

第4章 主要観点および課題の考察

4-1 農業農村開発のコンポーネントの妥当性

- (1) フェーズIIプロジェクトの主要なコンポーネントは、①小規模な灌漑システムなどの導入による主食（米）の自給の支援、②商品作物の探索と導入、農作物の多様化・複合経営の振興による市場経済へのアクセス促進などで農家所得を向上、③村落社会インフラの整備を通じた生活環境の改善、の3点である。
- (2) フェーズIIプロジェクトでは、県、郡の関係職員および対象村の村民に対して、低コストで持続可能な住民参加型の農業農村開発の手法・技術を移転するため、対象村での以下の各分野の活動を通じた農業農村開発の実証を行う。
 - ① 農業農村開発プロジェクトの計画、実施および評価
 - ② 農業基盤整備の適正な技術の確立
 - ③ 地域に適した農業生産技術の確立
 - ④ 農村生活環境の改善
 - ⑤ 農民の組織化と運営手法の強化
 - ⑥ 農民、村落リーダーおよび政府関係機関の職員の技術能力の向上

4-2 住民参加と自立発展性の確保

- (1) フェーズIIプロジェクトは、外国援助などによる資金調達を前提とした農業農村開発の実証に終わらず、地方政府および村落レベルでの自助努力による農業農村開発の手法および技術の改善をめざす。
- (2) 政府の農民への技術支援体制および能力の改善と、農民みずからの参加型の事業実施体制（計画、実施、評価）および能力の育成・強化が必要であり、県レベル、郡レベル、農村レベルのそれぞれに必要な能力の向上と、関係者および関係機関間のコミュニケーション能力を向上させる。フェーズIIプロジェクトの技術移転の対象は、地方政府のスタッフと農民の両方である。
- (3) 事業のすべてのサイクル（計画、実施、評価）に地方政府および農民が参加し、関係者間のコミュニケーションを活性化する。これにより政府の農業技術普及制度や農業振興金融制度と農民の自助努力を拡大的にリンクさせることを支援する。
- (4) 女性はAgricultural Work, Sales of Products, Maintenance of Infrastructure, Management of Cash Incomeなど大きく関係しており、女性同盟と協力して、フェーズIIプロジェクトのすべての活動に女性の参加を促進していく。

- (5) フェーズⅡの対象地域（ヴィエンチャン県）では、多くの援助機関およびNGOのプロジェクトがさまざまな農村開発のアプローチを試みており、これら他の農業農村開発および村落開発計画との情報交換を通じ、情報の共有および可能であれば、また必要であれば、活動の連携についても検討する。

4-3 開発モデル展示・実証の内容

- (1) 外国援助などによる資金調達を前提とした農業農村開発の実証に終わらず、地方政府および農民が融資制度の利用を含むみずからの資金および組織活動を通じて再現し得る開発モデルとする。
- (2) すべての活動において、他の地域の農民予備地方政府の関係者にとっても受入れ可能な開発手法および技術とは何かを明らかにするとともに、みえやすい形で整理し提示することに努力する。また、これを研修教材の拡充へと反映させる。

4-4 地域賦存資源に見合う開発計画

- (1) 市場経済化の途上にあるラオスの農村地域では、経済活動のための農民組織は未成熟であるため、伝統的な村落組織との関係を慎重に検討しながら、農民の意向を反映させた組織の育成および組織活動の活性化を行う。
- (2) 小規模灌漑システムなどのインフラ整備の事業では、地元で容易に手に入る資材および農民の労働力を最大限に活用する。
- (3) 営農調査、実証試験などを通じ導入可能な生産技術の見極めを慎重に行い、受入れ可能な技術の改善と導入を行う。

4-5 主要構造物のフィージビリティ（基盤整備の実施方針案）

(1) 問題認識

本プロジェクトは、本格的な農業農村開発計画（フェーズⅡプロジェクト）のフレームワークの検討・立案を目的とするものであり、調査団の目的は、プロジェクトチームの活動の成果としてのフレームワーク案が、ラオス側の要請内容（「住民参加による低コストで持続的な農村基盤の整備を含む総合農村開発の推進」）に合致した内容となっているかどうかについて調査・協議し、確認することであった。

対象村のひとつナムニャム村（優先順位第1位）でのプロジェクトチーム作成の基盤整備計画は、工費2000万円以上の内容であり、これは、①クレジット利用を想定した農民負担能力を超えていること、②米の増収に効果をもたらすが、かなりの部分は自給にあてられる部分となること、が判明した。また、計画内容の一部を公共投資的事業と位置づ

けたとしても、明らかにラオス政府の負担能力を超えていることなどから、これでラオス側の意図した要請内容「住民参加、低コスト、持続的」なものになっているとはいえないので、出発前の検討会において、基盤整備の適切な水準の設定(Justification)について、検討すべき課題を次のように整理した。

- ① 「外国などによる無償援助モデルとしての実証」というJustificationが成立するか。
- ② ニーズ分析、計画、設計、施工、維持管理という一連の過程における農民参加の部分を中心に引き出し、どう確保するか。
- ③ 可能な限り、真にラオス側の自助努力（政府資金、農民の役務、クレジットの活用）による開発モデルとしてJustificationできる計画内容に修正する。
- ④ 営農状況の社会・経済的な分析を踏まえた対象地域に適した生産技術体系の検討（達成可能な増収量の予想）、農家経営の全体のなかでの可処分所得の分析などを踏まえ、クレジットの利用を想定した場合の農家負担限度額を予測（設定）するべきではないか。
- ⑤ 村落道などの一部の公共性の高い施設の整備について、公共投資事業としてのJustificationがどこまで可能か。

また、ナムニャム村以外の対象予定村での基盤整備計画は、詳細設計を行っていないものの、5年間のフェーズⅡ計画の全体のなかでの実施可能性・妥当性を検討し、スケジュールなどを調整するために、現段階での5村すべての基盤整備計画案の内容を調査し、各工種ごとの実施方法、スケジュール、農民参加の方法・内容などについて検討した。

なお、現地調査では、ラオス側要人との面談などを通じて、特に留意すべきラオス政府側の問題認識として、援助国による各種農村開発の多くは協力期間終了後にラオス側独自で継続できないこと、米の自給とともに農家収入全体を増加させることが重要であること、住民参加、住民のオーナーシップおよびクレジットの活用が重要であることなどを確認した。

(2) 基盤整備の実施方針

現地調査の結果および帰国後の検討作業を踏まえ、基盤整備の実施方針は以下のとおりとするのが適当と判断した。

また、昨今のJICA予算の削減傾向は当面継続すると予測されること、および量より質の向上を強く求める方針を踏まえて成果の持続性（点から面への波及効果）、費用対効果の観点をこれまで以上に追求すべき状況にあることから、フェーズⅡにおけるプロジェクト基盤整備の適用条件および経費の歯止めには明快な整理・説明が必要とされ

る。以下の実施方針の整理は右状況を踏まえたものである。

① 整備水準の設定（総論）

- a. ラオス側からは、援助モデルとしてのJustificationを是とする見解はなく、また、本プロジェクトの対象村および対象地域は、将来、大規模な無償資金協力などの対象となるポテンシャルは高くないこと、ならびにLLDCであるラオスの公共事業の実施能力は現段階ではきわめて限定されていることなどから、基盤整備の規模（事業費）は受益農民によるクレジット利用を想定した規模を上限とするのが適当である。
- b. クレジット利用を想定した全体事業経費は、対象村に適した生産技術の検討に基づいた見込み増収量の検討と、農家経営全体のなかでの可処分所得の分析などを踏まえ、米増収が家計全体に及ぼすプラスの要因を予測し算出する。

〔クレジット導入を想定した整備水準の試算〕（注1、注2）

注1：今後のフェーズIの残余の期間内で試算方法などについてさらに検討をするものとし、ここでは考え方の例示にとどめる。

注2：ナムニャム以外の4村にかかる整備水準の設定についての検討は、フェーズIIの開始後のできるだけ早い時期までに行うことが必要。

増収予測：増収量Aトン/ha（現状1.29トン/ha）

償還期間：30年、金利7%

米販売価格：0.2USドル/kg（もみ）

受益面積：約50ha

その他

- ◎ 農外収入が約50%あることから、自給用米の増収量に相当する支出節約分のうちB%（たとえば50%）はクレジット償還に充当が可能なものと仮定。

● 限界事業費 = $A \times 0.2 \text{ USドル} \times \text{所得率} \times \text{限界支払い性向} (B\%) \div \text{年賦金率} \times \text{受益面積}$

たとえば、仮に、増収量2トン、所得率を90%（無肥料、無農薬）、限界支払い性向を50%とした場合の、ナムニャム村での事業費の試算は次のようになる。

$$2000\text{kg} \times 0.2 \text{ USドル} \times 90\% \times 50\% \div 0.08 \times 50\text{ha} = 11\text{万}2500 \text{ USドル} \\ = 1350\text{万円}$$

- c. 他方、ラオス側の政策上、ナムニャム村およびバンキ村では、焼畑抑制対策、貧困対策の観点から公共事業的な基盤整備のニーズが高いとの見解があるが、きわめて局地的な公共投資的整備事業が同様の条件下にある他の村落における一般

的なモデルと位置づけられるとは考えられないこと、また、幾人かの政府要人が指摘したように、自給用もち米のみではなく、作物の多様化および手工芸品などの地場産業の育成による農家収入全体 (General Income) の向上をめざした政策方針も重視されていることから、自給支援を主たる目的とした基盤整備事業をラオス側の負担能力 (政府の公共投資実施能力および農民負担能力) を超える水準で実施することは、低コストで持続的な農村開発を政策として掲げるラオス政府にとって、必ずしもプライオリティは高くないものと判断された。

- d. 上記の整備水準の設定の原則 (農民負担の原則) に従う場合、プロジェクトの基本構想のひとつである「米の自給支援」の効果発現が低下する可能性、住民参加のインセンティブの低下などデメリットが予想され得るが、本プロジェクトの基本構想である i) 米の自給支援、ii) 作物多様化・市場とのアクセス促進による農業収入の増、iii) 生活環境の改善の3つの柱全体での効果発現をめざす。
- e. 今後、外国からのローンを活用して、ナムニャム村以外の4村の基盤整備計画を検討するにあたって、試算した事業費用から想定したいくつかの代替案 (オプション) を事前に用意しておき、PCMワークショップなどの農民との対話の機会に選択させるようなアプローチを検討すべきである。

② 工種別の整備水準

現段階でのナムニャム村の基盤整備の計画内容 (工種) は次のとおりである。

i) 灌漑施設: (新設)取水堰、取水工、暗渠工、幹線水路、支線水路、付帯構造物

(改修) 取水堰

ii) 農地造成: 水田造成 (2カ所、 $9.2 + 4.8 = 14\text{ha}$)

iii) 村落道路: (新設および改修) 村落道路、横断暗渠工、橋梁保護工、付帯側溝

iv) 農道 (新設および改修) 農道、横断暗渠工、付帯側溝

a. 直接米の生産に栄養する施設 (上記 i) および ii)) については、上述(2)-①-b. の考え方に従い、クレジット利用を想定した場合の試算による事業経費の範囲内で行う。

b. また、村落道路および農道 (上記 i) および iv)) についても、原則として a. と同じく、上述(2)-①-b. における事業経費の範囲内で行える水準のものとし、市場への流通を確保できる最小限の必要施設の整備 (改修・補修) をその内容とする。村落道の整備はすべての住民に裨益する点で高い公共性が認められ、また開発誘発効果が大いことから、公共投資事業型の援助モデルとして (外国などによる無償援助のモデルとして) Justificationしやすい。前述のとおり、本プロ

プロジェクトで取り上げるモデルの実証は援助モデルとしての位置づけでは行わないこと、および上述(2)-①-c.の考え方と同様に他の類似条件下の村落で再現される状況にはないと判断する。

特に、ナムニャム村の村落道における橋梁の改修は、緊急に実施する必要の認められる構造物であり、公共投資的工事への支援として、可能な限り住民の負担を求めつつ実施することは可能である。同様に、村落道についてもプロジェクトによる直営工事と農民労働力の提供が受けられる範囲で実施することが可能であろう。

③ 工事の実施方法

a. 農民参加の形態

日本のプロジェクト方式技術協力で、プロジェクトの受益者(技術移転の対象者)である農民に、クレジット方式による資金借入れを指導し実践させることは困難と思われる、あくまでも基盤整備を実施するうえでの整備水準(事業規模)を、クレジットの利用を想定して設定するにとどめるものである。

農民に経済的負担を求めるためには、持続性の確保、他の類似地域・村落への波及効果の確保の観点から、地域賦存資源(資材・人材)の活用には、十分な配慮・工夫が必要となり、農民組織育成および計画・設計から維持管理までのすべての段階での農民の参加を最大限に組み込むような整備計画および整備後の維持管理計画とする。

また、持続可能な施設の維持管理および機械管理のための農民組織の運営資金を確保するために、建設の段階で小規模なりボルピングファンドなどの仕組みを検討していくことは有意義である。

b. 請負型、直営型、農民参加型の仕訳

工種ごとに施工方法の区別を明確にするとともに、それぞれの工事の型(タイプ)を組み合わせる場合には、その範囲・内容・方法を明確にしておく必要がある。

また、政府の民営化促進の方針および政府機関における機材などの維持管理能力の限界などを考慮し、工種によっては民間施工業者および重機リース業者の活用を図る方針とするが、道路などの日常管理および軽微な補修などに必要な最低限の重機および機材(排土板付きトラクター、小型バックホーなど)はプロジェクト直営機材として導入することが望ましいと考えられ、所有形態および管理運営方法などについてさらに検討する(県の所有とし農村開発センターが運営管理するか、各郡レベルが管理するか、あるいは一部の機材は村有とするのかなど)。

c. 工事スケジュール

ひとつの村落について1年（最大2年）ごとに順次各村の基盤整備を実施するというスケジュール案がプロジェクトチームから提案されたが、農民組織を育成・強化しつつ、比較的容易な工事から順次実施していくこと、および工事の段取りの検討、およびカウンターパート、農民などへの十分な技術指導と実施の合意取りつけを前提に、財源の許す限り複数村で複数の工種を同時並行的に実施し、3年次には全村で基盤整備工事をおおむね終了させる方針でスケジュールを再検討することとしている。

調査団作成のスケジュール案をたたき台として、今後、現地プロジェクトチームで詳細を再検討する。

[ラオス側が主導的にプロジェクトを実施する村落の設定]

プロジェクトチーム案では、5つの対象村のうち、ナピユイおよびボンホの2村はラオス側カウンターパートチームが主導的にプロジェクトを実施し、日本人専門家はサブ的な指導に専念することによりラオス側の自立を促進させることとしていたが、今次調査では、時間的制約により関係者との十分な協議が行えなかった。

これは基本的にはよい考え方と思われ、今後、基盤整備分野の詳細計画の内容がさらに詰まった時点でラオス側関係者と協議・確認すべきである。

4-6 実施体制とカウンターパートについて

(1) 責任実施体制

技術協力の実施上、重要な要素となる実施体制については、ラオス側と時間をかけて協議を行った。調査団側はプロジェクトの確実な実施体制確保の観点から、プロジェクト実施の責任者、プロジェクトの管理・実施上の責任者となるプロジェクトディレクター（中央）、およびプロジェクトの運営・技術管理上の責任者となるプロジェクトマネージャー（現地）の配置が必要との考えで協議に臨んだ。

しかし、ラオス側から、首相府の海外協力の窓口である協力投資委員会（C I C）が国レベルのラオスにかかわるすべての協力案件について監理を行うこと、また実施機関となる県農林部（P A F S O）に対しては、農林省が技術的指導、支援を行うことになっており、これらについては、どこの国の案件でも同じであって方針の変更は不可能との説明があった。このことから、ヴィエンチャン県で実施されるフェーズⅡの実施責任は、県にあるとの見解が述べられた。最終的には、フェーズⅡ実施の権限と全責任をヴィエンチャン県副知事が負うこととし、プロジェクトマネージャーの責任を兼ねるプロジェクトディレクターをプロジェクト実施の管理・運営・技術上の責任者とする組織体

制案で合意された。

合同委員会の議長には、ヴィエンチャン県副知事が、副議長には、国レベルの関係機関・組織の協力体制確保のため農林省官房長を、県側からは県農林部長をあてる案となった。この合同委員会は、県を中心に実施されるプロジェクトと、農林省をはじめとする国レベルの関係機関とをつなぐ重要な機能を担うものと考えられる。

この合同委員会の設置により、フェーズⅡは三国間の国レベルの国際協力を、県レベル、郡レベルの関係機関が中心となって実施する活動であるが、県の責任を明確化し、国レベルの関係機関の協力体制を確保することが期待できるものと考えられる。なお、ミニッツにおいても、農林省官房が農林省内およびヴィエンチャン県と外務省などの関係機関との調整の役割を負うことを確認している。

フェーズⅡの活動では、たとえば農村生活環境改善分野で県の保健部の協力が必要となるため、実施体制図では、県の他の部署との連携関係についても整理を行っている。

また、プロジェクトディレクターは専属で、プロジェクト活動のみならず、国中央にパイプを持ち合わせた人物の任命が必要との考えを日本側から示したが、この点は今後引き続きラオス側に求めていくことが必要である。また、調査時点では、プロジェクトディレクターに国の職員になるのか、県の職員となるのかは不明であったが、給料が誰によって支払われるかが重要なポイントとなろう。

(2) 県、郡の実施体制

フェーズⅡでは、日本の草の根無償資金援助により建設される農村開発センターを拠点に5つの対象村での活動が中心となるため、ヴィエンチャン県農林部（PAFSO）および5村を所管する3つの郡農林部（DAFSO）の役割は重要である。このため、各郡事務所では、村民と直接接することになる各1名の村落コーディネーターをすでに配置しており、体制づくりを進めている。ただし、これらの村落コーディネーターは、郡事務所での本来業務との兼務となっている。

しかし一方、郡事務所の態勢にもばらつきがある。たとえば、バンキ村の管轄が新設の郡に組み入れられるなど、組織機能への不安がある。引き続き郡の体制強化を求めていくことが必要であろう。

(3) カウンターパート

プロジェクト活動にとって重要なカウンターパートの配置については、各活動分野ごとの配属予定者の現時点での整理を行った（表1参照）。この結果、ほとんど専任となる県職員のカウンターパートが確保される予定になっており、評価できるものとなっている。

また、プロジェクト終了後の持続的な農村開発の支援が行われるためには各技術分野

に対応するカウンターパートおよび、各村を直接担当する郡職員の村落コーディネーターのみならず、各技術分野の郡職員がフェーズⅡの活動（研修プログラムを含む）に参加することが不可欠と考えられる。

