

付 図

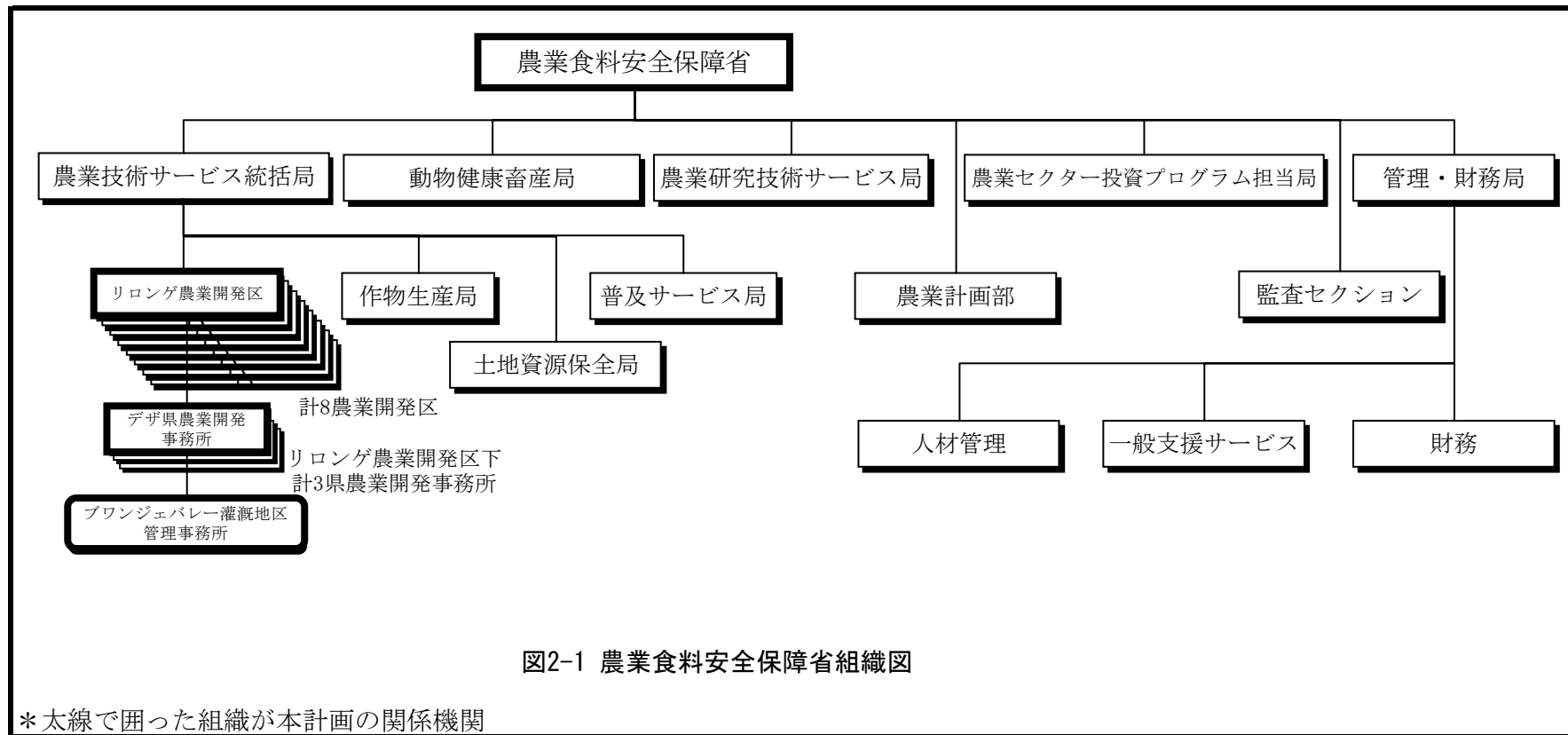


図2-1 農業食料安全保障省組織図

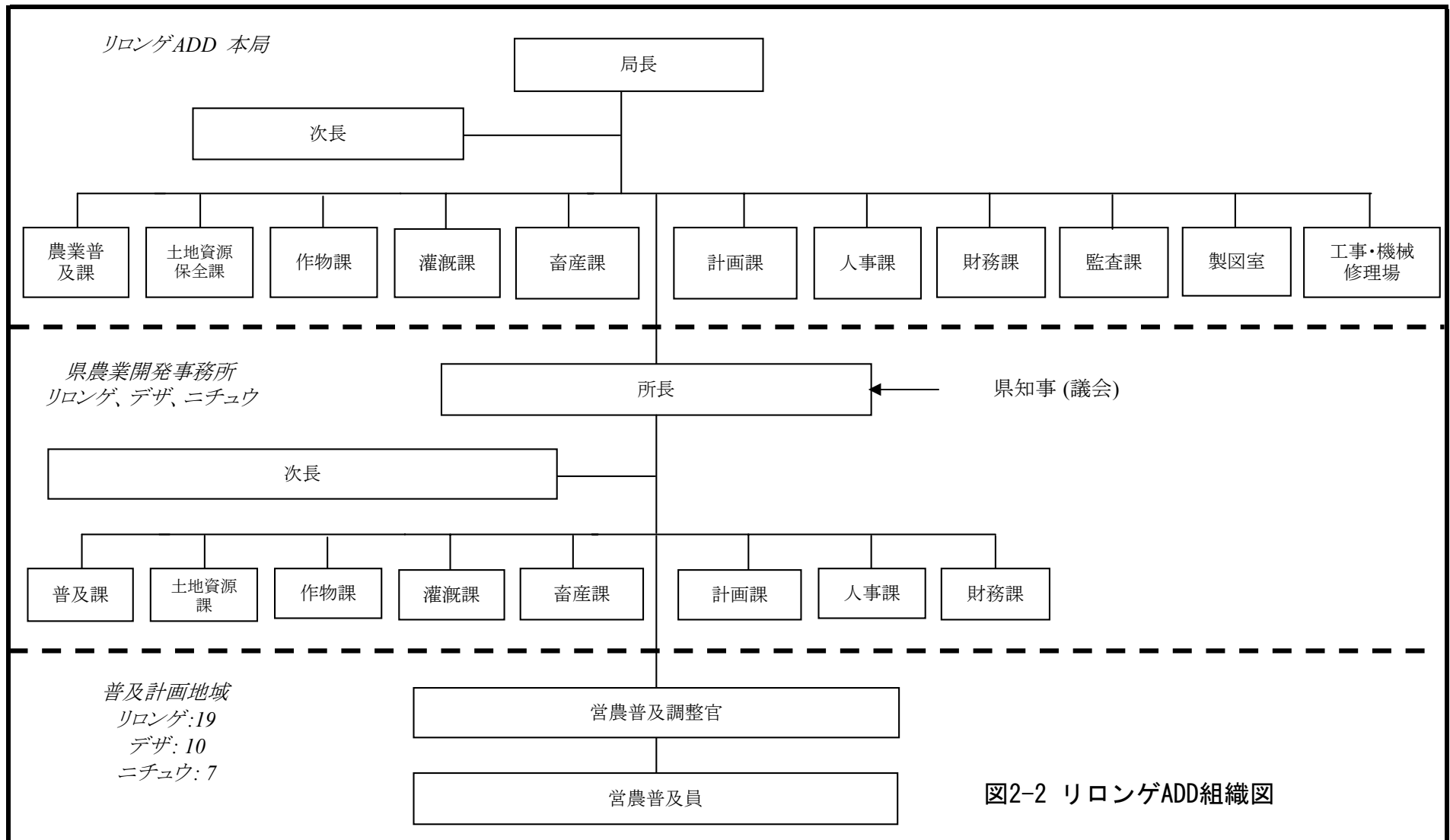


図2-2 リロンゲADD組織図

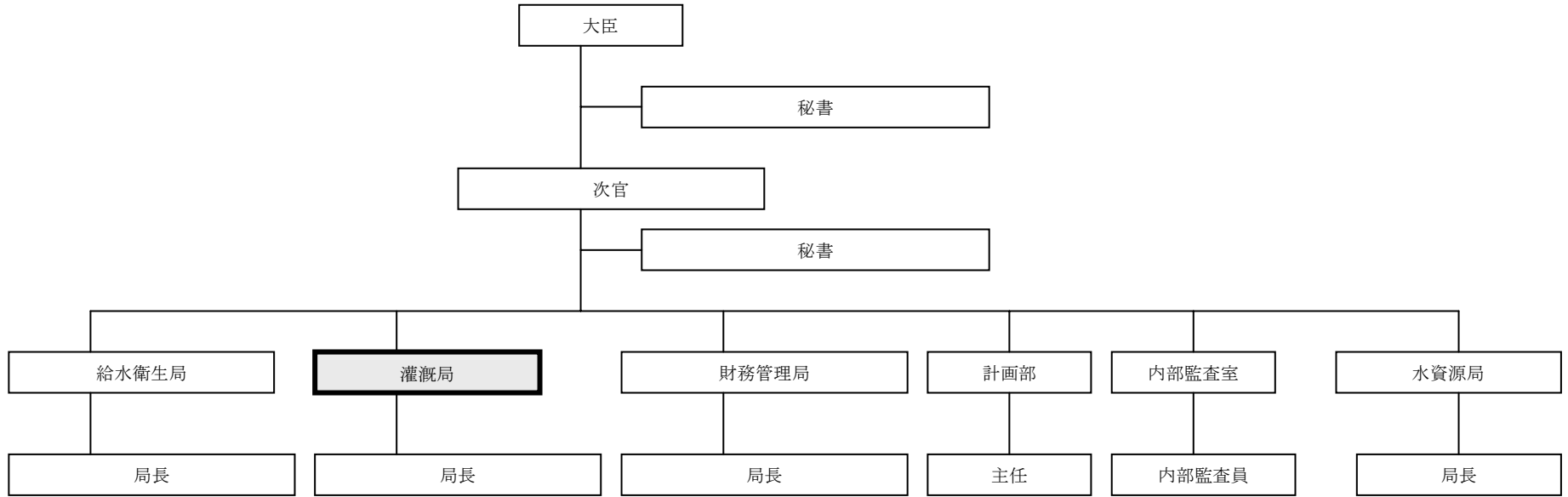


図 2-3 灌漑水開発省組織図

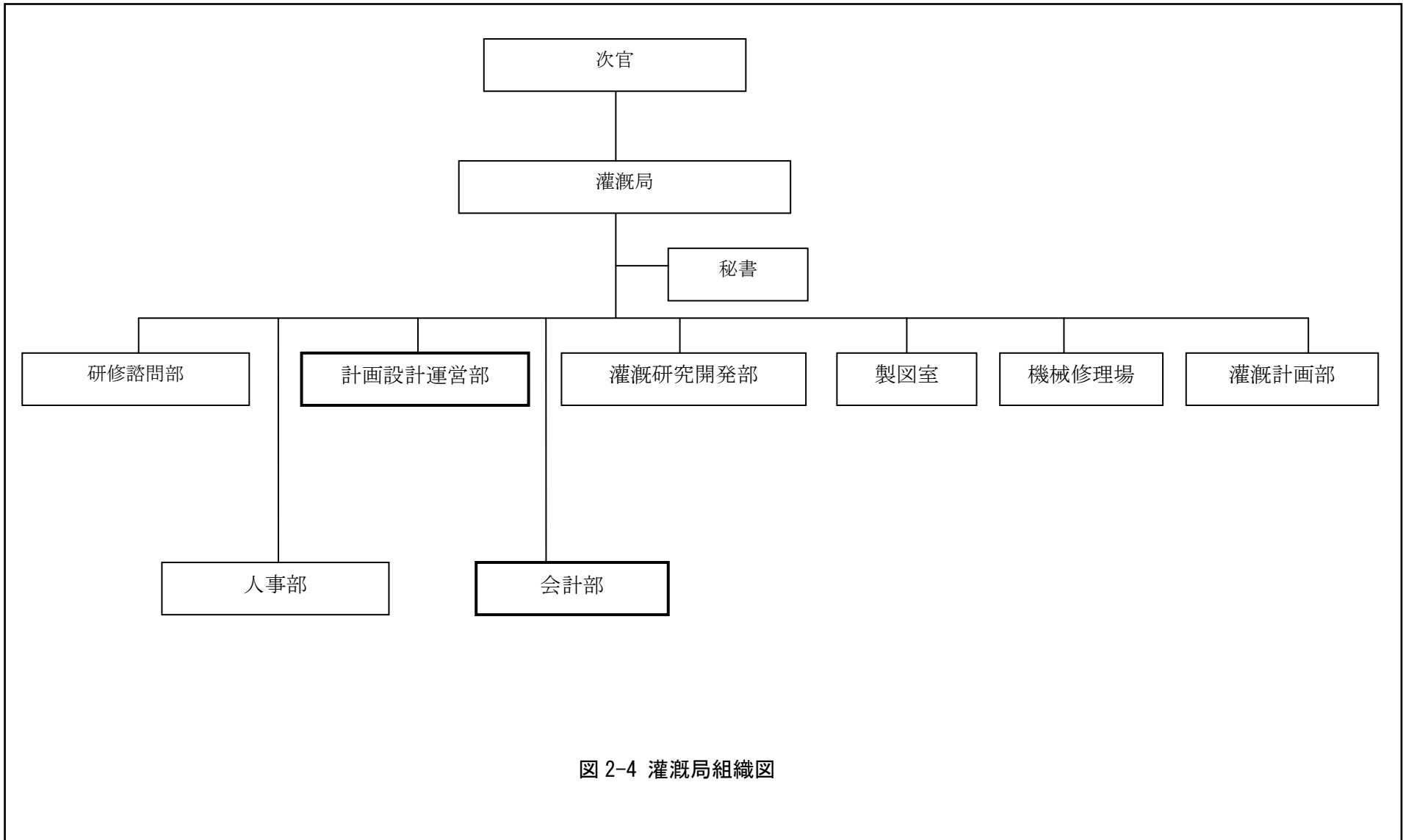


図 2-4 灌漑局組織図

