at Agronomy experimental station.

- Survey of pest-insect component at Nha ho, Ninh thuan province

8. 3. Biotechnology:

9. Working group

9. 1 For Central lab.

Original member:

- Prof. Dr. Nguyen Huu Te, Dean of the faculty
- Dr. Phan Huu Ton, Vice Dean
- M.Sc. Trần Đình Chien, Deputy head of Entomology Dept.

Expanded member:

- Dr. Ho Huu An, Fruit and Vegetable Dept.
- Dr. Dang Thi Dung, Entomology Dept.
- Dr. Nguyen Van Hoan, Deputy head of Genetics and Plant Breeding
- Ms. Nguyen Thi Bich Yen, Dept. of Agro-ecology and Environmental Sciences
- B.Sc. Pham Van Cuong, Food Crops.

9. 2. Weather Station

- Prof. Dr. Nguyen Huu Te, Dean of the Faculty
- Dr. Doan Van Diem, Deputy head of Dept. of Agro-ecology and Environmental Sciences.
- Dr. Tran Duc Vien, Head of Dept. of Agro-ecology and Environmental Sciences.

10. Primary assessment of the project

- The Weather Station is very useful for teaching and researching activities especially improvement of research and teaching quality for the meteorology subject.
- Some faculty staff trained in Japan have a chance to work and learn a lot from Japanese scientists.
- Two joint workshops were very well-organized and helpful for Vietnamese scientists to update the advanced knowledge and understandings.
- During conducting surveys with Japanese experts, Vietnamese scientists can have chances to exchange the idea and academic knowledge.

REPORT ON THE IMPLEMENTATION OF HAU-JICA ERCB PROJECT (1998-1999) AT THE FACULTY OF ECONOMICS AND RURAL DEVELOPMENT

I. Present situation of the project

1. Dispatch of experts

1.1 Long-term experts:

- Prof. Dr. Kenji Cho, project leader
Major field: Agricultural Economics
Term: Nov. 10, 1998-Nov. 9, 2000
- Dr. Kazunari Tsuji
Major field: Economics and Rural Development
Term: Jan. 9, 1999-Jan. 1, 2001

1.2 Short-term experts (fiscal year 1999)

- Prof. Dr. Satoshi Kai
Term: June 17- July 13, 1999
Field of study: Agricultural Marketing and Econometrics
- Prof. Dr. Takeshi Murata
Term: July 31- August 25, 1999
Field of study: Agricultural Policy and Structure

2. Assignment of C/P from the Faculty

- ① Prof. Dr. To Dung Tien, Dean of the Faculty
- ② Assoc. Prof. Dr. Pham Van Dinh, Vice Dean of the Faculty
- ③ Dr. Ngo Thi Thuan, Vice Dean of the Faculty
- ④ Dr. Nguyen Nguyen Cu, Department of Business Management
- ⑤ MSc. Pham Van Hung, Department of Econometrics
- ⑥ MSc. Nguyen Trong Dac, Deputy Head of Rural Development Department
- ⑦ MSc. Nguyen Thi Minh Hien, Department of Rural Development
- ⑧ MSc. Tran Huu Cuong, Department of Business Management
- ⑨ Ms Nguyen Phuong Le, Department of Rural Development
- ⑩ MSc. Bui Thi Gia, Department of Business Management
- ⑪ Mr. Le Ngoc Huong, staff of the Faculty

3. Provision of Equipment

(Equipment, machinery, training instruments, and books related to the activities of the project that the Faculty already received in fiscal year 98)

▪ Equipment	Quantity
- Computer	6
- Photocopying machine	1
- Air-conditioner	2
- Stabilizer	6
- UPS	5
▪ Books:	
- English books	326
- Vietnamese books	36

4. C/P training

▪ In fiscal year 1998

- MSc. Tran Huu Cuong
Term March 1, 1998- November 17, 1999
Field of study: Agribusiness Management

▪ In fiscal year 1999

- Dr. Ngo Thi Thuan
Field of study: Agricultural Marketing and Rural Development

5. Present situation of research on each field

5.1 Marketing research

- Agricultural products marketing system in Red River Delta

▪ Vegetable Marketing System in Red River Delta

Term: August, 1999- March 2000

- Fruit Marketing
- Pork and Beef Marketing
- Rice Marketing

Field research on vegetable production area in suburb of Hanoi, whole sale market in Hanoi, fruit production area and pork production area in Hanoi have been conducted by long and short-term experts and C/Ps

The joint research activity in the title of "Study on vegetable and fruits marketing in the Red River Delta" has been just started.

5.2 Rural Development Research

- Land Reform Policy

- Rural Economy

Terms 1999-2001

Field research on the agricultural structure problems in coffee production area in Daclac, rice farming area in Thai binh, village's traditional industry in Hanoi, Bac Ninh have been conducted by short-term expert and C/Ps

5.3 Farm Management Research

- Agricultural and Rural Planning

- Sustainable Farming System

- Farm household economy and farm income factors in rice farming in Red River Delta.

Term 1999-2001

The field research on establishment of sustainable farming system in degraded soil in Red River Delta has been started by a long-term expert and C/Ps.

5.4 Organization of joint-workshop

No.	Title	Time	No. of attendants	No. of presentation		
				total	VN side	JICA side
1	Issue on Agricultural Products Marketing in Vietnam and Japan	June 30 th – July 2 nd , 1999	40	9	6	3
2	Agricultural Co-operatives and Policy Issue in Japan and Vietnam	August 11 th – 13 th , 1999	45	9	6	3

5.5 Other activities

Before and after the workshops, the Faculty has organized field trips and the discussion with short-term experts

▪ Prof. Dr. Satoshi Kai:

- Discussing on curriculum of Marketing subject with Dept. of Business management.
- Discussing on research activities: Vegetable marketing, clean vegetable production

▪ Prof. Dr. Takeshi Murata

- Discussing on curriculum of Environmental Economics Subject with Dept. of Economics and Rural Development Subject with Dept. of Rural Development
- Discussing on research activities: Land policy and development of village's traditional industry.

