

**ラオス人民民主共和国**  
**ヴィエンチャン県農業農村開発計画Ⅱ**  
**終了時評価報告書**

平成14年8月  
(2002年)

国際協力事業団  
農業開発協力部

農開技
JR
02-41

**ラオス人民民主共和国**  
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## 序 文

ラオス人民民主共和国ヴィエンチャン県農業農村開発計画Ⅱは、プロジェクト目標を「住民参加による持続可能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」で双方合意し、平成9年10月には討議議事録（R/D）が署名され、5年間の予定で協力が開始されました。

このたび、プロジェクトの終了を平成14年10月に控え、国際協力事業団は平成14年7月10日から25日までの間、国際協力事業団農業開発協力部部長 中川 和夫を団長とする終了時評価調査団を現地に派遣し、これまでの活動実績等について合同評価を行いました。

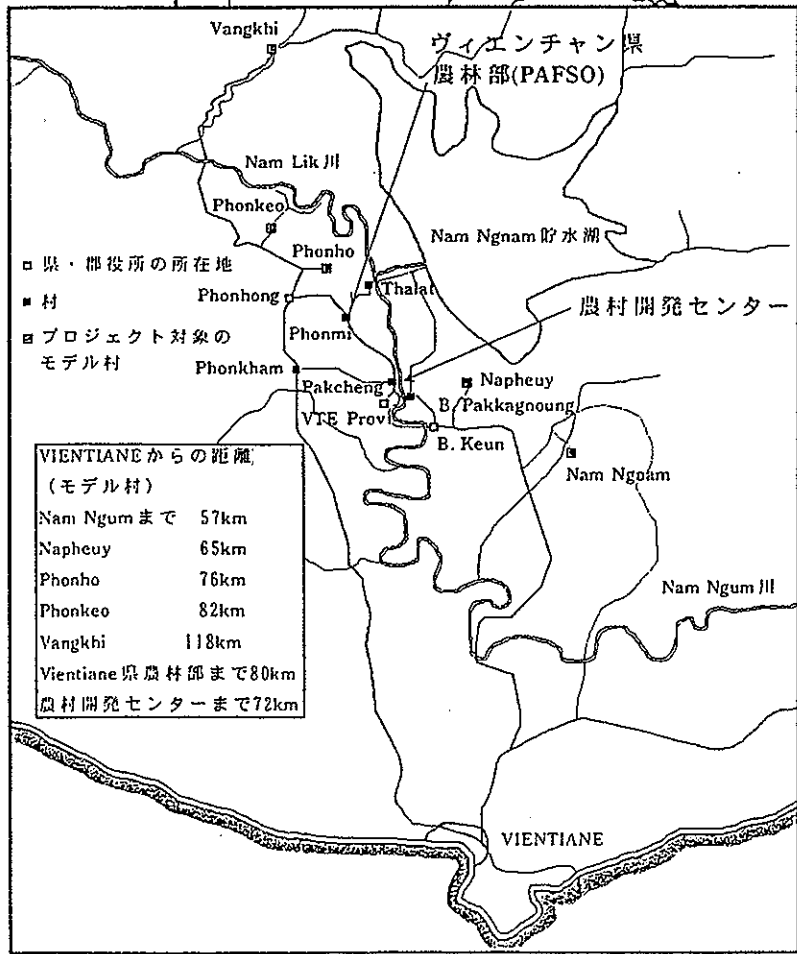
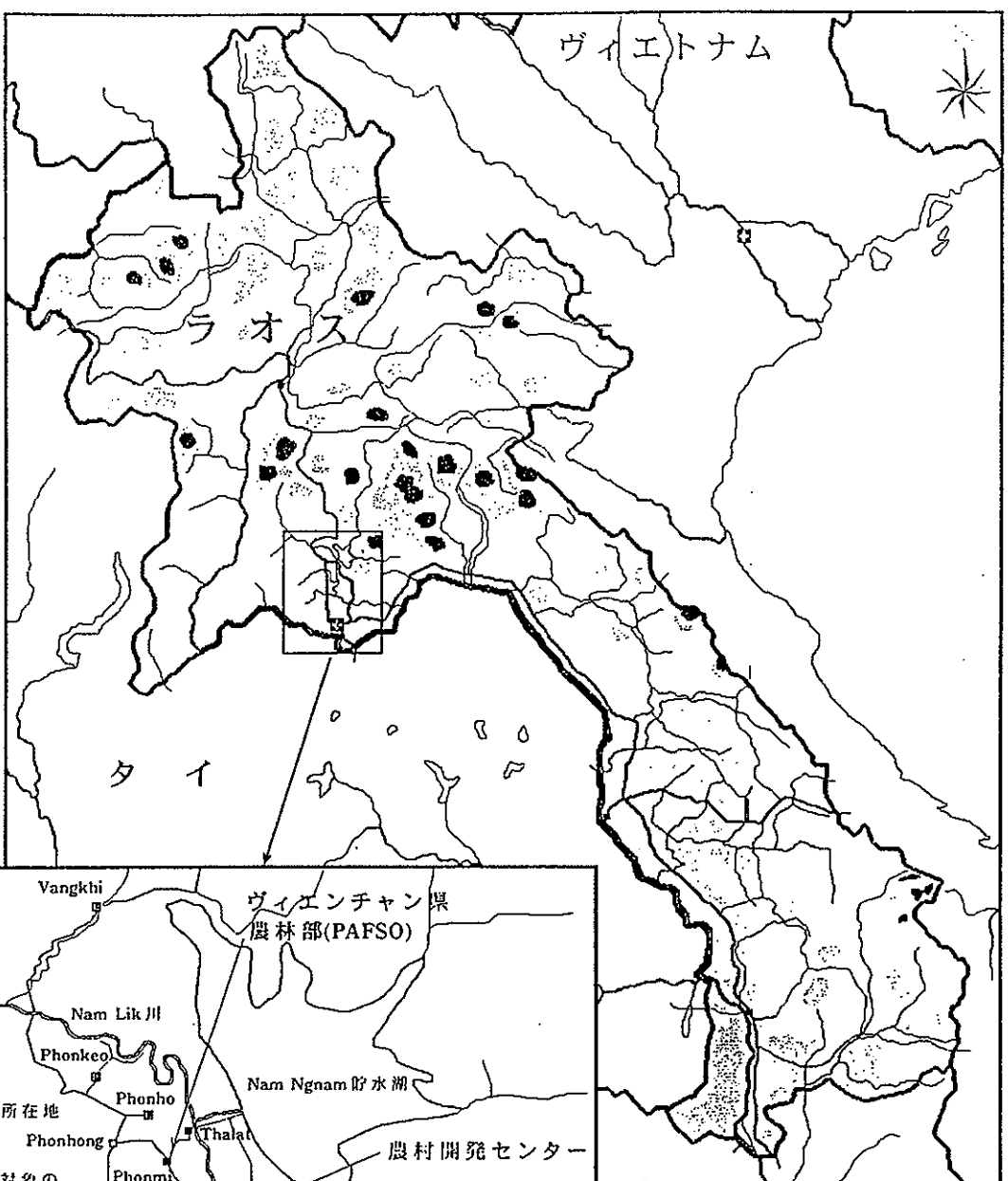
本報告書は、同調査団の調査結果を取りまとめたもので、今後広く関係者に活用されることを願うものです。本調査の実施にあたり、ご協力とご支援を頂いた内外の関係各位に対し、心から感謝の意を表します。

平成14年8月

国際協力事業団  
農業開発協力部  
部長 中川 和夫

プロジェクト位置図

ヴィエンチャン県農業農村開発計画  
フェーズII対象5村位置図



## 評価結果要約表

1. 案件の概要	
国名：ラオス人民民主主義共和国	案件名：ヴィエンチャン県農業農村開発計画Ⅱ
分野：農業開発	援助形態：プロジェクト方式技術協力
所轄部署：農業開発協力部農業技術協力課	協力金額（評価時点）：7億8,600万円
協力期間 (R/D)：1997年11月1日～ 2002年10月31日	先方関係機関：農林省官房、ヴィエンチャン県農林部 (PAFSO)
	日本側協力機関：農林水産省
	他の関連協力：開発福祉支援事業（1998年12月～2001年1月）、ヴィエンチャン県農業農村開発計画（1995年11月1日～1997年10月31日）
<p>1-1 協力の背景と概要</p> <p>農業開発はラオス人民民主共和国（以下、「ラオス」と記す）の開発戦略のなかで重要な位置を占めている。しかしながら、農業セクター政府職員の運営能力が低いため、政府職員的能力向上を図るとともに、農民が主体的に農業開発に参画し、主導していく体制づくりが必要とされている。</p> <p>このため、ラオス政府は農村の現場における農民の合意を基本とした総合的な農業農村開発の実施を通じ、関係者の能力向上を図ることを目的として日本政府へプロジェクト方式技術協力を要請してきた。</p> <p>日本政府はこの要請を受けて、本格的なプロジェクトを実施するに先立ち、情報収集のために1995年11月から2年間フェーズⅠプロジェクトを実施した。本協力は対象地域の現状・ニーズ調査、プロジェクト・サイクル・マネージメント（PCM）手法の導入などの結果に基づき、対象とするモデル5村で農業農村開発を実施した。</p>	
<p>1-2 協力内容</p> <p>(1) 上位目標</p> <p style="padding-left: 20px;">ヴィエンチャン県における農業農村開発の促進</p> <p>(2) プロジェクト目標</p> <p style="padding-left: 20px;">住民参加による持続可能な農業農村開発の手法・技術が協力対象5村で確立される。</p> <p>(3) 成果</p> <ol style="list-style-type: none"> <li>1) 農業農村開発の計画、実施、及び評価手法が改善される。</li> <li>2) 農業農村基盤整備の適性技術が確立される。</li> <li>3) 地域に適したコメ及びその他の作物、畜産、養魚の生産技術が確立される。</li> <li>4) 生活環境の整備技術が確立される。</li> <li>5) 農民組織化と運営手法が強化される。</li> <li>6) 農民、村落リーダー及び県・郡職員の資質が向上する。</li> </ol>	

(4) 投入 (評価時点)			
日本側：			
長期専門家派遣	13名	機材供与	4,900万円
短期専門家派遣	21名	ローカルコスト負担	1億5,200万円
研修員受入れ	16名		
相手国側：			
カウンターパート配置	22名	機材購入	431万Kip
土地・施設提供		ローカルコスト負担	2億4,300万Kip (309万円)
2. 評価調査団の概要			
調査者	(担当分野：氏名／所属)		
	団 長	中川 和夫	国際協力事業団農業開発協力部 部長
	農業農村開発	島崎 和夫	農林水産省農村振興局整備課海外土地改良技術室 課長補佐
	計画評価	竹内 康人	国際協力事業団農業開発協力部農業技術協力課 課長代理
	評価分析	伊藤 毅	アイ・シー・ネット (株)
調査期間	2002年7月10日～7月25日		評価種類：終了時評価
3. 評価結果概要			
3-1 実績の確認			
<p>村落開発委員会 (VDC) による開発計画・活動計画の策定から実施・評価に至るまでのプロセスを通じて、住民のニーズを行政側が汲み取ることができるようになり、その結果、村落レベルでの適正技術 (灌漑・コメ、換金作物の栽培・生活改善) の定着と、県農業部職員及び村落の人材育成が確認された。しかし一方で、郡レベルの人材育成と対象地域外へ効果を広げるためのラオス側による組織的措置は十分とはいえなかった。</p>			
3-2 評価結果の要約			
(1) 妥当性			
<p>第5次社会経済開発計画 (2001～2005年) で、食糧自給・換金作物の生産・貧困対策が掲げられていること、及び農業開発戦略プラン (1999年) にて農村金融制度の強化・住民参加型のインフラ整備が掲げられていることから、本プロジェクトは上位政策との整合性が認められる。また、受益者ニーズの観点からは、本プロジェクトは住民参加により計画段階から評価に至るまで、行政に村民の意向を反映させる仕組みをつくるというアプローチを取っていることから、妥当性が高いと評価される。</p>			
(2) 有効性			
<p>住民参加による計画・実施・評価の手法は、協力期間内に計画的に実施された。郡レベルの人材育成不足、及びプロジェクトとの連携が希薄という問題は残っているが、村レベルでは住民参加型の農村開発手法が浸透したこと、及び終了時までマニュアルが完成の見込みであることから、有効性は高いと判断される。</p>			
(3) 効率性			
<p>ラオス側の人員・予算措置に不足・遅延があったものの、日本側の投入は計画どおり実施され、プロジェクトで整備された施設・機材は現在も利用されていることから、効率的に行われたと判断される。</p>			



(4) インパクト

改善された技術はプロジェクト対象村以外に普及し、活用されている。

(5) 自立発展性

組織的観点からは、プロジェクト事務所が県の農村開発センターに昇格し、技術サービスを担うほか、県下の郡普及員の研修センターとしても機能することが公式に決定している。

技術面では、VDCが計画・実施・評価の各段階で自立的に機能しはじめ、開発のためのマニュアル作成を検討しており、県政府がプロジェクト活動を通じて得られたノウハウの範囲内で適切にVDCに指導を行える状況にある。ただし、分野横断的に地域開発を計画する能力はいまだ不十分であるといえる。

財政的観点からは、VDFの機能が開始し継続しているものの、県政府によるサポート体制が不足しており、上記能力の向上と併せて今後の課題となっている。

以上から、村落レベルでは活動・成果が持続すると考えられるが、持続性の担保には県行政の機能強化が求められる。

3-3 効果発現に貢献した要因

(1) 計画内容に関すること

特になし

(2) 実施プロセスに関すること

県政府の職員が村落の現場に赴き、住民とともに計画・実施・評価を行うことは、効果の発現、及び村落レベルでの活動に持続性を担保させるうえで有効であった。

3-4 問題点及び問題を惹起した要因

(1) 計画内容に関すること

ラオス側プロジェクト実施責任者として県レベルの人員が任命されていたため、県が実施したプロジェクトの効果を農林省本省にフィードバックし、組織立って全国レベルで波及させることが困難であった。

(2) 実施プロセスに関すること

特になし

3-5 結論

今後の持続的な取り組みに対して、ラオス側がとるべき措置は残されているものの、村落レベルで手法・技術は確立されており、プロジェクト目標は達成されたと判断する。

3-6 提言

(1) ヱエンチャン県によるプロジェクト運営能力の強化

今後VDCが機能を発揮し続けるためには、県政府がプロジェクトで実施した業務を本来業務と位置づけたうえで、各分野の連携を図りつつ、事業の総合的な開発計画策定ができることが必要である。

(2) 郡レベル人材の育成

今後VDCへの指導・モニタリング能力を向上させるために、県職員がプロジェクトによって得たノウハウを基に、郡普及員レベルの研修を実施することが望まれる。

(3) 常設合同委員会（Permanent Coordination Committee：PCC）の設置

プロジェクトで達成された成果を継続させるために、プロジェクト終了時に解散予定の調整委員会を再編し、県によるプロジェクト継続活動に提言を行う必要がある。PCCはプロジェクト終了までに少なくとも1回開催されることが望まれる。

(4) プロジェクト成果を他県へ波及させること

本プロジェクトの成果はヴィエンチャン県のみにとどまらず、上位目標達成の観点から、農林省主導で組織的に波及させるための措置を講ずることが望まれる。

3-7 教訓

(1) プロジェクト実施責任者と現場責任者の兼務問題

本プロジェクトで確認された効果を他に波及させる観点から、プロジェクトの現場責任者とは別に、上位機関で担当者を任命することが重要である。

3-8 フォローアップ状況

特になし

## 第1章 終了時評価の概要

### 1-1 調査団派遣の経緯と目的

ラオス人民民主共和国（以下、「ラオス」と記す）政府は、市場経済化の促進とともに、農家の生活水準の向上を政策の柱としており、このため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を政策に掲げている。

かかる状況下、ラオス政府は具体的な村落を対象として参加型農業農村開発の実証を行いつつ、ラオス側関係者に参加型農業農村開発に関する技術移転を図るため、プロジェクト方式技術協力を日本に要請してきた。

国際協力事業団（JICA）は、この要請を受け、1995年3月の事前調査団派遣、同年7月の実施協議を経て、1995年11月から1997年10月末までの2年間、本格的な協力を先立ち事前準備を目的としてフェーズⅠを実施した。フェーズⅠでは、対象地域の現状・ニーズ調査、プロジェクト・サイクル・マネージメント（PCM）セミナーの開催と手法移転、農業農村開発計画の策定、モデル村の選定等を行った。1997年7月にはラオスとの合同チームによってフェーズⅠの終了時評価調査を実施する参加型農業農村開発とともに、フェーズⅡの方向性について協議を行った結果、プロジェクト目標を「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」で双方合意した。1997年10月にはフェーズⅡの討議議事録（R/D）が署名され、5年間の本格協力フェーズⅡが始まった。

協力開始から2年半を経た2000年4月に中間時評価調査団を派遣し、プロジェクトの進捗状況を把握し、運営上の問題点について解決のための提言を行うと同時に、プロジェクト・デザイン・マトリックス（PDM）の指標及び詳細活動計画（PO）の改訂に向けた提言を行った。さらに、2001年運営指導調査団では、中間時評価以降の活動を確認するとともに、プロジェクト終了にむけて自立発展性を担保させるために必要な指導・助言を行い、中間評価時の提言に従って改訂されていたPDMの指標を明確化し、合同調整委員会で双方の合意を得るに至った。現在、これらの経緯に従い、これまで移転された農村開発の技術とシステムを定着化させるための活動が展開されているところである。

本プロジェクトに対する我が国の協力は、2002年10月末に終了を迎えることから、本プロジェクトを総括するため、終了時評価調査団を派遣した。具体的には、以下の3点を目的とする。

- (1) 技術協力の開始から終了までの5年間の実績と目標達成度を、R/D、暫定実施計画（TSI）等の合意文書に基づき、JICA評価ガイドラインに沿って総合的に調査、評価する。
- (2) 技術協力期間終了後のとるべき措置について協議し、結果を日本・ラオス両国政府及び関係当局に報告、提言する。

- (3) 今後類似のプロジェクトが実施された場合に、その案件を効果的に立案、実施するため、本協力の実施による教訓、提言を取りまとめる。

## 1-2 調査団の構成と調査期間

### (1) 調査団の構成

#### 1) 日本側

担当	氏名	所属
団長	中川 和夫	国際協力事業団農業開発協力部 部長
農業農村開発	島崎 和夫	農林水産省農村振興局整備課海外土地改良技術室 課長補佐
計画評価	竹内 康人	国際協力事業団農業開発協力部農業技術協力課 課長代理
評価分析	伊藤 毅	アイ・シー・ネット(株)

#### 2) ラオス側

担当	氏名	所属
団長	Mr. Thongsoun BOUNPHASAISOL	農林省事務次官局 国際協力投資課長
副団長	Mr. Oudong PHONGPHAYPADITH	ヴィエンチャン県計画協力局 次長
副団長	Mr. Bouaphanh KONEDAVONG	ヴィエンチャン県農林局 次長
団員	Mr. Houmphanh SOUKPASITH	計画協力委員会国際協力部 アジア大洋州課長
団員	Mr. Khambay KHAMSANA	農林省農業林業普及部 JICA担当官