4-7 日本の他の協力およびNGOなどとの関係

(1) JICAの林業分野のプロジェクト

① JICAは、ヴィエンチャン県北部地域で、本プロジェクトのほかに「ラオス森林保全・復旧工事（FORCAP）」（プロジェクト方式技術協力）および「ヴァンヴィエン地域森林保全流域管理計画」（開発調査）を実施している。各案件ともに住民参加による農林開発のアプローチをしており、土地利用計画の策定および各種の村落開発計画の実施を試みている。

特に、ヒンフップ郡バンキ村は対象村落として重複しており、同一の受益者および同一の実施機関（県農林部）であるため、従来から事業の調整と連携促進の必要性が指摘されており、1996年11月の計画打合せ調査の時点から農業プロジェクトと林業プロジェクトの連絡会議が行われてきた。

今回、調査団と農業プロジェクト専門家、林業プロジェクト専門家およびJICA事務所による意見交換の場を設け、今後の進め方について協議した。

② 両プロジェクト方式技術協力においては、すでに専門家間での連絡調整作業は開始されており、引き続き事業調整および作業調整を行うこととした。

③ バンキ村での活動にあたって、類似の調査・計画・実施を重複して行うことを避けるため、双方の情報の共有、活動範囲の明確化、および成果が期待される場合は共同での活動を検討し実施することとした。

具体的な事業調整・作業調整の内容としては、

i) 営農調査などの受益者に対する調査活動は、できるだけ調査の方法、調査の時期、調査者を共有するように努め、受益者および実施機関の混乱を避け、効率的に行えるように調整すること

ii) 農業プロジェクトがすでに着手している果樹の生産者および生産組織の育成の活動に対して、林業プロジェクトの育苗活動が優良苗を提供したり、農業プロジェクトで計画している果樹の第三国専門家（タイ人）による指導の際には、林業プロジェクトへの情報提供等も企画するなどの、連携プレーを検討すること

iii) 給水システムの改善などの農村生活環境改善に関する部分での、双方の活動範囲の明確化（重複の回避、可能であれば連携プレーの検討）を図ること

Ⅳ) 双方のPDMには、関係のある活動項目について、他方のプロジェクト活動との関係および連携活動の内容などについての注釈書き (Note) を加え、双方の関係が対外的にわかるようにすること

などが必要と考えられる。

④ 農業プロジェクトでのバンキ村にかかる詳細活動計画の策定作業が開始される時点から、林業プロジェクトも参画し共同して計画策定を行うこととした。このための第1回の会議は1997年9月をめぐりに行うものとし、また、会議日程および結果などは逐次JICAラオス事務所に報告することとした。

⑤ 林業プロジェクト (プロジェクト方式技術協力) は、1997年8月から開始される開発調査によるニーズ分析の結果などを、土地利用計画などに反映させる予定であるが、農業プロジェクトもこの開発調査の結果を尊重し、必要な場合は計画の一部の修正を検討する場合もあり得るので、前もって情報交換が求められる。

(2) 青年海外協力隊との関係

a. プロジェクトの枠組みのなかで、一部の分野・活動を青年海外協力隊 (JOCV) が担当することは現段階では計画していないが、将来的に、プロジェクトの実施機関である県農林部 (PAFSO) に農村生活環境の改善に関する分野 (保健衛生等) や、農家収入向上に関する分野 (手工芸、農業生産など) のJOCV隊員を配属し、プロジェクトと連携して対象村での活動を行うことは効果的である。

b. 今後、プロジェクトの詳細活動計画をさらに検討していくなかで、JOCVとの関係も検討していく必要がある。

(3) NGOなどとの関係

① トイレ、井戸、村落給水などの分野では、NGOやUNICEFが活発な活動を展開しており、農村生活環境改善の分野の活動を行うにあたっては、これらノウハウを蓄積した団体との情報交換が有意義である。また、そのほかに、手工芸などの生産・販売の指導や輸出のノウハウを有するNGOもあるようである。

② その他に、県・郡の女性同盟の活動を支援しているNGO (JVCなど) もあり、プロジェクトがWID分野での活動を行うにあたって情報交換を図っていくべきである。

第5章 フェーズIIの実施協議（予備協議）結果

5-1 討議議事録（R/D）案について

フェーズIIの討議議事録（Record of Discussions: R/D）案については、マスタープランのフレームワークおよびプロジェクトの実施体制を中心に協議を行った。

（1）マスタープラン

フェーズIIのフレームワークについては、準備フェーズの活動と成果を踏まえ、調査団とプロジェクトチームとの意見交換後、ラオス側との協議を行った。フェーズIIのキーワードは、「住民参加」と「持続性の確保」である。農民参加により計画が立案、実施、維持管理されるなど、その活動が持続的に行われ、また他地域への波及性があることの重要性について説明を行い、ラオス側の同意が得られた。マスタープランの日本側案を示し、フェーズIIのプロジェクト目標は、「住民参加による持続的な農業農村開発の手法と技術がヴィエンチャン県の5村を通じて実証されることとすること」で合意した。

（2）実施体制

日本側は、プロジェクトの実施体制確保の観点から、プロジェクトディレクターおよびプロジェクトマネージャーは、それぞれ中央レベルと現場活動拠点レベルを統括および調整する重要なポストであるので、それぞれの配置が必要である、との姿勢でラオス側との協議に臨んだ。

これに対し、ラオス側からは、フェーズIIはヴィエンチャン県を拠点として実施するものであり、このような場合、ラオスの方針として、どのようなプロジェクトであっても全権を県に委譲することにしており、農林省は技術的な指導・支援を行うことになっているとの説明があった。また、このため、ヴィエンチャン県で実施するフェーズIIの実施責任は県にあるとの見解が述べられた。

最終的に、フェーズIIの実施の権限と全責任をヴィエンチャン県副知事が負うこととし、プロジェクトマネージャーの責任を兼ねる専任のプロジェクトディレクターを、フェーズIIプロジェクトの管理運営および技術上の責任者として配置することで合意した。

（3）合同委員会

合同委員会の議長は、プロジェクトの実施責任者である県副知事とした。副議長には農林省官房長と県農林部長があたり、農林省官房長は、国レベルの関係省庁・関係機関などの協力体制の確保と調整に責任を負うものとした。

合同委員会の名称について、同委員会は調整機能のみならず、プロジェクト運営に責任をもってあたることから、「Joint Coordination Committee」ではなく「Joint

Steering Committee」(合同運営委員会)とすることで合意した。

(4) プロジェクト事務所

プロジェクト実施体制とあわせて、現在は農林省内のプロジェクト事務所と県側にあるプロジェクト事務所の2つを使用しているが、フェーズIIではプロジェクト事務所をいかに配置すべきかについて協議した。

日本側は、フェーズIIにおけるプロジェクトの諸活動は対象村および県農林部が中心となることから、活動の中心拠点となるプロジェクト事務所は県に確保することが必要であるが、同時に、農林省の関係各局、首相府国家協力投資委員会(CIC)および外務省などの関係各省、ならびにその他関係機関との連絡調整や、JICA事務所との連絡業務などを行うために、引き続き農林省内プロジェクト事務所を連絡事務所として存続させたいと主張した。

これに対してラオス側は、県が実施するプロジェクトの事務所は県に置くべきであり、農林省内事務所の必要性は認められないとの姿勢であった。また、農林省としては、他の類似プロジェクトでも同様の扱いをすること、関係機関の連絡調整などは農林省官房が責任をもってあたること、および県農林事務所は農林省と直結しており、国と県の連絡調整等に問題は生じないことなどを説明した。

最終的に、フェーズIIのプロジェクト事務所は農林省内には設置しないこととした。

プロジェクト事務所は、ヴィエンチャン県トラコム郡の県庁および県農林部庁舎の近隣に位置する同県試験場(約20ha)内敷地に建設中の県「農村開発センター(仮称)」(1997年度草の根無償援助で4月から建設中。1997年8月に完成の予定)内に設置することを確認した。予定されるセンターの施設(建物24m×14m、専用敷地面積は約1ha)は、事務所と小規模な研修室からなっており、付帯施設として車庫および給水施設がある。

(5) その他

フェーズIIは1997年11月1日から5年間実施することとし、現在の準備フェーズに引き続き継続的に実施するものとした。

その他、R/D案の本文に相当する部分については、定型書式であるため協議では問題とならなかった。

5-2 暫定実施計画（T S I）案および詳細実施計画原案について

（1） T S I案

マスタープラン案の検討および協議の結果確認したプロジェクト活動項目（大・中課題）ごとの実施スケジュール案を作成し、ミニッツで確認した。

（2） 詳細実施計画の原案について

村別および協力分野別の詳細実施計画についてプロジェクト専門家チームと検討・協議を行った。ナムニャム村（優先順位第1位）での詳細計画の作成作業はある程度進められているが、対象村全体での各協力活動課題別の、より詳細な実施スケジュール案を今後作成する必要がある。

今回の調査団とプロジェクトチームとの協議・検討作業の結果を踏まえ、ナムニャム村の詳細実施計画を早急に作成するとともに、対象村全体の詳細実施計画の作成に早急に着手することを専門家チームと確認した。

5-3 ミニッツについて

（1） ミニッツの構成・内容について

Part I、Part II、Part IIIの3部構成とした。

Part Iでは、準備フェーズの双方の投入実績の確認、T S Iの各活動項目別の活動の達成状況および成果、評価結果などについての調査結果を取りまとめた。

Part IIでは、Part Iの評価結果を踏まえ、フェーズIIの実施方針（戦略と方法）について①総合農村開発のコンポーネント、②持続性の確保、③開発モデルとしての展示・実証、④地域賦存資源の最大限の利用、⑤農業基盤整備の水準と実施方法、⑥各対象村でのプロジェクト活動の概要について記述した。

また、Part IIでは、フェーズIIプロジェクトのフレームワーク案を、R/DおよびT S Iの定型のフォームに従ってまとめた。

Part IIIでは、その他のフェーズII実施のために重要であると確認した事項を記載した。

その他、ANNEXおよびAPPENDIXとして、PDM、実施組織図、カウンターパート配置表、協力エリアの位置図、合同評価チームで使用した評価作業用のフォーマット（抜粋）などを添付し確認した。

（2） 署名者

当初、日本側は、ミニッツの署名者を農林省側代表農林省協力投資委員会委員長とフェーズIIの実施機関となる県農林部部長とすることが適当と判断していたが、農林省の機構改革により農林省協力投資委員会は農林省官房に吸収されたことと、ラオス側が農林省代表のみの署名としたい旨の意向を示したことから、合同評価チームのラオス側リ

ーダーを務めた農林省官房次長が署名者となった（官房長は出張中で不在）。

5-4 フェーズII実施上の留意点

(1) 住民参加について

本プロジェクトのキーワードのひとつである「住民参加」について、具体的にどのような形で参加を求めるのかを明確にする必要がある。精神のみを漠然と語るのではなく、対象村ごとに、どのような場合にどのような形で参加するのかを明確に整理し実行する必要がある。

このことは、農民側の負担とも密接に関連しており、クレジットで参加するのか、労務提供などで参加するのかなどの観点からも整理することが求められる。

(2) 持続性について

もうひとつのキーワードである「持続性の確保」については、農民みずからが建設し運用し維持管理できることが理想であることから、特に、施設の建設にあたっては、農民の要望があるから実施するというのではなく、プロジェクトの持続性（すなわち、受益農民のオーナーシップ）の観点からその整備水準を明確にすると同時に、その施設の位置づけ（Justification）を明確に整理することが重要である（整備水準・実施方法については、4-5に記述）。

また、持続性の確保のひとつの担保と考えて、施設の建設に着手する前に維持管理に対する農民組織の育成強化を行うことが必要である。組織化ができたところから着手すべきであり、できないものについては優先順位を繰り下げるべきである。

(3) 農民組織の育成強化について

計画打合せ調査以降、繰り返し述べられているとおり、本プロジェクトにとって農民の組織化をいかに進めるかが各分野において最も重要であることから、フェーズIIにおいては、これらのアプローチの仕方について具体的な方針をもって取り組む必要がある。

また、農業生産、農村生活環境改善にとっての女性の役割の大きさはいうまでもないことであるから、女性の組織の育成強化をも十分視野に入れた方針で臨むべきである。

この観点から、すでに設立が進められているVDCを村の既存機能に準じるものとして育て、可能ならばVDCを通じて村ごとの村落開発計画を策定させることが期待される。

(4) JICA林業プロジェクトとの関係

林業プロジェクトとの連携については、本プロジェクトとの事業調整・作業調整を十分に行い、同様の地域で類似の事業や調査を双方のプロジェクトが別々に行うことのないよう、それぞれの計画策定の段階から意見交換を十分に行いつつ協力して取りまとめ、

活動することが重要である。

(5) 環境への配慮

計画では米の収穫量の確保のために水田の造成が予定されている。また水稲などの肥培管理改善においては、肥料、農薬の施用が検討されている。

しかしながら村の生活用水は井戸水に依存し、溜池や水田では魚の養殖が行われていることから、水田造成による表土の流亡や肥料、農薬の流失による環境（井戸、養殖など）への影響には十分留意することが必要である。

また、ポンケオ村の既存の溜池は、簡易水道（洗濯用水）の水源であることから、溜池での魚の相放生産の実施にあたっては、溜池の富栄養化に留意する必要がある。

(6) 商品性作物の選択

稲作以外の作物の導入については“作れるもの”の選択も必要であるが、農家収入を確保する観点から、市場ニーズや消費者ニーズなどに留意し“売れるもの(儲かるもの)”も選択する必要がある。

また、一次製品の生産から付加価値を高めるための加工技術（塩蔵品、発酵品、魚の干物、燻製）などを指導する必要がある。

(7) 特産品の生産

各村では、特産品として刺繍、機織り、ほうき、酒類が作られており、農家収入の確保に貢献していることから、これらについての製造技術や販売方法などについての指導も検討していく必要がある。

(8) 短期専門家の派遣

生産分野の短期の専門家の指導は、一貫性、効率性などが要求されるため、フェーズⅡ実施期間の5年間を通して、原則として同一の短期専門家を派遣し指導する体制とすべきである。

第6章 早急に検討すべき課題

6-1 残余期間で解決すべき課題

本プロジェクトは、本格的プロジェクト協力（フェーズⅡ）に着手する前の事前準備を行うためのプロジェクト協力と位置づけられ（準備フェーズ）、2年間の協力が行われてきた。

準備フェーズでは、本格実施に必要なニーズおよび先行実施開発事例調査、モデル村の選定、住民参加型計画手法を用いたひとつの優先村の農業農村開発計画の準備、本格的実施協力のフレームワーク案の策定などを行うこととしているが、より円滑に本格協力へ移行するために、残りの協力期間に以下の事項についてさらに引き続き検討していくことが必要である。

- (1) 詳細実施計画についてさらに見直しを行い、フェーズⅡの実施体制の準備を行う。
- (2) 農村社会に関する調査を継続させる。
- (3) 作物の導入試作試験結果に基づいてフェーズⅡで取り上げるべき適作物の選定、および作物栽培技術の改良のための方法論の検討を継続する。
- (4) フェーズⅡの初年度に実施すべき営農調査の方法およびベースライン調査の項目などについて、さらに検討が必要である。

特にナムニャム村はフェーズⅡの対象5村中、最初の具体的活動を行う村であり、プロジェクト活動方法の方向づけを強める可能性が高いため、農業基盤整備の事業量が現時点で大きい詳細実施計画を、自立発展性、他の地域への波及効果、持続性および住民参加の実証の観点からさらに検討することが必要である。検討にあたっては、中央および地方政府（県、郡）の農家に対する技術支援能力および支援体制、農家負担方法としての労働力の提供および資金負担能力の見極め、ならびに、農民組織の育成および強化の可能性などの観点に注目する必要がある。

- (5) ラオス側のローカルコスト負担を増額するために、第2KR援助の当プロジェクトフェーズⅡへの運用に関するフォローアップを行う。
- (6) 農民負担原則の確保——農民負担の原則に照らし、基盤施設整備の必要性の検討（生産技術などで対応可能な増収範囲の検討）、受益の公平性の確保、生産技術移転水準、投資に伴う増収効果による償還の可能性などを総合的に検討し、開発を進めることが必要である。

6-2 第1年次詳細実施計画案

(1) 基盤整備分野の詳細実施計画

フェーズⅡのプロジェクト目標である、持続的な住民参加型農業農村開発の手法と技術の実証に大きく影響を及ぼすのが農業基盤整備分野である。農業基盤施設の整備水準の設定と工事の実施方法については、フェーズⅡの成果の持続性に大きくかかわるところだけに、住民のニーズのみを根拠に実施すべきではなく、ミニッツで確認したように、住民参加による実施（計画の立案、実施、農民の組織化、維持管理など）および、自助努力（労務提要、自己資金およびクレジットの活用など）による農家経済的に実施可能な計画について慎重に検討する必要がある。この検討は、活動第1村のナムニャム村だけでなく、他の4村についても協力期間初年度からさらに検討を加えていく必要がある。このため、農業農村開発計画、農業基盤整備、栽培分野での活動を全村で開始していくことが必要であり、成果の検討へのフィードバックは重要である。

ナムニャム村の詳細実施計画について、特に農業基盤整備に関しては、既存施設の改修に関する活動（整備水準の検討、農民組織の育成など）を先に着手し、新規施設については、1年目の実施状況を見て、整備水準の検討、関係組織の育成、整備を進めていくことが必要である。そのためにVDCあるいは水利組織のための農民組織の活性化は欠かせない。

(2) 試作結果の取りまとめ

フェーズⅡにおける適正な作目・品種の選定に必要な情報の収集や育苗、肥培管理、水管理などの栽培技術に関する問題点を把握し、農業生産に関する計画立案に資するために、稲、野菜、果樹、牧草、魚の養殖について、各村で試作が実施されているが、フェーズⅡの立上げをスムーズに行うために、試作に関する調査・分析などの取りまとめをフェーズⅡ期間終了までに行う必要がある。

(3) 生産分野と基盤整備分野との関連

それぞれの村の農業生産分野の計画と基盤整備分野の整備水準、施工時期などとの関連を整理、調整のうえ、各村の土地利用計画、営農計画などを作成することが必要である。

(4) 先行実施開発事例調査

先行実施開発事例調査において十分調査ができていない農民組織、および営農指導、技術などの追加調査が必要である。

資 料

MINUTES OF UNDERSTANDING OF THE JOINT EVALUATION
ON THE JAPANESE TECHNICAL COOPERATION
FOR THE AGRICULTURAL AND RURAL DEVELOPMENT PROJECT
IN VIENTIANE PROVINCE
IN THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

With about four months left until the termination of the cooperation period of the "Agricultural and Rural Development Project in Vientiane Province" (hereinafter referred to as "the Project"), which started on November 1, 1995, as stated in the Record of Discussions (hereinafter referred to as "R/D"), the Japanese Evaluation Team headed by Mr. Osamu UMEKAWA visited the Lao People's Democratic in order to conduct an overall review and evaluation of the performance of the Project and to confirm the framework of the next phase of the Project (hereinafter referred to as "the Phase II Project"). In order to achieve this, a Joint Evaluation Team (hereinafter referred to as "the Team") was formed consisting of the Japanese Evaluation Team and Lao Evaluation Team, headed by Mr. Khamphiou VISSAPRA, representing the Lao Ministry of Agriculture and Forestry and the Vientiane Provincial Authority.

