

第4章 プロジェクト・デザイン・マトリックス

4.1 概要

プロジェクト・デザイン・マトリックス (PDM) は PCM ワークショップで選択されたプロジェクトのアプローチに基づいて、主要な計画内容を煮詰める作業である。PDM はプロジェクトの目標、活動、投入及び外部条件等の要素や、評価のための指標を明示しており、これらは相互に連携している。PDM はプロジェクト・ライフを通じて使用され、特にプロジェクトのモニタリングと評価のベースとなる。

PCM ワークショップを通じて、参加者により多くのアプローチが確認された。これらのアプローチの中で、フィージビリティ・スタディに取り込むべき一つの開発計画が参加者によって採択された。調査団はこれに基づき PDM を作成した。

加えて、農民組合自身の手によって、あるいは地方政府による独自の予算によって実施可能なアプローチについても、参加者の選択したアプローチの中から検討を行った。

4.2 プロジェクト・デザイン・マトリックス

5 灌漑スキームに対し5つの PDM 素案を作成した。これらは、概ね似た内容となっている。スキーム毎に参加者は異なり、直面する問題も各々ことなるが、参加者によって提案された解決策 (目的) 及び選択されたアプローチとその優先順位は全体に似た結果となっている。そして、プロジェクトに取り込むべきアプローチは「農民組合が強化される」、「灌漑施設が改修・改善される」及び「農業活動が改善される」であった。

PCM ワークショップを基に策定した各スキーム毎の PDM を表 4.1 から 4.5 に掲げる。また、中心目的と PDM のプロジェクト・タイトル及び目的の関係を下表に要約する。

灌漑スキーム	PCM ワークショップ	中心目的	PDMs	
			プロジェクト・タイトル	プロジェクト目標
ナッチャドゥア大規模スキーム	ナッチャドゥア-1	農家収入の向上	ナッチャドゥア灌漑農業農村開発計画	農家収入を向上させる。
	ナッチャドゥア-2	社会経済水準の向上		
	ナッチャドゥア-3	社会経済水準の向上		
バルカダウェラ大規模スキーム	バルカダウェラ-1	経済の発展	バルカダウェラ灌漑農業農村開発計画	適正な経済水準を創出する。
	バルカダウェラ-2	経済水準の向上		
	バルカダウェラ-3	適正な経済水準の創出		
ペーリヤクラマ中規模スキーム	ペーリヤクラマ中規模	農家経済水準の向上	ペーリヤクラマ灌漑農業農村開発計画	農民の経済的地位を育成する
マハナンネリヤ中規模スキーム	マハナンネリヤ中規模	社会経済水準の向上	マハナンネリヤ中規模スキーム灌漑農業農村開発計画	社会経済的地位を改善させる。
マハナンネリヤ小規模スキーム群 (カスケード)	マハナンネリヤ-1	経済水準の向上	マハナンネリヤ小規模スキーム群灌漑農業農村開発計画	社会経済的地位を改善させる。
	マハナンネリヤ-2	社会経済水準の向上		

(1) 上位目標

プロジェクトの上位目標は「地域農業の持続的発展を達成する」及び「地域共同体の農業生産を改善する」である。プロジェクトの指標は「農民組合/農民による自立した農業開発の実施」である。これに対する指標データ入手手段は「PMU（事業管理事務所）のモニタリング・レポート」である。外部条件は「政府農業開発方針がプロジェクトの実施を妨げない」とした。

(2) プロジェクト目標

プロジェクト目標は「農村共同体の経済的地位が向上する」と設定し、その指標は「プロジェクトの最終段階で農家総所得が著しく向上する」とした。これに対する指標データ入手手段は「PMU のモニタリング・レポート」である。外部条件は「農業生産物が輸入作物と不合理な競合に直面しない」とした。

(3) 成果

3つの成果が設定された。すなわち、「多機能農民組合が設立される」、「灌漑用水が計画にしたがって供給される」及び「農業活動が改善される」である。上記の最後の項目を除きこれらの成果は全スキームで同じである。最後に述べた成果はスキームによって異なる。

- 1) 多機能農民組合が設立される： 各種の機能を持つ農民組合を設立する。すなわち、組合は灌漑、農業、小規模ビジネス、所得向上、社会事業の組織化と活性化に係わる広範囲の活動を行う。指標は、「農民組合によって、所得向上を含む多様なサービスがプロジェクト開始後3年目から開始される」及び「農民組合理事会及び小委員会理事会がプロジェクト開始後3年目までに毎月開催される」とした。指標データ入手手段は「農民組合総会の議事録及びPMUのモニタリング・レポート」及び「農民組合理事会及び小委員会の会議議事録」である。
- 2) 灌漑用水が計画にしたがって供給される： これについては、さらに以下の3つの成果が設定された。すなわち、「灌漑施設が改修・改善される」、「農民組合によって適正な水管理が行われる」及び「灌漑施設が維持管理される」である。指標は「プロジェクトの最終段階までに、農家は計画に従って灌漑用水の供給を受けることができる」とした。そして、3つの成果に対応する指標は各々「プロジェクト開始から5年目までに適正な灌漑用水供給のための施設が改修・改善される」、「改修・改善工事終了後、農民組合及び灌漑局によって流量が観測される」及び「改修・改善工事終了後、農民組合によって支線水路以下の施設が維持管理される」に設定した。指標データ入手手段は「PMUのモニタリング・レポート」、「農民組合の記録」及び「農民組合総会議事録」である。
- 3) 農業活動が改善される： 全てのスキームは農産物及び生産資材の流通改善と農村信用の改善を挙げている。これに対し、各スキームで異なるところは以下のとおりである。パルカダウエラ大規模スキームは作物栽培の改善を、そしてマハナンネリヤ中規模スキームは水稻生産の改善を挙げている。さらに、ナッチャドゥア大規模スキームとマハナンネリヤ小規模スキーム群は水稻及び畑作物の収量増加を取り上げている。マハナンネリヤ中規模スキーム及び小規模スキーム群、並びにペーリヤクラマ中規模

スキームは畑作物栽培の拡大を取り上げ、ナッチャドゥア大規模スキームも同様に作物多様化を取り上げている。パルカダウェラの期待される成果の中には農地の有効利用がある。ペーリヤクラマ及びマハナンネリヤ中規模スキーム並びにマハナンネリヤ小規模スキーム群は貯水池流域の森林破壊の減少を挙げている。

以上の成果に対し、10の指標を設定した。

- ① 農業生産性が改修・改善工事終了後3年目までに改善される。
- ② 水田での乾期畑作物面積がプロジェクト終了後ナッチャドゥア及びペーリヤクラマスキームで20%を、そしてマハナンネリヤ中規模及び小規模スキーム群で20%占める。
- ③ マハナンネリヤ中規模スキームでは畑作物の品質管理が農民組合によってプロジェクト開始後3年目から導入される。
- ④ 畑作物の集荷地点がプロジェクト開始後4年目までに設置される。
- ⑤ 作物収量がプロジェクト終了後3年目に計画収量のレベルに達する。
- ⑥ 農業生産資材の共同購入がプロジェクト開始後ナッチャドゥア及びパルカダウェラで4年目までに、その他のスキームで3年目までに活発に実施される。
- ⑦ グループ・ローン、リボルビング・ローン、相互扶助ローンがプロジェクト開始後ナッチャドゥア及びパルカダウェラで4年目までに、その他のスキームで3年目までに導入される。
- ⑧ ペーリヤクラマではプロジェクト開始後3年目から、生産物が農家によって直接市場に販売される。
- ⑨ パルカダウェラでは休閑地の利用が、工事完了後3年目までに著しく拡大する。
- ⑩ ペーリヤクラマ中規模、マハナンネリヤ中規模及びマハナンネリヤ小規模群は、プロジェクト開始後3年目から、組合によって上流域における果樹の植え付けが開始される。

指標データ入手手段は、「アニメーターの調査レポート」、「農民支援センターの記録」、「PMUのモニタリング・レポート」、「農民組合会計帳簿及び総会の財務報告書」及び「銀行業務報告書」である。

成果の外部条件は「極端な自然災害が発生しない（旱魃、豪雨等）」、「政府は環境保護に関する現在の規制・基準を変更しない」、「他のセクターの経済活動が極端にそして急激に変化しない」、「共同体の社会条件が極端に変化しない」及び「本プロジェクトが他の事業とオーバーラップしても影響を受けない」である。

(4) 活 動

全スキーム共に以下の3活動が設定された。すなわち、「農民組織を強化する」、「計画にしたがって灌漑用水を供給する」及び「農業活動を改善する」である。

- 1) 農民組織を強化する： 農民組織強化策として、まず意識化及び教育・訓練プログラ

ムを実施する。そして、農民組合を多機能な組合に組織改革する。その後、組合を通じて所得向上・社会事業計画の実施する。

- 2) 計画にしたがって灌漑用水を供給する： 最初に、灌漑施設を改修・改善する。これに続いて、水管理を改善する。その後、施設の維持管理を強化する。
- 3) 農業活動を改善する： 5つの活動が設定された。それらは、「作物多様化を促進する」、「農業普及を強化する」、「農業生産資材及び生産物の流通を改善する」、「農村信用を改善する」及び「貯水池上流域での植林を促進する」である。

外部条件は「本プロジェクトで教育・訓練を受けた職員がプロジェクトに留まる」、「政府職員がプロジェクトの実施に積極的に協力する」及び「政府は地方市場を不安定にする政策をとらない」が考えられた。

(5) 投 入

外国融資機関

外国融資機関より、仮設、意識化・教育訓練プログラム、施設改修・改善についての事業費を調達する。さらに、車両、維持管理機材、農業普及機材等の機材費、並びに種子農場を含む農業普及施設の改善、農民センター、農村信用改善のための資本金、モニタリング・コスト、エンジニアリング・サービス等の資金も調達される。

スリランカ政府

スリランカ政府側では、人材（技師・専門家、事務職員、業務支援要員）、PMUの事務所施設、プロジェクト実施中の事務・管理費用等が準備される。また、農民は大・中規模スキームの支線及び圃場水路改修・改善工事費の10%を負担する。意識化及び教育・訓練プログラムについてNGOが参加する。

(6) 前提条件

前提条件は以下の3項目である。スリ・ランカ政府はプロジェクトの費用（外貨、内貨及びPMUに毎年かかる通常費用）の全を調達する。灌漑電力省はプロジェクト実施組織を設立する。灌漑電力省及び関係機関はプロジェクト実施に必要な事務所・施設を提供する。

4.3 農民が実施するプロジェクト・デザイン・マトリックス

4.3.1 青年クラブの活動を通じての共同体ユニティーの再構築 (バルカダウェラ大規模スキーム)

バルカダウェラ大規模スキームで開催されたPCMワークショップを通じて、共同体ユニティーの欠如が深刻な問題の一つとして取り上げられた。これは、共同体内で直面する他の問題の結果として生じているものと考えられる。失業（特に青年層における）、社会的価値観とモラルの低下、アルコール・麻薬等の問題の増加しており、これらによりユニティーの欠如が生じている。一方、青年層は、共同体においてこの問題解決のための活動から遠ざけられていることに対し、不満をもっていた。このような状況において、今回開催されたPCMワークショップ