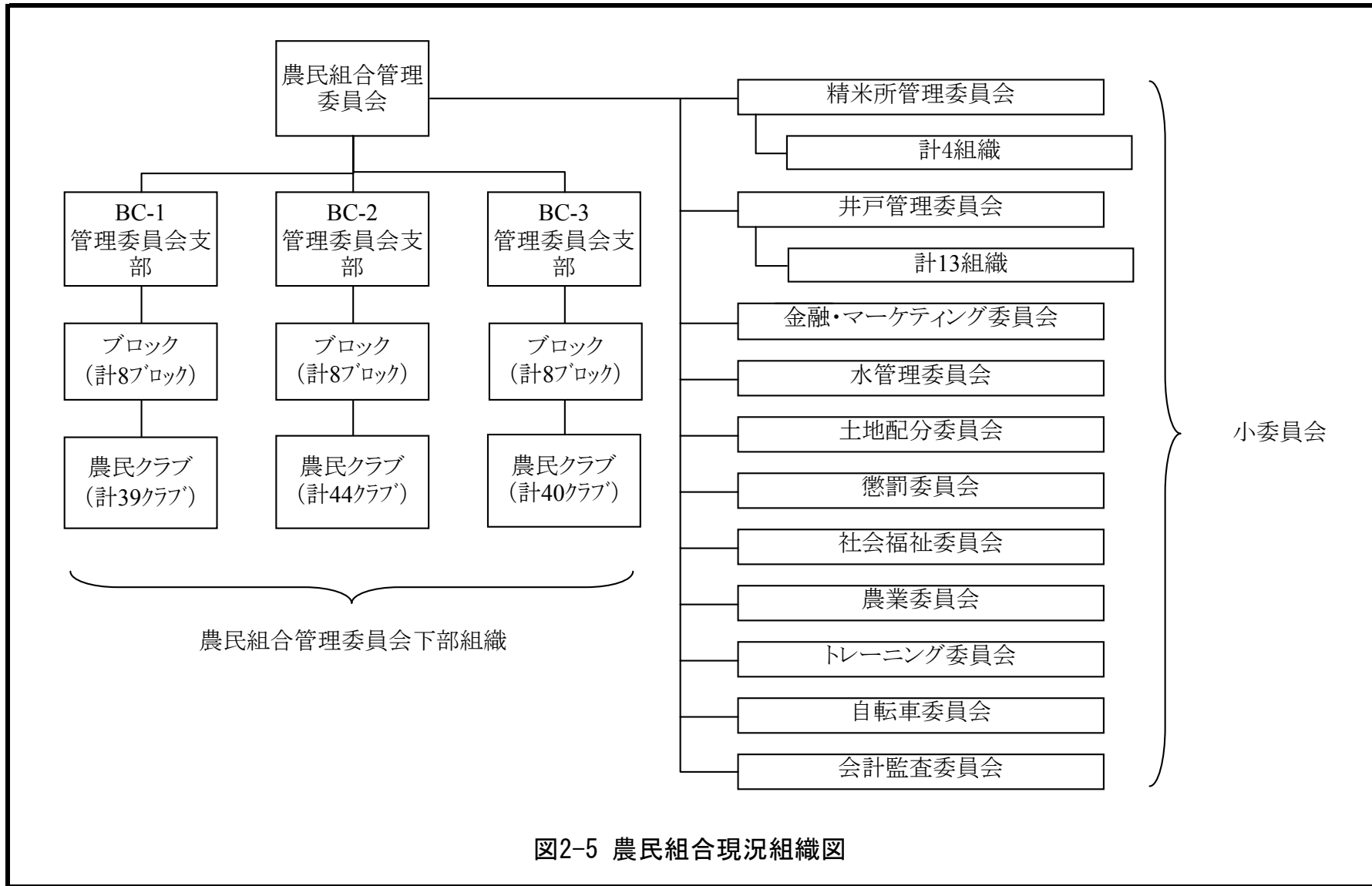


図2-5 農民組合現況組織図

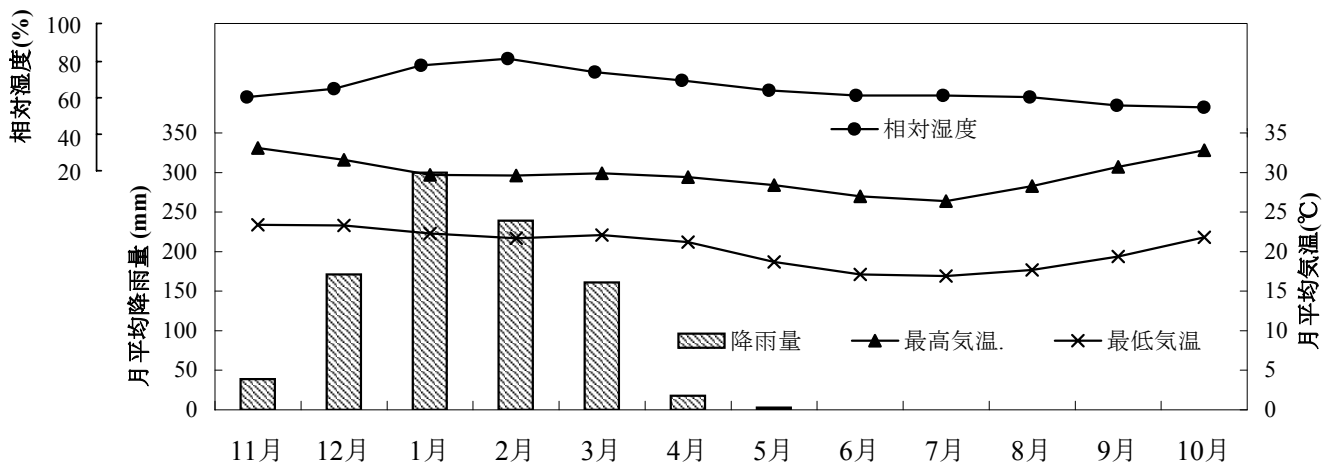
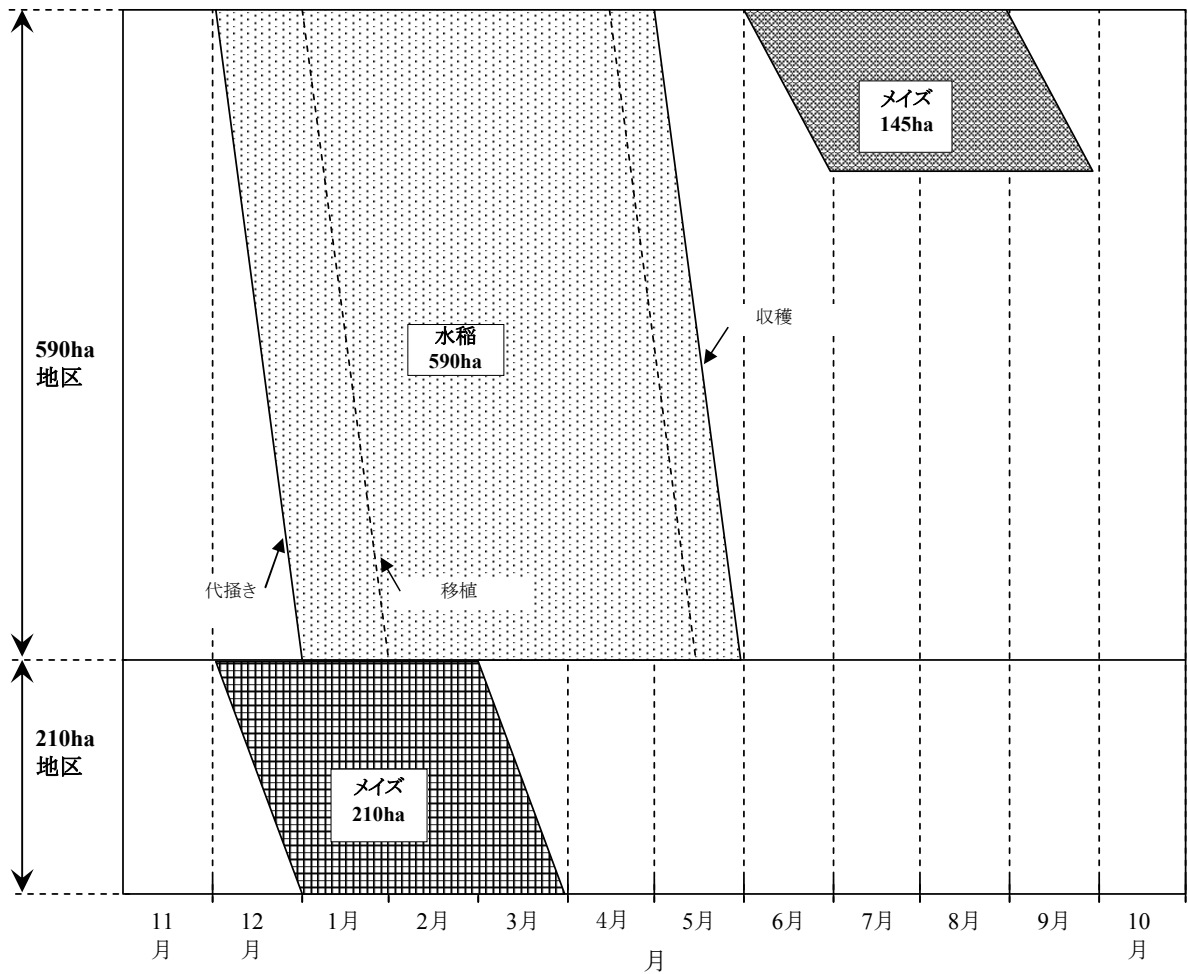


図3-1 計画作付け体系

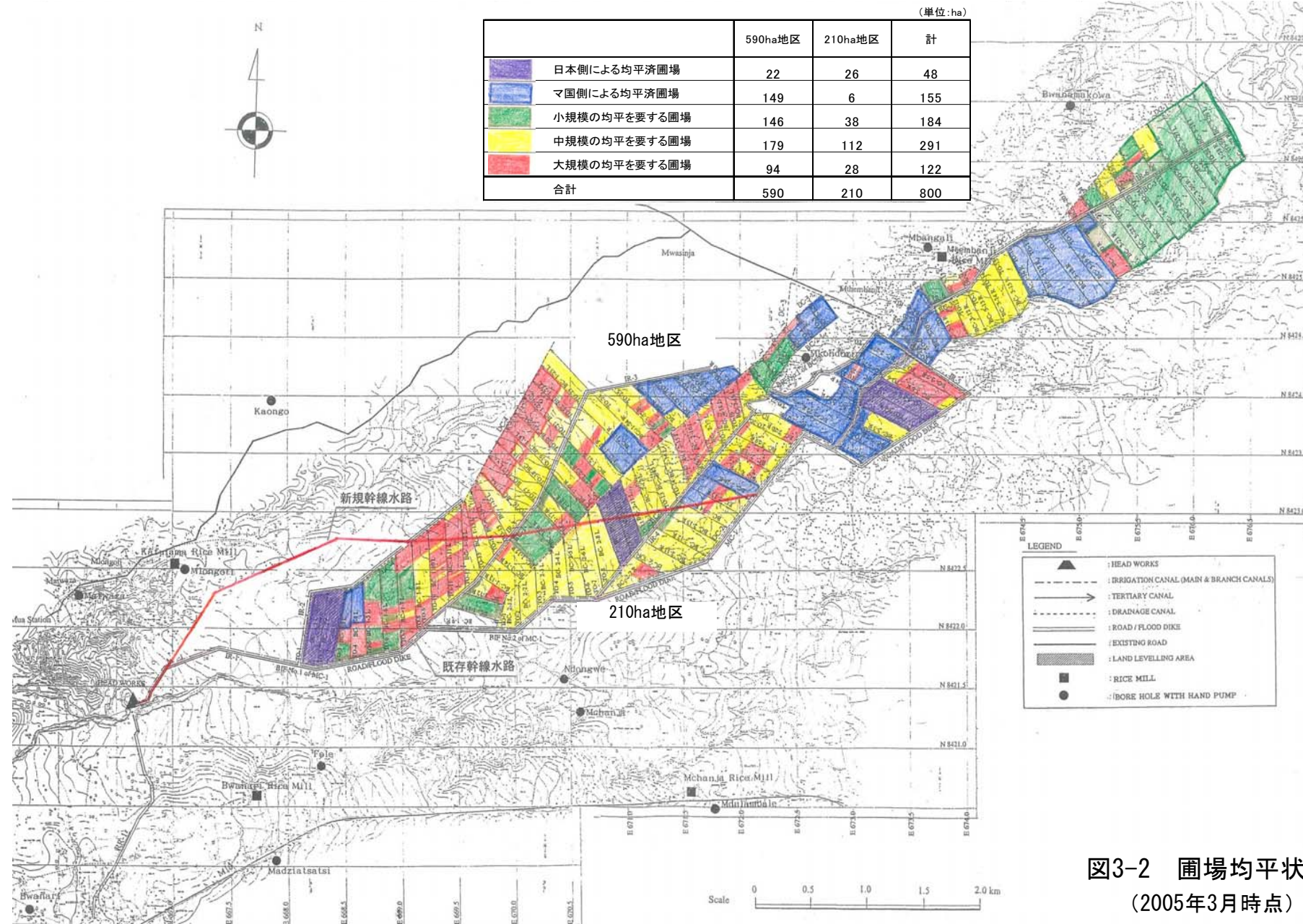
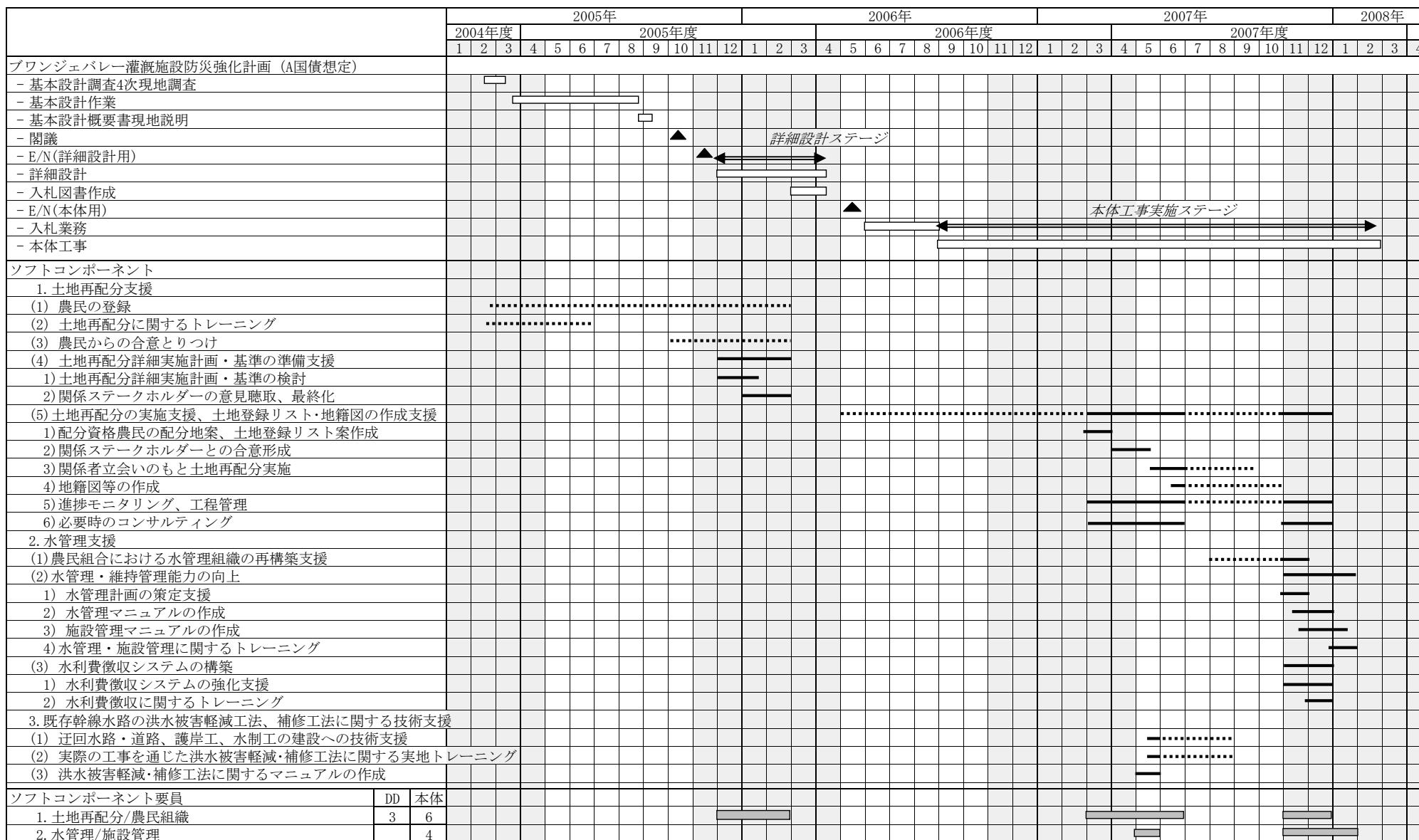
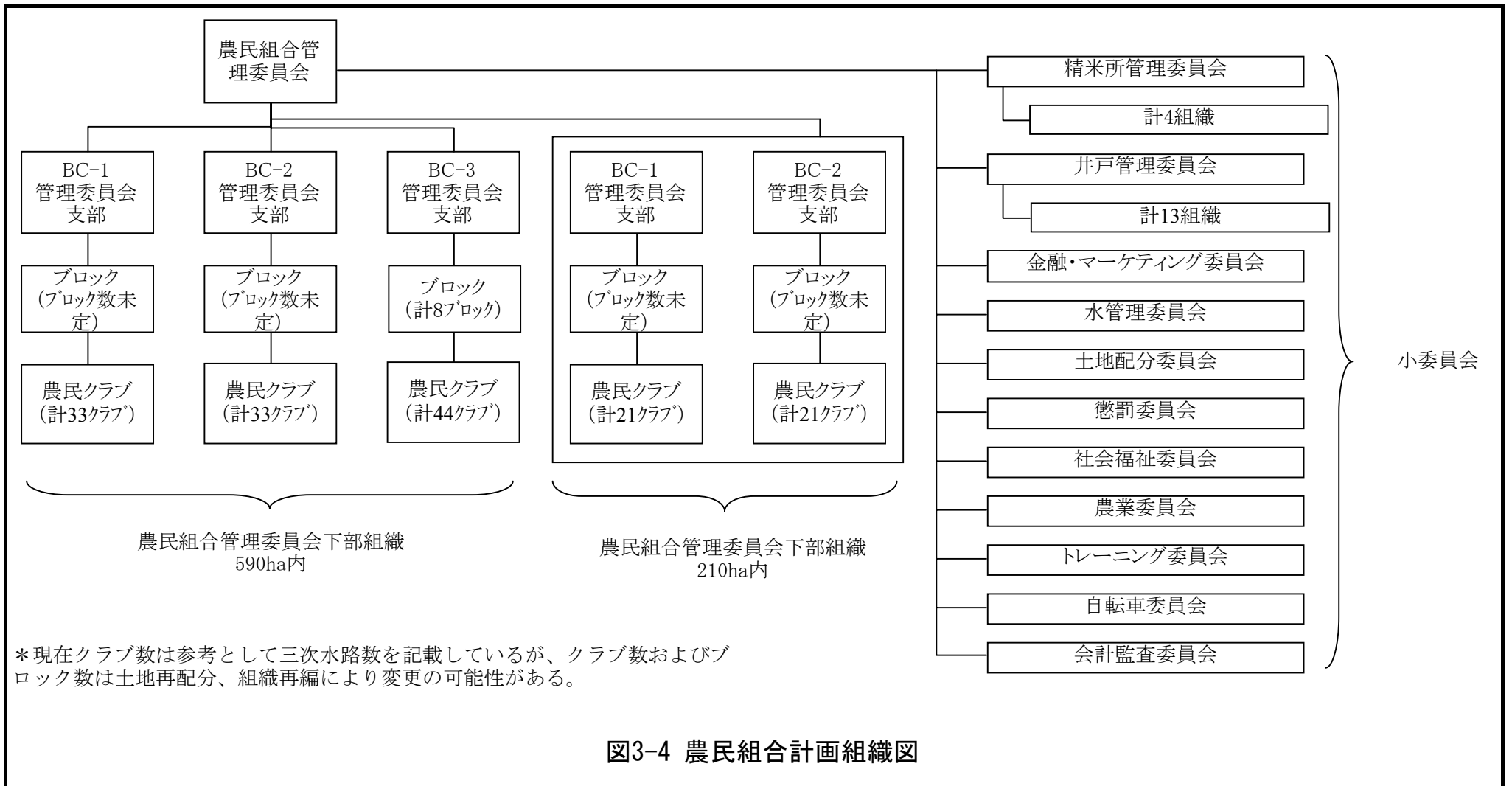