The Team conducted interviews with the Japanese experts and the Lao counterparts assigned to the Project, had a series of discussions with the Lao authorities concerned, made field surveys and exchanged views among the members of the Team. The Team also acknowledged the captioned the Phase II Project will be transferred to the Vientiane Provincial Authority.

As a result, the Team agreed to forward to their respective Government a summary of the evaluation as well as the draft of the framework of the Phase II Project, and recommendations which are referred to in the document attached hereto.

Vientiane, July 10, 1997

梅川 治

Mr. Osamu UMEKAWA
Leader
Japanese Evaluation Team
Japan International Cooperation Agency
Japan



Mr. Khamphiou VISSAPRA
Leader
Laotian Evaluation Team
On behalf of Ministerial Cabinet
Ministry of Agriculture and
Forestry
The Lao People's Democratic
Republic

JOINT EVALUATION REPORT
ON THE JAPANESE TECHNICAL COOPERATION
FOR THE AGRICULTURAL AND RURAL DEVELOPMENT PROJECT
IN VIENTIANE PROVINCE
IN THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

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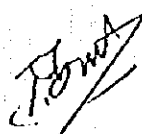

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(1) 合同評価報告書

PART I.....EVALUATION OF THE PROJECT

I. INTRODUCTION

The Government of Lao PDR has carried out a lot of trials to achieve a market oriented economy after the New Economic Mechanism (NEM) Policy. Agriculture is the most important sector in Lao PDR, absorbing about 80% of population and occupying about 54.3% of GDP in 1995. In line with the policy for a market oriented economy, the Government of Lao PDR is aiming to increase the living standard in rural areas as one of the important policies. As the strategy of this policy, the government is promoting "participatory and sustainable agricultural and rural development with cost effective agricultural infrastructure development".

In order to realize this strategy, the Government of Lao PDR requested "project type of technical cooperation" to the Government of Japan in February 1992, which aims at the transfer of methodology of agricultural and rural development to the concerned Lao side through the verification of participatory agricultural and rural development in the target villages.

The Government of Japan agreed to extend the cooperation and is carrying out the preparatory project as the first phase for the implementation of agricultural and rural development suited to the Lao PDR over a period of two (2) years since November 1, 1995. The objectives of the project are : (i) to prepare the effective methods of project implementation based of the study on the present situation and needs of agricultural and rural development, agricultural infrastructure and agricultural production, and existing development projects in the Lao PDR, (ii) to select and prioritize the target villages, and (iii) to formulate the framework of the agricultural and rural development project in the second phase.

II. OBJECTIVES OF EVALUATION

To evaluate the activities and performance of the preparatory Phase (November 1995 - October 1997) and to formulate the Framework (draft) for the phase II Project for continuous implementation onward.

(Evaluation and consultation were conducted jointly with the Lao Evaluation Team)



III. METHOD OF EVALUATION

III-I. Scope of Work

The work items are scheduled as follows;

- (1) Exchange of opinions and discussions
- (2) Detailed inquiry by questionnaire sheets (for individual discussions)
- (3) Field visits
- (4) Signing on the minutes of understanding attached with the following ;
 - Part I Evaluation of the Project
 - Part II Framework for the Phase II Project
 - Part III Other important issues to be followed up
(if mutually understood)

III-II Schedule of Study

The schedule of the evaluation study is as attached in APPENDIX I.

III-III Format for Evaluation Study

The Team utilized the format attached in APPENDIX II, for effective implementation of the study and smooth confirmation of the study results.

IV. MEMBERS OF THE JOINT EVALUATION TEAM

1. The Japanese Evaluation Team

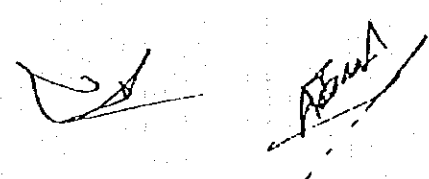
- (1) Mr. Osamu UMEKAWA : Leader
Director, Kyushu Regional Land Improvement Engineering Center,
Kyusyu Regional Agricultural Administration, MAFF
- (2) Mr. Toshiyuki KASAI : Sub-Leader & Agricultural and Rural Development
Planning
Development Specialist, Institute for International Cooperation, JICA
- (3) Mr. Akihiko IHARA : Cooperation Planning
Senior Technical Officer, Technical Cooperation Division,
International Affairs Department, Economic Affairs Bureau, MAFF
- (4) Mr. Kazuhiro WATANABE : Agricultural Infrastructure
Section Chief, Design Division, Construction Department,
Agricultural Structure Improvement Bureau, MAFF
- (5) Mr. Osamu OKUDA : Agricultural Production
Deputy Director, Crop Production Division, Agricultural Production Bureau,
MAFF

(6) Mr. Yutaka IWATANI : Technical Cooperation
Staff, Agricultural Technical Cooperation Division,
Agricultural Development Cooperation Department, JICA

(7) Mr. Kazuyuki SHIMAZAKI : Evaluation Assistant
Consulting Engineer, Agricultural Development Department,
Nippon Koei Co., Ltd.

2. The Lao Evaluation Team

- (1) Mr. Khamphiou VISSAPRA : Leader
Deputy Director General, Ministerial Cabinet, MAF
- (2) Mr. Chanthavong SENEAMATMOUNTRI :
Deputy Head, Division for International Cooperation & Investment,
Cabinet Office, MAF
- (3) Mr. Khamdi ATSAYAVONG :
Deputy Director, Provincial Agriculture and Forestry Service Office, Vientiane
Province (PAFSO)
- (4) Mr. Khamhot CHOUNLAMOUNTRY :
Project Manager, Agricultural and Rural Development Project in Vientiane
Province (ARDP), MAF
- (5) Mr. Khamsay SOUMOUNTHONG :
Deputy Project Manager, ARDP, PAFSO
- (6) Dr. Soulasith OUPRAVANH :
Deputy Director, Department of International Economic Cooperation,
Committee for Investment and Cooperation, Prime Minister Office
- (7) Mr. Somchith THONGPHANHUANGSY :
Deputy Head, Technical Division, Department of Irrigation, MAF
- (8) Mr. Bounmy XAYMOUNTRY :
Chief of Epidemiology Section, Department Livestock and Fisheries, MAF
- (9) Mr. Khamxay SIPASEUTH :
Technical Officer, Foreign Cooperation and Investment Section,
Department of Agriculture and Extension, MAF

Two handwritten signatures in black ink are located at the bottom right of the page. The first signature is a stylized, cursive mark, and the second is a more legible signature with a horizontal line underneath it.

V. RESULTS OF THE EVALUATION

V-I. ACCOMPLISHMENTS OF THE ACTIVITIES OF THE PROJECT

1. INPUTS BY BOTH SIDES

A. JAPANESE INPUTS

(1) Dispatch of experts

a) Long-term experts

The Japanese side has dispatched experts in accordance with the R/D and the TSI. A total of five (5) experts have collaborated, including a team leader, coordinator, and experts in agricultural and rural development planning, agricultural infrastructure and agricultural production.

b) Short-term experts

In addition to the long-term experts, ten (10) short-term experts have been dispatched in the areas of such as project cycle management, irrigation, hydrological analysis, soil, fish culture, livestock, structural design (2), agricultural economy and women in development, for smooth implementation of the Project.

(2) Acceptance of trainees

The Japanese side has accepted seven (7) Lao counterpart personnel as trainees in Japan for technical training in the fields, of agricultural rural development planning, agricultural extension, irrigation and drainage, and rice production.

(3) Provision of machinery and equipment

The Japanese side has provided or some are under processing of provision machinery and equipment, including vehicles, motor-cycles, survey equipment and computers, valued at about 60 million Japanese Yen (JY) in order to carry out the Project activities effectively, as attached in APPENDIX III.

(4) Supplementation of expenditure for local costs

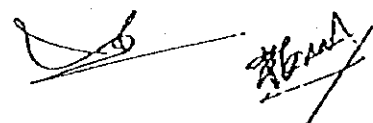
To implement the Project smoothly, the Japanese side has been covering a part of the project management cost related project activities (fuel cost, etc.), topographical survey, language training for counterparts and travel expenses, valued at nearly JY 20 million.

B. LAO INPUTS

(1) Provision of land, buildings and facilities

The Lao side has provided land as well as buildings and facilities as follows :

- Project office including drawing room and storage space for equipment in MAIF
- Site office at Phonmi village, Thoulakhom District



(2) Assignment of counterparts and other personnel

The Lao side has assigned counterparts and other personnel for the administration and management of the Project. Until now 14 full-time counterparts and 4 part-time counterparts, including some administrative personnel have been assigned, as attached in APPENDIX IV.

(3) Allocation of budget

The Lao side has allocated 40 million Kip of the budget in 1995/96 and 30 million Kip in 1996/97 and their realizations are as follows.

(Unit : '000 Kip)

Year	Budget Allocation	Realized Expenditures	Major Items of Expenditure
1995/96	40,000	33,253	Renovation of office buildings and facilities, etc.
1996/97	30,000	12,411	Farmers' training, Infrastructure development, Livestock development and agriculture extension activities, etc.

(Salaries and travel allowances for counterparts and local staff are excluded.)

2. PROJECT ACTIVITIES AND ACCOMPLISHMENTS

A. STUDY ON THE METHOD FOR PARTICIPATORY AGRICULTURAL AND RURAL DEVELOPMENT PROJECT IN THE LAO P.D.R AND VIENTIANE PROVINCIAL AUTHORITY IN PARTICULAR

(1) Agricultural and Rural Development Planning

The following activities have been performed in this field :

- a) Collection and review of existing data and information on ;
 - relevant agricultural policies of the Lao PDR Government, and
 - agricultural statistics of nation-wide and Vientiane province,
- b) Socio-economic conditions and needs assessment at five target villages by a project cycle management (PCM) method

A series of PCM workshops were held by the project team at five target villages in April and May, 1996. It took three days for one village. PCM is composed of analyses of participants, problem tree and objective. A workshop, attended by around 15 villagers at each village, is led by a moderator (Lao counterpart). Based upon the results, a project design matrix was prepared for designing a project framework. Another PCM workshop was held at Namngam village in February 1997. The PCM is scheduled to be implemented on a time series during the Phase II Project.

- c) Farm household survey of all members of Namnam village, first priority of the Phase II Project

Total number of 107 households were surveyed through questionnaires and interviews. The items are related to family members' details, agricultural production and home economy. Variety of hints on project component have been drawn from both the above PCM workshops and the farm household survey. The modality of this kind of survey consists a part of baseline survey which will be utilized in monitoring and evaluation in series. However, there is somewhat a room of improvement for further accuracy.

- d) Farm household economy study particularly focusing on farmers' repayment capacity in the case of credit application for infrastructural development.
- e) Studies of past and on-going foreign assistance projects in the field of agricultural and rural development in Lao PDR to examine significant problems and experiences for effective implementation methods applicable for effective implementation method of the Phase II Project.

Particular attention was paid to irrigated agricultural development, community development and the credit program of APB.

- f) setting of priority order for five (5) selected target villages (formally called model villages)
- g) Preparation of an agricultural and rural development plan for the first priority village by applying a participatory planning approach
- h) Preparation of a framework of realistic technical cooperation project
- i) Relevant studies on improvement of rural living environment

One of foreseeable component of the Phase II Project is to contribute to improvement of rural living environment, rural road, rural water supply (including potable water), latrine in particular. Only extensive studies have been carried out so far. It has been observed that some of five target villages have already been improved to a certain level thanks to some NGO's assistance activities.

Further studies to plan project activities are expected in the remaining period together with persons in the fields of agricultural infrastructural development.

(2) Agricultural Infrastructure Development

(2)-1 Study of Present Situation and Needs of Small Scale Irrigation Development and Other Rural Infrastructure Development

a) Activities

The study of topography, climate, hydrology and present conditions of existing irrigation facilities were made for promoting improved agricultural infrastructure.

The present condition of the existing village roads were investigated. And, PCM workshops were done in order to identify the villagers' needs.

b) Accomplishment

Topographical map with a scale of 1/5,000 was prepared for the planning. Some of the existing irrigation facilities were constructed by the farmers themselves, however because of insufficient construction materials and budgetary allocation, and lack of construction technology these facilities are not functioning well.

c) Outstanding matters

The study of climate and hydrology should be made continuously. The planning and designing of agricultural infrastructure facilities for the following villages should be continuously done focusing on reducing the costs of construction, operation and maintenance, and also on the technical level of the farmers. Further basic study of rural infrastructure should be done.

(2)-2 Study of Present Situation and Needs of Water User's Association

a) Activities

The existence of water users' group was investigated and the operation and maintenance system of the existing irrigation facilities were studied for the future planning of operation and maintenance system in the target villages. PCM workshops were carried out to identify the farmers needs regarding the irrigation facilities.

b) Accomplishment

There are no specific water users' association in the target villages, however cooperating works for repairing village/farm roads and traditional irrigation facilities in the village level are existent. These existing cooperative activities will be enhanced for the future planing of farmers' organization.

c) Outstanding matters

The establishment and organizing the water users' group should continuously be made for better operation and maintenance of the proposed facilities. It is important that before the beginning of construction, the water users' group should be established and well organized and ready for the operation and maintenance of the facilities.

(2)-3 Study of Present Situation of Existing Development Projects

a) Activities

The study of the existing agricultural and rural development projects applying to promoting credit systems was carried out to examine the possibility of these kind of approach in the Phase II Project.

b) Accomplishment

For applying credit system, the program of Agricultural Promotion Bank (APB) is available in the objective areas. However, because of the limited financial

source in APB and very complicated procedure, etc. the farmers feel some difficulty for the realization of credit.

c) Outstanding matters

For applying credit system, it is important to evaluate the farmers' financial capability to share the construction cost thoroughly based on the analysis of farm economy.

(2)-4 Study of the Effective Method of Implementation

a) Activities

The study of capability of existing local contractors was made from the both technical and financial or management view points to evaluate the possibility of introduction of construction system on contract base to the Phase II Project.

b) Accomplishment

Since a lot of infrastructure development projects are on going in Lao PDR in these days, the local contractors have much chance to get such experiences. There exist some local contractors, who have capability of construction of such level as proposed in the Phase II Project.

c) Outstanding matters

The study of existing local contractors should be consequently made to evaluate their experiences, technical capability of construction, and management capability on contract bases.

(3) Agricultural Production

(3)-1 Study of Present Situation and Needs of Agricultural Production

a) Activities

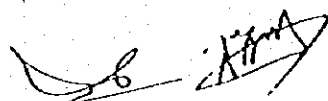
Farm household economy survey to all the farmers in five (5) villages was carried out to grasp the present agricultural condition and PCM workshops were held to clear the farmers' problems of production.

b) Accomplishment

Present conditions such as cultivation areas, yields and production scales of rice, upland crops, horticulture, livestock and fish culture were cleared. And, problems of the farmers were cleared through PCM workshops.

c) Outstanding matter

Trial and comparative experiments were tested at each farm selected model farmer's in each village and it is necessary to use these results for training for village farmers and spread production technology to the villages.



(3)-2 Study of Present Situation and Needs of Farmers' Organization

a) Activities

Farm household economy survey to all the farmers in the five (5) villages was carried out to grasp the present agricultural society and PCM workshops were held to clear the farmers' present situation and needs.

b) Accomplishment

It was cleared that village committee, youth group, women's group and etc. were the administrative organizations in each village through the household economy survey. In addition the organizations described above, rice bank group and credit group are functioning in some villages. However, no farmers' production groups were found in the objective villages through PCM workshops.

(3)-3 Study of Present Situation of Agricultural Extension

a) Activities

Extension system in the level of national, provincial and district were surveyed to grasp the existing extension system. And, farmers' intention was cleared through PCM workshops.

b) Accomplishment

Agricultural extension activities to the farmers are limitedly acted by Salakham Agricultural Extension Agency in the level of national level, PAFSO in the provincial level and DAFSO in the District level.

c) Outstanding matters

The extension activities to the model farmers of each crop are implemented mainly by district extension workers in each villages.

(3)-4 Study of Present Situation of Existing Development Projects

a) Activities

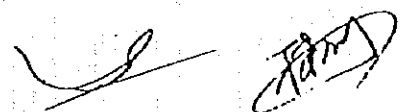
Study of existing participatory projects was carried out as a reference for the promotion of the Phase II Project.

b) Accomplishment

The data of the effects by the improved farming technology such as increasing cash income, increasing the yields and improving farm economy are not sufficient so far for the planning or referring.

c) Outstanding matters

It is necessary to study the situation of the operation and maintenance of existing water users' group and the guideline of the production technology of existing projects.



(3)-5 Study of the Effective Method of Implementation

a) Activities

The results of various kind of studies mentioned above and the data from PCM workshop were deeply analyzed and the study of the effective method of implementation for the Phase II Project were thoroughly examined.

b) Accomplishment

Based on the results of farm household survey and supplemental survey (including bench mark survey), the existing farming types are categorized into five (5) groups by development type. Concrete trial programs for wetland rice, upland crops, horticulture, livestock and fish culture are prepared for the detailed action programs in the Phase II Project.

c) Outstanding matters

The planning of agricultural production and the development level and construction period of agricultural infrastructure should be fully coordinated for the effective method of implementation of the Phase II Project.

B. SELECTION OF TARGET VILLAGE WITH PRIORITY ORDER

(1) Selection of Target Villages

The following five (5) villages were proposed to be target villages in the Phase II, based on the criteria, examined by the Project Team and this concept were agreed at the meeting between Consulting Team and the Lao side concerned in November 1996.

Target Villages in the Phase II

- a) Namnam village in Thoulakhom District
- b) Vangkhi village in Hinheup District
- c) Phonkeo village in Phonhong District
- d) Napheuy village in Thoulakhom District
- e) Phonho village in Phonhong District

(2) Priority

In the meeting between Consulting Team with the Lao side concerned in November 1996, Namnam village was determined to be the first priority village in the Phase II. Then, with the examination by the Joint Evaluation Team such priority order as Namnam, Vangkhi, Phonkeo, Napheuy and Phonho has been confirmed.

