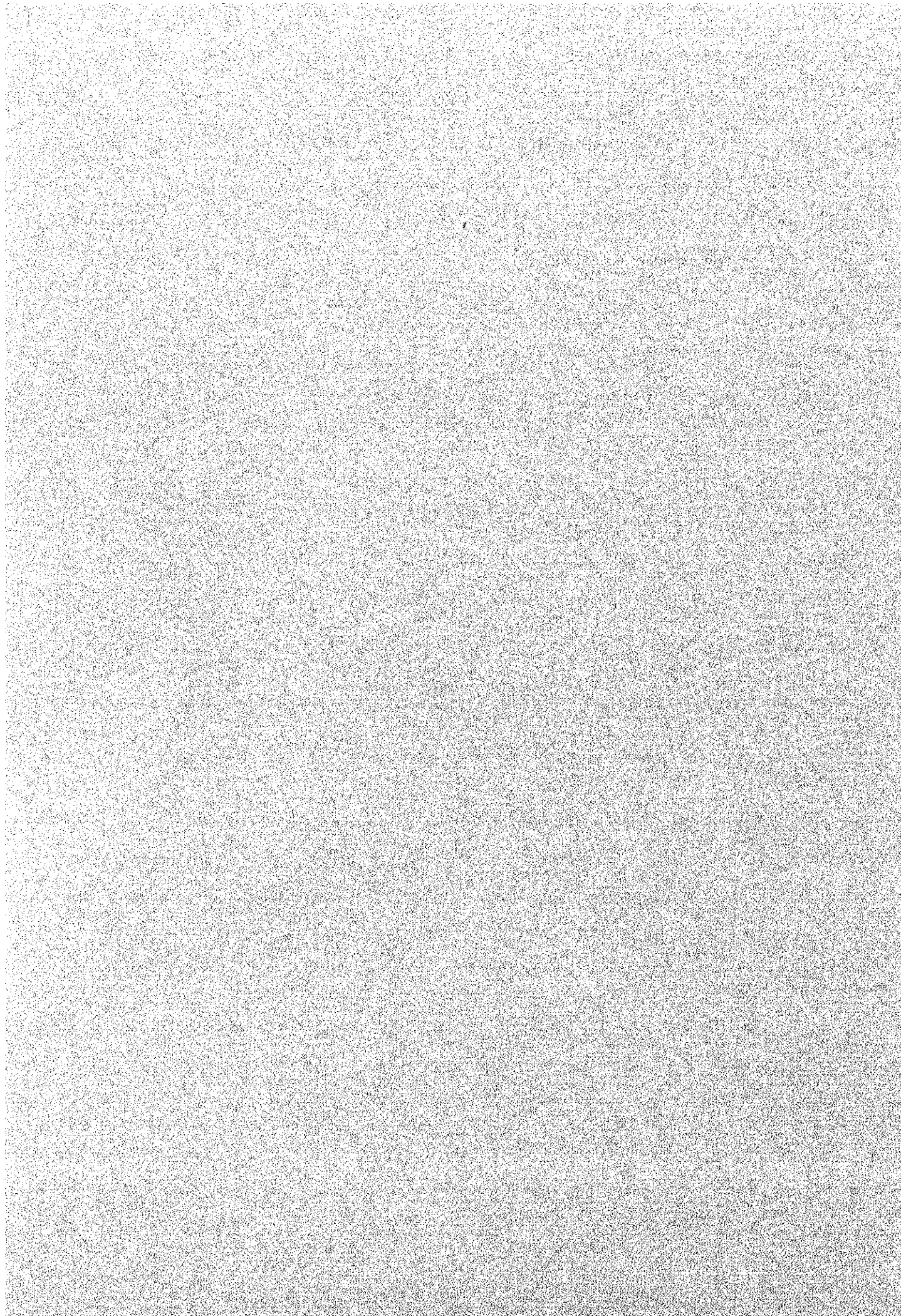


添 付 資 料

1. 正式要請書
2. ミニッツ
3. 事前調査団対処方針
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- 4-2. 森林宣言 (和文)
5. EFAPプロジェクト概要
6. S/W協議の概要
7. S/W, M/M



添付資料1. 正式要請書

የውጭ አካኖሪ ጉብኝት ሚኒስቴር

የውጭ አካኖሪ ጉብኝት ሚኒስቴር



THE TRANSITIONAL GOVERNMENT
OF ETHIOPIA
MINISTRY FOR EXTERNAL
ECONOMIC COOPERATION

*TC AA7-3.7.1/293
REF. No
07 MAR 1984
DATE

Embassy of Japan
Addis Ababa

The Ministry for External Economic Cooperation (MEEC) presents its compliments to the Embassy of Japan and has the honour to forward the following request.

In the letter dated February 11, 1994 ref. no. 01/+02/1/1 we have learnt that extensive discussions were made between JICA and the Ministry of Natural Resources Development and Environmental Protection (MNRDEP) on the need for providing technical assistance in forest resource survey.

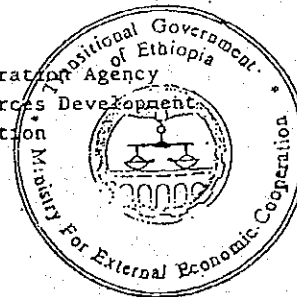
Ethiopia had approximately 35-40% of its land covered with dense forests. This natural resource has, however, undergone substantial changes through human influences both in deforestation and degradation. These negative human influences on the natural forests have led to extensive soil erosion, low agricultural production and excessive energy crisis. This in turn leads to less capability to support human and animal life and eventually drought and in some areas to expanding desertification and famine.

In order to mitigate the problem, MNRDEP has planned to undertake effective management practice for which assistance is sought in the form of equipment machinery, manpower and training.

Fully aware of the national importance of the project, the MEEC kindly requests the Embassy of Japan to favourably consider the project.

The MEEC avails itself of this opportunity to renew to the Embassy of Japan the assurances of its highest consideration.

cc. Japan International Cooperation Agency
Ministry of Natural Resources Development
and Environmental Protection
Addis Ababa



Geremew Getahun
GEREMEW GETAHUN
Head, Department of the
Americas and Asia

REQUEST FOR TECHNICAL ASSISTANCE

Requesting Agency: State Forest Conservation and Development
Department (SFCDD) of the Ministry of
Natural Resources Development and
Environmental Protection (MNRDEP)

Proposed Source

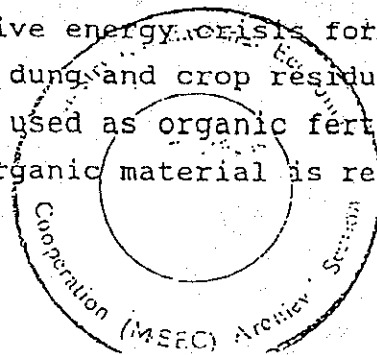
of Assistance: Government of Japan

Type of Assistance : Development study

1. Project Title: Forest Resource Survey in the
South Western part of Ethiopia
2. Duration: About two (2) Years.
3. Background and Justification:

Originally Ethiopia had approximately 35 - 40% of its land covered with high forests of either the Coniferous or broad leaved type. This natural resource has, however, undergone substantial changes through human influences both in size /deforestation/ and quality/degradation/. By the early 1950s, high forests were reduced to 16 percent of the total area. It has been estimated that by early 1980s, the land area covered by forests had declined to 3.6 percent and by 1989 to 2.8 percent (IUCN, 1990).