### (2) 調査期間

2002年7月10日～7月25日までの16日間。

## 1-3 対象プロジェクトの概要

### (1) 協力期間

1997年11月1日～2002年10月31日

### (2) ラオス側実施機関

ヴィエンチャン県農林事務所、農林省官房

### (3) プロジェクトサイト

- 1) ヴィエンチャン県プロジェクトオフィス
- 2) 対象5村：ナムニャム村、バンキ村、ポンケオ村、ナピユイ村、及びポンホ村

### (4) 上位目標・プロジェクト目標

- 1) 上位目標

## ヴィエンチャン県における農業農村開発の促進

### 2) プロジェクト目標

住民参加による持続可能な農業農村開発の手法・技術が、協力対象5村で確立される。

### (5) 成 果

- 1) 農業農村開発の計画、実施、及び評価手法が改善される。
- 2) 農業農村基盤整備の適性技術が確立される。
- 3) 地域に適したコメ及びその他の作物、畜産、養魚の生産技術が確立される。
- 4) 生活環境の整備技術が確立される。
- 5) 農民組織化と運営手法が強化される。
- 6) 農民、村落リーダー及び県・郡職員の資質が向上する。

### (6) 活 動

- 1) 農業農村開発の計画手法を改善する。
  - ① 住民参加型計画手法による立案、調査、計画、設計、モニタリング及び評価を行う。
  - ② 土地利用計画、営農計画、農業農村基盤整備計画を策定する。
- 2) 農業農村基盤整備技術を改善する。
  - ① 設計技術を改善する。
  - ② 施工技術を改善する。
  - ③ 管理及び維持管理技術を改善する。
- 3) 農業生産の適切な技術を検討・改善し普及する。
  - ① 農業生産のための改良技術を試行する。
  - ② 改良技術を展示する。
- 4) 農村生活環境及び維持管理能力を改善する。
- 5) 農民組織を育成・強化する。
- 6) 農業農村開発計画手法、農業基盤整備、農業生産、農業生活環境改善及び農民組織の育成強化のための研修を実施する。

## 第2章 終了時評価の方法

### 2-1 PDMe

終了時評価に用いるPDMeは、2001年7月25日にプロジェクト合同調整委員会で承認されたPDMを用いた。

### 2-2 情報・データ収集方法

本調査に関する情報・データ収集は、現地の聞き取り調査を中心に、以下のとおり行った。

- 1) 既存資料からの情報を基にした評価設問と質問表の作成（国内作業）
- 2) プロジェクト関係者の参加による参加型組織分析ワークショップの実施（評価分析団員のみ参加）
- 3) 合同評価委員会における各セクションからのプレゼンテーション
- 4) 対象村での村落開発委員会（VDC）メンバーを中心にした聞き取り調査（3村、評価団員のみ4村、各村半日程度）
- 5) その他、必要に応じて専門家、ラオス側カウンターパートからの個別の聞き取り調査

## 第3章 調査結果

### 3-1 現地調査結果

#### (1) 組織分析ワークショップの結果

プロジェクトの関係者（ラオス側カウンターパート、郡事務所（DAFO）職員、日本側専門家等）参加による参加型組織分析ワークショップを行い、今後、農業農村開発を進めていくにあたって、以下の点について各自が考えることについて議論した。その後、それぞれの項目のなかでより重要と考えるものを、参加者の投票によって決定した。

- 1) プロジェクトによって自信を得たこと、あるいは向上したこと
- 2) 今でも不足を感じる事
- 3) プロジェクトを通して変化した外部の状況
- 4) 現在も問題として残されている外部の状況

その結果確認できた事項は、以下のとおりである。

- ・プロジェクトのスタッフの技術面の向上は、それぞれの大きな自信になっている。
- ・現段階では、個別の技術を総合して、それぞれの村の環境に合った組み合わせを考えるまでには至っていない。
- ・DAFO職員とは、まだ十分な連携が取れていない。
- ・DAFO職員の通常業務とプロジェクトの業務との調整ができていない。
- ・セクションの横のつながりがまだ弱い。
- ・プロジェクトのマネジメントに対する不満がみられた。
- ・農民の間に自ら計画を立てて開発をめざす、自発的な参加がみられるようになった。
- ・初期投資として支援した農業インフラについては、まだ「公共財」との認識が強く、管理への責任感がまだ薄いように思われる。

#### (2) カウンターパートに対するインタビュー調査の結果

成果の達成にばらつきはあるものの、プロジェクトの活動対象としたいずれのセクションにおいても、日本人専門家から受けた技術移転を基に今後、自らが同様の活動を続けていくだけの自信があることを確認した。

#### (3) 対象村の現地視察の調査結果

本調査で訪れた村は、ナムニャム村、ポンホ村、及びバンキ村の3村である。評価分析団員のみは、これらに加えてナプイ村にて調査を実施した。

現地では、村長、村落開発委員会（VDC）メンバー、各活動グループのチーフへのインタビュー、インフラ施設の状況や実際の活動（コメ生産、野菜生産、畜産など）を視察した。

いずれの村でもVDCを中心とした村の自発的開発を今後も継続していく自信があることが確認された。村落開発基金（VDF）についてはまだ運営の経験が浅く、村民側からは運営を心配する声も聞かれた。

なお、村長やVDCチーフへのインタビューから、村長を頂点とするこれまでの村行政制度とプロジェクトで導入したVDCの間には、特に問題が起こっていないことが確認された。

本調査で確認された各村落の特徴と、プロジェクトで取り組んだ具体的な活動概要は以下のとおりである（表3-1参照）。

表3-1 各村落の特徴と活動概要

村落名	村の特徴	取り組み概要と成果
ナムニャム	<ul style="list-style-type: none"> <li>丘陵地農業複合経営型（低地部：稲作、丘陵部：放牧）</li> <li>戸当りの水稲作付面積は小さい</li> <li>大規模な村落</li> <li>少数民族（モン族）の村</li> <li>近年の開村（1973年）</li> </ul>	<ul style="list-style-type: none"> <li>灌漑の取り組みが大規模に実施され、乾期作の導入や野菜栽培を行い、この成果を受けて農民組織独自に、開田及び小規模な水利施設の整備を実施。</li> <li>VDCの活動を通じ、識字教育も取り組んでいる。</li> </ul>
ボンホ	<ul style="list-style-type: none"> <li>近郊都市部複合経営型（稲作＋野菜が中心）</li> <li>小規模な村落</li> <li>コメの品質の良い地域で稲作栽培は盛んに行われている</li> <li>生産された野菜は近隣の市場でも販売</li> </ul>	<ul style="list-style-type: none"> <li>野菜の雨よけ栽培や茸栽培等の取り組みを積極的に実施。特に、茸栽培については、先行していたナプイ村の農家から研修を受け、栽培を実践。</li> <li>品質の良いコメの産地であり、水田の管理は積極的に実施。</li> <li>VDCのリーダーは優秀であり、また、村落規模が小さいことからまとまりやすく、積極的な取り組みが村全体として行われている。</li> </ul>
ボンケオ	<ul style="list-style-type: none"> <li>平野山際部複合経営型（平野部：稲作、山間部：放牧）</li> <li>中規模な村落</li> <li>戸当りの水稲作付面積は中程度</li> </ul>	<ul style="list-style-type: none"> <li>家畜へのワクチンの接種や、養鶏への取り組みが盛んであり、リボルピングシステム（プロジェクトから支援を受けた第1グループが技術及び初期投資を第2グループ等へ渡していくシステム）により取り組みが広がってきている。</li> <li>農民組織独自に他村の雨よけ栽培や、茸栽培の先行事例を学び、実践。</li> </ul>
バンキ	<ul style="list-style-type: none"> <li>焼畑対策山村総合農業開発型</li> <li>中山間地であり、戸当りの水稲作付面積は非常に小さい。</li> <li>焼畑はまだ実施されている。</li> <li>大規模な村落で長い歴史がある。</li> </ul>	<ul style="list-style-type: none"> <li>灌漑施設の整備を受けて、農民組織独自により、新たに焼畑地を水田にする取り組みが実施された。農民独自では困難な施設の改修については、プロジェクトに支援を依頼。</li> <li>その他、野菜栽培、果樹栽培、バナナ加工等への積極的な取り組みを実施。</li> </ul>
ナプイ	<ul style="list-style-type: none"> <li>平野部複合経営型（稲作＋養魚が中心）</li> <li>中規模な村落</li> <li>戸当りの水稲作付面積は中程度</li> </ul>	<ul style="list-style-type: none"> <li>当初、飲み水のため池を利用した養魚に取り組んだものの、水質の悪化等の問題からうまく行かなかったものの、その後、農民組織独自に堰の建設による貯水域を利用した養魚を実施し、大きな成果をあげている。</li> <li>乾期作の水稲や野菜にも取り組んでいる。</li> </ul>



## 3-2 プロジェクトの実績

### 3-2-1 成果指標に基づく実績

(1) 成果1：農業農村開発の計画、実施、及び評価手法が改善される。

農業農村開発の計画、実施及び評価が参加型手法を用いて実施され、村落開発計画（5か年計画）、年間村落活動計画、4半期ごとの村落活動計画、及び問題解決のための処理様式が作成されるとともに、これらの評価手法を含めた実施手順マニュアルが作成された。現在、これらに基づく対象5村における農業農村開発に関連する活動が実施されている。これらの手法は、カウンターパートだけではなく農家にも理解され、VDCの設立・運営、コメの高収量品種の導入、野菜栽培への取り組み、灌漑施設の整備・維持管理及びこれらの運営や維持管理のためのVDFの設置等の活動がなされている。

本プロジェクトにおいて、対象5村で実施された住民参加型手法を用いた総合的な農業農村開発は、コメの増収や野菜栽培による所得の向上という形で成果が確認された。また、農民独自による施設の定期的な維持管理や運営・評価のための会合が定期的に行われているため、有効な手法であると判断される。

また、カウンターパートは本プロジェクトの取り組みを通じて、農業農村開発手法を習得し、農家への指導を実践している。

以上から、農業農村開発の計画、実施及び評価手法は改善され、成果は達成されたと判断される。

(2) 成果2：農業農村基盤整備の適性技術が確立される。

本プロジェクトにおいては、住民参加型手法を通じて灌漑施設の整備、及び維持管理が計画・実施された。頭首工、取水施設や幹線水路等の規模の大きな施設については、コンサルタントや建設業者を利用して、カウンターパートが計画作成、設計の実施及び施工管理を行い、維持管理は農民組織である水利グループによって実施されている。末端水路等の規模の小さなものについては、カウンターパートの指導の下に農民組織によって工事が実施され、水利グループにより維持管理が行われている。また、施設の維持管理やポンプの燃料代等のために水利費が水利グループによって徴収されており、徴収金は少ないものの、徴収率は90%以上となっている。この手法を用いて、ナムニャム村及びバンキ村では、農民独自による、新たな灌漑施設の整備と開田を実施してきているとともに、ナムニャム村、バンキ村やナプイ村では乾期作の水稻や野菜栽培も実施されてきている。

なお、ポンホ村の灌漑施設については、県で実施されている基幹施設の整備が遅れていることから未利用となっているものの、今後試験通水の実施と基幹施設の工事が今期に完了する見込みで、末端の施設はプロジェクトで整備されていることから、今後計画どおり

の利用が期待される。

以上から、住民参加型手法を通じた灌漑施設の整備・維持活動が実証され、他地域において実施できる可能性が示されたと判断される。

(3) 成果3：地域に適したコメ及びその他の作物、畜産、養魚の生産技術が確立される。

新たな営農技術の導入にあたっては、農家の意向を踏まえ、関係機関とも連携・協力しながら活動を実施してきた。対象5村においては、各取り組みごとに農民グループを組織し、農民グループが年間活動計画や収穫量等の目標の設定、及びその活動に対する評価の実施を実施している。

水稲については、高収量品種の導入や作付け・水管理等の計画策定、野菜栽培については、雨期の雨よけ栽培や茸栽培等の新たな野菜の導入、及びバナナの加工（干しバナナの生産）の取り組み、畜産については、ブタやニワトリの飼育及び家畜へのワクチンの接種等を行っている。これらの営農技術は、カウンターパート及び関係機関から農民グループに移転されて着実に実践されている。また、技術を習得した農民グループから村落内の他の農家や農民グループに対して技術移転されるとともに、対象5村やそれ以外の村への技術移転が確認され、プロジェクトの取り組みが対象5村以外にも波及している。これらの活動により、コメをはじめとする農業生産量が大きく増大したとともに、農家所得の向上につながっている。

なお、過去に取り組んだプロジェクトで養魚に関する取り組みについては、飲料水の水源池で実施され、水質の悪化等の問題からうまくいかなかった事例があるものの、この経験を教訓に他村での取り組みも踏まえて、独自に成功している事例もある。

以上から、プロジェクトで導入した多くの営農技術が、地域に適合しながら確立しているといえる。

(4) 成果4：生活環境の整備技術が確立される。

農村生活環境については、VDCにおいて議論され、生活環境の改善に必要なものが、村落の状況に応じて実施されている。共同井戸とトイレの整備（125の一般のトイレと3つの学校のトイレ）は、開発福祉支援を活用し、各VDCが共同して実施主体となって、実施され、維持管理は農民組織が行っている。

村落道路は、住民参加によって事業が実施され、維持管理は農民組織が実施している。共同井戸が設置されたナムニャム村等の3村では、これまで女性や子どもによる水汲みの労働が軽減され、子どもの教育の向上や女性の他の労働への従事、及び新たな営農技術の習得機会の拡大につながっている。

以上から、生活環境の改善は、住民の自助努力による取り組みが開始しており、地域に根づいたものと判断できる。

(5) 成果5：農民組織化と運営手法が強化される。

対象5村において、VDCが組織され、年間村落活動計画の策定、及び問題解決のための議論や活動に対する評価の実施のための定期的な会合が継続している。また、各VDCにおける問題解決のため、各農民グループでの活動目標を明確にして、その評価を行うために、収穫量の数値目標の設定を行っており、この点で評価・モニタリング様式の導入等の工夫が確認される。

また、VDCの下に農民の意向を踏まえた活動を行うための各種グループ（稲作の作付け・水管理計画の作成や稲作技術の習得のための稲作グループ、住民参加による灌漑施設の整備や維持管理のための水利グループ、供与機材であるハンドトラクター、脱穀機や精米機の操作と維持管理を行う機械グループ、各種営農技術に合わせた取り組みを行うための野菜栽培グループ、共同井戸の維持管理や料金の徴収を行うための給水グループ等）、を設立し、年間計画の策定や評価等の定期的な会合、及びそれに基づいた活動が実施されている。カウンターパートは、VDCや農民グループの取り組みに対する支援を継続的に実施してきており、十分な支援能力を習得しているとともに、VDCの設立から計画策定、活動及びその評価に係る一連の手続きについての総合マニュアルを作成中である。

(6) 成果6：農民、村落リーダー及び県・郡職員の資質が向上する。

以下の研修が実施され、プロジェクトの政府職員は、自主的に住民に対する研修を実施できるようになった。これまでの実績は、以下のとおりである。

- 1) コメの生産技術の研修：60回（参加者延べ2,460名）
- 2) 商品作物の生産技術：26回（参加者延べ693名）
- 3) 茸栽培技術：6回（参加者延べ159名）
- 4) 果樹栽培技術：18回（参加者延べ299名）
- 5) 畜産技術：21回（参加者延べ522名）
- 6) 養魚技術：9回（参加者延べ114名）

また、VDCのリーダーへの研修や先進地の研修は、研修受講者にリーダーとしての自覚を促し、自信を与える契機となり、円滑な村落の活動の推進に大きく役立った。研修を受けた農家は、村落内の他の農家や近隣村の農家に対して、研修で学んだ技術を指導している。

しかし、DAFO職員は、これまでプロジェクトとの連携が希薄であったこともあり、十

分な研修を受ける機会は今まではなかったといえる。カウンターパートは既にこれまでの研修活動を通じて、DAFO職員に技術を移転するだけの能力は習得しており、カウンターパートからDAFO職員へ技術移転を推進する段階にある。

### 3-2-2 プロジェクト目標の達成度

本プロジェクトのプロジェクト目標は「ヴィエンチャン県対象5村において、住民参加型持続的農業農村開発のための手法・技術が確立される」である。このプロジェクト目標に対して、以下の3つの指標が設定されている。

- ① 対象5村のVDCが、プロジェクト終了時までには少なくともプロジェクトの3つの戦略コンポーネント（コメの自給、換金作物、生活改善）に係る村落開発計画（VDP）活動を、自らが主導して実施・達成できるようになる。
- ② 関係する政府職員の能力が、現場での活動や研修を通じて向上する。
- ③ 対象5村で実現したVDPの手法がプロジェクト終了時までにはヴィエンチャン県政府によって農業農村開発のモデルとして認められる。

それぞれの指標に対するプロジェクトの達成度は、以下のとおりである。

#### (1) 指標①に対して

各対象村のVDCは「3つの戦略」に関連するVDP活動を開始し、それぞれ成果が発現している。5村の平均米自給率は124.9%に上昇した。100%を達成していないのはバンキ村とナムニャム村で100%を下回っているが、バンキ村（88.7%）の場合は絶対的な耕地面積の不足によるものであると判断される。

対象の5村すべてにおいて、換金用の野菜栽培の取り組みが継続して行われている。また、ポンホ村、ポンケオ村では導入された畜産も継続して行われており、プロジェクトの啓発活動によって、受益者不要負担による家畜ワクチン接種が定期的に行われるようになった。

生活改善の分野では、バンキ村、ナムニャム村、ナプイ村で水供給設備が整備され、住民による水費用徴収が進められている。

これらのVDP活動の実施に際し、VDCは年間活動計画の作成ができるようになり、また、計画に基づく自己評価も行っている。

多収穫品種米生産と野菜栽培の技術は、既に対象村の農民、女性に移転されている。コメ生産については施肥や正条植えなどの技術は完全には行われてはいないが、生産性の向上と自給率の向上の観点から、現在の技術レベルでも技術移転の効果は十分認められる。また、現在ではモデル農家が主体となって、他の村民あるいは周辺村の農民への技術移転

も行われている。村での計画づくりと計画に基づく活動の実施も2年目のサイクルに入り、VDC及び活動グループのメンバーの積極性が高まっているとみられる。

これらから、村民の開発への自発的な参加意欲が高まっていることが確認でき、指標①の「自らが主導して」という状況に達していると判断される。

## (2) 指標②について

カウンターパートの技術能力の向上は十分に認められる。計画セクションに関しては、「習得した技術を活用して、よりレベルの高い開発ファシリテーターとなるには更に経験を積む必要がある」と自己評価しているが、各対象村でのVDCによる計画立案やモニタリング活動の実績からみれば、プロジェクトがめざすべき技術レベルの向上は、十分に達成していると判断される。

一方、DAFOの職員は、プロジェクト開始当初から参加が求められていたものの、実際にプロジェクトに参加するようになったのは終了時評価の約1年前からであり、彼らに対する技術移転は十分ではない。また、対象地域の3郡から各1名ずつが担当として配置されているのみで、それぞれのDAFO職員の全体の技術レベルの向上という点からも十分でない。したがって、プロジェクトで指導したカウンターパートからDAFO職員への技術移転が行われ、技術向上を図ることが今後の大きな課題であろう。

## (3) 指標③について

プロジェクトで導入した主な技術（参加型計画立案手法、参加型灌漑水路建設、高収量品種米、雨期栽培野菜、乾期裏作栽培、マッシュルーム栽培、果樹栽培、畜産防疫、参加型給水管理、等多数）について、これらの個々の技術の適性が実証されたものが成果として残り、各種のマニュアルが作成された。これらの導入技術については、プロジェクトにおいて導入した段階では農家が選択可能、かつ実践可能であると考え、今後更に他の事例に適用する際には、対象とする農家の経営レベルも勘案しつつ、各技術のコストに関する分析と実証が求められる。