C. PREPARATION OF THE FRAMEWORK OF THE PHASE II PROJECT

- (1) Based on the results of the studies of "problem analysis and objective analysis through PCM method", and of present condition, needs and the existing

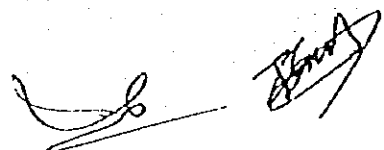
development projects, and through the discussions with Consultation Team, the basic concept of the Phase II for agricultural and rural development in Vientiane Province is confirmed as summarized below.

- a) The Phase II Project will verify the sustainable development in five villages as a kind of model.
 - b) In order to achieve the objective, the following activities are mainly focused on.
 - Identification and development of agricultural infrastructures,
 - Establishment and enhancement of the systems for operation and maintenance of the facilities, and
 - Bringing up of necessary human resources such as key persons both in villages and local authorities levels
- (2) Among the basic concept mentioned above, the following three (3) items are confirmed as main components:
- a) To support the farmers in attaining self-sufficiency of staple food (rice) through such measures as the introduction of small scale irrigation systems and others.
 - b) To promote the access to market oriented farming through the trial introduction of cash crops and finally to increase farm income. and
 - c) To develop the rural living environment through developing rural/social infrastructure and improving sanitary conditions, etc.
- (3) Based on the advice by the Consultation Team in November 1996, examinations about proper methods for agricultural infrastructure development and its development level as a model in the target villages were made from the view points of sustainability and effect of model verification (far-reaching effects and expansion into the other areas). The following points were fully examined for the project sustainability.
- a) Capability of technical support to the farmers by the central government and local authorities (Province and District).
 - b) Possibility of improvement of the supporting system above.
 - c) Possibility of participatory construction, including labor force and credit system
 - d) Possibility of organizing and enhancing farmers' groups
- (4) The second workshops in each village were carried out in order that such participatory elements as farmers' sharing cost were drawn out properly. As for the level of infrastructure development in the first priority village of Namngam, through the economic analysis (including cost and benefit analysis and internal rate of return analysis) and detailed design, the facilities and some activities (construction, maintenance, etc.) for which will be participated by the farmers and the method of participation should be fully understood in planning.

- (5) On the other hand, software fields such as agricultural and rural development planning and agricultural production, the following activities have brought about the fairly good outputs.
- a) Participatory planning methods together with bringing up of PCM workshop moderators through on-the-job training were transferred to the government staff.
 - b) Trial experiments participated by the farmers were started.
 - c) The possibility of bringing up of the farmers' production group was studied.
- (6) In the Phase II, in addition to the respective activities in each field such as agricultural and rural development planning, agricultural infrastructure development and agricultural production, the necessity of the following activities with the coordination of the above mentioned fields was confirmed. They are activities for i) improvement of living environment, ii) strengthening of farmers' organization, and iii) bringing up of human resources.
- (7) It is recognized that for implementing modalities to facilitate sustainable rural development, the participation of district staff, who will be directly in charge of the each target village is indispensable in addition to respective counterparts, who will be in charge of technical matters in each field. It was also confirmed that the participation of district staff will verify such implementing modalities, which will be applicable to the other areas.
- (8) It was confirmed that participation of women farmers and women groups in the Phase II Project will be important elements for the activities in the fields of agricultural production, improvement of living environment and strengthening of farmers organization. Women are deeply involved in agricultural works, agricultural and handicraft sale, and managing cash income, as well as participate in village-level infrastructure maintenance. And, in some villages, women even play significant role in decision making on credit. It is important to promote the women's participation.



V-II CONCLUSION OF THE EVALUATION

- (1) After a detailed evaluation of the project activities and accomplishments, the Team concluded that the project activities described in the R/D were successfully completed and recommend that the "Agricultural and Rural Development Project in Vientiane Province, Phase II" would be started immediately after the termination of the Project.
- (2) The Team acknowledged that the Phase II Project will be transferred to the Vientiane provincial authority.
- (3) The strategy, method and the draft of the framework are described in PART II.



(4) The following activities should be carried out during the remaining period of the Project;

- continue to prepare the foreseeable executing structure for the implementation of the Phase II Project through further reviewing the detailed implementation schedule
- continue the studies on rural society
- continue to identify the crops, which will be consequently targeted in the Phase II based on the results of experimental trials and to examine the methodology for the improvement of cultivation techniques
- continue to examine the methodology of the farm survey, which will be made in the first year of the phase II and items of base line survey, etc.



(2) フェーズII実施方針とフレームワーク案

PART II.....THE DRAFT OF FRAMEWORK FOR THE PHASE II PROJECT

I. STRATEGY AND METHOD OF THE PHASE II PROJECT

1. COMPONENTS OF INTEGRATED RURAL DEVELOPMENT

(1) The main components of the Phase II Project are the following three (3) items.

- a) To support the farmers for self-sufficiency of staple food (rice) through such measures as the introduction of small scale irrigation systems and others
- b) To promote the access to market oriented farming through the introduction of adapted cash crops and finally to increase farm income
- c) To develop the rural living environment through developing rural/social infrastructure and improving sanitary conditions, etc.

(2) Methodology and technology for participatory and sustainable agricultural and rural development with cost effect is transferred to the government staff of provincial and district offices and the farmers of the target villages. In order to achieve the target above, the verification of agricultural and rural development is carried out through the following activities.

- a) Improving the methodology of planning, monitoring and evaluation for agricultural and rural development;
- b) Improving the agricultural infrastructure technology;
- c) Verifying, improving and disseminating the appropriate technology for agricultural production;
- d) Improving the rural living environment,
- e) Organizing and strengthening farmers' groups; and
- f) Conducting trainings on methodology of agricultural and rural development planning, agricultural infrastructure, agricultural production, and improvement of rural living environment and strengthening farmers' organizations

2. SECURING SUSTAINABILITY

(1) The phase II Project aims at the verification of the method and technology for agricultural and rural development, not with a precondition of financing by some foreign assistance but finally only with self-efforts by the local government and village level, even though some hardship villages need some financial assistance as public investment because of physical and/or social reasons.

- (2) Two (2) software components regarding the human resource development are needed for the Phase II Project, namely i) improvement of the technical supporting system to the farmers by the government staff and their capability and ii) enhancement of the implementation system of participatory projects (planning, implementation and evaluation) and bringing up the capability of the participants. In this connection, the Phase II Project aims for increasing capability of the staff and farmers at provincial, district and village level, respectively and also aims for increasing the communication capability between the personnel concerned and organizations concerned.
- (3) Both the local government staff and villagers will participate in all the project cycle (planning, implementation, evaluation) and activate the communication among the people concerned.
- (4) Since women are fairly related to such works as agricultural works, sales of products, maintenance of infrastructure and management of cash income, women's participation in all the activities of the Phase II Project is strongly promoted.
- (5) The exchange of information with other agricultural and rural development projects existing in Vientiane province and other provinces will be frequently made. And, if necessary, the program of cooperative activities with these organization will be examined.

3. DEMONSTRATION • VERIFICATION AS DEVELOPMENT MODEL

- (1) The Phase II Project does not aim to verify the agricultural and rural development with a precondition of financial support by foreign assistance, but finally aims to be a development model, which will be implemented through self-funding including credit and the effort of farmers' group.
- (2) Through all the activities, the Phase II Project will carry out acceptable development method and technology to demonstrate visibly for other villagers.

4. MAXIMUM USE OF LOCAL RESOURCES

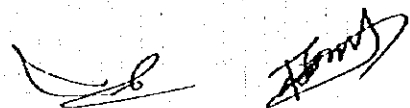
- (1) Market oriented economic activities are still on the way to the target in Lao PDR, particularly in rural areas. The activities of farmers' organization for economic purposes are very poor. Therefore, traditional village community systems should be carefully examined and farmers' intentions should also be reflected in the programs of bringing up and enhancing of the farmers' groups.
- (2) For the programs of infrastructure development such as small scale irrigation system, local materials which will be procured in the area easily and labor force by the farmers will be fully utilized.

- (3) Through the farm household survey, the proper production technology should be examined carefully, and improved, before introducing to farmers.

5. APPROPRIATE LEVEL OF THE IMPROVEMENT OF THE AGRICULTURAL INFRASTRUCTURE FACILITIES AND METHODOLOGY FOR IMPLEMENTATION

Level of the infrastructural improvement

- a) In case of improvement in agricultural and rural infrastructures, the improvement level will be, in principle, not beyond the level of the public investment to be undertaken by the Lao Government and also within the farmers' cost-sharing capacity. In case of public investment to be supported by aid programs, the investment level shall be carefully studied by its viability. In the case of the proposed gravity irrigation systems and rural/farm road improvement for Namngnam village, which will require a bit greater construction costs and harder maintenance of the facilities by the farmers group, a particular criteria may be carefully formulated, in order to promote sustainable agricultural development and also contribute to reduce on-going shifting cultivation practices by the villagers through enhancement of effective irrigated farming at low lands in line with the Government's policy. Similar application will be due for the case of Vankbi village. Even this will be the case, a partial bearing of investment cost will be borne by the beneficiary farmers to allowable extent.
- b) In other villages than Namngnam, a development plan shall be prepared, taking into account of the improvement level which can be attained by self-effort of the Lao side. However, in case the Lao side has certain difficulty to achieve the targeted level, the level shall be modified to such level on the basis of careful economic evaluation of the schemes that sustainability and methodology can be maintained. Nevertheless, self-efforts of the Lao side should be maintained to utmost extent.
- c) As sustainable operation and maintenance of the facilities after their construction will be one of the key conditions of the project, technical and investment level of the facilities to be promoted through the project shall be such level within that farmers' groups will be capable to operate and maintain by themselves without difficulty.



6 Outline of the Project Activities in the Target Villages

(1) Nam Gnam Village

1) Village Profile

People	:	Lao Soung
Population	:	768
Number of Household	:	110
Religion	:	Animism and Christianity
Area of Agricultural Land		
Rain-fed Rice		68ha, Irrigated Rice 0ha, Upland Rice 60ha,
Other upland field		48ha(Pasture)
Rate of Rice Self-sufficiency	:	43%
Agricultural Income	:	280,300 kip / household
Major source of income	:	Money Transfer, Handicraft, Salaries
Rate of Agricultural Income in Agricultural Household Income	:	48%

2) Development Methodology

Nam Gnam village is located at the foot of a mountain. Although currently a lot of people in the village depend on slash-and-burn farming in the mountain area, the shifting cultivation area will be expected to be reduced by increasing lowland farming production as the result of the Project. The development methodology used in this village could be applied to other villages in the similar circumstances in the province.

3) Targets

- Increased production of rice for self consumption
- Diversification of agriculture by promoting livestock
- Improvement of living environment through betterment of wells and latrines

4) Activities in the Phase II Project

a. Agricultural and Rural Development Planning

Activities

- The Farming and Socio-Economic Survey will be conducted in the first year as " Bench-mark Survey", followed by yearly monitoring activities from the second year. At the end of the project, the final evaluation survey will be conducted using the same methodology used in the initial bench-mark-survey.

- Such project management activities as appraisal, surveying, planning, designing, monitoring and evaluation will be conducted adopting participatory approach.
- A village development plan will be prepared by the villagers as part of the above project activities.

Human Resource Development

- Methodology of the Farming and Socio-Economic Survey will be disseminated to the counterparts of the provincial level from the Japanese Experts. Training will be conducted for community leaders and district staff through the counterparts trained.
- Methodology of participatory project management will be disseminated to the counterparts from the Japanese Experts.
- Methodology of Socio-Gender Analysis/Planning will be disseminated to the counterparts from the Japanese Experts.

b. Agricultural Infrastructure Development

Activities

- Such activities as construction and rehabilitation of irrigation systems for the supplementary irrigation in rainy season and improvement of village road will be conducted under the project.
- Second and tertial canals will be constructed by beneficiary farmers on contribution basis.

Construction Methodology

- Crucial conditions are such as a village development plan, organization of water user groups, prior consensus, labor contribution by the villagers, and so on.
- Construction and rehabilitation of weirs, main water canals, and a main village road will be carried out by contractors duly selected among irrigation construction enterprises and private contractors, depending upon further studies on construction modality.
- Extent of partial cost bearing by the beneficiary farmers/villagers will be carefully taken into consideration in order for them to undertake proper operation and maintenance.
- Secondary and tertial canals will be constructed by beneficiary farmers on contribution basis.

Human Resource Development

- Methodology of the agricultural infrastructure development, namely designing, construction, construction, operation and management of the facilities as well as water management will be disseminated to the counterparts of the provincial and district level from the Japanese Experts. Meanwhile training will be also conducted for the members of water users groups through the counterparts trained.

c. Agricultural Production

Activities

(Major Activities)

- Trials to verify proper production technique on rice and pasture for the area will be conducted, and field demonstration will follow for extension purpose.

(Other Activities)

- Some trials for vegetables, fruit trees and fish culture will be carried out to test potential development for the area.

Human Resource Development

- Methodology of the trials, demonstration and extension of agricultural technique will be disseminated to the counterparts of the provincial and district level from the Japanese Experts. Training will be conducted for community leaders and district staff through the counterparts trained.

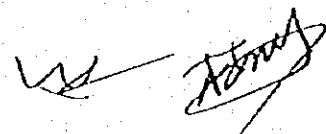
d. Improvement of Living Environment

Activities

- Wells will be constructed to supply potable water to villagers.
- Latrine will be improved to improve sanitary conditions.
- Technical advice will be given to school building construction and repair.
- The above activities will be carried out on participatory basis.

Human Resource Development

- Methodology of the improvement of living environment will be disseminated to the counterparts of the provincial and district level from the Japanese Experts. Training will be conducted for community leaders and district staff through the trained counterparts.



e. Strengthening Farmers Groups

Activities

- Village Development Committee will be organized and strengthened.
- Water Users Groups will be organized and strengthened to participate in the construction work of the irrigation system and to operation and maintenance of the system including water management.
- An Agricultural Promotion Group will be organized and strengthened cropwise.
- Women's group will be developed to facilitate equal participation of women in above-mentioned organizations.

Human Resource Development

- Methodology how to manage and guide Village Development Committee will be disseminated to the counterparts of the provincial and district levels from the Japanese Experts. Training will be also conducted for community leaders and other key farmers in respected fields through the counterparts trained.
- Methodology how to promote participation of women and the socially marginalized will be disseminated to the counterparts of the provincial and district levels from the Japanese Experts.
- Methodology how to facilitate strengthening women's capability will be disseminated to the counterparts of the provincial and district levels from the Japanese Experts.

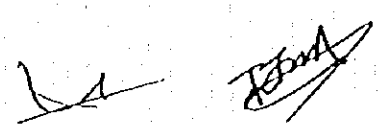
Training

- Training will be provided for the Government staff concerned, community leaders and other key farmers on agricultural and rural development planning including gender and development, agricultural infrastructure development, agricultural production for farmers, community leaders and the project staff.

(2) Vangkhi Village

1) Village Profile

People	: Lao Loum, Lao Theung
Population	: 895
Number of Household	: 159
Religion	: Buddhism (Lao Lum), Animism (Lao Theun)
Area of Agricultural Land	



Rain-fed Rice 24ha, Irrigated Rice 0 ha, Upland Rice 57ha,
Other upland field 0ha
Rate of Rice Self-sufficiency : 41.3 %
Agricultural Income : 135,300 kip / household
Major source of income : Salaries, Money Transfer, Trade Benefit
Rate of Agricultural Income in Agricultural Household Income : 19%

2) Development Methodology

Vangkhi village is located in a mountainous area in which people are dependent on slash-and-burn farming. The development methodology used in this village could be applied to villages in the similar circumstances in the northern areas of the province.

3) Targets

- Increased production of rice for home consumption
- Diversified agriculture by promoting fruits production
- Improved living environment through extension of latrines and establishment of a water supply system

4) Activities in the Phase II Project

a. Agricultural and Rural Development Planning

Project cycle management by participatory approach, including monitoring and evaluation

b. Agricultural Infrastructure Development

Rehabilitation of weirs, canals

Farm road construction

c. Agricultural Production

Major Activities : Rice and Fruit Trees

Other Activities : Pasture, Vegetables, and Fish Culture

d. Improvement of Living Environment

Latrine, Water supply, Village road improvement

e. Organizing and Strengthening Farmers Groups

Village Development Committee, Water Users Association, Agricultural

Promotion Group, and Women's Group

f. Training

Agricultural and Rural Development Planning including socio-gender analysis/planning, Agricultural Infrastructure Development, Agricultural Production

(3)Phonkeo Village

1)Village Profile

People : Lao Loum

Population : 537

Number of Household : 93

Religion : Buddhism

Area of Agricultural Land

Rain-fed Rice 77ha, Irrigated Rice 0ha, Upland Rice 0ha,

Other upland field 92ha (Pasture)

Rate of Rice Self-sufficiency : 72.6%

Agricultural Income : 212,300 kip / household

Major source of income : Trade Benefit, Salaries, Money Transfer,
Handicraft

Rate of Agricultural Income in Agricultural Household Income : 32%

2) Development Methodology

The village area of Phonkeo consists of lowland and hilly areas. A weir was built to irrigate rice fields, but the capacity of the irrigation pond is not sufficient to meet the demand of water for rice. In the project, the irrigation system will be rehabilitated for more efficient and effective irrigation. The development methodology used in this village could be applied to villages in similar circumstances in the province.

3)Targets

- Increased production of rice for home consumption
- Diversified agriculture by promoting fish culture
- Improved living environment through extension latrines

4)Activities in the Phase II Project

a. Agricultural and Rural Development Planning

Project cycle management by participatory approach, including monitoring and evaluation

- b. **Agricultural Infrastructure Development**
 - Improvement of weir, canal construction
 - Farm road construction
- c. **Agricultural Production**
 - Major Activities : Rice and Fish culture
 - Other Activities : Pasture, Vegetables, Fish Culture
- d. **Improvement of Living Environment**
 - Latrine
- e. **Organizing and Strengthening Farmers Groups**
 - Village Development Committee, Water Users Association, Agricultural Promotion Group, and Women's Group
- f. **Training**
 - Agricultural and Rural Development Planning, Agricultural Infrastructure Development, Agricultural Production

(4) Napheuy Village

1) Village Profile

People : Lao Loum
 Population : 824
 Number of Household : 133
 Religion : Buddhism

Area of Agricultural Land

Rain-fed Rice 109ha, Irrigated Rice 7.2ha, Upland Rice 6.1ha.

Other upland field 114ha (Pasture)

Rate of Rice Self-sufficiency : 70.8%

Agricultural Income : 189,300 kip / household

Major source of income : Salaries, Money Transfer, and Trade Benefit

Rate of Agricultural Income in Agricultural Household Income : 34%

2) Development Methodology

The village of Napheuy consists of lowland and hilly areas. Two weirs were built to irrigate rice fields, but the capacity of the irrigation pond is not sufficient to meet the demand of water for rice. In the project, the traditional irrigation system will be rehabilitated for more efficient and effective irrigation. The development

methodology used in this village could be applied to villages in similar conditions in the province.