These negative human influences on the natural forests have led to extensive soil erosion, low agricultural production and excessive energy crisis forcing the rural people to use animal dung and crop residues as fuel which would have been used as organic fertilizer. As a result, very little organic material is returned to the



soil. This in turn leads to poorer fertility of the soil, less productivity, less capability to support human and animal life and eventually drought and in some areas to expanding desertification and famine.

The effects of natural resource degradation is highly evident particularly in the high lands of Ethiopia. The Northern and central high lands of Ethiopia have been long utilized by settled agriculturists and have relatively high population densities. High population pressures coupled with inappropriate farming systems, have led to considerable negative impact on the vegetation and soils.

Following the recent re-organization, the State Forest Conservation and Development Department (SFCDD), which was originally organized under the former Natural Resources Conservation and Development Main Department of Ministry of agriculture (MoA), is presently under the Ministry of Natural Resources Development and Environmental Protection. (MoNRDEP). A new draft law on forest conservation and development has already been prepared by SFCDD/MoNRDEP and is approved by the Council of Ministers. The new forestry proclamation recognize, the need to conserve and develop forest resources and the value of soil protection, wildlife, combatting desertification, providing wood reaction and generating employment.

SFCDD is responsible for the management, conservation and development of forest resources; formulation of forest policies; investment proposal, forest inventory, planning, research and forestry training. In line with its duties and responsibilities, SFCDD has identified about 58 National Forest Priority Areas (NEPAs), which cover a total area of approximately 3.5 million ha., with the objective to effectively manage, develop and conserve forests, as well as wildlife habitat. The rest scattered forests and woodland areas in the country are under the

de-facto control of the rural and urban associations. Due to technical and financial constraints, so far, the SFCDD has been able to demarcate only about NFPA's so far, which are located in the central eastern and southern parts of the country; where the degree of deforestation and encroachment is more serious. The total areas of these demarcated NFPA's is about 2.1 million ha.

Among the identified NFPA's, ten of them, namely Abobo-Gog, Tepi-Godere, Bonga, Sigmo-Geba, Yeki, Sele-Andercha, Yayu, Sibu-Tole-Kobo, Gebre-Dema and Belete are located in the south west part of the country. The total area of these forest is estimated to be about 1.61 million ha., and constitutes about 86% of the NFPA's. As compared to other areas, these extensive areas of medium altitude, South and South -west high lands are relatively densely forested. These areas were isolated from human interventions over a long period of time mainly due to their inaccessibility. As a result, most of these forested areas are conceived as the un exploited frontiers of Ethiopia.

However, in the past few years, the problems of forest degradation, has been extending from the North and central high lands towards the South and South western forest areas. In appropriate land use practices, settlement and traditional farming systems are among the major causes for forest destruction in the area. Apparently, deforestation is the major problem facing this part of the country; and the current annual loss of high forest areas has been estimated to be between 50,000 - 100,000 ha. If such destruction would be allowed to continue, all the forest resource in the area will be lost within the coming 10 - 20 years.

Therefore, effective management practice should be introduced immediately in order to save the remaining

forest. The implementation of such a program should begin with a survey and inventories of the forest resources. In another words, it is of prime importance to collect bio-physical and socio-economic data of the concerned forest area in order to formulate the required management plan. However, the implementation of such a development programme has been constrained due to the absence of the necessary surveying equipments, recent aerial photographs and appropriate topographic maps of the concerned area at desirable scales including technical back-up.

4. Objective:

- 4.1 To produce an aerial photography of the South-West Ethiopia at a scale of 1:20,000 (approximately 10,000 km²)
- 4.2 To prepare a topographic map of the selected area.
- 4.3 To formulate a forest management plan for the selected model area of 2 million ha.
- 4.4 Prepare indicative master plan for the entire selected area.

5. Major Activities and Requested Assistance

The following are the major activities to be undertaken:-

- i Taking aerial photography at a scale of 1: 20,000 covering the forest and the forest land area of 10,000 square kilometers. (approximately ~~10~~ million ha.)

- ii. Preparation of topographic map at a scale of 1: 10, 000 for the selected study area of 2, 000 km² (approximately ~~2~~^{200,000} million ha.)
- iii. Demarcation, inventory and management plan formulation of the study area of 2, 000 km²
- iv. Training local foresters in the field of forest survey and management planning in Japan.

At the end of the study period, the following items shall be made available and delivered to SFCDD.

a. Aerial Photographs

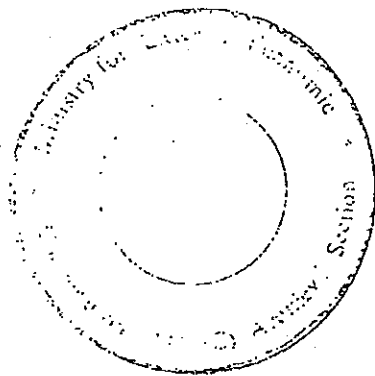
- Aerial film negatives to be kept in Ethiopia
- two-three sets of contact prints
- two enlarged photographs to the scale of 1: 5000

b. Maps of the study area

- Topographic map
- Land-use and Vegetation Map
- Forest type map
- Forest management map including road, water catchment and stock.

c. Report.

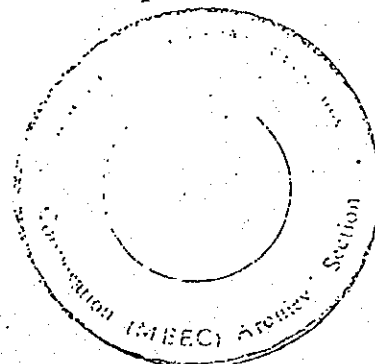
- inception report,
- interim report
- result of survey /data/
- forest development and master plan document for the entire area.
- detailed management plan of the study area
- inventory book.



6. Implementation Strategy

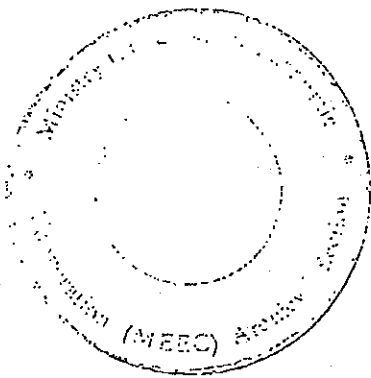
6.1 The Government of Ethiopia will charge SFCDD/MoNRDEP in the implementation of the project. Accordingly SFCDD/MoNRDEP is responsible for:

- a. supply of available data and information related to the study program
- b. provision of assigned counter parts from SFCDD/MNRD & EP.
- c. arrangement of casual labour, drivers etc...
- d. obtaining flight permission from the concerned authorities for producing aerial photography and mapping.
- e. free transfer of data and materials including aerial films related to the study area to Japan and/or to Ethiopia.
- f. provision of suitable office spaces with appropriate facilities.
- g. arranging permission from authorities concerned for use of the communication facilities (wireless communication or trans receivers)
- h. assurance of security and safety for the study team as well as for the materials and instruments
- I. free entrance to the operation sites
- j. exemption from import duties, taxes and charges of any kind in respect of equipments as necessary for the execution of the study.