は、青年層に共同体の社会・経済環境の変革をなす活動とそのイニシアチブを取る機会を与えた。特に、ワークショップでの青年層の意見に対する共同体年輩者の反対が、この引き金となっている。そして、ワークショップ終了後、青年層は彼らによる共同体の改革を決定し、このためのワークショップを開催し、その結果をPDMに取りまとめている（表 4.6 参照）。以下にその要約を述べる。

作成されたPDMの上位目標は共同体の強固なユニティーの構築である。その指標は共同体年輩者のユニティーを3年間で回復することである。

指標データ入手手段は農民組合及び共同体組織のメンバーに対するインタビューである。外部条件は、他セクターの青年活動に対する態度が極端かつ急激に変化しないと設定した。

プロジェクト目標は、共同体の開発活動を通じて、青年組織が強化されることである。その指標は、組織の資金とメンバー数及び長期活動計画の策定しているかである。また、指標データ入手手段は、メンバー登録簿、銀行口座、及び総会議事録である。外部条件は、共同体の社会条件が極端に変化しないと設定した。

成果は「青年組織が設立される」、「費用を含む活動計画が策定される」、「女性グループとの共同により幼稚園教育が開始される」、「農民組合との共同により道路開発計画が実施される」、「学校運動場が建設される」、及び「グループ・ローンが設立される」である。これらの指標は、「青年組織の登録」、「関係機関による計画の同意と許可」、「2000年に幼稚園が登録される」、「共同体内の幹線道路は2000年にコントラクトを通じて改修される」、「運動場が拡張される」、「植林」及び「組織の資金の増加」である。データ入手手段は、「登録簿」、「関係機関への申請書及び関係機関からの許可書」、「契約書」、「総会議事録」、「インタビュー」、「NGOの報告書」、「ローンの記録」、及び「銀行口座」である。外部条件は、外部機関の支援による妨害がないこと、及び宗教指導者からの影響がないことである。

活動内容は、共同体内年輩者との会議、定款の制定、活動計画についてのセミナー開催、共同体資源についての共同調査、調整委員会の設置、活動計画の採択と費用見積もりである。他の活動として、幼稚園施設の改善と教員の訓練、道路建設についての契約、運動場の拡張、ローン運営に関する教育プログラムの実施と青年への融資である。外部条件は、関係機関が活動計画に従って行う事業を承認することである。

投入に関しては、政府郡事務所、NYSC及びNGOsの外部機関による訓練とワークショップ費用、事業費の一部負担、幼稚園教師に対する給与、契約、交通・通信に係わる資金あるいはローンの供与が行われる。農民組合、共同体組織及び女性組合等の内部組織は、ボランティアの食事・宿泊と組織代表者の手当及び交通費を負担する。

前提条件は、農民支援センターが共同体全体を巻き込んでボトム・アップのコミュニケーションによる参加型アプローチに同意することである。

4.3.2 作物多様化の促進（アーティクラマ小規模スキーム）

アーティクラマ小規模スキームで開催されたPCMワークショップにおいて、参加者は本事業開始前の作業として、彼ら自身の組織化が必要であると考えた。そして、このためのPDMを作成した（表 4.7 及び 4.8 参照）。策定されたPDMは以下に要約する。

プロジェクトの上位目標は共同体の農業生産性の改善である。指標は、農業活動における収入源の多様化である。指標データ入手手段は、ファーマー・アニメーターのモニタリング・レポートと農民組合による聞き取り調査である。外部条件は、政府農業政策がプロジェクトの実施に影響を与えないことである。

プロジェクト目標は作物栽培の多様化である。指標は乾期に灌漑水田において畑作物の継続した栽培、及び畑地における畑作物及び永年作物の栽培面積の増加とした。指標データ入手手段は、ファーマー・アニメーターのモニタリング・レポートとカンナ会議議事録である。外部条件は、生産物が輸入農産物との不合理な競争をしないと設定した。

成果は「農民組合は畑作物栽培の年次計画を策定する」、「乾期に灌漑水田で畑作物が栽培される」、及び「未利用地で永年作物が栽培される」と設定された。その他の成果として、「土壌保全が行われる」、「乾期に貯水池の水が利用される」、及び「ガルガムワ内にマーケティング・ルートができる」である。指標は、「農民組合及び共同体組織によって計画が策定される」、「ベトマの導入及び水管理の方法について、カンナ会議で協議される」、「農民組合及び栽培グループにより計画に従って永年作物が植えられる」、「農民により有機肥料が生産される」、及び「農民は訓練を受け、適正な技術を使用するようになり、生産物を一定地域で適正な価格で販売されるようになる」と設定された。これらの指標データ入手手段は、組合議事録と会議出席表、乾期カンナ会議議事録、共同体資源管理委員会議事録、ファーマー・アニメーター報告書、及び農民・仲買人に対する聞き取りである。

外部条件は、「極端な自然災害がない」、「他部門は極端かつ急激に変化しない」及び「共同体の社会・経済は安定している」と設定した。

活動内容は、「参加型ワークショップを実施する」、「共同体資源管理委員会を設置する」、「共同調査を実施する」、及び「畑作物栽培の活動計画を策定する」である。さらに、「有機肥料の教育・訓練計画を実施する」、「土壌改良及び水管理を実施する」、「畑作物の栽培に関する共同購入を実施する」、「果樹を植える」、「灌漑水田で畑作物を栽培する」、及び「ガルガムワで共同販売を実施する」が採択された。外部条件は、「関係機関が必要な支援を行う」とした。

農民支援センター、政府郡事務所、NGOの外部機関の投入は、訓練とワークショップ費用、苗木の移植と生産資材使用に関するデモンストレーション、共同購入の試験の実施、共同販売、報告書作成、交通費等に対する融資の供与である。共同体組織及び女性組合等の内部組織は、ボランティアの食事・宿泊と組織代表者の手当及び交通費を負担する。

前提条件は、関係機関の共同体全体を巻き込んでボトム・アップのコミュニケーションによる参加型アプローチに対する同意と支援を行うことである。

第5章 結論と提言

5.1 結 論

PCM ワークショップは乾燥・半乾燥地域において、地域共同体が直面している問題を明らかにした。すなわち、ワークショップの結果、共同体の不統一が農民組合の弱体化を招いており、さらに灌漑施設の老朽化、低い農業生産、社会的価値観やモラルの低下等の問題をも招く原因となっていることを明らかにした。勿論、問題分析の中で「中心問題」を採択するための多くの問題が議論されたが、ユニティの再構築が伝統村からのほとんどの参加者によって確認されている。

さらに、農民、農民組合リーダー及び政府末端職員は継続的発展が重要であるとしている。同様に、政府の見解はこれらの人々の問題を理解し、その適切な対策を講ずることが重要であるとしている。

今回実施した PCM ワークショップは、共同体の積極的な参加が得られた。そして、共同体の人々は、直面する問題を認識すると共に期待する解決策を得るための有益な手法を得たと考えられる。

5.2 提 言

本事業は、PCM ワークショップの結果を基に作成した PDM に従って実施されることを提言する。さらに、必要な「投入」が供与され、設定された活動内容、すなわち「農民組合を強化する」、「灌漑用水が計画にしたがって供給する」及び「農業活動を改善する」が実施されることを提言する。

PDM に基づく事業の実施から得られる成果は、プロジェクト目標の農家所得の向上を果たし、引いては、プロジェクトの上位目標である「地域農業の持続的発展を達成する」及び「地域共同体の農業生産を改善する」を達成する。

1987 年に実施された同様のワークショップは、今回の PCM ワークショップと同じような結果と成っている。これから、政府による開発の手法には変化がなく、同じような問題が続いていると考えられる。したがって、開発は重要な問題から対処すると共に、地域共同体が直面する問題を解消する真剣な試みが重要である。

付 表

表 2.1 計画地区の現況

	Nachcha- duwa Major Scheme	Palukada- wela Major Scheme	Periya- kulama Medium Scheme	Mahanan- neriya Medium Scheme	Mahanan- neriya Minor Schemes (Cascade)	Total
1. Villages						
(1) Number of villages (No.)	35	18	1	7	10	71
(2) Historical background of villages						
Traditional (No.)	13	6	1	1	9	30
Settlement (No.)	9	6	-	-	-	15
2. Demographic Feature						
(1) Population (No.)	21,860	7,220	1,000	2,200	2,810	35,090
(2) Household (No.)	6,860	2,170	210	510	730	10,480
(3) Family size (Person/household)	3.2	3.3	4.8	4.3	3.8	3.3
(4) Ethnic group						
Sinhalese (%)	90.0	87.4	100	98.0	100	86.1
Tamil (%)	0.1	1.0	-	-	-	0.1
Muslim (%)	9.9	11.6	-	2.0	-	13.7
Other (%)	-	-	-	-	-	0.1
(5) Farm household						
• Irrigated Paddy Field						
Idam Himi Govi (No.)	2,380	840	140	360	240	3,960
Anda Govi (No.)	660	210	30	-	190	1,090
Badu (No.)	190	50	10	150	20	420
Total (No.)	3,230	1,100	180	510	450	5,470
• Highland						
Idam Himi Govi (No.)	3,160	780	10	1,500	470	5,920
Anda Govi (No.)	-	-	-	-	-	-
Badu (No.)	-	-	-	-	30	30
Total (No.)	3,160	780	10	1,500	440	5,890
3. Farmers' Organization (FO)						
(1) Number of FO (No.)	14	7	1	1	5	28
(2) Number of member						
Total member (No.)	2,558	927	52	186	301	4,024
Average member per FO (No.)	183	132	52	186	60	144
(3) Member by land tenure						
Idam Himi Govi (%)	85.0	96.6	*	69.9	77.1	*
Anda Govi (%)	10.6	3.4	*	-	22.9	*
Badu (%)	4.4	-	*	30.1	-	*
Others (%)	-	-	*	-	-	*
(4) Year established (Year)	1982-1990	1970-1990	1984	1982	1988-1996	1970-1996
(5) Average joining ratio (%)	70	72	25	10	56	43
4. Total Farm Land						
(1) Irrigated paddy field	2,540	956	91	158	117	3,862
(2) Rainfed paddy field (ha)	413	10	-	10	66	499
(3) Highland field (ha)	957	615	81	809	541	3,003
5. Marketing and Processing Facilities						
(1) Pola (Yes/No)	Yes	Yes	No	Yes	Yes	-
(2) Rice Mill (No.)	60	19	3	10	6	98
(3) Grinding mills (No.)	22	3	2	1	2	30
(4) Storage House - Paddy (No.)	2	3	-	-	1	6
(5) Storage House - Fertilisers (No.)	6	1	-	1	1	9

Sources: Data obtained from FOs.

* : No data is available.