6. Working Group

6.1 Working-group for books and library

- ① MSc. Nguyen Thi Minh Hien, Department of Rural Development (Head of the working group)
- ② Mr. Do Quang Giam, Department of Accounting
- ③ Ms Do Thi Nang, Department of Economics
- ④ MSc. Nguyen Tuan Son, Department of Econometrics
- ⑤ MSc. Bui Thi Gia, Department of Business Management

6.2 Working group for computer room

- ① Prof. Dr. To Dung Tien, Dean of the Faculty (Head of the working group)
- ② Assoc.Prof. Dr. Pham Van Dinh, Vice Dean of the Faculty
- ③ Ms Nguyen Thi Nhuan, staff of the Faculty

**REPORT ON THE IMPLEMENTATION OF FACULTY OF LAND AND
WATER MANAGEMENT - JICA ERCB PROJECT (1998 -1999)**

During the last tenth months since HAU - JICA ERCB project operated, following activities have implemented between JICA project and Faculty of Land & Water Management:

1. Present situation of project.

1. Dispatch of experts

1.1. long - term experts

- * Dr. Kiyoshi Kurosawa
- From March 2. 1999 to March 1. 2001
- Field study: Soil Erosion and Water Quality

1.2. Short - term experts

- * Assoc. Prof. Masami Ohstsubo
- From August 3. 1999 to August 31. 1999
- Field study: Water Quality

2. Assignment of C/Ps from faculty side of (L.W.M).

Major C/Ps consist 10 members:

- 1- Assoc. Prof. Pham Ngoc Thuy, Dean of Faculty land & Water Management.
- 2- Assoc. Prof. Nguyen Dinh Manh, Head of Department of Soil & Agrochemistry.
- 3- Assoc. Prof. Dao chau Thu, Department of Soil & Agrochemistry.
- 4- Dr. Nguyen Van Tau, Department of Chemistry.
- 5- Dr. Nguyen Huu Thanh, Department of Soil & Agrochemistry.
- 6- MSc. Nguyen Van Dung, Department of Water Resource Management.
- 7- MSc. Do Nguyen Hai, Department of Soil & Agrochemistry.
- 8- MSc. Nguyen Tat Canh, Department of Water Resource Management.
- 9- Mr. Do Van Nha, Department of Land Planning
- 10- Ms Nguyen Thi Minh, Department of Soil & Agrochemistry.

3. Provision of Equipment for faculty (Fiscal year 1998)

- + 01 Computer.
- + Air - conditioner in Central Laboratory(Both of faculty Agronomy & Land and Water Resource Management).

4. C/P Training

In fiscal 1999

1. Dr. Nguyen Huu Thanh, Department of Soil & Agrochemistry.

5. Establishment of working group for Central Laboratory

5.1 Original members:

1. Assoc. Prof. Pham Ngoc Thuy, Dean of Faculty land & Water.
2. Dr. Nguyen Huu Thanh, Department of Soil & Agrochemistry.
3. MSc. Do Nguyen Hai, Department of Soil & Agrochemistry.

5.2. Expended members:

- 1- Assoc. Prof. Dinh Van Hung, Department of Chemistry
- 2- Dr. Tran Van chinh, Department of Soil & Agrochemistry.
- 3- Dr. Nguyen Xuan Thanh, Department of Soil & Agrochemistry.
- 3- Dr. Nguyen Thi Hong Linh, Department of Chemistry
- 4- Mr. Nguyen Nhu Ha, Department of Soil & Agrochemistry.
- 5- MSc. Le Thi Bich Dao, Department of Soil & Agrochemistry.

6. Present situation of research on each field

6.1- Soil & Environmental Conservation Researchs.

6.2- Water Polution in Hanoi & Suburb areas.

Basic survey on water quality in suburb areas of Hanoi were conducted 3 times and one report has been made by C/Ps.

6.3- Contamination of Heavy Metals in Agricultural field.

It has been conducted by a long- term expert and C/Ps. Basic survey has been conducted once and one report has made by C/Ps.

6.4- Plan Nutrient Research.

It will be started in 2nd year.

6.5- Water Management Research.

It will be started in 2nd year.

7. Organization of Joint - workshop.

Joint - workshop on Soil and water issues in sustainable agricultural development was organized in August 16 th - 18 th 1999 in Hanoi Agricultural University with 9 scientific reports (01 from Japan Expert, 06

from LWM Faculty and 02 from other Scientific Institutes). The workshop was successfully after 3 working days .

8. Other activities

- 1. Organized 6 field trips in order to discuss on research topics with purpose to strengthen research capability and scientific exchanges of staff in faculty.**
- 2. Meeting and discuss frequently with long - term expert on trend of development of project in departments and in research topics which will implement in future.**

Hanoi 20/ 8/ 1999.
Faculty Land & Water Resource Management.

Comprehensive Index of Achievement Degree of the Project Objectives

	Score	
	Distribution of Marks	Sub-total
I. Equipment for Training and Researching is Improved:	30	30
II. Quality of Researches is Improved:	40	40
III. Quality of Education and Training is Improved:	30	30
Total	100	100

I. Equipment for Training and Researching is Improved (30 Scores):		
I-1. Number of major pieces of equipment introduced	40	
I-2. Frequency in the use of installed equipment	20	60
I-3. Number of books introduced (provided)	20	20
I-4. Number of equipment introduced in student laboratory	20	20
Total.....	100	100

II. Quality of Researches is Improved (40 Scores):		
II-1. Number of staff trained for utilization and maintenance of installed equipment	5	
II-2. Frequency in the use of installed equipment	15	
II-3. Number of books used by staff	5	25
II-4. Number of staff trained in foreign countries	20	20
II-5. Number of workshops/seminars held	5	
II-6. Number of staff attended at workshops/seminars	5	10
II-7. Number of presentations at workshops/seminars held inside & outside Vietnam	7.5	
II-8. Number of academic papers published inside & outside Vietnam	20	
II-9. Number of periodicals, proceedings and research bulletins published	7.5	35
II-10. Number of researches consigned from outside HAU	10	10
Total	100	100

III. Quality of Education is Improved (30 Scores):		
III-1. Number of curriculums improved	30	30
III-2. Number of students trained through experimental courses	20	20
III-3. Number of books used by students at FERD library	10	10

III-4. Percentage of students with Grade-A for
examinations and graduation theses