一方、VDCの形成などへの行政側の支援の手順及び方法についてもマニュアルの策定を通じて標準化が進んでいる。「VDP手法モデル」あるいはこれら個別技術からそれぞれの村の自然・社会環境条件などに適した技術の組み合わせを導き出すためのパッケージを示すレベルには至っていないものの、現在、プロジェクトではこれまでの対象村での経験を取りまとめた「総合農村開発マニュアル」を作成中であり、これが将来のガイドブックとして活用されると期待される。

なお、「モデル」に関しての考え方については、農村開発が農業生産のみに限らず、社

会開発の面も含む多面的なもので、固定したモデルを導入することは難しい点を考慮する必要があろう。むしろ、農村の問題をいかに分析し、農村の住民のエンパワーメントをどのように行うか、などのプロセス面における経験の蓄積が、モデルそのものの確立よりもはるかに重要である。

県農林事務所 (PAFSO) は、本プロジェクトを公式にPAFSOの組織として位置づけ、「農村開発センター」として手法の普及を図りたいとしている。導入した手法は公式な認知までには至っていないものの、県政府は導入した手法を高く評価しており、ラオス側に蓄積された経験や情報は、今後の同地域での農業農村開発の促進のために貴重な基礎となることが期待される。

これらの調査結果から、指標②における郡レベルの人材育成に今後の課題がみられるものの、今後のカウンターパートの取り組みによって対応が可能であることから、本プロジェクトは協力期間終了時までにはプロジェクト目標を達成するであろうとの結論に達した。

### 3-2-3 上位目標の達成度

本プロジェクトの上位目標は「ヴィエンチャン県内で農業農村開発が促進される」であり、その指標に実際に実施された農業農村開発プロジェクトの件数をあげている。現状では、本プロジェクトに類似の開発プロジェクトは、ヴィエンチャン県内で実施されていない。しかしながら、自立的な参加型農業開発の実現に向けた行政と農村の双方の取り組みと、実施に必要な能力を知るプロセスを通じて、将来的に農業農村開発が同県内で促進される基礎はつくられているといえる。これらのことから、本プロジェクトは上位目標の達成に向けての貢献があったと判断できる。

## 第4章 評価結果

### 4-1 評価5項目の評価結果

#### 4-1-1 妥当性

##### (1) 政策との整合性

ラオスの「第5次社会経済開発計画（2001～2005年）」では、①食料自給、②換金作物生産、③丘陵地・山間地における焼畑農業の撲滅、④貧困対策、を優先課題としてあげている。農業セクターにおけるもうひとつの重要な政策として、1999年の「農業開発戦略プラン（Strategic Vision）」があり、ここではメコン平原地域と丘陵・山間地で異なる政策を打ち出している。メコン平原地域では換金作物、畜産、水産などを含む農業生産の多様化、農村金融制度の強化と住民参加型の農業インフラの整備があげられている。これらの政策とプロジェクト内容は整合性がとれている。

##### (2) 受益者ニーズとの整合性

本プロジェクトのフェーズⅠ（1995年11月から2年間実施）において、村民を含めたPCMワークショップを実施しており、その結果はフェーズⅡの計画に反映されている。また、各ターゲット村での活動は村落開発委員会（VDC）を中心とした村民グループにより作成されたものである。したがって、対象5村で実際にどのような活動が行われるかは村民自身によって決定されており、受益者ニーズとの関係でも全体として本プロジェクトは妥当性を有しているといえる。他の項でも述べた、高収量品種米の高い導入率、換金野菜栽培の継続的な生産、住民によるインフラ整備の継続なども、受益者ニーズとの整合性を示しているといえる。

#### 4-1-2 有効性

住民参加による計画・実施・評価の手法は、協力期間内に計画的に実施された。郡事務所（DAFO）職員の人材育成不足、及びプロジェクトとの連携が希薄という課題は残っているが、対象村のレベルでは住民参加型の農村開発手法が浸透しており、終了時までにはマニュアルが完成の見込みであることから、有効性は高いと判断される。

#### 4-1-3 効率性

日本側の投入は、おおむね計画どおりに実施されたが、ラオス側は財政的な状況から投入の遅れやローカル予算の確保が十分ではなかった。しかしながら、期待される成果の大部分は、プロジェクトの終了までに達成される見込みである。このことから、本プロジェクトは効率的

に実施されたといえる。

ラオス側の予算措置に対しては、多少の不安は残るものの、ラオス政府の本プロジェクトへの予算割り当ては、1997/1998年の2,300万Kipから2000/2001年の7,700万Kipと大きく増加しており、ラオス側の本プロジェクトへの高い意気込みを示すものである。

#### 4-1-4 インパクト

##### (1) 上位目標に対するインパクト

「3-2 プロジェクトの実績」の項でも述べたように、現時点で上位目標に対するインパクトの発現を期待するのは時期尚早である。しかし、本プロジェクトで上位目標に向けた大きな成果が確認されたとともに、この成果を発展させようというラオス側の意思も確認された。

##### (2) その他のインパクト

###### 1) コメ自給率の向上

対象5村のうち3村がコメ自給率100%を超えた。

###### 2) 対象村の周辺村へのインパクト

対象村ではモデル農家を活用した現場での「Farmer to Farmer」の技術移転が進んでおり、その影響は対象村内のみでなく近隣村にも及んでいる。コメ生産、マッシュルーム生産などは近隣村でも農民が始めており、プロジェクト対象外にも効果が波及されていることが認められる。

#### 4-1-5 自立発展性

##### (1) 組織的側面

ラオス政府の地方分権化政策の下、プロジェクト事務所は農林省からヴィエンチャン県に移管されており、移管に際しては農林省からヴィエンチャン県宛に文書が発出されている。

プロジェクトは、農村活動を活性化させるためDAFO普及職員との連携を開始し、他郡との連携も検討中である。ヴィエンチャン県はプロジェクト事務所を農村開発センターに昇格させ、同センターを村民のための技術サービスセンターとして機能させるとともに、DAFO普及員及び他の関係機関職員向け研修センターとしての機能を担う計画も有している。



## (2) 財務的側面

村落開発基金（VDF）は機能し始め、今後、自立的に村落レベルで活動を維持していくために重要な役割を担う。しかしながら、いまだ経験が浅く、運営面に対しての自信をもつまでには至っていないため、VDFの財政基盤を強固にするためのプロジェクトからの継続的な助言が期待される。

なお、日本の協力終了後に他村でプロジェクトの成果を展開するためには、プロジェクト事務所は初期投資の優先づけをする際に、活動の財政的検討、及び村民のニーズと経済的負担能力を考慮する必要がある、この面における行政側の能力強化についても望まれる。なお、表4-1はプロジェクトによって、対象村に導入された主要機材等の初期投資額であり、本プロジェクトにおいてはこれら経費の一部〔灌漑水路整備費の一部（総コストの10%以下）、雨よけ栽培施設等〕は農民が負担した実績がある。

表4-1 主要機材等の初期投資額

内 容	単 位	経 費	通貨単位
灌漑施設	ha（測量・設計経費を含む）	915～4,005	USドル
トラクター	1セット	2,350	USドル
脱穀機	1セット	3,170	USドル
Thresher Machine	Per one set	3,500	USドル
野菜雨よけ栽培	3 m×30m	120,000	Kip
携帯ポンプ	1セット（2 inch）	220	USドル
	1セット（3 inch）	980	USドル
ワクチン	年間ニワトリ1羽当たり年（2種接種）	360	Kip
	年間牛1頭当たり	533	Kip
	年間豚1頭当たり	240	Kip
深井戸	一式（40m）	2,000	USドル

## (3) 技術的側面

VDCは自立的に機能し始めており、会合を開催し、年間計画策定、モニタリング、評価の一連の活動を定期的に行っている。カウンターパートは、プロジェクト活動を通じて得たノウハウの範囲内でVDCに助言できるようになっている。また一方では、雨よけ栽培などの技術は、対象村から他村へFarmer to Farmerによる技術移転が行われており、これは技術的ノウハウがヴィエンチャン県内で普及する可能性を示している。

今後は、プロジェクト活動を通じて得られたノウハウの維持及び更新、他村での展開に対応するための新規職員・DAFO職員の育成を行っていく仕組みを検討していく必要がある。

#### 4-1-6 効果の発現に貢献した要因

##### (1) 計画内容に関するもの

###### 1) 貢献要因

ラオスでは協力開始当時、ボトムアップアプローチを取り得る既存組織がなく、住民個々人の意見を発言できる場所が必要であった。村落開発の農村レベルでの担い手としてVDCを形成したことは、ボトムアップとトップダウンを結びつけるひとつの方法として効果的であったと考えられる。VDCがこの役割を担い、住民参加型の活動が根づくようになった。

###### 2) 阻害要因

###### ① プロジェクトの実施能力に見合った対象・範囲の設定

本件で対象とする農村開発は、扱う範囲が農業生産・灌漑・生活環境改善などの多岐の分野にわたる総合的かつ広範な内容となっていた。したがって、プロジェクトの実施サイドとしては、成果を個々の技術の導入・確立に求める傾向があり、PDMに記載されるプロジェクト目標や成果に対する指標が明確化されたのは、プロジェクトの後半からであった。プロジェクト運営上の観点からは、成果が段階的に発現し、これを十分にモニタリングできる体制を整える必要があり、オペレーション可能な対象・範囲を計画することが望ましい。

###### ② 人材の不足

プロジェクトで実証を試みた養殖については、プロジェクトの枠内では十分な成果が発現しなかった事例もあり、その一因として、人材の不足が指摘できる。

##### (2) 実施のプロセスに関するもの

###### 1) 貢献要因

###### ① 成功体験の蓄積と県レベル職員の参画

村落レベルでは、村人が成功の体験を得ることによって自信をつけ、その後の活動がよりスムーズになっている。これに県レベルの職員が対象村を訪問し、住民のニーズを確認しながら村落単位での活動計画立案・実施・モニタリングを共に行ったことは、活動の継続にとって非常に有効であった。

###### ② 他の援助スキームとの組み合わせ

種子生産のための初期投資資金を、開発福祉支援事業とも連携しつつ調達していたことなど、他スキームとの連携はプロジェクトの効率性を高めた。

## 2) 阻害要因

### ① プロジェクト・ダイレクターの配置について

ラオス側のプロジェクト実施責任者として、ヴィエンチャン県農林部の職員が配置されていた。このため、県のレベルを超えてプロジェクトの成果を国へとフィードバックし、得られた知見を活用して全国的に農村開発プログラムに取り組むまでの体制ができているとはいえない。

## 4-2 結論

今後の持続的な取り組みについて、ラオス側が取り組むべき措置については、郡レベルの人材育成を中心に課題として、いくつか残されているものがあるものの、村落レベルでの住民参加を基調とする農村開発手法が浸透しており、プロジェクトで導入された技術のいくつかは、実証されて適用に至っている。また、今後プロジェクトで、これらの成果を取りまとめた農村開発マニュアルが策定される予定があることから、プロジェクトの持続発展性もある程度は、確保されることが期待できる。

上記により、プロジェクトは協力期間中に当初の目標を達成する見込みがあると判断されるため、当初予定どおり2002年10月31日で協力を終了することが適当である。

## 第5章 提言と教訓

### 5-1 提言

#### (1) プロジェクト終了に向けての優先課題

合同評価チームは、当初予定期間である2002年10月末までに、プロジェクト目標は達成される見込みであると結論づけた。協力残存期間内に取り組むべき優先課題は次のとおりである。

##### 1) プロジェクトにおいて導入された技術の経済的妥当性の分析

プロジェクトにおいては、雨よけ栽培、自転車ポンプ等の技術が導入されているが、今後、他村に導入する際の判断材料として経済的妥当性を分析しておく必要がある。

##### 2) 農村開発マニュアルの策定

県が他村での農村開発を支援する際、村民が活動を決定するときの参考資料として、個別技術の組み合わせ方を示したマニュアルを作成する必要がある。

#### (2) プロジェクト活動を県農林事務所（PAFSO）の主要業務と位置づけるために必要な措置

PAFSOは、プロジェクトがこれまで実施した活動を所掌業務として取り入れ、また農業農村開発センターとして県内の事業普及・展開を図る計画であるが、単に既存の組織図のなかに位置づけられるだけではなく、センターの機能・権限を明確にしたうえで、PAFSOの主要業務として公的に位置づけられ、実際に機能を担うことが重要である。このことは、今後プロジェクトの成果をヴィエンチャン県内の他村で展開していくために必須であると考えられる。

プロジェクトが農村開発センターとして承認されるにあたっては、同時に、PAFSO及び郡事務所（DAFO）との役割分担や関係が明確化され、PAFSOがプロジェクト活動を県内で展開していくための戦略・計画を作成し、関連機関がこれにのっとり活動できる体制をつくることが重要である。

他の政府関係機関との連携を図ることは、スタッフの専門性からプロジェクトでは十分な能力を有しているとは必ずしもいえない分野がある（給水、衛生、水産養殖、村落開発資金管理等）ことから、今後も推進される必要がある。

#### (3) プロジェクト運営部門の改善

現在、プロジェクトではプロジェクト活動計画策定、セクション間の調整、プロジェクト活動全体の評価（各セクション内では実施している）等、プロジェクト活動を総括する機能を有していない。プロジェクトは技術的・社会的側面から多様な事象を扱っており、プロジェクト活動の効果的な実施のためには、各セクション間の緊密な調整と総合的計画づく

りが欠かせない。運営部門の能力強化のために現行の管理セクションに適材を配置し、機能強化を講じるべきである。

#### (4) プロジェクト成果の他県への展開

本プロジェクトの成果は、ヴィエンチャン県において展開されることが期待されている。農林省は、プロジェクトで確立された手法を他県へ適用させるにあたって、可能性や適用範囲を検討すべきである。

#### (5) プロジェクト常設合同委員会の設置

プロジェクトを通じて得られた成果を活用し、今後、農業農村開発をヴィエンチャン県内及び他県で展開していくために、現行の合同調整委員会（プロジェクト終了と同時に解散予定）を常設の合同委員会に再編成することを提案する。本提案についてはラオス側も同意し、プロジェクト終了までに少なくとも1回の委員会を開催することを約束した。

### 5-2 教訓

(1) プロジェクトの運営において、プロジェクトを総括し、成果を波及させていく役割を担うプロジェクト・ダイレクターと、プロジェクト自体の運営管理を担当するプロジェクト・マネージャーをそれぞれ配置したうえで、実施するケースが多い。しかしながら、本プロジェクトでは、プロジェクト・ダイレクターのみを配置するというラオス側の方針に基づき、プロジェクト・ダイレクターがプロジェクト・マネージャーを兼務したため、プロジェクト・ダイレクターは、プロジェクト効果を波及させる役割を期待されている県内に配置されたのではなく、いわゆる現場に配置された。

効果的なプロジェクト実施、及びプロジェクトの上位目標を達成するための組織の強化や改善をプロジェクト実施中から準備していくためには、プロジェクト・ダイレクターは中枢組織に配置されるべきであり、現場責任者としてプロジェクトサイトに配置されるプロジェクト・マネージャーとの兼務は避けるべきである。

(2) ヴィエンチャン県内における農村の既存組織は、政府主導の意思決定を伝達するための機能をもち合わせていることから、この既存組織を活用して村民の発意に基づく活動を実施していくことは困難と考えられた。そこで、このプロジェクトでは、新たに村落開発委員会（VDC）を各村に組織し、VDCは村民の主体性のある活動を実施するうえで、効果を発揮した。

自主的活動を行う仕組みのない社会環境の下で、本プロジェクトのような協力を行う場合には、協力開始の時点で村民が自主性を発揮できる組織を形成することが有効であると考えられる。

## 付 属 資 料

1. 調査日程
2. 主要面談者
3. 終了時評価ミニッツ
4. 終了時合同評価レポート

## 1. 調査日程

日順	月日	曜	調査内容	宿泊地
1	7月10日	水	* (評価分析団員のみ：7/10～7/13) 成田→バンコク	バンコク
2	7月11日	木	バンコク→ヴィエンチャン	ヴィエンチャン市
3	7月12日	金	ワークショップ実施	〃
4	7月13日	土	村視察 (ナパイ村)	ヴィエンチャン県
5	7月14日	日	*官団員及び評価分析団員 成田→バンコク	バンコク
6	7月15日	月	バンコク→ヴィエンチャン 在ラオス日本大使館表敬 JICAラオス事務所との打合せ 農林省大臣官房表敬	ヴィエンチャン県
7	7月16日	火	第1回合同評価 合同評価チーム結成、評価スケジュール確認 ワークショップ結果報告、プロジェクト概要説明	〃
8	7月17日	水	第2回合同評価 カウンター・パートからの聞き取り調査	〃
9	7月18日	木	対象村調査 (ナムニャム村、ポンホ村)	〃
10	7月19日	金	第3回合同評価 評価レポート案協議	〃
11	7月20日	土	対象村調査 (バンキ村)	ヴィエンチャン市
12	7月21日	日	第4回合同委員会 評価レポート案協議	〃
13	7月22日	月	第5回合同委員会 評価レポート案協議 合同調整委員会 評価結果報告・承認	〃
14	7月23日	火	農林省への結果報告 評価報告書・ミニッツ署名	〃
15	7月24日	水	ヴィエンチャン→バンコク	バンコク
16	7月25日	木	バンコク→成田	

## 2. 主要面談者

### <ラオス側>

#### (1) 農林省

Mr. Khammeuang PHONGTHADY	Vice Governor of Vientiane Province
Mr. Thongphou VONGSIPRASOM	Director of Cabinet
Dr. Bountheuang MOUNLASY	Director General, Department of International Cooperation, Committee for Planning and Cooperation
Mr. Houmphanh Soukpasith	Director, Department of International Cooperation, Committee for Planning and Cooperation
Mr. Thongsoun BOUNPHASAISOL	Director, Department of International Cooperation Investment
Mr. Khambay KHAMXANA	Officer for JICA's Cooperation, National Agriculture and Forestry Extension Service

#### (2) ヱィエンチャン県政府

Mr. Oudong PHONGPHAIPADITH	Deputy Director, State Planning Committee
Mr. Phouthong SANSOULINTHA	Director, Provincial Agriculture and Forestry Office
Mr. Bouaphanh KONEDAVONG	Deputy Director, Provincial Agriculture and Forestry Office

#### (3) プロジェクト職員

Mr. Khamstay SOUMOUNTHONG	Project Director
Mr. Khammay VONGSATHIANE	Deputy Project Director
Mr. Bouaphanh PATHAMMAVONG	Section Chief of Agricultural and Rural Development Planning
Mr. Khamphet CHANSAVATH	Section Chief of Agricultural Infrastructure Improvement
Mr. Chanthay CHATHAVONG	Section Chief of Agricultural Production
Mr. Khammanh SENGPACHANH	Section Chief of Administration

### <日本側>

#### (1) 日本国大使館

橋本 逸男	在ラオス大使
平山 周作	二等書記官

#### (2) JICAラオス事務所

西脇 英隆	所長
日高 弘	所員
貝増 国俊	企画調査員



(3) 個別専門家（農林省）

荒木 康紀

農業政策アドバイザー

(4) プロジェクト専門家

長井 薫

チームリーダー

太田 恵美

農業農村開発計画

山田 雅一

農業基盤整備

黒岩 康平

業務調整員

### 3. 終了時評価ミニッツ

## MINUTES OF MEETING OF THE FINAL EVALUATION ON JAPANESE TECHNICAL COOPERATION FOR THE AGRICULTURAL AND RURAL DEVELOPMENT PROJECT II IN VIENTIANE PROVINCE

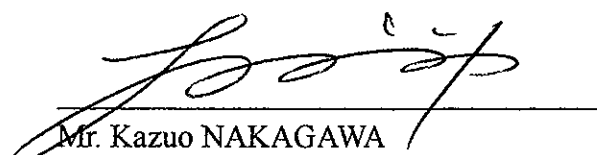
The Japanese Final Evaluation Team (hereinafter referred to as "the Japanese Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Kazuo NAKAGAWA, visited Lao PDR from July 10 to July 24, 2002 for the purpose of final evaluation of the Project-type Technical Cooperation for the Agricultural and Rural Development Project II in Vientiane Province (hereinafter referred to as "the Project") as well as discussing the major issues related to the implementation of the Project.