6.2 The Government of Japan, through its appropriate Agency/Institution (to be identified latter) will:

- a. Dispatch the study team
- b. Pursue transfer of technology to counter part personnel in the course of the study.
- c. Provide equipment and machinery
- d. Accept counter part personnel for training



MINUTES OF THE MEETINGS
FOR
THE PREPARATORY STUDY TEAM
ON
THE FOREST RESOURCES STUDY IN THE SOUTH WESTERN PART
OF
ETHIOPIA

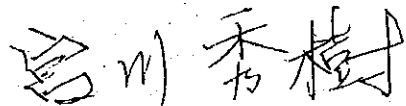
In response to the request of the Government of Ethiopia, the Preparatory Study Team headed by Mr. Hideki MIYAKAWA (hereinafter referred to as "the Team"), was sent to Ethiopia by the Government of Japan through the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the technical cooperation programs of the Government of Japan, from 25 July to 5 August, 1995 for the Forest Resources Study in the South Western Part of Ethiopia (hereinafter referred to as "the Study").

The Team carried out field survey and held series of discussions with the authorities concerned of the Government of Ethiopia represented by Mr. Kidane Mengistu, Head of Forest and Wildlife Conservation and Development Department, Ministry of Natural Resources Development and Environmental Protection (hereinafter referred to as "the Ethiopian Side"). Prominent issues discussed between the two parties are shown in the ANNEX as attached hereto. The Team will convey the result of the discussions to the Government of Japan for its further examination and consideration.

Addis Ababa, 4 August, 1995



MR. KIDANE MENGISTU
Head,
Forest and Wildlife Conservation and
Development Department,
Ministry of Natural Resources Development
and Environmental Protection
Ethiopia



MR. HIDEKI MIYAKAWA
Team Leader,
Preparatory Study Team,
Japan International Cooperation
Agency (JICA)
Japan

HM

1. The Team and the Ethiopian Side have tentatively agreed upon the following content;

1-1 Study Area

The Study Area will cover the ten NFPAs, i.e. Belete-Gera, Bonga, Sigo-Geba, Yayu, Gebre Dima, Sibbo-Tole Kobo, Sele-Anderacha, Abobo-Gog, Godere and Yeki. The Intensive Study Area will be established within two NFPAs, i.e. Bonga and Belete-Gera. The Intensive Study Area will be defined in the Scope of work (called S/W herinafter), taking into account of the suggestions by the Ethiopian Side.

1-2. Justification of Establishing the Intensive Study Area within the two NFPAs

These two NFPAs still maintain natural forests as well as plantations which need appropriate management. However, the two NFPAs experience severe encroachment caused by the population pressure. Conflicts over land utilization by the residents are also widely witnessed. In this context, the Ethiopian Side feels that measures to mitigate the current conditions need to be urgently undertaken.

1-3 Objectives of the Study

- a. to take aerial photographs for the Study Area and prepare a forest management plan for the Intensive Study Area.
- b. to conduct on-the-job trainings on the assessment of forest resources and forest management planning for the counterpart personnel through the implementation of the Study.

1-4 Components of the Study

1-4-1 For the Study Area

- a. Aerial Photographing

1-4-2 For the Intensive Study Area

- a. Preparation of thematic maps (topographic map, land use-vegetation map, soil map etc.)
- b. Data collection and analysis of natural conditions
- c. Data collection and analysis of socio-economic conditions, including gender analysis
- d. Inventory of forest resources
- e. Formulation of forest management plan

2. The Team explained to the Ethiopian Side the scheme of Development Study, which is under the technical cooperation programme of the Government of Japan. The Ethiopian Side fully understood the scheme together with the requirements to be undertaken by the Ethiopian Side.

3. On the Ethiopian Side, the Ministry of Natural Resources Development and Environmental Protection (called MNRD&EP hereinafter) will undertake overall responsibilities related to the implementation of the Study. The Forest and Wildlife Conservation and Development Department (called FWCD hereinafter) of the MNRD&EP will be the counterpart agency for the Japanese Study Team during the implementation of the Study. FWCD will act as a coordinating body in relations with the concerned regional and zonal Natural Resources Development and Environment Protection offices, other governmental agencies and non-governmental organizations for the purpose of smooth implementation of the Study.
4. The aerial photographs covering 8 NFPAs will be utilized for future forest inventory and forest management planning by the Ethiopian Side, applying technology and methodology transferred by the Japanese Study Team during the implementation of the Study.
5. Based on the result of the discussions between the two parties and the findings of the Team, JICA will prepare dispatching another preparatory study team for the purpose of discussing and finalizing the S/W of the Study. The Team promised to send a draft S/W in due time, for consideration by the Ethiopian Side, before the arrival of the next preparatory study team.
6. In regard to the preparation of thematic maps, the scale and the area to be covered will be further examined by JICA according to technical appropriateness of the Study. The result of this examination will be incorporated into the draft S/W.
7. The Ethiopian Side inquired whether there are any possibilities to include the following additional NFPAs into the Study Area, i.e. Ameya-Bele, Bulki-Malakoza, Deme-Laha, Guraferda, Gorgo-Watto, Linche-Dali-Gewe, Gidame and Gergeda.
8. The Ethiopian Side requested that a project document including a plan of operation and input by the both governments be prepared and signed by both parties. This is for the purpose of securing allocation of the counterpart personnel as well as counterpart budget from the Ethiopian Side. The Team informed the Ethiopian Side that such document (called Inception Report hereinafter) can only be prepared after the signing of and based on the S/W. Inception Report will be prepared by the Japanese Study Team and submitted to the Ethiopian Side for discussion and mutual agreement.

添付資料 3. 事前調査団対処方針

No.	調査、協議、確認事項	要請書記載内容	対処方針
1	事前(予備)調査団派遣の目的		<p>先方から提出されている要請書および国内で入手可能な資料からだけでは、S/W案を策定するに十分な情報が得られないため、以下の事項につき、調査・協議・確認を行う。</p> <p>A. 森林・林業分野および社会・経済分野の基礎情報の収集を通じて要請背景の確認</p> <p>B. 要請書記載の要請内容の確認</p> <p>C. 調査の目的および調査結果の活用方針の確認</p> <p>D. 調査対象地域の現況調査</p> <p>E. 対象地域の選定および面積の妥当性の確認</p> <p>F. 森林管理計画の実施体制の確認</p> <p>G. 社会配慮・WID配慮を本格調査において実施する必要性および調査内容の確認</p> <p>H. 本格調査における調査項目の確認</p> <p>I. 環境配慮実施の必要性の確認</p> <p>J. 航空写真、地形図作成に必要な情報の収集</p> <p>K. 開発調査スキームの説明</p> <p>L. 実施機関の概要および開発調査の実施体制</p> <p>M. その他、本格調査実施上の留意事項の確認</p>
2	森林・林業にかかると基礎情報収集	<p>1989年の森林率は、2.8%。森林の減少により住民の新炭の入手が困難になり、本来有機肥料として土壌に還元されるべき家畜の糞等が燃料として消費され、土壌の劣化と生産性の低下を招いている。</p> <p>国家森林保全開発局(State Forest Conservation and Development Department, SFCDD)が森林資源の管理・保全・開発、林業政策策定、投資計画、森林調査、研究および訓練を所掌している。</p> <p>森林保全および開発にかかると新法案が、閣議により了承された。新法においては、森林の保全と</p>	<p>本件要請の背景並びに協力の可能性および範囲を検討する。左記要請書記載の基礎情報を踏まえ、工国における森林・林業についてのより詳細な情報を収集する。(これら基礎情報の確認を行うことにより、今回の開発調査の要請背景が明らかになる。)</p> <p>具体的には、既存資料、質問書回答、先方との協議、現地情報収集等を通じ、以下の項目について調査する。</p> <ol style="list-style-type: none"> 1. 工国森林・林業の現況 1) 森林率、森林減少率および原因 2) 林相 3) 森林利用実態

