

第4章 評価結果総括

4-1 評価の結論

(1) プロジェクトは、タンザニア国内ほぼ全州の稲作技術者、中核農民合計760名を対象に、稲作栽培、中核農民、水管理、農業機械化、トラクタオペレーションの5分野にわたる研修コースが実施運営された。また、アゾラ利用といった特別のコースや外部からの受託研修に参加した271名を合わせると、計1,031名がキリマンジャロ農業技術者訓練センター（KATC）の研修を受けた。これらの研修実施を通じて、カウンターパートの能力（ニーズ調査、研修計画立案・実施、カリキュラム・教材作成等）が、独自に研修コースの運営管理を支障なく行えるまで向上したことは高く評価されるものである。また、その結果、KATCの灌漑稲作研修機関としての機能は向上したと認められる。

特に研修システムとして、稲作研修コースを受講した普及員が中核農民コースに参加する農民を自らが選定・引率して、同コースに同時に参加する方式（合同研修手法）を開発したことは、研修終了後の普及員と農家との関係強化による速やかな技術移転を図るうえで極めて効果的と考えられ、高く評価されるものである。また、本方式はタンザニア国内における迅速かつ確実な通信連絡手段の確保が困難な状況を考えれば、効率性の面でも評価されるものである。

(2) 1979年から86年まで実施されたキリマンジャロ農業開発センター（KADC）計画と1986年から1993年まで実施されたキリマンジャロ農業開発（KADP）計画の実施を通じて得られた成果（優良種子の導入、種子処理、田植え方法の改良、適切な灌漑の実施等）を活用した結果、研修成果が具体的に現場で活かされ、実際に稲作生産性向上に結び付いたケースが多くみられることが、研修修了者とのインタビューで明らかになった。また、最近ではタンザニア国内の各地からKATCに対し、進んだ稲作技術の情報提供の依頼や視察見学の要望が多くもたらされるようになってきている。しかしながら、研修効果全体の確認に基づく研修内容の改善は将来の課題として残されている。

一方で、タンザニア国内にはKATCが実施する灌漑稲作技術による研修受講対象者がまだ相当残っていると考えられるので、これらの研修需要にいかに対応していくかは、今後の課題である。

(3) プロジェクトは、関係機関（KADP、その他の農業研修センター、稲研究計画、熱帯農業研究所、農業研究所や大学等）と積極的に情報交換・連携しており、これにより研修計画の改善が実現している。また、これらの連携はKATC自体のプレゼンスの向上に結び付くことにも

なった。その結果、世界銀行や国際農業開発基金等の国際援助機関から灌漑農業に係る研修受託を受けるまでに至り、KATCの将来発展という点から高く評価されるものである。

(4) また、KATCが位置するローアモシ地域の住血吸虫症やマラリア等の水因性の感染症の実態把握に取り組み、研修内容に組み入れることにより、住民の健康管理について啓蒙を行っていることも、灌漑農業の発展と環境との調和を図るという点で、高く評価されるものである。

(5) 以上のとおり、プロジェクトの活動は協力期間中おおむね順調に進み、相当な成果もあがっていることが確認されたが、プロジェクトの活動はタンザニアの厳しい財政事情の影響を受けて、協力期間中ほぼ100%日本側のローカルコスト負担により実施されてきた。現時点では、状況の抜本的改善の見通しはなく、KATCの自立発展性の観点からタンザニア側の一層の努力が必要である。

4-2 提言

(1) KATCによる研修成果には、前述のとおり大きなものがあるが、成果のそれぞれの地域における確認とこれによる研修コースの改善は、いまだ十分と認められないことから、更に研修修了者のフォローアップ活動を強化すべきであると考え。また、フォローアップ活動を実施する際には、KATCの研修に参加できなかった普及員、農家に対する現場研修会の実施も併せて検討すべきである。

これらの現場展開型の活動は、タンザニアの行政機能の一層の地方分権化が図られている現状にかんがみ、より県政府との関係強化を図りつつ実施を検討すべきである。また、KATCの研修対象者は国内全土に広がっており、これらの現場活動を同程度に実施することは改めて運営経費の増大をもたらすものと判断されることから、灌漑事業地区の有無や県レベルの専門技術員の有無等を配慮のうえ、現実的な規模で実施を検討すべきである。

(2) タンザニア政府は、KATCが本来有すべき機能と活動（例えば、本協力期間中にほぼ確立されたと考えられる基礎的な稲作技術訓練の継続実施等）と、今後、拡充強化していくべき機能と活動のバランスに配慮しながら、KATCの将来計画を考えていく必要があると考える。また、将来計画策定の基盤となる運営経費の確保は喫緊の課題と考えられるので、これについて最大限努力する必要がある。運営経費確保の観点からは、引き続き国際機関などからの受託研修を拡充していくために、効果的な広報活動等の実施も検討していく必要がある。

- (3) 灌漑稲作に係るKATCの研修活動は、長期間にわたり実施されたキリマンジャロ州ローアモシ地区に対する日本政府による技術協力の成果が、効果的・効率的に研修活動に活かされたものであるが、このような実践的研修はタンザニアに限らず、周辺の東アフリカの灌漑稲作の発展にも大きく貢献することが期待されるものである。したがって今後はKATCを拠点とし、周辺国における灌漑稲作の状況に応じた広域技術協力の実施可能性を調査確認し、現実的な規模・内容の活動を検討すべきである。
- (4) KATCの研修プログラムはジェンダーに配慮して作られているものの、研修に参加する女性の割合に一層配慮すべきである。
- (5) 貧富の格差に伴い、日本側にとって安全確保は深刻な問題となってきた。合同評価調査チームはタンザニア政府に対し、安全な生活環境を保証するために一層の責務を負うよう勧告するものである。
- (6) KATCのタンザニア経済に果たす役割の重要性をかんがみれば、KATCのタンザニア国職員の労働条件は非常に困難な状況に置かれており、政府はこの点について確認する必要がある。
- (7) 最後に、日本・タンザニア合同評価調査チームとしては、以上(1)～(3)の活動を実施するために、現行協力期間を2年程度延長することが必要と判断し、両国政府に必要な措置をとることを勧告するものである。なお、日本側の協力対象分野は、現行のとおりとすることが必要である。

4-3 団長所感

(1) KATCの成果

実施協議調査団報告「実施上の留意点」で指摘された点（人員配置、専門分野の連携、短期専門家派遣、国内支援委員会、各種施設—生活用水、防鳥ネット、農業機械展示室、図書室、倉庫等—機材、研修教材作成、研修実施、研修における普及員と農民の関係、関係機関との連携等）について、ほぼ満足すべき措置が講じられ、今回の合同評価報告書に記されているような成果があがったことを高く評価する。

日本人専門家をはじめJICA本部関係者等の努力に深甚な敬意を表する。

(2) 今後の留意点

1) タンザニア国内の現地における研修について

今後2年間の延長にあたっては、タンザニア国内各地域の自然条件（気候、土壌、病害虫等）及び社会条件に応じて、これまでの研修効果がどのように発現しているかという点を一層具体的につかむことが、以後の活動を効率的に進めるために必要である。

2) 現地実証圃場の設置と分析について

農民の意欲を高めるためには、農民参加型の現地実証圃場を設けることが必要である。その結果をKATIC本部に集め分析、評価し、また、今後の研究協力が必要なもの（例えば、病害対策、種子対策等）、行政的対応が必要なものなどに分けて、速やかなバックアップ体制を組むべきである。

3) 関係機関の支援について

これからが、長年にわたる技術協力の成果がタンザニアに真に定着するための大切な時期になる。関係機関は現地専門家の要望を汲み上げ、機動力の整備をはじめ、各種の支援をきめ細かく行うことが必要である。

多くの制約条件の下にある農業の近代化、特にアジアとは違った条件下にある場合には、息の長い努力を必要とすることについて、関係者の一層の理解を求めたい。

4) 治安問題について

1999年元旦の事件に象徴される治安問題について、今回の勧告に入れたことは異例かもしれないが、今後を考えると真剣な対応が必要である。例えば、他の諸国の対策の事例等も広く調査・検討し、再発防止に万全を期することが重要と考えられる。

第5章 広域技術協力について

広域技術協力については、1970年代からキリマンジャロ州ローアモシ地区に対して実施された灌漑稲作農業に関する技術協力と、これによる同地区内の稲作の発展の成果を活用して、本件プロジェクト協力の延長期間中に、ほかの東アフリカ諸国に対して普及展開していく協力として、その進め方について、調査団派遣までに検討されてきた。

本調査団は、タンザニア側の農業協同組合省研修局、キリマンジャロ農業技術者訓練センター(KATC)カウンターパート、在タンザニア日本大使館、JICAタンザニア事務所、専門家ら関係者と、本件協力実施に関して協議を行った。在タンザニア日本大使館及びJICAタンザニア事務所からは、ともにKATCプロジェクトの成果の波及のための本件広域技術協力について、前向きな協力姿勢を確認した。特にJICAタンザニア事務所からは、終了時評価調査のみならず、その後のケニアやそのほかの周辺国調査に事務所担当所員を同行させるなど、その対応、姿勢は高く評価されるものである。

調査団の一部は、タンザニアにおける調査終了後、KATCプロジェクト関係者からなる調査チーム7名（農業協同組合省研修所課長、KATC校長、KATC農業普及室長、同水管理室長、白鳥調整員、富高専門家、山口専門家）とともに、ケニア関係者に対する説明・協議のためにケニアに向かった。

一連の協議経緯と成果等については、以下のとおりである。

(1) タンザニアにおける協議

プロジェクト側（農業協同組合省研修所課長、KATC校長ほかカウンターパート、日本人専門家）でも、本件協力実施にあたってのコンセプトや、実施にあたって留意すべき事項や明確にしておくべき事項について十分な検討が行われていたが、本件協力を円滑に進めるために、いくつかの点については引き続きJICA本部側での検討が必要であると思われる。

1) 事業のオーナーシップ

事業と予算制度の観点から考えると、広域技術協力事業の主体は日本側であるとの判断があるが、タンザニア側からは「JICAのための広域技術協力」という考え方には抵抗があるとの印象を受けた。すなわち、今までのローアモシの灌漑稲作の成果を活用して実施されてきたKATCプロジェクトは、日本・タンザニア双方の努力によって築き上げられたものであるので、広域協力を行う際にも、タンザニア側の主体性に配慮すべきではないかとの意見であった。とはいえ、現行プロジェクトの運営経費の大半が日本側予算で賄われていることから、タンザニア側が「主体性」という点を協調しにくいというジレンマを、あら

はじめ理解する必要がある。このような事情から、タンザニア側から広域技術協力を実施することによってタンザニア側にどのような便益があるのかといった、より現実的な質問とその実現について要望があった。

調査団からは、1998年秋に東京で実施された第2回東京アフリカ開発会議（TICAD II）にみられるように、我が国はアフリカの農業開発と食糧増産に貢献することをコミットしており、農業関連で特に長い協力関係にあるタンザニア（特にキリマンジャロ）の成果を周辺東アフリカ諸国に普及・展開する意義は大きいと判断していることを説明した。また、既にKATCは、国内において他の援助機関（世界銀行や国際農業開発基金）から灌漑稲作やその他の課題について研修を受託しているが、周辺国の技術者、普及員や中核農民らの研修を実施していく過程で、東アフリカ諸国のなかでKATCのプレゼンスが高まり、名実ともに「灌漑稲作地域研修センター」としての評価があがることになれば、更に研修実施依頼が増大する可能性もあり、そういった点においてもタンザニア政府にとって重要な協力ではないかと理解を求めた。タンザニア側では、既に日本人専門家とともに本件広域技術協力の構想の概略について、あらかじめ農業協同組合省次官にも説明し、了解を得ていることから、タンザニア側に本件協力実施にあたっての大きな障害はないものと判断された。