The Joint Evaluation Team (hereinafter referred to as "the Team"), which consists of the Japanese Team and members from the Government of Lao PDR, was organized for the purpose of conducting the final evaluation and preparing necessary recommendations to the respective governments.

After intensive study and analysis of the achievement of the Project, the Team prepared the Final Evaluation Report (hereinafter referred to as "the Report") and presented it to the Joint Steering Committee.


The Joint Steering Committee discussed the major issues pointed out in the Report, and agreed to recommend to the respective governments the matters attached hereto.

Vientiane, July 23, 2002




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Mr. Kazuo NAKAGAWA  
Leader,  
Japanese Final Evaluation Team,  
Japan International Cooperation Agency,  
Japan



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Mr. Khammeung PHONGTHADI  
Vice-Governor,  
Vientiane Province,  
Lao PDR

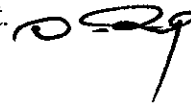


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Mr. Thongphou VONGSIPRASOM  
Director of Cabinet,  
Ministry of Agriculture and Forestry,  
Lao PDR

Attachment

1. The Team has presented the Report to the Joint Steering Committee.
2. The Joint Steering Committee has accepted the Report and taken note of its recommendation for successfully sustaining and extending the achievement of the Project.
3. Laotian side agreed to re-organize the Joint Steering Committee of the Project to a permanent coordinating committee to promote agricultural and rural development in Vientiane Province as well as in all over the Lao PDR with the methodology attained through the Project. Laotian side also agreed to hold at least one permanent coordinating committee meeting before the termination of the Project.



4. 終了時合同評価レポート

THE FINAL EVALUATION REPORT  
FOR THE AGRICULTURAL AND RURAL DEVELOPMENT PROJECT II  
IN VIENTIANE PROVINCE

Vientiane, July 23, 2002



Mr. Kazuo NAKAGAWA  
Leader  
Japanese Final Evaluation Team



Mr. Thongsoun BOUNPHASAISOL  
Leader  
Lao Final Evaluation Team

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  - 1-1 Objective
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4. Achievement of the plan
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  - 4-3 Achievement of the Project Purpose
5. Results of the evaluation with Five Criteria
  - 5-1 Relevance
  - 5-2 Effectiveness
  - 5-3 Efficiency
  - 5-4 Impact
  - 5-5 Sustainability
6. Conclusion
7. Recommendations
8. Lessons learned from the Project

## ANNEXES

1. PDMe
2. Achievement Grid
3. Assignment of Japanese Experts
4. List of Provided Equipment
5. Acceptance of Laotian Counterpart for Training in Japan
6. Supplementary Fund to cover Local Cost by Japanese Side
7. Assignment of Counterparts
8. Allocation of Budget by Laotian Side
9. Progress of the project activities



## **1. Evaluation of the Project**

### **1-1 Objective**

Evaluation study was conducted for the purpose of:

- (1) Evaluating the overall goal achievement of the Project based on R/D, TSI and PDM,
- (2) Evaluating the Project in terms of five criteria that are shown below,
- (3) Identifying remaining problems and recommending necessary measures to be taken after the termination of the Project to the respective governments, and
- (4) Considering the lessons drawn from the project activities in order to reflect them on future projects in the interest of making them more effective and efficient.

### **1-2 Method**

#### **(1) Joint Evaluation**

The Project was jointly evaluated by Japanese and Laotian sides on five evaluation criteria. The Joint Evaluation Team was composed of four persons from Japan and five persons Lao PDR who are not directly involved in the Project. The Team visited the project sites and carried out a series of interviews with Laotian staff, farmers and Japanese long-term experts.

#### **(2) Preparation of the PDM for evaluation (hereinafter referred to as PDMe)**

The PDM, which had been authorized at the Joint Coordinating Committee on July 25, 2001, was adopted for evaluation.

#### **(3) Five Evaluation Criteria**

##### **a) Relevance**

Relevance is to question whether outputs, project purpose and overall goal are still in keeping with the priority needs and concerns at the time of evaluation.

##### **b) Effectiveness**

Effectiveness concerns the extent to which the project purpose has been achieved, or is expected to be achieved, in relation to the outputs produced by the project.

##### **c) Efficiency**

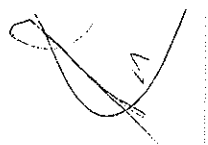
Efficiency of the implementation process: how efficiently the various inputs are converted into outputs.

##### **d) Impact**

Impact is intended and unintended, direct and indirect, positive and negative changes as a result of the project.

##### **e) Sustainability**

Sustainability of the project is to question whether the project benefits are likely to continue after the external aid has come to an end.



### 1-3 Members of the Team

#### 1) The Japanese Team

Mr. Kazuo NAKAGAWA, Leader

Managing Director, Agricultural Development Cooperation Department, JICA

Mr. Kazuo SHIMAZAKI, Agricultural and Rural Development  
Deputy Director, Overseas Land Improvement Cooperation Office,  
Design Division, Rural Infrastructure Department, Rural Development Bureau,  
Ministry of Agriculture, Forestry and Fisheries

Mr. Tsuyoshi ITO, PCM Evaluation  
Consultant,  
IC Net

Mr. Yasuto TAKEUCHI, Planning Management  
Deputy Director, Agricultural Technical Cooperation Division,  
Agricultural Development Cooperation Department, JICA

#### 2) The Lao Team

Mr. Thongsoun BOUNPHASAISOL, Leader  
Director, Division of International Cooperation Investment,  
Permanent Secretary Office,  
Ministry of Agriculture and Forestry

Mr. Oudong PHONGPHAYPADITH, Deputy Leader  
Deputy Director, Planning and Cooperation Service,  
Vientiane Province

Mr. Bouaphanh KONEDAVONG, Deputy Leader,  
Deputy Director,  
Provincial Agriculture and Forestry Service Office,  
Vientiane Province

Mr. Houmphanh SOUKPASITH,  
Director, Asia-Pacific Division, Department of International Cooperation,  
Committee for Planning and Cooperation

Mr. Khambay KHAMSANA  
Officer for JICA's Cooperation  
National Agriculture and Forestry Extension Service,



- 2 -



## **2. Outline of the Project**

### **2-1 Background of the Project**

The Government of Lao PDR has carried out a lot of trials to achieve a market-oriented economy after the New Economic Mechanism Policy. Agriculture is the most important sector in Lao PDR, absorbing about 80% of population and occupying about 54% 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 agriculture infrastructure development”.

In order to realize this strategy, the Government of Lao PDR requested project type technical cooperation to the government of Japan in February 1992, which aims at the transfer of methodology of agricultural and rural development to the Lao side concerned 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 Phase II Project started based on the result of Phase I Project, aiming 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.

### **2-2 Plan of the Project**

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

And the outputs are:

- (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' group is strengthened, and  
(6) Technical capabilities of farmers, village leaders and government staff concerned are improved.

### **2-3 Expected technological transfer**

Through the activities of the Project, expected technological transfer is to improve the ability of the counterparts of the Project as well as villagers in target villages. In order to achieve these activities, the Project set the five (5) target villages.

### **3. Preparation of PDMe (Project Design Matrix for evaluation)**

The PDM, which had been authorized at the Joint Coordinating Committee on July 25, 2001, was adopted for evaluation.

### **4. Achievement of the plan**

Achievement of the Plan is confirmed along the Achievement Grid (ANNEX 2) that is prepared by the Team. As the results of the confirmation through the survey, the findings are as follows.

#### **4-1 Achievement of Inputs**

(1) Japanese Inputs

##### Dispatch of Experts

A total of eleven (11) long-term experts and a total of thirteen (13) short-term experts have been dispatched as planned. The list of the experts is attached in ANNEX 3.

##### Provision of Equipment, Machinery and Materials

Major equipment, machinery and materials were provided to carry out the activities effectively as shown in ANNEX 4.

##### Training of Lao Personnel in Japan

A total of fifteen (15) counterparts have visited Japan to participate in technical training. The list of trained personnel is attached in ANNEX 5.

##### Supplementary Funds to Cover Local Cost

The Japanese side bore a part of the Project local cost to implement the Project more effectively. The supplementary fund made by the Japanese side is shown in ANNEX 6.



## (2) Laotian Inputs

### Provision of Land, Buildings and Facilities

Land which is essential for the Project have been provided.

### Assignment of Counterparts

Laotian counterparts have been assigned to the Project. The list of assigned counterparts is attached in ANNEX 7.

### Allocation of Budget

The Laotian side allocated its budget to the Project for the smooth implementation of the Project. The allocation by the Laotian side is shown in ANNEX 8.

## **4-2 Achievement of Outputs**

### (1) Output 1: Methodology of planning, implementation, and evaluation on agricultural and rural development project is improved.

Planning, implementation, and evaluation of agricultural and rural development have been carried out with participatory method. Village Development Committee (VDC) of each of the five target villages has formulated five (5) years Village Development Plan (VDP), annual plan of village activities and quarterly plan of village activities for monitoring and evaluation by themselves. Laotian staffs have understood the method of village planning and given advice to target villagers how to discuss and solve the problems. Each VDC has carried out more than three activities, such as introducing High Yield Variety (HYV), implementing irrigation in paddy, organizing farmer's group for agricultural production, establishing Village Development Fund (VDF) for village activities, and so on. Methodology of planning, implementation, and evaluation of agricultural and rural development project is verified through these activities. And governmental staffs of the Project have got technology/methodology to assist villagers.

### (2) Output 2: Appropriate technology for improvement of agricultural infrastructure is established.

Improving agricultural infrastructure with farmers' participatory approach has been implemented under project cycle management, i.e., from planning to maintenance and evaluation. Main irrigation facilities, i.e., intake, main canal have been planed, designed and constructed by governmental staffs of the Project with usage of consultants and constructors. And farmers' groups have maintained these facilities. Farmers' group with assistance/advice of governmental staffs of the Project has constructed other small irrigation facilities, i.e., secondary and tertiary canals. Although water fee is not enough for operation and maintenance, collection of the water fee will enhance farmers' ownership to the facilities. Two out of six irrigation scheme



(one in Namngnam, one in Vangkhi), realized more than 90% of actual irrigation. Average rate of actual irrigation is 71.8%, however, Phoenkeo and Phonho are influenced by the delay of Provincial public work of main canal construction. Taken this situation into the consideration, average rate of three villages where water source is secured (Namngnam, Napheuy, Vangkhi) is 82.2%. The target set by the indicator, 90% of irrigation, is almost achieved.

(3) Output 3: Regionally appropriate technology for agricultural production of rice and other crops, livestock, and fish culture is established.

Selection of appropriate technology for agricultural production has been implemented through farmers' discussion getting assistance/advice of Laotian staff and related agencies. As the result, rice self-sufficiency is increased and added value production is implemented such as banana processing. And more than five technologies for rice production, vegetables, fruit, chicken and pig etc. are implemented by farmer's group. However, fish culture is not well performed in the testing due to environmental issue or lack of the technology.

(4) Output 4: Rural living environment is improved.

To improve rural living condition, issues to be improved were discussed and selected in VDCs. And an organization of five VDCs collectively drew Japanese Aid to improve their rural living environment such as water supply system and toilets. As the result, three different types of water supply system were introduced in Namngnam, Vangkhi and Napheuy. Total of 125 toilets and 3 school toilets were constructed. In these villages, women and children are released from heavy work of water fetching, and gained time for other work or study. Three water supply systems are self-operated and maintained by villagers. Villagers also maintain village roads and toilets. On top of this, the villagers started self-help activities, for example, the farmers in Namngnam expanded school facility by themselves.

(5) Output 5: Methodology of organizing and managing farmers' group is strengthened.

The VDCs in the target villages now become holding regular meetings to plan, review and discuss the problems of their own. Annual plans, quarterly plans are made by the VDCs, and problem-solving sheet is also utilized as a tool of conflict resolution. Method of self-evaluation has been improved with "indicators" to set targets of their activities, and to have better measurements of their achievement. Through the field visits during the evaluation study, the Team confirmed that the self-confidence of the VDC members is now high enough to continue their VDC management.

The project staffs have supported the development of VDCs, and based on their experience, a procedure of interventions to establish a VDC has been prepared. The project staffs are capable of following the procedure. More experience will enhance



the capability of the project staffs as rural development facilitators.

(6) Output 6: Technical capabilities of farmers, village leaders and government staff concerned are improved.

Government staffs of the Project have been able to plan and implement variety of training for villagers by themselves. Following training were carried out: 60 times for rice production (2,460 participants); 26 times for cash crops (693 participants); 6 times for mushroom (159 participants); 18 times for fruit trees (299 participants); 21 times for livestock (522 participants) 9 times for fish culture (114 participants). Leader training and study tours were also carried out for the VDC chiefs. Most of the training was very effective. Model farmers are now playing a role of trainers for others in and around the village. The leader training was also effective to give them self-confidence as a leader of the village.

Improvement of technical capabilities of DAFO staff is the remaining issue. The Laotian staffs are capable of giving effective technical transfer to them.

**4-3. Achievement of the Project Purpose**

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

Indicator 1.: Each VDC of the five targeted villages is able to achieve self-operated VDP at least related with three strategy components of the project: rice-sufficiency, cash crop and living environment (hereinafter referred to as "the three strategies") by the end of implementation term.

Each VDC has started and implemented VDPs related to the three strategies. Significant effects have been observed as the result of the activities. Rice-sufficiency rates of the target villages have been improved with the average rate of 124.9%. All the target villages introduced vegetable production and improved animal husbandry. Water supply systems and toilets were constructed.

VDCs are able to formulate annual plan and carry out self-evaluation.

Rice and vegetable production technologies have been transferred to the farmers, and currently, the farmers have taken the initial role by themselves. On top of these achievement, farmers are now voluntarily involved in all the activities. This change in their attitude toward active involvement to the self-help development can be regarded as one of the key element for the “self-operation” of the village projects.

Indicator 2.: Capabilities of government staff concerned is upgraded during implementation of the field and training courses.

The project staffs have improved their capability of relevant skills and technologies.

More experience is needed for the planning section staff to apply and improve their obtained skills as facilitators.

Technical improvement of the District Office of Agriculture and Forestry (DAFO) staff is still minimal since the period of working in the Project was short. The Laotian counterparts should strengthen the human resource development activities for the DAFO staff. The team recognized that the Laotian counterparts have already acquired enough skills, knowledge and experience through the implementation of the Project to give technical transfer to the DAFO staff.

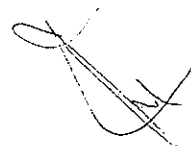
Indicator 3.: Self-operated VDP methodology realized in five targeted villages is approved as an agricultural and rural development model in Vientiane Province by the Provincial Government at the end of the implementation term.

Individual technologies have been tested and elaborated into several manuals. HYV is adopted by farmers in the target villages. Procedures to promote VDC formulation and Planning have been standardized. The fact that a large number of the farmers adopted the new technologies indicates a high possibility that technologies introduced by the Project are economically viable, however, more reliable evidence should be prepared by the Project.

"Model" or a standard package of technologies, or an integrated guideline to apply the best combination of the technologies according to village conditions are not yet completed, however, the project is currently working on production of an integrated rural development manual.

The village conditions are different village by village, and the villagers also have variety of needs, rural development activities have to cover a wide range of issues including agricultural production to sanitary improvement. Due to this complex nature of the rural development, there may be no "standard" for the rural development. However, experience and lessons gained during the Project can offer a lot of information useful to design an appropriate package of rural development to villagers. And most importantly, the Project revealed what can be done by the Project, and possible ways of corroboration with other relevant agencies to tackle problems that cannot be solved by the Project itself.

Provincial Agricultural and Forestry Service Office (PAFSO) has a plan to incorporate the Project activities into PAFSO activities, giving a legal status to the Project as Rural Development Center. Although the methodology developed by the Project has not been officially recognized as a standard of rural development of the Province, however, the Province regards the achievement of the Project as a de-fact model of their further activities in rural development in the Province.



### Overall achievement of the Project

Based on the investigation result, the Team concluded that the Project will achieve the project purpose by the end of the Project.

Regarding the overall achievement of the Project, one important remark should be made. The true purpose of the project is to realize more effective government support to the farmers, which has two dimensions: the government side (more participatory, be more as a facilitator, systematical planning, better monitoring and self-evaluation, feed back and flexible response to the village situations), and the village side (systematical planning, self-help, positive thinking and attitude to introduction of new things). The project have brought significant change in both work styles, however, the indicators of the project purpose cannot fully reflect these qualitative achievement of the Project.

## **5. Results of the evaluation with Five Criteria**

### **5-1. Relevance**

#### **(1) Relevance to the development policy of Lao PDR**

“Fifth Social Economic Development Plan (2001-2005)” puts following issues the highest priority in the agricultural sector: 1) food security, 2) promotion of cash crop production, 3) eradication of upland shifting culture, and 4) poverty alleviation. Another important policy in agricultural sector is the “Strategic Vision” of 1999. It has two different strategies for Mekong river flood plain region, and upland region. The flood plain strategy includes 1) diversification of farm production to cash crops, livestock, fisheries, and so on, 2) enhancement of rural financing system, 3) participatory development of agricultural infrastructure. The components of the Project and the purpose of the Project obviously have strong connection with these national agricultural development policy and strategy.

#### **(2) Relevance to the beneficiaries’ needs**

The project was composed of two phases, and the beneficiaries’ needs was investigated in the phase 1, and incorporated into the project design of the phase 2. Most of all, village development plans and annual activity plans were formulated by the villagers themselves with support from the project staff. All the activities of the Project are based on these plans.

High adoption rate of HYV, continuation of vegetable production, self-maintenance of irrigation systems show the willingness of the villagers of being involved in the project activities.

In some villages, Non-Timber Forest Products or other income generation activities have been equally or more important than rice production, and these components were

not addressed by the Project. The team concluded that the Project has strong relevancy with the need of the beneficiaries' needs, however, there is some remaining space to be considered to fully meet the beneficiaries' needs.

### **(3) Relevance to the mandate of the implementing agency**

At the beginning of the Project, actual implementing agency of the project was not clear, however, the project has been taken up in PAFSO. This issue has been discussed between the Lao side and Japanese side since the beginning of the Project, and now it is most likely solved. Agricultural and rural development of farm villages in the province is the central mandate of the PAFSO, therefore, relevance of the project to the implementing agency is confirmed.

Some component of the project should be sorted out that include: water supply, toilet promotion and road construction.

Further elaboration should be made, and clarify how this project will be incorporated in the PAFSO work. Also, functional demarcation between PAFSO, the project, DAFO, and other related agencies should be discussed.