図3-2 圃場均平状況
(2005年3月時点)

図3-3 ソフトコンポーネント実施工程表



相手側単独により実施
 日本側単独および双方による共同実施



添 付 資 料

1. 調査団員・氏名

1. 調査団氏名・所属

インセプション・レポート説明および現地調査団 (2003年2月20日～2003年3月30日)

(1) 総括	小野 知之	外務省 経済協力局 無償資金協力課
(2) 技術参与	森 淳	農林水産省 東北農政局 最上川下流沿岸 農業水利事務所 次長
(3) 計画管理	若林 基治	国際協力事業団 無償資金協力部 業務第4課
(4) 業務主任／灌漑施設 計画／水管理計画	神原 利和	日本工営株式会社
(5) 河川水文／自然条件 調査	藤島 正治	日本工営株式会社(三井共同建設コン サルタント株式会社)
(6) 営農計画／維持管理 計画	吉野 倫典	日本工営株式会社
(7) 土木施設計画／積算／ 調達／施工計画	島崎 貴司	日本工営株式会社

第二次現地調査団 (2003年7月21日～2003年8月1日)

(1) 総括	奥山 明	国際協力事業団 無償資金協力部 業務第四課長
(2) 技術参与	金森 秀行	国際協力事業団 国際総合研修所 国際協力専門員
(3) 施工・積算調査	加藤 逸郎	国際協力事業団 無償資金協力部 無償資金協力調査員
(4) 業務主任／灌漑施設 計画／水管理計画	神原 利和	日本工営株式会社
(5) 河道解析	大沼 茂夫	日本工営株式会社
(6) 頭首工設計	村上 文明	日本工営株式会社

第三次現地調査団

(2004年12月13日～2004年12月24日)

(1) 総括	洪澤 孝雄	独立行政法人国際協力機構 無償資金協力部 業務第2グループ 農業・環境防災チーム長
(2) 業務主任/灌漑・ 土木施設計画	神原 利和	日本工営株式会社
(3) 営農計画/水管理計画/ 維持管理計画	中河 卓也	日本工営株式会社
(4) 河川計画	阿部 敬次	日本工営株式会社

技術参与河川現地調査団

(2005年1月12日～2005年1月20日)

(1) 技術参与	保科 幸二	NPO法人砂防広報センター 理事長
(2) 業務主任/灌漑・ 土木施設計画	神原 利和 (自社負担)	日本工営株式会社

第四次現地調査団

(2005年2月9日～2005年3月10日)

(1) 総括	中川 和夫	国際協力機構 無償資金協力部 部長
(2) 技術参与	大平 正三	農林水産省 東北農政局 整備部 次長
(3) 計画管理	高樋 俊介	国際協力機構 無償資金協力部 業務第2グループ 農業・環境・防災チーム
(4) 業務主任/灌漑・ 土木施設計画	神原 利和	日本工営株式会社
(5) 営農計画/水管理計画/ 維持管理計画	中河 卓也	日本工営株式会社
(6) 積算/調達/施工計画	川井 明	日本工営株式会社

基本設計概要説明調査団
(2005年8月31日～2005年9月11日)

(1) 総括	水谷 恭二	国際協力機構
(2) 業務主任/灌漑・ 土木施設計画	神原 利和	マラウイ事務所 所長 日本工営株式会社
(3) 営農計画/水管理計画/ 維持管理計画	中河 卓也	日本工営株式会社

2. 調査行程

2. 調査行程

インセプション・レポート説明および現地調査 (2003年2月20日～2003年3月30日)

日 順	日付 (曜日)	官側調査団		コンサルタント調査団	
		スケジュール	滞在	スケジュール	滞在
1	2月20日 (木)	・移動：東京→シカゴポール	機内泊 (全員)	・移動：東京→シカゴポール (神原主任)	機内泊 (神原)
2	2月21日 (金)	・移動：シカゴポール→ヨハネスバーク→ リロンケ ・JICAマライ事務所訪問	リロンケ (全員)	・移動：シカゴポール→ヨハネスバーク→リロンケ ・JICAマライ事務所訪問	リロンケ (神原)
3	2月22日 (土)	・移動：リロンケ→現場 ・現場調査	ムア (全員)	・移動：リロンケ→現場 ・現場調査	ムア (神原)
4	2月23日 (日)	・現場調査 ・移動：現場→リロンケ	リロンケ (全員)	・現場調査 ・移動：現場→リロンケ	リロンケ (神原)
5	2月24日 (月)	・農業省との打合わせ	リロンケ (全員)	・農業省との打合わせ	リロンケ (神原)
6	2月25日 (火)	・農業省との打合わせ(議事録へ の署名)	リロンケ (全員)	・農業省との打合わせ(議事録への署名)	リロンケ (神原)
7	2月26日 (水)	・JICAマライ事務所への報告 ・移動：リロンケ→ヨハネスバーク	ヨハネスバーク (全員)	・JICAマライ事務所への報告 ・移動：リロンケ→ヨハネスバーク	ヨハネスバーク (神原)
8	2月27日 (木)	・移動：ヨハネスバーク→ルサカ ・在ザンビア日本大使館の訪問、現 場調査結果の報告(小野総括) ・ヨハネスバーク→シカゴポール (森技術参与、若林担当)	ルサカ (小野総括) 機内泊 (森技術参与、 若林担当)	・移動：ヨハネスバーク→ルサカ ・在ザンビア日本大使館の訪問、現場調 査結果の報告	ルサカ (神原)
9	2月28日 (金)	・ルサカ→ヨハネスバーク (小野総括) ・シカゴポール→東京 (森技術参与、若林担当)	ヨハネスバーク (小野総括)	・移動：ルサカ→リロンケ(神原主任) ・移動：東京→シカゴポール (藤島、吉野、島崎団員)	リロンケ (神原主任) 機内泊 (藤島、島崎、 吉野団員)
10	3月1日 (土)	・ヨハネスバーク→シカゴポール (小野総括)	機内泊 (小野総括)	・ホテル、車輛などの手配(神原主任) ・移動：シカゴポール→ヨハネスバーク→リロンケ (藤島、島崎、吉野団員) ・移動：リロンケ→ブワンジエ(全員)	ムア (全員)
11	3月2日 (日)	・シカゴポール→東京 (小野総括)		・現地調査	ムア (全員)
12	3月3日 (月)			・現地調査 ・移動：ブワンジエ→リロンケ(全員)	リロンケ (全員)
13	3月4日 (火)			・JICAマライ事務所、農業省灌漑局、リロ ンケ ADDの表敬訪問(全員) ・現地再委託業務契約(地形測量、地 質調査)(島崎)	リロンケ (全員)
14	3月5日 (水)			・リロンケ ADD、JICA事務所打合せ(神原、 藤島、島崎、吉野) ・関連省庁調査(藤島、吉野) ・移動：リロンケ→ブワンジエ (神原、島崎)	リロンケ(吉野) ムア (神原、島崎)
15	3月6日 (木)			・現地再委託業務現地指示、現地調査 (島崎) ・移動：リロンケ→現場(藤島、吉野)	ムア(神原、 藤島、島崎、 吉野)

日順	日付 (曜日)	官側調査団		コンサルタント調査団	
		スケジュール	滞在	スケジュール	滞在
16	3月7日 (金)			・現地調査 沈砂池調査、調査層刈る(神原) 現地再委託業務現場指示(島崎) 河川状況調査(藤島) 営農状況調査(吉野)	ムア(全員)
17	3月8日 (土)			・現地調査 沈砂池調査、調査総括(神原) 現地再委託業務現場指示(島崎) 河川状況調査 営農状況調査(吉野)	ムア(全員)
18	3月9日 (日)			・移動：現場→リロンゲ(全員) ・資料整理	リロンゲ(全員)
19	3月10日 (月)			・JICA マライ事務所, JICA専門家, 農業省灌漑局、リロンゲADD報告打合せ(神原、藤島、島崎、吉野) ・リロンゲADDにて打合わせ(神原) ・資料収集(藤島、島崎) ・ベースライン調査準備(吉野)	リロンゲ(全員)
20	3月11日 (火)			・移動：リロンゲ→プランタイ(藤島) ・移動：リロンゲ→現場(吉野) ・農業省、リロンゲADDとの ・資料収集(島崎、藤島) ・ベースライン調査(吉野)	リロンゲ (神原、島崎) プランタイ (藤島) ムア(吉野)
21	3月12日 (水)			・移動：プランタイ→リロンゲ(藤島) ・リロンゲADDとの打合わせ(神原) ・資料収集(島崎、藤島) ・ベースライン調査、作付状況調査(吉野)	リロンゲ (神原、藤島、 島崎) ムア(吉野)
22	3月13日 (木)			・マライ事務所訪問、調査結果報告(神原、藤島) ・移動：リロンゲ→ヨハネスバーク(藤島) ・移動：リロンゲ→現場(島崎) ・農業省、財務省打合わせ(神原) ・現地再委託業務現場指示(島崎) ・サリマADD訪問、ベースライン調査(吉野)	リロンゲ(神原) ムア (島崎、吉野) ヨハネスバーク (藤島)
23	3月14日 (金)			・農業省との打合わせ(神原) ・現地再委託業務現場指示、現地調査(島崎) ・サリマADD、リフ稲作研究所訪問(吉野)	リロンゲ(神原) ムア (島崎、吉野)
24	3月15日 (土)			・移動：リロンゲ→現場(神原) ・タタタEPA訪問、現場調査総括(神原) ・現地再委託業務現場指示、現地調査(島崎) ・農民組織へのインタビュー(吉野)	ムア(神原、 島崎、吉野)
25	3月16日 (日)			・移動：現場→リロンゲ(神原、島崎) ・調査結果取り纏め(神原、島崎、吉野)	リロンゲ (神原、島崎) ムア(吉野)
26	3月17日 (月)			・フォローアップ 竣工検査(神原) ・積算資料、施工計画関係資料収集(島崎) ・類似案件の調査、ベースライン調査(吉野)	リロンゲ (神原、島崎) ムア(吉野)

日 順	日付 (曜日)	官側調査団		コンサルタント調査団	
		スケジュール	滞在	スケジュール	滞在
27	3月18日 (火)			・フォローアップ 竣工検査(神原) ・移動：リロンゲ→現場(神原) ・積算資料、施工計画関係資料収集(島崎) ・ベースライン調査、VIDEO撮影(吉野)	リロンゲ (島崎) ムア (神原、吉野)
28	3月19日 (水)			・フォローアップ 竣工検査(神原) ・移動：リロンゲ→現場(島崎) ・資料収集、現地再委託業務現場指示、農民組織との会合(島崎) ・ベースライン調査、農民組織との会合(吉野)	リロンゲ (神原) ムア (島崎、吉野)
29	3月20日 (木)			・フォローアップ 竣工検査(神原) ・移動：現場→リロンゲ(島崎、吉野) ・施工計画関係資料収集(島崎) ・ベースライン調査、資料収集(吉野)	リロンゲ(全員)
30	3月21日 (金)			・フォローアップ 竣工検査(神原) ・リロンゲ ADD打合せ、現地再委託業務内容確認(島崎、吉野)	リロンゲ(全員)
31	3月22日 (土)			・フォローアップ 竣工検査(神原) ・現地再委託業務内容確認(島崎) ・調査結果取り纏め(吉野)	リロンゲ(全員)
32	3月23日 (日)			・検査結果取り纏め(神原) ・調査結果取り纏め(島崎、吉野)	リロンゲ(全員)
33	3月24日 (月)			・フォローアップ 竣工検査結果報告(神原) ・現地再委託業務受入検査(島崎) ・ベースライン調査結果取り纏め、資料収集(吉野)	リロンゲ(全員)
34	3月25日 (火)			・フォローアップ 竣工検査結果報告報告書作成(神原) ・施工計画関係資料収集(島崎) ・調査結果取り纏め(吉野)	リロンゲ(全員)
35	3月26日 (水)			・JICAマライ事務所表敬訪問フォローアップ 竣工検査結果報告(神原) JICA マライ事務所、農業省灌漑局、リロンゲ ADDの表敬訪問(島崎、吉野)	リロンゲ(全員)
36	3月27日 (木)			・移動：リロンゲ - ヨハネスバーク(神原、島崎) ・調査結果取り纏め、帰国準備(吉野)	ヨハネスバーク (神原、島崎) リロンゲ (吉野)
37	3月28日 (金)			・施工計画関係資料収集(神原、島崎) ・移動：リロンゲ→ヨハネスバーク(吉野)	ヨハネスバーク (全員)
38	3月29日 (土)			・移動：ヨハネスバーク→シカポール(全員)	機内泊 (全員)
39	3月30日 (日)			・移動：シカポール→成田(全員)	

注：神原の16日から26日(斜体)までの期間は、「ブワンジェバレー灌漑フォローアップ調査竣工検査」によるアサイン。

第二次現地調査
(2003年7月21日～2003年8月1日)

No.	日時	曜日	調査日程				泊
			官団員		コンサルタント団員		
			①	②	③	④	
1	7/20	月	マラウイ国内別調査	成田-シンガポール(SQ 997 12:00-18:00)シンガポール-ヨハネスブルグ(SQ406 01:35-06:15)			
2	7/21	火	マラウイ国内別調査	ヨハネスブルグ-リロンゲ(SA170 10:20-12:40) JICA事務所、農業省表敬、灌漑局にて打合せ			①②③④リロンゲ
3	7/22	水	マラウイ国内別調査	灌漑局・リロンゲADDにて打合せ、現場へ移動	現場へ移動、現場踏査		①②③④ブワンジェ
4	7/23	木	現場踏査		現場踏査		①②③④ブワンジェ
5	7/24	金	現場踏査		現場踏査		①②③④ブワンジェ
6	7/25	土	現場踏査		現場踏査		①②③リロンゲ ④ブワンジェ
7	7/26	日	リロンゲへ移動、団内会議		現場踏査、リロンゲへ移動		①②③④リロンゲ
8	7/27	月	灌漑局・リロンゲADDと打合せ		JICA事務所へ報告、リロンゲ-ヨハネスブルグ(SA171 13:35-16:05)		①②③リロンゲ ④ヨハネスブルグ
9	7/28	火	灌漑局と打合せ、ミニッツ署名、JICA事務所報告、リロンゲ-ヨハネスブルグ(SA171 13:35-16:05)		ヨハネスブルグ-シンガポール(SQ405 14:15-06:35)		①②③ヨハネスブルグ
10	7/29	水	ヨハネスブルグ-ルサカ(SA62 09:05-11:05)、大使館へ報告		シンガポール-成田(SQ12 09:45-17:35)		①②③ルサカ
11	7/30	木	ルサカ-ヨハネスブルグ(SA69 07:20-09:25)、ヨハネスブルグ-シンガポール(SQ405 14:15-06:35)		-		
12	7/31	金	シンガポール-成田(SQ12 09:45-17:35)		-		

- ①技術参与(金森)
- ②総括(奥山)、施工・積算調査(加藤)
- ③業務主任(神原)
- ④河道解析(大沼)、頭首工設計(村上)

第三次現地調査

(2004年12月13日～2003年12月24日)

日数	曜日	総括 洪澤 孝雄 JICA無償部I長	業務主任/灌漑・土木施設計画 神原 利和 (カンバラ トシカズ)	営農計画/水管理計画/維持管理計画 中河 卓也 (ナカガワ タクヤ)	河川計画 阿部 敏次 (アベ タカツグ)	
2004.12.13	月	成田(17:40)発(JL735)→香港(21:45)着 香港(23:50)発(SA287)→				
2004.12.14	火	ヨハネスブルグ(7:10)着、ヨハネスブルグ(10:20)発(SA170)→リロンゲ(12:50)着 15:30 JICAマラウイ事務所にて打合せ				
2004.12.15	水	8:00 灌漑局Director表敬 8:30 農業省Principal Secretary表敬 10:00 リロンゲADD表敬及びキックオフミーティング 移動(リロンゲ～ブワンジェバレー) 16:00 普及員とプロジェクトマネージャー、JOCVと打ち合わせ ブワンジェバレー泊				
2004.12.16	木	10:00 伝統的首長との会議 PM 現場踏査(堤防脇の流路、新規に掘削された流路のチェック) ブワンジェバレー泊		10:00 伝統的首長との会議 13:00 農民組合幹部との会議 14:30 BC-1受益農民とのワークショップ ブワンジェバレー泊	10:00 伝統的首長との会議 PM 現場踏査(堤防脇の流路、新規に掘削された流路のチェック) ブワンジェバレー泊	
2004.12.17	金	河川切替箇所における現状調査 ブワンジェバレー泊		10:00 BC-3受益農民とのワークショップ 14:30 BC-2受益農民とのワークショップ ブワンジェバレー泊	河川切替箇所における現状調査 ブワンジェバレー泊	
2004.12.18	土	ブワンジェ灌漑スキーム現場踏査 ブワンジェバレー泊	現状河川調査 ブワンジェバレー泊	ブワンジェ灌漑スキーム現場踏査 ブワンジェバレー泊	現状河川調査 ブワンジェバレー泊	
2004.12.19	日	AM: デザ現場踏査、移動(ブワンジェバレー～リロンゲ) PM: Technical Discussion Recordの素案作成 リロンゲ泊		AM: 移動(ブワンジェバレー～リロンゲ) PM: Technical Discussion Recordの素案作成 リロンゲ泊	AM: デザ現場踏査、移動(ブワンジェバレー～リロンゲ) PM: Technical Discussion Recordの素案作成 リロンゲ泊	
2004.12.20	月	リロンゲADDと打ち合わせ、Technical Discussion Recordの協議、調印 リロンゲ泊		移動(リロンゲ～ブワンジェバレー) プロジェクトマネージャー、普及員、JOCVとの会議 農民への追加インタビュー ブワンジェバレー泊	リロンゲADDと打ち合わせ、Technical Discussion Recordの協議、調印 リロンゲ泊	
2004.12.21	火	午前: JICA事務所への報告 午後: リロンゲ(17:20)発(QM181)→ルサカ(19:20)着 ルサカ泊		午前: 移動 ブワンジェバレー→リロンゲ 午後: リロンゲ(17:30)発(QM181)→ルサカ(19:20)着 ルサカ泊	午前: JICA事務所への報告 午後: リロンゲ(17:30)発(QM181)→ルサカ(19:20)着 ルサカ泊	
2004.12.22	水	AM: 団内打合せ 16:30 在ザンビア日本国大使館報告 ルサカ泊				
2004.12.23	木	ルサカ発(07:40)発(SA069) →ヨハネス着(09:45) ヨハネス(13:10)発(SA7800)→				
2004.12.24	金	香港(7:40)着 香港(10:10)発(JL730)→成田(15:00)着				