No.	調査、協議、確認事項 (森林・林業にかかるとる基礎情報の収集)	要請書記載内容 開発、土壌保全、野生生物保護の必要性を認め、砂漠化防止を図り、木材工業の振興による雇用の創出することを目指している。 SFCDD は、国家森林優先地域(?) (National Forest Priority Area : NFPA's) 58カ所 (約3.5百万ha) を指定し、森林および野生生物の効率的な管理と保全を図っている。その他の森林は実態上、地域の associations の管理によっている。これまでもとところ中東部および南部の約2.1百万 ha のNFPA's が境界確定されている。	対処方針
			<p>2. 森林・林業関連法制度および計画</p> <ol style="list-style-type: none"> 1) 「新法案」の内容、立法化進捗状況の確認 2) 「新法案」以外の関連法制度の確認 3) TFAP の工国林業政策における位置付けおよび実施状況の確認 <p>3. NFPA</p> <ol style="list-style-type: none"> 1) NFPA 設置の根拠法/政令等の確認 2) 現行の NFPA 58カ所の設置経緯 3) Integrated Utilization & Development NFPA と通常の NEPA の違い 4) 全 NFPA リスト <ul style="list-style-type: none"> ・名称、面積 ・概況等 5) NFPA における管理の現況 <ul style="list-style-type: none"> ・管理主体、管理手法 ・野生生物の管理の現況 ・管理計画の有無、内容、実例等 6) NFPA 以外の森林の管理現況 <p>4. 森林調査の現況</p> <ol style="list-style-type: none"> 1) 森林調査の方法 <ul style="list-style-type: none"> ・調査主体 ・調査手法 ・森林調査簿の内容 2) 森林調査の実績 <ul style="list-style-type: none"> ・実施済み地域および面積 ・実施時期 3) 今後の森林調査実施計画 <p>5. その他既存情報の有無および制度</p> <ol style="list-style-type: none"> 1) 森林・林業統計 2) 図面類 (地形図、土壌図、植生図等)

No.	調査、協議、確認事項	要請書記載内容	対処方針
3	<p>社会配慮、WID 配慮にかか る基礎情報収集および社会 配慮、WID 配慮を本格調査 において実施する必要性の 確認</p>	<p>(要請書に記載なし)</p>	<p>要請書には社会配慮および WID 配慮について触れら れていないが、本格調査にこれらの項目を盛り込む必要 性について検討する。 このため、基礎情報として以下の事項につき調査を行 うこととする。</p> <ol style="list-style-type: none"> 1. 社会配慮および WID 配慮の工国における位置付け の確認 1) 関連法制度の有無および内容 2) 開発プロジェクトにおける社会配慮および WID 配慮の事例収集、分析 3) 担当行政機関の有無および役割 <ol style="list-style-type: none"> 2. 対象地域における住民および女性の概況 1) 行政データの確認 2) 部族、宗教、集落の形態、生産活動 3) 森林と住民との関連、女性の関与の実態
4	<p>要請背景の確認</p>	<p>過去数年間、工国の北部および中央高地から 南部および南西部へと森林劣化の地域が移行しつ つある。不適切な土地利用、入植および伝統的農 法が森林破壊の主因である。高木林の森林減少は 年間 5～10 万 ha であり、この状態が続くと森林 は 10～20 年で消失する。 このため、適切な森林管理の導入が必要であ り、その前提として森林資源調査の実施および自 然条件・社会経済条件データに基づき森林管理計 画の策定が不可欠である。 しかしながら、調査用資機材、最近の航空写真 および当該地域の地形図の欠如により、かかる開 発計画の策定に支障をきたしている。</p>	<p>要請背景として要請書に記載されている森林劣化や森 林減少についての一般的な事情については、基礎情報収 集を通じて確認する。 要請書によると本件要請の直接的な動機は、調査用資 機材、航空写真、地形図等の物理的要件の欠如によると されているが、技術面、資金面での制約についても確認 する。</p>

No.	調査、協議、確認事項	要請書記載内容	対処方針
5	調査内容の確認	<ol style="list-style-type: none"> 1. 航空写真撮影 (100万 ha、1/20,000) <ul style="list-style-type: none"> ・ 密着写真 (2～3 セット) ・ 引き伸ばし (2 セット、1/5,000) 2. 地形図作成 (20万 ha、1/10,000) 3. 境界確定、森林調査 (20万 ha) 4. 詳細森林管理計画の策定 (study area : 20万 ha) 5. 主題図作成 <ul style="list-style-type: none"> ・ 土地利用植生図 ・ 林相図 ・ 森林管理図 (林道、集水域、蓄積を含む) 6. 森林管理マスター・プランの策定 (全域 : 100万 ha) 7. 成果品 <ul style="list-style-type: none"> ・ インセプション・レポート ・ インテリム・レポート ・ 調査結果、調査データ ・ 詳細森林管理計画 ・ 森林管理マスター・プラン ・ 森林調査簿 	<p>調査内容、対象地域・面積等については、別途協議の上確認することとし、ここでは要請書記載内容については以下の点を確認する。</p> <ol style="list-style-type: none"> 1. study area 以外の80万 ha の航空写真の活用目的 2. 境界確定 (demarcation) の意味 3. 主題図作成の対象地域・面積および縮尺 4. 全域における森林管理マスター・プランと study area における詳細管理計画のそれぞれの内容および利用目的 <ul style="list-style-type: none"> ・ 「indicative master plan」と「detailed management plan」の違い 5. 10NFPA の総面積とされる161万 ha と調査対象地とされる100万 ha の関係および位置 6. 要請書において航空写真撮影対象地として記載されている「(covering) the forest and the forest land」の意味
6	調査目的の確認	(4 および 5 の項参照)	<p>調査の目的に関し、以下の内容が想定されるが、先方が重点を置く目的を確認する。</p> <ol style="list-style-type: none"> 1. 森林保全および生態系保全 (野生動植物の保護) 2. 森林の持続的利用または林産業的利用 3. 地域住民の生活向上

No.	調査、協議、確認事項	要請書記載内容	対処方針
7	調査結果の活用方針の確認	(4および5の項参照)	<p>調査結果の活用方針について、以下の視点から先方の意図を聴取し、その妥当性を検討する。特に別項10の「実施体制」の確認と併せて、実現性および事業化のめどについて確認する。</p> <ol style="list-style-type: none"> 1. 技術移転に基づく他地域での管理計画の策定 2. 管理計画の策定に基づくエ国独力による管理の実行 3. 森林調査データ整備に基づく政策の決定 4. 外国援助資金導入のための要請書基礎資料作成
8	調査対象地域の概況調査	(詳細については、ほとんど記載なし)	<p>航空機による上空からの概況視察および地上踏査を通じて、以下の視点から調査対象地域の概況を把握する。概況把握の結果に基づき、調査対象地域における本格調査の実施の妥当性について検討する。</p> <ol style="list-style-type: none"> 1. 地形、水系の概況 2. 森林のまとまり 3. 林相、植生概況 4. 周辺の土地利用 5. NFPA 境界の確認の可否 6. 集落の形成状況および農地等の NFPA への侵入の状況 7. 周辺住民の人口、部族、生産活動、生活レベル 8. 住民の森林とのかかわり 9. 森林利用における女性の役割 10. 地方行政組織の概要、機能 11. 保護すべき地域および野生動物植物の有無 12. アケセス 13. 林内移動の難易 14. 調査団の生活拠点 (宿舎、食料・飲料水、衛生状態、物資の調達、電気、通信等) 15. 治安状態