3) Targets

- Increased production of rice for home consumption
- Diversified agriculture by promoting dry season vegetables
- Improved living environment through extension of latrines

4) Activities in the Phase II Project

- a. Agricultural and Rural Development Planning
Project cycle management by participatory approach, including monitoring and evaluation
- b. Agricultural Infrastructure Development
Rehabilitation of reservoir. Construction of canals
Farm road construction
- c. Agricultural Production
Major Activities : Rice and Dry season vegetables
Other Activities : pasture, Vegetables, and Fish Culture
- d. Improvement of Living Environment
Latrine
- e. Organizing and Strengthening Farmers Groups
Village Development Committee, Water Users Association and Agricultural Promotion Group, Women's Group
- f. Training
Agricultural and Rural Development Planning, Agricultural Infrastructure Development, Agricultural Production

(5) Phonho Village

1) Village Profile

People : Lao Loum
Population : 334
Number of Household : 58
Religion : Buddhism
Area of Agricultural Land
Rain-fed Rice 69ha, Irrigated Rice 0ha, Upland Rice 0ha,

Other upland field 119ha (Pasture)
Rate of Rice Self-sufficiency : 118%
Agricultural Income : 498,200 kip / household
Major source of income : Salaries, Casual Work in Agriculture, Trade
Benefit
Rate of Agricultural Income in Agricultural Household Income : 47%

2) Development Methodology

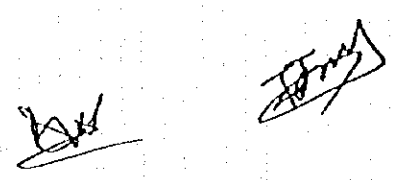
Phonho village is located in the midst of lowland. Although people in the village are mainly engaging in rice culture, all of the paddy fields are rain-fed. Due to lack of surface water, pumping irrigation from tubewell(s) for vegetables in both wet and dry season is planned. The development methodology used in this village could be applied to other villages in the similar circumstances in the province.

3) Targets

- Increased production of rice for home consumption
- Diversified agriculture by promoting rainy season vegetables
- Improved living environment through extension of latrines

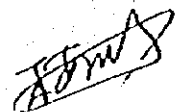
4) Activities in the Phase II Project

- a. Agricultural and Rural Development Planning
Project cycle management by participatory approach, including monitoring and evaluation
- b. Agricultural Infrastructure Development
Tubewell pump irrigation
Farm road construction
- c. Agricultural Production
Major Activities : Rice, Rainy season vegetables, and Fish culture
Other Activities : Pasture, Fruit Trees
- d. Improvement of Living Environment
Latrine, Village Road
- e. Organizing and Strengthening Farmers Groups
Village Development Committee, Water Users Association and Agricultural Promotion Group, Women's Group



f. **Training**

**Agricultural and Rural Development Planning, Agricultural Infrastructure
Development, Agricultural Production**



II. FRAMEWORK FOR THE PHASE II PROJECT

1. COOPERATION BETWEEN BOTH GOVERNMENTS

- (1) The Government of the Lao People's Democratic Republic will implement the Agricultural and Rural Development Project in Vientiane Province, Phase II (hereinafter referred to as "the Phase II Project") in cooperation with the Government of Japan.
- (2) The Phase II Project will be implemented in accordance with the Master Plan which is given in ANNEX I.

2. MEASURES TO BE TAKEN BY THE GOVERNMENT OF JAPAN

In accordance with the laws and regulations in force in Japan, the Government of Japan will take, at its own expense, the following measures through JICA according to the normal procedures under the Colombo Plan Technical Cooperation Scheme.

(1) DISPATCH OF JAPANESE EXPERTS

The Government of Japan will provide the services of the Japanese experts as listed ANNEX II.

(2) PROVISION OF MACHINERY AND EQUIPMENT

The Government of Japan will provide such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Phase II Project as listed in ANNEX III. The equipment will become the property of the Government of the Lao People's Democratic Republic upon being delivered C.I.F to the Lao authorities concerned at the port (s) and/or airport (s) of disembarkation.

(3) TRAINING OF LAO PERSONNEL IN JAPAN

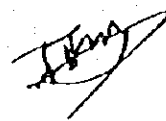
The Government of Japan will receive the Lao personnel connected with the Phase II Project for technical training in Japan.

3. SPECIAL MEASURES TO BE TAKEN BY THE GOVERNMENT OF JAPAN

To ensure the smooth implementation of the Phase II Project, the Government of Japan will take, in accordance with the laws and regulations in force in Japan, special measures through JICA for the purpose of supplementing a portion of the local cost expenditures necessary for the execution of the agriculture infrastructure development

4. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

- (1) The Government of the Lao People's Democratic Republic will take necessary measures to ensure self-reliant operation of the Phase II Project will be sustained during and after the period of Japanese technical cooperation, through full and active involvement in the Phase II Project by all related authorities, beneficiary groups and institutions.
- (2) The Government of the Lao People's Democratic Republic will ensure that the technologies and knowledge acquired by the Lao nationals as a result of Japanese technical cooperation will contribute to economic and social development of the Lao People's Democratic Republic.
- (3) The Government of the Lao People's Democratic Republic will grant, in the Lao People's Democratic Republic privileges, exemptions and benefits to the Japanese experts referred to in 2.(1) above and their families no less favorable than those accorded to experts of third countries working in the Lao People's Democratic Republic under the Colombo Plan Technical Cooperation Scheme.
- (4) The Government of the Lao People's Democratic Republic will ensure that the Equipment referred to in 2.(2) above will be utilized effectively for the implementation of the Phase II Project in consultation with the Japanese experts referred to in ANNEX II.
- (5) The Government of the Lao People's Democratic Republic will take necessary measures to ensure that the knowledge and experience acquired by the Lao personnel from technical training in Japan will be utilized effectively in the implementation of the Phase II Project.
- (6) In accordance with the laws and regulations in force in the Lao People's Democratic Republic, the Government of the Lao People's Democratic Republic will take necessary measures to provide at its own expense :
 - a) Services of the Lao counterpart personnel and administrative as listed in ANNEX IV;
 - b) Land, buildings and facilities as listed in ANNEX V;
 - c) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for the implementation of the Phase II Project other than the Equipment provided through JICA under 2.(2) above;
 - d) Means of transport and travel allowances for the Japanese experts for official travel within the Lao People's Democratic Republic; and
 - e) Assistance to find suitably furnished accommodations for the Japanese experts and their families.



(7) In accordance with the laws and regulations in force in the Lao People's Democratic Republic, the Government of the Lao People's Democratic Republic will take necessary measures to meet:

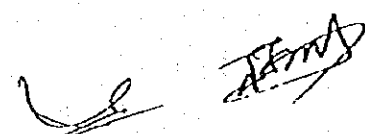
- a) Expenses necessary for transportation within the Lao People's Democratic Republic of the Equipment referred to in 2.(2) above as well as for the installation, operation and maintenance thereof;
- b) Customs duties, internal taxes and any other charges imposed in the Lao People's Democratic Republic on the Equipment referred to in 2.(2) above; and
- c) Running expenses necessary for the implementation of the Phase II Project.

5. ADMINISTRATION OF THE PHASE II PROJECT

- (1) The Joint Steering Committee headed by the Vice Governor of the Vientiane Province will bear the authority and overall responsibility for the implementation of the Phase II Project.
- (2) The Project Director to be appointed by MAF and the Vientiane Province, will be responsible for the administration, management and technical matters of the Phase II Project.
- (3) The Japanese Team Leader will provide necessary recommendations to the Vice Governor and the Head of Cabinet of MAF, and advice and suggestions to the Project Director on any matters pertaining to the implementation of the Phase II Project.
- (4) The Japanese experts will provide necessary technical guidance and advice to the Lao counterpart personnel on technical matters pertaining to the implementation of the Phase II Project.
- (5) For the effective and successful implementation of technical cooperation for the Phase II Project, the Joint Steering Committee will be established whose function and composition are described in ANNEX VI.

6. JOINT EVALUATION

Evaluation of the Phase II Project will be conducted jointly by the two Governments through JICA and the Lao authorities concerned, at the middle and during the last six (6) months of the cooperation term in order to examine the level of achievement.



7. CLAIMS AGAINST JAPANESE EXPERTS

The Government of the Lao People's Democratic Republic undertakes to bear claims, if any arises, against the Japanese experts engaged in technical cooperation for the Phase II Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Lao People's Democratic Republic except for those arising from the willful misconduct or gross negligence of the Japanese experts.

8. MUTUAL CONSULTATION

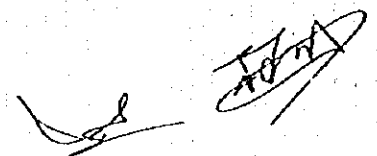
There will be mutual consultation between the two Governments on any major issues arising from, or in connection with, this Attached Document.

9. MEASURES TO PROMOTE UNDERSTANDING OF AND SUPPORT FOR THE PHASE II PROJECT

For the purpose of promoting support for the Phase II Project among the people of Laos, the Government of the Lao People's Democratic Republic will take appropriate measures to make the Phase II Project widely known to the people of Laos.

10. TERM OF COOPERATION

The duration of technical cooperation for the Phase II Project under this Attached Document will be for five (5) years from the 1st of November, 1997.

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(3) フェーズII実施にあたっての重要課題

PART III. OTHER IMPORTANT ISSUES FOR IMPLEMENTATION OF THE PHASE II PROJECT

1. IMPLEMENTATION STRUCTURE

- (1) The implementation structure for the Phase II Project is as per attached in ANNEX IX.
- (2) Head of Ministerial Cabinet will bear coordination between MAF and Vientiane provincial authority, and coordination among the departments of MAF as well as among MAF, Ministry of Foreign Affairs, CIC of Prime Minister Office, Ministry of Finance and other Ministries.

2. RELATIONSHIP WITH A JICA PROJECT IN THE FIELD OF FORESTRY

- (1) "Forest Conservation and Afforestation Project"(Project- Type Technical Cooperation) and "Watershed Management Study Project" (Development Study) are implemented in the northern part of Vientiane Province under the technical cooperation scheme of JICA. One target village of the Phase II Project (Vangkhi village) is incidentally same in these two projects above mentioned, and the executing agency is also the same.
- (2) Each project will be to exchange and share information and to coordinate each activities, avoiding duplication and confusion among the beneficiaries and executing agencies, as well as, in order to implement the activities of both projects at the village efficiently and effectively.
- (3) In particular, in each stage of PDM in the Phase II Project and FOCAP for Vangkhi village, it should be noted at related activities and information of each other project, and examination about the use of common survey format for farming and socio-economic survey be required.

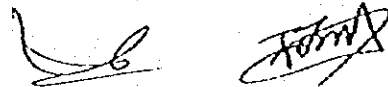
3. POSSIBILITY OF THE TECHNICAL EXCHANGE WITH THAILAND

In some fields of the activities of the Phase II Project for agricultural production, there are some useful information and technologies in the north-east area of Thailand where is similar to Laos. The Phase II Project is suggested to apply those useful resources available in Thailand for the technical cooperation scheme of JICA, such as

training courses in third country and dispatch of the third country expert to the Phase II Project.

4. POSSIBILITY OF UTILIZATION OF THE COUNTERPART FUND OF KR 2

The Lao side is recommended to utilize the counterpart fund of KR 2 in order to assure of appropriating the local budget necessary for the smooth implementation of the Phase II Project.



ANNEX I : MASTER PLAN

1. Project Name

Agricultural and Rural Development Project in Vientiane Province, Phase II, in the Lao People's Democratic Republic

2. Overall Goal

Agricultural and rural development is promoted in Vientiane Province.

3. Project Purpose

Methodology and technology for participatory and sustainable agricultural and rural development is established in five (5) villages in Vientiane Province.

4. Output of the Project

- (1) Methodology of planning, implementation and evaluation on agricultural and rural development project is improved.
- (2) Appropriate technology for improvement of agricultural infrastructure is established.
- (3) Regionally appropriate technology for agricultural production of rice and other crops, livestock, and fish culture is established.
- (4) Rural living environment is improved.
- (5) Methodology of organizing and managing farmers' groups is strengthened.
- (6) Technical capabilities of farmers, village leaders, and government's staff concerned are improved.

5. Activities of the Project

- (1) Improving the methodology of planning for agricultural and rural development
 - (1-1) Conducting identification, study, planning, designing, monitoring and evaluation based on participatory approach.



- (1-2) Preparing the land use plan, farming management plan, and agriculture and rural infrastructure development plan.

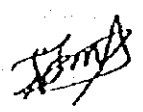
- (2) Improving the agricultural infrastructure technology
 - (2-1) Improving detail design technology
 - (2-2) Improving construction technology
 - (2-3) Improving operation and maintenance technology

- (3) Verifying, improving and disseminating the appropriate technology for agricultural production
 - (3-1) Testing the improved technique for agricultural production.
 - (3-2) Demonstrating and disseminating the improved technique for agricultural production

- (4) Improving the rural living environment
 - (4-1) Improving sanitary conditions (water supply and toilets)
 - (4-2) Improving maintenance capability of village roads
 - (4-3) Improving school building

- (5) Organizing and strengthening farmers' groups
 - (5-1) Organizing and strengthening the village development committees
 - (5-1) Organizing and strengthening water user's groups
 - (5-1) Organizing and strengthening agricultural promotion groups
 - (5-1) Organizing and strengthening women's groups

- (6) Conducting trainings on methodology of agricultural and rural development planning, agricultural infrastructure, agricultural production and improvement of rural living environment and strengthening farmers' organizations.



6. Japanese Technical Cooperation

The Government of Japan will assist the Government of the Lao P.D.R. in carrying out the activities described in the section 5 above for obtaining the outputs which are described in 4. above.

7. Implementation Structure of the Phase II Project

(1) Executing Agencies

a) Cabinet Office, MAF

b) Agriculture and Forestry Service Office, Vientiane Province

(2) Project Office

Project office in Rural Development Center (Provisional name) in Pakcheng, Thoulakhom District, Vientiane Province

(3) Target Villages of the Phase II Project

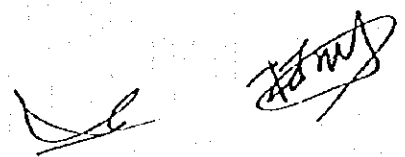
Namgnam village in Thoulakhom District

Vangkhi village in Hinheub District

Phonkeo village in Phonhong District

Napheuy village in Thoulakhom District

Phonho village in Phonhong District



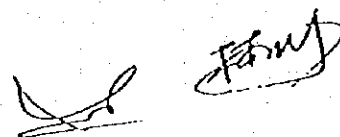
ANNEX II : LIST OF JAPANESE EXPERTS

1. Long-Term Experts

- (1) Team leader
- (2) Coordinator
- (3) Agricultural and Rural Development Planning
- (4) Agricultural Infrastructure
- (5) Agricultural Production

2. Short-Term Experts

Short-Term Experts will be despatched when necessity arises for the smooth implementation of the Phase II Project.



ANNEX III : LIST OF MACHINERY AND EQUIPMENT

The Equipment necessary for the activities described above in ANNEX I for technical transfer will be provided by Japan.

1. The Equipment necessary for agricultural and rural development planning
2. The Equipment necessary for agricultural infrastructure development
3. The Equipment necessary for agricultural production
4. The Equipment necessary for rural living environment improvement
5. The Equipment necessary for farmers' groups strengthening.
6. The Equipment necessary for training

ANNEX IV : LIST OF LAOTIAN COUNTERPART AND OTHER PERSONNEL

1. Project Director

Note : Project Director will be appointed by MAF and Vientiane Province, and he will be residing at the Rural Development Center (provisional name) in Thoulakhom, Phonhong District, Vientiane Province.

2. Full-time Counterpart Personnel in each field shown below (at least two (2) personnels in each field)

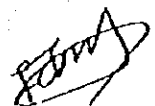
- Agricultural and Rural Development Planning
- Agricultural Infrastructure
- Agricultural Production
- Rural Living Environmental Improvement
- Farmers' Organization Strengthening and Training (including WID)

3. Counterpart Personnel in District Level

4. Counterpart Personnel for the Japanese Short-Term Experts

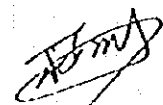
5. Administrative personnel

- (1) Administrative personnel
- (2) Other supporting staff



ANNEX V : LIST OF LAND, BUILDING AND FACILITIES

1. Buildings, facilities and office space for the Phase II Project
Project office in Rural Development Center(provisional name) in
Pakcheng, Thoulakhom District, Vientiane Province
2. Space for the provided machinery and equipment
3. Training facility
4. Other land, buildings and facilities necessary for the implementation of
the Phase II Project



ANNEX VI : THE JOINT STEERING COMMITTEE

1. Function

A Joint Steering Committee will bear the overall responsibility for the implementation of the Phase II Project, and meet once a year and whenever it is necessary. Its functions are as follows ;

- (1) To review and approve the Annual Work Plan of the Phase II Project to be formulated under the framework of the Record of Discussion,
- (2) To review and monitor the overall progress of the technical cooperation program as well as the achievements of the Annual Work Plan,
- (3) To confirm the measures to be taken by both governments and to recommend necessary issues to both governments; and
- (4) To review and exchange views on other necessary issues concerning the implementation and evaluation of the Phase II Project.

2. Composition

(1) Chairperson : Vice-Governor, Vientiane Province

(2) Vice-Chairperson :

Head of Cabinet, Ministry of Agriculture and Forestry

Chief of Agriculture and Forestry Service Office, Vientiane Province

(3) Member :

Project Director

Representative of Committee for Investment and Cooperation.

Prime Minister Office

Director of the Department of Irrigation, MAF

Director of the Department of Agriculture and Extension, MAF

Director of the Department of Livestock and Fisheries, MAF

Japanese Team Leader

Japanese Coordinator

(4) Observer

Chief, Health Service Office, Vientiane Province

Official(s) of Embassy of Japan

Representative of JICA Laos Office

Person(s) admitted by Chairperson and Vice-Chairperson

3. Others

The Project Director is also in charge of the secretarial affairs of the Joint Steering Committee.