技術参与河川現地調査
(2005年1月12日～2005年1月20日)

日付	曜日	保科 幸二 (NPO砂防広報センター理事長)	神原 利和 (業務主任/灌漑・土木施設計画)
1月12日	水	成田発17:40(JL735)→香港着21:45 香港発23:50(SA287)→	成田発17:40(JL735)→香港着21:45 香港発23:50(SA287)→
1月13日	木	→ヨハネスブルグ着07:10 ヨハネスブルグ発10:20(SA170)→リロンゲ着 12:50 午後 JICAマラウイ事務所表敬・打合せ リロンゲ泊	→ヨハネスブルグ着07:10 ヨハネスブルグ発10:20(SA170)→リロンゲ着12:50 午後 JICAマラウイ事務所表敬・打合せ リロンゲ泊
1月14日	金	午前中 移動(リロンゲ～ブワンジェバレー) 現場視察 ブワンジェバレー泊	午前中 移動(リロンゲ～ブワンジェバレー) 現場視察 ブワンジェバレー泊
1月15日	土	現場視察 ブワンジェバレー泊	現場視察 ブワンジェバレー泊
1月16日	日	午前 現場視察 午後 移動(ブワンジェバレー～リロンゲ) リロンゲ泊	午前 現場視察 午後 移動(ブワンジェバレー～リロンゲ) リロンゲ泊
1月17日	月	午前 JICAマラウイ事務所報告 午後 リロンゲ発13:35(SA171)→ヨハネス着 16:10 ヨハネス泊	午前 JICAマラウイ事務所報告 午後 資料収集
1月18日	火	ヨハネス発17:00(SA286)→	午前 資料収集 午後 リロンゲ発13:35(SA171)→ヨハネス着16:10 ヨハネス泊
1月19日	水	→香港着12:15 香港発15:10(JL732)→成田着20:00	ヨハネス発17:00(SA286)→
1月20日	木		→香港着12:15 香港発15:10(JL732)→成田着20:01

第四次現地調査 (2005年2月9日～2005年3月10日)

日数	日時	曜日	総括 (JICA) 中川 和夫 (ナカガワ カズオ)	技術参与 (農業) (農水省) 大平 正三 (オホヘラ ショウゾウ)	計画管理 (JICA) 高橋 俊介 (タカハシ シュンスケ)	業務主任/灌漑・土木施設計画 神原 利和 (カンバラ トシカズ)	営農計画/水管理計画/維持管理計画 中野 卓也 (ナカノ タクヤ)	積算/調査/施工計画 川井 明 (カワイ アキラ)			
1	2月9日	水	成田(16:25)発(SQ9001)→シンガポール(22:50)着								
2	2月10日	木	シンガポール(02:00)発(SQ478)→ヨハネスブルグ(06:40)着、ヨハネスブルグ(10:20)発(SA170)→リロンゲ(12:50)着 14:00:MOA表敬 15:00:JICAマラウイ事務所にて打合せ リロンゲ泊								
3	2月11日	金	8:30:灌漑局表敬 9:30:リロンゲADDキックオフミーティング PM:移動(リロンゲ→ブワンジェバレー) 現場視察 ブワンジェバレー泊								
4	2月12日	土	AM:現場視察 15:00:DC、TA、PM、RDF、農民組合幹部との会議に参加 ブワンジェバレー泊								
5	2月13日	日	午前:移動(ブワンジェバレー→デザ→リロンゲ) 午後:団内打ち合わせ リロンゲ泊								
6	2月14日	月	9:00:リロンゲADDとMO協議 JICA事務所報告 18:00:MOAにてMO署名 リロンゲ泊			9:00:リロンゲADDとMO協議 PM:リロンゲ(13:30)発(QM181)→ ルサカ(16:45)着(プランタイヤ経由) リロンゲ泊	元方政府の予算措置、人員配置、組織体制についてのアップデートのための調査(財務省、農業省、灌漑局、リロンゲADDその他)。他ドナー動向、灌漑施設管理、土地所有制度についての調査。リロンゲ泊	積算調査(リロンゲ)。リロンゲ泊			
7	2月15日	火	AM:他灌漑案件の視察 PM:リロンゲ(13:30)発(QM181)→ルサカ(16:45)着(プランタイヤ経由) ルサカ泊			AM:資料整理 PM:リロンゲ(13:30)発(QM181)→ ルサカ(16:45)着(プランタイヤ経由) ルサカ泊	同上 リロンゲ泊	同上 リロンゲ泊			
8	2月16日	水	10:30:在ザンビア日本大使館報告 ルサカ泊						同上 リロンゲ泊	同上 リロンゲ泊	
9	2月17日	木	ルサカ(07:40)発(SA060) →ヨハネス(09:45) ヨハネス(14:20)発(SQ477)→						ルサカにて資料整理 ルサカ泊	同上 リロンゲ泊	同上 リロンゲ泊
10	2月18日	金	シンガポール(06:45)着 シンガポール(09:40)発(SQ012)→成田(17:05)着						ルサカ(12:20)発(Q3460)→リロンゲ(14:20) 団内打ち合わせ リロンゲ泊	同上 団内打ち合わせ リロンゲ泊	同上 団内打ち合わせ リロンゲ泊
11	2月19日	土	午前:移動(リロンゲ→ブワンジェバレー) 午後:現場整備状況確認 ブワンジェバレー泊						午前:移動(リロンゲ→ブワンジェバレー) 午後:JOCV、PMと打ち合わせ ブワンジェバレー泊	午前:移動(リロンゲ→ブワンジェバレー) 午後:現場整備状況確認 ブワンジェバレー泊	
12	2月20日	日							午前:現場踏査 午後:移動(ブワンジェバレー→リロンゲ) リロンゲ泊		
13	2月21日	月	8:30:JICA事務所報告 測量打合せ リロンゲADDと打ち合わせ 午後:移動(リロンゲ→ブワンジェバレー) ブワンジェバレー泊								
14	2月22日	火							頭首工測量調査 ブワンジェバレー泊		
15	2月23日	水	同上 ブワンジェバレー泊								
16	2月24日	木							同上 ブワンジェバレー泊		
17	2月25日	金	同上 ブワンジェバレー泊								
18	2月26日	土							河道現況調査 ブワンジェバレー泊		
19	2月27日	日	設計検討 ブワンジェバレー泊								
20	2月28日	月							同上 ブワンジェバレー泊		
21	3月1日	火	同上 ブワンジェバレー泊								
22	3月2日	水							同上 ブワンジェバレー泊		
23	3月3日	木	午前:移動(ブワンジェバレー→リロンゲ) 午後:団内打ち合わせ リロンゲ泊								
24	3月4日	金							9:00:リロンゲADDと調査結果説明、協議 リロンゲ泊		
25	3月5日	土	資料整理、報告書とりまとめ リロンゲ泊								
26	3月6日	日							同上 リロンゲ泊		
27	3月7日	月	9:00:リロンゲADDと協議 11:00:JICA事務所へ調査結果報告 リロンゲ泊								
28	3月8日	火							リロンゲ13:35発(SA171)→ヨハネスブルグ16:10着 ヨハネスブルグ泊		
29	3月9日	水	ヨハネスブルグ14:20発(SQ477)→								
30	3月10日	木							シンガポール6:45着 シンガポール9:40発(SQ012)→成田17:05着		

基本設計概要説明調査
(2005年8月31日～2005年9月11日)

月日	曜日	総括 水谷 恭二	業務主任/灌漑・土木施設計画 神原	営農計画/水管理計画/維持管理計画 中河
8月31日	水		成田16:30発 (SQ5901) →シンガポール22:20着	
9月1日	木	15:00 コンサクト団員と日程打合せ 16:00 農業食糧安全保障省計画局表敬	シンガポール2:15発 (SQ478) →ヨハネスブルグ7:00着、ヨハネスブルグ10:20発 (SA170) →リロンゲ12:45着 15:00 JICA表敬 (JICA事務所と日程打合せ) 16:00 農業食糧安全保障省計画局表敬 リロンゲ泊	
9月2日	金	8:00 灌漑局表敬 9:00 基本設計概要書説明 (リロンゲADD) 11:00 灌漑水開発省表敬 14:00 環境局にてEIA打ち合わせ	8:00 灌漑局表敬 9:00 基本設計概要書説明 (リロンゲADD) 11:00 灌漑水開発省表敬 14:00 環境局にてEIA打ち合わせ 移動 (リロンゲ→ブワンジェ) ブワンジェ泊	
9月3日	土	10:30 TA、農民組合幹部へのプロジェクト説明 その後、計画地区、フトンカゴ設置現場の視察 15:00 ムチャンジャ村落グループの農民へのプロジェクト説明 (JICAマラウイ事務所員が代理として参加) ブワンジェ泊	午前、午後:フトンカゴ設置の現地説明、設置指導 ブワンジェ泊	10:30 TA、農民組合幹部へのプロジェクト説明 15:00 ムチャンジャ村落グループの農民へのプロジェクト説明 ブワンジェ泊
9月4日	日	8:00 ムテンバンジ村落グループの農民に対するプロジェクト説明 (JICAマラウイ事務所員が代理として参加) 移動(ブワンジェ→リロンゲ)	午前、午後:フトンカゴ設置の現地説明、設置指導 移動(ブワンジェ→リロンゲ) リロンゲ泊	8:00 ムテンバンジ村落グループの農民に対するプロジェクト説明 午後:資料収集 15:00 ブワナリ、カフラマ村落グループの農民に対するプロジェクト説明 移動(ブワンジェ→リロンゲ) リロンゲ泊
9月5日	月	15:00 環境局にてEIA打ち合わせ	午前:資料整理 15:00 環境局にてEIA打ち合わせ リロンゲ泊	
9月6日	火	15:00 JICA事務所にて打合	9:00 MD討議 (リロンゲADD) 13:30 環境局にてEIA打合 15:00 JICA事務所にて打合 リロンゲ泊	9:00 MD討議 (リロンゲADD) 10:00 環境局にてEIA打合 13:30 環境局にてEIA打合 15:00 JICA事務所にて打合 リロンゲ泊
9月7日	水	10:00 農業安全保障省にてMD署名 10:30 灌漑水開発省にてMD署名 その後コンサクト団員と打合せ	10:00 農業安全保障省にてMD署名 10:30 灌漑水開発省にてMD署名 その後JICAと打合せ リロンゲ泊	9:00 デザDCへ基本設計概要書の説明 午後:資料整理 リロンゲ泊
9月8日	木	リロンゲ07:00発 (QM181) →ルサカ08:00着 15:00 在ザンビア日本大使館表敬、基本設計概要書説明、MD報告 (JICA事務所員が代理として参加) ルサカ泊	リロンゲ07:00発 (QM181) →ルサカ08:00着 15:00 在ザンビア日本大使館表敬、基本設計概要書説明、MD報告 ルサカ泊	
9月9日	金	午前:資料整理 午後:移動(ルサカ→リロンゲ) (JICA事務所員が代理として参加)	午前:資料整理 ルサカ17:00発 (SA067) →ヨハネスブルグ19:05着 ヨハネスブルグ泊	
9月10日	土		ヨハネスブルグ14:40発 (SQ479) → 機中泊	
9月11日	日		シンガポール7:05着、シンガポール9:45発 (SQ012) →成田17:35着	

3. 関係者(面会者)リスト

3. 関係者（面会者）リスト

NO.	NAME / 名前	POSITION / 役職
Ministry of Agriculture and Irrigation (第一次現地調査時)		
1.	Andrina F. Mchiela	Principle Secretary
2.	Ellos E. Lodzeni	Principle Secretary for Finance and Administration
3.	S. M. Chimphonda	Deputy Director, Dept. of Agriculture and Extension Service
4.	Micheck Lonowe	Principal Economist
5.	Joan Charlira	Administrative Assistant, Agro-Economic Survey
6.	Dr. C.P.Mzembe	Controller, Dept. of Irrigation
7.	A. T. Khonje	Deputy Cotroller, Dept. of Irrigation
8.	Jane Tawina Kopa	Irrigation Officer , Dept. of Irrigation
9.	R.C.Makasa	Irrigation Officer, Dept. of Irrigation
10.	Excello Zidana	Agricultural Radio Programme Officer, Agricultural Communication Branch
11.	W.R.Kapindu	Senior Model Unit Operation Officer, Agricultural Communication Branch
12.	Dan.L.Yona	Chief Agricultural Commercial Officer Agricultural Communication Branch
13.	T. H. Mpezeni	Irrigation Officer, Lilongwe ADD
14.	N.T.W. Mataka	Deputy Programme Manager Lilongwe ADD
15.	M. A. Mgomzulu	Chief Extension Officer, Lilongwe ADD
16.	E. E. Thawani	Land Resources Conservation Officer Lilongwe ADD
17.	Pita Kulunga	Farm Business Management Officer, Lilongwe ADD
18.	Kavisanga Munyeriembe	Evaluation Officer Lilongwe ADD
19.	Wavisanga	Evaluation Officer Lilongwe ADD
20.	M.K.Mwamadi	Crops Officer Lilongwe ADD
21.	Mahata Kangbembe	Land Resources Conservation Officer, Lilongwe ADD
22.	Mlenga	Land Resources Conservation Officer, Lilongwe ADD
23.	Dr.J.Nkhoma	Animal Health Officer, Lilongwe ADD
24.	Charles G.Mwalabu	Irrigation Officer, Salima ADD
25.	A.B.B.C.Cheyo	Dedza RDP
26.	E.Y.K.Phili	Project Manager, Bwanje Valley Irrigation System Project O&M Office
27.	K.B.Banda	Agriculture Extension Development Coordinator, Mtakataka EPA
28.	H.G.Heazi	Agriculture Extension Development Coordinator, Mtakataka EPA
29.	B.J.Ngwemba	Agriculture Extension Development Officer, Mtakataka EPA
30.	M.G.A.Mafosha	Agriculture Extension Development Officer, Mtakataka EPA
31.	W.L.Singano	Assistant Irrigation Officer Goromoti EPA
32.	W.A.Kanyika	Commodity Team Leader Lifuwe Rice Research Center
Ministry of Agriculture, Irrigation and Food Security (第二次現地調査時)		
1	C. J. Matabwa	Acting Secretary
2	A.T. Khonje	Deputy Controller of Dept. of Irrigation
3	Sandram C.Y. Maweru	Deputy Controller of Dept. of Irrigation (Training)
4	P. C. C. Negele	Irrigation Officer, Dept. of Irrigation
5	C.Mayata	Controller of Agricultural Planning Services
6	L. C. Kagonegone	Controller of Human Resources
7	C. M Kanyenda	Director of Agriculture Extension Services
8	K. M. Chavula	Director of Crop Production
9	D. Kalhingwe	Economist
10	W. U. L. Dita	Deputy Director of Animal Health and Livestock Development
11	J. J. Mussa	Deputy Director of Land Resource
12	E. T. Saka	Accountant
13	N. T. W. Mataka	Deputy Programme Manager, Lilongwe ADD
14	T. Beza	Divisional Irrigation Officer, Lilongwe ADD
15	E. Y. K. Phiri	Project Manager, Bwanje Valley Irrigation System Project O&M Office
16	B. J. Ngwemba	Extension Officer (BC1), Bwanje Valley Irrigation System Project O&M Office
17	W. L. Singano	Extension Officer (BC2), Bwanje Valley Irrigation System Project O&M Office
18	M. G. A. Mafosha	Extension Officer (BC3), Bwanje Valley Irrigation System Project O&M Office
19	K. B. Banda	Extension Officer , Bwanje Valley Irrigation System Project O&M Office
20	H. G. Heazi	Extension Officer, Bwanje Valley Irrigation System Project O&M Office
Ministry of Agriculture (第三、四次現地調査時)		
1	J. J. Matope	Principal Secretary for Irrigation and Food Security
2	Andrew T. Daudi	Secretary for Agriculture