No.	調査、協議、確認事項	要請書記載内容	対処方針
9	対象地域選定の妥当性の確認	(4および5の項参照)	<p>調査対象地域はエテリオピア国南西部の10カ所のNFPAとされており、ここを選定した理由として、旧来北部および中央高地で顕著であった森林破壊・森林劣化が、当該地域にも拡大しつつあることが挙げられている。</p> <p>当該地域での開発調査を実施する妥当性を検討するため、1の「森林・林業基礎情報収集」および6の「対象地域の現況調査」の結果を踏まえ、以下の点を確認する。</p> <ol style="list-style-type: none"> 1. 10NFPAの詳細データの有無 <ol style="list-style-type: none"> 1) 範囲、面積 2) 林相、植生、土壌、気象データ等 3) 管理体制 2. 全NFPAの内、当該10NFPAを選定した理由 <ol style="list-style-type: none"> 1) NFPAを優先的に扱うべき明文化された方針・計画等の有無 2) 明文化された方針・計画等がない場合のエテリオピア国政府の考え方 3. 全調査対象地 (100万 ha) と study area (20万 ha) の考え方 <ol style="list-style-type: none"> 1) 全調査対象地におけるマスター・プラン策定の必要性および妥当性 2) study area (20万 ha) における詳細森林管理計画策定の必要性および妥当性 3) study area (20万 ha) の選定基準および候補地

No.	調査、協議、確認事項	要請書記載内容	対処方針
10	対象地域の面積の妥当性の確認	(4 および5の項参照)	<p>調査対象地域の面積(100万 ha および20万 ha)は、これまでのJICAの開調の対象面積と比べて広大な部類に属する。特に study area の20万 ha において、縮尺1/10,000の地形図作成および森林調査を実施する場合は、膨大な経費が必要となる。</p> <p>また、要請書に示された地形図の精度(1/10,000)は、study area 20万 ha における管理計画策定のためには、詳細であり過ぎる。このため、森林調査や管理計画の精度に見合った調査対象面積と縮尺の設定が必要である。</p> <p>これらの視点を踏まえ、先方の要望と調査目的に照らして、以下のオプションについて検討する。</p> <ol style="list-style-type: none"> 1. リモート・センシングの手法を用い、要請対象地域全域について大まかな資源現況を把握する。 2. 数万 ha 程度のモデル・エリアを設定し、詳細森林調査を実施し、残る地域において工側が独自に調査を実施することを前提として調査手法の技術移転を行う。 3. 地形図の縮尺を小さくするなどして、精度を下げつつ全面積(20万 ha)をカバーする。 <p>なお、以下の折衷案(リモート・センシングとモデル・エリアにおける詳細調査の組み合わせ)やその他の案についても可能性を検討する。</p>
11	森林管理計画の実施体制の確認	(要請書に記載なし)	<p>開発調査終了後の森林管理計画の実施について、以下の視点から確認を行う。</p> <ol style="list-style-type: none"> 1. 策定される森林管理計画の国家政策における位置付け 2. 資金手当 3. 実行組織(担当部局：中央および地方)

No.	調査、協議、確認事項	要請書記載内容	対処方針
12	本格調査における調査項目の検討	(4および5の項目)	<p>本格調査項目は事前(予備)調査の結果を踏まえて検討することとするが、以下の項目案に沿って先方の要望を聴取、検討する。</p> <ol style="list-style-type: none"> 1. 航空写真撮影 2. 地形図作成 3. 既存情報収集 <ol style="list-style-type: none"> 1) 自然条件 2) 社会・経済条件 3) 森林・林業現況 4. 社会分析・WID分析 (調査結果を踏まえて検討する) 5. 森林調査項目 <ol style="list-style-type: none"> 1) 針広区分、樹種、樹高、疎密度 2) 材積表(単木、林分)、成長量 3) 土壌調査 4) 森林調査簿の項目 6. 森林管理計画項目 <ol style="list-style-type: none"> 1) 土地利用計画 2) 森林区分 3) 森林区画 4) 森林区分・森林区画ごとの施業 5) 伐採、造林 6) 野生動植物保護 7) インフラ整備 8) 社会林業、住民参加・組織化 9) 管理体制 10) 環境影響 11) 事業評価 7. 森林管理マスター・プラン項目 (調査結果を踏まえて検討する)

No.	調査、協議、確認事項	要請書記載内容	対処方針
	調査、協議、確認事項 (本格調査における調査項目の検討)		<p>8. 成果品</p> <ol style="list-style-type: none"> 1) 地形図 2) 主題図 <ul style="list-style-type: none"> ・ 土地利用図 ・ 林相図 ・ 土壌図 ・ 森林管理計画図 3) 森林調査簿
13	環境配慮実施の必要性の確認	(要請書に記載なし)	<p>本格調査において環境配慮を実施する必要性を検討するため、以下の調査を行う。</p> <ol style="list-style-type: none"> 1. エテイオピア国における環境配慮関連法制度の確認 2. 右法制度に則って本件開発調査において環境配慮を実施する必要性の確認 3. 国際協力事業団「林業分野開発調査に係る環境配慮ガイドライン」に基づくPD, SDの記入
14	航空写真撮影および地形図作成に必要な情報収集		<ol style="list-style-type: none"> 1. 既存資料の確認 <ol style="list-style-type: none"> 1) 航空写真 <ul style="list-style-type: none"> ・ 対象地域および縮尺 ・ 撮影時期 ・ 撮影者 ・ 本件調査への活用可否 (精度および手続きにおいて) 2) 地形図 <ul style="list-style-type: none"> ・ 三角点網の確認 (以下、航空写真と同様の項目について確認する) 2. 新規航空写真撮影に必要な情報の確認 <ol style="list-style-type: none"> 1) 撮影許可および写真の国外持ち出しに係る手続き

No.	調査、協議、確認事項 (航空写真撮影および地形 図作成に必要な情報収集)	要請書記載内容	対処方針
			<p>2) 再委託先調査</p> <ul style="list-style-type: none"> ・所有する航空機ほか資機材 ・撮影実績および技術レベル ・受注余力 ・経費見積り <p>3) 撮影適期および工期</p> <p>2. 新規地形図作成に必要な情報の確認</p> <p>1) 作成許可および地形図の国外持ち出しに係る手続き</p> <p>2) 再委託先調査</p> <ul style="list-style-type: none"> ・所有する資機材 ・作成実績および技術レベル ・受注余力 ・経費見積り <p>3) 作業適期および工期</p>
15	開発調査のスキームの説明		<p>エトピア国においては森林・林業分野の開発調査を初めて実施することになるので、カウンタート機関の開発調査スキームに対する十分な理解を得るよう、以下の項目について説明を行う。</p> <ol style="list-style-type: none"> 1) 我が国 ODA における開発調査の位置付け 2) 双方のとるべき措置 3) S/W 標準パターンの内容
16	本格調査実施上の留意事項の確認		<p>円滑な調査実施のため、以下の事項について確認する。</p> <ol style="list-style-type: none"> 1. カウンタート機の配置 2. 先方予算手当 (カウンタート出張旅費等) 3. 調査用執務スペースの確保