	40	40
Total.....	100	100

AGENDA

The second Joint Coordinating Committee. Aug. 26, 1999

1. Opening address from HAU (Rector Nguyen Viet Tung)
2. Address from HAU- JICA ERCB Project (Team leader, Dr. Kenji Cho)
3. Introduction of attendants
4. General situation of the project (inputs and outputs) until August, 1999 (HAU side)
5. Present situation of Faculty of Agronomy
6. Present situation of Faculty of Land and Water Resources Management (FLWRM and long-term expert)
7. Present situation of Faculty of Economics and Rural Development (FERD and Team leader)
8. Explanation of revised TSI (Tentative Schedule of Implementation), PDM (Project Design Matrix) and PO (Plan of Operation), AC (Project Achievement Chart)
9. Q & A
10. An address from each ministry
11. Closing address (Team leader of the project)
12. Closing address (Prof. Nguyen Viet Tung)

REPORT ON
THE IMPLEMENTATION OF HAU - JICA ERCB PROJECT (1998 - 1999)

The Education and Research Capability Building Project of Hanoi Agricultural University (HAU - JICA ERCB Project) have officially signed on June 24th 1998 between Government of Vietnam and Government of Japan. Since August 1998, the HAU - JICA ERCB Project has been started. During the last tenth months, the project has implemented several activities in staff qualification, staff exchange, and facility building for training and research. The following are the detail activities of the project:

I. Present situation of the project.

1. Dispatch of experts

1.1. Long - term experts.

- Prof. Dr. Kenji Cho, Project Leader
- Ms. Fujiwara, Project Coordinator
- Dr. Kiyoshi Kurosawa (Land and Water Resources Management)
- Dr. Kazunari Tsuji (Economics and Rural Development)

1.2. Short - term experts

1.2.1. In fiscal year 1998

- Prof. Dr. Fumitake Kubota, Faculty of Agronomy (Plant Photosynthesis)
- Dr. Masaru Matsumoto, Faculty of Agronomy (Plant Pathology)
- Dr. Sizuo Hayashi, Faculty of Agronomy (Agricultural Meteorology)

1.2.2. In fiscal year 1999

- Prof. Dr. Satoshi Kai, Faculty of Economics and Rural Development (Agricultural Marketing and Econometrics)
- Assoc. Prof. Dr. Masami Takagi, Faculty of Agronomy (Applied Entomology)
- Prof. Dr. Takeshi Murata, Faculty of Economics and Rural Development (Agricultural Policy and Structure)
- Assoc. Prof. Dr. Masami Ohtsubo, Faculty of Land and Water Resources Management (Soil Physics and Soil Management).

2. Assignment of C/P from HAU side.

2.1. List of counterpart personnel and administrative staff.

- Project Director: Prof. Dr. Nguyen Van Nhung, Director of International Relations Department, Ministry of Education and Training
- Project Manager: Prof. Dr. Nguyen Viet Tung, Rector of HAU
- Counterpart Personnel in the field of:

2.1.1. Agronomy

- Prof. Dr. Nguyen Huu Te, Dean of the Faculty
- Dr. Phan Huu Ton, Vice Dean
- Dr. Dang Thi Dung, Department of Entomology
- Dr. Nguyen Van Hoan, Head of Plant Breeding Department

- Dr. Tran Duc Vien, Head of Agro-Ecology and Environmental Science Department
- Dr. Doan Van Diem, Deputy Head of Agro-Ecology and Environmental Science Dept.
- Ms. Nguyen Thi Bich Yen, Department of Agro-Ecology and Environmental Science
- Ph.D Nguyen The Hung, Department of Food Crop
- MSc. Tran Dinh Chien, Deputy Head of Entomology Department
- MSc. Pham Van Cuong, Department of Food Crops
- Ms Pham Thi Minh Phuong, Department of Fruits, Flowers and Vegetables.

2.1.2. Land and Water Resources Management.

- Assoc. Prof. Dr. Pham Ngoc Thuy, Dean of the Faculty
- Assoc. Prof. Dr. Nguyen Dinh Manh, Vice Dean
- Assoc. Prof. Dr. Dao Chau Thu, Department of Agrochemistry
- Dr. Nguyen Van Tau, Head of Chemistry Department
- Dr. Nguyen Huu Thanh, Department of Agrochemistry
- MSc. Nguyen Van Dung, Department of Water Resources Management
- MSc. Do Nguyen Hai, Department of Agrochemistry
- Mr. Do Van Nha, Department of Land Planning
- Ms. Nguyen Thi Minh, Department of Agrochemistry

2.1.3. Economics and Rural Development

- Prof. Dr. To Dung Tien, Dean of the Faculty
- Assoc. Prof. Dr. Pham Van Dinh, Vice Dean
- Dr. Ngo Thi Thuan, Vice Dean
- MSc. Pham Van Hung, Department of Econometrics
- MSc. Nguyen Trong Dac, Department of Rural Development
- MSc. Nguyen Thi Minh Hien, Department of Rural Development
- MSc. Tran Huu Cuong, Department of Economics
- MSc. Bui Thi Gia, Department of Agribusiness and Management
- Ms. Nguyen Phuong Le, Department of Agricultural Economics

2.1.4. Administrative staffs

- Prof. Dr. Nguyen Truong Son, Vice Rector
- Prof. Dr. Vu Duy Giang, Vice Rector
- Dr. Nguyen Nguyen Cu, Vice Rector
- Assoc. Prof. Dr. Nguyen Quang Thach, Vice Rector
- Assoc. Prof. Dr. Ha Quang Hung, Head of International Relation Office
- Ph.D. Quyen Dinh Ha, Head of Finance Office
- Mr. Bui Huu Doan, Head of Administration Office
- Mr. Bui Duy Son, Head of Construction Office
- Mr. Duong Manh Duc, Deputy Head of Administration Office

2.2. Organization of regular General C/P Meeting and Joint Monitoring Committee

8 General C/P meeting and 3 Joint Monitoring Committee meeting have been organized up till now with the participation of major C/P. At the regular meeting, all aspects related to the implementation of the project was discussed and solved. The results of these discussions are very useful.

3. Provision of Equipment

(Equipment, machinery, training instruments, and books related to the activities of the project that HAU already received).