NO.	NAME / 名前	POSITION / 役職
3	Sandram C.Y. Maweru	Director of Irrigation Services, Dep. of Irrigation
4	A.T. Khonje	Deputy Director of Irrigation Services, Dep. of Irrigation
5	C.K. Jana	Senior Irrigation Officer, Dep. of Irrigation
6	Kawere T.D.	Human Resource Management Officer, Human Resource Management Unit, Dep. of Irrigation
7	Munyenembe	Principal Accountant, Account Unit, Dep. of Irrigation
8	F.L.Malunga	Senior Irrigation Officer, Dep. of Irrigation
9	Mike Alfred Makuti	Controller of Human Resource Management and Development
10	Misheck Coco Longwe	Assistant Chief Economist, Planning Division
11	H.C.Y.Gondwe	Assistant Chief Economist, Planning Division
12	Mphatso Janet Nyekanyeka	Assistant Chief Economist, Planning Division
13	Timothy Zedi Chunga	Programme Manager, Lilongwe ADD
14	Stella Kankwanba	Deputy Programme Manager, Lilongwe ADD
15	A.A.Kampari	Desk Officer, Lilongwe ADD
16	C. C. Maguza Tembo	Chief Agricultural Extension Officer, Lilongwe ADD
17	B.V.L. Banda	Agricultural Communication Officer, Lilongwe ADD (第三次現地調査時)
18	A.C.M. Msowoya	Deputy Programme Manager, Lilongwe ADD(第四次現地調査時)
19	D. Kalhingwe	Principal Irrigation Officer, Lilongwe ADD
20	S. Gawamadzi	Principal Agricultural Officer, Lilongwe ADD
21	S. Gawamadzi	Planning Officer, Planning Section, Lilongwe ADD
22	A.W.Phiri	Crops Officer, Lilongwe ADD
23	P.N. Moyo	Senior Irrigation Officer, Lilongwe ADD
24	Yana	Chief Agricultural Extension Officer, Lilongwe ADD
25	E. Chima	Extension Officer, Lilongwe ADD
26	R.L. Khunga	Extension Officer, Lilongwe ADD
27	C.D.E.Mittawa	Acting District Agricultural Development Officer, Dedza RDP
28	W.G.Nbhcowi	District Agricultural Officer, Dedza RDP
29	M.S.K.B Banda	Agricultural Extension Development Coordinator, Mtakatika EPA
30	H. NolHelazi	Agricultural Extension Development Coordinator, Golomoti EPA
31	E. Y. K. Phiri	Project Manager, Bwanje Valley Irrigation System Project O&M Office
32	B. J. Ngwemba	Agriculture Extension Development Officer (BC1), Bwanje Valley Irrigation System Project O&M Office (第三次現地調査時)
33	L.R.W.Lingani	Agriculture Extension Development Officer (BC1), Bwanje Valley Irrigation System Project O&M Office (第四次現地調査時)
34	E. M. Sautseni	Agriculture Extension Development Officer (BC2), Bwanje Valley Irrigation System Project O&M Office
35	M. G. A. Mafosha	Agriculture Extension Development Officer (BC3), Bwanje Valley Irrigation System Project O&M Office
36	H.I.G Phuka	Scheme Manager, Domasi Irrigation Scheme
Ministry of Agriculture and Food Security (基本設計概要書説明時)		
1	R.P. Mwadiwa	Principal Secretary for Agriculture and Food Security
2	Phiri	Deputy Principal Secretary
3	Zimahrana	Director, Planning Department
4	B.D.S. Mhango	Deputy Director, Planning Department
5	Malumbo K. Gondwe	Economist, Planning Division
6	Chimzimu	Director, Finance and Administration Department
7	Timothy Zedi Chunga	Programme Manager, Lilongwe ADD
8	James L.L. Banda	Deputy Programme Manager, Lilongwe ADD
9	S. Gawamadzi	Planning Officer, Planning Section, Lilongwe ADD
10	F.W. Kuntindi	Financial Controller, Lilongwe ADD
11	A.C.M. Msowoya	Principal Irrigation Officer, Lilongwe ADD
12	P.N. Moyo	Senior Irrigation Engineer, Lilongwe ADD
13	E. Y. K. Phiri	Project Manager, Bwanje Valley Irrigation System Project O&M Office
14	B.J.Siyasiya	Agriculture Extension Development Officer (BC1), Bwanje Valley Irrigation System Project O&M Office
15	E. M. Sautseni	Agriculture Extension Development Officer (BC2), Bwanje Valley Irrigation System Project O&M Office
16	M. G. A. Mafosha	Agriculture Extension Development Officer (BC3), Bwanje Valley Irrigation System Project O&M Office
Ministry of Water Development (第四次現地調査まで)		
1.	Geoffrey Mamba	Senior Hydrologist, Central Office
2.	P.K.T. Munthali	NTCHEU Water Development
3.	Frank Ngolonke	Assistant hydrologist, DEDZA Water Development
4.	J. Wkhokwe	Director, Meteorological Center in Chilika
5.	Adaws Chavnes	Assistant Officer
6.	Green Kuwamawi	Assistant hydrologist, MTAKATAKA Police Air Wing (Meteorological station)
7.	James P. Phiri	Chief Water Chemist, Central Water Laboratory

NO.	NAME / 名前	POSITION / 役職
8.	Sitama	Water Quality Inspector, Central Water Laboratory
9.	Chileka	Principal Hydrologist, Department of Water Resources
Ministry of Irrigation and Water Development (基本設計概要書説明時)		
1	Grain W.P. Malunga	Principal Secretary
2	Owen M. Kankhuungo	Director of Water Supply and Sanitation
3	Rodson W. Mkwepu Nakanga	Director of Administration and Finance
4	Sandram C.Y. Maweru	Director of Irrigation Services, Dept. of Irrigation
5	G. Mwepa	Chief Irrigation Officer, Dept. of Irrigation
Ministry of Environment (第一次現地調査時)		
1.	M. Wmikuwa	Environment affairs Dept.
Ministry of Mines, Natural Resources and Environment (第四次現地調査以降)		
1	M.K.M Mwanyongo	Assistant Director, Environmental Affairs Department
2	Dr. Kamperewera	Deputy Director, Department of Environmental Affairs Department,
3	Tawonga Mbale	Principal Environmental Officer, Department of Environmental Affairs Department
4	Juno Sibale	Environmental Officer, Department of Environmental Affairs Department,
Ministry of Transport and Public Works		
1.	Nicholas D. Mwafurirwa	Principal Meteorologist, Malawi Meteorological Dept.
2.	John Ndola	Civil Engineering Dept.
3.	Dr. Christpine Ngweua	Geologist/Seismologist, Geological Survey Dept.
4.	B. K. Matanga	Chief Material Officer, Central Materials Laboratory
5.	Mesheck Zimba	Technical Officer, Central Materials Laboratory
6.	Top Ian Masimbi	Senior Material Technician, Central Materials Laboratory
7.	Stanley Jere	Chief Roads Supervisor, Central Materials Laboratory
Ministry of Labor and Vocational Training		
1.	George W. Bello	Principal Labour Officer, Labour Services Dept.
Regional Labor Office		
1.	Emmanuel FMK. Manda	District Labour Officer, Central Office
Ministry of Lands, Housing and Surveys		
1	F.S.Majankono	Commissioner of Lands
Ministry of Finance and Economic Planning (第一次現地調査時)		
1.	Ambrose Mzoma	Deputy Director (Debt & Aid), Debt and Aid Management Dept.
2.	Zimpita	Tax Policy Analysts, Tax Policy Unit
3.	Makamba	Tax Reform Officer
Ministry of Economic Planning and Development (第四次現地調査時)		
1	R. Mzonde	Deputy Director of Planning
Ministry of Finance (第四次現地調査時)		
1	Manda	Budget Section
2	W.F. Nyando	Assistant Budget Officer, Budget Section
National Road Authority		
1.	Okendeni Kondowe	Project Engineer, Planning Dept.
Malawi Revenue Authority		
1.	L. G. Mwanandi	Revenue Officer, Surtax Division
National Construction Industry Council		
1.	Godfrey Limwame	Assistant Registration Officer
Commission for Disaster Preparedness		
1.	James M.K. Chiusiwa	Chief Relief Officer, Dept. of Disaster Preparedness
National Statistical Office		
1	Evanca Kadongola	Data Dissemination, Lilongwe Branch, National Statistical Office
Dedza District		
1	M. Jere	Dedza District Commissioner
2	TA Kachindamoto	Traditional Authority of Kachindamoto
3	G.V.H. Msunduzeni	Representative of Traditional Authority of Kachindamoto
Farmers' Organization		
1	S. Paulo	Chairman, Bwanje Valley Irrigation Production and Marketing Cooperative Society Limited
2	R. Beni	Secretary, Bwanje Valley Irrigation Production and Marketing Cooperative Society Limited
3	A.G Chapata	President, Domasi Water Users Assosiation
Others		
1.	Dr. M. Kwapata	Meteorologist, Bunda Agricultural College, University of Malawi
2.	Dr. Khaila	Bunda Agricultural College, University of Malawi, Agricultural Rural Policy Research Unit
3.	John Chicopa	Information Assitant, Warld Bank, Malawi Office

NO.	NAME / 名前	POSITION / 役職
4.	Joseph K. Chisenga	National Programme Coordinator, Smallholder Flood Plains Development Programme, IFAD
5.	Johns B. Kamangira	Monitoring & Evaluation Specialist, Smallholder Flood Plains Development Programme, IFAD

在ザンビア日本大使館

1	石 弘之	大使（第二次現地調査以前）
2	宮下 正明	大使（第三次現地調査以降）
3	鈴木 光太郎	公使参事官（基本設計概要書説明時）
4	古賀 達朗	一等書記官
5	財津 知亨	二等書記官（第四次現地調査まで）
		一等書記官（基本設計概要書説明時）
6	湯本 健一	二等書記官（第三次現地調査まで）
7	沼田 由吏花	専門調査員（第一次現地調査時）

JICA マラウイ事務所

1	加藤 高史	所長（第三次現地調査まで）
2	水谷 恭二	所長（第三次現地調査以降）
3	村瀬 達哉	次長（第三次現地調査まで）
4	松本 賢一	所員（第三次現地調査まで）
5	門脇 聡	所員（第四次現地調査以降）
6	松島 恭範	企画調査員
7	Manda M. R.	プログラムオフィサー

JICA 専門家および青年海外協力隊員

1	渡辺 直人	JICA 専門家（第二次現地調査まで）
2	岡田 秀雄	JICA 専門家（第四次現地調査以降）
3	丹羽 克介	青年海外協力隊員（第一次現地調査時）
4	田中 耕太郎	青年海外協力隊員
5	上野 智史	青年海外協力隊員（第二次現地調査まで）
6	山田 由紀	青年海外協力隊員（基本設計概要書説明時）

4. 討議議事録(M/D)

資料 - 1

討議議事録(インセプションレポート説明時、2003年2月)

**MINUTES OF DISCUSSIONS
ON
THE BASIC DESIGN STUDY
ON THE PROJECT FOR
REHABILITATION OF
THE BWANJE VALLEY IRRIGATION SYSTEM
IN
THE REPUBLIC OF MALAWI**

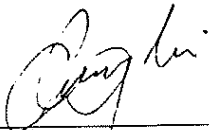
In response to a request from the Government of the Republic of Malawi, the Government of Japan decided to conduct a Basic Design Study on the Project for Rehabilitation of Bwanje Valley Irrigation System (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to Malawi the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Mr. Tomoyuki Ono, Grant Aid Division, Bureau of Economic Cooperation, Ministry of Foreign Affairs, and is scheduled to stay in the country from 21 February to 28 March, 2003.

The Team held discussions with the officials concerned of the Government of Malawi and conducted a field survey at the study area.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Lilongwe, 25 February, 2003



Mr. Tomoyuki Ono
Leader
Basic Design Study Team
Japan International Cooperation Agency



Ms. A.F. Mchiela
Principal Secretary
Ministry of Agriculture and Irrigation
The Republic of Malawi

ATTACHMENT

1. Objective of the Project

The objective of the Project is to protect the Bwanje Valley Irrigation System from natural disasters through the relocation of the main canal constructed in 1999 under Japanese Grant aid, construction of a footbridge and so on.

2. Project site

The site of the Project is located in the left bank of the Namikokwe River, Traditional Authority Kachindamoto, Dedza District, Central Region, as shown in Annex-1.

3. Responsible and Implementing Agency

The responsible and implementing agency is the Ministry of Agriculture and Irrigation (hereinafter referred to as "the MOAI") as shown in Annex.2.

4. Minutes of Discussions on the Basic Design Study and the Follow-Up Implementation of the Project for the Bwanje Valley Smallholder Irrigation Development

Both sides have read and reconfirmed all the contents of the Minutes of Discussions on the Basic Design Study signed on 18 September, 1996 and 3 December, 1996 and the Follow-Up Implementation signed on 27 September, 2002. The copy of the Minutes is attached herein as Annex-3.

5. Items requested by the Government of Malawi

After discussion with the Team, the items described in Annex-4 were finally requested by the Malawi side. The final components of the Project, however, will be decided after further studies based on the information collected.

6. Japan's Grant Aid Scheme

6-1. The Malawi side has understood the Japan's Grant Aid Scheme explained by the Team, as described in Annex-5.

6-2. The Malawi side will undertake the necessary measures, as described in Annex-6, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

7. Schedule of the Study

7-1. The consultant members of the Team proceed to further studies in Malawi until 28 March, 2003.

7-2. JICA will prepare a draft report in English and send it to the Government of Malawi through JICA Malawi Office around May 2003.

7-3. In case that the contents of the report is accepted in principle by the Government of Malawi, JICA will complete the final report and send it to the Government of Malawi by July 2003.

8. Other relevant issues

8-1. Both sides reconfirmed that Lilongwe ADD was responsible for managing Bwanje Valley Irrigation System including land leveling works. Both sides also confirmed that the appropriate implementation of leveling works at the system was essential. The Malawi side promised to take necessary measures and allocate 3 bulldozers just only for land leveling works in Bwanje Valley Irrigation System including fuel and personnel to complete rough leveling. The Malawi side further promised that the farmers should start smooth land leveling works from March 2003 under the full responsibility of Lilongwe ADD. The Malawi side shall formulate a program for land leveling works including at least the following items by 28 March and carry out land leveling works according to the program.

- 1) locations of rough leveling areas and excavation volume,
- 2) schedule of rough leveling and smooth leveling, and
- 3) budgetary allocation for personnel, fuel and repair cost.

The Japanese side shall assess the feasibility of the program in the course of the Study, and confirm the progress of 1) the smooth leveling works at the time of the explanation of the draft report, 2) rough leveling works before the "Exchange of Notes (E/N)".

8-2. The Malawi side explained that National Steering Committee (NSC) has been already established for the smooth implementation of the project. The Malawi side promised to submit the terms of the reference of NSC to Japanese side. The member of the National Steering Committee is as follows:

- The Controller of Irrigation Services (Chairperson)
- The Director of Extension Services
- The Director of Land Resources Conservation
- The Director of Crop Production Services
- The Program Manager of Lilongwe ADD
- The Director of Animal Health and Industry
- The Director of Agricultural Research and Technical Services
- JICA Malawi Office Representative
- JICA Experts Representative
- Representative of Farmers Cooperative

8-3. Both sides reconfirmed that the cooperative had hired farmers to do the clearing of the tertiary canals. Both sides further reconfirmed that Lilongwe ADD will make the necessary arrangements for the implementation of an efficient water distribution system and the maintenance of the main and branch canals for Bwanje Valley Irrigation System.

8-4. The Malawi side promised to include the necessary budget in the 2003/04 financial year prior to the E/N and thereafter, for the next 4 years up to 2006 for the implementation of the project, including land leveling, operation and maintenance of the project and the NSC according to the draft report. The project will proceed after the confirmation of the budget allocation by the Malawi side to the Japanese side as a condition for the Japanese Grant Aid to be implemented.

8-5. The Team recognized the following,

- 1) The river course was very close to the upstream portion of the main canal after the flood disaster on 2 February, 2003.
- 2) The future possibility of damage to the main canal by flood was increasing.

Both sides confirmed that the necessity of counter-measures to protect the upstream portion of the main canal from natural disasters would be examined in the course of the Study.