No.	調査、協議、確認事項 (本格調査実施上の留意事項の確認)	要請書記載内容	対処方針
17	実施機関の概要および開発調査の実施体制	天然資源開発・環境保全省が実施機関となる。	<p>4. 調査用資機材</p> <ol style="list-style-type: none"> 1) 品目、数量 2) 仕様および電源の状況 3) 調達方法 4) 価格 <p>5. 本格調査拠点</p> <ol style="list-style-type: none"> 1) 治安、衛生状態 2) 宿舎 3) 物資調達 (燃料、食料、飲料水等) 4) 電気、通信 5) 交通手段 6) 緊急時のサポート体制 <ul style="list-style-type: none"> ・病院 ・大使館、JICAとの連絡方法
18	FAOにおける調査事項		<p>中央政府および地方政府において本件調査のカウンターパート機関となるべき組織につき、以下の事項を調査する。</p> <ol style="list-style-type: none"> 1. 権限 2. 業務内容 3. 組織 4. 人員 5. 予算 <p>エテリオピア国森林行動計画 (EFAP) は、昨年策定されたばかりであり、EFAPおよびエテリオピア国森林・林業について有益な情報が得られると思われるため、往路FAOに立ち寄り、以下の情報を収集する。</p> <ol style="list-style-type: none"> 1. FAO 林業関連部署の組織および機能について 2. エテリオピア国における森林現況

No.	調査、協議、確認事項 (FAOにおける調査事項)	要請書記載内容	対処方針
			<p>3. エチオピア国における森林管理および森林調査の実態</p> <p>4. EFAPの策定経緯</p> <p>5. エチオピア国林業分野の援助のあり方</p> <p>6. エチオピア国における女性および住民参加の現状</p> <p>7. 森林と住民(特に女性)の関連</p> <p>8. 社会林業の現状</p>

PROCLAMATION NO.94/1994 TO PROVIDE FOR THE CONSERVATION, DEVELOPMENT, AND UTILIZATION OF FORESTS, 28th MARCH 1994

WHEREAS the conservation, development and sustainable utilization of forests play a decisive role in combating the grave and alarming situation in soil erosion and in arresting the expansion of desertification and ecological imbalance;

WHEREAS extensive forest development and conservation undertaking significantly contribute to the enhancement of the economic development of the country and towards satisfying the needs of the society;

WHEREAS it is necessary to consolidate existing laws and provide for the inclusion therein provisions that further the better conservation, development and utilization of forest resources;

WHEREAS the sustainable utilization of the country's forest resources is possible through the participation of the people and benefit sharing by the concerned communities as well as by making forest policies and programs to be conducted in conformity with other economic sectors particularly agricultural development;

NOW THEREFORE, in accordance with Article 9(d) of the transitional period Charter, it is hereby proclaimed as follows;

PART ONE

GENERAL

1. Short Title

This Proclamation may be cited as the "Forestry Conservation, Development and Utilization Protection No 94/1994".

2. Definitions

Unless the context otherwise requires, in the Proclamation:

1. "Ministry" means the Ministry or Minister of Natural Resources Development and Environmental Protection.
2. "Region" means a national regional self government established pursuant to proclamation to provide for the establishment of National/Regional self-Government Proclamation No. 7/1992.

3. "Forest" means a community of plants either naturally grown or developed by planting and in any respects are trees and other plants having woody charter.
4. "Tree" means any woody plant regardless of its species, age or size including bamboo, reeds and palms as well as other plants to be designed as "trees" by the Ministry.
5. "Forest land" means a land which is to be demarcated for the purpose of forest development and conservation in which naturally grown or planted trees and other woody plants are found including barren land found on steep slopes.
6. "State Forest" means a forest designated as State forest by a regulation to be issued by the Council of Ministers, upon the recommendation of the Ministry and that are given special consideration so as to protect the genetic resources or conserved to keep the echo-system with a program that covers more that one region.
7. "Regional Forest" means a forest designated as Regional Forest by the official Gazette of the region which is not either a state or private forest and found within a specific region or developed by the said region.
8. "Protected Forest" means a forest or a forest land to be demarcated in order to make it free from human or animal interference for the purpose of protection of the environment and genetic resources.
9. "Private Forest" means a private forest developed by any person and includes a forest development by peasant association or by an association organized by private individuals.
10. " Forest Product" means any product which is obtained from a whole tee or part thereof or any primary woody product processed manually or industrially.
11. "Person" means any natural or juridical person.

3. Types of Forest Ownership

There shall be the following types of forest ownership:

1. State Forest;
2. Regional Forest, and
3. Private Forest.

PART TWO

CONSERVATION AND DEVELOPMENT OF FORESTS

4. Designation, Demarcation and Registration of Forests

1. The Ministry shall designate, demarcate and register state and protected forests
2. The Minister shall establish and administer a central forestry register.
3. Every region shall designate and demarcate its regional and protected forests.
4. Without prejudice to provisions indicated under special laws, each regional shall register private forests within its regional boundary.
5. If in pursuance of this Article and Article 7, the designation and demarcation of state forest, regional forest or protected forest is likely to result in eviction of the peasantry, this can be effected only after the consultation and consent of the peasantry and subject to the assurance of their benefits.

5. Conservation, Development and Management of State and Regional Forest

1. The minister shall encourage and render th necessary technical assistance towards the conservation, development and sustainable utilization of state and regional forests.
2. Without prejudice to sub-article 1 of this Article, the Ministry or the Region, as appropriate, shall as regards state or regional forest:
 - a) Prepare forest development program and monitor its implementation;
 - b) Take appropriate preventive measures to ensure that the forest is free from pests and forest disease;
 - c) Facilitate the construction of access roads and other service facilities within the forest necessary for the development and conservation of the forest;
 - d) Cause the forest is protected from fires and other disasters;
 - e) In a manner that inhabitants within the forest do not obstruct or hinder forest development, facilitate conditions that ensure their well-being in such a way that the inhabitants would be beneficiaries from the development,
 - f) For a sustainable utilization of forest resources, and to administer the same

in accordance with forest management procedures, hence provide appropriate technical and related assistance not only to provide sanctuary to wildlife and protect forest eco-systems from imbalance, but also ensure the conservation of bio-diversity.

- g) Rehabilitate endangered indigenous species;
- h) Collaborate with appropriate bodies towards the strengthening of conservation, development and management of forests.

6. Conservation and Development Private Forests

1. Without prejudice to the overall policy of central government, the Ministry or each region shall facilitate conditions and provide technical assistance towards the development of private forests.
2. Owners of private forests shall have the duty to;
 - a) develop forests in a sound manner and replace trees made use of, in different ways.
 - b) notify the Ministry or the appropriate regional body on forest pests and disease:
 - c) take the necessary measures to ensure that the forest is free from pests and disease:
 - d) ensure that the forest is protected from fire and other hazards; and
 - e) implement the overall directives issued by the Ministry on environmental protection and/or those pertaining to catchments, unique habitats as well as endangered tree species and forest communities within a region.