3.1. Faculty of Economics and Rural Development

❖ Equipment	Quantity
Computer	6
Photocopying machine	1
Air-conditioner	2
Stabilizer	6
UPS	5
❖ Books	
English books	326
Vietnamese books	36

3.2. Faculty of Agronomy

- Weather Station
 - Portable equipment 1 (set)
 - Unportable equipment 1 (set)
 - Air-conditioner 1

3.3. Faculty of Land and Water Resources Management

- Computer 1

3.4. Central Laboratory (for Faculty of Agronomy and Faculty of Land and Water Resources Management)

- Air – conditioner 7

3.5. Generator (to supply electricity for Weather Station, Central Laboratory and Office Building).

4. C/P Training

4.1. In fiscal year 1998

- Assoc. Prof. Dr. Nguyen Truong Son, Vice Rector (Administrative Management)
- MSc. Tran Huu Cuong, Faculty of Economics and Rural Development (Agribusiness Management)
- Dr. Dang Thi Dung, Faculty of Agronomy (Plant Protection)

4.2. In fiscal year 1999

- Prof. Dr. Nguyen Quang Thach, Vice Rector (Administrative Management)
- Dr. Nguyen Huu Thanh, Faculty of Land and Water Resources Management (Soil Science and Land Management)
- Dr. Ngo Thi Thuan, Faculty of Economics and Rural Development (Agricultural Marketing and Rural Development)
- Dr. Nguyen Van Hoan, Faculty of Agronomy (Genetics and Crop Breeding)
- Ms Nguyen Thi Bich Yen, Faculty of Agronomy (Agricultural Meteorology)

5. Establishment of working group in each field

5.1. Members of Working Group for Central Laboratory.

- ❖ Original members:

Faculty of Agronomy

1. Prof. Dr. Nguyen Huu Te, Dean of the Faculty (Head of the Working Group)
2. Dr. Phan Huu Ton, Vice Dean of the Faculty
3. MSc. Tran Dinh Chien, Deputy Head of Entomology Department

Faculty of Land and Water Resources Management.

4. Assoc. Prof. Dr. Pham Ngoc Thuy, Dean of the Faculty (Deputy Head of W.G)

5. Dr. Nguyen Huu Thanh, Department of Agrochemistry and Soil Science
6. MSc. Do Nguyen Hai, Department of Agrochemistry and Soil Science

❖ Expanded members:

Faculty of Agronomy

1. Mr. Dang Van Cuong, Department of Food Crop
2. Dr. Nguyen Van Hoan, Deputy Head of Plant Breeding Department
3. Dr. Ho Huu An, Department of Horticulture
4. Dr. Dang Thi Dung, Department of Entomology
5. Ms Nguyen Thi Bich Yen, Department of Agroecology and Environmental Science

Faculty of Land and Water Resources Management

6. Assoc. Prof. Dr. Nguyen Dinh Manh, Vice Dean of the Faculty
7. MSc. Nguyen Tat Canh, Department of Water Resources Management
8. MSc. Nguyen Van Dung, Department of Water Resources Management
9. Ms Le Thi Bich Dao, Department of Agrochemistry and Soil Science
10. Assoc. Prof. Dr. Dinh Van Hung, Department of Chemistry
11. Dr. Bui The Vinh, Department of Chemistry
12. Dr. Tran Van Chinh, Department of Soil Science
13. Dr. Nguyen Xuan Thanh, Department of Soil Science
14. Ms Nguyen Nhu Ha, Department of Agrochemistry
15. Dr. Nguyen Thi Hong Linh, Department of Chemistry

5.2. Members of Working Group for Weather Station

1. Prof. Dr. Nguyen Huu Te, Dean of the Faculty (Head of the Working Group)
2. Dr. Tran Duc Vien, Head of Agroecology and Environmental Science Department.
3. Dr. Doan Van Diem, Deputy Head of Agroecology and Environmental Science Dept.
4. Ms Nguyen Thi Bich Yen, Department of Agroecology and Environmental Science

5.3. Members of Working Group for Books and Library at the Faculty of Economics and Rural Development.

1. MSc. Nguyen Thi Minh Hien, Department of Rural Development (Head of the W.G)
2. Mr. Do Quang Giam, Department of Accounting
3. Ms Do Thi Nang, Department of Econometrics
4. MSc. Nguyen Tuan Son, Department of Economics
5. MSc. Bui Thi Gia, Department of Business Management

5.4. Members of Tentative Working Group for Formulating Rules in Utilizing JICA Project Cars:

1. Assoc. Prof. Dr. Ha Quang Hung, Head of the International Relation Office.
2. Mr. Duong Manh Duc, Deputy Head of Administration Office
3. Ms Mikiko Fujiwara, Project Coordinator of the HAU – JICA ERCB Project

6. Provision of land, building, and facilities

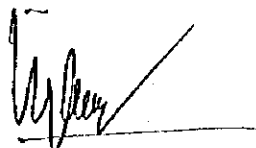
- 6.1. Office space for Japanese experts
- 6.2. Central Laboratory building and other necessary facilities.
- 6.3. Electric cable for generator

7. Organization of joint – workshop (See attached table)
8. Other activities. (See attached documents)
 - 8.1. Signing the documents related to the publication of JOURNAL between Hanoi Agricultural University and HAU – JICA ERCB Project. Title of the Journal is:
HAU JOURNAL - AGRICULTURAL SCIENCE AND TECHNOLOGY
 - 8.2. Signing the documents on rules for management, utilization, and maintenance of Weather Station, Central Laboratory, Library; and Computer room.
 - 8.3. Signing the documents on promotion of research activities.

II. Request from HAU to JICA

1. Budget for project activities
 - The proportion of the budget for activities of the project
2. Provision of equipment
 - Accelerating the procedures of provision of equipment for Central Laboratory and cars, in particular.
3. Additional budget for joint – research between researchers of Hanoi Agricultural University and JICA project experts.
4. Additional budget for the construction of Student Laboratory, Language Training System for staffs and students of HAU.