### **(4) Appropriateness of the project structure**

In order to promote agricultural & rural development, following components should be realized that include "system," "human resources," "technologies/information," and "financial source."

- Establishment of government support system.
- Development of skills and knowledge of the government support staff.
- Development of applicable production technologies.
- Establishment of village community system.
- Development of villagers' skill and knowledge for community group management.
- Change in the villagers toward self-sustainable development.
- Stable financial source to initiate the village activities.

All of above issues need a lot of work to be done. According to the PDM of the Project, the project may not be well structure to address these issues systematically.

## **5-2. Effectiveness**

Since no other activities have been done, achievement of the project purpose can be fully attributed to the success of the Project.

Since the development is brought by the people, not a single technology or a set of infrastructure, the Team reached a consensus that the establishment of the system and procedure of the government support and the change in the attitude of the villagers are of the most important for the sustainable development of rural villages. From this point of view, achievement of the Project can be regarded as an important first step



toward the realization of the sustainable rural development in the Vientiane Province. Based on this recognition, on-going work to formulate an integrated rural development manual should be made carefully and thoroughly so that it can be an important extraction and reference material for further work of the Province.

### **5-3 Efficiency**

Most of necessary inputs have been made as planned from Japanese side, although some delay and little local budget have occurred in Lao PDR side mainly due to the financial difficulty. Although some inputs have been delayed, most part of expected outputs seems to be achieved by the end of the Project. Thus the Project is thought as efficient in the sense that inputs have been fully utilized at their utmost potentials. All the target villages recognized the participatory methodology, changed their consciousness and have tried to get new technology/methodology. Therefore comprehensive project such as agricultural and rural development should be considered not only economic aspect but also social aspect for establishment of suitable methodology under different situation.

Efficiency with regard to the Laotian budget allocation remains some uncertainty. Steep increase in total budget from Lao government from about 23 million Kip in FY97-98 to about 77 million Kip (budget for office renovation is not included) in FY00-01 shows high commitment of the Laotian government to the Project. However, the biggest increase was administration budget. The actual expenditure data shows more than 70% of the budget has been spent for the administration since FY98-99. It is understandable that financial management should be flexible to cover all the necessary activity of the Project, however, the too high burden of management cost may indicate possible inefficiency in the financial management.


### **5-4. Impact**

#### **(1) Impact to the Overall Goal**

Overall goal of the project is “Agricultural and rural development is promoted in Vientiane Province,” and its indicator is “Number of agricultural and rural development project in Vientiane Province.”

Currently, there is no on-going A&RD project of this type, and there is no planned project to replicate the Project yet in Vientiane Province. Since the Project is still on going, it is reasonable to conclude that the time is too early to expect any impact to the overall goal at this moment.

Regarding the possibility of the future impact to the overall goal, a factor analysis should be made. Followings are the main five factors for promotion of the A&RD activities.





1. Development of a model: (1-1) new approach and procedure of the government support, (1-2) human resource development in the government agencies and villages, (1-3) new applicable technologies, (1-4) financial sources.
2. Adoption of the model as a government strategy.
3. Assignment of sufficient number of staff.
4. Implementation of continuous training of the government staff.
5. Assurance of necessary financial sources.

The Project has contributed to the 1-1, 1-2, 1-3, and the rest are external factors to be met in order to expect any changes in the situations regarding the overall goal. PAFSO has an intention to realize 2. 3 and 4 will be met if the full involvement of DAFO is guaranteed and the Project will play a role of a training center for DAFO staff in the future. Expectation of realization of 5 is unclear, however, the Team currently has a good confidence to trust that the Laotian government will properly manage this matter.

## **(2) Other impacts observed**

### **a. Actual improvement in rice-sufficiency**

Among the five target villages, three villages achieved more than 100% of rice self-sufficiency. The project has tested and confirmed applicability of the introduced HYV, and the farmers in the five villages have adopted the recommended HYV. Further, actual achievement of rice self-sufficiency has been realized.

### **b. Impact to the neighboring villages**

The Team observed introduced technologies have been adopted even by the farmers in the neighboring villages. Many farmers of neighboring villages have already visited the model farm in the target villages, also attended the field training at model farms.

## **5-5 Sustainability**

Considering following aspects, the Project has high possibility to be sustainable..

### **5-5-1 Institutional Aspect**

Under decentralization policy of the government of Lao PDR, the project office was transferred from Ministry of Agriculture and Forestry to Vientiane Province at the commencement of the Project with official letter from Ministry of Agriculture to Vientiane Province.

The Project has started to cooperate with an extension staff of District Office of Agriculture and Forestry (DAFO) to facilitate village activities. And also, the Project intends to expand cooperation with other extension staff of other DAFOs.

Vientiane Province has an idea to upgrade the project office to Agricultural and Rural Development Center as technology service center for villagers as well as training center for extension staff of DAFO and other interested agencies.

Each VDC has been authorized by chiefs of belonging districts in 1999.

Considering background of counterparts are agriculture or civil engineering for irrigation facilities, know-how to be accumulated at the Project and know-how to be supported by other organizations, such as aquiculture, livestock are necessary to be clarified. And corroboration with appropriate organization is strongly expected for institutional sustainability of the Project.

Institutional corroboration among VDCs started through activities related to areas of common interests, for example, constructing water supply system.

### 5-5-2 Financial Aspect

The project office will function properly under proper budget allocation by Vientiane province to the project office. Effort to draw financing from donor agencies is to be considered in case that governmental budget to promote agricultural and rural development is insufficient.

The table below shows the cost of initial investment of the main items introduced to the target villages by the Project. Part of the cost was covered by the farmers such as part of irrigation construction (less than 10% of the total cost), rain shed, and vaccines. For further replication of the project activates at other villages after the termination of Japanese cooperation, the project should consider its financial ability, villagers' needs and their financial capability to prioritize the possible initial investment items.

Items	Unit	Cost/Price	Currency
Irrigation scheme	Per ha (including survey /designing cost)	915 - 4,005	US\$
Tractor	Per one set	2,350	US\$
Rice mill	Per one set	3,170	US\$
Thresher Machine	Per one set	3,500	US\$
Rain shed for vegetables	3m x 30m	120,000	Kip
Portable pumps	Per one set (2 inch)	220	US\$
	Per one set (3 inch)	980	US\$
Vaccines	2 types for a chicken per year	360	Kip
	For a cow per year	533	Kip
	For a pig per year	240	Kip
Deep tube well	Per one set (40m)	2,000	US\$

VDF has started functioning and is recognized necessary for continuing and implementing village activities. To make VDF more active and strengthen its financial foundation, advice by the Project is highly expected. In this context, the Project is

expected to give advice to VDC to consider loan from banks, such as Agricultural Promotion Bank, when necessity of amount of fund arises.

### **5-5-3 Technical Aspect**

VDCs started to work by themselves. They hold meeting to make annual plan, monitor the plan and evaluation regularly. The government staffs became able to advise VDC by themselves within the know-how gained from the Project.

Some technologies such as wet season vegetables started to expand out of five target villages through farmers to farmers technology transfer, which shows possibility of dissemination of know-how in Vientiane province.

Mechanism for maintenance of acquired know-how, for accessing new information and for training new staffs of the project office and extension staffs of DAFOs is to be considered.

## **6. Conclusion**

Based on the discussions with officials concerned and counterpart personnel as well as field surveys, the Team recognized that the Project has achieved its object set by R/D and remaining issues/problems being within the competence of the trained counterparts. Accordingly, it is appropriate that the technical cooperation could terminate on the 31th October 2002, as scheduled in R/D.

## **7. Recommendations**

### (1) Priority issues for the successful completion of the Project

The Team has concluded that the Project will complete the planned project purpose by the end of the cooperation period, October, 2002. For the successful completion of the Project, among all the activities remained, followings have higher priority: Analysis on economic viability of the introduced technologies; Formulation of the integrated rural development manual.

### (2) Institutional arrangement necessary for mainstreaming of the Project activities into PAFSO functions.

PAFSO has a plan to officially absorb the Project activities into its jurisdiction. Not just in the organizational structure, but also the function and the activities of the Project should be fully incorporated into the mainstream of the PAFSO activities. This is vital to promote the achievement of the project further in other areas of the province. When the Project is taken into PAFSO, official status of the project should be secured. Currently, there is a plan to make the Project as a Rural Development Center of Vientiane Province. Formal procedure to legalize this status should be made in order for



the center to clarify the official function, to have necessary authority.

Once the Project becomes the Rural Development Center, clear demarcation and relationship among other sections of PAFSO, DAFO should be made. Once the demarcations become clear, next step is to formulate a practical strategy and a plan to expand the project activity in the province. All the relevant agencies including PAFSO, the Rural Development Center, and DAFO will work according to the strategy and the plan. This will realize coordinated and harmonized work among the relevant agencies. PAFSO should take primal role to formulate the strategy and the plan.

Corroboration with other relevant government agencies is also important for realization of the rural development. Especially the areas that the project does not have enough capability within it, i.e. water supply system development, sanitary improvement, fish farming, village fund management, should be addressed with good corroboration with appropriate agencies.

### (3) Improvement of the management structure.

The project currently does not have a central administrative section. Current Administration Section cannot perform managerial functions such as planning of the project activities, initiation of the coordination among the other sections, overall evaluation of the project (individual self-evaluation can be done by the sections). Since the project deals with rural development which includes variety of components both technical and social aspects. Close coordination and integrated planning is essential for effective implementation of the activities. In order to strengthening managerial capability, Planning Unit should be established in the Administration Section with proper personnel.

### (4) Replication of the activities in other provinces.

The Ministry of Agriculture and Forestry should consider the possibility of promotion of the methodology established by the Project to other provinces.

## **8. Lessons Learned from the Project**

(1) In the Project, the governmental staffs of the Project have been expected to enhance their capacity to give appropriate advice to the target villagers as well as support village activities under ownership of villagers. And target villagers have been expected to operate village activities by themselves with their ownership and to consult provincial staff when necessity arises. Thus, issues to be solved and selection of their activities will be discussed and decided, and be subject to be changed during implementation, as far as willingness of the villagers is highly respected like the Project.


Considering those, visible output such as improvement of infrastructure, concrete agricultural production improvement should be careful to be described at the narrative



summary of the PDM.

(2) Project Director and Project Manager have different role, and both are necessary for effective management of a project. Project Manager's role is mainly to manage project activities. On the other hand, Project Director is expected to supervise the Project and to be top management of a project who also plays a role of connecting and coordinating a project with responsible government policy and management. For efficient project management and attaining overall goal of the Project, Project Manager should not serve concurrently as Project Director.

(3) In the target villages of the Project, there exist administrative organization for security and for promoting governmental policy with governmental initiative. But there not exist effective mechanism for decision making with participatory approach. In such case, new mechanism, such as VDC in the Project, is considered necessary to be established.



## Project Design Matrix (PDM)

Targeted Area: Five (5) Villages in Vientiane Province

Period: Nov. 1st, 1997 - Oct. 31st, 2002

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumption
<p><b>Overall Goal</b> Agricultural and rural development is promoted in Vientiane Province.</p>	1. Number of agricultural and rural development project in Vientiane Province.	Information and/or data prepared by Vientiane province	Current development strategy of Vientiane Province is continued economic situation of Lao P.D.R. is stable.
<p><b>Project Purpose</b> Methodology and technology for participatory and sustainable agricultural and rural development is established in five (5) villages in Vientiane Province.</p>	<p>1. Each VDC of five targeted villages is able to achieve self-operated VDP at least related with three strategy components of the project; rice-sufficiency, cash crop and living environment (hereinafter referred to as "the three strategies") by the end of implementation term.</p> <p>2. Capability of government's staff concerned is upgraded during implementation on the field and training courses. (Their capability will achieve more than 4.0 in 5 classes in each item. A number of technical transfer items are same as number of manuals produced.)</p> <p>3. Self-operated VDP methodology realized in five targeted villages is approved as an agricultural and rural development model in Vientiane Province by the Provincial Government at the end of implementation term.</p>	<p>1. Annual report on project activities by VDC in five targeted villages.</p> <p>2. Number of manuals and results of comprehension test.</p> <p>3. Approval letter or report of Vientiane Province / Rural Development Committee.</p>	<p>1. Government staff concerned (Lao C/P) who receive technology transfer remain in the relevant posts.</p> <p>2. Required fund is allocated to enhance activities such as constructing infrastructure.</p> <p>3. Execution of rural development is remained important.</p>
<p><b>Outputs</b></p> <p>(1) Methodology of planning, implementation and evaluation on agricultural and rural development 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>1.1. VDP instructed by government's staff concerned is planned, implemented and evaluated in each development activity from the three strategies by the end of implementation term.</p> <p>1.2. Every VDC of five targeted villages instructed by government's staff concerned carries out at least three development activities including one relative with the three strategies by the end of implementation term.</p> <p>2. More than 90% command areas of at least one irrigation scheme which government's staff concerned had designed and supervised its construction are irrigated through the OM&amp;M of its water users' group by the end of implementation term.</p> <p>3. At least five technologies tested and demonstrated by the project until the fourth (4th) year are adopted by farmers in targeted villages by the end of implementation term.</p>	<p>1.1. Annual report which explains VDP, monitoring and evaluation edited by VDC.</p> <p>1.2. Annual report which explains VDP, monitoring and evaluation edited by VDC.</p> <p>2. Annual report which explains VDP, monitoring and evaluation edited by VDC (collection rate of water charge for irrigation).</p> <p>3-1. Project survey.</p> <p>3-2. Annual report which explains VDP, monitoring and evaluation edited by VDC.</p>	

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumption
<b>Outputs (the rest)</b>			
<p>(4) Rural living environment is improved.</p> <p>(5) Methodology of organizing and managing farmer's group is strengthened.</p> <p>(6) Technical capabilities of farmers, village leaders and government staff concerned are improved.</p>	<p>4.1. At least 70% of water supply systems introduced by the project are able to be self-operated continuously by the water supply groups.</p> <p>4.2. Village roads repaired by the project are maintained continuously by the villagers.</p> <p>5. The group activities at least related with the three strategies are able to hold a self-managed meeting with a constant number of participants continuously by the end of implementation term.</p> <p>6.1. Capability of government's staff concerned on transfer of technology to meet the farmers' need is acquired (Training which are organized by government's staff concerned will be held, at least, four (4) times per year and the percentage of participants who are members of groups will achieve more than 80%).</p> <p>6.2. The meetings should be held for farmer's trainees to disseminate and introduce the fruits of their training to villagers under the rule set up by each VDC of five targeted villages.</p>	<p>4.1. Annual report which explains VDP, monitoring and evaluation edited by VDC.</p> <p>4.2. Annual report which explains VDP, monitoring and evaluation edited by VDC (collection rate of drinking water charge).</p> <p>5. Annual report which explains VDP, monitoring and evaluation edited by VDC (number of meeting, number of participants).</p> <p>6.1. Annual report which explains VDP, monitoring and evaluation edited by VDC (number of meeting, percentage of participants).</p> <p>6.2-1. Rule of VDC or each group.</p> <p>6.2-2. Annual report which explains VDP, monitoring and evaluation edited by VDC (number of meeting, percentage of participants).</p>	
<b>Activities</b>			
<p>(1) Improving the methodology 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 agricultural and rural infrastructure development plan.</p> <p>(2) Improving the agricultural infrastructure technology.</p> <p>2.1) Improving 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 the improved technique for agricultural production.</p>	<p>Inputs as of Mar 31st, 2002</p> <p>(Japanese side)</p> <p>1. Dispatch of experts</p> <p>1.1. Long term experts</p> <ul style="list-style-type: none"> <li>• Leader: 60M/M</li> <li>• Coordinator: 60M/M</li> <li>• Agricultural and rural development planning: 60M/M</li> <li>• Agricultural infrastructure: 60M/M</li> <li>• Agricultural production: 60M/M</li> </ul> <p>1.2. Short term experts</p> <ul style="list-style-type: none"> <li>• Concerning to agricultural and rural development planning: 13M/M</li> <li>• Concerning to agricultural infrastructure: 10M/M</li> <li>• Concerning to agricultural production: 12M/M</li> <li>• The others: 2M/M</li> </ul> <p>2. Machinery and equipment</p> <ul style="list-style-type: none"> <li>• Concerning to agricultural and rural development planning: (None)</li> <li>• Concerning to agricultural infrastructure: US\$38,663.00+¥7,456,000</li> <li>• Concerning to agricultural production: US\$65,992.00+¥6,700,800</li> <li>• The others: US\$16,041.00+¥18,060,290+ 3,150,000 Kip</li> </ul>	<p>As of June 31st, 2002</p> <p>(Lao side)</p> <p>1. Counterparts</p> <p>1.1-1. Project Director: 60M/M</p> <p>1.1-2. Deputy Project Director: 25M/M</p> <p>1.2. Full-time counterpart personnel in each field of shown below</p> <ul style="list-style-type: none"> <li>• Agricultural and rural development planning: 113M/M</li> <li>• Agricultural infrastructure: 169M/M</li> <li>• Agricultural production: 248M/M</li> <li>• Rural living environmental improvement: 60M/M</li> <li>• Farmers' organizations strengthening and training (including WID): included in those fields mentioned above</li> </ul> <p>1.3. Counterpart personnel in district level: Officials assigned necessarily</p> <p>1.4. Counterpart personnel for the Japanese short term experts: included in item 1.2. mentioned above</p> <p>1.5. Administrative personnel and other supporting staff: 155M/M</p> <p>2. Running expenses for the project: 255 million kip (US\$38,113.10-)</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>

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Activities (the rest)	Inputs (the rest) as of Mar. 31st, 2002		Pre-conditions
<p>(4) Improving the rural living environment and maintenance capability.</p> <p>(5) Organizing and strengthening farmer's group.</p> <p>(6) Conducting training on methodology of agricultural and rural development planning, agricultural infrastructure, agricultural production and improvement of rural living environment and strengthening farmer's organization.</p>	<p>(Japanese side)</p> <p>3. Acceptance of Lao personnel training in Japan</p> <ul style="list-style-type: none"> <li>• Concerning to agricultural and rural development planning: (None)</li> <li>• Concerning to agricultural infrastructure: 18M/M</li> <li>• Concerning to agricultural production: 25M/M</li> <li>• The others: 37M/M</li> </ul> <p>4. Budgetary allocation for local portion</p> <ul style="list-style-type: none"> <li>• Agricultural infrastructure: US\$762,477.21-</li> <li>• Agricultural and rural development planning, and production: US\$168,807.18-</li> <li>• The others: US\$282,287.95-</li> </ul>	<p>(Lao side)</p> <p>3. Land, building and facilities for the project</p>	<p>Farmers are cooperative to the project.</p>