また、事業のオーナーシップをタンザニア側がもつための方策として、調査団から周辺国との技術協力協定を結ぶことについて提案した。本協定は、通常日本の大学が海外の大学との間で取り交わす学術協力協定を参考として検討したものであるが、タンザニア農業協同組合省研修所課長は、この提案を歓迎するとともに、タンザニア側として基本的に問題はないが、署名者（協定案では次官同士を想定した）を誰にするかは検討の余地があるとの判断を示した。特にKATC校長は、実施機関同士（例えばKATCと周辺国の類似訓練機関の責任者同士、あるいは農業協同組合省研修所課長と周辺国の類似部署の責任者同士等）の方が実際に簡便ではないかとの意見であった。これに対し調査団は、署名者について日本側が特定する性格のものではないが、このような両国に特別なオブリゲーションを発生させない友好的かつ包括的な文書は、むしろ高官同士の署名が事業を対外的にアピールするうえでも望ましいのではないかと意見を述べた。また現在、KATCプロジェクトでは5月下旬に過去5年間の協力の成果を披露する特別対策セミナーの開催を予定しており、本セミナーには周辺国関係者を招待する計画もあるが、調査団としては本評価調査終了後に予定されている周辺国への広域技術協力実施可能性調査が成功裏に終われば、本セミナーにおいて、上述の技術交流協定の署名式を行うとともに、これに合わせてプレス発表をできれば極めて望ましい形で延長協力に入ることになると、現時点の希望を述べた。

いずれにしろ事業のオーナーシップという点では、更に次のとおりプロジェクト活動自

身との関係を整理していく段階で、より明確にしていく必要がある。

2) 広域技術協力とプロジェクトとの関係

本件事業予算がプロジェクト方式技術協力予算で認められていることから、広域技術協力とプロジェクト自体との関係は若干複雑である。つまり広域技術協力はプロジェクト協力期間中でなければ実施できないが、広域技術協力自体はプロジェクト協力本体とどのような関係で整理されるのかという点である。

一つには、プロジェクト自身の目標のなかで広域技術協力実施が整理可能か否かの点である。KATCの場合、訓練センター型プロジェクトであり、「センターの研修機能強化」という観点からは、広域技術協力自体の実施に特段の問題はなさそうであるが、「キリマンジャロにおける灌漑稲作の成果をタンザニア全土に展開する」という協力の範囲からは、周辺国に成果を及ぼすという協力のスコープまでは認められないと判断される。

タンザニア側との協議を通じ、この点については極めて現実的な議論のなかで本件広域技術協力とプロジェクト活動が整理されることになるであろうと判断された。上述のとおりタンザニア側は、現時点で訓練経費の負担に関する自助努力の可能性が極めて厳しい。また、職員給与が低いため、業務へのモチベーションを高いレベルで維持することが難しい状況にある（最近では管理職手当もなくなるなど、校長や各室長らにとっても極めて厳しい状況である。この点については、調査期間中何度もチームリーダーから説明を受けるとともに、評価調査で採用したカウンターパートへの質問回答書のなかでも痛感した）。

プロジェクト活動であれば、本来活動でもあるので、タンザニア側も広域技術協力の実施にあたって、更に自助努力が求められることになる。例えば、周辺国技術者に対する研修経費を負担したり、カウンターパートも給与の範囲で研修実施業務増大に対応することになるなどである。プロジェクト本来活動から切り離したとすれば、広域技術協力による周辺国からの研修員（普及員、技術者及び中核農民等）を受け入れる場合に、KATCに何らかの形で施設使用料を支払ったり、カウンターパートに対しても講義謝金等を支払うことが理屈上は可能となってくる次第である。ただし現在、タンザニア政府から要請のある新規プロジェクトを検討する際には、広域技術協力の本格実施を本来のプロジェクト活動目標のなかに位置づけたうえで、上記のような対応が困難ということになれば、広域技術協力事業の円滑な実施継続は困難になる可能性があることに、あらかじめ留意しておく必要がある。

タンザニア側としては、現実的に広域技術協力実施のための新たな財政負担はほとんど不可能であることから、プロジェクト活動と広域技術協力活動を切り離して検討する点を理解したものと判断している。また、日本人専門家からも現実的対応について、同意を得

られた。

ただし、若干は上記の議論と矛盾するものの、実態上は残された課題に対するプロジェクト活動とともに、広域技術協力のための準備・試行的活動は極めて重要であることから、四半期報告書等、定期報告のなかには、別枠として本件広域技術協力事業の推進状況について記述してもらうよう求めるとともに、プロジェクトの評価の観点からも広域技術協力の実施推進を対象とする必要があるものとする。

以上のとおり、延長協力期間中の「プロジェクト活動」と「広域技術協力活動」を整理していくこととし、一方でタンザニア側のオーナーシップは、周辺国との間における「技術協力協定」で求めていくこととする。つまり、タンザニア側が周辺国との間で実施する技術交流に対し、日本側が広域技術協力のスキームを用いてこれを支援するというものである。

(2) ケニアにおける協議

1) 農業省関係者との協議

ケニア農業省に派遣されている辻下健二、喜田清の両個別専門家とともに、配属先の土地開発局課長に本件事業説明及び意見交換を行った。同協議に際しては、タンザニア農業協同組合省研修所課長及びKATC校長からも、KATCの事業・成果の紹介とともに本件協力の意義について積極的な発言を得られた。農業省側からも事業自体について協力する基本姿勢を確認することができた。ただし、次のことを留意する必要がある。

ケニアに対して現在、「小規模灌漑」に関する国別特設コースを実施する方向で検討が進んでいることや、ジョモ・ケニヤック農工大学における小規模灌漑分野の第二国研修の予定があることである。農業省自体にKATCと同様のインテンシブな研修施設がないことや、ケニア自体の灌漑稲作の規模がタンザニアと比べてかなり小さいことなどから（ケニアの約5～6万トンの生産量に比べ、タンザニアは約70万トン、自給率はケニアの約50%に対し、タンザニアは約75%）、タンザニア側が灌漑稲作に関して周辺国に協力形態をもつことに関する比較優位性は認められているが、このようなケニアに対する研修スキームとの関係を、よく整理しておく必要がある（例えば、国別特設の利点も理解できるが、地域別特設など本邦研修自体の「地域特化」と広域技術協力との関係を、もっと考えていく必要がある）。

農業省窓口が土地開発局であったので、今後、普及・研修窓口との協議が必要であると認められた。またタンザニア側が既に農業省次官まで、ほぼ了解を取り付けていることや、技術交流協定の署名者という点では、ケニア農業省の高官レベルに対しても説明のうえ、協力同意を取り付けておく必要がある（土地開発局灌漑排水課長からは、ケニアとタンザニアとの技術交流協定文書署名の必要性について理解を得られたので、なるべく早い

時期に農業省内の高いレベルまで、話をあげてもらおうよう要請した)。

また1999年5月にプロジェクトが予定している特別対策セミナーにケニア農業省の誰を招待するかは、今回の短期の調査では決めかねることなので、プロジェクト専門家に対しては、可能であれば3月中にケニアの個別専門家が、普及・訓練部門の責任者とともに、今後の農業省における研修体制整備・強化といった目的で、「個別専門家の技術交換」スキームを活用して、KATC視察を要請してはどうかと提案するとともに、調査団としても帰国後、個別専門家の所掌部署にしかるべき協力依頼をする旨伝えた(その後のケニア事務所からの報告によれば、個別専門家から具体的に技術交換の申請がなされ、2名の個別専門家と農業省内の研修・普及関係者、及び国家灌漑庁関係者が3月末にKATCに訪問予定である由)。

2) 国家灌漑庁 (NIB) との協議について

調査前の情報と異なり、NIBでの協議面談相手がムエア灌漑農業開発プロジェクトのフォローアップ協力評価調査時のケニア側責任者・ギトンガ副総裁であったため、本件に係る協議は極めてスムーズに進めることができた。なぜならムエア・プロジェクトを実施していた期間に、ムエアとKATCはそれぞれ技術交換で互いのプロジェクトサイトを訪問していたことと、その後もKADP菅原専門家の技術交換が1998年2月に実施されていたこと、さらに1998年12月にNIB関係者が独自にKADPを訪問していることなど、従来からNIBとローアモシとの間のある程度築かれていたためである。また、1997年12月に行われたムエア灌漑農業開発プロジェクト・フォローアップ協力の評価調査協議において、NIB (ムエア) とローアモシ・プロジェクト (KATCとKADP含む) との連携が提案され、ミニッツにも記載したことから、NIBとしては今回の議論の背景をよく理解していたことがあげられる。ギトンガ副総裁からは、技術協力協定に今すぐにでも署名するような前向きな対応をしてもらった。

3) 在ケニア日本大使館、JICAケニア事務所との協議について

青木在ケニア特命全権大使からは、本件協力は極めて時宜を得たものであり、積極的な支援をしたいと歓迎していただいた。これは一つには、今次終了時評価調査団がキリマンジャロで調査していたのと同時期に、隣のアルーシャ州で東アフリカ協力会議 (EAC) が行われ、なかでもタンザニア、ケニア、ウガンダの3か国は、東アフリカ協力協定を批准し、1999年7月から市場と投資の一本化という経済共同体に向けて、相互協力を強化していく方向で会議が終了したという情勢を踏まえたものである。また、従来は東アフリカにおける南南協力の主体はケニアであったが、今次広域技術協力構想はタンザニアが主体で

ある点で、極めて望ましいというものであった。

JICAケニア事務所からも東アフリカ協力会議の状況を踏まえ、事務所としても最大限の協力を行いたいと歓迎された。

(3) 今後の検討・調整すべき事項

広域技術協力を実施するにあたっては、多数の関係機関同士の円滑な連携・協調体制の整備が肝要である。例えばケニアを対象とした事業実施だけを例にとっても、次のとおり関係機関は多岐にわたることが予想される。

・タンザニア側

在タンザニア日本大使館、JICAタンザニア事務所、KATCプロジェクト（タンザニア側カウンターパート、日本人専門家）、タンザニア農業協同組合省

・ケニア側

在ケニア日本大使館、JICAケニア事務所、農業省、NIB

これらの体制をいかに効率的かつ円滑に連携させるかについては、JICA本部の主体的な役割が重要なことはいままでもないが、むしろ事業実施の現地主導化を図る必要がある。

例えば事業実施に係る次の手続きについては、現地主導とすべきである。

1) 専門家派遣手続き

広域協力の制度上は、周辺国からの専門家派遣要請書はJICA本部に送付されるとされているが、要請書の写しをあらかじめ拠点国であるタンザニアにも送付するなど、派遣までの事務を円滑に進める配慮が必要である。

2) 機材供与

周辺国に対する機材供与の計画を誰が策定、承認し、誰が購送手続きを行えば最も効率的かつ現実的なのかを、更に検討すべきである。現状の予算項目（現地業務費）・枠（1か国約200万円程度）から考えれば、年間の事業計画に沿った日本人専門家の携行機材と考えた手続きが簡便ではなかろうか。つまり周辺国から要請のあった専門家を派遣する際に、その活動上、必要な機材と判断して、拠点国専門家から要請のあった機材の輸送先（あるいは購入）を周辺国とするような配慮である。