RECTOR
HANOI AGRICULTURAL UNIVERSITY



PROF. DR. NGUYEN VIET TUNG

**ORGANIZATION OF JOINT - WORKSHOPS ON MAJOR SUBJECTS AT THREE DIFFERENT FACULTIES
BY HAU - JICA ERCP PROJECT AND HANOI AGRICULTURAL UNIVERSITY.**

No	Titles of the workshops	Time	Faculty	Numbers of attendants		Numbers of scientific reports	
				HAU	Outside	Japanese	Vietnamese
1	Achievements and Future Developments on Agriculture in Japan and Vietnam. -Crop Culture, Crop Breeding, and Plant Protection-	April 7 th - 9 th , 1999	Agronomy	40	3	3	6
2	Agricultural Products Marketing in Japan and Vietnam	June 30 th - July 2 nd , 1999	Economics and Rural Development	26	13	3	6
3	Biological Control in IPM for Controlling Insect Pests of Crops in Japan and Vietnam	July 27 th - 29 th , 1999	Agronomy	32	8	3	8
4	Agricultural Co-operatives and Policy Issues in Japan and Vietnam	August 11 th - 13 th , 1999	Economics and Rural Development	32	13	3	6
5	Soil and Water Issues in Sustainable Agricultural Development	August 16 th - 18 th , 1999	Land and Water Resources Management	36	14	2	7

• Number of published proceeding: 1 (first workshop in the field of Agronomy)

• HAU - JICA ERCP PROJECT 090820 -

MEMO REGARDING ON " JOURNAL." OF HAU

1. Two volumes a year as a provisional plan. But one volume in this fiscal year because of very busy schedule in the remaining part of this year.
2. Invite voluntary contributions from all Faculties. (Provide all staff with opportunities to contribute papers).
3. Bear the expenses by both parties, HAU and JICA Project Office, on the basis of proportion of papers contributed from three target Faculties and all other Faculties.
4. Elect editorial members: Eight persons from HAU and two from JICA Project Office (Dr. Cho and Dr. Kurosawa). The chairperson of the editorial staff is elected from HAU side (Prof. Rector Tung). Secretary is also nominated from editorial staff of HAU side.
5. Editorial staff should perform the role of refereeing for the purpose to make the " HAU Journal" qualified as an academic issues. Editorial staff also shares all works and services needed for publishing the Journal.
6. Exchange the copies of " Journal" with other agricultural universities and institutions in Vietnam and some in other countries with the expenses of JICA side to bear.
7. Time schedule of the publication for the present year. Time limit of the submitting of papers is the end of October, and publishes by the end of December.
8. Accept papers written in Vietnamese, but English papers are appreciated. For papers written in Vietnamese, short English summary should be attached.
9. The title of the Journal is:
HAU JOURNAL * AGRICULTURAL SCIENCE AND TECHNOLOGY
10. We should discuss later among editorial staff if we should publish limited number of volumes of the translation of all papers in English.

RULES ON MANAGEMENT, UTILIZATION AND MAINTANANCE OF THE HAU - JICA WEATHER STATION

OBLIGATION

The Weather Station of Hanoi Agricultural University has been supported by HAU -- JICA ERCB Project for the purposes of improving the education and research capability in the field of agricultural sciences. Therefore, the Weather Station (WS) must be operated to perform the following obligations:

1. Collecting, preserving and correcting documents on meteorological factors in order to provide exact information for all scientific department of HAU.
2. Being the experimental and educational facilities for all students of HAU.
3. Providing information in the field of meteorology for researchers of other State organizations if it is needed.

RULE ON MANAGEMENT AND UTILIZATION

1. Supervisor, Management Board and Working Group.

- a. All the activities of the W.S must be under the supervisor and control of the Supervisor and Management Board nominated by Hanoi Agricultural University and JICA Project.
- b. Based on the transfer of right and responsibility, Department of Agro-Ecology and Environmental Science, Faculty of Agronomy directly manages and utilize the W.S. For the purpose to clarifying the responsibility of the maintenance and securing the efficient use of the W.S, the Management Board and Head of the Department concerned may nominated Working Group working on W.S from the staff of the Department. The Working Group members should take all responsibilities in maintaining and utilizing W.S under the supervision of the Management Board.

2. Maintenance, Security and Utilization.

- a. All equipment provided by JICA for W.S should be exactly listed in the Inventory of Equipment and the Inventory should be kept by the Management Board.
- b. The Management Board must be responsible for regularly checking the operation of all equipment; collecting, preserving and correcting data, which is in accordance with the general principles of General Department for Hydrography and Meteorology.
- c. Hanoi Agricultural University will employ security staff for W.S. Security staff have to take care the W.S everyday and night. They are belonging to Department of Agro-Ecology and Environmental Science in order to make their services more efficient and responsible. If any equipment is lost or damaged, security staff should inform management Board about the matter immediately.

3. Activities and Duties of the Working Group Members.

- a. All members of the Working Group must be well trained and familiar with all equipment and operation of W.S. They have to provide persons who are working on the W.S with guidance and training in advance. All persons have to fill in the register book when working on W.S.

- b. At the experimental area, lawn must be mowed regularly. The protected fence and surrounding area should be checked. Climatic and environmental conditions also should be kept in good condition all the time.
- c. Record book is required to closely watch the operation of all equipment as well as meteorological data. Between two working shifts, staffs have to hand over to each other. Always keep the recording room and surrounding area clean and dry.
- d. Data obtained on W.S must be analyzed and published at least twice a year in a proper content. Dr. Kurosawa will collaborate from JICA side in processing and publishing the data of meteorological factors.
- e. All the principles in fire precaution, labor and environmental protection must be complied with. Do not bring any chemicals, radioactive isotope, or explosive into the recording room. Everybody must make sure to turn off the light, close the window, and lock the door before leaving.

4. Utilization for Student Training and Other Purposes

- a. For students, when practice in the W.S, it is necessary to learn the manual and carefully read the instructions before using any equipment. The Training Affairs Department is in charge of arranging and informs the practice schedule at least 10 days before the working date to Department of Agro-Ecology and Environmental Science.
- b. Other State organization or individual that are interested in and needed to have some information in researching must have the permission of Hanoi Agricultural University. Even other faculties or individual of HAU also required to have the permission of Agronomy Faculty.

5. Violation

Any one who violates the above rules must be fully responsible for their violations.

RULES ON MAINTENANCE

Checking and Maintaining of the Equipment and Establishment.

1. Equipment Managing Office in collaboration with the Management Board set up the schedule for annual checking and maintaining equipment in W.S.
2. Every twice a year, all equipment including air -- conditioners, electric system must be checked and maintained.
3. In the case of the necessity of maintenance service, the University will invite experts for repair and maintenance.
4. The Management Board should know clearly the operation of equipment and regularly inform to Equipment Managing Office and experts about the condition of equipment and establishment.

**LIST OF MANAGEMENT BOARD AND WORKING GROUP OF
THE HAU – JICA WEATHER STATION.**

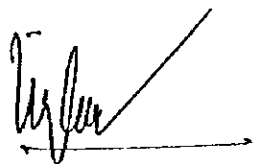
I. Management Board.