Achievement Grid

Category	Indicators	Source of Information	Method	Evaluation
Output	1. Methodology of planning, implementation, and evaluation on agricultural and rural development project is improved. 1.1 A VDP instructed by government staff concerned is planned, implemented and evaluated in each development activity from the three strategies by the end of the implementation term.	Project Document, Interviews.	To confirm as to whether the target villages formulated plans, and implemented activities according to the plans, and evaluated the activities by themselves.	<b>Planning:</b> Each VDC has formulated 3 years VDP, PDM, land use plan, infrastructure development plan, seasonal farming plan, training plan. Laotian staff understand the method of village planning, however, more improvement especially on the facilitation skill and indicator setting. <b>Implementation and monitoring:</b> Each VDC holds quarterly meetings. VDC members have better understanding on monitoring of indicators, and capable of reporting achievement and problems. Laotian staff visit the target villages frequently, and give advice to discuss how to solve the problems, as necessary arise. <b>Evaluation:</b> Each VDC holds annual meeting to evaluate the achievement of the activities with indicators.
	1.2 Every VDC of five villages instructed by government staff concerned carries out at least three development activities including one relate with the three strategies by the end of the implementation term.	Project Document, Interviews, Field observation.	To confirm as to whether the target villages carried activities.	All the villages have implemented more than three activities, including participatory irrigation facility construction, introduction of improved variety of rice, vegetable production, water supply system management.
<b>2. Appropriate technology for improvement of agricultural infrastructure is established.</b>				
	2. More than 90% of command area of at least one irrigation scheme which government staff concerned had designed and supervised its construction are irrigated through the OM&M of its water users' group by the end of the implementation term.	Project Document, Interviews.	To confirm as to whether the constructed command areas are actually irrigated.	Average rate of actual irrigation is 71.8%, however, Phonkeo and Phonho are influenced by the delay of Provincial public work of main canal construction. Taken this situation into the consideration, average rate of three villages where water source is secured (Namgram, Napheuy, Vangkhi) is 88.2%. The target set by the indicator, 90% of irrigation, is almost achieved. Constructions of main canals by Province in Phonho and Phonkeo have been delayed, and irrigation schemes are not well utilized. The Laotian staff have improved their skill, and are able to design small scale irrigation schemes. Farmers participated in the construction of main canals, and farmers provided materials (except cement) and labor for construction of terminal canals and intakes. Bicycle pump was developed and introduced. Farmer's manuals for constructions of intakes and other small scale facilities are not ready. A farmer's manual for maintenance is prepared. Collection of water user fee seems to be not enough.
<b>3. Regionally appropriate technology for agricultural production of rice and other crops, livestock, and fish culture is established.</b>				
	3. At least five technologies tested and demonstrated by the project until the 4th year are adopted by farmers in targeted villages by the end of the implementation term.	Project Documents, Interviews, Field observation.	To confirm as to whether the technologies tested by the Project is actually adopted by the farmers in the target villages.	<b>Rice:</b> Three HYV (TDK-1, RD-10, SLK-12) have been recommended by the project to the farmers. Average % of adoption of the recommended HYV is 70%. Average unit production is 3.5/ha, and average increase is 2.07 times. Average self-sufficiency rate of rice is 124.9%. (but Namgram and Vangkhi are lower than 100%: 43--88%, 41--89%, respectively) Appropriate fertilization method was examined. The Laotian staff are capable of supporting farmers without JICA experts. <b>Wet season vegetables:</b> Improved rain house and soil management method were developed. Wet season vegetables are produced at 54 families in 39 houses, in Napheuy, Phonho and Phonkeo. Marketing can be the next problem. Ground nuts, water melon, cucumber, corn, garlic, chamo, onion, cabbage were tried. Mushroom was tried, and confirmed its adaptability, and introduced in Napheuy. Also started in the other villages and neighboring villages, except Namgram. <b>Frut trees:</b> Mango, pomelo, jambuan, x have been tried at Vangkhi, Namgram, Phonho, Napheuy. <b>Livestock:</b> Vaccination system was promoted, and vaccination rate was increased. Chicken and pigs were introduced to women's groups.
<b>4. Rural living environment is improved.</b>				
	4.1 At least 70% of water supply systems introduced by the project are able to be self-operated continuously by the water supply groups.	Project Documents, Interviews.	To confirm as to whether the water supply system is operational maintained by the Water User Groups.	Three different type of water supply system were introduced in Namgram (hand pump), Vangkhi (one system), Napheuy (one system with deep well, and four public wells). Water supply system in Vangkhi village have several problems to be solved, however, basically maintained by the Water User Groups.
	4.2 Village roads repaired by the project are maintained continuously by the villagers.	Project Documents, Interviews, Field Observation.	To confirm as to whether the roads constructed by the Project are maintained by the villagers.	Village roads were repaired in Vangkhi and Phonkeo. Access roads were repaired in Namgram, Phonho and Napheuy. The Laotian staff were involved in the most of the process, and with support of the Laotian staff, road selection was done by the villages, and construction was also done with farmers' participation. Road maintenance training was held. Currently, condition of the roads are good. In Namgram, the access road repaired by the Project was widened by a new dam construction project.

Achievement Grid (continued)

Category	Indicators	Source of Information	Method	Evaluation
Output	5. Methodology of organizing and managing farmers' group is strengthened. 5. The group activities at least related with the three strategies are able to hold a self-managed meeting with a constant number of participants continuously by the end of the implementation term.	Project Documents, Interviews, Field observation.	To confirm as to whether the VDCs are capable of continuing the activities, and whether the Project has formulated a certain methodology of intervention to the VDCs.	VDCs hold regular meetings, at least once three month. VDCs hold quarterly meetings and annual meetings by themselves, and leadership of the VDC chiefs have been strengthened, and gained self-confident. Through the activities, VDCs are able to report their achievement regularly. About 23 of households participate in the village meetings in Napheuy. In the irrigation water user group meetings, the Laoian staff lead the meeting, facilitate the discussion. Through the project activities, the water user groups - VARDP - relevant government agencies routes for collaboration work have been established. The Laoian staff are moderately capable of playing as a facilitators in the VDC and the Activity groups' meetings, however, the facilitator's skill should be strengthened. Standard procedure was developed, and "problem sheet" and other tools were established. Some of the agricultural groups is not functional due to failure of their activities such as fish culture promotion. Planning ability of the women's groups have been improved substantially. They can record their achievement, and self-evaluation. Fund raising has been also realized in Phonckeo, Napheuy and Phoncho. Management of VDFs is still an important issue to work on. Problem is that there is no experience of guiding village
	6. Technical capabilities of farmers, village leaders and government staff concerned are improved. 6.1 Capability of government staff concerned on transfer of technology to met the farmers' needs is acquired.	Project Documents, Interviews.	To confirm as to whether the Laoian staff members are able to plan and implement farmers' training.	The Laoian staff are able to plan and implement variety of training by themselves. Training for DAFO staff is not sufficiently done. The Laoian staff can support and give necessary advise to the villages regarding planning of training, and also they are able to be instructors. Following training were carried out: rice production 60 times (2460); cash crops 26 times (693 participants); mushroom 6 times (159 participants); fruit trees 18 times (299 participants); livestock 21 times (522 participants) fish culture 9 times (114 participants).
	6.2 The meetings should be held for farmer's trainees to disseminate and introduce the fruits of their training to villagers under the rule set up by each VDC of five targeted villages.	Project Documents, Interviews, Field observation.	To confirm as to whether any intra/village technology transfer is realized.	Training have been held supported by the Laoian staff. Villagers and the neighboring villagers attended the training. Number and participants of the village training is not confirmed, however, the field observation confirmed the self-confidence of the model farmers. There is cases that a village plans training by themselves.
Project Purpose	Method and technology for participatory and sustainable agricultural and rural development is established in five (5) villages in Vientiane Province. 1. Each VDC of the five targeted villages is able to achieve self-operated VDP at least related with three strategy components of the project: rice-sufficiency, cash crop and living environment (hereinafter referred to as "the three strategies") by the end of implementation term.	Project Documents, Interviews, Field observation.	To confirm as to whether the target villages achieved actual development.	Nangnam village Rice-sufficiency: 87.8% Cash crops: Cabbage, watermelon, cucumbers are produced by 15 farmers. Fruit trees are introduced by 9 farmers. Living environment: Access road was repaired, 6 deep tube wells were constructed  Phoncho village Rice-sufficiency: 274.3% Cash crops: rain season vegetables are produced by 11 farmers. Mushroom production also started. Living environment: Access road was repaired, water supply and toilets were already sufficient condition.  Vangchi village Rice-sufficiency: 88.7% Cash crops: ground nuts, garlic, watermelon and others are produced by 16 farmers. 25 farmers started fruit tree growing, and 4 farmers are practicing mushroom production. Living environment: Village roads are improved, one water distribution system was constructed.  Napheuy Rice-sufficiency: 116.2% Cash crops: Rain season vegetables, ground nuts and others were produced by 18 farmers. 7 farmers started fruit tree growing, 3 farmers started mushroom production. Living environment: Access road was repaired, water supply system was constructed.  Phonckeo Rice-sufficiency: 181.2% Cash crops: Rain season vegetables were produced by 6 farmers. 20 farmers started mushroom production. Living environment: Village road was repaired.
	2. Capabilities of government staff concerned is upgraded during implementation of the field and training courses.	Project Documents, Interviews.	To confirm as to whether the Laoian staff members have gained enough technical transfer, and whether they are able to carry out the activities.	The project staffs have improved their capability of relevant skills and technologies. More experience is needed for the planning section staff to apply and improve their obtained skills as facilitators. Technical improvement of the DAFO staff is still minimal since the period of working in the Project was short. The Laoian counterparts should strength the human resource development activities for the DAFO staff. The team recognized that the Laoian counterparts have already acquired enough skills, knowledge and experience through the implementation of the Project to give technical transfer to the DAFO staff.
	3. Self-operated VDP methodology realized in five targeted villages is approved as an agricultural and rural development model in Vientiane Province by the Provincial Government at the end of the implementation term.	Official Documents, Interviews.	To confirm as to whether the Provincial government recognized the methodology officially.	Individual technologies have been tested and elaborated into several manuals. HYV adopted by farmers in the target villages. Procedures to promote VDC formulation and Planning have been standardized. "Model" or a standard package of technologies, or an integrated guideline to apply the best combination of the technologies according to village conditions are not yet completed, however, the project is currently working on production of an integrated rural development manual.
Overall Goal	Agricultural and rural development is promoted in Vientiane Province. 1. Number of agricultural and rural development project in Vientiane Province.	Official Documents, Interviews.	To confirm as to whether there is any replication activities.	Currently, there is no on-going VARDP project, and there is no planned project yet in Vientiane Province.

# Assignment of Japanese Experts

ANNEX 3

## Long-term Japanese Experts

No.	Name		Field		Period of Assignment										
					From		To		Remarks	9年度	10年度	11年度	12年度	13年度	14年度
					1997	1998	1999	2000		2001	2002				
1	Mr. Kaoru Nagai	長井 薫	Team Leader	チームリーダー	2000	Sep. 6	2002	Sep. 5	Present						
2	Mr. Fumio Araki	荒木 富美雄	Team Leader	チームリーダー	1998	May. 16	2000	May. 15							
3	Mr. Minobu Horie	堀江 實信	Team Leader	チームリーダー	1997	Nov. 1	1998	May. 31							
4	Mr. Kohei Kuroiwa	黒岩 康平	Project Coordinator	業務調整	2000	Nov. 2	2002	Oct. 31	Present						
5	Mr. Shinjiro Amameishi	天目石 慎二郎	Project Coordinator	業務調整	1998	Nov. 22	2000	Nov. 21							
6	Mr. Yutaka Noshiro	能代 裕	Project Coordinator	業務調整	1997	Nov. 1	1998	Nov. 30							
7	Ms. Emi Ota	太田 恵美	Agricultural and Rural Development Planning	農業農村開発計画	1999	Oct. 15	2002	Oct. 31	Present						
8	Mr. Tatsuo Fujita	藤田 達雄	Agricultural and Rural Development Planning	農業農村開発計画	1997	Nov. 1	1999	Oct. 31							
9	Mr. Masakazu Yamada	山田 雅一	Agricultural Infrastructure Improvement	農業基盤整備	2001	Oct/30	2002	Oct/31	Present						
10	Mr. Taro Izumi	泉 太郎	Agricultural Infrastructure Improvement	農業基盤整備	1999	Nov. 8	2001	Nov. 7							
11	Mr. Shinichi Suzuki	鈴木 真一	Agricultural Infrastructure Improvement	農業基盤整備	1977	Nov. 1	1999	Oct. 31							
12	Mr. Toshio Shibata	柴田 義夫	Agricultural Production	農業生産	2000	Oct. 15	2002	Jul. 14							
13	Mr. Yoshitoshi Tsutsui	高井 佳寿	Agricultural Production	農業生産	1997	Nov. 1	2000	Oct. 31							

## Short-term Japanese Experts

No.	Name		Field		Period of Assignment										
					From		To		Remarks	9年度	10年度	11年度	12年度	13年度	14年度
					1997	1998	1999	2000		2001	2002				
1	Mr. Masao Yamawaki	山脇 正男	Compilation of the Project Achievement III	活動記録 III	2002	May. 31	2002	Jul. 12							1.4M
2	Mr. Mun Rungson		Fruit Tree Cultivation	果樹栽培	2001	Nov. 20	2001	Dec. 20	From Thailand						1.0M
3	Ms. Etsuko Ikeda	池田 悦子	Gender and Social Consideration	ジェンダー及び社会配慮	2001	Oct. 4	2001	Dec. 16							2.2M
4	Mr. Masahiro Fukuma	福間 正浩	Making the Audio-visual Materials	視聴覚教材作成	2001	Sep. 29	2001	Nov. 11							1.6M
5	Mr. Kimio Osuga	大須賀 公郎	Management of Farming Economics and Compilation of the Project Achievement II	農業経済及び活動記録 II	2001	Aug. 30	2001	Oct. 29							2.0M
6	Mr. Masayuki Hirakawa	平川 誠之	Management of Farming Economics and Compilation of the Project Achievement I	農業経済及び活動記録 I	2001	Jul. 15	2001	Aug. 12							1.0M
7	Mr. Masakazu Yamada	山田 雅一	Management of Strengthening Water User's Group	水利グループ強化	2001	Jun. 19	2001	Aug. 3							2.0M
8	Mr. Hiroshi Ogawa	小川 博	Farming Economics	農業経済	2001	Mar. 2	2001	Apr. 8							3.0M
9	Ms. Etsuko Ikeda	池田 悦子	Gender and Rural Life Consideration	ジェンダー及び社会配慮	2001	Feb. 7	2001	Mar. 23							1.8M
10	Mr. Takeru Higashimaki	東橋 健	Livestock Development	畜産開発	2001	Feb. 1	2001	Feb. 28							1.0M
11	Mr. Kazutoshi Nakasono	中園 一夫	Natural Agricultural Chemicals	自然農法	2000	Aug. 18	2000	Nov. 19							1.0M
12	Mr. Masao Yamawaki	山脇 正男	Acting Team Leader & Management of Irrigation Water	チームリーダー代行/灌漑	2000	May. 8	2000	Sep. 15							4.0M
13	Mr. Kazutoshi Nakasono	中園 一夫	Natural Agricultural Chemicals	自然農法	2000	Feb. 5	2000	Mar. 25							3.0M
14	Mr. Preecha Cheuychoom		Fruit Tree Cultivation	果樹栽培	1999	Nov. 14	1999	Nov. 30	From Thailand						1.0M
15	Mr. Masao Yamawaki	山脇 正男	Facility Operation and Maintenance	施設維持管理	1999	Sep. 26	1999	Dec. 25							1.0M
16	Ms. Masami Beppu	別府 亜美	Women in Development	WID	1999	Sep. 8	1999	Oct. 30							1.1M
17	Mr. Mitsuru Marumoto	丸本 充	Livestock Development	畜産開発	1999	May. 24	1999	Aug. 19							3.0M
18	Mr. Masao Yamawaki	山脇 正男	Construction Management	施工管理	1998	Nov. 23	1999	Feb. 23							3.0M
19	Mr. Preecha Cheuychoom		Fruit Tree Cultivation	果樹栽培	1998	Oct. 1	1998	Oct. 31	From Thailand						1.0M
20	Mr. Mitsuru Marumoto	丸本 充	Livestock Development	畜産開発	1998	Jul. 22	1998	Sep. 19							2.0M
21	Ms. Satoko Kurata	倉田 聡子	Women in Development	WID	1998	May. 10	1998	Jul. 12							2.0M

Assignment of Expert

The Agricultural and Rural Development Project II in Vientiane Province

# List of Provided Equipment

ANNEX 4

Price (H: 160万円以上 M: 10~160万円以下 S: 2~10万円未満)

Section (A: Agricultural Production P: Planning I: Infrastructure M: Miscellaneous)

Route (J: From Japan L: Local E: With Expert)

Condition (1: Good - 2: Fair - 3: Bad)

Frequency of Use (1: Always - 2: Often - 3: Sometimes)

No.	Category			Year (Month) of		Description			Amount	Unit Price	S-total	Storage	Remarks	Frequency of Use	Condition
	Price	Section	Route	Request	Arrival	Item	Manufacture	Detail							
1	H	I	J	H09/1997	H10.9	Crane Truck	HINO	UNIC URA 343G	1	¥ 5,350,000	¥ 5,350,000	Project Office		2	2
2	M	I	E	H09/1997	H09.11	Water Depth Meter		DIK-4300	3	¥ 125,000	¥ 375,000	Project Office		3	2
3	M	M	E	H09/1997	H09.11	Computer	TOSHIBA	Dynabook Pro460	1	¥ 418,500	¥ 418,500	Project Office		1	3
4	M	A	L	H09/1997	H10.3	Chain Saw			2	\$ 1,500.00	\$ 3,000.00	Project Office		3	2
5	M	A	L	H09/1997	H10.3	Hand Tractor	KUBOTA	ET115	5	\$ 2,350.00	\$ 11,750.00	Project Office		2	2
6	M	A	J	H09/1997	H10.5	Rain Fall Recorder		SKI-10	2	¥ 510,400	¥ 1,020,800	Project Office/Vangkhi Village		2	2
7	S	I	E	H09/1997	H09.11	Water Level Meter		Self Recording, 49-II	2	¥ 45,500	¥ 91,000	Project Office		2	2
8	S	M	E	H09/1997	H09.11	Software	MICROSOFT	MS-Office 97	1	¥ 41,000	¥ 41,000	Project Office		1	1
9	S	M	E	H09/1997	H09.11	Software	MICROSOFT	MS-Windows 95	1	¥ 23,300	¥ 23,300	Project Office		1	1
10	S	A	L	H09/1997	H10.3	Water Pump			2	\$ 190.00	\$ 380.00	Project Office		2	2
11	S	A	L	H09/1997	H10.3	Generator		5HP	1	\$ 400.00	\$ 400.00	Project Office		2	2
12	S	A	L	H09/1997	H10.3	Engine Pump	KAWASAKI	6HP	1	\$ 420.00	\$ 420.00	Project Office		3	2
13	S	A	L	H09/1997	H10.3	Grass Cutter			2	\$ 216.00	\$ 432.00	Project Office		2	2
14	H	I	J	H10/1998	H11.3	Back Hoe Loader	JCB	4CX	1	\$ 52,500.00	\$ 52,500.00	Project Office		2	2
15	H	A	J	H10/1998	H11.8	Tractor	KUBOTA	L4200DT	1	¥ 3,050,000	¥ 3,050,000	Project Office		2	2
16	H	I	J	H10/1998	H11.8	Pick-up Truck (Dump)	TOYOTA	Dyna	1	¥ 1,640,000	¥ 1,640,000	Project Office		1	2
17	M	M	E	H10/1998	H10.11	Computer	APPLE	Macintosh G3	1	¥ 291,100	¥ 291,100	Project Office		2	2
18	M	I	L	H10/1998	H10.3	Plate Compactor		80kg/5HP	3	\$ 1,600.00	\$ 4,800.00	Project Office		3	2
19	M	I	L	H10/1998	H10.3	Concrete Mixer		5HP	1	\$ 1,363.00	\$ 1,363.00	Project Office		3	2
20	M	A	L	H10/1998	H10.3	Irrigation Pump		3 inch/7HP	9	\$ 980.00	\$ 8,820.00	Project Office		3	2
21	M	A	L	H10/1998	H10.3	Thresher Machine		For Tractor	5	\$ 3,500.00	\$ 17,500.00	5 Target Villages		3	2
22	M	M	E	H10/1998	H10.5	Computer	IBM	Aptiva 2137	1	¥ 203,500	¥ 203,500	Project Office		1	2
23	M	M	L	H10/1998	H12.1	Hub for Local Network		Base Hub 24 Ports	1	\$ 1,399.00	\$ 1,399.00	Project Office		1	2
24	S	M	E	H10/1998	H10.11	Software	MICROSOFT	MS-Office 98, Mac	1	¥ 75,600	¥ 75,600	Project Office		1	1
25	S	M	E	H10/1998	H10.11	Printer	CANON	BJC-465J	1	¥ 50,600	¥ 50,600	Project Office		1	2
26	S	M	E	H10/1998	H10.11	Modem	TDK	DF5600	1	¥ 30,400	¥ 30,400	Project Office		1	2
27	S	M	E	H10/1998	H10.11	FD Drive Module	APPLE	MG396GA/Mac G3	1	¥ 19,400	¥ 19,400	Project Office	Broken	1	3
28	S	M	E	H10/1998	H10.5	Modem		For Aptiva 2137	1	¥ 32,900	¥ 32,900	Project Office		1	2
29	S	M	E	H10/1998	H10.5	Printer	CANON	BJC-465J	1	¥ 47,500	¥ 47,500	Project Office		1	2
30	S	M	E	H10/1998	H10.5	Distal Camera		DS-20	1	¥ 27,900	¥ 27,900	Project Office		1	2
31	S	M	E	H10/1998	H10.5	Transformer		SVC-1500ND	1	¥ 40,000	¥ 40,000	Project Office		1	2
32	S	M	E	H10/1998	H10.5	Transceiver		IC-S32	2	¥ 29,700	¥ 59,400	Project Office		2	2
33	S	M	E	H10/1998	H10.7	Power Supply for Over Head Projector			1	¥ 22,600	¥ 22,600	Project Office		1	1
34	S	A	L	H10/1998	H11.2	Grass Cutter			5	\$ 242.00	\$ 1,210.00	Project Office		2	2
35	S	A	L	H10/1998	H11.2	Irrigation Pump		2 inch	20	\$ 220.00	\$ 4,400.00	Project Office		3	2
36	S	A	L	H10/1998	H11.2	Irrigation Pump		3 inch	9	\$ 980.00	\$ 8,820.00	Project Office		3	2
37	S	A	L	H10/1998	H11.2	Engine for Boat			5	\$ 230.00	\$ 1,150.00	Project Office		3	2