3) 研修実施経費

拠点国であるタンザニアに招聘される周辺国研修員（普及員、技術者、中核農民等）に対する旅費、日当、宿泊料については、あらかじめ周辺国事務所に予算配布するか、拠点国到着時に支給するかの二通り想定されるが、KATCの地理的・事務の煩雑さを考えれば、周辺国での支出が適当と考えられるが、詳細は更に検討が必要である。

KATCに対しては、施設・機材の借料や講師謝金等の支出の可能性や現実的な支出額についても今後検討する必要がある。

4) 年間計画の策定について

広域技術協力は、その名称からして極めて雄大であり、今次調査において面談・協議した相手方や日本人関係者からも、総じて肯定的な意見をいただいたところである。

しかしながら、KATCプロジェクトの通常活動と並行して広域協力を実施できるかどうかは、年間の実施計画をいかに現実的、かつ具体的に策定するかにかかっている（例えば、専門家にしろカウンターパートにしろ、年間必ずしも頻繁に長期間周辺国へ出張することは困難である。また、KATCの施設の宿泊規模や通常の国内対象者を対象とした研修を考慮すれば、年間の周辺国対象に対する研修実施規模もおのずと限界があるに違いない）。

また、この年間計画をいかに周辺国と共有するか、その方策についてもあらかじめ検討しておくべきである。

5) 広域技術協力の対象者

既に上記記述のなかで、対象者の範囲を普及員、技術者（これは栽培、水管理や農業機械関連分野を指している）及び中核農民（今次評価調査の結果、KATCの研修のユニークさは普及員と中核農民を組み合わせた合同研修手法であり、また、その効果が認められたので、広域技術協力における研修実施にあたっては、本手法の導入が不可欠である）という分類を行っているが、更に本格的に実施していく段階においては、個別専門家や青年海外協力隊のカウンターパートにまで範囲を広げて、その可能性を検討する必要もある。

資 料

- 1 ミニッツ (合同評価報告書)
- 2 第5回合同諮問委員会 (出席者リスト ; アジェンダ)
- 3 KATCで作成した研修教材等のリスト
- 4 水管理コースの研修カリキュラム
- 5 PROGRESS REPORT ON ACTIVITIES OF RICE CULTIVATION DEPARTMENT
FROM JULY, 1994 TO DECEMBER, 1998
- 6 Externally funded courses conducted at KATC



MINUTES OF UNDERSTANDING
OF THE JOINT EVALUATION
ON THE JAPANESE TECHNICAL COOPERATION
FOR
THE KILIMANJARO AGRICULTURAL TRAINING CENTRE PROJECT
IN THE UNITED REPUBLIC OF TANZANIA

With about five months left until the termination of the cooperation period of "The Kilimanjaro Agricultural Training Centre Project" (hereinafter referred to as "the Project") on June 30, 1999, which started on July 1, 1994, as stated in the Record of Discussion (hereinafter referred to as "the R/D"), the Japanese Evaluation Team organized by Japan International Cooperation Agency (hereinafter referred to as "JICA"), headed by Mr. Michio SAKAYANAGI, visited the United Republic of Tanzania in order to conduct a review and evaluation of the performance of the Project. In order to achieve this, the Joint Evaluation Team (hereinafter referred to as "the Team") was formed consisting of the aforementioned Japanese and the Tanzanian Evaluation Team headed by Ms. Chritine Sonyi.

The Team conducted interviews with the Japanese experts and the Tanzanian counterparts assigned to the Project, had a series of discussions with the Tanzanian Authorities concerned and exchanged views among themselves.

As the result, the Team agreed upon forwarding to their respective governments the Joint Evaluation Report which is referred to in the document attached hereto.

Dar es Salaam, January 27, 1999

坂柳迪夫

Mr. Michio SAKAYANAGI
Leader
Japanese Evaluation Team
Japan International Cooperation
Agency



Mr. David B. Mpiri
Acting Permanent Secretary
Ministry of Agriculture and
Cooperatives
The United Republic of
Tanzania

**JOINT EVALUATION REPORT
ON THE JAPANESE TECHNICAL COOPERATION
FOR
THE KILIMANJARO AGRICULTURAL TRAINING CENTRE PROJECT
IN
THE UNITED REPUBLIC OF TANZANIA**

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1. INTRODUCTION

The Japanese Government has been cooperating with the Government of the United Republic of Tanzania on the agricultural development, particularly in the establishment of irrigated rice farming technology and its transfer in Kilimanjaro region, in a series of development programme. The Kilimanjaro Agricultural Development Centre (hereinafter referred to as "the KADC") Project was implemented from September 1978 to March 1986. The Kilimanjaro Agricultural Development Project (hereinafter referred to as "the KADP") was carried out, as the second phase of the KADC project from March 1986 to March 1993.

After the successful implementation of the KADP project, the Government of the United Republic of Tanzania requested to the Government of Japan to extend further technical cooperation with the aim of disseminating the outputs of the cooperation to other parts of Tanzania in September 1992.

Based on the Record of Discussion (hereinafter referred to as "the R/D") signed on January 21, 1994, both Governments have been implementing the Kilimanjaro Agricultural Training Centre Project (hereinafter referred to as "the Project") for five years by June 30, 1999.

According to the R/D, in order to attain the envisaged objectives by the Project, Japanese technical assistance has been provided to support the following main activities.

- a. Enhancement of the Technical Capability of Trainers
- b. Improvement of Training Methods
- c. Improvement of Training Materials
- d. Training for Government Personnel and Key Farmers
- e. Improvement of Extension Methods

2. BACKGROUND AND SUMMARY OF THE PROJECT

Since 1970s, the Government of Japan has been cooperating in a series of development programme in Kilimanjaro region especially in the field of irrigated rice farming. The following projects have been implemented.

Technical cooperation :

Kilimanjaro Agricultural Development Centre (KADC) Project : 1979 to 1986

Kilimanjaro Agricultural Development Project (KADP) : 1986 to 1993

Loan : Lower Moshi Irrigation Project : 1987

Grant :

Kilimanjaro Agricultural and Industrial Development Centre : 1981

Kilimanjaro Post Harvest Facility : 1989

Ndungu Agricultural Development Project : 1990

Grant aid for increased food production (KR II programme) :

Three hundred and five (305) units of tractors and implements : 1975, 1985,
1991, 1993

Kilimanjaro Agricultural Training Centre (hereinafter referred to as "the KATC") was established in July 1994, after the Government of Japan responded positively to a request by the Government of the United Republic of Tanzania to fully exploit the existing potential for increased rice production in Tanzania. The Project commenced in July 1994 under collaboration of the Ministry of Agriculture and Cooperatives and JICA.

The Project aims at strengthening the technical capability of extension personnel and other concerned people as well as key farmers with respect to irrigated rice farming. The KATC conducts courses for field officers and key farmers from other rice growing areas of Tanzania, so that, by letting them see and experience what is possible, they will be motivated to try modern production techniques in their areas. In this way, the technology will spread from Kilimanjaro region to all other regions of the country where rice is grown. Those who attend the KATC courses, therefore, have the obligation to share their knowledge and skills with their neighbors and colleagues, since not all the potential course participants will be able to come to the KATC.

3. MEMBERS OF THE JOINT EVALUATION TEAM

3-1 Japanese Evaluation Team

(1) Mr. SAKAYANAGI Michio : Leader

Senior Adviser, National Farmers Academy,
Ministry of Agriculture, Forestry and Fisheries (M.A.F.F.)

(2) Mr. NAKAHARA Masataka : Sub-Leader

Director, Agricultural Technical Cooperation Division,
Agricultural Development Cooperation Department,
Japan International Cooperation Agency (JICA)

(3) Ms. ISHIKAWA Kimiko : Rice Production - Agricultural Extension / Agricultural Machinery

Deputy Director, Extension and Education Division,
Agricultural Production Bureau,
M.A.F.F.

- (4) Mr.WATANABE Akihiro : Water Management
Deputy Director, Design Division,
Agricultural Structure Improvement Bureau,
M.A.F.F.
- (5) Mr.IGUCHI Jiro : Evaluation Analysis
Development Planning and Project Management Specialist,
Padeco Limited
- (6) Ms.ANDO NDIAYE Mayumi : Technical Cooperation
Staff, Agricultural Technical Cooperation Division,
Agricultural Development Cooperation Department,
JICA

3-2 Tanzanian Evaluation Team

- (1) Ms. Christine Sonyi : Leader /Planning
Principal Economist,
Planning Commission,
Presidents Office
- (2) Ms. Mary.Mgema : Extension
Extension Officer,
Ministry of Agriculture and Co-operatives
- (3) Mr. I.I.Nkuba : Irrigation
Principal Water Engineer,
Ministry of Agriculture and Co-operatives
- (4) Eng. Rajabu N. Mtunze : Agricultural Machinery
Agricultural Engineer,
Mechanization Unit,
Ministry of Agriculture and Co-operatives

4. OBJECTIVES OF THE EVALUATION

Objectives of the evaluation are to;

- (1) evaluate the achievements of the Project according to the R/D and the Tentative Schedule of Implementation (TSI),
- (2) make recommendations and suggestions to the authorities of the two Governments concerning the issues to be taken by after the termination of the cooperation period,

and

(3) obtain the lessons learned from the evaluation of the Project for future cooperation.

5. EVALUATION OF THE PROJECT

5-1 ITEMS OF THE SURVEY

Through a series of interviews, field visits, and review of documents, the Team examined the accomplishments of the Project for the following items.

(1) Input

(a) Japanese side

- Dispatch of experts
- Training in Japan
- Provision of machinery and equipment
- Support for local expenditures
- Other input

(b) Tanzanian side

- Assignment of counterpart personnel and administrative personnel
- Provision of land, buildings and facilities
- Allocation of recurrent expenses
- Supply and replacement of equipment
- Implementation of security measures
- Others

(2) Outline of Major Achievements

(a) Improvement of technical capability, skill and specialized knowledge of counterpart personnel

(b) Formulation of training programme, development and improvement of course curriculum

(c) Development and production of new training materials for training courses

(d) Implementation of training courses for government personnel and key farmers in the whole of Tanzania

(e) Collection, processing and dissemination of extension information on the

irrigated rice cultivation

5-2 Analysis Based on the Evaluation Criteria

The Team analyzed the performance of the Project using the following five criteria.

(1) Effectiveness

Effectiveness of the Project was assessed by analyzing the achievement of project output of the Project.

(2) Efficiency

Efficiency of the project implementation was analyzed focusing on quality, quantity, timing, utilization of input, overall management of project activities and other external factors which affected implementation.

(3) Impact

Impact of the Project was identified focusing mainly on positive and negative indirect impact of the Project which is related to the Overall Goal of the Project realized at the time of evaluation.

(4) Relevance

Relevance of the Project was reviewed and the validity of the Project Objective and the Overall Goal was assessed in connection with the development policy of the Government of the United Republic of Tanzania, needs of the beneficiaries.

(5) Sustainability

Sustainability of the Project was forecasted by examining such factors as utilization of project input and trained counterparts, management capacity and resources available for the implementation agency, etc.