1. Prof. Dr. Nguyen Huu Te – Dean of the Faculty (Supervisor)
2. Dr. Tran Duc Vien – Head of Agro-Ecology and Environmental Science Department.
4. Dr. Doan Van Diem – Deputy Head of Agro-Ecology and Forecasting Department.
5. Dr. Kiyoshi Kurosawa, JICA expert
6. Ms. Mikiko Fujiwara, Project coordinator

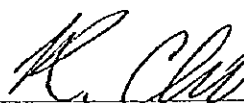
II. Working Group

1. Dr. Doan Van Diem – Deputy Head of Agro-Ecology and Environmental Science Dept
2. Ms. Nguyen Thi Bich Yen, staff of DAES
3. Mr. Tran Quang To, staff of DAES
4. Mr. Tran Manh Tuong, staff of DAES.

August 19, 1999



Prof. Dr. Nguyen Viet Tung
Rector
Hanoi Agricultural University



Prof. Dr. Kenji Cho
Team leader
HAU – JICA ERCB Project

**RULES ON UTILIZATION OF THE COMPUTERS, COMPUTER ROOM AND
OTHER EQUIPMENT (INCLUDING SOFTWARE FOR COMPUTER)
PROVIDED BY JICA.**

PREFACE

All equipment and other specific pieces of equipment (hereafter "other equipment") provided by JICA are served all researchers of the Faculty of Economics and Rural Development for study, research and preparation of educational materials.

RULES ON MANAGEMENT AND UTILIZATION

1. Management Board

- a. All equipment in the computer room and the utilization of them must be under the supervision and control of the Management Board nominated by Hanoi Agricultural University and JICA Project.
- b. The supervisor who represents the Management Board may nominate the person or persons in charge of the computer room and all kinds of equipment provided by JICA from staff or employees at the FERD.
- c. All equipment provided by JICA for computer room should be exactly listed in the Inventory of Equipment and the Inventory should be kept by the supervisor. The supervisor should know clearly the condition of the equipment and should take responsibility of the maintenance of the equipment.

2. Using Procedure

- a. When researchers (FERD staff) utilize computers and other equipment, they must get permission from the person in charge of them.
- b. When students want to utilize computers and other equipment, they have to get the permission of using them from the person in charge and to register the time when they enter into the computer room and leave there.

3. Period of utilization

- a. Opening time:
Weekdays and Saturday from 8 AM to 4 AM (except lunchtime)
- b. Closing day :
Sunday, National Holiday, During Tet holiday.
- c. All users can utilize the computers and other equipment in the computer room while the computer room open.

4. Obligation of users.

- a. Do not take any equipment out of the computer room
- b. Do not make any illegal copy of software in the computer room
- c. Utilizing computers and other equipment with care.
- d. When users cause damage to computers and other equipment, or find any damage on them, they must inform to the person in charge immediately.

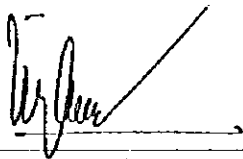
5. Obligation of the person in charge of the computer room and equipment.

- a. He or she has to grasp the situation or frequency of utilizing all equipment and report it to the Management Board at least once in every three months beginning from April.
- b. He or she has to keep the room always clean and to manage completely all equipment provided by JICA and give guidance about utilization of all equipment to users in a case.
- c. He or she has to inform immediately any trouble concerning all equipment to the Management Board.

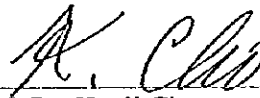
6. Remarks.

- a. These rules are applicable to all computers and other equipment provided by JICA.
 - b. List of the Management Board
 - Prof. Dr. To Dung Tien, Dean of the Faculty (Supervisor)
 - Prof. Dr. Pham Van Dinh, Deputy Dean of the Faculty
 - Dr. Kazunari Tsuji, JICA expert
 - Ms Mikiko Fujiwara, JICA expert
- ❖ The person in charge of the computer room and other equipment is:
Name: Ms Nguyen Thi Nhuan, staff of the Faculty

August 19, 1999



Prof. Dr. Nguyen Viet Tung
Rector
Hanoi Agricultural University



Prof. Dr. Kenji Cho
Team leader
HAU - JICA ERCB Project

RULES ON MANAGEMENT AND UTILIZATION OF JICA FERD LIBRARY'S BOOKS, JOURNALS, STATISTICS, AND OTHER MATERIALS.

PREFACE

All books, journals, statistics and other materials provided by JICA for the Faculty of Economics and Rural Development (FERD) are served at the library of FERD and utilized for study, research and education purposes of researchers and students at the FERD. In the case of necessity, researchers belonging to other Faculties of HAU could utilize them with getting permission of the person in charge of the library at FERD.

RULES ON MANAGEMENT AND UTILIZATION

1. Supervisor

- a. All books, journals, statistics, and other materials provided by JICA must be under the supervision of the supervisor nominated by Hanoi Agricultural University and JICA Project.
- b. The supervisor must take responsibility of the maintenance and utilization of all books and others that provided by JICA. However, the supervisor may transfer his or her rights and responsibility to librarians at the library of FERD.
- c. All books, journals, statistics, and other materials provided by JICA should be exactly listed in the Inventory of Books and the Inventory should be kept by the supervisor or librarians.

2. Checkout procedure and return

- When researchers (FERD staff) borrow some materials, they must register their name, title of books that they want to borrow and the date of checkout counter in library.
 - When students borrow some materials, they must show their own student's card to librarian and register their name, the title of books that they want to borrow and the date at the check out counter in library.
 - When researchers except FERD staff utilize the materials, they must submit a prescribed form to librarian in the checkout counter and obtain librarian's permission. Then, they can borrow some materials after the appointed procedures as well as FERD staff.
 - When borrowers return materials, they must hand it over to librarian directly or put it in the appointed box.
- ❖ Period of checkout.
- For researchers (FERD staff)
 - They can keep the materials that they borrowed in their office. But it is not permitted to take materials out of University.
 - Books: 2 weeks
 - Journals: 2 days
 - Statistics: 1 day
 - If they want to extend the period of borrowing materials, they must inform it to librarian in advance.
 - If their borrowed materials become overdue, a penalty will be assessed.