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# List of Provided Equipment

ANNEX 4

Price (H: 160万円以上 M: 10~160万円以下 S: 2~10万円未満)

Section (A: Agricultural Production P: Planning I: Infrastructure M: Miscellaneous)

Route (J: From Japan L: Local E: With Expert)

Condition (1: Good - 2: Fair - 3: Bad)

Frequency of Use (1: Always - 2: Often - 3: Sometimes)

No.	Category			Year (Month) of		Description			Amount	Unit Price	S-total	Storage	Remarks	Frequency of Use	Condition
	Price	Section	Route	Request	Arrival	Item	Manufacture	Detail							
38	H	M	J	H11/1999	H12.3	Damp Truck	TOYOTA	Dyna	1	¥ 1,640,000	¥ 1,640,000	Project Office		1	2
39	H	M	J	H11/1999	H12.7	4 Wheel-drive Vehicle	NISSAN	Patrol	3	¥ 2,548,000	¥ 7,644,000	Project Office		1	2
40	M	M	E	H11/1999	H11.11	Computer		PCV-R61V7	1	¥ 350,000	¥ 350,000	Project Office		1	2
41	M	A	E	H11/1999	H11.6	Animal Scale		FK40-50	1	¥ 230,000	¥ 230,000	Project Office		3	2
42	M	M	E	H11/1999	H11.9	Computer	TOSHIBA	Dynabook 2540	1	¥ 212,000	¥ 212,000	Project Office		1	2
43	M	A	J	H11/1999	H12.7	Solar Power Light Set			5	¥ 305,000	¥ 1,525,000	Project Office		3	2
44	M	A	J	H11/1999	H12.7	Rice Straw Cutter		SFC1420	5	¥ 175,000	¥ 875,000	Project Office		3	2
45	S	M	E	H11/1999	H11.10	Printer	EPSON	PM-2000C	1	¥ 46,000	¥ 46,000	Project Office		1	2
46	S	M	E	H11/1999	H11.10	Distal Camera		C-900 ZOOM	1	¥ 75,500	¥ 75,500	Project Office		1	2
47	S	M	E	H11/1999	H11.10	Software	MICROSOFT	MS-Office 2000	1	¥ 77,000	¥ 77,000	Project Office		1	1
48	S	M	E	H11/1999	H11.10	Transformer			1	¥ 36,000	¥ 36,000	Project Office		1	1
49	S	M	L	H11/1999	H11.3	Cassette Deck	PANASONIC	RX-DT37	2	K 1,575,000	K 3,150,000	Project Office	Kip (Local Currency)	3	1
50	S	M	E	H11/1999	H11.9	Distal Camera	CANON	Fine Pix 1500	1	¥ 56,000	¥ 56,000	Project Office	Broken		3
51	S	M	E	H11/1999	H11.9	Software	MICROSOFT	MS-Excel 97	1	¥ 31,400	¥ 31,400	Project Office		1	1
52	S	M	L	H11/1999	H12.2	Garage Jack Set		5t	1	\$ 450.00	\$ 450.00	Project Office		2	1
53	S	M	L	H11/1999	H12.2	Electric Plane			1	\$ 245.00	\$ 245.00	Project Office		2	2
54	S	M	L	H11/1999	H12.2	Electric Pump			1	\$ 620.00	\$ 620.00	Project Office		3	2
55	S	M	L	H11/1999	H12.2	High-presser Water Pump			1	\$ 910.00	\$ 910.00	Project Office		3	2
56	S	M	L	H11/1999	H12.2	Electric Saw			1	\$ 399.00	\$ 399.00	Project Office		3	2
57	S	M	L	H11/1999	H12.2	Electric Drill			1	\$ 310.00	\$ 310.00	Project Office		3	2
58	S	M	L	H11/1999	H12.2	Tool Set			1	\$ 480.00	\$ 480.00	Project Office		2	2
59	S	M	L	H11/1999	H12.2	Speaker		Indoor Type	1	\$ 350.00	\$ 350.00	Project Office		3	2
60	S	M	L	H11/1999	H12.2	Amplifier		Indoor Type	1	\$ 450.00	\$ 450.00	Project Office		3	2
61	S	M	J	H11/1999	H12.7	Roof Carrier Set		For Landcruiser	3	¥ 45,000	¥ 135,000	Project Car		1	1
62	S	M	J	H11/1999	H12.7	Automobile Tool Set		700AP	2	¥ 40,000	¥ 80,000	Project Office		1	2
63	H	M	J	H12/2000	H13.2	4 Wheel-drive Vehicle	TOYOTA	Landcruiser	2	¥ 2,830,000	¥ 5,660,000	Project Office		1	2
64	M	M	E	H12/2000	H12.10	Digital Video Camera	SONY	DCR-TRV20	1	¥ 184,800	¥ 184,800	Project Office		1	1
65	M	A	L	H12/2000	H13.1	Rice Mill Machine	SOMPETHAY	Phoneho Village	1	\$ 3,170.00	\$ 3,170.00	Phoneho Village		2	1
66	M	A	L	H12/2000	H13.2	Rice Mill Machine	SOMPETHAY	Napheuy Village	1	\$ 3,170.00	\$ 3,170.00	Napheuy Village		2	1
67	S	M	E	H12/2000	H12.10	MO Drive	LOGITEC	LMO-A635U	1	¥ 37,300	¥ 37,300	Project Office		1	1
68	S	M	E	H12/2000	H12.10	Software	MICROSOFT	MS-Office 2000	1	¥ 57,900	¥ 57,900	Project Office		1	1
69	S	M	E	H12/2000	H12.10	Digital Memory Recorder	TOSHIBA	DMR-850W	1	¥ 23,800	¥ 23,800	Project Office		1	1
70	S	M	E	H12/2000	H12.10	CD-RW Drive	LOGITEC	LOW-R6406U	1	¥ 30,800	¥ 30,800	Project Office		1	1
71	S	M	E	H12/2000	H12.10	Automatic Voltage Regulator	MATSUNAGA	SVC-600ND2	1	¥ 21,800	¥ 21,800	Project Office		1	1
72	S	M	E	H12/2000	H12.11	Memory (For Mac/128MB)	I-O DATA	AP-SD4100	1	¥ 22,630	¥ 22,630	Project Office		1	1
73	S	M	E	H12/2000	H12.11	Software	FILE MAKER	File Maker Pro Ver. 5	1	¥ 39,860	¥ 39,860	Project Office		1	1
74	S	M	E	H12/2000	H12.5	MO Drive		MOS-S645R/USP	1	¥ 69,800	¥ 69,800	Project Office		1	1
75	S	M	E	H12/2000	H12.5	Color Scanner	EPSON	GT-7600S	1	¥ 39,800	¥ 39,800	Project Office		1	1

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## List of Provided Equipment

ANNEX 4

Price (H: 160万円以上 M: 10~160万円以下 S: 2~10万円未満)

Section (A: Agricultural Production P: Planning I: Infrastructure M: Miscellaneous)

Route (J: From Japan L: Local E: With Expert)

Condition (1: Good - 2: Fair - 3: Bad)

Frequency of Use (1: Always - 2: Often - 3: Sometimes)

No.	Category			Year (Month) of		Description			Amount	Unit Price	S-total	Storage	Remarks	Frequency of Use	Condition
	Price	Section	Route	Request	Arrival	Item	Manufacture	Detail							
76	M	M	L	H13/2001	H13.12	Computer and Accessory Set	Intel Pentium 4	Monitor, Printer, etc.	5	\$ 1,045.00	\$ 5,225.00	Project Office		1	1
77	M	M	L	H13/2001	H13.12	LCD Projector	SONY	VPL-CS3	1	\$ 3,170.00	\$ 3,170.00	Project Office		2	1
78	M	A	L	H13/2001	H14.1	Disk Plough		26"-3 Disc	1	\$ 1,370.00	\$ 1,370.00	Project Office		2	1
79	M	M	L	H13/2001	H14.3	Front Windshield	NISSAN	For Patrol	1	\$ 1,100.00	\$ 1,100.00	Project Car		1	1
80	S	M	L	H13/2001	H13.12	Book Binding Machine	HIC		1	\$ 400.00	\$ 400.00	Project Office		2	1
81	S	M	L	H13/2001	H13.12	Laminator Machine	FUJIPLA	LPD 3208 (A3 Size)	1	\$ 280.00	\$ 280.00	Project Office		2	1
82	S	M	L	H13/2001	H13.12	Water Compressor		LS-537 (1")	1	\$ 253.00	\$ 253.00	Project Office		2	1
83	S	M	E	H13/2001	H13.9	Digital Camera	CANON	IXY Digital 2000	1	¥ 54,000	¥ 54,000	Project Office		1	1
84	S	M	E	H13/2001	H13.9	Compact Flash Card	CANON	FC-64M	2	¥ 25,600	¥ 51,200	Project Office		1	1

S-total:	\$ 140,696.00
S-total:	¥ 32,217,090
S-total:	K 3,150,000 (Kip)

# Acceptance of Laotian Counterpart for Training in Japan/Assignment of Counterpart

ANNEX 5/7

No.	Title/Section/Position	Name (Expert Concerned)	Remarks Temporary staff	Period of Assignment							Training in Japan							
				From	To	9年度	10年度	11年度	12年度	13年度	14年度	Year	年度	Name of Training Course	Place of Training (備考)			
						1997	1998	1999	2000	2001	2002							
1	Project Director	Mr. Khamisay Soumounthong (Mr. Ngai)		1997	Nov. 1	Present								1996 8年度	Agricultural Extension	農業普及	JICA TSUKUBA Int'l Center	JICA筑波国際センター
														1999 11年度	Agricultural Land and Water Resources Development	農地水資源開発Ⅱ	JICA TSUKUBA Int'l Center	JICA筑波国際センター
2	Deputy Project Director (Former Chief of A.I.I. Section)	Mr. Khammay Vongsathiane (Mr. Shibata/Ms. Ota/Mr. Yamada)		1997	Nov. 1	Present								1998 10年度	Irrigation and Drainage II	灌漑・排水Ⅱ	JICA TSUKUBA Int'l Center	JICA筑波国際センター
																▲ (September)		
3	Agricultural and Rural Development Planning	Mr. Bouaphanh Pathamavong (Ms. Ota)		1997	Nov. 1	Present								1996 8年度	Agricultural Extension	農業普及	JICA TSUKUBA Int'l Center	JICA筑波国際センター
4		Mr. Somphet Phengboupha (Ms. Ota)		1997	Nov. 4	Present								1997 9年度	Agricultural Co-operatives II	農業協同組合Ⅱ	JICA HACHOJI Int'l Training Center	JICA八王子国際研修センター
5		Ms. Amone Sihavong (Ms. Ota)		2001	Aug. 9	Present												
6		Mr. Linthong Vongchandang (Ms. Ota)		1997	Sep. 8	2000 Nov. 13												
7	Agricultural Infrastructure Improvement	Mr. Khamphet Chansavath (Mr. Yamada)		1997	Nov. 6	Present								1997 9年度	Irrigation and Drainage II	灌漑・排水Ⅱ	JICA TSUKUBA Int'l Center	JICA筑波国際センター
																▲ (September)		
8		Mr. Boumma Phomthet (Mr. Yamada)		1997	Nov. 1	Present								1999 11年度	Irrigation and Drainage II	灌漑・排水Ⅱ	JICA TSUKUBA Int'l Center	JICA筑波国際センター
9		Ms. Vienkeo Phongsanith (Mr. Yamada)	*	2001	Sep. 13	Present												
10	Agricultural Production	Mr. Chantay Chathavong (Mr. Shibata)		1997	Nov. 1	Present								1996 8年度	Rice Cultivation	稲作	JICA TSUKUBA Int'l Center	JICA筑波国際センター
11		Mr. Thonglo Khamvongsa (Mr. Shibata)		1997	Nov. 1	Present								1998 10年度	Fruit Tree Cultivation	果樹栽培	JICA OSAKA Int'l Center	JICA大阪国際センター
12		Mr. Bounkouang Chanthakongseng (Mr. Shibata)		1997	Nov. 1	Present								1999 11年度	Poultry Production and Breeding Technology	鶏育種・生産技術	Livestock Breeding Center, MAFF	農林省畜産改良センター
13		Mr. Oudom Sayasan (Mr. Shibata)		2000	Jun. 2	Present								2001 13年度	Poultry Production and Breeding Technology	鶏育種・生産技術	National Livestock Breeding Center	独立行政法人 畜産改良センター
14		Ms. Phutsady Vonglathamy (Mr. Shibata)		1999	Jul. 26	Present												
15		Mr. Vilath Keovichith (Mr. Tsutsui)		1997	Nov. 1	1998 Nov. 30								1997 9年度	Vegetable Cultivation Technology for Extension	野菜栽培技術	JICA TSUKUBA Int'l Center	JICA筑波国際センター
16	Administration	Mr. Khammanh Sengphachanh (Mr. Kuroiwa)		1997	Nov. 1	Present										▲ (September)		
17		Ms. Khonsavanh Chanthalangsy (Mr. Kuroiwa)		1997	Nov. 1	Present												
18	(Former Chief of Admin. Section)	Mr. Boutham Phanthavong (Mr. Amamelshi)		1997	Nov. 24	2000 Oct. 20												
19	District Agriculture and forestry Office in Vientiane Province	Mr. Phouthong Singhakham												2000 12年度	Agricultural Extension Planning and Management	農業普及企画管理		
20	Vice Governor, Governor's Office, Vientiane Province	Mr. Khammeuang Phongthady												1998 10年度	Agricultural Production and Development Planning	農業生産及び開発計画		(準高級)
21	Planning and Cooperation Service, Vientiane Province	Mr. Oudong Phongphaypadith												1998 10年度	Agricultural Production and Development Planning	農業生産及び開発計画		
22	Ministry of Agriculture and Forestry	Mr. Phouvieng Latdavong												1997 9年度	Administration for Agricultural and Rural Development	農業農村開発計画行政		(準高級)

▲: Took the Present Position

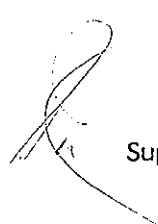
## Supplementary Funds to Cover Local Cost by Japanese Side

ANNEX 6

No.	Description	on-going/Plan					Unit: US\$		
		1997 (Nov~Mar)	1998 (Apr~Mar)	1999 (Apr~Mar)	2000 (Apr~Mar)	2001 (Apr~Mar)	2002 (Apr~Oct)	Total	*
1	Administration (General Affairs)	38,246.68	68,206.61	75,796.92	55,081.43	44,956.31	27,417	282,287.95	
2	Human Resources Development and Fuel	39,055.06	19,710.20	16,499.56	12,612.19	15,421.69	0	103,298.70	
3	Technical Extension	0	19,782.97	12,998.21	7,774.21	12,570.28	20,317	53,125.67	
4	Improvement of Agricultural Infrastructure	115,118.00	271,116.00	322,272.00	40,000.00	13,971.21	0	762,477.21	
5	Technical Exchange Program	5,608.89	0	0	0	6,773.92	0	12,382.81	
6	Emergency Measure	0	0	0	0	0	3,775	0	
	Total	198,028.63	378,815.78	427,566.69	115,467.83	93,693.41	51,509	1,213,572.34	

\* Not including FY2002

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Supplementary Funds-Japan

The Agricultural and Rural Development Project II in Vientiane Province



## Allocation of Budget by Laotian Side

ANNEX 8

No.	Description	1995/1996 (Nov~Sep)	1996/1997 (Oct~Sep)	1997/1998 (Nov~Sep)	1998/1999 (Oct~Sep)	1999/2000 (Oct~Sep)	2000/2001 (Oct~Sep)	on-going	Plan	Unit: Kip
								2001/2002 (Oct~Sep)	2002 (Oct~)	Total *
	<b>Total Budgetary Plan</b>			14,500,000	30,000,000	51,000,000	97,000,000	80,000,000	417,000,000	689,500,000
	<b>Total Received Budget</b>			14,496,370	29,969,231	50,997,677	96,826,461	55,483,360		247,773,099
	<b>Total Expenditure (Kip)</b>			22,573,858	29,859,047	50,002,463	96,721,891	55,397,190		254,554,449
	<b>Total Expenditure (US\$)</b>			8,933.07	5,052.29	6,729.81	11,541.99			32,257.16
	<b>Balance of Fiscal Year</b>			-8,077,488	110,184	995,214	104,570			-6,867,520
1	Technical Equipment for Staff	Received Budget								0
		Expenditure		4,310,240						4,310,240
2	Custom Fee for Imported Equipment	Received Budget								0
		Expenditure		2,330,020						2,330,020
3	Farmers Training	Received Budget		1,999,260	4,999,675	4,999,800	5,964,360		66,000,000	17,963,095
		Expenditure		531,400	2,592,695	1,515,000	5,419,090			10,058,185
4	Operation & Maintenance of Irrigation	Received Budget		2,998,780	3,997,125	5,998,800	6,949,450		101,000,000	19,944,155
		Expenditure		2,657,490	2,620,490	2,519,000	10,692,165			18,489,145
5	Promotion of Agriculture and Livestock	Received Budget		1,998,800	5,993,175	10,000,000	13,929,360		70,000,000	31,921,335
		Expenditure		2,635,520	2,655,376	9,723,500	5,610,737			20,625,133
6	Administration and Technical Staff	Received Budget		7,499,530	14,979,256	29,999,077	49,983,291	55,483,360	180,000,000	157,944,514
		Expenditure		10,109,188	21,990,486	36,244,963	54,999,899	55,397,190		178,741,726
7	Office Building Repair	Received Budget					20,000,000			20,000,000
		Expenditure					20,000,000			20,000,000