表 4.1 プロジェクト・デザイン・マトリックス: ナッチャドゥア大規模灌漑スキーム

Name of Project : Nachchaduwa Development Project for Irrigated Agriculture and the Community Project Area : Nachchaduwa Major Irrigation Scheme Executing Agency : Ministry of Irrigation and Power (MIP)		Date : 18 January 2000	
Narrative Summary		Target Group : Farmers, youth, and women in the Nachchaduwa Scheme	
Duration : 7 years		Target Group : Farmers, youth, and women in the Nachchaduwa Scheme	
Objectively Verifiable Indicators		Means of Verification	
Important Assumptions		Important Assumptions	
Overall Goal 1.1 Achieving sustainable development of regional agriculture 1.2 Improving agricultural productivity of the rural community	1.1 Development activities are planned and implemented independently by FOs and farmers themselves. 1.2 Agriculture is economically feasible.	1.1 Monitoring reports of the project office (PMU) 1.2 Monitoring reports of PMU	● Agricultural policy of the Government not hinder implementation of the project. ● Agricultural products do not have to face unreasonable competition from imported products.
Project Purpose 2.1 Increasing income among farmers	2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	● There is no extreme natural disaster (drought, heavy rain, etc.). ● Government enforces existing rules and regulations to protect environment. ● Other sectors have no drastic and sudden change in the economic activities. ● Social conditions in the community have no drastic change. ● The project has no adverse effect from the other development projects, even if they overlapped.
Outputs 3.1 FOs having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services are established and activated. 3.2 Irrigation water is properly supplied in accordance with a schedule. 3.2.1 Irrigation facilities are rehabilitated and improved. 3.2.2 Proper water management is done by FOs. 3.2.3 Irrigation facilities are maintained. 3.3 Agricultural activities are improved. 3.3.1 Crop cultivation is diversified. 3.3.2 Yields of paddy and OFC are increased. 3.3.3 Marketing of farm inputs and outputs is improved. 3.3.4 Access to credit services is improved.	3.1.1 FOs provide various services including income generation, etc. from the 3rd year after commencement of the project. 3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after commencement of the project. 3.2 Farmers are able to receive water in accordance with a schedule by the end of the project. 3.2.1 Facilities necessary for proper water supply are repaired and improved by the 5th year after commencement of the project. 3.2.2 Discharge is observed by FOs and DOI after completion of construction works. 3.2.3 All facilities below gates of D-canal are maintained by FOs after completion of construction works. 3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of construction works. 3.3.1 Extent of OFC occupies about 20% of paddy area in Yaia by the end of the project. 3.3.2 Yields of crops reach the level of "projected yields" by the 3rd year after completion of construction works. 3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 4th year after commencement of the project. (2) Collecting point for OFC is established in the area by the 4th year after commencement of the project. 3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 4th year after commencement of the project.	3.1.1 Minutes of FOs' general meeting and monitoring reports of PMU 3.1.2 Minutes of FOs' committee and sub-committee meetings 3.2 Monitoring reports of PMU 3.2.1 Records of RPM's office 3.2.2 Records of DOI 3.2.3 Monitoring reports of PMU 3.3 Animators' field survey reports and records of ASC (AI) 3.3.1 Animators' field survey reports 3.3.2 Animators' field survey reports 3.3.3 (1) FOs' account books and financial reports in FOs' general meeting 3.3.3 (2) Animators' field survey reports 3.3.4 Reports of Banks, monitoring reports of PMU	● Trained Officers stay with the project. ● Local government and front line officers positively support the project. ● No action will be taken by government to destabilize local market. Pre-conditions ● The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. ● MIP and agencies concerned establishes organization to implement project. ● To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned.
Activities 4.1 Strengthening FOs. 4.1.1 Implement awareness and training programmes. 4.1.2 Reorganize FOs to have multi function. 4.1.3 Implement income generation through FOs. 4.2 Supplying irrigation water in accordance with schedule. 4.2.1 Rehabilitate and improve irrigation facilities. 4.2.2 Improve water management. 4.2.3 Strengthen O&M of irrigation facilities. 4.3 Improving agricultural activities. 4.3.1 Promote crop diversification. 4.3.2 Strengthen agricultural extension services. 4.3.3 Improve marketing of farm inputs and outputs. 4.3.4 Improve credit services for purchase of farm inputs and equipment.	Inputs Foreign Donor ● Mobilization, awareness and training costs ● Rehabilitation and improvement cost ● Equipment - Vehicles - O&M equipment - Equipment for agri. extension ● Facilities - Facilities for improvement of agri. extension (2) Farmers - Farmer centers ● Capital funds for improvement of credit services ● Monitoring cost ● Cost for engineering services	Sri Lankan Side (1) Sri Lankan Government ● Manpower - Local engineers/experts - Administrative officers - Supporting staff ● Facilities of PMU ● Recurrent cost for project implementation ● 10% of rehabilitation and improvement cost of D- and F-canal (2) Farmers ● 10% of rehabilitation and improvement cost of D- and F-canal (3) NGO for implementing awareness and training programmes	

表 4.2 プロジェクト・デザイン・マトリックス: パルカダウエラ大規模灌漑スキーム

Name of Project : Palukadawela Development Project for Irrigated Agriculture and the Community		Date : 18 January 2000	
Project Area : Palukadawela Major Irrigation Scheme		Duration : 6 years	
Executing Agency : Ministry of Irrigation and Power (MIP)		Target Group : Farmers, youth, and women in the Palukadawela Scheme	
Narrative Summary		Objectively Verifiable Indicators	Means of Verification
Overall Goal			Important Assumptions
1.1 Achieving sustainable development of regional agriculture	1.1 Development activities are planned and implemented independently by FOs and farmers themselves.	1.1 Monitoring reports of the project office (PMU)	<ul style="list-style-type: none"> ● Agricultural policy of the Government not hinder implementation of the project. ● Agricultural products do not have to face unreasonable competition from imported products.
1.2 Improving agricultural productivity of the rural community	1.2 Agriculture is economically feasible.	1.2 Monitoring reports of PMU	<ul style="list-style-type: none"> ● There is no extreme natural disaster (drought, heavy rain, etc.). ● Government enforces existing rules and regulations to protect environment. ● Other sectors have no drastic and sudden change in the economic activities. ● Social conditions in the community have no drastic change. ● The project has no adverse effect from the other development projects, even if they overlapped.
Project Purpose			
2.1 Creating suitable economic level	2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	
Outputs			
3.1 FOs having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services are established and activated.	3.1.1 FOs provide various services including income generation, etc. from the 3rd year after commencement of the project.	3.1.1 Minutes of FOs' general meeting and monitoring reports of PMU	
3.2 Irrigation water is properly supplied in accordance with a schedule.	3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after commencement of the project.	3.1.2 Minutes of FOs' committee and sub-committee meetings	
3.2.1 Irrigation facilities are rehabilitated and improved.	3.2 Farmers are able to receive water in accordance with a schedule by the end of the project.	3.2 Monitoring reports of PMU	
3.2.2 Proper water management is done by FOs.	3.2.1 Facilities necessary for proper water supply are repaired and improved by the 5th year after commencement of the project.	3.2.1 Records of RPM's office	
3.2.3 Irrigation facilities are maintained.	3.2.2 Discharge is observed by FOs and DOI after completion of construction works.	3.2.2 Records of DOI	
3.3 Agricultural activities are improved.	3.2.3 All facilities below gates of D-canal are maintained by FOs after completion of construction works.	3.2.3 Monitoring reports of PMU	
3.3.1 Farm lands are used effectively.	3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of construction works.	3.3 Animators' field survey reports and records of ASC (AI)	
3.3.2 Productivity of crop cultivation is improved.	3.3.1 Utilization of fallow land is expanded progressively from the 3rd year after commencement of the project.	3.3.1 Animators' field survey reports	
3.3.3 Marketing of farm inputs and outputs is improved.	3.3.2 Yields of crops reach the level of "projected yields" by the 3rd year after completion of construction works.	3.3.2 Animators' field survey reports	
3.3.4 Access to credit services is improved.	3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 4th year after commencement of the project.	3.3.3 (1) FOs' account books and financial reports in FOs' general meeting	
	3.3.3 (2) Collecting point for OFC is established in the area by the 4th year after commencement of the project.	3.3.3 (2) Animators' field survey reports	
	3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 4th year after commencement of the project.	3.3.4 Reports of Banks, monitoring reports of PMU	
Activities			
4.1 Strengthening FOs.			
4.1.1 Implement awareness and training programmes.	Inputs		
4.1.2 Reorganize FOs to have multi function.	Foreign Donor		
4.1.3 Implement income generation through FOs.	● Mobilization, awareness and training costs	Sri Lankan Side	
4.2 Supplying irrigation water in accordance with schedule.	● Rehabilitation and improvement cost	(1) Sri Lankan Government	
4.2.1 Rehabilitate and improve irrigation facilities.	● Equipment	● Manpower	
4.2.2 Improve water management.	- Vehicles	- Local engineers/experts	
4.2.3 Strengthen O&M of irrigation facilities.	- O&M equipment	- Administrative officers	
4.3 Improving agricultural activities.	- Equipment for agri. extension	- Supporting staff	
4.3.1 Promote crop cultivation in unused lands.	● Facilities	● Recurrent cost for project implementation	
4.3.2 Strengthen agricultural extension services.	- Facilities for improvement of agri. extension (including provincial seed farm of Galugamwa)	● Recurrent cost of PMU	
4.3.3 Improve marketing of farm inputs and outputs.	- Farmer centers	● 10% of rehabilitation and improvement cost of D- and F-canals	
4.3.4 Improve credit services for purchase of farm inputs and equipment.	● Capital funds for improvement of credit services	● (3) NGO for implementing awareness and training programmes	
	● Monitoring cost		
	● Cost for engineering services		
			Pre-conditions
			<ul style="list-style-type: none"> ● The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. ● MIP and agencies concerned establishes organization to implement project. ● To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned.