6. INPUT AND OUTPUT OF THE PROJECT

6-1 Accomplishments in terms of Input

6-1-1 Inputs from Japanese Side

(1) Dispatch of experts

Eight (8) long-term experts have been assigned with following speciality; a) Team Leader (1 expert), b) Coordinator (1 expert), c) Agricultural Extension and Training (2 experts), d) Rice Cultivation (1 expert), e) Water Management (2 experts) and f) Agricultural Machinery (1 expert). A total number of 31 (thirty-one) short-term experts have been dispatched to the Project. Annex 1 shows overall

records of dispatch of Japanese experts.

(2) Training in Japan

Training programme was organized for 16 (sixteen) Tanzanian counterpart personnel. All the programme has been efficiently and effectively implemented according to the schedule (Annex 2).

(3) Provision of machinery and equipment

Machinery and equipment were provided in order to carry out the Project activities effectively. All the equipment and machinery have contributed to the effective implementation of the Project as shown in Annex 3.

(4) Assistance to local cost expenditures

The Japanese side partially supported local cost expenditures in order to implement the Project successfully as shown in Annex 4.

(5) Dispatch of study teams

(a) Preliminary Study Team

The Preliminary Study Team was dispatched from January 23 to February 6, 1993 in order to assess the feasibility of technical cooperation for the requested project.

(b) Long Term Study Team

The Long Term Study Team was dispatched from June 7 to September 6, 1993 in order to collect necessary background information and to formulate a tentative master plan for the proposed Project.

(c) Implementation Study Team

The Implementation Study Team was dispatched from January 11 to January 24, 1994 in order to finalize the master plan and the TSI of the Project.
The R/D and the TSI were then signed on January 21, 1994.

(d) Consultation Study Team

The Consultation Study Team was dispatched from January 21 to February 4, 1995 in order to formulate the detailed TSI as well as to discuss the major issues related to the Project.

(e) Detailed Design Study Team

The Detailed Design Study Team was dispatched from February 9 to March 10, 1995 in order to carry out the detailed design for the infrastructure improvement work.

(f) Advisory Team (Mid-term evaluation)

The Advisory Team visited Tanzania from March 4 to 14, 1997 in order to evaluate

the activities of the Project over the previous two and a half years. This evaluation concluded that most of the activities of the Project have been implemented almost on schedule, so there was no need to amend the R/D and the TSI.

6-1-2 Input from Tanzanian Side

(1) Provision of Land, Buildings and Facilities

The main office of the Project is located at Kilimanjaro Agricultural and Industrial Development Centre, the sub-office of the Project is located at KADC, the office space is located in the Training Institute Unit, and other land and facilities (including the new hostel and the grain storage facility) are located.

(2) Operating Expenses

Project execution budget prepared by Tanzanian government during the Project period is shown in Annex 5.

(3) Assignment of Personnel

Thirty-four (34) members of counterpart personnel have been assigned and to work with the KATC. Annex 6 shows the assignment of Tanzanian personnel.

6-2 PROJECT ACTIVITIES AND ACCOMPLISHMENT

6-2-1 Enhancement of the Technical Capability of Trainers

The enhancement of technical capability of trainers has been the most important activity of the Project which was achieved through on the job training by long- and short-term experts, training of counterpart personnel in Japan and other methods.

(1) Extension

Technical capability of trainers was enhanced in planning, conducting and evaluating training. Their knowledge, technology and skills in farm management survey, rice marketing and development and use of audio-visual aids were also improved.

(2) Rice Cultivation

Technical capability of trainers was enhanced through prior training needs assessment, verification trial management, seminar organization and final evaluation. They also improved their knowledge, technology and skills in rice diseases, paddy soil survey, irrigated rice environment, Azolla survey, Azolla-duck-rice culture and water buffalo training (in collaboration with production farm staff).

(3) Water Management

Trainers were technically enhanced in irrigation and drainage planning, cost estimation, operation and maintenance skills etc. Teaching materials were prepared for irrigation and drainage construction.

(4) Agricultural Machinery

Technical capability of trainers was enhanced in training preparation, in conducting and in managing training arising from final evaluation after each course period. They also improved their knowledge, technology and skills in maintenance and management of agricultural machinery, performance test, fabricating farm tools for trials and so on, as a result of additional training in Japan, in the country and on the job training.

6-2-2 Improvement of Training Methods

(1) Extension

Training key-farmers together with their extension officers was the most significant feature among the KATC's training approaches. This approach had the advantages of high percentage attendance, better process of understanding and adoption of new techniques.

(2) Rice Cultivation

Training approaches have been developed and improved through
a) collection of information on rice farming and agricultural extension,
b) improvement of the capability of trainers and training materials, and
c) reinforcement of research-training-extension-farmer linkage.

Emphasis has been paid on promoting the implementation of extension plans after the relevant training.

(3) Water Management

Water management Training course was conducted and involved participants from all 20 (twenty) regions of Mainland and from Zanzibar. The participants were mainly irrigation technicians working in irrigation schemes. Regarding the training period, the duration of the course was extended from 32 (thirty-two) days to 42 (forty-two) days as requested by the participants. Training materials and curricula were also reviewed and improved.

(4) Agricultural Machinery

Agricultural Machinery Department has been conducting two different training courses for agricultural mechanization officers and tractor operators. The tractor operator's course participants came from both public and private sectors, while agricultural mechanization officers course participants came from public sector. The KATC encouraged the combination of the two groups in the training courses in

order to strengthen relationship and share experience for increased efficiency and effectiveness in agricultural machinery utilization.

6-2-3 Improvement of Training Materials

(1) Extension

Agricultural Extension and Training Department prepared many training materials in collaboration with short-term experts who implemented various surveys on working conditions of rural women, farm economics, rice marketing, Schistosomiasis and other water-borne diseases. Audio-visual aids were developed and used to facilitate better understanding by the trainees.

(2) Rice Cultivation

References of training materials for rice cultivation course were collected from IRRI (International Rice Research Institute) in the Philippines, Japan and other sources. Papers presented at the seminars and workshops organized by the KATC were also useful. In addition to the training materials, the training manual for rice cultivation course was prepared for smooth preparation and implementation of similar courses in the future.

(3) Water Management

Improved training materials were used as manuals and guidelines for operation and maintenance, and establishment of Water Users Association (WUA), respectively. Available information on irrigation and drainage was utilized for better irrigation planning including the KATC production farm improvement plan.

(4) Agricultural Machinery

Agricultural Machinery Department developed several farm tools for trial and introduced them to key-farmers course in collaboration with the Rice Cultivation Department. Audio-visual aids on Tractor Maintenance (in Kiswahili) was prepared to facilitate better understanding of trainees.

6-2-4 Training for Government Personnel and Key Farmers

(1) Extension

The Agricultural Extension and Training Department conducted fifteen (15) Key-farmer's courses in the cooperation period. There were four hundreds and thirty (430) participants including one hundred and seven (107) extension officers who completed the course, and trainers made two follow-up guidances for ex-participants.

(2) Rice Cultivation

Training of government personnel and farmers is the most important activity of the KATC. The Rice Cultivation Department conducted seven rice cultivation courses in the cooperation period. There were one hundred and twenty-five (125) participants who completed the course.

According to the survey of participants' impressions, most of them were more equipped with rice cultivation technologies and extension methods after attending the course. The extension staff went back with confidence of implementing rice extension both theoretically and most important practically, especially after attending key-farmer's course together with their key-farmers. Farmers become broad minded and open to more learning.

Since 1997, there were some other courses, funded by other projects, conducted at the KATC. They were funded by River Basin Management and Small-holder Irrigation Improvement Project, National Agricultural Extension Project II, and others. Some KATC's original courses were also co-financed by other projects (e.g. Southern Highlands Extension and Rural Financial Services).

(3) Water Management

Seven water management courses have been conducted at the KATC during the cooperation period for both Tanzania mainland and Zanzibar. There were one hundred and twenty-three (123) participants who completed the course. The department also cooperated with other departments to teach water management methods and how to establish WUA s.

(4) Agricultural Machinery

Agricultural Machinery Department conducted five rice mechanization courses and five tractor operator's courses in the cooperation period. There were eighty-four (84) participants in total who completed the course, and trainers made one follow-up guidance for ex-participants. A special course on farm tools fabrication will commence in February 1999. The course will introduce the same training methods as the key-farmers course, that is the training of key-farmers together with their mechanization officers.

Agricultural Machinery Department also organized a seminar on rice mechanization in Tanzania in June 1998, and conducted one outreach training programme at Mto Wa Mbu area in Arusha.

6-2-5 Improvement of Extension Methods

- (1) The relationship between individual persons from other institutions and the KATC has been strengthened through conducting seminars and workshops.
- (2) The curriculum for key-farmer's course was reviewed and extension planning

exercise was introduced for each group of extension officers and key-farmers.

- (3) For every rice cultivation course, each extension officer attending the course is required to observe rice farming practices in a nearby village and interview rice farmers and then prepare a rice extension plan as a model for implementation at his / her working place.
- (4) KATC participates in the "Nane Nane Agricultural Show" (Farmers show) in Arusha hence has a stand where it displays and gives advise and information to farmers and the public at large.
- (5) The KATC newsletters have been introduced to publicize the KATC activities.
- (6) A library has been established as a useful information centre.

7 RESULT OF EVALUATION

7-1 Effectiveness

The Project Objective specified in the master plan of the R/D is as follows:

"With respect to irrigated rice cultivation, the institutional capability of training for extension personnel and other concerned people is strengthened".

To assess the achievement of the Project Objective, the Team found several facts. First, the KATC has actually conducted many training programme since the Project started in July 1994, for extension personnel and key farmers from all regions in Tanzania. These graduates have acquired improved rice cultivation techniques through the training that could be put to practical use for their agricultural production. Second, the KATC has conducted contract-training programme for other institutions, and this indicates high capability of the KATC as a training institute in this country. Third, the counterpart personnel at the KATC are able to conduct most training courses by themselves. Forth, according to the interview by the Team for the counterparts and the Japanese experts, they expressed high achievement of the Project Objective.

From the above facts, it is concluded that the institutional capability of training has been considerably improved.

While the basic knowledge and skills of the counterpart personnel have been improved, their practical techniques have to be strengthened. In addition, the capability of the KATC to follow-up ex-participants has also to be strengthened.

7-2 Impact

7-2-1 Achievement of Overall Goal

The Overall Goal of the Project is planned as "With respect to irrigated rice cultivation, technical capability of trainers for extension personnel, extension-, water management- and agricultural machinery personnel, and key-farmers is enhanced in Tanzania".

Since the Project started, the KATC has trained the extension personnel and the key-farmers from all 20 regions of Mainland and from Zanzibar. Results of interviews for the ex-participants conducted by the KATC itself and the Team, shows that their own basic knowledge and skills have been improved much. For example, according to the interview for ex-participants done by the Team, twelve (12) out of fifteen (15) respondents are "fully satisfied" or "almost satisfied" with the training at the KATC. The result of the interview could be attributed to the increased productivity through the improved technique.

It was also indicated during the interview that neighboring farmers adopted the improved techniques from the ex-participants in their respective areas. In addition, some of the ex-participants have tried to organize the neighboring farmers to spread the techniques.

Although the follow-up survey by the KATC and the interview by the Team were limited to only small number, the impact of the Project for rice cultivation in the whole of Tanzania has not yet been realized.

7-2-2 Impact for other Issues

(1) Environmental Issues

Irrigated rice cultivation could generally cause large scale change of ecosystem, and sometimes it has negative impact for the environment, i.e. contamination of drainage water with fertilizer and pesticide.