7. Protective forests

1. The Minister or the appropriate regional body, when deemed necessary, may designate any forest as "protected forest" so that any tree species, bushes and other plants are developed and protected with the object to:-
 - a) Conserve the soil from desiccation, erosion and degradation as well as maintain and improve soil fertility;
 - b) protect and improve the status of water bodies, sources of rivers and catchments;

- c) control floods;
 - d) protect rare or endangered endemic plant, animal and bird species, and genetic resources in general and
 - e) conserve unique and representative habitats or natural resources.
2. A forest land designated as "protected forest" with little or no plant cover will be protected and conserved; and when necessary afforested in accordance with the programs to be issued by the Ministry or the Region.

8. Prevention of Forest Fire

1. Persons who inhabit and work in the forest have the responsibility to, prior to starting a fire, take all necessary precautions by removing all inflammable materials from their surroundings so as to prevent the spread of forest fire.
2. Any person who is aware of the occurrence of forest fire shall have the duty to immediately report the same to the appropriate regional body or the ministry.
3. In case of forest fires, the appropriate regional body has the duty to take the necessary measure by coordinating and mobilizing any government and private body as well as the community so as to extinguish such fires.

PART THREE

UTILIZATION OF FOREST

9. Utilization of State and Regional Forests

1. State and regional forests shall be utilized in accordance with the management plan approved by the Ministry or the appropriate regional body.
2. State and regional forests shall be utilized pursuant to sub-article 1 of this Article by;
 - a. the central government or regional organizations; or
 - b. concessionaires.
2. Notwithstanding the provisions of sub-articles 1 and 2 of this Article, the inhabitants may in accordance with the management plan and directive to be issued by the

Ministry or appropriate regional body utilize state or regional forest products in an amount necessary to satisfy their ordinary domestic needs by paying appropriate fees.

10. Utilization of Protected Forest

Notwithstanding Article 13/1/b of this proclamation, the appropriate body may allow forest products, grass and fruit to be harvested as well as beehives to be kept in protected forests.

PART FOUR

MISCELLANEOUS PROVISIONS

11. Research and Training

The Ministry shall;

1. Undertake or allow research to be undertaken for the conservation, development and utilization of forests as well as to promote the conservation of bio-diversity and genetic resources.
2. Ensure the training of senior and junior professionals as well as technicians in adequate number for the development and management of state and regional forest and provide on the job training.
3. Cooperate on the training programs conducted by the regions; and
4. Promote the heightened awareness in environmental protection and ensure its ultimate implementation.

12. Transporting and Storage of Forest Products

1. Except for those forest products specially indicated in the directive issued by the Ministry, no person shall transport or store forest products without holding a certificate of origin and destination issued by the Ministry or the appropriate regional body or without possession of a document testimony to his/her legal entitlement.
2. Of the forest product seized in violation of sub-article (1) of this Article is perishable, the Ministry or the appropriate regional body shall sell the said forest product at the prevailing market price and keep money until court ruling is obtained.

13. Prohibited Activities

1. No person shall:
 - a) Utilize or harvest *Hagenia abyssinica*, *Cordia africana*, *Podocarpus gracillior* and *Juniperus procera* from state or regional forest and
 - b) Cut any tree, utilize the products thereof or perform other activities protected forest.
2. Without prejudice to sub-article forest (1) of this Article no person within a state forest and regional forest unless in possession of written permit from the Ministry or appropriate regional body, shall:
 - a) Cut any trees;
 - b) Settle temporarily or permanently;
 - c) Graze domestic animals;
 - d) Carry out hunting activity; and
 - e) Keep bee-hives or extract honey
3. No person shall, unless in possession of a written permit from the Ministry or the appropriate regional body, take any forest product from or carry out an activity that may be harmful to natural resources state forest, protected forest, and regional forest.
4. Prior consultation and approval is required from the Ministry or the appropriate regional body in order to conduct large scale farming, mining operation construction of roads, water drilling, irrigation and or works and other similar activities, or to give license for such operation within state or regional forests.

14. Forest Guards and Inspection on Movement of Forest Products

1. State and regional forest guards shall, in accordance with directives issued to them by the Ministry or the appropriate regional body protect forests against acts committed in violation of Articles 8(1), 9 and 13 of this proclamation.
2. In accordance with directives to be issued by the Ministry or the appropriate regional body, inspectors who monitor the mobility of forest products shall have the following powers and duties:
 1. With respect to forest products specified in subarticle (1) of Article (13) of this proclamation.
 - a) inspect any means of transport carrying forest products;
 - b) require any person who transports, processes or possesses forest

- products to produce certificate of origin of destination or legal document;
2. Seize any forest product transported, or stored in violation of sub-article 1 of Article 12 of this proclamation; and
 3. Report immediately to the Ministry or the appropriate regional body the details of forest products seized.
3. Forest guards and inspectors who monitor the mobility or movement of forest products shall, while on duty, wear uniforms and carry identity cards as shall be determined by the Ministry or the appropriate regional body.

15. Duty to Cooperate

1. Any person shall have the duty to cooperate with the Ministry or the appropriate regional body in the implementation of this proclamation, regulations and directives issued in accordance with this proclamation.

16. Penalty

1. cuts trees, takes, processes or in any other manner use forest products, except pursuant to this proclamation and regulation and directives issued in accordance with this proclamation.
2. destroys, damages or falsifies forest boundary marks;
3. causes damages to forests by setting fire or in any other manners; or
4. Violates Article 13 of the proclamation, shall unless the penal code prescribes a graver penalty, be punishable with imprisonment not exceeding tow years or with fine not exceeding Birr 5,000 or with both.

17. Repeals and Savings

1. The following lows are hereby repealed;
 - a) forest and Wildlife Conservation and Development proclamation No. 192/1980 with respect to provision of forestry;
 - b) Protection of State Forest Regulations No 344/1968

- c) Exploitation of State Forest Regulations No 345/1968
 - d) Management of Protective forest Regulations No. 347/1968
 - e) Power of Rangers Regulations No 349/1968
 - f) Power of forest Guards Regulations No. 350/1968
2. Trade of Saw Logs and Veneer Longs Regulations No 351/1968 shall be deemed to have been issued under this proclamation and shall continued in force.

18. Effective Date

This proclamation shall enter into force on the date of its publication in the Negarit Gazeta.

Done at Addis Ababa this 28th day of March 1994.