表 4.3 プロジェクト・デザイン・マトリックス: ペーリヤクラマ中規模灌漑スキーム

Name of Project : Periyakulama Development Project for Irrigated Agriculture and the Community Project Area : Periyakulama Medium Irrigation Scheme Executing Agency : Ministry of Irrigation and Power (MIP)		Duration : 5 years Target Group : Farmers, youth, and women in the Periyakulama Scheme		Date : 18 January 2000
Narrative Summary		Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal 1.1 Achieving sustainable development of regional agriculture 1.2 Improving agricultural productivity of the rural community		1.1 Development activities are planned and implemented independently by FO and farmers themselves. 1.2 Agriculture is economically feasible.	1.1 Monitoring reports of the project office (PMU) 1.2 Monitoring reports of PMU	● Agricultural policy of the Government not hinder implementation of the project. ● Agricultural products do not have to face unreasonable competition from imported products.
Project Purpose 2.1 Economic status of farmer community is brought up.		2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	● There is no extreme natural disaster (drought, heavy rain, etc.). ● Government enforces existing rules and regulations to protect environment. ● Other sectors have no drastic and sudden change in the economic activities. ● Social conditions in the community have no drastic change. ● The project has no adverse effect from the other development projects, even if they overlapped.
Outputs 3.1 FO having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services is established and activated. 3.2 Irrigation water is properly supplied in accordance with a schedule. 3.2.1 Irrigation facilities are rehabilitated and improved. 3.2.2 Proper water management is done by FO. 3.2.3 Irrigation facilities are maintained. 3.3 Agricultural activities are improved. 3.3.1 OFC cultivation is expanded. 3.3.2 Agricultural extension services are strengthened. 3.3.3 Marketing of farm inputs and outputs is improved. 3.3.4 Access to credit services is improved. 3.3.5 Deforestation in the catchment area is reduced.		3.1.1 FO provides various services including income generation, etc. from the 3rd year after commencement of the project. 3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after commencement of the project. 3.2 Farmers are able to receive water in accordance with a schedule by the end of the project. 3.2.1 Facilities necessary for proper water supply are repaired and improved by the 3rd year after the commencement of the project. 3.2.2 Discharge is observed by FO after completion of construction works. 3.2.3 All facilities are maintained by FO after completion of construction works. 3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of the construction works. 3.3.1 Extent of OFC occupies about 20% of paddy area in Yala by the end of the project. 3.3.2 Yields of crops reach the level of "projected yields" by the 3rd year after completion of construction works. 3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 3rd year after commencement of the project. 3.3.3 (2) Products are sold directly from farmers to markets from the 3rd year after commencement of the project. 3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 3rd year after commencement of the project. 3.3.5 Tree crops are planted in the catchment area from the 3rd year after commencement of the project.	3.1.1 Minutes of FO's general meeting and monitoring reports of PMU 3.1.2 Minutes of FO's committee and sub-committee meetings 3.2 Monitoring reports of project office 3.2.1 Monitoring reports of PMU 3.2.2 Records of FO 3.2.3 Monitoring reports of PMU 3.3 Animator's field survey reports and records of ASC (AI) 3.3.1 Animator's field survey reports 3.3.2 Animator's field survey reports 3.3.3 (1) FO's account books and financial reports in FO's general meeting 3.3.3 (2) Monitoring reports of PMU 3.3.4 Reports of Banks, monitoring reports of PMU 3.3.5 Animator's field survey reports	
Activities 4.1 Strengthening FO. 4.1.1 Implement awareness and training programmes. 4.1.2 Reorganize FOs to have multi function. 4.1.3 Implement income generation through FO. 4.2 Supplying irrigation water in accordance with schedule. 4.2.1 Rehabilitate and improve irrigation facilities. 4.2.2 Improve water management. 4.2.3 Strengthen O&M of irrigation facilities. 4.3 Improving agricultural activities. 4.3.1 Promote OFC cultivation. 4.3.2 Strengthen agricultural extension services. 4.3.3 Improve marketing of farm inputs and outputs. 4.3.4 Improve credit services 4.3.5 Promote reforestation in the catchment area.		Inputs Foreign Donor ● Mobilization, awareness and training costs ● Rehabilitation and improvement cost ● Equipment - Vehicles - O&M equipment ● Facilities - Facilities for improvement of agri. extension - Farmer center ● Capital funds for improvement of credit services ● Monitoring cost ● Cost for engineering services Sri Lankan Side (1) Sri Lankan Government ● Manpower - Local engineers/experts - Administrative officers - Supporting staff ● Facilities of PMU ● Recurrent cost for project implementation (2) Farmers ● 10% of rehabilitation and improvement cost of all irrigation facilities (3) NGO for implementing awareness and training programmes	● Trained Officers stay with the project. ● Local government and front line officers positively support the project. ● No action will be taken by government to destabilize local market. Pre-conditions ● The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. ● MIP and agencies concerned establishes organization to implement project. ● To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned.	

表 4.4 プロジェクト・デザイン・マトリックス: マハナンネリヤ中規模灌漑スキーム

Name of Project : Mahanmeriya Medium Scheme Development Project for Irrigated Agriculture and the Community		Date : 18 January 2000	
Project Area : Mahanmeriya Medium Irrigation Scheme		Duration : 5 years	
Executing Agency : Ministry of Irrigation and Power (MIP)		Target Group : Farmers, youth, and women in the Mahanmeriya Medium Scheme	
Narrative Summary		Objectively Verifiable Indicators	Means of Verification
Overall Goal	Important Assumptions		
1.1 Achieving sustainable development of regional agriculture	● Agricultural policy of the Government not hinder implementation of the project.	1.1 Monitoring reports of the project office (PMU)	
1.2 Improving agricultural productivity of the rural community	● Agricultural products do not have to face unreasonable competition from imported products.	1.2 Monitoring reports of PMU	
Project Purpose			
2.1 Socio-economic status is improved.	● There is no extreme natural disaster (drought, heavy rain, etc.).	2.1 Monitoring reports of PMU	
Outputs	● Government enforces existing rules and regulations to protect environment.	3.1.1 Minutes of FO's general meeting and monitoring reports of PMU	
3.1 FO having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services is established and activated.	● Other sectors have no drastic and sudden change in the economic activities.	3.1.2 Minutes of FO's committee and sub-committee meetings	
3.2 Irrigation water is properly supplied in accordance with a schedule.	● Social conditions in the community have no drastic change.	3.2 Monitoring reports of project office	
3.2.1 Irrigation facilities are rehabilitated and improved.	● The project has no adverse effect from the other development projects, even if they overlapped.	3.2.1 Monitoring reports of PMU	
3.2.2 Proper water management is done by FO.		3.2.2 Monitoring reports of PMU	
3.2.3 Irrigation facilities are maintained.		3.2.3 Monitoring reports of PMU and minutes of FO's general meeting and records of ASC (AI)	
3.3 Agricultural activities are improved.		3.3 Animator's field survey reports and records of ASC (AI)	
3.3.1 OFC cultivation is expanded.		3.3.1 Animator's field survey reports	
3.3.2 Productivity of paddy is improved.		3.3.2 Animator's field survey reports	
3.3.3 Marketing of farm inputs and outputs is improved.		3.3.3 (1) FO's account books and financial reports in FO's general meeting	
3.3.4 Access to credit services is improved.		3.3.3 (2) Monitoring reports of PMU	
3.3.5 Deforestation in the catchment area is reduced.		3.3.4 Reports of Banks, monitoring reports of PMU	
		3.3.5 Animator's field survey reports	
Activities			
4.1 Strengthening FO.			
4.1.1 Implement awareness and training programmes.			
4.1.2 Reorganize FOs to have multi function.			
4.1.3 Implement income generation through FO.			
4.2 Supplying irrigation water in accordance with schedule.			
4.2.1 Rehabilitate and improve irrigation facilities.			
4.2.2 Improve water management.			
4.2.3 Strengthen O&M of irrigation facilities.			
4.3 Improving agricultural activities.			
4.3.1 Promote OFC cultivation.			
4.3.2 Strengthen agricultural extension services.			
4.3.3 Improve marketing of farm inputs and outputs.			
4.3.4 Improve credit services			
4.3.5 Promote reforestation in the catchment area.			
Inputs			
Foreign Donor			
● Mobilization, awareness and training costs			
● Rehabilitation and improvement cost			
● Equipment			
- Vehicles			
- O&M equipment			
- Equipment for agri. extension			
● Facilities			
- Facilities for improvement of agri. extension (including provincial seed farm of Galugamwa)			
- Farmer center			
● Capital funds for improvement of credit services			
● Monitoring cost			
● Cost for engineering services			
Sri Lankan Side			
(1) Sri Lankan Government			
● Manpower			
- Local engineers/experts			
- Administrative officers			
- Supporting staff			
● Facilities of PMU			
● Recurrent cost for project implementation			
● 10% of rehabilitation and improvement cost of all irrigation facilities			
(2) Farmers			
● NGO for implementing awareness and training programmes			
(3)			

表 4.5 プロジェクト・デザイン・マトリックス: マハナンネリヤ小規模灌漑スキーム群 (カスケード)