ANNEX VII TENTATIVE SCHEDULE OF IMPLEMENTATION FOR THE PHASE II PROJECT

I. Activities of the Phase II Project

Items / Activities	1997	1998	1999	2000	2001	2002
I. Improving the methodology of planning for agricultural and rural development						
1-1. Conducting identification, study, planning, designing, monitoring, and evaluation based on participatory approach						
1-2. Preparing the land use plan, farming management plan and agriculture and rural development plan						
II. Improving the agricultural infrastructure technology						
2-1. Improving detailed design technology						
2-2. Improving construction technology						
2-3. Improving operation and maintenance technology						
III. Verifying, improving and disseminating the appropriate technology for agricultural production						
3-1. Testing the improved technique for agricultural production						
3-2. Demonstrating and disseminating the improved technique for agricultural production						
IV. Improving the rural living environment						
4-1. Improving sanitary conditions (water supply and toilets)						
4-2. Improving maintenance capability of village roads						
4-3. Improving school building						
V. Organizing and strengthening farmers' groups						
5-1. Organizing and strengthening the village development committees						
5-2. Organizing and strengthening water user's groups						
5-3. Organizing and strengthening agricultural promotion groups						
5-4. Organizing and strengthening women's groups						
VI. Conducting trainings on methodology of agricultural and rural development planning, agricultural infrastructure, agricultural production and improvement of rural living environment and strengthening farmers' organizations						

II. Technical Cooperation Programme (Japanese Side)

Items / Activities	1997	1998	1999	2000	2001	2002
1. Long-term Experts						
a. Team Leader						
b. Coordinator						
c. Agricultural and Rural Development planning						
d. Agricultural Infrastructure						
e. Agricultural Production						
2. Short-term Experts						
		(when necessity arises)				
3. Equipment and Machinery						
4. Lao Counterpart Personnel training in Japan						
5. Dispatch of Study Team						

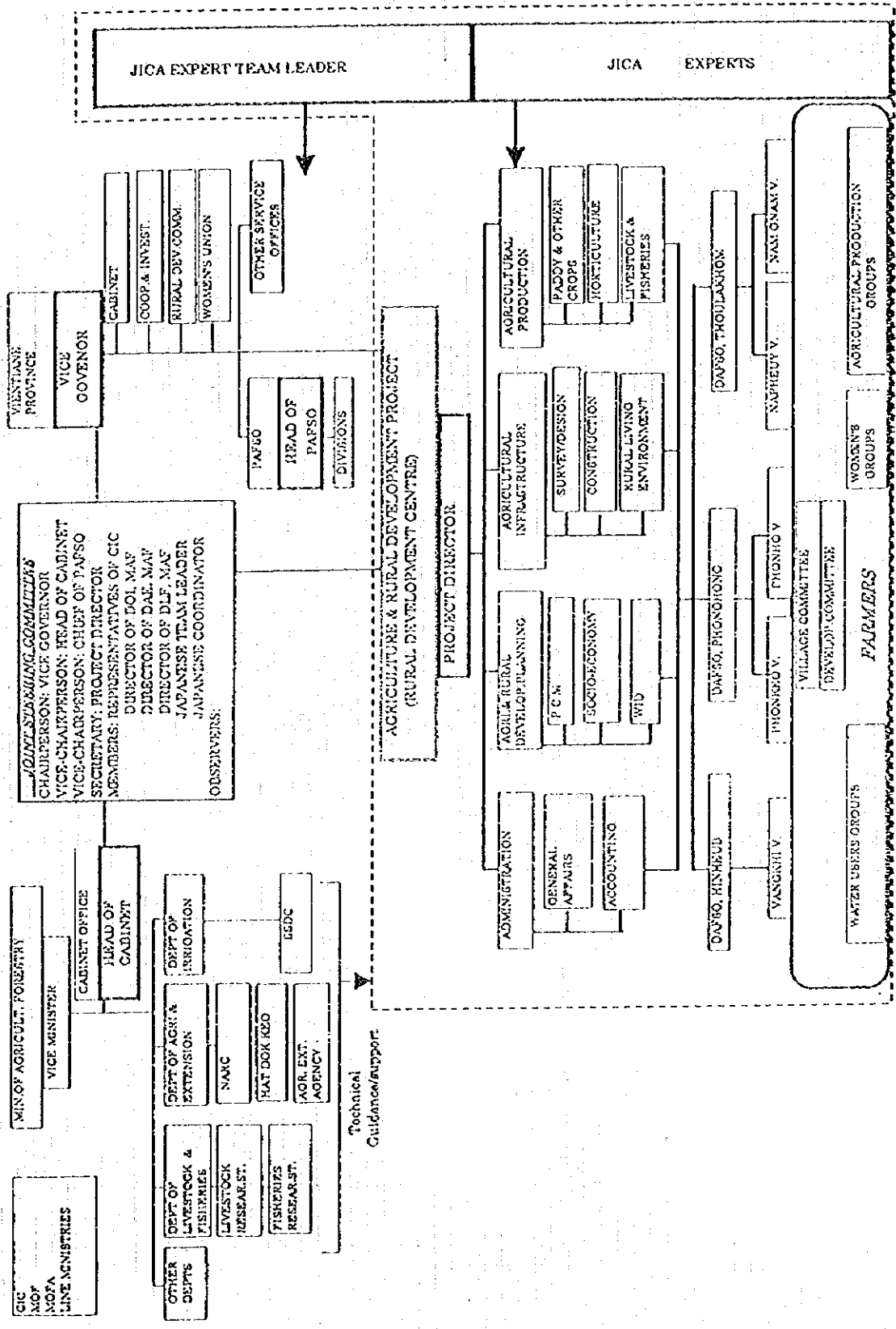
III. Technical Cooperation Programme (Lao Side)

Items / Activities	1997	1998	1999	2000	2001	2002
1. Project Director						
2. Full-time Counterpart in each field shown below						
a. Agricultural and Rural Development planning						
b. Agricultural Infrastructure						
c. Agricultural Production						
d. Rural Living Environment Improvement						
e. Farmers' Organization Strengthening and Training						
3. Counterpart Personnel in District Level						
4. Counterpart Personnel for Japanese Short-term Experts						
5. Administrative Personnel						

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ANNEX VIII Project Design Matrix (PDM)	National Summary	Vocational Institute	Ministry of Agriculture	Ministry of Education	Ministry of Agriculture
<p>Overall Goal</p> <p>Agricultural and rural development is promoted in Vietnamese Province.</p>	<p>1. Increase of agricultural production in Vietnamese Province</p> <p>2. Number of agricultural and rural development projects in Vietnamese Province</p>	<p>1. Successful completion of the model scheme in the five (5) villages is evaluated by degree of achievement in agricultural production and improvement of rural living environment.</p> <p>2. Standardized guidelines and manuals of relevant methodology and technology</p> <p>3. Improved capability of Lao staff to carry out AINAP schemes</p>	<p>1. Project evaluation report on each village's development plan</p> <p>2. Published guidelines and manuals</p> <p>3.1 The report of evaluation on the capability of Lao staff based on their performance in the final stage of the Phase II Project</p> <p>3.2 The report on the result of Lao CIP training</p>	<p>1. Agricultural and rural development projects are implemented in wider areas of Vietnamese province with the proper support of local authorities</p> <p>2. Prices of agricultural products are reasonably stable</p> <p>3. Lao CIP who receive technology transfer remain stably in the relevant posts.</p>	<p>1. Activities between the central government and local authorities are well coordinated development</p>
<p>Project Purpose</p> <p>Methodology and technology for participatory and sustainable agricultural and rural development is established in five (5) villages in Vietnamese Province.</p>	<p>1.1 Planning, monitoring, and evaluation conducted based on participatory approach</p> <p>1.2 Land use plan, farming plan, and infrastructure development plan prepared</p> <p>2.1 Improvement of appropriate technology in infrastructure development (farms, area irrigated, length of farm roads, etc.)</p> <p>2.2 Relevant guidelines and manuals for agricultural infrastructure development</p> <p>3.1 Relevant guidelines and manuals for agricultural production development</p> <p>3.2 Farmers' practices of new cultivation methods</p> <p>4.1 Developed technical package to improve rural living environment</p> <p>5.1 Number of active farmers groups organized and people involved</p> <p>5.2 People's participation in infrastructure development and evaluation on water fee</p> <p>5.3 Amount of transaction in marketing by farmers' groups</p> <p>6.1 Number of training programs conducted and their participants</p> <p>6.2 Contents of materials of training programs</p>	<p>1.1 Planning, monitoring, and evaluation conducted based on participatory approach</p> <p>1.2 Land use plan, farming plan, and infrastructure development plan prepared</p> <p>2.1 Improvement of appropriate technology in infrastructure development (farms, area irrigated, length of farm roads, etc.)</p> <p>2.2 Relevant guidelines and manuals for agricultural infrastructure development</p> <p>3.1 Relevant guidelines and manuals for agricultural production development</p> <p>3.2 Farmers' practices of new cultivation methods</p> <p>4.1 Developed technical package to improve rural living environment</p> <p>5.1 Number of active farmers groups organized and people involved</p> <p>5.2 People's participation in infrastructure development and evaluation on water fee</p> <p>5.3 Amount of transaction in marketing by farmers' groups</p> <p>6.1 Number of training programs conducted and their participants</p> <p>6.2 Contents of materials of training programs</p>	<p>By Project Evaluation Survey</p>	<p>1. Agricultural and rural development projects are implemented in wider areas of Vietnamese province with the proper support of local authorities</p> <p>2. Prices of agricultural products are reasonably stable</p> <p>3. Lao CIP who receive technology transfer remain stably in the relevant posts.</p>	<p>1. Activities between the central government and local authorities are well coordinated development</p>
<p>Output of the Phase II Project</p> <p>(1) Methodology of planning, implementation, and evaluation on agricultural and rural development project is improved.</p> <p>(2) Appropriate technology for improvement of agricultural infrastructure is established.</p> <p>(3) Regionally appropriate technology for agricultural production of rice and other crops, livestock, and fish culture is established.</p> <p>(4) Rural living environment is improved.</p> <p>(5) Methodology of organizing and managing farmers' group is strengthened.</p> <p>(6) Technical capabilities of farmers, village leaders, and government's staff concerned are improved.</p>	<p>(The Japanese Side)</p> <p>1. Dispatches of experts</p> <p>1.1 Long Term Experts</p> <p>Leader, Coordinator, Agricultural and Rural Development Planning, Agricultural Infrastructure, Agricultural Production</p> <p>1.2 Short Term Experts</p> <p>Short-term experts will be dispatched when necessary arises for the smooth implementation of the Phase II Project.</p> <p>2. Machinery and Equipment</p> <p>3. Acceptance of Lao personnel for training in Japan</p> <p>4. Budgetary allocation for local portion</p> <p>(5) Organizing and strengthening farmer's groups</p> <p>(6) Conducting trainings on methodology of agricultural and rural development planning, agricultural infrastructure, agricultural production and improvement of rural living environment and strengthening farmer's organizations</p>	<p>(The Lao Side)</p> <p>1. Counterparts</p> <p>1.1 Project Director</p> <p>1.2 Full-time Counterpart Personnel in each field shown below (at least 2 persons in each field)</p> <ul style="list-style-type: none"> - Agricultural and Rural Development Planning - Agricultural Infrastructure - Agricultural Production - Rural Living Environment Improvement - Farmers' Organizations Strengthening and Training (including WID) <p>1.3 Counterpart Personnel in District Level</p> <p>1.4 Counterpart Personnel for the Japanese Short-Term Experts</p> <p>1.5 Administrative Personnel</p> <ul style="list-style-type: none"> - Administrative personnel - Other supporting staff <p>2. Running expenses for the Phase II Project</p> <p>A. Land, building, and facilities necessary for the Phase II Project</p>	<p>1. Suitable counterparts are assigned to the project, and remain in the project period.</p> <p>2. Necessary input materials are available locally.</p> <p>3. Condition of the agricultural market is not drastically changed.</p> <p>4. Normal farming environment continues.</p>	<p>1. Suitable counterparts are assigned to the project, and remain in the project period.</p> <p>2. Necessary input materials are available locally.</p> <p>3. Condition of the agricultural market is not drastically changed.</p> <p>4. Normal farming environment continues.</p>	<p>1. Suitable counterparts are assigned to the project, and remain in the project period.</p> <p>2. Necessary input materials are available locally.</p> <p>3. Condition of the agricultural market is not drastically changed.</p> <p>4. Normal farming environment continues.</p>
<p>Activities of the Phase II Project</p> <p>(1) Improving the methodology of planning for agricultural and rural development</p> <p>(1-1) Conducting identification, study, planning, designing, monitoring, and evaluation based on participatory approach</p> <p>(1-2) Preparing the land use plan, farming management plan and agriculture and rural infrastructure development plan</p> <p>(2) Improving the agricultural infrastructure technology</p> <p>(2-1) Improving, repaired design technology</p> <p>(2-2) Improving construction technology</p> <p>(2-3) Improving operation and maintenance technology</p> <p>(3) Verifying, improving and disseminating the appropriate technology for agricultural production</p> <p>(3-1) Testing the improved technique for agricultural production</p> <p>(3-2) Demonstrating and disseminating the improved technique for agricultural production</p> <p>(4) Improving the rural living environment</p> <p>(4-1) Improving sanitary conditions (water supply and toilet)</p> <p>(4-2) Improving maintenance capability of village roads</p> <p>(4-3) Improving setback building</p>	<p>(The Japanese Side)</p> <p>1. Dispatches of experts</p> <p>1.1 Long Term Experts</p> <p>Leader, Coordinator, Agricultural and Rural Development Planning, Agricultural Infrastructure, Agricultural Production</p> <p>1.2 Short Term Experts</p> <p>Short-term experts will be dispatched when necessary arises for the smooth implementation of the Phase II Project.</p> <p>2. Machinery and Equipment</p> <p>3. Acceptance of Lao personnel for training in Japan</p> <p>4. Budgetary allocation for local portion</p> <p>(5) Organizing and strengthening farmer's groups</p> <p>(6) Conducting trainings on methodology of agricultural and rural development planning, agricultural infrastructure, agricultural production and improvement of rural living environment and strengthening farmer's organizations</p>	<p>(The Lao Side)</p> <p>1. Counterparts</p> <p>1.1 Project Director</p> <p>1.2 Full-time Counterpart Personnel in each field shown below (at least 2 persons in each field)</p> <ul style="list-style-type: none"> - Agricultural and Rural Development Planning - Agricultural Infrastructure - Agricultural Production - Rural Living Environment Improvement - Farmers' Organizations Strengthening and Training (including WID) <p>1.3 Counterpart Personnel in District Level</p> <p>1.4 Counterpart Personnel for the Japanese Short-Term Experts</p> <p>1.5 Administrative Personnel</p> <ul style="list-style-type: none"> - Administrative personnel - Other supporting staff <p>2. Running expenses for the Phase II Project</p> <p>A. Land, building, and facilities necessary for the Phase II Project</p>	<p>1. Suitable counterparts are assigned to the project, and remain in the project period.</p> <p>2. Necessary input materials are available locally.</p> <p>3. Condition of the agricultural market is not drastically changed.</p> <p>4. Normal farming environment continues.</p>	<p>1. Suitable counterparts are assigned to the project, and remain in the project period.</p> <p>2. Necessary input materials are available locally.</p> <p>3. Condition of the agricultural market is not drastically changed.</p> <p>4. Normal farming environment continues.</p>	<p>1. Suitable counterparts are assigned to the project, and remain in the project period.</p> <p>2. Necessary input materials are available locally.</p> <p>3. Condition of the agricultural market is not drastically changed.</p> <p>4. Normal farming environment continues.</p>

ANNEX IX ORGANIZATION CHART OF THE PHASE II PROJECT



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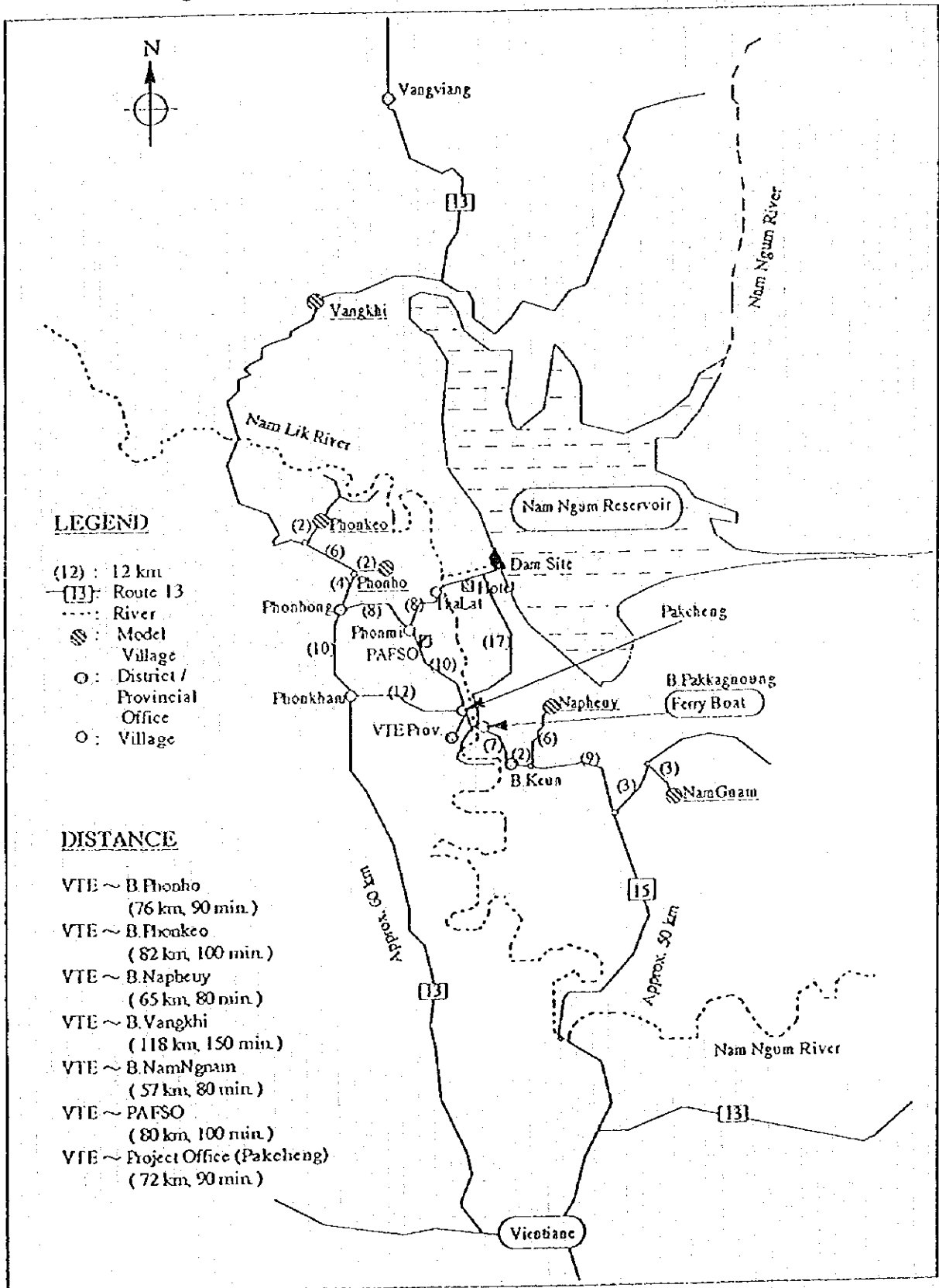
ANNEX X LIST OF LAO COUNTERPART FOR THE PHASE II PROJECT

Project Activities		No. C/P	Belonging to	Remark
1. Project Director		1	PAFSO	To be assigned
2. Agricultural and Rural Development Planning				
	Agri. & Rural Dev. Planning	1	PAFSO	
	Project Monitoring	1	PAFSO	
	Socio-Economic (WID)	1	PAFSO	To be assigned
		(1)	(PROVINCIAL WU)	(To be assigned)
	Total	3(1)		
3. Agricultural Infrastructural Development				
	Agricultural Infrastructure	1	PAFSO	
	Survey and Design	1	PAFSO	
	Construction Management	1	PAFSO	To be assigned
	Rural Living Environment (WID)	2	PAFSO	To be assigned
		(1)	(PROVINCIAL WU)	(To be assigned)
	Total	4(1)		
4. Agricultural Production				
	Rice Crops	1	PAFSO	
	Vegetable	1	PAFSO	
	Fruit Tree	1	PAFSO	To be assigned
	Livestock	1	PAFSO	
	Fish Culture (WID)	(1)	PAFSO	Part-Time
		(1)	(PROVINCIAL WU)	(To be assigned)
	Total	4(2)		
5. Rural Living Environment Improvement				
	(Living Environment) (WID)	(1)	(PAFSO)	(To be assigned)
		(1)	(PROVINCIAL WU)	(To be assigned)
	Total	(2)		
6. Strengthening Farmers' Organizations				
	(Agri. & Rural Dev. Planning)	(4)	(PAFSO)	
	(Irrigation)	(4)	(PAFSO)	
	(Agricultural Production)	(5)	(PAFSO)	
	(Rural Living Environment)	(2)	(PAFSO)	(To be assigned)
	WID	(1)	PROVINCIAL WU	To be assigned
	Total	1(15)		
7. Training in Each Fields of Activities				
	(Agri. & Rural Dev. Planning)	(4)		
	(Irrigation)	(4)	(PAFSO)	
	(Agricultural Production)	(5)	(PAFSO)	
	(Rural Living Environment)	(2)	(PAFSO)	(To be assigned)
	(WID)	(1)	(PROVINCIAL WU)	(To be assigned)
	Total	(16)		
	Total	13		

Note(1): () means minor responsibility. [] means No. of part-time counterpart

Note(2): Counterpart at District level are envisaged but excluded in the above table, however, their roles keeping contact with villagers are definitely important. One coordinator has already been assigned as a focal point at each DAFSO.