To tackle with such negative impact, the participants are taught "Irrigation with Environmental Considerations" as an important subject in the training courses. The KATC also introduced the technique to control weeds with ducks instead of pesticides, utilization of nitrogen-fixing floating plants, etc. Consequently, some ex-participants and neighboring farmers have been interested in such techniques.

In addition, the KATC has surveyed schistosomiasis in the irrigated fields at Lower Moshi and come up with some measures to control the disease in collaboration with short-term expert. Using the result, it is conducting a campaign

against schistosomiasis in the Lower Moshi in collaboration with other institutions.

(2) Gender Issues

The subject titled "Gender and Development" is taught to participants as an important subject at the KATC. Seminars on gender issues in rice-farming families have been organized and conducted by the KATC staff in collaboration with short-term expert after a survey carried out around the Lower Moshi irrigation project. The KATC also emphasized the participation of women in the training courses. However, it is still too early to assess the impact of such activities regarding the gender issues in rice cultivation areas.

(3) Social and Cultural Issues

Through the survey of Schistosomiasis and gender issues mentioned above, close cooperation between the KATC and neighboring farmers has been established. It is contributing to their health and social awareness.

Interaction between the farmers in the Lower Moshi area and the KATC training participants from other regions probably helps the farmer to have self-confidence and their identity.

(4) Economic Issues

Besides the planned impact, it is too early to assess economic impact of the Project.

(5) Institutional Issues

Besides the planned impact, it is too early to assess institutional impact of the Project.

7-3 Efficiency

7-3-1 Output

See 6-2.

7-3-2 Input

(Input from Japanese Side)

(1) Dispatch of Experts

JICA has dispatched eight (8) long-term experts and thirty-one (31) short-term experts, as stated in 6-1. The dispatch of Japanese experts was largely implemented as planned and contributed to the whole output. Their expertise, and the timing and the period of their dispatch were appropriate, except for the long-term expert for agricultural extension and training, whose delayed dispatch caused more than a few difficulties for the improvement of training method and training

material.

(2) Acceptance of Counterpart Personnel for Training

JICA has accepted sixteen (16) Tanzanian counterparts for training in Japan, as stated in 6-1. The training was implemented as planned, and the scope of the training and the number of the participants and training period were appropriate for the Project.

(3) Provision of Machinery and Equipment

JICA has provided machinery and equipment, as stated in 6-1. The provision of machinery and equipment was sufficient in quality, and most of them have been put to effective use for the Project. However, some of them from certain suppliers are rarely being used, because the delivery was delayed and the selected models were inappropriate.

(4) Local Cost Support

JICA has provided most of the operation cost of the KATC, as stated in 6-1. The local cost support from the Japanese side was necessary and appropriate for the operation of the KATC during the project period.

(5) Dispatch of All the Study Teams

The all study teams have been dispatched as planned, and members, periods, and timing of the dispatch was adequate to properly manage the Project.

(Input from Tanzanian Side)

(1) Provision of Land, Buildings and Facilities

Land, buildings and facilities are allocated as stated in 6-1. The allocation was implemented as planned and appropriate.

(2) Operating expenses

The budget allocated for the Project is as stated in 6-1. The budget from the Tanzanian side was not disbursed as planned. The disbursed amount was far below the amount needed for the operation of the KATC.

(3) Assignment of Personnel

The assignment of Tanzanian personnel is as stated in 6-1. The assignment was largely implemented as planned. Technical level and number of counterpart personnel and timing of their assignment were appropriate for the implementation of the Project. However, the number of the supporting staff has not met the requirement.

(4) Facilities for Japanese experts

It is stated in the R/D that facilities for Japanese experts, including means of transport, travel allowance, suitably furnished accommodation and free medical and

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dental service and facilities at government hospitals and health centre, are to be provided by the Tanzanian government. These facilities have not been provided.

7-4 Relevance

7-4-1 Relevance of the Overall Goal and Super Goal

The Overall Goal of the Project is designed as "With respect to irrigated rice cultivation, technical capability of trainers for extension personnel, extension-, water management- and agricultural machinery personnel, and key-farmers is enhanced in Tanzania". The Super Goal of the Project, that is expected to be achieved by the achievement of the Overall Goal and other conditions, is designed as "Rice Farmer economy is improved in Tanzania". The Team recognized the relevance of the goals with the Tanzanian policy that agriculture is the most predominant sector.

7-4-2 Relevance of the Project Objective

The Project Objective was originally designed to be consistent with the "Agricultural Policy, 1983" which put priority on increase of food production, capacity building by enhancing institutions and human resource. In 1997, the Tanzanian government approved a new agricultural policy called "Agricultural and Livestock Policy, 1997" which confirmed that the government will continue to have a role to implement agricultural research, extension and training. There is no major discrepancy between the Project Objective of the KATC and Tanzanian policies.

The KATC is one of 11 agricultural training institutions belonging to the Training Institutes Unit of the Ministry of Agriculture and Co-operatives, and is the only institution for irrigated rice cultivation.

7-4-3 Relevance of the Project Design

Though the Super Goal, the Overall Goal and the Project Objective are still consistent with Tanzanian national policy, fulfillment of some important assumptions set in the project design are less feasible at present. In the original project design, "Allocation of sufficient funds for extension activity" is one of the important assumptions to achieve the Overall Goal of the Project. However, this assumption has not been fulfilled yet. Furthermore, another important assumption for the Overall Goal is "Assigning ex-trainees to adequate posts for the extension of irrigated rice cultivation". This has not been fulfilled in some cases, because the government retrenched many of its staff, which include ex-participants from the KATC and expected participants for the KATC.

In line with the Structural Adjustment Programme, the government has directed the training institutions to be self-sustaining. The original project design was not made with full expectation of such political tendency.

7-5 Sustainability

7-5-1 Organizational Sustainability

The KATC's position in the Tanzanian government has been recognized as one of the most important training institutions for irrigated rice cultivation in Tanzania. In addition, the organizational structure of the KATC itself is sound enough to maintain its operation.

Since July 1998, current restructuring of the Ministry of Agriculture and Co-operatives changed the position of its training institutions including the KATC. When the Project started, the training institutes were under the Research and Training Division. Now they are under the Training Institutes Unit which is under the direct control of the Permanent Secretary. It is expected that linkage between the KATC and research institute will influence the organizational sustainability of the KATC.

7-5-2 Financial Sustainability

The financial problem is the major constraint for the KATC to operate sustainably, considering the current level of local cost expenditure by JICA. Thus, financial sustainability of the KATC remains unclear at this moment.

7-5-3 Technological Sustainability

There is enough number of trainers at the KATC, and their basic knowledge and skills have been improved. But their expertise and capability to apply their techniques to the practical issues have not been improved enough at this time.

8. CONCLUSIONS AND RECOMMENDATIONS

8-1 SUMMARY OF EVALUATION

- (1) Through the technical cooperation period, the Project succeeded in conducting training programme in five subjects (Rice Cultivation, Key-farmers Training, Water Management, Rice Mechanization and Tractor Operators). A total numbers of participants amounted to seven hundreds and sixty-two (762) from almost all the regions in the country. In addition, two hundreds and seventy-one (271) participants attended special courses e.g. Azolla utilization course and externally funded courses, giving a grand total of one thousand and thirty-three (1033) participants trained.

It is highly appreciated that the capabilities (for training needs analysis, formulation of training plans, implementation of training courses, development of curricula and training materials as well) of counterpart personnel were improved to a considerable extent by planning and managing training courses by their own initiatives. As a result of this, the KATC has reinforced its institutional capacity as a training institute for improving irrigated rice cultivation practices in Tanzania.

The Team also appreciates that the Project developed its unique training method that could be called as "Joint Training Method". This method is centered on the role of extension officers who are encouraged to select the candidate farmers and participate in key-farmers training courses together with those farmers after the experience of rice cultivation course. This is intended to strengthen the relationship between extension officers and farmers, thereby contributing to the effective technology transfer at grass roots level. Because of the difficulties in the prompt and reliable communication with training candidates in the country, this method is also acknowledged as an efficient implementation method.

- (2) The Team interviewed ex-participants of training courses. The result of these interviews implied the direct impact of the training to the productivity increase of rice cultivation at field level. The Project emphasized the importance of quality seeds, seed treatment, transplanting and proper water management as well. There is no doubt that immediate effects by the practical training of the Project could be attributed to the past experiences of the KADC and the KADP.

The KATC recently receives more requests for information on irrigated agriculture and more visitors from other research institutes, training centres and others in the country. Improvements of training courses still remain as the issue to be tackled in future after the overall assessment of training effects. Moreover, how to deal with the training demands is another issue because there are a number of training candidates still existing in the country.

- (3) In planning and implementing the training, the Project has been well cooperated with relevant organizations and programme (KADP, other training institutes, Rice Research Programme, Tropical Pesticides Research Institute and universities), thus improved the training courses more effectively. These interactions also helped international donors, such as the World Bank and International Funds for Agricultural Development (IFAD), become aware of the KATC as an accountable training centre in Tanzania. The Team appreciates that gradual increase of the contracts of training with these donors in the relevant training fields inevitably contributes to the future development of the KATC.
- (4) Constant surveys on the water-borne diseases such as Schistosomiasis and Malaria in the Lower Moshi area have been conducted by the Project. In views of the sustainable development of irrigated agriculture in harmony with the environment, it is highly appreciated that the Project developed and conducted various enlightenment programmes for the peoples in the areas.
- (5) As stated above, the Team understands that the Project has been undertaken smoothly and has been producing satisfactory outcomes according to the primary objectives. However, it is pointed out that almost one hundred (100) percent of the Project activities have been maintained by the Japanese budget due to the severe economic condition of Tanzania. The Team strongly requests the Tanzanian government to allocate necessary budget in order to sustain the KATC.

8-2 RECOMMENDATIONS

- (1) Although the achievement of the Project is remarkable, further efforts of analyzing training effects are indispensable in order to improve training courses more effectively. In this context, the Team recommends to strengthen follow-up activities for the ex-participants of KATC's training courses. Moreover, in organizing these activities, it is to be also considered to implement the field training (outreach training programme) for those extension officers and farmers who have not participated in the training courses at the KATC.

Recent decentralization policy of the Tanzanian government indicates that more interactions with district governments are becoming more important to effectively organize and conduct training programme at field level. It is, however, notable that automatic expansion of the field training activities (outreach training programme) to nationwide level is more likely to endanger the institutional capability of the KATC specially in economic sense. The Team recommends to figure out the realistic size of the field activities in consideration of existence of irrigation projects and /or existence of specialists on subject matter at district

level, for example.

- (2) The Team requests the Tanzanian government to take serious considerations of the current functions and activities of the KATC (for example, some portions of basic training courses are to be maintained) in balance with areas to be expanded and strengthened in future.

Funding the training activities of the KATC is an urgent issue to be solved by the Tanzanian government. The Team encourages the KATC to form more close linkages with international donors in order to secure the financial capability of the KATC.

- (3) Effective KATC training activities on irrigated rice cultivation are one of the outcomes of the Japanese technical cooperation to the Lower Moshi area in Kilimanjaro region since the late 1970s. The Team, therefore, expects that practical training of the KATC could contribute to the development of the irrigated rice cultivation in neighboring countries in East African Region. The Team, therefore, recommends that the KATC should play a vital role for cooperation activities that could be called as "Regional Technical Cooperation Promotion Programme in East Africa". The Team appreciates that a feasibility study has already been scheduled to formulate more realistic framework in this aspect.

- (4) The Team appreciates that the KATC training programmes are well designed in consideration of gender issue. However, the Team recommends to take more consideration for balancing proportion of women's participation in the training.