Name of Project : Mahananiya Minor Schemes Development Project for Irrigated Agriculture and the Community Project Area : Mahananiya Minor Irrigation Schemes (Cascade) Executing Agency : Ministry of Irrigation and Power (MIP) / Provincial Engineering Department		Date : 18 January 2000	
Narrative Summary		Minor Schemes	
Objectively Verifiable Indicators		Means of Verification	
Important Assumptions			
Overall Goal 1.1 Achieving sustainable development of regional agriculture 1.2 Improving agricultural productivity of the rural community	1.1 Development activities are planned and implemented independently by FOs and farmers themselves. 1.2 Agriculture is economically feasible.	1.1 Monitoring reports of the project office (PMU) 1.2 Monitoring reports of PMU	<ul style="list-style-type: none"> ● Agricultural policy of the Government not hinder implementation of the project. ● Agricultural products do not have to face unreasonable competition from imported products. ● There is no extreme natural disaster (drought, heavy rain, etc.). ● Government enforces existing rules and regulations to protect environment. ● Other sectors have no drastic and sudden change in the economic activities. ● Social conditions in the community have no drastic change. ● The project has no adverse effect from the other development projects, even if they overlapped.
Project Purpose 2.1 Socio-economic status is improved.	2.1 Total gross income of farmers increase progressively by the end of the project.	2.1 Monitoring reports of PMU	
Outputs 3.1 FOs having multi functions relating to irrigation, agriculture, small enterprises, income generations, social services are established and activated. 3.2 Irrigation water is properly supplied in accordance with a schedule. 3.2.1 Irrigation facilities are rehabilitated and improved. 3.2.2 Proper water management is done by FOs. 3.2.3 Irrigation facilities are maintained. 3.3 Agricultural activities are improved. 3.3.1 OFC cultivation is expanded. 3.3.2 Yield of paddy and OFC are increased. 3.3.3 Marketing of farm inputs and outputs is improved. 3.3.4 Access to credit services is improved. 3.3.5 Deforestation in the catchment area is reduced.	<p>3.1.1 FOs provide various services including income generation, etc. from the 3rd year after commencement of the project.</p> <p>3.1.2 Committee and sub-committee meetings are held monthly by the 3rd year after commencement of the project.</p> <p>3.2 Farmers are able to receive water in accordance with a schedule by the end of the project.</p> <p>3.2.1 Facilities necessary for proper water supply are repaired and improved by the 3rd year after commencement of the project.</p> <p>3.2.2 Over 80% of farmers attend Kanna meeting from 4th year after commencement of the project.</p> <p>3.2.3 Over 80% of farmers participate "Saramadana" from 4th year after commencement of the project.</p> <p>3.3 Agricultural productivity of farmers is improved from the 3rd year after completion of construction works.</p> <p>3.3.1 Extent of OFC occupies about 10% of paddy area in Yala by the end of the project.</p> <p>3.3.2 Yields of crops reach the level of "projected yields" by the 3rd year after completion of construction works.</p> <p>3.3.3 (1) Group purchasing of farm inputs is implemented actively by the 3rd year after commencement of the project.</p> <p>3.3.3 (2) Collecting point for OFC is established in the area by the 3rd year after commencement of the project.</p> <p>3.3.4 Group loan, revolving loan and multi-aid credit systems are established by the 3rd year after commencement of the project.</p> <p>3.3.5 Tree crops are planted in the catchment area from the 3rd year after commencement of the project.</p>	<p>3.1.1 Minutes of FOs' general meeting and monitoring reports of PMU</p> <p>3.1.2 Minutes of FOs' committee and sub-committee meetings</p> <p>3.2 Monitoring reports of PMU</p> <p>3.2.1 Monitoring reports of PMU</p> <p>3.2.2 Minutes of Kanna meeting</p> <p>3.2.3 Records of FOs.</p> <p>3.3 Animators' field survey reports and records of ASC (AI)</p> <p>3.3.1 Animators' field survey reports</p> <p>3.3.2 Animators' field survey reports</p> <p>3.3.3 (1) FOs' account books and financial reports in FOs' general meeting</p> <p>3.3.3 (2) Animator's field survey reports</p> <p>3.3.4 Reports of Banks, monitoring reports of PMU</p> <p>3.3.5 Animator's field survey reports</p>	
Activities 4.1 Strengthening FOs. 4.1.1 Implement awareness and training programmes. 4.1.2 Reorganize FOs to have multi function. 4.1.3 Implement income generation through FOs. 4.2 Supplying irrigation water in accordance with schedule. 4.2.1 Rehabilitate and improve irrigation facilities. 4.2.2 Improve water management. 4.2.3 Strengthen O&M of irrigation facilities. 4.3 Improving agricultural activities. 4.3.1 Promote OFC cultivation. 4.3.2 Strengthen agricultural extension services. 4.3.3 Improve marketing of farm inputs and outputs. 4.3.4 Improve credit services 4.3.5 Promote reforestation in the catchment area.	<p>Inputs</p> <p>Foreign Donor</p> <ul style="list-style-type: none"> ● Mobilization, awareness and training costs ● Rehabilitation and improvement cost ● Equipment <ul style="list-style-type: none"> - Vehicles - O&M equipment ● Facilities <ul style="list-style-type: none"> - Equipment for agri. extension - Facilities for improvement of agri. extension (including provincial seed farm of Galugumwa) - Farmer centers ● Capital funds for improvement of credit services ● Monitoring cost ● Cost for engineering services <p>Sri Lankan Side</p> <p>(1) Sri Lankan Government</p> <ul style="list-style-type: none"> ● Manpower <ul style="list-style-type: none"> - Local engineers/experts - Administrative officers - Supporting staff ● Facilities of PMU ● Recurrent cost for project implementation ● 10% of rehabilitation and improvement cost of all irrigation facilities <p>(2) Farmers</p> <ul style="list-style-type: none"> ● NGO for implementing awareness and training programmes <p>(3) NGO for implementing awareness and training programmes</p>	<p>Trained Officers stay with the project.</p> <ul style="list-style-type: none"> ● Local government and front line officers positively support the project. ● No action will be taken by government to destabilize local market. <p>Pre-conditions</p> <ul style="list-style-type: none"> ● The Sri Lankan Government raises all project funds including foreign currency portion, local currency portion and recurrent cost of PMU. ● MIP and agencies concerned establishes organization to implement project. ● To operate the project, necessary officers and physical facilities are provided by MIP and agencies concerned. 	

表 4.6 プロジェクト・デザイン・マトリックス： 青年活動を通じての共同体ユニティの再構築

Name of Project : Reorganizing Unity of the Community through Youth Activities
 Project Area : Palukadawela Major Irrigation Scheme (Puranagama) Duration : 3 years
 Executing Agency : Puranagama Youth Club (Tentative name) Target Group : Youth, community in Puranagama

Date: 15 Jan, 2000

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal 1.1 Develop strong unity among community	1.1 Regain the unity of elders in the community within 3 years	1.1.1 No. of members of FO and other CBOs 1.1.2 Interview the community	● Other sectors have no drastic and sudden change in attitude towards youth activities.
Project Purpose 2.1 Strengthen youth organization through community development activities	2.1.1 Increase members of the organization 2.1.2 Increase funds of the organization 2.1.3 Have a long term plan for the organization	2.1.1 Registration of members 2.1.2 Bank accounts of the organization 2.1.3 Minutes of general meeting	● Social conditions in the community have no drastic change.
Outputs 3.1 Setting up Youth Organization 3.2 Making action plan with cost estimations	3.1.1 The youth organization is registered. 3.2.1 Relevant organizations agree and approve the implementation of their plan.	3.1.1 Register 3.2.1 Record of application and approval in each organization 3.2.2 Contract documents 3.3.1 Register	● Preferential external approach to a section of the community is not implemented. ● Religious leaders do not intervene the community.
3.3 Implement pre-school education in the village with female groups. 3.5 Implement road development with FO	3.3.1 Register the preschool at the provincial council in the year 2000. 3.5.1 Main roads in the village are improved through contract by the organization in 2000.	3.3.1 Minutes of general meeting 3.5.2 Contract documents	
3.6 Development of school ground	3.6.1 Area of the ground is improved and extended. 3.6.2 Remove rocks in the ground 3.6.3 Implementing tree planting	3.6.1 Interview the principal 3.6.2 Interview the principal 3.6.3 Minutes of general meeting 3.6.4 Reports of NGO	
3.7 Group loan system is established	3.7.1 Increase organization's own funds	3.7.1 Record of loan issues and bank account	
Activities 4.1.1 Hold a meeting with senior villagers 4.1.2 Enact the constitution of the organization 4.2.1 Organize seminars to make action plan 4.2.2 Implement joint survey in the village 4.2.3 Setting up of an community coordinating committee 4.2.4 Making a detail action plan with cost estimation 4.3.1 Improvement to the pre-school building 4.3.2 Provide training to the teacher 4.5.1 Obtain contracts from relevant institutions 4.5.2 Implementation of road construction 4.6.1 Implement development to the school ground 4.7.1. Organize training on loan management 4.7.2 Issuing loans to youth	Inputs External Organizations (Divisional Secretariat, NYSC, NGOs, etc.) ● Training and workshop costs ● Part of cost for improvement work ● A monthly allowance for the pre-school teacher ● Capital funds or loan to obtain contracts ● Reporting costs for relevant organizations ● Travelling costs	Internal organizations (Community) (FO, CBOs, Women group etc.) ● Costs of food and lodging for the voluntary officers / persons at the village ● Traveling costs and day allowance for the representatives of the organization/ community	● Appropriate action is accepted in relevant governmental institutions in the area depended on the action plan. Pre-conditions ● A participatory approach and to support a "bottom-up" flow of communication towards increased community involvement is understanding by ASC.

表 4.7 活動計画表:作物多様化

Name of Project : Development of Crop Diversification
Project Area : Arthikulama Minor Irrigation Scheme

Activities	Objectives											How to	Assistance	By whom	Equipment	Cost Estimation	Remarks	
	1	2	3	4	5	6	7	8	9	10	11							
4.1.1 Holding participatory planning workshop	1) Discussion about problems in the community regarding to farm income.												Invite facilitator to lead workshop	NGOs	FO committee members	Stationary	3,500	
	2) Making draft action plan to increase OFC cultivation.												by community's ideas	NGOs, ASC	FO committee members			
	3) Preparing progress report												Typing in Sinhala and English	Do.	NGOs, ASC			500
4.1.2 Setting up community resources management	1) All CBO's secretary forming the committee												Voluntary base	CBOs leaders	FO chairman	Nil		
	2) Making rules and purpose												by discussion	NGOs, Field officers	Leaders of CBOs	Nil		
4.1.3 Implement a joint survey with community participation.	1) Find out unutilized common lands & Private lands												walk through the village with resources persons	DS/land officer, GN, ASC/DO, AI	FO, CBOs and community	Map	Food and tea	
	2) Making map												by hand writing	Farmer animator	CRMC	Stationary	500	
4.1.4 Making community action plan for OFC cultivation	Plan for OFC cultivation with community participation.												invite DS/land officer, GN, ASC/DO, AI	NGO, CBOs leaders	FO and CRMC	Farmer animator's dan, book	Food and Tea, Stationary	
4.1.5 The plan is handed over to the relevant organization to take necessary cooperation	1) To know officials and function in necessary section												Visiting relevant office	Farmer animator, GN, Samudra animator, NGO	FO and CRMC		Travelling fees and day allowance.	
	2) Receiving advice and taking budgetary steps												Discuss with officers in the section		FO and CRMC			
4.1.6 Implementing an education and training program	Obtain necessary techniques and knowledge												Invite AI and present seminars	ASC, Farmer animator	FO		Food and Tea	
4.2.1 Implemented cooperative purchasing of farm inputs for the OFC cultivation	to understanding the cooperative purchasing procedure												Group loan system in kind	ASC, Farmer animator, GN, DS	FO	Lory to transport	Cost of travelling, rental fees of lorry	
4.2.2 Implementing OFC cultivation in the paddy fields	All farmers present OFC cultivation with Attam system												Start with all farmers with small plot as trial	ASC, Farmer animator	FO		Food and Tea	
4.3.1 Planting of fruits and other trees	Establishment of group work												Group working by shramadana	AI, Farmer animator, DS	FO, CBOs and community		Tea	
4.4.1 Training on organic fertilizers and ways of improving soil.	Understanding soil conservation												Invite AI and present seminars	ASC, Farmer animator	FO, CBOs and community		Food and Tea, travelling cost.	
4.5.1 Holding practical training on proper water management.	Efficient water management for OFC cultivation												Invite officials to village and implement at field	DAS, ASC	FO		Food and Tea	
4.6.1 Group selling to the traders in Galaganuwa area.	Selling products with reasonable price												by group	DS, ASC, Farmer animator	FO, CBOs and community	Weighting balance		
	2) Selling products at the village												call traders to the village	FO, CRMC	FO, CRMC			

表 4.8 プロジェクト・デザイン・マトリックス：作物多様化

Name of Project : Development of Crop Diversification
 Project Area : Arthikulama Minor Irrigation Scheme
 Executing Agency : Arthikulama FO