\* Not including FY2002

Exchange Rate (Kip against US\$)	925	1,012	2,527	5,910	7,430	8,380	9,460	
	Reference of Time	April/1996	April/1997	April/1998	April/1999	April/2000	April/2001	April/2002

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Progress of the Project Activities

Tentative schedule of implementation (TSI)

Activity Plan by TSI		Final target	Period								Achievement ratio	Person in charge	Progress of the project		Prospect of activities	
Main activities mentioned the TSI	Activities		1	2	3	4	5						Activities	Achievement/Outputs		
							1	2	3	4						
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	Counterpart understand one of methods for farming economic survey. VDP is planed. CPs understand deeply on monitoring and evaluation. Villager's ability on problem solving is improved. CPs and villagers understand deeply on gender.										85	Planning Section	Farming economic survey was implemented once a year from '98 to '00. Making VDP; VDCs that established in five villages made five-year development plan based on PDM and annual and quarterly plans and implemented activity on three strategies. M&E; CPs guided VDCs to monitor, evaluate and discuss for problem solving in VDC meeting with importance of target and made effort to have made clear it on village activities. Gender seminars were held to offer information for CPs and villagers in cooperation with Lao women's union.	CPs got one of methods for farming economic survey through 3 years. 5 year plan of each village was made up. CPs understood procedure of making village development plan through guiding villagers. CPs assisted villagers to make clear target, villagers are coming to understand target. Villager could make report which is base of monitoring and evaluation by CPs' assistance. Regarding gender, because women's participant of training and meeting were increased. Gender guide line and gender check list were made.	For getting qualitative and quantitative data should be improved to get accuracy. CPs understood well on procedure of planning to continue this activity. Quality of guidance to villagers for planning should be improved. When CPs guide villagers on target of activities, CPs take technical level of the village, organization revel and etc. into consideration to decide suitable target.
	1.2. Preparing the land use plan, farming management plan, and agriculture and rural development plan	Plans are made.											80	Planning Section	Land use plan and agricultural and rural development plan were made through discussions with villagers. Farming plans were made through trial cultivation and meetings of agricultural promotion groups.	Land use plans and infrastructure plan of 5 villages were made. Farming plan was made. Those plan were made in initial period of project.

Activity Plan by TSI		Final target	Period								Achievement ratio	Person in charge	Progress of the project		Prospect of activities
Main activities mentioned in the TSI	Activities		1	2	3	4	5						Activities	Achievement/Outputs	
							1	2	3	4					
2. Improving agricultural infrastructure technology	2.1. Improving design technology	Small-scale irrigation facilities are designed through participatory approach. The design manual on appropriate technology for farmer is made.									80	Infra-structure section	The design for main facilities in small-scale irrigation facilities was implemented by local consultants under CPs' supervision with expert support, CPs have been improved their technology by subsequent training and experience. CPs made independently the design for participatory small-scale construction. Bicycle pump that was installed to the target village and the neighboring village following their request was useful for vegetable	CPs have been able to design for small-scale irrigation facilities by themselves. To make the design, CPs have grasped villager's intention and tried to consider it in the contents of a design. Moreover CPs have tried to use the existing resources in an area effectively and to consider economical efficiency.	CPs have improved design technology and can carry out participatory construction by themselves. It is required to give the opportunity for the improvement in technical more and to ensure the budget is needed for the activity.
	2.2. Improving construction technology	The irrigation facility and village road construction complete. Branch canal and small structure are constructed by farmer. Farmer construct small structure using manual.									80	Infra-structure section	The project constructed the irrigation facility in line with the plan that the villager and the project discussed. CPs supervised these construction considering the request of villager and managed participatory construction for small structure and canal lining that the villager offered labor and local material. Such participation generates the ownership to the facility on the villager.	Villager could have experience to join in a part of irrigation facility construction that will be needed as role of CPs supervised. This experience was useful for self-help construction and the villager will able to continue it by themselves. This trend matched the condition that the government don't have sufficient budget and is transferring the O&M of irrigation facilities to villager.	In the project, since the sphere of activity of CPs was extensive over three districts, DAFO staff will be needed as role of CPs from now on. Therefore it is necessary that the activity cost for DAFO staff is fully secured and CPs support. In addition, making manual of construction for the villager and DAFO staff is needed to disseminate.
	2.3. Improving operation and maintenance technology	Farmer can operate and maintain for facility using manual.									80	Infra-structure section	Seminar, training, and study trip were conducted as some of activities of Water User's Groups (WUGs). In these activities, the case study was conducted and improved in recognition of the importance of O&M. CPs made manual based on these activities.	Making the activity plan and carrying out the plan has been established on WUGs under the support of CPs. Monitoring of the activity should continue and revision of manual should be done if necessary.	Although the necessity of O&M activity has recognized by villager, it becomes the important point how to share the cost between the villager and the government, and how to evaluate O&M activity by the government.

Activity Plan by TSI		Final target	Period								Achievement ratio	Person in charge	Progress of the project		Prospect of activities	
Main activities mentioned in the TSI	Activities		1	2	3	4	5						Activities	Achievement/Outputs		
							1	2	3	4						
3. Verifying, improving and disseminating the appropriate technology for agricultural production	3.1. Testing the improved technique for agricultural production	Agricultural production is promoted by technology appropriate for region and Crop diversification is introduced.										90	Agri-cultural Production Section	Test, demonstration and introduction of rice materialized, cash crops expanded such as peanut, mushroom extended in targeted villages and vegetable by rain protected cultivation sustained, being adaptable to farmers on participatory approach.	In five target villages there are five appropriate technology in production management and production that have been introduced and adopted by the farmers. The appropriate technologies are: improved rice variety utilization, techniques for rice transplanting and weeding, vegetable production in wet season, mushroom production, banana processing, chicken raising, piglet raising, village veterinary etc.	Considering the economics analysis, it is important that the introduction of new technologies consider the availability of materials. The project provides the materials that is not based on the available local resources of such analysis from viewpoint of economics on householders' level to get a profitable production.
	3.2. Demonstrating the improved technique for agricultural production	Agricultural production is promoted by technology considered by farmer's group and disseminated to farmers.										80	Agri-cultural Production Section			
4. Improving the rural living development	4.1. Improving sanitary conditions (water supply and toilet)	Villagers get knowledge on sanitation through seminars. Villagers can maintain, manage of system and collect water fee. Toilets are constructed in target villages.										75	Planning Section	Sanitation seminars and workshops were held in cooperation with Rural Development Program (RDP) and with Lao women's union and district. Villagers got new knowledge on theme. Water supply systems were constructed in Vangkhi, Napheuy, and Namgnam in cooperation with RDP. Those groups were established each village. The project implemented training on suitable system, management operation, maintenance and management (OM&M) by groups. Concerning to construction of toilets, the materials and technical information by CPs. A part of payment for material was saved	Some village could have meeting by them selves for dissemination of knowledge of sanitation (Vangkhi). Ability of CPs on planning and implementation for training were improved. Deep well for water supply in Vangkhi, Namgnam and Napheuy have enough water in dry season. Women and children in the villages are released from heavy work. CPs understand suitable system, management of user's group through experiences. Number of toilet was increased because of villagers understandings of its importance.	It is possible to implement activities in cooperation with health department. Point of sustainability of hand pump is collection fee. It is possible to dissemination of toilet construction funding from VDF.

Activity Plan by TSI		Final target	Period								Achievement ratio	Person in charge	Progress of the project		Prospect of activities
Main activities mentioned in the TSI	Activities		1	2	3	4	5						Activities	Achievement/Outputs	
							1	2	3	4					
	4.2. Improving the capability of village road	Village road is repaired and accessibility is improved. O&M are carried out by villager.	-	-	-	-	-	-	-	-	80	Infra-structure section	Villager joined a part of the construction for the village road improvement. Seminar and training for O&M of the village road were conducted to the representative of village.	The periodical maintenance, such as small repair and cutting grass, were done by the villager. There was a case that the target village worked together the neighboring villages to improve access road to national road.	Since O&M activities are established, the support to large scale repair is required to the government.
	4.3. Improving school building	Villagers implement self-motivated activities.		-							80		Only design was ordered.	During project period villagers built two school buildings with hatched roof. Villager submitted application form for support grass root grant through education office of district	It is possible to contact education department for villager's need because of relationship through activities.
5. Organizing and strengthening farmer's groups	5.1. Organizing and strengthening the village development committee	VDC can find problems in the village and make plan, implement activity, monitor and evaluate for village development with self-motivation.									85	Planning Section	VDC was Organized with discuss on function, structure and fostering of VDC. VDC takes initiative for village development and strengthen village network through quarterly, annual meeting. Concerning to planning and activity, groups hold meeting on annual and quarterly activities. VDC summarizes group's report and ideas and discusses with project staff. Monitoring and Evaluation were implemented through reporting of quarterly and annual activities based on PDM in VDC meeting.	Because most of VDC leaders are member of Village Committee, VDC is in harmony with Village Committee. As result of encourage to discuss on problem finding and solving, VDC members are coming to understand function and role of VDC. VDCs have self meeting more than every three months. VDCs can decide targets, cost etc. of village activities and record their activities for monitoring and evaluation. VDCs can mention advanced and remaining issue also.	Village activity is coming to stable under the leadership of VDC. But flexible guidance depend on village character will be need. The target villages are coming stable process of village development. Some village are implementing their original activities. Monitoring and evaluation is not difficult if CPs can guide for suitable target and do the work which compare with plan and result. Each section also needs to understand more on target of village activities.

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Activity Plan by TSI		Final target	Period								Achievement ratio	Person in charge	Progress of the project		Prospect of activities
Main activities mentioned in the TSI	Activities		1	2	3	4	5						Activities	Achievement/Outputs	
							1	2	3	4					
		VDF is stable in the villages as source for sustainable village development.									80	Planning Section	At first rental fee, a part of water user's fee, charge of material and water supply fee were managed by each groups. The project and villagers got understanding on management of those fund as VDF because of diversification development.	VDF has been already used for improvement of irrigation, rice mill house and individual or group loan for agriculture.	Fund source is make sure for 5 target villages. But for extension, This should be considered. The project need to emphasis transparency and impartiality of its management.
	5.2. Organizing and strengthening the water user's groups (WUGs)	In the target village WUGs are organized and managed voluntarily by villager.									80	Infrastructure section	WUG in each village were organized and had the regulation. The project has explained the construction, putting together member's idea and solving the problems. CPs have acted as a go-between WUG and district or province. Water fee was spent for purchasing material of irrigation facilities repair. WUGs have not only the representatives of group but also each branch canal's leader. They managed organization and joined activities.	In WUG meeting, the member has become to handle the meeting with support of CPs. About the pending problem by the discussion among villagers, CPs have acted as a go-between WUG and district or province. Water fee was spent for purchasing material of irrigation facilities repair.	Water fee is not enough for covering the cost of irrigation facilities repair. If instruction of CPs is carried out periodically and the role of CPs shift to DAFO staff, WUGs will be strengthen more.
	5.3. Organizing and strengthening the agricultural promotion group	Agricultural promotion group in each crop is organized to continue their activity solving problems by themselves and to strengthen themselves through cultivation trials, demonstrations and training.									90	Agricultural Production Section	Agricultural production groups organized in five targeted such as for rice cultivation, vegetable, mushroom and livestock etc.	More than three production groups that were organized and strengthened through women initiate mostly are still in operation without project assistance.	The group development process could be accepted by PAFO and DAFO as a model for future community development projects. However, the process have to be adjusted in relation to the provincial resources available and new developed technology.

Activity Plan by TSI		Final target	Period								Achievement ratio	Person in charge	Progress of the project		Prospect of activities	
Main activities mentioned in the TSI	Activities		1	2	3	4	5						Activities	Achievement/Outputs		
							1	2	3	4						
	5.4. Organizing and strengthening women's groups	Group activities for improvement of women's leadership are considered. Guidance of activities are implemented. Members can get benefit and confidence through their activities. Literacy ratio increases.										80	Planning Section	Rain protected vegetable cultivation is introduced. The project could conduct members to improve farming management. Small animal of chicken and pig raising is conducted, and is strengthened in group activities including rule on fund and group management. Vaccination training were implemented in cooperation with production section and PAFO. The project offered training banana processing. Handicraft for nine trainee were trained sewing and weaving at Hoey hone vocational center for tree months. Literacy classes were implemented as supporting for women' activity in cooperation with education office in Thoulakhom district.	By vegetable and mushroom cultivation and going on well, villagers can get much income. They could adjust harvesting of vegetable in the group for marketing. Pig raising group established new generation group with revolving fund. Member can select suitable feeding way. Regarding Chicken raising, Phonekeo established third group, Napheuy established second group by revolving fund. Regarding banana processing, 4 villagers get much income. Regarding sewing training, 2 participant continue advance training. 48 attendants for beginner 25 attendant for middle passed final examination and get certification.	If fund system, information technique and market will be offer to village women, women's activity is promising activity. Villager got high motivation. It is important to give information on marketing. Chicken raising can be small income generation. If quality will be kept and market will be secure, food processing is suitable activity for farmers who has limit of water source and land. They need to use loan system for investment and suitable government staff to consult. Relationship with education department was strengthened. It is possible to be sustainable.
6. Conducting training on methodology of agricultural and rural development planning, agricultural infrastructure, agricultural production and improvement of rural living environment and strengthening farmer's organization	6.1. Conducting the training for farmers	farmers understand deeply on agricultural and rural development. Income increases. Living environment is improved.										80	Planning Section	Regarding improvement of rural living environment, farmers capability were improved. Regarding women's activities, gender seminars were implemented in all villages except Napheuy village. Training on vaccination and study tour banana processing were implemented.	Encourage through gender seminar increased participant ratio of women. Vaccination ratio was increase and ratio of animal die was decrease in Napheuy, Phonekeo and Phoneho which animal raising are going on well.	Relationship among villagers was strengthened through 5 year activities and CPs ability of planning and implementing were improved. Assistance of PAFO is important for relation with other government organization.

Activity Plan by TSI		Final target	Period								Achievement ratio	Person in charge	Progress of the project		Prospect of activities	
Main activities mentioned in the TSI	Activities		1	2	3	4	5						Activities	Achievement/Outputs		
							1	2	3	4						
		O&M of facility and water management are carried out by farmer.										80	Infra-structure section	Seminar on O&M and water management for farmer were implemented as one of WUG's activities. CPs went to the field and discussed problem with farmer. Study trip was carried out for exchanging the idea with farmer in other project.	O&M is being established among farmers and some farmers constructed new facilities by themselves. Some WUGs effort to manage water independently.	Although these activities can be continuously carried out among farmers, from the point of view of fairness, advice by DAFO staff is required.
		Farming management and cultivation technologies are improved by agricultural promotion groups that can plan their training themselves and achieve them.										90	Agricultural Production Section	Farmers being strengthened through OJTs such as VDCs activities and meetings, participation into vocational training and cultivation training.	The capacity of farmers and village's leaders in different fields has been developed as a training process based on technology transfer, learning by doing and community based development process.	Capacity building actions, which follows production cycle, in the form of classroom training, study tours, field schools and learning by doing towards the introduction is considered as a continuous process by the villagers and government staff.
	6.2. Conducting the training for village leaders	Leadership of village leader is improved.										80	Planning Section	Village leaders could get information on agricultural and rural development through study tour and exchange ideas with advanced farmers etc. Gender training was held and made guide line in VDC work shop. Training of group strengthening was held and conducted by a staff of NAFES.	Village leaders are coming to understand importance of self motivated rural development, and can do process of problem finding, planning, activity implementation. Villagers had new understanding on effectiveness of organization through training of group strengthening.	It is very important that able leaders exist in village for development. Needs of training from village leader also high. Sustainability will be expected, because CPs ability of planning and implementation were improved. And PAFO staff who will be lecturer should have wider and further knowledge of agricultural technique.
		Village leader can teach about O&M of facilities and water management to other villagers.										80	Infra-structure section	The representative of WUG has joined to seminar and study trip. They are also some of village leaders, and have the meeting to report other farmers about the contents of seminar.	In the report meeting, the representative of WUG could report with support of CPs. In other village meeting, the contents of seminar were discussed among villagers.	It is necessary for the representative of WUG to join the seminar for keeping their level and awareness.



Activity Plan by TSI		Final target	Period								Achievement ratio	Person in charge	Progress of the project		Prospect of activities	
Main activities mentioned in the TSI	Activities		1	2	3	4	5						Activities	Achievement/Outputs		
							1	2	3	4						
		Farming management and cultivation technologies are improved by agricultural promotion groups that can plan their training themselves and achieve them.										90	Agri-cultural Production Section	Farmers' leaders being strengthened through OJTs such as VDCs activities and meetings.	The capacity of farmers and village's leaders in different fields has been developed as a training process based on technology transfer, learning by doing and community based development process.	Capacity building actions, which follows production cycle, in the form of classroom training, study tours, field schools and learning by doing towards the introduction is considered as a continuous process by the villagers and government staff.
	6.3. Conducting the training for government staff	Improvement of ability of government staff on implementation of training and to get skill and technique to guide for farmers.										70	Planning Section	Training on statistic, participatory approach, and English were implemented. Study tour on co-operative was implemented to strengthen farmer's groups. 2 counterparts attended training in Japan. Training on group strengthening was held. The project is making manuals on village development.	CPs got skill for computer and got fundamental knowledge of participatory approach, statistic. Not only CPs other organization staff also improved their ability through cooperation with the project.	Ability of planning and implementation for training were improved. But it is important to relate well research center and other organization as source of technique. And PAFO should identify role of DAFO and offer suitable training for DAFO staff for center's activities.
		The activity required for agricultural and rural development is implemented by CPs.										80	Infra-structure section	CPs have concerned from the planning to the implementation of construction such as irrigation facility and village road improvement. In addition CPs have adjusted villager's requests, schedule of construction and coordinated preparation of construction material.	CPs have learned the method of agricultural and rural development through the training in Japan and on the job training. CPs have developed their skill in English conversation and using PC. Strengthening WUG is good subject for effort to encourage talent and organization.	It is necessary for implementation of agricultural and rural development by CPs to financial support of the government.
		The capability of government staff concerned is improved for holding training to disseminate the project achievement into other villages.										90	Agri-cultural Production Section	CPs and DAFO staff capacities including English conversation and PCs utilization being improved through OJTs and participation into expertise training courses in Japan.	Capability of staff concerned was improved. This is proved that the staff was able to play role of lecturer of training and advise technical matter to the students from schools.	The group development process could be accepted by PAFO and DAFO as a model for future community development projects.

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