8-6. Department of Agriculture and Extension is responsible through Lilongwe ADD for the following,

1) to organize the farmers' group and facilitate its registration as a farmers' cooperative with the legal activities,

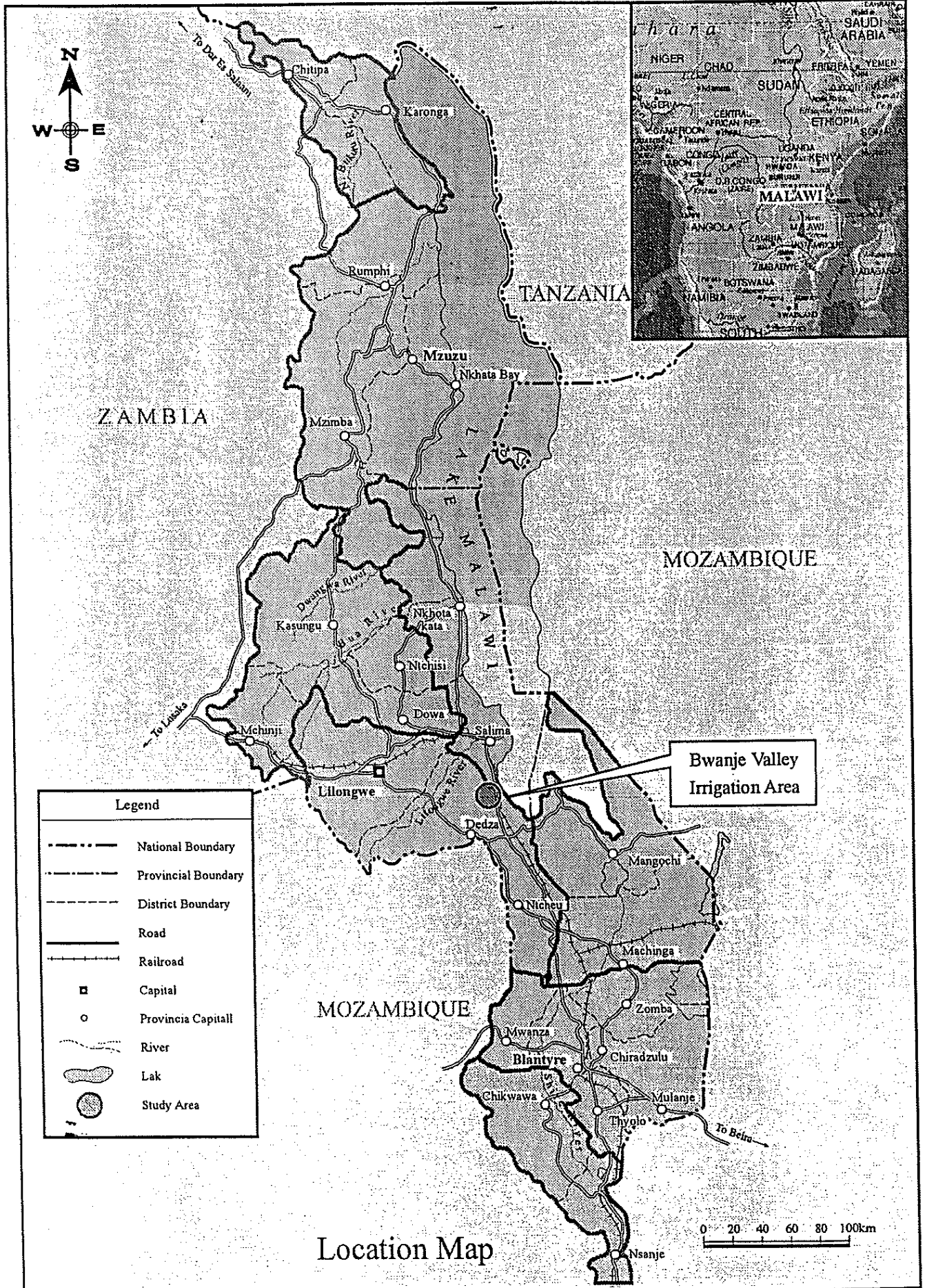
2) to reformulate by-laws and regulations of farmers' groups,

3) to reformulate operation and management plans carried out by farmers' groups

8-7. The land for relocation of the main canal shall be secured by the Malawi side before the implementation of the Project.

8-8. The Malawi side declared that a fully fledged Environmental Impact Assessment for the project will not be necessary as this is not a new project and its scale is rather small, requiring a scaled down Environmental Impact Assessment to be carried out by Malawi side if necessary.

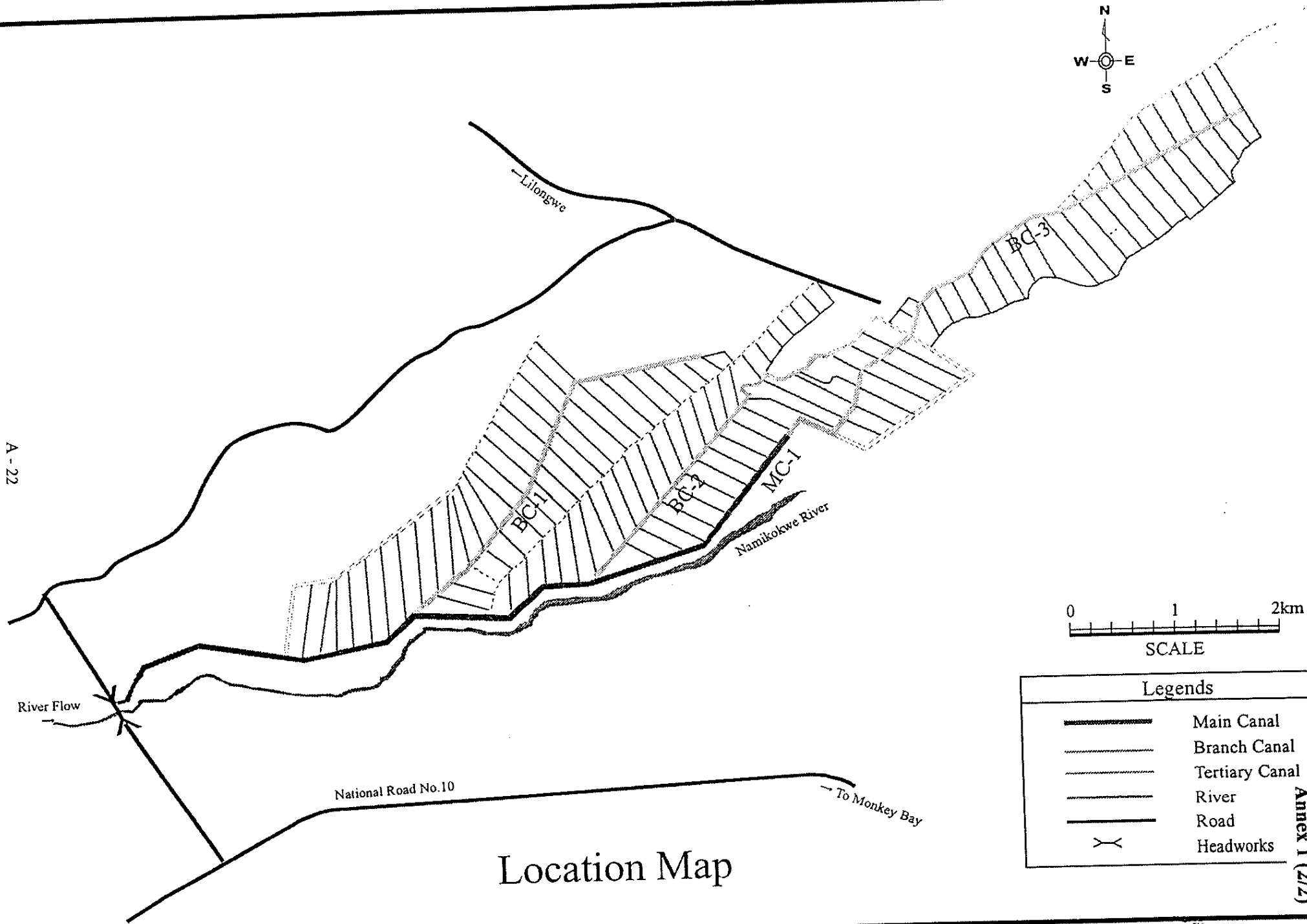
8-9. The Malawi side will ensure that the plot holders that will be affected siting of the new by the are properly relocated before the implementation of the Project can be effected.



Location Map

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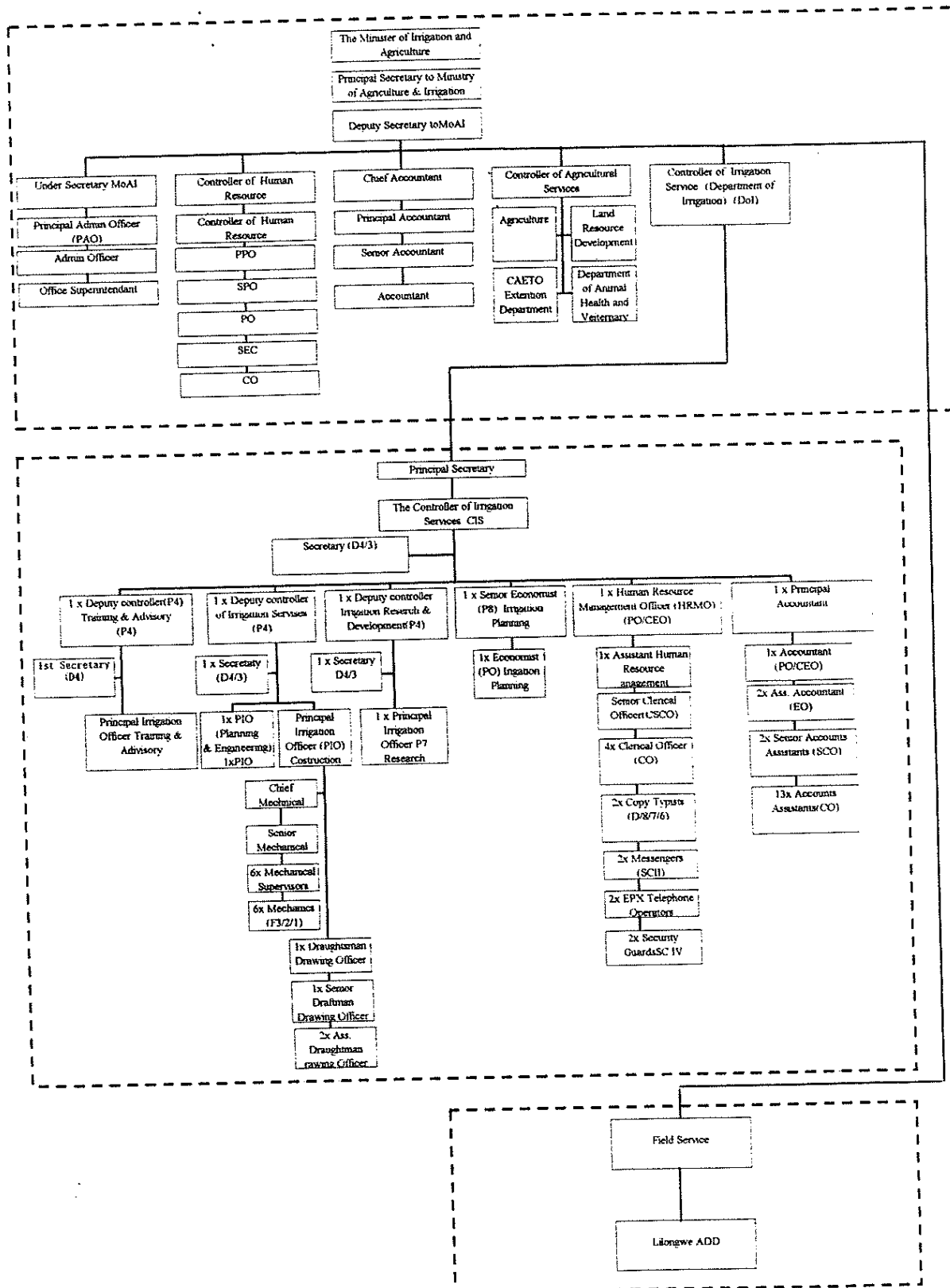
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Location Map

Legends	
	Main Canal
	Branch Canal
	Tertiary Canal
	River
	Road
	Headworks

Ministry of Agriculture and Irrigation, Malawi & Department of Irrigation



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MINUTES OF DISCUSSIONS
ON
THE BASIC DESIGN STUDY ON THE PROJECT
FOR
BWANJE VALLEY SMALLHOLDER IRRIGATION IN
THE REPUBLIC OF MALAWI

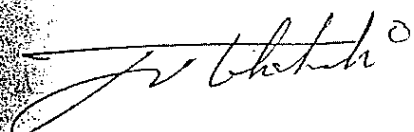
Based on the results of the Preliminary Study, the Japan International Cooperation Agency (JICA) decided to conduct a Basic Design Study on the Project for Bwanje Valley Smallholder Irrigation (hereinafter referred to as "the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Republic of Malawi the Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Mr. JUNJI TAKAHASHI, Development Specialist, Institute for International Cooperation, JICA, and is scheduled to stay in the country from September 10 to October 10, 1996.

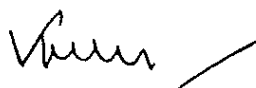
The Team held a series of discussions with officials concerned of the Government of Malawi and conducted field surveys at the study area.

In the course of the discussions and field surveys, both parties have confirmed the main items described on the attached sheets. The Team will proceed to further work and prepare the Basic Design Study report.

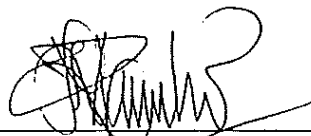
Lilongwe, September 18, 1996



Mr. JUNJI TAKAHASHI
Leader,
Basic Design Study Team,
JICA



Mr. K. MANJOLO
Principal Secretary,
Ministry of Irrigation and Water
Development,
The Republic of Malawi



Mr. J. M. MHANGO
Senior Assistant Secretary,
Ministry of Finance,
The Republic of Malawi

ATTACHMENT

1. Objective

The objective of the Project is to increase agricultural production and improve the living conditions of the smallholder farmers in the project area through the improvement of agricultural and social infrastructure.

2. Proposed Project Area

The project sites are located on the left bank of the Naminkhokwe river, Traditional Authority (hereinafter referred to as "TA") Kachindamoto, Dedza District, Central Region. The name of villages located in the Project area are listed in the ANNEX-I.

3. Responsible and Executing Organization

The responsible and executing organization of the Project is the Ministry of Irrigation and Water Development (hereinafter referred to as "the MIWD").

4. Items requested by the Government of Malawi

After discussions with the Team, the items described in ANNEX-II were finally requested by the Government of Malawi.

The final components of the Project, however, will be decided after further studies based on the information collected.

5. Japan's Grant Aid System

(1) The Government of Malawi has understood the Japan's Grant Aid system as described in ANNEX-III through the explanation by the Team.

(2) The Government of Malawi will take the necessary measures described in ANNEX-IV for the smooth implementation of the Project, on condition that the Japan's Grant Aid is extended to the Project.

6. Schedule of the Study

(1) The consultant members of the Team will proceed to conduct further studies in Malawi until October 10, 1996.

(2) JICA will prepare a draft basic design report and dispatch a mission in order to explain its contents in early December 1996.

(3) In the event that the contents of the draft basic design report are accepted in principle, JICA will finalize the basic design study report, and send it to the Government of Malawi around February 1997.

7. Other Relevant Issues

(1) Farmers Group

Farmers group shall be organized by the beneficiaries of the Project based on the existing Mutandamula Irrigation Scheme Committee. The group shall be responsible for the operation and maintenance of the irrigation facilities constructed by the Project. The Salima Agricultural Development Division (hereinafter referred to as the Salima ADD") shall take the initiative to organize the group and train the members of the group through its extension service. The establishment plan of the group such as time schedule, organization structure, members, activities and regulations shall be made by the Salima ADD and beneficiaries, and reported to the draft basic design explanation team which will be dispatched in early December 1996.

(2) Land Acquisition

The land of the Project area is classified into customary land and controlled by the local authority i.e. group village headmen and TA Kachindamoto. The MIWD shall obtain the TA's or group village headmen's commitment on the land acquisition necessary for the project implementation by the letter. The letter shall be submitted to the Team by the end of September 1996.

(3) Land Allocation

The new irrigated land will be allocated after the construction of irrigation facilities by the land allocation committee. The MIWD shall make an allocation plan such as the establishment of the land allocation committee, a field block plan and a way of land allocation to the farmers in consultation with the local authority and the Team.

(4) Water Right

The MIWD shall take necessary action to secure the water right for the Project based on the water requirement which will be calculated in the draft basic design report.

(5) Government's Support

- 1) The MIWD shall allocate necessary budget and assign sufficient personnel to the Project in order to support beneficiaries for smooth operation and maintenance of the facilities constructed by the Project.
- 2) The MIWD shall train the beneficiaries through the Salima ADD's extension service in cooperation with the Ministry of Agriculture and Livestock Development.

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3) The MIWD shall owe full support for the realizing successful execution of farmers' participation through the Salima ADD.

(6) Farmers' Participation

The beneficiary farmers shall participate in the construction of the Project facilities under technical guidance of the Irrigation Section of the Salima ADD.

(7) Compensation

The Government of Malawi shall compensate for the transfer of houses and the removal of planted trees if these are necessary for the construction of the facilities by the Project.

(8) Bilharzia Control

The MIWD shall take countermeasures for the control of bilharzia in the irrigated area of the Project in cooperation with the Community Health Service Unit of the Ministry of Health.

(9) Suspension of Crop Cultivation

The MIWD shall be responsible for arranging with the Ministry of Agriculture and Livestock Development for the suspension of crop cultivation in the Project area in order to ensure smooth execution of construction works.