Duration : 2 years
 Target Group : Farm community living in the Village

Date: 15 Jan 2000

Narrative Summary	Objectively verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal 1.1 Improving agricultural productivity of the rural community	1.1 Diversify income resources in agricultural activities	1.1 Monitoring report of the farmers animator. 1.2 Interview survey to FO and farm families.	● Agricultural policy of the government not to hinder implementation of the project.
Project Purpose 2.1 Crop cultivation is diversified	2.1.1 Cultivating OFC in the paddy field in Yala continuously 2.1.2 Area of cultivating high land with OFC and permanent crops are increased. 2.1.3 OFC cultivators are increased.	2.1.1 Minutes of the Kanna meeting 2.1.2 Monitoring reports of the farmers animator 2.1.3 Monitoring reports of the farmers animator	● Agricultural products do not have to face face unreasonable competition from imported products.
Outputs 3.1 FO make an annual plan with regard to OFC cultivation in the community. 3.2 OFC is cultivated in the paddy fields during Yala season. 3.3 Permanent crops are cultivated in the unutilized common lands by the community within the village. 3.4 Improvement of soil conservation activities 3.5 Utilize tank water for Yala cultivation. 3.6 Marketing route is established in the Galgamuwa area.	3.1.1 The plan is made through discussion with FO members and relevant CBOs. 3.2.1 Bethma style land allocations and means of water management are discussed in the Kanna meeting for OFC cultivation. 3.3.1 Each cultivation group and FO plant permanent crops as schedule 3.4.1 Organic fertilizers are produced by farmer 3.4.2 Farmers receive relevant training. 3.5.1 Appropriate technique is implemented. 3.6.1 Selling products at permanent place at a reasonable price.	3.1.1 Minutes of the FO, committee meeting and record of attendance. 3.2.1 Minutes of the Yala Kanna meeting. 3.3.1 Minutes of community resources management committee and each group and FO. 3.4.1 Monitoring report of the farmers animator. 3.5.1 Minutes of the Kanna meeting. 3.6.1 Interview survey with traders and farmers 3.6.2 Recording of selling price by farmers.	● There is no extreme natural disaster (drought, heavy rain etc.). ● Other sectors have no drastic and sudden change in economic activities. Social conditions in the community have no drastic change.
Activities 4.1.1 Holding participatory planning workshop 4.1.2 Setting up community resources management committee 4.1.3 Implement a joint survey with community participation. 4.1.4 Making community action plan for OFC cultivation 4.1.5 The plan is handed over to the relevant organization. 4.1.6 Implementing an education and training program 4.2.1 Implemented cooperative purchasing of farm inputs for the OFC cultivation. 4.2.2 Implementing OFC cultivation in the paddy fields 4.3.1 Planting of fruits and other trees 4.4.1 Training on organic fertilizers and ways of improving soil. 4.5.1 Holding practical training on proper water management. 4.6.1 Group selling to the traders in Galgamuwa area.	Inputs External Organizations (ASC, Divisional Secretariat, NGOs, etc.) <ul style="list-style-type: none"> ● Training and workshop costs ● Permanent crop plants and other farm inputs for demonstrations. ● Loan for trial cooperative purchasing of farm inputs and cooperative selling of OFC products. ● Reporting costs for relevant organizations ● Travelling costs ● 	Internal organizations (Community) (FO, CBOs, Women group etc.) <ul style="list-style-type: none"> ● Costs of food and logging for voluntary officers / persons at the village ● Traveling costs and day allowance for the representatives of the community 	● Appropriate action is accepted in relevant governmental institutions in the area depend on the community action plan. Pre-conditions ● A participatory approach to support a "bottom to top" flow of communication community involvement as understood by relevant government institutions.

添付資料-1

PCM ワークショップ
ナッチャドゥア大規模灌漑スキーム

NACHCHADUWA MAJOR SCHEME - 1

1. Participants

- (1) Place of Workshop : RMP Office, IMD
 (2) Date : 27 & 28 November 1999
 (3) FOs relating to Workshop : Mahanama FO, Parakrama FO, Mahasen FO, Sena Samagi FO
 (4) Attendance

	Male	Female	Total
Workshop Participants			
FO/FC Leaders	5	-	5
FO Members	9	2	11
Community (DDA, community people)	-	-	-
Women's Society	-	-	-
Youth Club	-	-	-
Farmer Animator	4	1	5
Grama Niladari	4	-	4
IDO (IMD) / FO Manager (DOI)	1	1	2
Work Supervisor (DOI)	1	-	1
Samurdhi Animator	-	1	1
Total	24	5	29
Resources Persons			
DO (DAS)	-	1	1
DOA	1	1	2
DOI	1	1	2
Divisional Secretariat	1	-	1
IMD	2	-	2
Total	5	3	8
Grand Total	29	8	37

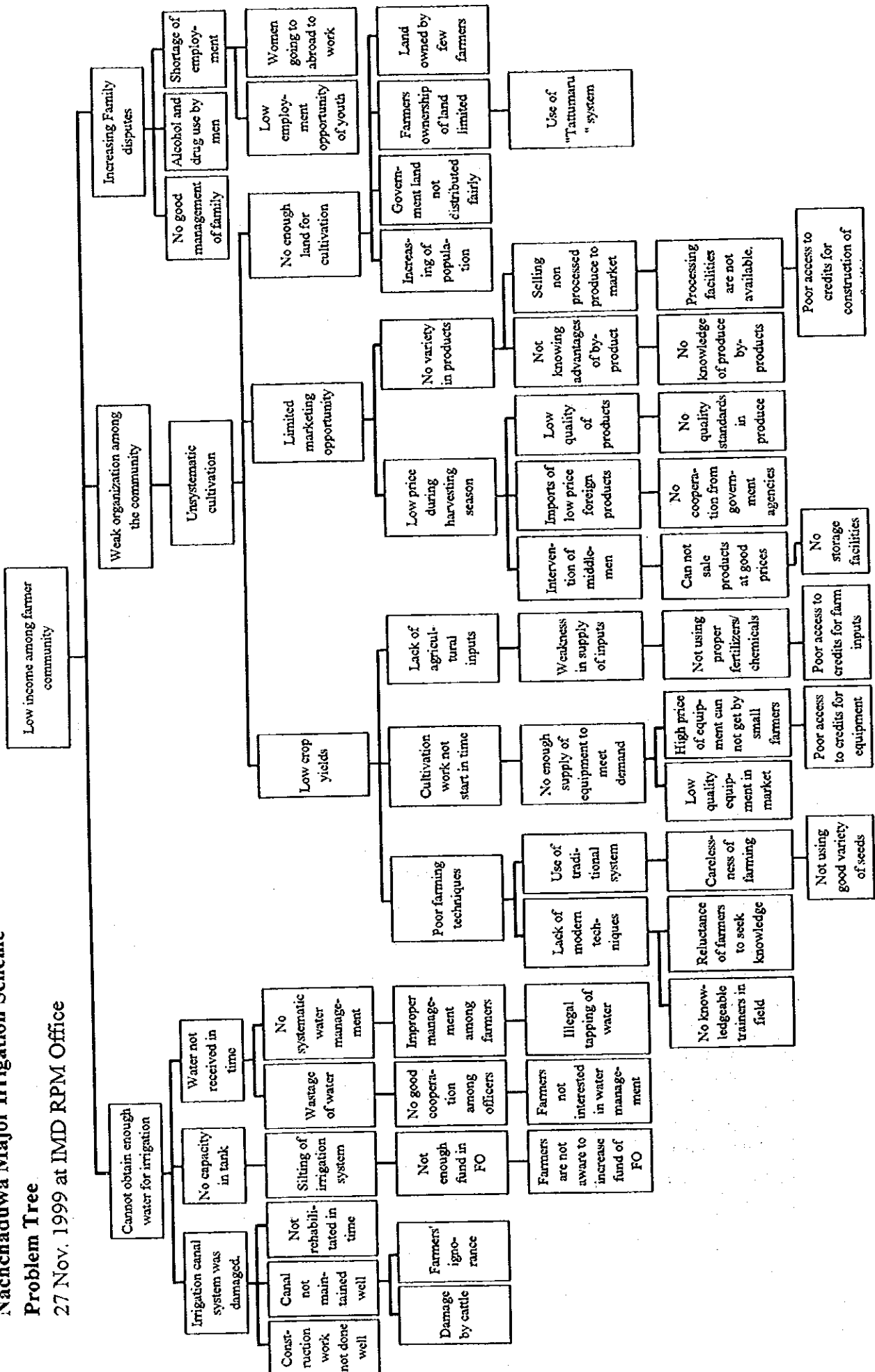
2. Participatory Analysis

External Organisation	Beneficiaries	Internal Organisation	Others	Potential Opponents
<ul style="list-style-type: none"> ● Department of Irrigation ● Irrigation Management Division ● Department of Agriculture ● Department of Agrarian Services ● National Housing Development Authority (NHDA) ● Department of Education 	<ul style="list-style-type: none"> ● Farmers' Organisation ● Farmers ● Traders 	<ul style="list-style-type: none"> ● Federation of Farmers Organisation ● Farmers Organisation ● Death Donation Society ● Women's Society ● Project Management Committee 	<ul style="list-style-type: none"> ● Private companies ● Mahaweli Authority 	<ul style="list-style-type: none"> ● (Land owner living in outside)