- (5) Due to the economic disparity among people in Tanzania, security is becoming a serious issue for Japanese side. The Team requests to the Tanzanian government to take more responsibility in order to secure the safe living circumstances.

- (6) The Team recognizes the difficult working conditions of Tanzanian staff at the KATC in relation to its responsibility and contribution to the economy of Tanzania. There is a need for the Tanzanian government to look into this matter.

- (7) Finally, the Team indicates the duration of the technical cooperation is to be necessarily extended in order to accomplish the remaining subjects that are contained in the fields currently undertaken, then recommends to extend two (2) years approximately. The Team further recommends to both the Japanese and Tanzanian sides to take necessary measures for the extension.

ANNEX 1. Assignment of Japanese Experts

	Name	Subject	Period
Long Term Expert	1 N. Koibuchi	Team Leader	1994.7.6-
	2 K. Shiratori	Project Coordinator	1994.7.6-
	3 M. Tomitaka	Rice Cultivation	1994.7.6-
	4 S. Tanaka	Water Management	1994.7.6-1997.7.1
	5 K. Yamaguchi	Agricultural Machinery	1994.7.6-
	6 J. Osida	Agricultural Extension and Training	1995.7.15-1997.7.14
	7 Y. Sakami	Water management	1997.6.14-
	8 H. Ishikawa	Agricultural Extension and Training	1998.6.4-
Short Term Expert	1 H. Suzuki	Agricultural Extension and Training	1994.7.26-1995.3.31
	2 Y. Seko	Water Distribution Plan	1995.3.14-1995.3.31
	3 R. Yamada	Agricultural Economics	1995.3.21-1995.7.23
	4 T. Yamamoto	Rice disease	1995.3.14-1995.7.14
	5 H. Suzuki	Rural Development	1995.7.15-1995.10.14
	6 H. Iguchi	Civil Engineering	1995.8.25-1995.12.22
	7 F. Nagumo	Soil Survey	1995.10.20-1995.12.19
	8 K. Tamura	Rural Socio-economic Survey	1995.11.3-1996.2.6
	9 T. Yanagida	Irrigation and Drainage	1995.11.3-1005.11.30
	10 K. Yasuraoka	Rice Cultivation Environment	1995.12.1-1995.12.26
	11 H. Sakurai	Appropriate Machinery development	1995.12.8-1996.1.23
	12 I. Watanabe	Azolla Utilization	1996.5.10-1996.6.11
	13 T. Yamamoto	Rice disease	1996.5.10-1996.11.12
	14 R. Yamada	Agricultural Economics	1996.7.19-1996.10.14
	15 K. Tamura	Farmers Group	1996.9.20-1996.12.20
	16 T. Furuno	Duck/Azolla Utilization	1996.10.25-1996.11.5
	17 S. Manda	Duck Utilization	1996.10.25-1996.11.22

Short Term Expert			
18	M. Shimada	Schistosomiasis Control	1997.1.4-1997.1.21
19	T. Nomura	Video Teaching Material Development	1997.3.24-1997.9.22
20	F. Nagumo	Soil Survey	1997.4.7-1997.8.4
21	M. Senda	Agricultural Economics	1997.8.7-1997.11.3
22	I. Putu Wardana	Water Buffalo Utilization	1997.10.5-1997.12.26
23	H. Diman Abdulrochman	Water Buffalo Utilization	1997.10.5-1997.12.26
24	H. Sakurai	Appropriate Machinery Development	1998.1.5-1998.2.22
25	M. Araki	Gender Analysis	1998.1.19-1998.4.2
26	M. Shimada	Schistosomiasis Control	1998.3.12-1998.4.2
27	S. Sakurai	Agricultural Economics	98.6.26-98.9.24
28	K. Tamura	Water Users Association	98.7.17-98.8.30
29	M. Shimada	Schistosomiasis Control	98.9.14-98.10.10
30	M. Takagi	Malaria Control	98.9.24-98.10.18
31	S. Matsuzawa	Water Resource Development Method	99.1.8-99.3.9

ANNEX 2. List of counterpart training in Japan

	Name	Designation	Subject	Period
1	Dr. F. M. Shao	Commissioner, Research and Training	Agricultural extension and training	1995.2.3-1995.2.21
2	Mr. J. Ndunguru	Assistant Commissioner (Training)	Agricultural extension and training	1995.2.3-1995.2.21
3	Mr. M. W. Misabo	KATC Desk Officer	Agricultural extension and training	1995.2.3-1995.2.21
4	Mr. R. J. Shayo	Principal, KATC	Agricultural extension leaders	1995.5.10-1995.8.15
5	Mr. G. Maregesi	Head, Water Management Department	Irrigation and drainage	1996.2.12-1996.11.22
6	Mr. A. Pyuza	Head, Rice Cultivation Department	Rice cultivation	1996.2.26-1996.10.25
7	Mr. E. D. Mziray	Tutor, Agricultural machinery Department	Agricultural machinery	1996.2.26-1996.11.15
8	Ms T. Mugangala	Head, Extension and Training Department	Agricultural extension leaders	1996.5.6-1996.7.26
9	Mr. N. Nkondora	Head, Agricultural Machinery Department	Appropriate agricultural machinery development	1996.12.9-1997.2.7
10	Mr. G. Marawiti	Tutor, Water Management Department	Irrigation and drainage	1997.2.9-1997.11.21
11	Mr. R. Lussewa	Tutor, Rice Cultivation Department	Rice cultivation	1997.2.10-1997.11.17
12	Mr. K. A. Nkya	Tutor, Water management Department	Rural development and environment management	1997.9.2-1997.11.22
13	Mrs. M. Mtika	Tutor, Extension and Training Department	Agricultural extension leaders	1997.5.6-1997.7.25
14	Ms J. Omari	Tutor, Rice Cultivation Department	Rice cultivation	1998.2.23-1998.10.23
15	Mr. E. S. Massawe	Head, Extension and Training Department	Agricultural extension leaders	1998.5.5-1998.7.10
16	Mrs. G. Mshanga	Tutor, Catering Officer	Administration Department	1998.11.26-1999.2.4

ANNEX 3. Provision of Machinery and Equipment

(Unit: ,000 Yen)

Year	Total amount	Imports from Japan	Local Purchase
1994/95	47,876	18,015	29,861
1995/96	48,582	24,508	24,074
1996/97	41,833	17,159	24,674
1997/98	20,824	8,469	12,355
1998/99	(10,772*)	(8,786*)	(1,986*)

Remarks

*: Scheduled in 98/99.

ANNEX 4. Local Cost Support by JICA

(Unit: ,000 Yen)

Fiscal Year (Japan)	Ordinary Expenditure	Supplemental Expenditure	Training Activities	Survey and Monitoring	Special Seminar	Technical Exchange	Infrastructure	Emergency Expenditure	Security Expenditure	Total
1994/95	9,771	0	0	0	0	0	0	3,270	4,443	17,484
1995/96	9,500	3,270	0	1,306	1,300	1,595	54,497	3,270	4,443	79,181
1996/97	7,000	3,136	20,126	6,848	0	0	0	0	0	37,110
1997/98	5,063	6,522	11,601	6,735	0	0	0	0	0	29,921
1998/99	4,590	16,000	11,000	6,000	0	0	0	383	0	37,973
Total	35,924	28,928	42,727	20,889	1,300	1,595	54,497	6,923	8,886	201,669

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ANNEX 5. Expenditure by Tanzanian Government

(Unit: Tsh.)

Year	Current	Development	Total
1994/95	0 (3,521,914)	3,800,000 (1,800,000)	3,800,000 (1,800,000)
1995/96	20,000,000 (3,956,970)	0 (0)	20,000,000 (3,956,970)
1996/97	N/A (0)	5,000,000 (0)	20,000,000 (0)
1997/98	N/A (0)	N/A (3,000,000)	N/A (0)
1998/99	N/A (0)	N/A (33,000,000)	N/A (33,000,000)