(10) Development Center

The MIWD and the beneficiaries recognize the importance of the Development Center, and that funds will be requested from the Government of Japan separately from this project.

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The name of the villages located in the Project area

MTHEMBANJI Group Village	KAFULAMA Group Village	BWANARI Group Village	MCHANJA Group Village
① Dziko	① Maiwaza	Madziatsasi	① Mchanja
② Mkondorire	② Mlongoti	Nankumba	② Mdulambale
③ Chatewa	③ Maluza	Msolo	③ Kamwendo
④ Mthembanji		Fole	④ Khoswe
⑤ Mbangali		Bwanari	⑤ Mchembo
⑥ Bwanamakowa			⑥ Nbongwe
⑦ Garuanenji			
⑧ Mvasinja			

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ANNEX II

Items requested by the Government of Malawi

Items	Quantity	Priority
I. Irrigation and Drainage Plan		
Irrigation area	Rehabilitation 230 ha. New 570 ha	
Project Facilities		
Headworks	1 Site	1
Main Irrigation Canals	6.7 km	1
Branch (Secondary) Canals	8.3 km	1
Tertiary Canals	55.7 km	1
Land Reclamation and Levelling	570 ha	1
Land Levelling	230 ha	2
Drainage Canals	12.2 km	1
Inspection Roads	12.8 km	1
Road / Flood Protection Dikes	7.0 km	1
Connecting Roads	2.4 km	2
II. Boreholes and Hand Pumps		2
III. Rice Mills and Maize Mills with Sheds		2
IV. Road Construction and Rehabilitation		
Road Construction	1. Intake point to M10 2. New irrigated area to route C	2
Road Rehabilitation	1. Route C (M5 - Muwasinja) 2. Route D (Mwasinja - Mtembanji)	3

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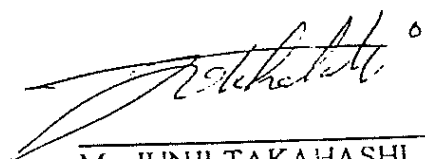
MINUTES OF DISCUSSIONS
ON
THE BASIC DESIGN STUDY ON THE PROJECT
FOR
BWANJE VALLEY SMALL HOLDER IRRIGATION DEVELOPMENT
IN THE REPUBLIC OF MALAWI
(EXPLANATION ON THE DRAFT BASIC DESIGN)

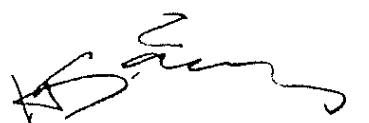
In September 1996, the Japan International Cooperation Agency (JICA) dispatched the Basic Design Study Team on the Project for Bwanje Valley Smallholder Irrigation Development (hereinafter referred to as "the Project") to the Republic of Malawi. After the assessment of the data and information obtained through the study, JICA has prepared the Draft Basic Design on the Project.


In order to explain and consult with the officials concerned of the Government of Malawi on the components of the Draft Basic Design, JICA sent to the Republic of Malawi a Study Team (hereinafter referred to as "the Team") headed by Mr. JUNJI TAKAHASHI, Development Specialist, Institute for International Cooperation, JICA, which is scheduled to stay in the country from November 26 to December 4, 1996.

As a result of the discussions held between the Team and the officials concerned of the Government of Malawi, both parties have confirmed the main items described on the attached sheet.

Lilongwe, December 3, 1996


Mr. JUNJI TAKAHASHI
Leader,
Draft Basic Design Explanation Team,
JICA


Mr. K. MANJOLO
Principal Secretary,
Ministry of Irrigation and Water
Development,
The Republic of Malawi


Mr. J. C. T. NTHANI
Deputy Secretary (Bilateral),
Ministry of Finance,
The Republic of Malawi

ATTACHMENT

1. Components of the Draft Basic Design

The Government of Malawi has agreed and accepted in principle the components of the Draft Basic Design proposed by the Team.

2. Japan's Grant Aid System

- (1) The Government of Malawi has understood the Japan's Grant Aid system as described in ANNEX-I through the explanation by the Team.
- (2) The Government of Malawi will take the necessary measures described in ANNEX-II for the smooth implementation of the Project, on condition that the Japan's Grant Aid is extended to the Project.

3. Schedule of the Study

JICA will complete the final report in accordance with the confirmed items, and send it to the Government of Malawi by March 1997.

4. Other Relevant Issues

(1) Government's Support

The Ministry of Irrigation and Water Development (MIWD) has confirmed the allocation of necessary budget and the deployment of sufficient personnel for smooth implementation of the Project.

(2) Land Acquisition

The land of the Project area is classified into customary land and controlled by the local authority i.e. group village headmen and TA Kachingamoto. The MIWD has obtained the TA's commitment on the land acquisition necessary for the Project implementation by the letter.

(3) Land Allocation

The new irrigated land will be allocated after the construction of irrigation facilities by the land allocation committee. The Salima ADD has committed that the formation of land allocation committee would be done after signing of Exchange of Notes (E/N). The local authority has confirmed the fair allocation of land for beneficiaries of the Project.

(4) Water Right

The MIWD shall take necessary action to secure the water right for the Project based on the water requirement which was calculated in the draft basic design report.

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(5) Farmer's Group

The Salima ADD and the beneficiaries of the Project have already made the establishment plan of the farmer's group. The planned group shall be organized based on the existing Mwanambula Irrigation Scheme Committee immediately after the confirmation of the Project implementation as per the attached commitment letter by the Salima ADD. The Salima ADD shall take the initiative to organize the group and train the members of the group through its extension services. The group shall be responsible for the operation and maintenance of the facilities constructed by the Project.

(6) Operation and Maintenance Organization of the Project

The MIWD has confirmed the responsible organization for the operation and maintenance of the facilities constructed by the Project as shown in the ANNEX III.

(7) Farmer's Participation

Both sides have confirmed the participation of the beneficiaries for soil facing works on embankment, excavation of the small drainage canals, and fencing around the drain pit of the seep holes.

(8) Compensation

The Government of Malawi shall compensate for the transfer of houses and the removal of planted trees, if these are necessary for the construction of the facilities by the Project.

(9) Suspension of Crop Cultivation

The MIWD shall be responsible for arranging with the Ministry of Agriculture and Livestock Development for the suspension of crop cultivation in the Project area in order to ensure smooth execution of construction works.

(10) Bilharzia Control

The MIWD shall take necessary measures for the control of bilharzia in the irrigated area of the Project in cooperation with the Community Health Service Unit of the Ministry of Health.

(11) Land Leveling and Foot Path

The Malawi side requested that the land leveling for sample plots be done by hand if not by machine in the whole project area. It was also requested that the foot path along tertiary canals be widened by 1 m so that ox-carts can be used to haul produce from the field.

ANNEX-III

OPERATION AND MAINTENANCE ORGANIZATION OF THE PROJECT

Component	O/M Organization
Irrigation and Drainage Facilities	Farmers' group with the assistance of Irrigation and Extension Sections of Salima ADD
Boreholes and Hand Pumps	Borehole committees assisted by MIWD, Ministry of Women, Children Affairs and Community Services, Ministry of Health and NGO
Ricemills	Ricemill O&M committees assisted by Mechanical Services Section of Department of Irrigation
Rural Roads	Dedza District Office of the Ministry of Works and Supply

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FROM: THE PROGRAMME MANAGER, SALIMA ADD,
PRIVATE BAG 1, SALIMA.

TO: TO WHOM IT MAY CONCERN

LETTER OF COMMITMENT TO FORMATION OF FARMERS
ORGANISATION IN PROPOSED BWANJE VALLEY
IRRIGATION PROJECT.

I would like to express our commitment to facilitate:

- 1) Formation of requisite farmers committee structures viz:
 - Main committee,
 - Land Allocation committee.,
 - Marketing - sub - committee,
 - Water distribution sub - committee,
 - Disciplinary sub - committee and
 - Rice mill sub - committee.
 - Operation and Maintenance sub - committee

2) Training and role definition of committee members.

3) Formation of committee constitutions

The activities will be undertaken after exchange of notes between the Governments of Malawi and Japan.

Signed.....
Project Officer Bwanje Valley Rural Development Project

Signed.....
Head of Agricultural Extension and Training

Signed.....
Programme Manager Salima ADD.

MINUTES OF DISCUSSIONS
ON
THE FOLLOW-UP IMPLEMENTATION OF THE PROJECT
FOR
THE BWANJE VALLEY SMALLHOLDER IRRIGATION DEVELOPMENT
IN
THE REPUBLIC OF MALAWI

From May 28, 2002 to June 3, 2002, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Follow-up Study Team of the Project for the Bwanje Valley Smallholder Irrigation Development to the Republic of Malawi (hereinafter referred to as "Malawi").

Considering the appreciation of JICA decided to implement the rehabilitation work on the Follow-up Cooperation of the Project for the Bwanje Valley Irrigation Development (hereinafter referred to as "the Work") and sent the Follow-up Implementation Team (hereinafter referred to as "the Team") headed by Mr. Hideyuki Kanamori, JICA Senior Adviser for Agricultural Development from September 22 to September 27, 2002.

The Team held discussions with the officials concerned of the Government of Malawi.

In the course of the discussions, both sides confirmed the main items described on the attached sheets.

Lilongwe, September 27, 2002

金森秀行

Mr. Hirdeyuki Kanamori
Team Leader
The Follow-up Implementation Team for
The Bwanje Valley Irrigation
Development Project
Japan International Cooperation Agency

Andrina E. Mchiela

Ms. Andrina E. Mchiela
Principal Secretary
Ministry of Agriculture and Irrigation
The Republic of Malawi

ATTACHMENT

1. Scope of Work for Follow-up Cooperation

1.1 Rehabilitation Strategy

For sustainable rehabilitation, the Work includes not only restoring the flood protection dike/scheme access road and main canal but also moving the damaged parts of main canal line inside of the scheme at about 300m. The desired length of the moved canal is about 800m. With this movement, the canal can avoid the future damage due to much bigger floods than this January. The estimated period of the sustainable rehabilitation is, however, over this dry season. Only restoring the dike with protection works can be completed within this dry season. It has, therefore, been decided that all the related jobs on restoring the dike is carried out with the aid scheme called Follow-up cooperation and all the related jobs on moving the main canal is with the other fund. Other donor's assistance, Japan's cooperation or the budget from the Government of Malawi will be possible fund for moving the canal.

1.2 Contents of the Work

The work contents covered by the Follow-up cooperation are as follows:

(1) Rehabilitation of the damaged flood dike at three points

- 1) Upstream : 118m
- 2) Midstream : 37m
- 3) Downstream : 20m

(2) Removal of obstructions to river flow and excavation to increase the river flow capacity

(3) Installation of dike protection for the parts along which farm road is close to river (About 800m)

1.3 Organization of the Work

The following organization structure is established to carry out the Work.

- (1) The Client : JICA Malawi Office
- (2) The Consultant : Nippon Koei Co., Ltd.
- (3) The Main Contractor: (The contractor is decided after tendering.)

1.4 Schedule of the Work

The Contractor shall complete the Work by January 15, 2003. If, however, the rainy season start earlier and the civil work cannot be continued or workers are very risky for floods, the work will be stopped. If, furthermore, the Work is not completed until the end of Japanese fiscal year in March 2003, the rest of the work should be carried out with the other fund.

2. Scope of Work - Grant Aid

The Malawi side will request of Japanese grant aid for the following items in the scope:

- (1) Movement of the main canal line with about 800m long inside of the scheme at about 300m
- (2) Construction of one access bridge for footpath of farmers over Namikolwa River

Furthermore, the Malawi side will request to carry out the remaining rehabilitation jobs if the Work cannot

be completed by the end of Japanese fiscal year due to stopping the Work for early starting the rainy season. The Team has promised to convey those requests to the relevant authorities in Japan. The Team emphasized that acceptance of the request for grant aid would be hard without much more progress of land leveling than the present.

3. Implementation of Land Leveling

3.1 Progress and Implementation Activities

The Malawi side reported that three bulldozers and one tractor were provided at the site although total four bulldozers and eight tractors would be provided. The cumulative total area that has been leveled up to the present is 110ha. The bulldozers and tractor have not fully worked due to frequent break down. The present progress of land leveling is thus behind of the planned schedule. Only 31ha have been leveled in this dry season although the target hectares were 100ha. The detailed number of the provided machinery and present progress are as shown in Annex-1. Activities and personnel arrangement of Lilongwe ADD are also shown in Annex-1. In order to supplement the lack of machinery, the Malawi side has planed to employ laborers and conduct manual leveling.

The Team appreciated that the Malawi side recognized smallness of the present progress and took measures to improve the present situation although the Team heard such a small progress with regret. The Team, therefore, described our estimation of leveling rate with four bulldozers and eight tractors citing the Follow-up Study report and requested to provide the full number of machinery and improve the mechanical service system and others to increase the reliability in consultation with the Japanese expert and JOCV members.

3.2 Budgetary Program

The Malawi side described the budget plan as shown in Annex-1. The Team introduced the result of cost estimation with four bulldozers and eight tractors to complete the leveling in three dry seasons, as shown in Annex-2. The Malawi side has promised to study the cost estimation, establish more precise budget plan and make the great efforts to provide the budget. For realizing the plan, the Malawi side intends to apply the counterpart fund for KR2 as a part of the budget source. The Team has recommended that the Malawi side takes necessary measures to request the counterpart fund to the Ministry of Finance and Economic Cooperation, and has promised to convey the intension to the relevant authorities in the Japanese Embassy to Zambia as well as in Japan.

4. Recommendations

Increasing performed hectares of land leveling is mandatory for realizing the grant aid. The Team will recommend the followings to increase the leveling progress, considering the facts found during our field survey.

- (1) Evaluate hardness of leveling (soil type, number of existing trees, existence of hills, etc) and necessity of leveling (flat land or rough land) for each field and give priority to the field in which leveling is easy and necessary.
- (2) Apply tractors for leveling the sandy soil area of 150ha at upper side of the scheme after trial leveling.

- (3) Manage all the bulldozers and tractor to work at vicinity so that the mechanic can efficiently serve the machine

These recommendations should be realized in consultation with the JICA expert and JOCV members.

5. Other Relevant Issue

The Malawi side has promised to submit the official request on the grant aid within one week to the Japanese Embassy to Zambia.



ANNEX 1. ANSWERS FROM DEPARTMENT OF IRRIGATION ON MAINTENANCE OF BWANJE VALLEY IRRIGATION PROJECT

1. Confirmation of cooperation:

- Provision of disbursement time at Lilongwe ADD.

This was accomplished through a meeting in the Programme Manager's Office with the following officers in LADD:

- i. Dr. B.C. Muntwazi, Programme Manager (P3)
- ii. Dr. B.A.R. Chisemba, Ag Deputy Programme Manager (P5)
- iii. Mrs. M. Mgonjola, Chief Agricultural Extension Officer (P5)
- iv. Mr. N. Matala, Chief Land Resources Conservation Officer (P5)
- v. Mr. T.M. Mpanzani, Divisional Irrigation Officer (P.O)
- vi. Mr. F. Kamanga, Principal Economist (P7)

2. Progress on Scope of Work:

- i. Land leveling (hectares)

<u>Target</u>	<u>This Period</u>	<u>Previous Total</u>	<u>Cummulative Total</u>
200	31	79	110

- ii. Number of bulldozers / tractors presently working in Bwanje Valley Irrigation

Bull dozers (3)
Tractors (1)

- iii. However during the last two months, there were two additional tractors which were drawn from Shire Valley and Salima ADDs.
Budget planned delivered amounts for Bwanje Valley Irrigation Project.

Co

Source of Funding	Annual Provision (MK)	Monthly Allocation (MK)					TOTAL (MK)
		Mar	Apr	May	June	July	
MG*	1000,000	115,000	Nil	130,000	130,000	40,000	530,000
HIPC	200,000	Nil	Nil	Nil	Nil	200,000	200,000
KR2	1900,000	Nil	50,000	Nil	Nil	Nil	50,000

* MG - Malawi Government revenue

- KR2 funds were used for purchase of fuel for bulldozers and tractors involved in land leveling.
- HIPC funds are being used for recruitment of manual labour for land leveling and catchment conservation work

iv. Activities under Lilongwe ADD after take over from Salima ADD

1. Land leveling - 31 hectares
2. Catchment conservation (ridge pegging and ridge alignment) - 158 hectares

3. Delivery of Agricultural Extension Services

- Extension meetings

Target	Achievement
1110	300

- Community mobilization

- 4 meetings conducted with cooperative leaders
- 1 sensitization campaign conducted to improve land utilization in the project area.
- 4 participatory crop enterprise selection meetings conducted with farmers.

4. Facilitate the introduction of new crop regimes

- Cassava seed multiplication

20 hectares of cassava nurseries are being established with assistance from FAO

- Beans production

129 hectares of beans have been planted in the area

- Sweet Potato

Approximately 1 ha of sweet potato has been planted for the supply of planting method in summer.