Nachchaduwa Major Irrigation Scheme

Problem Tree

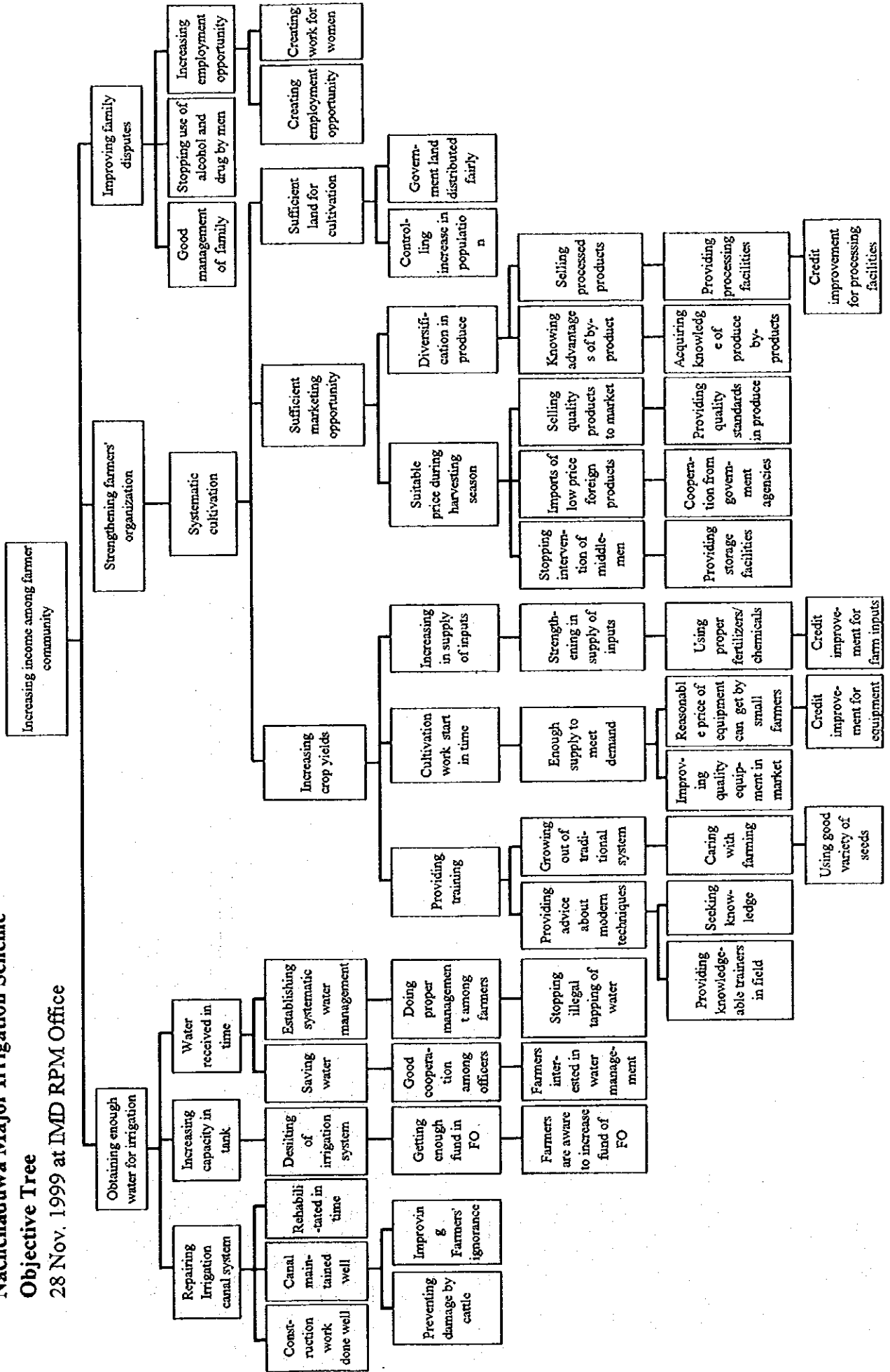
27 Nov. 1999 at IMD RPM Office



Nachchaduwa Major Irrigation Scheme

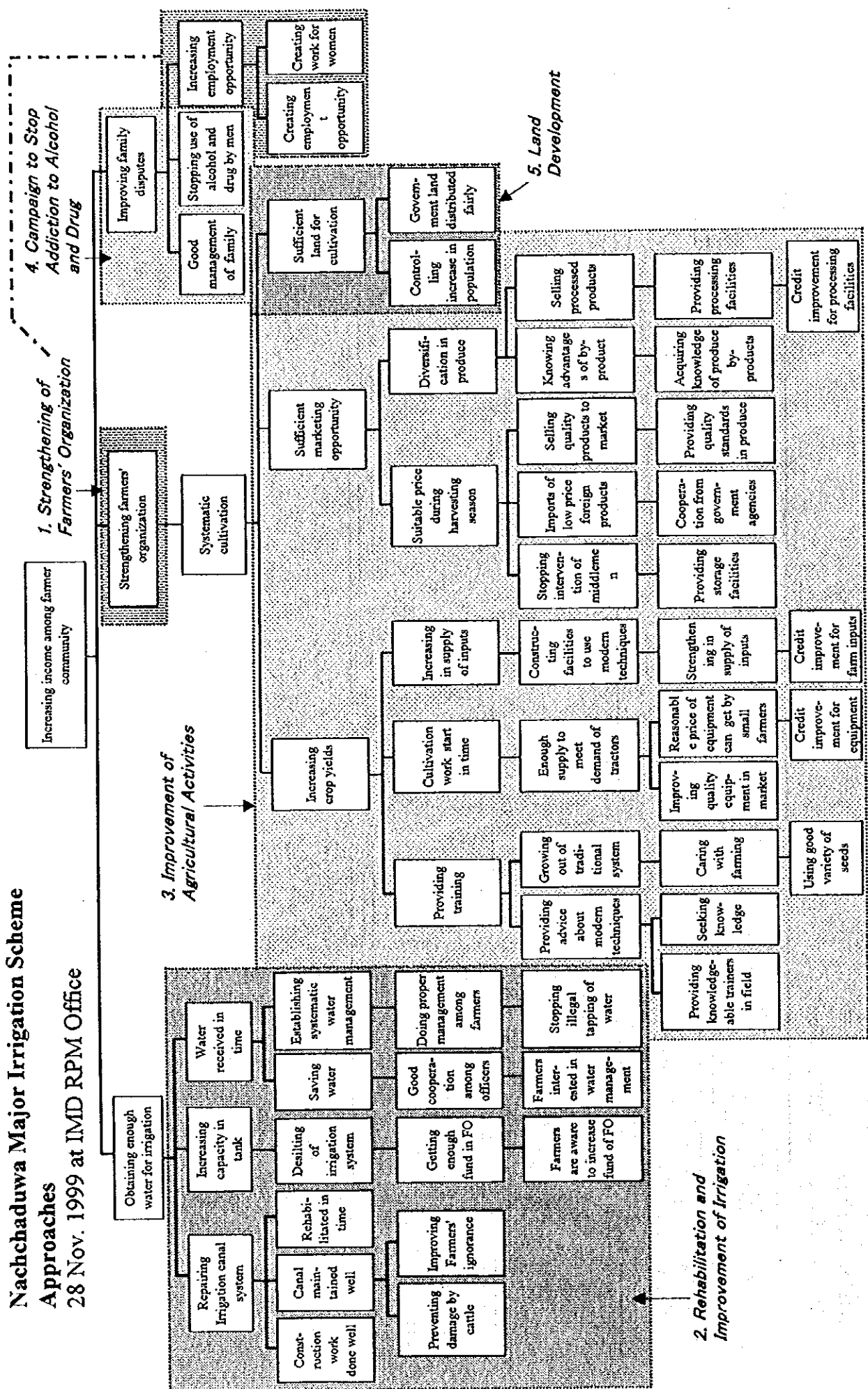
Objective Tree

28 Nov. 1999 at IMD RPM Office



Nachchaduwa Major Irrigation Scheme Approaches

28 Nov. 1999 at IMD RPM Office



NACHCHADUWA MAJOR SCHEME - 2

1. Participants

- (1) Place of Workshop : Swastipura School
 (2) Date : 27 & 28 November 1999
 (3) FOs relating to Workshop : Ruwanweli FO, 26 & 27 DC FO, Ranketha FO, Tissa FO

(4) Attendance

	Male	Female	Total
Workshop Participants			
FO/FC Leaders	12	-	12
FO Members	-	1	1
Community (DDA, community people)	-	-	-
Women's Society	-	-	-
Youth Club	-	-	-
Farmer Animator	1	2	3
Grama Niladari	2	-	2
IDO (IMD) / FO Manager (DOI)	-	1	1
Work Supervisor (DOI)	1	-	1
Samurdhi Animator	-	-	-
Total	16	4	20
Resources Persons			
DO (DAS)	1	-	1
DOA	2	-	2
DOI	3	-	3
Divisional Secretariat	1	-	1
IMD	1	-	1
Total	8	-	8
Grand Total	24	4	28

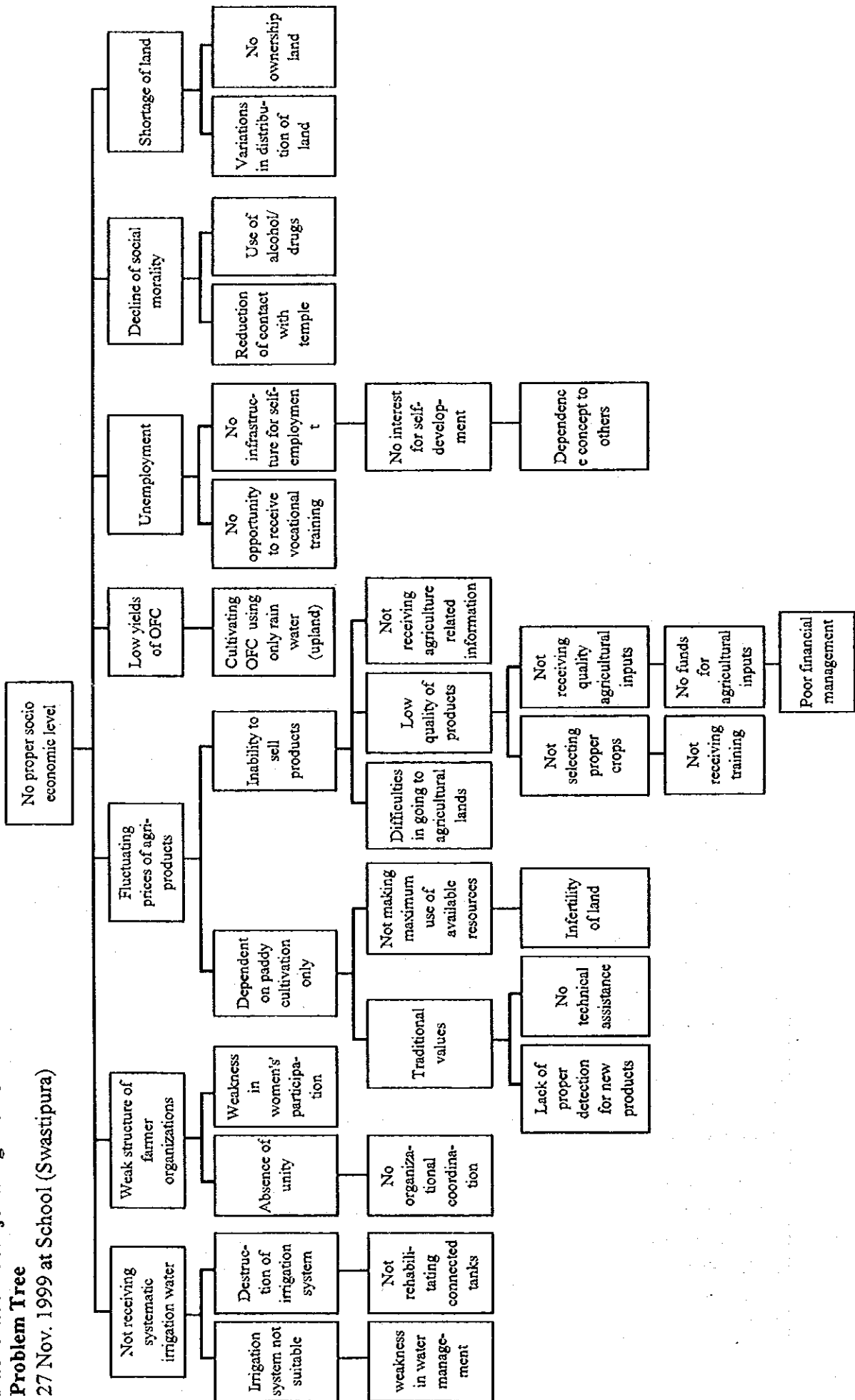
2. Participatory Analysis

External Organisation	Beneficiaries	Internal Organisation	Others	Potential Opponents
<ul style="list-style-type: none"> ● Department of Irrigation ● Irrigation Management Division ● Department of Agriculture ● Department of Agrarian Services ● Agrarian Services Centre ● Agriculture Development Authority ● Survey Department ● National Youth Services Council (NYSC) ● Provincial Council ● District Secretariat ● Divisional Secretariat ● RPM office ● State Banks ● SATOSA 	<ul style="list-style-type: none"> ● Farmers' Organisation ● Farmers ● Farm families ● Community 	<ul style="list-style-type: none"> ● Federation of Farmers Organisation ● Farmers Organisation ● Death Donation Society ● Women's Organisation ● Project Management Committee 	<ul style="list-style-type: none"> ● Private Company ● Mahaweli Water Management Committee ● Religious organisation ● Political Authority ● Midwife ● Social animator ● Financial organisation ● Police 	<ul style="list-style-type: none"> ● (Land owner living in outside)