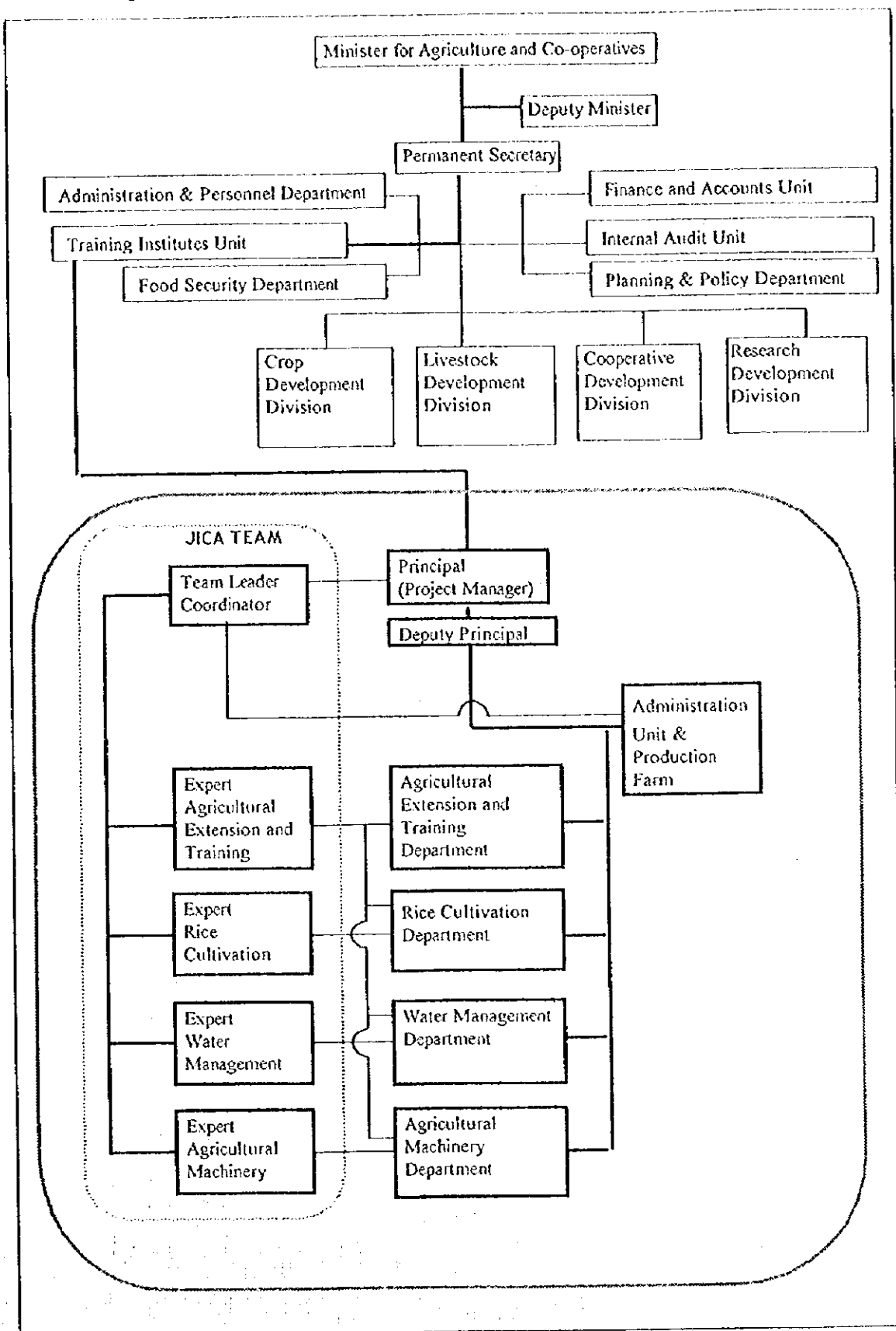
Top: Planned

Bottom: Disbursed

ANNEX 6. List of Tanzanian Staff

	Name	Academic background	Designation	Reported date
	Mr. R. Shavo	MSc	Principal	1994/7/1
	Mr. W. Mwangi	Form IV	Office supervisor	1996/8/27
	Mrs. L. Mchaki	NABOCE	Accountant	1994/9/13
	Mrs. G. Mshanga	Diploma	Catering officer	1994/8/18
	Mrs. Buberuwa	N.S.C.	Store keeper	1995/2/50
	Mr. Z. Sarakikya	Diploma	Farm manager	1994/8/18
	Mr. W. Ndoro	Diploma	Tutor	1994/8/18
	Mrs. E. Kazoba	Certificate	Tutor	1994/8/18
	Mr. V. Njau	Form IV	Farm attendant	1996/8/23
	Mr. V. M. Njoo		Security guard	1994/7/1
	Mr. Chacha N. Wambura		Security guard	1994/7/1
	Mr. Ndinga L. Minanga		Security guard	1994/7/1
	Mr. John T. Msawa		Security guard	1994/7/1
	Mr. Wolfred J. Assenga		Security guard	1994/7/1
	Mr. E. Massawe	MSc	Head, tutor	1996/9/18
	Mrs. M. Mrika	Diploma	Tutor	1994/8/18
	Ms. A. Mshumba	Diploma	Tutor	1998/12/14
	Mrs. M. Pwiza	Certificate	Librarian	1997/5/18
	Mr. D. Uhwello	Certificate	Technician	1997/10/20
	Mr. A. Pwiza	MSc	Head, tutor	1994/10/17
	Mr. R. Lussewa	BSc	Tutor	1994/8/18
	Mr. N. Mvukiye	BSc	Tutor	1995/8/25
	Ms. J. Omani	Diploma	Tutor	1995/9/15
	Mr. M. Matinka	Diploma	Tutor	1998/11/3
	Mr. G. Maregesi	MSc	Head, tutor	1994/9/21
	Mr. K. Nkya	BSc	Tutor	1994/10/27
	Mr. G. Marwitti	Diploma	Tutor	1995/8/28
	Mr. N. Nkondora	BSc	Head, tutor	1994/7/18
	Mr. E. Marav	Diploma	Tutor	1994/9/9
	Mr. A. Lusaka	Diploma	Tutor	1998/11/8
	Mr. J. Ringo	Standard VII	Machinery operator	1995/1/13
	Mr. S. Mokeki	Standard VII	Mechanic	1995/6/13
	Mr. Macha	Standard VII	Driver	1995
	Mr. G. Manka	Standard VII	Driver	1995

ANNEX 7. Organisation of the Ministry of Agriculture and Cooperatives



Project Design Matrix for Kilimanjaro Agricultural Training Centre Project (at evaluation time, drafted by J. Iguchi)

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumption
<p>I. Goal Rice Farmer economy is improved in Tanzania.</p> <p>1. Goal With respect to irrigated rice cultivation, technical capability of trainers, agricultural extension personnel, water management personnel, agricultural machinery personnel, and key-farmers is enhanced in Tanzania.</p>	<p>Change of Farmers living standard.</p> <p>Technical capabilities of trainers for extension personnel, extension, water management, and agricultural machinery personnel and key-farmers at certain time since completion of the project.</p>	<p>Farm economic survey or statistic data.</p> <p>Results of post-project evaluation conducted through dispatch of study team or by JICA Tanzania Office with Tanzanian side.</p>	<p>① Health conditions of rice growing farmers are maintained.</p> <p>② Adopting the improved rice cultivation techniques by rice farmers.</p> <p>③ No policy change for selling priority on the extension of irrigated rice cultivation including production price and marketing systems.</p> <p>④ Allocation of sufficient funds for extension activity.</p> <p>⑤ Assigning ex-trainees to adequate jobs for the extension of irrigated rice cultivation.</p>
<p>II. Project Purpose With respect to irrigated rice cultivation, the institutional capability of KATC to train extension personnel and other concerned people is strengthened.</p>	<p>Maintained or expanding capacity of the number of trainees.</p> <p>Satisfaction of the graduates for the training.</p> <p>Self-evaluation of the capability by KATC staff.</p>	<p>Records of the training.</p> <p>Attitude survey for graduates and post-graduates of the training.</p> <p>Questionnaire and interview for the staff.</p>	<p>Authorizing recommendations on the improved extension method of irrigated rice cultivation formulated by KATC.</p>
<p>III. Output With respect to irrigated rice cultivation: (1) Technical capability of trainers is enhanced; (2) Training method is improved; (3) Training material is improved; (4) Extension-, water management- and agricultural machinery personnel, and key-farmers are trained; (5) Improved extension method is recommended.</p>	<p>Technical capability of trainers.</p> <p>Contents of training method.</p> <p>Achievement of training courses (number of trainees, comparison of trainees' technical level between before and after training).</p> <p>Contents of recommended extension method.</p>	<p>Questionnaire survey for trainers.</p> <p>Periodic reports, printed materials.</p> <p>Training manuals, printed materials.</p> <p>Periodic reports, questionnaire survey for trainees.</p> <p>Periodic reports.</p> <p>Project evaluation survey.</p>	<p>Continuous research activities for rice cultivation suitable for natural and social conditions in research organizations.</p> <p>Continuous collaboration between KATC and organizations concerned.</p> <p>Continuous financial support for irrigated rice cultivation training and other related activities.</p>
<p>IV. Project Activities With respect to irrigated rice cultivation, following activities are implemented in the fields of agricultural extension and training, rice cultivation, water management, and agricultural machinery: (1) Enhancement of technical capability of trainers: On the job training through the activities of (2) to (5) below, counterpart training in Japan... (2) Improvement of training methods: Training plan, training curriculum. (3) Improvement of training materials: Information collection, verification trial, field survey, preparation of training manual. (4) Training for government personnel and key-farmers: Training, seminar, follow up guidance for ex-trainees, out-reach programme... (5) Improvement of extension methods.</p>	<p>Japanese Side</p> <p>1. Expert ① Team Leader ② Coordinator ③ Agricultural Extension and Training ④ Rice Cultivation ⑤ Water Management ⑥ Agricultural Machinery ⑦ Short-term expert ⑧ Equipment and Machinery Equipment necessary for training, etc. 3. Acceptance of Tanzanian Personnel for Training in Japan. 4. Others: Local cost support</p>	<p>Tanzanian Side</p> <p>1. Personnel ① Project Director ② Assistant Project Director ③ Project Manager ④ At least 3 Full-time C/Ps for Each Technical Expert in KATC and 1 Desk Officer in the Headquarters of Training Institutes Unit. ⑤ Administrative and Supporting Staff 2. Land, Buildings and Facilities ① Main Office of the Project: KATC ② Sub-office of the Project: KATC ③ Office Space in Training Institutes Unit ④ Others: Construction of a New Hostel and Grain Storage Facility 3. Running Expenses ① Running expenses for the implementation of the Project ② Financial support from related projects for running training courses</p>	<p>Adequate financial support for the activities.</p> <p>No transferring of counterpart personnel.</p> <p>No security problem happens.</p> <p>Trainees are recruited in rice cultivation areas.</p> <p>Pre-conditions</p> <p>① Joint Advisory Committee is established.</p> <p>② Organization, personnel, and function of KATC are clearly defined.</p> <p>③ Necessary number of C/Ps with qualification in KATC and a Desk Officer in the headquarters of Research & Training are assigned.</p> <p>④ Necessary budget for KATC is secured.</p> <p>⑤ Extension service network functions.</p> <p>⑥ There exists sufficient number of extension personnel, including personnel in the fields of water management and agricultural machinery to be trained at KATC.</p> <p>⑦ Cooperation from the organizations concerned to the Project is secured.</p>

2 第5回合同諮問委員会 (出席者リスト; アジェンダ)

NAME LIST OF PARTICIPANT

Date: JAN. 27, 1999.

Place: 農業協同組合省 第1会議室.

Name	Position and Organization
DR. G. M. MITAWA	Ag Chief Research Officer-Crops Mo AC
DR. N. P. SICILIMA	FOR AC EXTENSION MOAC (SENIOR AGRIC OFFICER)
Eng. D. B. E. Uvassa	FOR ASSISTANT COMMISSIONER IRRIGATION (IRRIGATION ENGINEER)
T. N. KIRWAY	ASSISTANT COMMISSIONER (FARMING SYSTEMS RESEARCH)
MWENYE A. M.	AG. COMMISSIONER FOR AGRICULTURE AND LIVESTOCK DEVELOPMENT MAAC
A. A. MBWEELE	AG AC Crop Development MAAC
A. J. KABOTANGE	LSO - DTI
DR S. B. MEENA	CURRICULUM OFFICER DTI - MAC.
	JICA事務所長, 3名 大使館 (田港書記官). 日本人要員 4-6名.
	タンザニア側 KATC 職員. 校長, 室長 4名, 下 27 名.
Mr. J. B. Ndumuru	Director, Training Institutes Unit
Mr. Dr. Marangu	Acting Director, Tropical Pesticides Research Institute

**AGENDA FOR THE 5TH JOINT ADVISORY
COMMITTEE MEETING FOR THE KILIMANJARO
AGRICULTURAL TRAINING CENTRE (KATC)
PROJECT TO BE HELD AT KILIMO I
CONFERENCE ROOM ON
27TH JANUARY, 1999 AT 9.30**

AGENDA

1. Opening of the Meeting
2. Confirmation of the Minutes of the 4th Committee Meeting held on 17th April, 1998
3. Matters arising from the Minutes of the 4th Committee Meeting
4. JICA Team Leaders Remarks
5. Final Evaluation Report
6. Signing of Minutes of Understanding on Final Evaluation of KATC Project
7. Any other business
8. Closing

MINISTRY OF AGRICULTURE AND COOPERATIVES
RESEARCH AND TRAINING DEPARTMENT

KILIMANJARO AGRICULTURAL TRAINING CENTRE
P.O. Box 1241, Moshi Tanzania Telephone: (055) 54247 TEL. FAX (055) 52293

MINUTES OF THE FOURTH JOINT ADVISORY COMMITTEE MEETING FOR THE KATC
PROJECT HELD AT KILIMO HOUSE DAR ES SALAAM ON 17TH APRIL, 1998

I. PRESENT

Members

- 1.1 Mr.D.B. Mpiri - Acting Commissioner Research and Training Division - Chairman
- 1.2 Mr. J.B. Ndunguru - Assistant Commissioner (Training)
- 1.3 Mr.E.M. Achayo - Senior Economist Principal Secretary's Office
- 1.4 Mr.T.N. Kirway - Assistant Commissioner (Farming Systems Research)
- 1.5 Mr.S.A.N. Muro - Acting Commissioner Agriculture and Livestock Development
- 1.6 Mr.A.A. Mbele - Acting Assistant Commissioner (Crop Development)
- 1.7 Mr. A.C.J. Temba - Regional Agricultural Livestock Development Officer -Kilimanjaro
- 1.8 Mr.M. Mtweve - Acting Assistant Commissioner (Extension Services)
- 1.9 Mr.M.N. Mzava - For Assistant Commissioner (Irrigation)
- 1.10 Mr. S.D. Lyimo - For Zonal Director Research and Training - Northern Zone
- 1.11 Mr.E. Uchiyama - Resident Representative - JICA Tanzania Office
- 1.12 Mr.N. Koibuchi - Team Leader - KATC Project
- 1.13 Mr.K. Shiratori - Co-ordinator - KATC Project
- 1.14 Mr.M.Tomitaka - JICA Expert - Rice Cultivation Department - KATC
- 1.15 Mr.Y. Satomi - JICA Expert - Water Management Department - KATC
- 1.16 Mr.K. Yamaguchi - JICA Expert - Agricultural Machinery Department - KATC
- 1.17 Mr.R.J. Shayo - Principal/KATC Project Manager - Secretary