V. Number of personnel assigned to Bwanje Valley Irrigation Project

- Staff list

- | | | |
|-----|----------------------|--|
| 1. | Dr. B.C. Munthali | Programme Manager, Lilongwe ADD |
| 2. | Mr. D. Makina | District Agricultural Development Officer
Dedza |
| 3. | Mr. T.M. Mpezeni | Irrigation Officer, LADD |
| 4. | Miss T. Beza | Irrigation Officer, LADD |
| 5. | Mr. B. Kanyenda | Irrigation Officer Dedza |
| 6. | Mrs. M. Mgomezulu | Chief Agricultural Extension Officer, LADD |
| 7. | Mr. D. Banda | Agricultural Extension Coordinator
Mtakatika EPA |
| 8. | Mr. A.B. Cheyo | Land surveyor, Dedza |
| 9. | Mr. W.L. Singano | Land Surveyor Bwanje Valley Irrigation
Project |
| 10. | Mr. D.W. Chirwa | Land Surveyor (seconded from the
Department of Irrigation Headquarters) |
| 11. | Plant operators | |
| | • Mr. S.K. Banda | Bull dozer Operator |
| | • Mr. L. Chizyano | " |
| | • Mr. C. Gunda | Tractor driver |
| | • Mr. A. Samu | Bull dozer operator |
| | • A.S. Njerenge | Scheme Manager |
| | • Mr. B.J. Ngwenba | AEDO |
| | • Mr. M.G.A. Mwaosha | AEDO |
| | • Mrs. C. Ngwenba | Catchment Conservationist |

LILONGWE ADD WORK PLAN SCHEDULE FOR BWANJE VALLEY IRRIGATION PROJECT, 2002

6

ID No.	OBJECTIVES AND THEIR ACTIVITIES	RESP. OFFICER	TIMEFRAME										BUDGET (MK)	
			Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec		
1	Community mobilized for maintenance	CAEO												
1.1	Conduct sensitization meetings	CAEO	X	X	X	X	X	X	X	X	X	X		
1.2	Train cooperative members in leadership and group dynamics	CAEO			X								279000	
1.3	Facilitate cooperative activities	DIO	X			X	X			X			100,000	
1.4	Conduct participatory crop and enterprise selection	DCO	X	X	X					X			100,000	
1.5	Train farmers in maintenance of feeder canals	DIO	X			X				X			100,000	
1.6	Conduct follow up visits	PM	X	X	X	X	X	X	X	X	X	X	100,000	
1.7	Train Staff on irrigation scheduling	DIO	X			X				X			100,000	
1.8	Facilitate catchment conservation measures	CLRCO	X	X	X	X	X	X	X	X	X	X	100,000	
1.9	Facilitate river bank protection	CLRCO	X	X	X	X	X	X	X	X	X	X	400,900	
1.1	Facilitate farmer training in water distribution and management	DIO	X	X	X	X	X	X	X	X	X	X	400,900	
	Sub total												150,000	
2	Canals Maintenance and land leveling													
2.1	Maintain canals	CIS		X	X	X				X			2,000,000	
2.2	Facilitate land leveling	DIO	X	X	X	X	X	X	X	X	X	X	10,000,000	
	sub total			X	X	X	X	X	X	X	X	X	1,000,000	
3	Flood Control													
3.1	Excavate river bank to increase river capacity	LEP								X	X		15,000,000	
	Sub total									X	X		10,000,000	
	TOTAL												25,000,000	
													12,070,800	

FOOT NOTE:

- CAEO - Chief Agricultural Extension Officer
- DIO - Divisional Irrigation Officer
- PM - Programme Manager
- CLRCO - Chief Land Resources Conservation Officer
- CIS - Controller of Irrigation services

6

Table Cost Estimate of Land Leveling

No.	Description	Specification	Unit	Quantity	Unit Cost(MKW)	Cost (MKW)	Remarks
						324,000	
1	Transportation (One-way)						
1.1	Bulldozer 1	D5M.90PS	time	1	16,200	16,200	Already at the site
1.2	Bulldozer 2	D5M.90PS	time	1	16,200	16,200	Already at the site
1.3	Bulldozer 3	D5M.90PS	time	2	16,200	32,400	
1.4	Bulldozer 4	D5M.90PS	time	2	16,200	32,400	
1.5	Tractor with scraper 1	60PS	time	1	16,200	16,200	Already at the site
1.6	Tractor with scraper 2	60PS	time	1	16,200	16,200	Already at the site
1.7	Tractor with scraper 3	60PS	time	2	16,200	32,400	
1.8	Tractor with scraper 4	60PS	time	2	16,200	32,400	
1.9	Tractor with scraper 5	60PS	time	2	16,200	32,400	
1.10	Tractor with scraper 6	60PS	time	2	16,200	32,400	
1.11	Tractor with scraper 7	60PS	time	2	16,200	32,400	
1.12	Tractor with scraper 8	60PS	time	2	16,200	32,400	
2	Rental Charge					0	
2.1	Bulldozer 1	D5M.90PS	month	0	0	0	Assumed to be free of charge because of the government's property
2.2	Bulldozer 2	D5M.90PS	month	0	0	0	
2.3	Bulldozer 3	D5M.90PS	month	0	0	0	
2.4	Bulldozer 4	D5M.90PS	month	0	0	0	
2.5	Tractor with scraper 1	60PS	month	0	0	0	
2.6	Tractor with scraper 2	60PS	month	0	0	0	
2.7	Tractor with scraper 3	60PS	month	0	0	0	
2.8	Tractor with scraper 4	60PS	month	0	0	0	
2.9	Tractor with scraper 5	60PS	month	0	0	0	
2.10	Tractor with scraper 6	60PS	month	0	0	0	
2.11	Tractor with scraper 7	60PS	month	0	0	0	
2.12	Tractor with scraper 8	60PS	month	0	0	0	
3	Fuel					16,117,200	
3.1	Bulldozer 1	D5M.90PS	month	38,374	45	1,726,830	0.188 lit./kw-h×90kw×6h×21days ×18 months=38,374 lit.
3.2	Bulldozer 2	D5M.90PS	month	38,374	45	1,726,830	
3.3	Bulldozer 3	D5M.90PS	month	38,374	45	1,726,830	
3.4	Bulldozer 4	D5M.90PS	month	38,374	45	1,726,830	
3.5	Tractor with scraper 1	60PS	month	25,583	45	1,151,235	0.188 lit./kw-h×60kw×6h×21days ×18months= 25,583 lit. (21days:Working days in a month)
3.6	Tractor with scraper 2	60PS	month	25,583	45	1,151,235	
3.7	Tractor with scraper 3	60PS	month	25,583	45	1,151,235	
3.8	Tractor with scraper 4	60PS	month	25,583	45	1,151,235	
3.9	Tractor with scraper 5	60PS	month	25,583	45	1,151,235	
3.10	Tractor with scraper 6	60PS	month	25,583	45	1,151,235	
3.11	Tractor with scraper 7	60PS	month	25,583	45	1,151,235	
3.12	Tractor with scraper 8	60PS	month	25,583	45	1,151,235	
4	Operators' Allowance					7,624,800	
4.1	Bulldozer 1	D5M.90PS	month	2,118	300	635,400	21days × 18 months = 2,118 days
4.2	Bulldozer 2	D5M.90PS	month	2,118	300	635,400	
4.3	Bulldozer 3	D5M.90PS	month	2,118	300	635,400	
4.4	Bulldozer 4	D5M.90PS	month	2,118	300	635,400	
4.5	Tractor with scraper 1	60PS	month	2,118	300	635,400	
4.6	Tractor with scraper 2	60PS	month	2,118	300	635,400	
4.7	Tractor with scraper 3	60PS	month	2,118	300	635,400	
4.8	Tractor with scraper 4	60PS	month	2,118	300	635,400	
4.9	Tractor with scraper 5	60PS	month	2,118	300	635,400	
4.10	Tractor with scraper 6	60PS	month	2,118	300	635,400	
4.11	Tractor with scraper 7	60PS	month	2,118	300	635,400	
4.12	Tractor with scraper 8	60PS	month	2,118	300	635,400	
5	Topo. Surveyors' Work					756,000	
5.1	Topo. Surveyor		man-days	1,512	400	604,800	21days × 18 months × 4 persons=1,512 days
5.2	Assistant		man-days	1,512	100	151,200	
6	Labor					3,402,000	
6.1	Foremen		man-days	13,608	150	2,041,200	21 days × 18 months × 36persons=13,608 days
6.2	Laborer		man-days	13,608	100	1,360,800	
7	Others					1,100,000	
7.1	Repairing of equipment		LS			1,000,000	
7.2	Stationers		LS			100,000	
	Total (1-7)					29,324,000	

Note: This table is made on the supposition that costs such as salary of staff, conveyance, communication, office expenses, handling charge of administration, etc. are to be disbursed from the government's ordinary budget.

ITEMS REQUESTED BY THE GOVERNMENT OF VIET NAM

06-08-2002

(1) IRRIGATION AND DRAINAGE SECTOR

- a). Rehabilitation of Nam Trung Pumping Irrigation System
 - Rehabilitation of the existing pumping station
 - Rehabilitation of the existing main canal and its related structures

- b). Rehabilitation of Ho Thanh Reservoir Irrigation System
 - Rehabilitation of one of the existing Ho Thanh main canals and its related structures.

- c). Nam Nam Dike Improvement
 - Improvement of a drainage gate
 - Digging a drainage canal
 - Construction of two dike spillways

(2) RURAL ROAD SECTOR

- a). Improvement of Route 15 A (South) with 6.5m wide and asphalt pavement, including construction of four bridges and related structures.

- b). Improvement of existing N.Kim - N. Phuc- N. Cuong Road with surface pavement, including construction of bridges/box-culverts and related structures.

- c). Construction of erosion control facilities at three sites along Route 15A (South)

(3) RURAL ELECTRIFICATION SECTOR

Extension of Electrification for 3 areas except for Thung Giang area in Khanh Son Commune

Annex 5 : JAPAN'S GRANT AID SCHEME

1. Grant Aid Procedure

1) Japan's Grant Aid Program is executed through the following procedures.

Application (Request made by a recipient country)

Study (Basic Design Study conducted by JICA)

Appraisal & Approval (Appraisal by the Government of Japan and Approval by Cabinet)

Determination of Implementation (The Notes exchanged between the Governments of Japan and the recipient country)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA to conduct a study on the request. If necessary, JICA send a Preliminary Study Team to the recipient country to confirm the contents of the request.

Secondly, JICA conducts the study (Basic Design Study), using Japanese consulting firms.

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Programme, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Basic Design Study

1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project"), is to provide a basic

document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) confirmation of the background, objectives and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation;
- b) evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from the technical, social and economic points of view;
- c) confirmation of items agreed on by both parties concerning the basic concept of the Project;
- d) preparation of a basic design of the Project; and
- e) estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even through they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For the smooth implementation of the Study, JICA uses a consulting firm selected through its own procedure (competitive proposal). The selected firm participates the Study and prepares a report based upon the terms of reference set by JICA.

At the beginning of implementation after the Exchange of Notes, for the services of the Detailed Design and Construction Supervision of the Project, JICA recommends the same consulting firm which participated in the Study to the recipient country, in order to maintain the technical consistency between the Basic Design and Detailed Design as well as to avoid any undue delay caused by the selection of a new consulting firm.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) "The period of the Grant" means the one fiscal year which the Cabinet approves the project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with consulting firms and contractors and final payment to them must be completed.

However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely consulting, contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability of Japanese taxpayers.

- 6) Undertakings required to the Government of the recipient country
- a) to secure a lot of land necessary for the construction of the Project and to clear the site;
 - b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities outside the site;
 - c) to ensure prompt unloading and customs clearance at ports of disembarkation in the recipient country and internal transportation therein of the products purchased under the Grant Aid;
 - d) to exempt Japanese nationals from customs duties, internal taxes and fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts;
 - e) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the verified contracts such as facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work;
 - f) to ensure that the facilities constructed and products purchased under the Grant Aid be maintained and used properly and effectively for the Project; and
 - g) to bear all the expenses, other than those covered by the Grant Aid, necessary for the Project.

7) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for operation and maintenance of them as well as to bear all the expenses other than those covered by the Grant Aid.

8) "Re-export"

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

9) Banking Arrangement (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the verified contracts.

Stage	Flow & Works	Recipient Government	Japanese Government	JICA	Consultant	Contractor	Others
Application	<p>Reque</p> <p>Screening of Project → Evaluation of T/R → Project Identification (T/R : Terms of Reference)</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Study (Project Formulation & Preparation)	Prelimina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	Basic Design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Explanation of Draft Final → Final Report						
Appraisal & Approval	<p>Appraisal of Project</p> <p>Inter-Ministerial Consultation</p> <p>Presentation of Draft</p> <p>Approval by the Cabinet</p>		<input type="checkbox"/>				
Implementation	E/N (E/N : Exchange of Note)	<input type="checkbox"/>	<input type="checkbox"/>				
	Banking Arrangeme	<input type="checkbox"/>					<input type="checkbox"/>
	Consultant Contract → Verification → Issuance of A/P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Detailed Design & Tender → Approval by Recipient Government → Preparation for Tender	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Tendering & Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Construction Contract → Verification → A/P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Constructio → Completion Certificate by Recipient → A/P	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Operation → Post Evaluation (A/P : Authorization to Pay)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Evaluation & Follow-up	Ex-Post → Follow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Major Undertaking to be taken by Each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1.	To secure land		⊙
2.	To clear, level and reclaim the site when needed		⊙
3.	To construct access roads		
	1) Within the site when required	⊙	
	2) Outside the site		⊙
4.	To rehabilitate the Beanje Valley Irrigation System		
	1) Relocation of a certain part of the main canal	⊙	
	2) Construction of a footbridge	⊙	
	3) Others if any	⊙	
5.	To bear the following commissions to the Japanese foreign exchange bank for the banking services based upon the B/A (Banking Arrangement)		
	1) Advising commission of A/P (Authorization to Pay)		⊙
	2) Payment commission		⊙
6.	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	⊙	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		⊙
	3) Internal transportation from the port of disembarkation to the project site		⊙
7.	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.		⊙
8.	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts.		⊙
9.	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant.		⊙
10.	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.		⊙

資料 - 2

討議議事録(第二次現地調査開始時、2003年7月)

MINUTES OF DISCUSSIONS
ON
THE 2nd BASIC DESIGN STUDY
ON THE PROJECT FOR
REHABILITATION OF
THE BWANJE VALLEY IRRIGATION SYSTEM
IN
THE REPUBLIC OF MALAWI

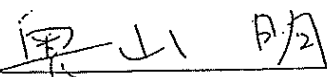
In February 2003, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the Project for Rehabilitation of the Bwanje Valley Irrigation System (hereinafter referred to as "the Project") to the Republic of Malawi (hereinafter referred to as "Malawi"). Based on the results of the Basic Design Study and in response to an additional request from the Government of Malawi, the Government of Japan decided to conduct the 2nd Basic Design Study on the Project and entrusted the study to JICA.

JICA sent to Malawi the 2nd Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Mr. Akira Okuyama, Director, 4th Project Management Division, Grant Aid Management Department, JICA, and is scheduled to stay in the country from July 22 to July 29, 2003.


The Team held discussions with the officials concerned of the Government of Malawi and conducted a field survey at the study area.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Lilongwe, July 29, 2003



Akira Okuyama
Leader
Basic Design Study Team
Japan International Cooperation Agency



C. J. Matabwa (Ph.D)
Ag. Principal Secretary
Ministry of Agriculture, Irrigation and
Food Security
The Republic of Malawi

ATTACHMENT

1. Objective of the Project

The objective of the Project is as follows.

- 1) To protect the Bwanje Valley Irrigation System from floods through relocation of the main canal constructed in 1999 under the Japan's Grant Aid Scheme, rehabilitation of the headworks and others
- 2) To stabilize distribution of irrigation water in the Bwanje Valley Irrigation System

2. Components requested by the Government of Malawi

After discussions, the Team reconfirmed that the following components were requested by the Government of Malawi.

- (1) Expansion of shifting of the main canal
- (2) Functional improvement of the settling basin
- (3) Rehabilitation of the gabion works after apron at the headworks
- (4) River training works
- (5) Land leveling after shifting of the main canal
- (6) Construction of a footbridge

3. Components to be adopted in the Project

After discussions, both sides confirmed that the components described below would be adopted in the Project. JICA will assess the appropriateness of the components and will recommend to the Government of Japan for approval.

- (1) Relocation of the main canal
- (2) Functional improvement of the settling basin
- (3) Rehabilitation of the gabion works after apron at the headworks

(4) Land leveling after relocation of the main canal

4. Other relevant issues

4-1. Both sides confirmed that relocation of the main canal aims at protecting against floods.

4-2. Accompanied with the relocation of the main canal, the farm land between the existing and newly planned main canals will be no further irrigated area and become to be rain-fed. It is required to redistribute farm plots to the farmers concerned or to be settled in a proper procedure. Both sides confirmed that the Ministry of Agriculture, Irrigation and Food Security (hereinafter referred to as "MOAIFS") should be responsible for the redistribution. MOAIFS promised the Team to settle this issue before the implementation of the Project.

4-3. On the land leveling, the both sides understood that Malawi side is in charge of land leveling and conducting the leveling at present. It should thus be noted that adopting land leveling in the Project does not mean total support of land leveling but possibility of partial support in considering more efforts made by Malawi side.

4-4. Both sides confirmed that the farmers should not use the existing main canal after completion of the new main canal.

4-5. Japanese side confirmed that Malawi side should take necessary measures so that any people do not cross the Namikokwe River in the case of happening the flood.