ANNEX XI : LOCATION MAP of
Agricultural and Rural Development Project in Vientiane Province, Phase II



APPENDIX I

Schedule of the Final Evaluation Mission for ARDP

Date	Time	Contents	Place	Remarks
6/30 (Mon)	11:40	Arrive in Vientiane (TG690)		Lao Hotel Plaza Tel. 218800
	12:30	Hotel check in		
	14:00	JICA Office		
	15:00	Courtesy call to the Embassy of Japan		
	16:30	Meeting with the Expert Team	MAF	
7/1 (Tue)	09:00	Courtesy call to CIC		Lao Hotel Plaza
	10:00	Courtesy call to MAF		
	14:00	Preliminary meeting of the Joint Evaluation Team Hearing from the Project Team	MAF	
7/2 (Wed)	08:00	Leave the hotel		Vangvieng Resort (No telephone)
	09:30	Meeting with the Director of PAFSO	Nam Ngum	
	11:00	Courtesy call to the Governor of the Province, Visit the Project Office		
	12:30	Lunch		
	15:00	DAFSO (Hine Heup) Vangkhi Village		
	16:30	Visit FORCAP Project Site		
18:00	Hotel check in			
7/3 (Thu)	08:00	Leave the hotel		Lao Hotel Plaza
	09:30	Phonkeo Village	Phonhong	
	11:00	DAFSO (Phonhong)		
	12:00	Lunch		
	13:30	Phonho Village		
	17:00	Hotel check in		
7/4 (Fri)	11:40	Second Group arrives in Vientiane		
	15:00	Courtesy call to MAF		
	18:30	(Welcome party hosted by MAF)		
7/5 (Sat)	09:00	Meeting with the Project Team Drafting the Minutes	MAF	
7/6 (Sun)		Holiday		
7/7 (Mon)	09:00	Meeting with the Project Team		
	15:00	Joint Evaluation Meeting		
7/8 (Tue)	08:00	Leave the hotel		Nam Ngum
	09:30	Nam Gnam Village		
	12:30	Lunch		
	14:30	DAFSO (Thoulakhom)		
	15:30	Napeuy Village		
7/9 (Wed)	10:00	Joint Evaluation Meeting		
7/10 (Thu)	14:00	Rap Up Meeting		
	18:30	Signing of the Minutes (Party hosted by the mission)		
7/11 (Fri)	09:00	Report to the Embassy of Japan		
	11:00	Report to the JICA Office		
7/12 (Sat)	12:40	Leave Vientiane (TG691)		

ANNEX II. SAMPLE OF FORMATIVE EVALUATION STUDY (U2)

Major Areas to be Questioned	Major Areas to be Questioned	Major Areas to be Questioned	Major Areas to be Questioned	Major Areas to be Questioned
<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> (1) Technical transfer to the countryside; (2) Linkage of farmer organization with the local government; (3) Farmer organizations/organization including in the form of labor force and credit system; and (4) Maintenance of local materials and human resources. 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed plan in the Zone II been considered with the agricultural policy of the government, 1996-2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed Phase II Plan been considered with the Development Plan by MAF for 1994 - 2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on youth completed? Any youth group? Are there any specific programs of the social work in the planning of Phase II? Are there any specific programs of VED in the planning of Phase II? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done?
<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed plan in the Zone II been considered with the agricultural policy of the government, 1996-2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed Phase II Plan been considered with the Development Plan by MAF for 1994 - 2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on youth completed? Any youth group? Are there any specific programs of the social work in the planning of Phase II? Are there any specific programs of VED in the planning of Phase II? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done?
<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed plan in the Zone II been considered with the agricultural policy of the government, 1996-2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed Phase II Plan been considered with the Development Plan by MAF for 1994 - 2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on youth completed? Any youth group? Are there any specific programs of the social work in the planning of Phase II? Are there any specific programs of VED in the planning of Phase II? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done?
<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed plan in the Zone II been considered with the agricultural policy of the government, 1996-2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed Phase II Plan been considered with the Development Plan by MAF for 1994 - 2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on youth completed? Any youth group? Are there any specific programs of the social work in the planning of Phase II? Are there any specific programs of VED in the planning of Phase II? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done?
<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed plan in the Zone II been considered with the agricultural policy of the government, 1996-2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the proposed Phase II Plan been considered with the Development Plan by MAF for 1994 - 2000? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on youth completed? Any youth group? Are there any specific programs of the social work in the planning of Phase II? Are there any specific programs of VED in the planning of Phase II? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done? 	<p>Major Areas to be Questioned</p> <ul style="list-style-type: none"> Has the study on the description of agricultural infrastructure been done?

APPENDIX II. SAMPLES OF FORMATS FOR EVALUATION STUDY (2)

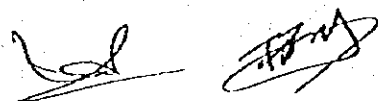
Activity	Object	Study Area	Date to be discussed	Major Aspects to be Questioned
<p>(1) Study of present situation and needs of water users' associations</p>	<p>Topographical maps of 15,000 were prepared for preliminary planning</p> <p>Current hydrological data were collected. Almost all streams in the study up to the dry season</p> <p>Present conditions of water resource (water facility, reservoir, canals, etc.) were studied</p>	<p>Study Area</p> <p>Water User Associations</p>	<p>Done to be examined at November 1976</p>	<p>Topographical survey for the study design was done by the survey design center of irrigation department on contour basis</p> <p>Cost of planning taken into account for the irrigation planning and hydrological analysis</p> <p>The use of local materials will be recommended to reduce the cost and for the project sustainability</p> <p>The concept of the facilities, constructed and maintained by farmers themselves are very primitive and lack of technology are insufficient</p> <p>The layout of agricultural infrastructure and maintenance systems are properly planned or not?</p> <p>Construction methods are suitable to the investment level or not?</p> <p>Participatory methods are included to reduce the construction cost or not?</p>
<p>(2) Study of present situation and needs of other rural infrastructure development</p>	<p>The method of land and reclamation was studied</p> <p>Land conditions (soil, slope, etc.) were studied</p> <p>Land conditions (soil, slope, etc.) were studied</p> <p>The use of community facilities and functional conditions were studied</p>	<p>Water User Associations</p>	<p>Done to be discussed in July 1977</p>	<p>For developing rural infrastructure development, it is of the first priority of the development components, which will be used for expansion of agricultural materials and products</p> <p>After development, farmers will be maintained by farmers themselves, since which plan is engendered from the needs of the farmer.</p>
<p>(3) Study of present situation and needs of water users' associations</p>	<p>There are no existing water user groups in the study area (5 villages)</p> <p>Materials, equipment and present conditions of the existing facilities were studied</p>	<p>Water User Associations</p>	<p>Done to be discussed in July 1977</p>	<p>Provision and pricing of water user group will be basically same according with the regulation by the price minister office, 1977</p> <p>Technical design level and construction body, size of these activities are a part work for preparing the village road, etc. will be the body for water users' group</p> <p>License of the farmer to the participatory approach is necessary of the policy level and increase of the production</p>
<p>(4) Study of present situation and needs of water users' associations</p>	<p>Among the water user groups to be applied for implementation</p> <p>Complete methods are under studying</p>	<p>Water User Associations</p>	<p>Done to be discussed in July 1977</p>	<p>Farmer credit for the construction of irrigation facilities in the first year while the program is not planned to be applied because of economic and social reasons. However, the possibility of applying farmer credit will be continuously established based on the detailed farm economy analysis.</p>
<p>(5) Study of the effects method of implementation</p>	<p>Capacity of local contractor</p>	<p>Water User Associations</p>	<p>Done to be discussed in July 1977</p>	<p>There are three (3) irrigation enterprises and private construction contractors, who have capability of reconstruction of proposed facilities in the Phase II Project</p> <p>The impact of implementation within the year and construction period will be two (2) years</p>

APPENDIX III

LIST OF PROVIDED MACHINERY AND EQUIPMENT

1995 (JFY)

Description of Goods	Quantity
<p>1. Vehicles</p> <p>(a) Station Wagon (Pajero)</p> <p>(b) Station Wagon (L/CRUISER)</p> <p>(c) Pickup Truck (4W, L200)</p> <p>(d) Motor Cycles</p>	<p>3</p> <p>2</p> <p>3</p> <p>10</p>
<p>2. Equipment for Agricultural & Rural Development Planning</p> <p>(a) Slide Projector</p> <p>(b) Video</p> <p>(c) Video Camera</p> <p>(d) Visual Capture</p> <p>(e) Printer</p> <p>(f) Generator</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>
<p>3. Equipment for Agricultural Infrastructure Development</p> <p>(a) Transit</p> <p>(b) Auto Level</p> <p>(c) Current Meter</p> <p>(d) Water Gauge</p> <p>(e) Electric Distance Meter</p> <p>(f) Other Survey and Design Equipment</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>Lump sum</p>



1995 (JFY)

<p>4. Equipment for Agricultural Production</p> <p>(a) Soil Test Instrument</p> <p>(b) Yield Survey Instrument</p>	<p>Lump sum</p> <p>Lump sum</p>
<p>5. Office Supplies</p> <p>(a) Photocopying Machine</p> <p>(b) Computer</p> <p>(c) Printer</p> <p>(d) Communication Equipment</p> <p>(e) English Typewriter</p> <p>(f) Lao Typewriter</p> <p>(g) Steel Book Shelf</p>	<p>2</p> <p>3</p> <p>3</p> <p>lump sum</p> <p>2</p> <p>2</p> <p>3</p>

1996 (JFY)

<p>1. Vehicles</p> <p>(a) Motor Cycle</p> <p>(b) Micro bus (30 seats)</p>	<p>4</p> <p>1</p>
<p>2. Equipment for Agricultural & Rural Development Planning</p> <p>(a) OHP Projector</p>	<p>1</p>
<p>3. Equipment for Agricultural Infrastructure Development</p> <p>(a) Transit</p> <p>(b) Electric Distance Meter</p> <p>(c) Auto-level</p> <p>(d) Blue Print Copying Machine</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>

1996 (JFY)

4. Equipment for Agricultural Production		
(a) Thresher		1
(b) Winnower		1
(c) Multi Autocounter		1
3. Office Supplies	(a) Computer	7
	(b) Printer	1

Note: Major part of equipment and micro bus in JFY 1996 will be delivered in July, 1997.

APPENDIX IV :
LIST OF LAOTIAN COUNTER PART AND
ADMINISTRATIVE PERSONNEL OF THE PROJECT
(Nov.1995 - Oct.1997)

Name	Fields	Belonging to	Assigned Duration	Full or Part
Mr. Khamhot CHOULAMOUNTRY	Project Manager	MAF	95/11/1 - up to now	Full
Mr. Khamsay SOUMOUNTHONG	Deputy Project Manager	PAFSO	95/11/1 - up to now	Full
Mr. Bouaphanh PATHAMMAVONG	Agricultural Rural Develop- ment Planning	MAF	95/11/1 - up to now	Full
Mr. Somphet PHENGBOUPHA	Agricultural Rural Develop- ment Planning	PAFSO	95/11/1 - up to now	Full
Mr. Kammay VONGSATHIANE	Agricultural Infrastructure Development	MAF	95/11/1 - up to now	Full
Mr. Khamphet CHANSAVATH	Agricultural Infrastructure Development	PAFSO	95/11/1 - up to now	Full
Mr. Bounmy VANNAVONG	Agricultural Infrastructure Development	PAFSO	95/11/1 - 96/2/28	Full
Mr. Bounmy SAIMOUNTRY	Agricultural extension	MAF	95/11/1 - up to now	Part- time
Mr. Khamsen SOYSITHATHA	Agricultural Production	MAF	95/11/1 - 96/2/28	Full
Mr. Vilath KEOVICHITH	Agricultural Production	MAF	95/11/1 - up to now	Full
Mr. Chantay CHANTHAVONG	Agricultural Production	PAFSO	95/11/1 - up to now	Full
Mr. Bounkhouang CHANTHAKONGSENG	Agricultural Production	PAFSO	95/11/1 - up to now	Full
Mr. Thonglo VONGKHAMSA	Agricultural Production	PAFSO	95/11/1 - up to now	Full
Mrs. Khonesavanh CHANTHALANGSY	Administration	PAFSO	95/12/1 - up to now	Full
Mr. Khanmanh SENGPHACHANH	Accounting	PAFSO	95/11/1 - up to now	Full
Mr. Phouthong SINGHAKHAM		DAFSO		Part- time
Mr. Phaypanom LIAMPHACHANH		DAFSO		Part- time
Mr. Khantheo KEODARA		DAFSO		Part- time

2 準備フェーズ投入実績

投入実績

1. 日本側投入

1.1 専門家派遣

(1) 長期派遣専門家

担当分野	氏名	派遣期間	所属
チームリーダー	堀江 寛信	平成7年11月1日～ 平成9年10月31日	農用地整備公団
業務調整	能代 裕	同上	国際協力事業団
農業農村開発計画	藤田 達雄	同上	国際協力事業団
農業基盤整備	支倉 義和	同上	農用地整備公団
農業生産	筒井 佳寿	同上	国際協力事業団

(2) 短期派遣専門家

(実績)

番号	担当分野	氏名	派遣期間	所属
1	PCM	笹尾 隆二郎	平成8年4月15日～ 平成8年6月13日	アイシーネットKK
2	灌溉	川部 伸治	平成8年5月11日～ 平成8年7月9日	農用地整備公団
3	水文分析	清水 俊征	平成8年1月11日～ 平成8年8月9日	農用地整備公団
4	土壌	井横 昭	平成8年4月18日～ 平成8年6月15日	元土壌協会
5	水産	森本 直樹	平成8年9月18日～ 平成8年11月15日	国際水産 KK
6	畜産	岡野 和夫	平成8年9月25日～ 平成8年11月8日	農用地整備公団
7	構造物設計	滝口 哲昭	平成8年10月1日～ 平成8年11月29日	農用地整備公団
8	農業経済	高橋 修一	平成9年2月5日～ 平成9年3月25日	農用地整備公団
9	構造物設計	出尻 照久	平成9年5月10日～ 平成9年7月4日	農用地整備公団
10	WID	倉田 聡子	平成9年6月15日～ 平成9年7月12日	国際協力事業団

(計画)

番号	担当分野	氏名	派遣期間	所属
11	農村社会	(人選中)	平成9年9月1日～ 平成9年10月31日	国際協力事業団
12	畜産開発	(人選中)	平成9年9月1日～ 平成9年10月31日	農用地整備公団
13	果樹栽培	(人選中)	平成9年9月1日～ 平成9年9月15日	タイ人専門家

1.2 研修員受人

(実績)

番号	研修課題	氏名	派遣期間
1	農業農村開発行政	Mr. Khasamhot Chounlamountry	平成8年3月4日～ 平成8年3月25日
2	農業農村開発行政	Mr. Khamdy At Sayavong	平成8年3月4日～ 平成8年3月25日
3	農業農村開発	Mr. Khamseay Soumounthong	平成8年9月30日～ 平成8年10月30日
4	農業普及	Mr. Bouphanh Pathmmavong	平成8年9月30日～ 平成8年10月30日
5	農業基盤整備 (灌漑排水コース)	Mr. Khamphet Chansavath	平成9年2月1日～ 平成9年4月1日
6	米生産 (米生産コース)	Mr. Chantay Chanthavong	平成9年2月24日～ 平成9年10月24日
7	農業協同組合 (農業協同組合Ⅱコース)	Mr. Sompheet PHENG- BOUPHA	平成9年5月1日～ 平成9年7月31日

(計画)

番号	研修課題	氏名	派遣期間
8	農業農村開発行政	(人選中)	平成10年1月15日～ 平成10年2月14日
9	農地水資源	Mr. Khammay Vongsathiane	平成10年2月1日～ 平成10年11月30日
10	稲作技術	Mr. Vilath Keovichith	平成10年2月1日～ 平成10年11月30日