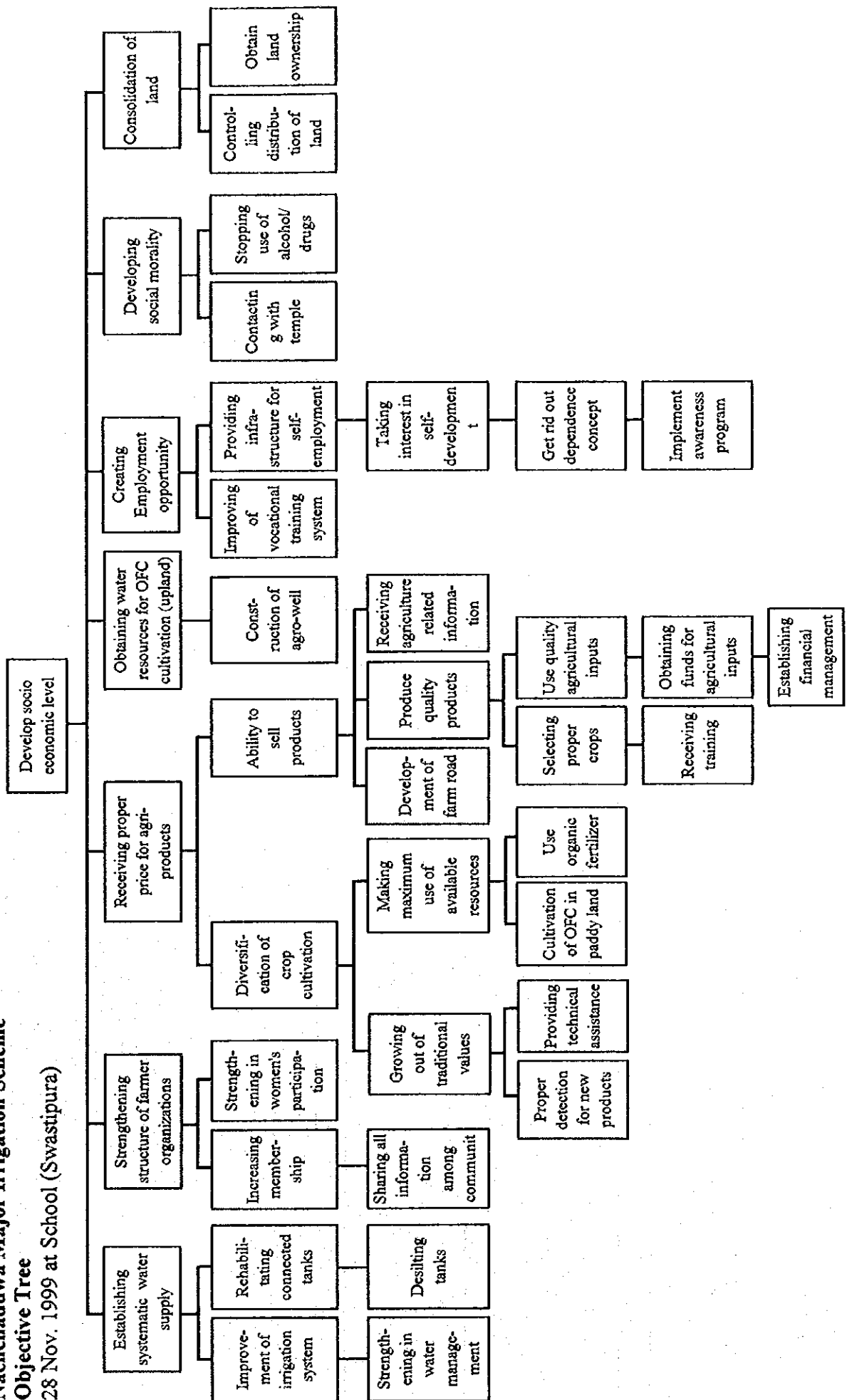
Nachchaduwa Major Irrigation Scheme

Problem Tree

27 Nov. 1999 at School (Swastipura)



**Nachchaduwa Major Irrigation Scheme
Objective Tree**
28 Nov. 1999 at School (Swastipura)



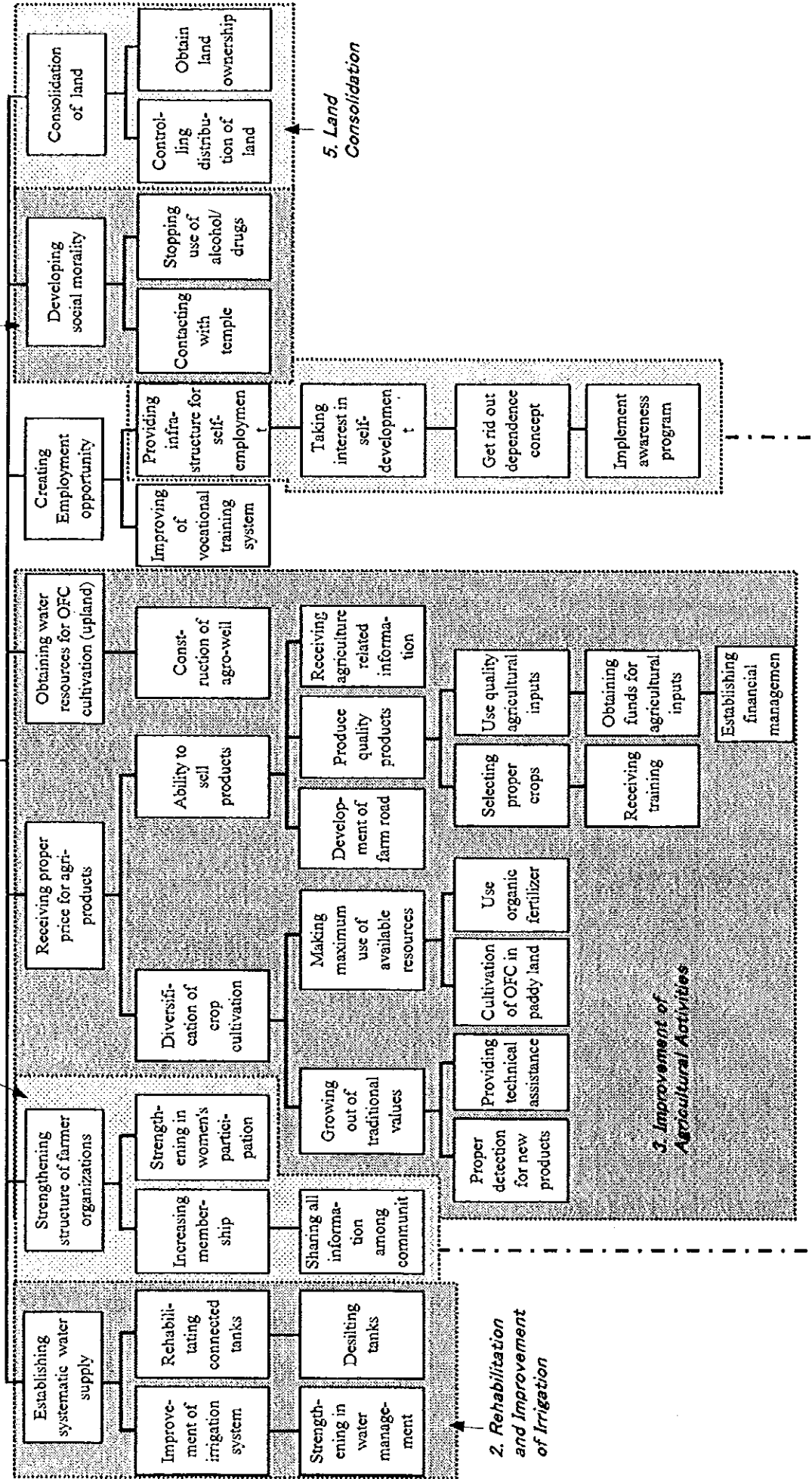
Nachchaduwa Major Irrigation Scheme

Approaches

28 Nov. 1999 at School (Swastipura)

1. Strengthening of Farmers' Organization

4. Campaign to Stop Addiction to Alcohol and Drug



NACHCHIADUWA MAJOR SCHEME - 3

1. Participants

- (1) Place of Workshop : RMP Office, IMD
 (2) Date : 04, 05 & 11 December 1999
 (3) FOs relating to Workshop : Isuru FO, Eksath FO, Gemunu FO, Al - Aksha FO, Ranamayura FO, Wijaya FO
 (4) Attendance

	Male	Female	Total
Workshop Participants			
FO/FC Leaders	11	-	11
FO Members	9	12	21
Community (DDA, community people)	-	-	-
Women's Society	-	1	1
Youth Club	-	-	-
Farmer Animator	3	2	5
Grama Niladari	3	3	6
IDO (IMD) / FO Manager (DOI)	2	2	4
Work Supervisor (DOI)	1	-	1
Samurdhi Animator	-	1	1
Total	29	21	50
Resources Persons			
DO (DAS)	-	-	-
DOA	2	-	2
DOI	3	-	3
Divisional Secretariat	-	-	-
IMD	2	-	2
Total	7	-	7
Grand Total	36	21	57

2. Participatory Analysis

External Organisation	Beneficiaries	Internal Organisation	Others	Potential Opponents
<ul style="list-style-type: none"> ● Department of Irrigation ● Irrigation Management Division ● Department of Agriculture ● Department of Agrarian Services ● Agrarian Services Centre ● District Secretariat ● Divisional Secretariat ● Ministry of trade and commerce ● Live Stock Development Board ● RPM office ● Project Authority ● State and Private Banks ● National Youth Services Council ● Vocational Training Agencies ● FO DS manager (RPM) ● Farmer Animator ● NGO 	<ul style="list-style-type: none"> ● Farmers' Organisation ● Farmers ● Irrigation water users ● Community Organisation ● Government Agencies in Nachchaduwa Scheme 	<ul style="list-style-type: none"> ● Federation of Farmers Organisation ● Farmers Organisation ● Project Management Committee ● Samurdhi Societies ● Community organisation ● Community small group 	<ul style="list-style-type: none"> ● Private Company ● Farmer company ● Religious organisation ● Political Authority ● Legal advisor ● Financial organisation ● Police ● Religious and social culture institutes 	<ul style="list-style-type: none"> ● (Land owner living in outside)

Nachchaduwa Major Irrigation Scheme (High Level Canal) Objective Tree

5 & 11 Dec. 1999 at RPM office