- For students and researchers except FERD staff.
- They can utilize the materials they borrowed while the library is opened. They are not permitted to take materials out of the library. But it is possible to make a reservation of the materials they need next day.
- Number of checkout
- Researchers: 5 volumes
- Students: 3 volumes

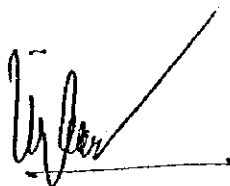
3. Others

- Borrowers must deal the materials with care.
- When borrowers cause damage to the materials or find any damage on the materials and lose the materials, they must inform it to librarian immediately.

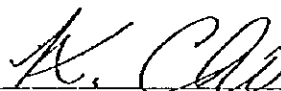
4. Remarks.

- a. These rules are applicable even to the books contributed by Dr. Cho (Kyushu University).
- b. Stamp "HAU – JICA ERCB PROJECT" must be sealed on all books and other materials JICA provides. Also, stamp "KYUSHU UNIVERSITY" must be sealed on all books Dr. Cho contributes.

August 19, 1999



Prof. Dr. Nguyen Viet Tung
Rector
Hanoi Agricultural University



Prof. Dr. Kenji Cho
Team leader
HAU – JICA ERCB Project

RULES ON MANAGEMENT, UTILIZATION, AND MAINTANANCE OF JICA CENTRAL LABORATORY'S EQUIPMENT.

I. RULES ON MANAGEMENT AND UTILIZATION.

1. All the activities of the Central Laboratory (C.L) must be under the supervisor and control of the Management Board (list is attached) nominated by Hanoi Agricultural University and JICA Project.
2. The Management Board may nominate Assistant Manager to each of the major piece of sophisticated equipment if it is necessary. When the Assistant Manager is nominated, the nominated person will assist Management Board in maintaining and utilizing the specific piece of equipment.
3. All equipment provided by JICA for Central Laboratory should be exactly listed in the Inventory of the Equipment and the Inventory should be kept by each supervisor of both faculties in order to manage and examine according to the principle of Ministry of Finance.
4. Within the framework of the project, the C.L is mainly utilized by teaching staffs and students of two faculties "Agronomy" and "Land & Water Resources Management." Other faculties of HAU also required to have the permission of the Management Board when working in the C.L.
5. It is a principle that, the users have to register to the Management Board at least 2 or 3 days before the expected working date. Make sure to get the permission from the Management Board when practice in C.L
6. Utilizing the equipment in C.L must comply the following principles:
 - a. Learning the manual and carefully read the instructions in order to familiarize with the operation of equipment. Fill in the register book when using equipment.
 - b. Make sure to turn off the light, water after finish working and always keep the experimental area clean and dry.
 - c. Chemical substance is required to bring by the user if necessary. If the user fail to practice by themselves and ask for help from managers, the expenses will be discussed later among them.
 - d. All damages, which caused by lack of attention, must be compensated. Inform the managers immediately if any problem has been found. Do not repair by yourself.
 - e. Keep the C.L quiet and do not eating in the room.
 - f. Do not take any equipment, instrument out of the C.L without manager's permission.
 - g. All the principles in fire precaution, labor and environmental protection must be complied with. All the chemical substance, heavy metal, and other radioactive isotope must be put safety in separated bags for settling.
 - h. Make sure to turn off the light, water and lock the door before leaving.

Any one who violates the above principles must be fully responsible for their violation.

II. RULES ON MAINTANANCE.

1. Maintenance according to annual plan.

- a. Equipment Managing Office in collaboration with the Management Board set up the schedule for annual checking and maintaining equipment in C.L, which is in accordance with the principles of Ministry of Finance.
 - b. Every twice in a year, all equipment including air – conditioners, electrical system, temperature ventilation system must be check and maintained.
 - c. In the case of some modern and complicated equipment, which required to have special maintenance service, Hanoi Agricultural University will invite experts for repair and maintenance.
 - d. The maintenance experts will be in charge of informing the staff of C.L and the user about the damage risk of each equipment in order to keep it in good condition all the time.
 - e. The managers should know clearly the operation of equipment and regularly inform to Equipment Managing Office and experts about the condition of equipment.
2. Regularly checking the installation of equipment and housing as follows:
- a. The installation of equipment, especially lighting and ventilation systems.
 - b. Water supplying and drainage system
 - c. Security
 - d. Fire precaution, labor and environmental protection.

LIST OF THE MANAGEMENT BOARD OF THE CENTRAL LABORATORY

I. Faculty of Agronomy.

1. Prof. Dr. Nguyen Huu Te (Dean of the Faculty), Supervisor
2. Dr. Phan Huu Ton – Vice Dean of the Faculty
3. MS. Tran Dinh Chien – Deputy Head of Entomology Department.

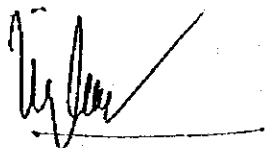
II. Faculty of Land & Water Resources Management

1. Assoc. Prof. Dr. Pham Ngoc Thuy (Dean of the Faculty), Supervisor
2. Ph.D. Nguyen Huu Thanh

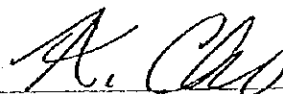
III. JICA Project

1. Dr. Kiyoshi Kurosawa, long – term expert
2. Ms Mikiko Fujiwara, Project coordinator

August 19, 1999



Prof. Dr. Nguyen Viet Tung
Rector
Hanoi Agricultural University



Prof. Dr. Kenji Cho
Team leader
HAU – JICA ERCB Project

資料4 学生実験室実験用機材に係る要望調査票(案)

別票5: 個別専門家派遣に伴う機材供与
要請案件調査票

対象事業	・ 専門家派遣事業(個別)
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国名	ヴェトナム	援助重点分野	
開発課題	ハノイ農業大学教育研究 能力強化プロジェクト	協力プログラム (プログラム番号)	