OBSERVERS:

- 1.17 Mr.T. Taminato - Official from Embassy of Japan
- 1.18 Mr.M.W. Misabo - KATC Desk Officer, DRT - Temeke
- 1.19 Ms. D. Sungusia - JICA Tanzania Office
- 1.20 Mr. Z.K. Sarakikya - KATC Farm Manager

2. ABSENT WITH APOLOGY

- 2.1 Regional Administrative Secretary - Kilimanjaro
- 2.2 Assistant Commissioner (Crop Research)
- 2.3 Director, Tropical Pesticide Research Institute - Arusha

3. AGENDA

- 3.1 Opening of the meeting.
- 3.2 Confirmation of the minutes of the 3rd Joint Advisory Committee Meeting held on 14th March 1997 in Dar es Salaam.
- 3.3 Matters arising from the minutes of the 3rd Joint Advisory Committee Meeting.
- 3.4 JICA Team Leader's Remarks.
- 3.5 Progress report of the KATC Project.
- 3.6 KATC Project annual plan and budget for the year 1998/99.

- 3.7 Any other business.
- 3.8 Closing the meeting.

4. OPENING THE MEETING.

The Chairman opened the meeting at 10.07 a.m by welcoming all the members and invited observers. In the opening remarks the Chairman informed the meeting that the Principal Secretary who was to chair the meeting could not attend because he was attending parliament session in Dodoma.

5. CONFIRMATION OF THE MINUTES

Members went through the minutes page by page. The minutes were confirmed and signed.

6. MATTERS ARISING FROM THE MINUTES

- 6.1 Item 3.1 Report to include production from the farm; implemented. See item 6.2 of progress report.
- 6.2 Item 8.2 on shortage of staff: KATC received two counterpart staff from MARTI Uyole and MATI Tengeru. In addition four watchmen were transferred to KATC from Kilimanjaro Regional Administration.
- 6.3 Item 8.3 Production costs; implemented. See item 6.2 of the progress report.
- 6.4 Item 10.0 Advertising KATC activities; KATC produced and distributed the following materials for the purpose of advertising its activities:
 - KATC calendar for 1998
 - KATC brochures
 - KATC diary for 1998
 - The KATC Newsletter, Rice and People in Tanzania was produced every quarter as usual.
- 6.5 Item 12.1.2 Counterpart training in Japan; implemented as planned. See item 3 of the progress report for names, type of training course and duration.
- 6.6 Item 12.4 training of field personnel and key farmers; implemented as planned. See item 5 of progress report.
- 6.7 Item 13.0 KR II Fund - KATC requested for KR II Fund for the following:
 - Strengthening farmers training
 - Increasing dormitory capacity
 - Construction of model grain storage facilities

It was informed that the technical committee of the KR II fund had recommended and forwarded the requests to the Executive Committee for approval. Two requests were approved i.e increasing dormitory capacity and model grain storage facility. Members agreed that increasing capacity should go hand in hand with strengthening farmer training in order to make the whole package meaningful. KATC Desk Officer at Ministry Headquarter was asked to follow-up the matter so that strengthening of farmer training would receive some consideration. Meanwhile KATC was reminded to contact District Councils, NGOs and relevant rural development project to consider sponsoring farmers to KATC courses.

7. KATC TEAM LEADER'S REMARKS

In his remarks (appendix I) the Team Leader expressed sincere gratitude's to the Chairman and members for finding time to attend the meeting. He emphasized to the members that the meeting had been held at the right time for planning carefully the future direction of KATC based on what had been achieved so far.

He commended efforts shown by management and staff of KATC, results of which have been warmly appreciated by trainees and other people concerned with irrigated rice farming in various parts of the country. He however expressed worries on what will happen to KATC after the end of co-operation period in June 1999 if strategies are not laid down in establishing a strong economic foundation for self-reliance. Collective effort at this stage was of vital importance, he said.

Following the Team Leader's remarks, it was agreed that:

- KATC should explore ways and means of making the Centre sustainable.
- District Councils should be contacted to play the leading role in meeting the cost of farmer training at the Centre.
- After the re-structuring of the Ministry, KATC would stand a better chance of being supported financially by the Ministry.

8. KATC PROJECT PROGRESS REPORT (APRIL 1998 - MARCH 1999)

The Secretary read the report.

8.1 Discussion and comment, see appendix 2.

- 8.1.1 It was observed that the number of female participants trained was too small as compared to male participants. A study should be conducted to find out reasons for the big gap. It was however noted that the imbalance was attributed to the staff situation of field technicians in the districts and regions. The number of female participants was much higher in key-farmers courses than in technicians' courses.
- 8.1.2 As to whether the KATC centre was fully utilized in terms of available facilities and time. It was noted that the capacity of the dormitory was utilized 100%. Few gaps between the training periods were reserved for externally sponsored courses.
- 8.1.3 On additional staff request it was suggested that it should be done carefully to avoid overstaffing which will only increase total overheads. Cooks, watchmen and cleaners could be employed by Self Help Fund. Principal to liaise with Assistant Commissioner (Training) for addition staff requests.
- 8.1.4 Concerning studies and surveys conducted by JICA short-term experts, it was suggested that more counterparts should be involved in the exercise. Whenever possible local expertise e.g Zonal Irrigation Office staff could be utilized for some of these surveys. It was however noted that the whole exercise is controlled by the type and amount of budget approved by JICA. Where appropriate budget was available local expertise should be employed.
- 8.1.5 Regarding various crops grown in the farm it was emphasized that few valuable crops could be selected in order to operate the farm more efficiently and profitably. It was informed that area under rice cultivation would be increased by 2.4 ha after construction of new paddy plots.

On low average yields of paddy, (lower than 6 ton/ha) it was reported that training courses were conducted throughout the year and as a result cultivation should also be done parallel with courses to facilitate field practices for the trainees regardless of whether the climatic conditions were suitable for the crop or not. This was among several reasons given for low yields. Others include demonstration of different cultivars of varying yield potentials and high population of quelea quelea birds in the area throughout the year. It was further suggested that, to KATC management should trim down the number of staff working in the farm.

8.2 Discussion and comments on expenditure report.

- 8.2.1 Self Help Fund - It was informed that the KATC Self Help Fund Committee would sit to discuss expenditure of the balance indicated in the report.
- 8.2.2 It was agreed that the previous year (1997) had been a difficult one for KATC because the expected budget from Tanzania government was not disbursed. The Project Co-ordinator had to constantly review and reallocate JICA funds for unforeseen budgetary shortfalls, something which was quite disturbing.
- 8.2.3 On sustaining KATC activities it was suggested that the management of the centre should come up with proposals which would be tabled during the next Joint Advisory Committee meeting.

9. KATC PROJECT ANNUAL PLAN AND BUDGET FOR THE YEAR 1998/99

The project annual plan and budget was presented and discussed. The following is an outline of the main activities to be implemented during the year 1998/99.

- 9.1 Enhancement of technical capabilities of counterpart staff. On job training activities for counterpart staff would go on throughout the year.
- 9.2 Improvement of training methods and teaching materials.
 - 9.2.1 Review of training plan.
 - 9.2.2 Collection of relevant information through surveys and course participants.
 - 9.2.3 Training materials to be prepared; Rice Farming in Tanzania and Rice Cultivation Manual.
 - 9.2.4 Irrigated rice cultivation trials; monthly transplanting trials.
 - 9.2.5 Irrigated rice cultivation with different soil management practices will be done.
 - 9.2.6 Seminar on Management of Irrigation Projects.
 - 9.2.7 Study on operation and maintenance of irrigation systems.
 - 9.2.8 Preparation of training manual on Water User's Groups.
 - 9.2.9 Preparation of training manual on maintenance of irrigation facilities.
 - 9.2.10 Village outreach programme formulation.
 - 9.2.11 Designing and trial of appropriate machineries used in rice cultivation.
 - 9.2.12 Rice mechanization and tractor operators text books to be prepared.
 - 9.2.13 Preparation of text on rice mechanization in Tanzania.
- 9.3 Training of government personnel and key-farmers.
 - 9.3.1 Rice cultivation course for VEOs - (1)
 - 9.3.2 Rice cultivation courses for Key-farmers. - (3)
 - 9.3.3 Water Management course - (1)
 - 9.3.4 Rice mechanization and tractor operator's courses - (1 each).
 - 9.3.5 Follow-up guidance for ex-trainees would be conducted as and when funds allowed.
- 9.4 Other activities.
 - 9.4.1 Schistosomiasis control campaign in Lower Moshi Irrigation Scheme.
 - 9.4.2 Third country training programme to be conducted if budget requested was made available.
 - 9.4.3 Meteorological data collection and record keeping.
 - 9.4.4 Participation in the 1998 Nananane Agricultural Show.
 - 9.4.5 Routine maintenance of KATC vehicles and agricultural machinery.
- 9.5 Production farm activities.

Production of different kinds of crops at the farm including rice, maize, vegetables, fodder crops, sunflower and soybean. Training and utilization of waterbuffalo in land preparation.

Discussion: Members stressed the importance and need for KATC to plan well and try to make all possible efforts to generate funds for self reliance and sustainability of the centre. The KATC Project annual plan and budget for the year 1998/99 was approved.

10. ANY OTHER BUSINESS

- 10.1 It was informed that the Kilimanjaro Agricultural Development Project (KADP) which is sharing some common facilities with KATC might soon be handled over to Lower Meshi Rice Farmers Co-operation Society (CHAWAMPU). KATC Management raised concerned over the issue and noted that the centre would have difficult time in sharing the facilities with a private institution. KATC proposed that, all the facilities to be handled over to KATC for smooth operation. The Chairman suggested that KATC should prepare a comprehensive proposal to the Principal Secretary.
- 10.2 KATC had been seeking sponsors for some of the training courses conducted at the centre as one of the approaches for sustaining project activities. In this regard, the Ministry was requested to assist the Centre by making the necessary contacts and providing needed information.
- 10.3 It was proposed that the Director of Irrigation division should as much as possible direct all his training courses and seminars on irrigation and Water Management to KATC for maximum utilization of existing facilities.
- 10.4 In order to further strengthen KATC training activities there should be closer linkages between the Assistant Commissioner (Training) and Assistant Commissioner (Extension).

11. ANNOUNCEMENT

Members were asked to view materials regarding KATC and it's activities on the display table.

12. CLOSURE

In his closing remarks, the Chairman stressed on teamwork and accountability. Hoping that there would be improvement in the government budget allocation in the coming financial year (1998/99), he wished KATC Project a successful final year. He thanked all members for attending and contributing ideas to the meeting and wished everyone a safe journey back to their station. He declared the meeting closed at 12.30 p.m.

.....
CHAIRMAN

.....
SECRETARY