1.3 機材供与

年度	金額	内容
1995	37,698 千円 (内現地調達分 32,045 千円)	車両・ワゴン4WD (バジェロ) 3台 ・ワゴン4WD (ランドクルーザー) 3台 ・ピックアップトラック (2t, 4WD) 3台 ・オートバイ 10台 調査・事務機材 (スライドプロジェクター、ビデオデッキ、ビデオカメラ、パソコン3台、発電機、複写機、無線機、英文及びラオ語タイプライター、書棚等) 測量器械 (トランシット、オートレベル、流速計、量水標、光波距離計、平板、製図版セット、土壌検定器、収量調査機器等)
1996	22,441 千円 (内現地調達分 3,590 千円)	車両・マイクロバス (30人乗り) 1台 ・オートバイ 4台 調査・事務機器 (パソコン7台、プリンター、OHPプロジェクター等) 測量器械 (トランシット、光波距離計、オートレベル、青焼機等) 農作業機械 (スレッシャー、風力機、多目的数取機等)

1.4 ローカルコスト負担事業

(1) 一般現地業務費

年度	金額	備考
1995	8,788 千円	
1996	9,832 千円 (*予定額)	内2,800千円は第一村に係る地形測量等の経費として臨時支給
1997	2,700 千円 (*予定額)	

(2) LLDC特別現地業務費

年度	金額	備考
1996	1,139 千円	

2. ラオス側投入

(1) 土地、建物、施設

- ・ 農林省内事務所 : 3 部屋 (約 64 m²)
- ・ 同 製図室 : 1 部屋 (約 16 m²)
- ・ 同 機材保管場所
- ・ 県事務所 : 5 部屋 (約 200 m²) * 県スポーツ局庁舎内

(2) 運営費

年度	予算	実績	備考
1995/96	40,000 千キップ (約 4,500 千円)	33,253 千キップ	ラオス会計年度は10月～9月
1996/97	30,000 千キップ (約 3,500 千円)	12,411 千キップ	(97年6月末現在の実績額)

3 対象5村のプロファイル

対象5村プロファイル (1/5)

村名	ナムニャム村	
I. 行政及び自然条件		II. 社会/農村生活環境
(1) 郡名	トゥラコム 郡	(1) 道路
(2) 農家戸数	110 戸	a) アクセス道路 - 国道15号線から6 km (ガリ侵食、雨季通行難)
(3) 人口	768 人	b) 集落間道路 - 村への進入路(土道)が ガリ侵食、雨季通行難
(4) 民族	モン族	(2) 生活用水 - 共同井戸 2本と個人所有の 井戸10本
(5) 開村年	1973 (開拓村)	- 水質良好、乾季に水不足
(6) 村落の位置	国道15号線から 6 km グイフンまで 57 km	(3) トイレ 9 戸
(7) 地形の特徴	丘陵平地部	(4) 電化 無し (隣村まで来ている)
(8) 標高	190~200 m	(5) 学校
(9) 年平均気温	26.6 °C	a) 小学校クラス数 5 クラス (1~4学年)
最低気温	19.8 °C	b) 中学校 無し
最高気温	30.9 °C	c) 就学児童数 148 人
(10) 年平均降雨量	2,308 mm	(6) 村集会所 アオゾウの開始に合わせ新築
月最多	456 mm (8月)	(7) 寺院/教会 無し
月最少	12 mm (12月)	(8) 村落診療所 無し
観測年	(1978 - 1987)	(9) 村の特産 婦人による刺しゅう
(11) 気象観測所	Napheng 観測所	
III. 農業		IV. 農業生産基盤
(1) 農業の特徴	- 天水田と焼畑が同面積 - 稲作収量が低い - 他村に比べ野菜作付多い - 耕耘機の台数が多い - 大家畜の飼育頭数が多い - 養魚が盛ん	(1) 水源及び 既存の 灌漑施設
(2) 農家土地保有 (戸当たり平均土地保有)		(a) 北側溪流河川 NamGnam川 - 雨季の水量豊富/乾季に枯涸 - 乾季野菜栽培に灌漑している - 生活用水に利用している - 水田灌漑には未利用
a) 合計土地保有	2.8 ha/戸	(b) 南側小河川 NamChen川 - 乾季には枯涸する - 上流部に養魚池/灌漑溜池 - 掘池で貯水量が少ない - 余水吐き、取水口等不備 - 雨季の大雨に洪水被害 - 下流部簡易堰 (木杭/竹) 大雨で決壊する
b) 水田保有	1.1 ha/戸	(c) 水路 - 村の殆どが天水田の田越灌漑 - 用水路は丘陵地帯からのわづ 水路や谷地部からの導水路が 水田周辺に造られている
c) 水田無し農家	27 戸	(2) 農用地の開発 - 水田地区内や周囲に遊休農地 が点在している - 開墾は人力/畜力に頼っている ため、面積拡大に限度がある
(3) 米生産		(3) 農道 - 地山を削っただけの通作道 - 水田地区内は畦畔兼あぜ道
a) 水稲作付面積	68 ha	
b) 陸稲作付面積	60 ha	
c) 全体平均収量	0.9 ton/ha	
d) 焼畑依存度	高い	
e) 陸稲/全稲作面積	47 %	
f) 現況自給率	43 %	
(4) 農家経済		
a) 農家収入 (計)	583,700 Kip/戸	
- 農業収入	280,300 Kip/戸	
- 農外収入	303,400 Kip/戸	
b) 農家支出 (計)	459,400 Kip/戸	
c) 収支	124,300 Kip/戸	
(5) 養魚面積	11.5 ha	
(6) 家畜飼育数		
- 牛	529 頭 (4.8 頭/戸)	
- 水牛	377 頭 (3.4 頭/戸)	

対象 5 村プロフィール (2/5)

村名		ヴァンキー村	
I. 行政及び自然条件		II. 社会/農村生活環境	
(1) 郡名	ヒンヒェップ郡	(1) 道路	
(2) 農家戸数	159 戸	a) アクセス道路	- 国道13号線沿い 交通の便は良好
(3) 人口	895 人	b) 集落間道路	- 村への進入路(土道)が 降雨による侵食
(4) 民族	低地メ(ラオルム) (中位ラオ(ワット) 18家族)	(2) 生活用水	- 6ヶ所に計8本の井戸(一部水質 に問題、乾季に涸れる) - 山からの水汲みが重労働
(5) 開村年	200年の歴史をもつ	(3) トイレ	16 戸
(6) 村落の位置	国道13号線沿い ゲハツまで 118 km	(4) 電化	配線完了(送電は未了)
(7) 地形の特徴	山間部	(5) 学校	
(8) 標高	200~230 m	a) 小学校クラス数	11 クラス(1~5 学年)
(9) 年平均気温	25.8 °C	b) 中学校	3 クラス
最低気温	20.9 °C	c) 就学児童数	397 人(隣村の児童を含む)
最高気温	29.8 °C	(6) 村集会所	寺院を代用
(10) 年平均降雨量	3,212 mm	(7) 寺院/教会	寺院
月最多	768 mm (7月)	(8) 村落診療所	無し
月最少	12 mm (2月)	(9) 村の特産	婦人による機織り
観測年	(1978 - 1985)		
(11) 気象観測所	Hinheup 観測所		
III. 農業		IV. 農業生産基盤	
(1) 農業の特徴	- 焼畑の割合が多い - 水田が少ないだけに栽培管理 が熱心 - 200年の歴史があり、未利用 地は少ない - 在来種の繁殖豚	(1) 水源及び 既存の 灌漑施設	(a) 南側山間部の谷川 - 1987年県の灌漑事業 - コツコツ堰、設計施工が不適切 で効率が悪い - 地形を考慮した用水路と 排水路網、簡易分水工 - 5村の中では最も灌漑システムが 進んでいる (b) 北部の溜池 - 流域面積が小さい(1.2 km ²) - 盛土の堤体が決壊 - 導水路は丘陵の沢地を利用 - 分水工が不備で未機能
(2) 農家土地保有(戸当たり平均土地保有)		(2) 農用地の開発	- 遊休水田が点在している (不均平で水掛かりが悪く 収量が低い) - 丘陵台地に開田(天水田)の 開発可能地が点在している - 開墾は人力/畜力に頼っている ため、面積拡大に限度がある
a) 合計土地保有	0.9 ha/戸	(3) 農道	- 開墾地へのアクセス道路に鉄橋 (足場がなく利用不可)がある - 農道は畦畔兼あぜ道となっ ている
b) 水田保有	0.3 ha/戸		
c) 水田無し農家	54 戸		
(3) 米生産			
a) 水稲作付面積	24 ha		
b) 陸稲作付面積	57 ha		
c) 全体平均収量	1.5 ton/ha		
d) 焼畑依存度	高い		
e) 陸稲/全稲作面積	70 %		
f) 現況自給率	41 %		
(4) 農家経済			
a) 農家収入(計)	697,200 Kip/戸		
- 農業収入	135,300 Kip/戸		
- 農外収入	561,900 Kip/戸		
b) 農家支出(計)	626,900 Kip/戸		
c) 収支	70,300 Kip/戸		
(5) 養魚面積	0.6 ha		
(6) 家畜飼育数			
- 牛	329 頭(2.1 頭/戸)		
- 水牛	201 頭(1.3 頭/戸)		

対象 5 村プロフィール (3/5)

村 名		ボンケオ村	
I. 行政及び自然条件		II. 社会/農村生活環境	
(1) 郡 名	ボンホン 郡	(1) 道路	
(2) 農家戸数	93 戸	a) アクセス道路	- 国道13号線から 2 km、交通量が多く路面の傷みが激しい
(3) 人 口	537 人	b) 集落間道路	- 土財沿いの県道に連絡してる
(4) 民 族	低地系 (ラオルム)		
(5) 開村年	不明	(2) 生活用水	- 道路横断管の不備で冠水 - 96年ドンの援助による簡易水道 (飲用には不適) - 飲用の浅井戸 (深さ数メートル)
(6) 村落の位置	国道13号線から 2 km ダハフンまで 82 km	(3) トイレ	34 戸
(7) 地形の特徴	平野山際部	(4) 電化	電化済み
(8) 標 高	170~200 m	(5) 学校	
(9) 年平均気温	26.9 °C	a) 小学校/クラス数	6 クラス (1~5 学年)
最低気温	21.2 °C	b) 中学校	9 クラス
最高気温	31.4 °C	c) 就学児童数	520 人 (隣村の児童を含む)
(10) 年平均降雨量	2,273 mm	(6) 村集会所	寺院を代用
月最多	442 mm (7月)	(7) 寺院/教会	寺院
月最少	7 mm (12月)	(8) 村落診療所	無し
観測年	(1984 - 1994)	(9) 村の特産	婦人によるホウキづくり
(11) 気象観測所	Phonghong 観測所		
III. 農 業		IV. 農業生産基盤	
(1) 農業の特徴	- 天水の有効利用が不十分 - 自家用野菜栽培盛ん - 水生家禽の飼育が盛ん	(1) 水源及び 既存の 灌漑施設	1977年村人の資金拠出による 業者請負の溜池建設 - 流域面積小、堰高低いため、 貯水量は少ないが村唯一の 水源で雨季の補給灌漑 - 用水路は丘陵からのワグ水路 と標高の高い水田に導くため の水路のみ - このため下流域の水田は田植 え時期が遅れ収量に影響を与 えている
(2) 農家土地保有 (戸当たり平均土地保有)		(2) 農 道	- 農道は畦畔兼あぜ道となっ ている - 一部でヘッドリッカーが普及 (将来農道が必要)
a) 合計土地保有	2.2 ha/戸		
b) 水田保有	1.1 ha/戸		
c) 水田無し農家	6 戸		
(3) 米生産			
a) 水稲作付面積	77 ha		
b) 陸稲作付面積	0 ha		
c) 全体平均収量	1.7 ton/ha		
d) 焼畑依存度	低い		
e) 陸稲/全稲作面積	0 %		
f) 現況自給率	73 %		
(4) 農家経済			
a) 農家収入 (計)	659,600 Kip/戸		
- 農業収入	212,300 Kip/戸		
- 農外収入	447,300 Kip/戸		
b) 農家支出 (計)	577,300 Kip/戸		
c) 収支	82,300 Kip/戸		
(5) 養魚面積	0.3 ha		
(6) 家畜飼育数			
- 牛	208 頭 (2.2 頭/戸)		
- 水牛	287 頭 (3.1 頭/戸)		

対象 5 村プロフィール (4/5)

村名 ナブイ村			
I. 行政及び自然条件		II. 社会/農村生活環境	
(1) 郡名	トゥラコム郡	(1) 道路	
(2) 農家戸数	133 戸	a) アクセス道路	- 国道15号線から 6 km、約 2 km は簡易舗装、後は 5km 位の悪路
(3) 人口	824 人	b) 集落間道路	- 道路横断管の不備で冠水
(4) 民族	低地村 (ラオルム)	(2) 生活用水	47本の井戸
(5) 開村年	不明	(3) トイレ	10 戸
(6) 村落の位置	国道15号線から 6 km ダバンまで 60 km	(4) 電化	無し (隣村まで来ている)
(7) 地形の特徴	平野低地部	(5) 学校	
(8) 標高	170~200 m	a) 小学校クラス数	5 クラス (1~5 学年)
(9) 年平均気温	26.6 °C	b) 中学校	無し
最低気温	19.8 °C	c) 就学児童数	167 人
最高気温	30.9 °C	(6) 村集会所	寺院を代用 (連絡所新築)
(10) 年平均降雨量	2,308 mm	(7) 寺院/教会	寺院
月最多	456 mm (8月)	(8) 村落診療所	無し
月最少	12 mm (12月)	(9) 村の特産	ゴザづくり
観測年	(1978 - 1987)		
(11) 気象観測所	Napheng 観測所		
III. 農業		IV. 農業生産基盤	
(1) 農業の特徴	- 唯一の乾季灌漑稲作の村 - 天水の有効利用が不十分 - 家畜死亡率低い - 一部荒廃した自然草地がある - 広い面積の湿地がある	(1) 水源及び既存の灌漑施設	(a) 北東部の NanGnong 川 - 上流部に養魚/灌漑目的の溜池 (洪水調整能力を持つが、貯水容量は小さい) - 取水口、余水吐等が十分機能していない (b) 南西部 NanPheuy 川 - 上流には他村の養魚池や溜池がある (流域は NanGnong より大きく、村の水田面積の 60% をカバーしている) - 雨季の残留水で水稲 2 期作 (8ha) 毎年土壌堤を建設して乾季の灌漑をしている - 1968 年日本人技術者の指導で 24 所のコンクリート堤を建設した (老朽化/損傷、土砂堆積) - 用水路は溜池からの取付水路、ワグ水路等部分的にあるだけで低位部の水田では過期の田植えができない - 排水路が不十分で連続降雨があると冠水する
(2) 農家土地保有 (戸当たり平均土地保有)		(2) 農道	- 地山を削っただけの農道 - 路面侵食が激しい - 他の農道は畦畔兼あぜ道 - 乾季は水田の上が農道
a) 合計土地保有	2.3 ha/戸		
b) 水田保有	1.0 ha/戸		
c) 水田無し農家	無し		
(3) 米生産			
a) 水稲作付面積	116 ha		
b) 陸稲作付面積	6 ha		
c) 全体平均収量	1.6 ton/ha		
d) 焼畑依存度	低い		
e) 陸稲/全稲作面積	5 %		
f) 現況自給率	71 %		
(4) 農家経済			
a) 農家収入 (計)	555,400 Kip/戸		
- 農業収入	189,300 Kip/戸		
- 農外収入	366,100 Kip/戸		
b) 農家支出 (計)	435,400 Kip/戸		
c) 収支	120,000 Kip/戸		
(5) 養魚面積	3.9 ha		
(6) 家畜飼育数			
- 牛	356 頭 (2.7 頭/戸)		
- 水牛	217 頭 (1.6 頭/戸)		

対象 5 村プロフィール (5/5)

村名	ボンホン村	
I. 行政及び自然条件		II. 社会/農村生活環境
(1) 郡名	ボンホン郡	(1) 道路
(2) 農家戸数	58 戸	a) アクセス道路 - 国道13号線から 2 km ラバ付舗装、雨季も良好
(3) 人口	334 人	b) 集落間道路 - 隣村へのアクセス道路がなく、 水田の畦道を利用している
(4) 民族	低地村 (ラオルム)	(2) 生活用水
(5) 開村年	不明	- 30本の井戸
(6) 村落の位置	国道13号線から 2 km ゲイオンまで 76 km	- 飲料用には水質の良い井戸を 利用または水を購入している
(7) 地形の特徴	平野部	(3) トイレ
(8) 標高	170~190 m	88 戸
(9) 年平均気温	26.9 °C	(4) 電化
最低気温	21.2 °C	1995年より電化
最高気温	31.4 °C	(5) 学校
(10) 年平均降雨量	2,273 mm	a) 小学校クラス数
月最多	442 mm (7月)	2 クラス (1~2 学年)
月最少	7 mm (12月)	b) 中学校
観測年	(1984 - 1994)	8 クラス
(11) 気象観測所	Phonghong 観測所	c) 就学児童数
III. 農業		274 人 (隣村の児童を含む)
(1) 農業の特徴	- 水資源がない - 天水の有効利用が不十分 - 畜産は放牧密度が高い - 豚のF1肥育農家あり - 熱心な養魚農家あり - 野菜/果樹は盛んでない	(6) 村集会所
(2) 農家土地保有 (戸当たり平均土地保有)		寺院を代用
a) 合計土地保有	3.8 ha/戸	(7) 寺院/教会
b) 水田保有	1.4 ha/戸	寺院
c) 水田無し農家	5 戸	(8) 村落診療所
(3) 米生産		無し
a) 水稲作付面積	70 ha	(9) 村の特産
b) 陸稲作付面積	0 ha	ラオラオづくり、竹細工
c) 全体平均収量	1.9 ton/ha	IV. 農業生産基盤
d) 焼畑依存度	低い	(1) 水源及び
e) 陸稲/全稲作付面積	0 %	既存の
f) 現況自給率	118 %	灌漑施設
(4) 農家経済		(a) 村外れの東側 NamChim川 - 以前10農家が協力して簡易 堰を建設したが洪水で流失、 一度も使用できなかった
a) 農家収入 (計)	1,056,800 Kip/戸	(b) 水源となる河川が無い - 雨季に丘陵部からの雨水を それぞれ上流部の水田に取り 入れ、田越し灌漑し、低い 水田に自然配水している - 熱心な農家は乾季に井戸 (1.5 m)を掘って家庭菜園
- 農業収入	498,200 Kip/戸	(2) 農道
- 農外収入	558,600 Kip/戸	- 農道は畦畔兼あぜ道
b) 農家支出 (計)	2,016,300 Kip/戸	
c) 収支	- 959,500 Kip/戸	
(5) 養魚面積	3.5 ha	
(6) 家畜飼育数		
- 牛	277 頭 (4.8 頭/戸)	
- 水牛	207 頭 (3.6 頭/戸)	