1. 機材案件名	(和) 学生実験室実験用機材 (英西仏) Laboratory equipment for training of students		
2. 専門家指導科目	農学部及び土地水資源管理学部		
3. 概算金額	498 万円	4. 機材調達先	<input checked="" type="radio"/> 日本 ・ 現地 ・ 第三国
5. 希望供与時期	2000年 6月頃	6. 据付技師派遣	必要 ・ <input checked="" type="radio"/> 不要 ・ 不明
7. 供与対象機関	(和) ハノイ農業大学農学部及び土地水資源管理学部 (英西仏) Faculties of Agronomy and Land/Water Resources Management, Hanoi Agricultural University		
8. 設置場所	同上 大学構内 (首都から 20 km)		
1. 必要性	本プロジェクトでは、プロジェクト目標にそった主要な投入として農学及び土地水資源管理学両学部の共同利用施設として「中央実験棟」建設を計画し、それを推進中である。しかし現在建設中の中央実験棟は教官研究用という性格が強く、これを学生実験用に共用するには不便や支障が強く伴う。幸いに、ハノイ農大では、現在農学部新館が建設中で同学部は今年度中にすべて新館に移転する計画であって、中央実験棟を建設中の箇所に接続した場所に本要請案件の「学生実験室」用スペースを確保することが本年度中に可能となる。学生実験室は生物・化学系と理工系に二分して広いスペースを確保し、これに学生実験用として必要不可欠な基本的機材を複数台数配置する計画で、こうした学生実験室の整備は、ハノイ農大の対象2学部での「教育・研究の質の向上」というプロジェクト目標の達成に対して極めて必要性の高いものである。		
2. 主な利用者	ハノイ農業大学のうち農学及び土地水資源管理学両学の学部学生及び大学院学生、合計 1,200名		
3. 期待される効果	ハノイ農大の中でも中枢をなしている農学及び土地水資源管理学両学部での教育カリキュラムの中では、現在、実験用機材の不備から実験による教育が極めて不十分、不適切な実態となっている。学生用実験室が整備できた際には、現在のカリキュラムを改正し、実験を強化することによって教育の質的向上という目標を達成していく効果が大きく期待できる。		

4.主要機材名	(仕様)	(数量)	(金額)
(1) 顕微鏡	接眼25倍×対物100倍 光源なし	10	1,000,000
(2) 電子天秤	0-1000g 最小測定単位0.01gr	2	100,000
(3) 低温乾燥機	最高温度180℃ 容積200ℓ	2	500,000
(4) ドラフトチャンバー	高さ150cm, 幅120cm, 奥行70cm, 照明器具付	1	2,000,000
(5) デシケーター	300×300×500(mm)	6	120,000
(6) オートクレーブ (高圧蒸気滅菌器)	容量200ℓ 最高温度140℃	1	500,000
(7) pHメーター	実験室用自動調節式	2	100,000
(8) 百葉箱	2号型	1	600,000
(9) 最高最低温度計	水銀U字型 外形30×15cm	2	20,000
(10) 温度計	外形20×15cm	2	40,000
(品目が多い場合、仕様が複雑な場合は別添資料として添付のこと)			合計: 4,980,000
5.相手側投入	維持管理予算: ハノイ農大側が負担		
	設置場所確保: ハノイ農大側で確保し、機材以外の整備も行う。		
6.実施上の留意点	※生物・化学系と理工系に実験室を二分して整備する。 ※別途建設中の「気象観測所」も学生実験・実習用に利用することを考える。		
7.優先順位	2件中 1位		

(A4. 仕様書等を別添のこと)

別票5：個別専門家派遣に伴う機材供与
要請案件調査票

対象事業	・専門家派遣事業（個別）
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国名	ヴェトナム	援助重点分野	
開発課題	ハノイ農業大学教育研究 能力強化プロジェクト	協力プログラム (プログラム番号)	

1.機材案件名	(和) 外国語学習用LL (Language Laboratory)システム機材 (英西仏) Equipment for Language Laboratory System		
2.専門家指導科目	農学部、土地水資源管理学部及び経済農村開発学部		
3.概算金額	386 万円	4.機材調達先	(日本)・現地・第三国
5.希望供与時期	2000年 6月頃	6.据付技師派遣	必要・(不要)・不明
7.供与対象機関	(和) ハノイ農大農学部、土地水資源管理学部及び経済農村開発学部 (英西仏) Faculties of Agronomy, Land/Water Resources Management and Economics and Rural Development, Hanoi Agricultural Univ.		
8.設置場所	同上 大学構内 (首都から 20 km)		
1.必要性	本プロジェクトでは、ハノイ農業大学の農学、土地水資源管理学及び経済農村開発学の3学部を対象にし、主として教官の教育研究能力の質的向上を目標としながら、機材の供与、専門家の派遣、C/P研修等を通してプロジェクト目標の達成に努めてきた。これに対してハノイ農大の場合には、プロジェクト対象である教官の外国語、特に英語の能力が低いことがプロジェクトの成果をより多くの教官に波及させていくうえでの大きな制約条件となっている。ハノイ農大側でもこのことを重視し、教官を対象にした外国語研修プログラムの開設を自ら計画し、本JICAプロジェクトに対しても協力要請がなされてきた。そのための講師派遣等に関しては第3国への協力要請がなされるのが適当であるが、それと併せて外国語学習用LLシステムを整備することができれば、外国語学習効果は一段と高まることになり、ひては、短期的・長期的にみて、対象3学部における教官の教育研究能力の向上という目標に対して大きく役立っていくことになるであろう。LLシステムの供与を必要と判断したのは以上のような理由からである。		
2.主な利用者	ハノイ農業大学のうち農学、土地水資源管理学並びに経済農村開発学3学部の教官、合計250名		
3.期待される効果	講師によるインストラクションと相まって、語学学習用LLシステムを併用しながら語学(英語)研修を行うことができれば、学習効果は一段と高まり語学能力の向上によって本プロジェクトの直接・間接の波及効果もまた高まっていくことが期待できる。		

12年度 課題別要請調査

4.主要機材名	(仕様)	(数量)	(金額)
(1) Master Console Unit	WE-LL200	1	1,320,000
(2) Master Tape Recorder	WE-LM20	2	194,000
(3) Student Tape Recorder	WE-LB20	20	1,716,000
(4) Headset	WE-5950	20	248,000
(5) Power Supply Unit	WE-PS20	1	385,000
(6)			
(7)			
(8)			
(9)			
(10)			
(11)			
(品目が多い場合、仕様が複雑な場合は別添資料として添付のこと)			合計: 3,863,000
5.相手側投入	維持管理予算: ハノイ農大側が負担		
	設置場所確保: ハノイ農大側で確保し、機材以外の整備も農大側で行う。		
6.実施上の留意点			
7.優先順位	2 件中 2 位		

(A 4、仕様書等を別添のこと)



JICA