MELES ZENAWI
PRESIDENT OF THE TRANSITIONAL
GOVERNMENT OF ETHIOPIA

宣言 No.94/1994

森林の保全・開発・利用に関する宣言

森林の保全、開発および持続可能な利用は、重大かつ深刻な状況にある土壌浸食に立ち向かい、また、砂漠化の拡大および生態系の不均衡化を阻止する上で決定的な役割を果たすものであることに鑑み、

広範囲の森林の開発および保全の実行が、当国の経済発展の高揚および社会の諸要請に応えることに向けて貢献するものであることに鑑み、

現行の諸法を一貫性のあるものとし、以て森林資源のより望ましい保全、開発および利用を促進する条項を備えることが必要であることに鑑み、

住民の参加、関連する共同体による分収を通じ、また、他の経済分野、特に農業開発と調和を保ちつつ実施される森林政策および森林計画の構築により、当国の森林資源の持続可能な利用が実現し得るものであることに鑑み、

暫定憲章第9条のdに基づいて、以下のように宣言するものである。

第1部 概 論

第1条 (省略名称)

本宣言の引照に当たっては、「森林保全開発利用宣言 No.94/1994」とする。

第2条 (定 義)

本宣言において、特別の注記のない限り、

第1項 「当省」とは、天然資源開発・環境保護省をいう。

第2項 「州」とは、中央および地方自治政府の設立に関する宣言 No.7/1992により設立された全国の州自治政府をいう。

第3項 「森林」とは、天然に成立したか植林により成立したかを問わず、植物の集団であり、多くの場合樹木ないしその他の木質の性質を有する植物の集団をいう。

第4項 「樹木」とは、種、齢、大きさを問わず、タケ、アシ、ヤシおよび当省により「樹木」と指定されるその他の植物を含むすべての木質植物をいう。

第5項 「林地」とは、森林の開発および保全の目的で境界確定されるべき土地であり、樹木およびその他の木質植物が自然に成立、もしくは植林された土地であり、急斜面にみられる無立木地を含む。

第6項 「国有林」とは、当省の推薦に基づき閣僚会議により発布される規則により国有林

と指定された森林をいい、二つ以上の州にまたがる計画をもって、遺伝資源の保全のために特別の考慮が払われ、あるいは生態系を維持するために保全される森林をいう。

第7項 「州有林」とは、当該州の公示により州有林と指定される森林をいい、州内に存在し、あるいは当該州により開発される、国有林、私有林以外の森林をいう。

第8項 「保護林」とは、環境と遺伝資源の保護の目的で、人間あるいは動物による負の干渉から守るために境界確定される森林あるいは林地をいう。

第9項 「私有林」とは、私人により開発された私有の森林をいい、農民団体あるいは私個人によって組織される団体により開発された森林を含む。

第10項 「林産物」とは、樹木の全体ないし一部から得られる生産物、あるいは手作業ないし工業的に加工された一次的木質生産物をいう。

第11項 「私人」とは自然人ないし法人をいう。

第3条 (森林所有形態)

森林の所有形態は以下の通りである。

第1項 国有林

第2項 州有林

第3項 私有林

第2部 森林の保全および開発

第4条 (森林の指定、境界確定および登録)

第1項 当省は、国有林および保護林の指定、境界確定および登録を行う。

第2項 当省は、中央林業登録を策定し、管理する。

第3項 すべての州は、それぞれの州有林および保護林の指定および境界確定を行う。

第4項 特別の法律により規定された条件の既得権を侵害することなしに、各州は、その州内に私有林を登録する。

第5項 本条および第7条の遂行に当たり、国有林、州有林および保護林の指定を行うことにより農民の立ち退きを招来することとなる場合、当該農民との議論を経て承諾が得られた上で行われるものとし、また、彼らの利益の確保が図られるものとする。

第5条 (国有林および州有林の保全、開発および管理)

第1項 当省は、国有林および州有林の保全、開発、持続的利用に向けて必要な技術的支援を促進し、これに尽力するものとする。

第2項 本条第1項を侵害することなく、国有林および州有林に関し、それぞれ当省および州は、

- イ. 森林開発計画を策定し、その実行を監督する。
- ロ. 森林病虫害に対する適切な防護措置を講ずる。
- ハ. 森林の開発および保全に必要な林道その他の施設の建設を森林内に行う。
- ニ. 森林を火災その他の災害から保護する。
- ホ. 森林内に居住する者が森林の開発を阻害あるいは妨害することのないよう、彼らが森林の開発により利益を得るような形で彼らの安寧を確保する条件を整える。
- ヘ. 森林資源の持続的な利用のため、また、森林管理手続きに従ってこれを監督するため、野生生物の保護区の設置、森林生態系の不均衡からの保護だけでなく、生物多様性の保全にも資する適切な技術的支援および関連支援をこれにより行う。
- ト. 危機に瀕している郷土種の復興に努める。
- チ. 森林の保全、開発および管理の強化に向けて適切な団体に協力する。

第6条 (私有林の保全および開発)

第1項 中央政府の政策総体を侵害することなく、当省あるいは各州は、私有林の開発に向けて条件を整えるとともに、技術的支援を行う。

第2項 私有林の所有者は以下の義務を負う。

- イ. 様々な方法により、健全な森林開発および復旧を行うこと。
- ロ. 当省あるいは管轄州に対し、森林病虫害に関する報告を行うこと。
- ハ. 森林が病虫害の被害を受けないように必要な措置を講ずること。
- ニ. 森林を火災その他の災害から保護すること。
- ホ. 地域内の環境保護および/もしくは集水域、特異な生息域、危機に瀕している樹種および森林集団に関する当省の命令全体を実行すること。

第7条 (保護林)

第1項 当省あるいは管轄州は、必要であるとみなされる場合、以下に掲げる目的で、樹木、灌木、およびその他の植物を開発・保護するため、いかなる森林をも「保護林」に指定することができる。

- イ. 土壌を、乾燥、浸食、劣化から保全し、土壌の肥沃度を維持・向上させること
- ロ. 水資源、水源、集水域の状態を保護・向上すること
- ハ. 洪水を制御すること
- ニ. 稀少な、あるいは絶滅の危機に瀕している固有の植物、動物および鳥類、さらに遺伝資源一般を保護すること

第2項 「保護林」に指定された、植物がほとんどあるいは全く生育していない森林は、保護・保全される。必要な場合、当省あるいは管轄州によって発布される計画に従って植林が行われる。

第8条 (森林火災の防止)

- 第1項 森林内に居住もしくは森林内で作業を行う者は、森林の延焼を避けるために、火入れに先立ち、すべての可燃物を周辺から除去することにより、あらゆる必要な予防策を講ずる責任を有する。
- 第2項 森林火災の発生を発見した者は、このことについて速やかに管轄州ないし当省に報告する義務を有する。
- 第3項 森林火災が発生した場合、管轄州は、消火に努めるため、あらゆる政府および民間団体、地方共同体と調整し、動員を求めて、必要な方策を講ずる義務を有する。

第3部 森林の利用

第9条 (国有林および州有林の利用)

- 第1項 国有林および州有林は、当省あるいは管轄州が承認した管理計画に従い利用される。
- 第2項 国有林および州有林は、本条第1項に従って、以下により利用される。
 - イ. 中央政府ないし州の機関
 - ロ. 伐採許可
- 第3項 本条第1項、第2項の規定に拘らず、居住者は、当省あるいは管轄州が発布する管理計画および指令に従って、適当な対価を支払うことにより通常の家内での需要を満たすのに必要な量の林産物を国有林あるいは州有林から利用することができる。

第10条 (保護林の利用)

本宣言第13条第1項のロの規定に拘らず、関係機関は、保護林内の林産物、草本、果実を収穫すること、また、保護林内にミツバチの巣箱を設置することを許可することができる。

第4部 雑 則

第11条 (調査および訓練)

当省は、

- 第1項 森林の保全、開発および利用のため、また、生物多様性および遺伝資源の保全を促進するため、調査を自ら実施するとともに、調査が行われることを許可する。
- 第2項 国有林および州有林の開発・管理のため適当な数の専門家および準専門家、技術者の訓練を確保するとともに、職場内研修を行う。
- 第3項 州により実施される訓練計画に協力する。

第4項 環境保護の意識を高めることに努め、その究極的な実施を確保する。

第12条（林産物の移動および貯蔵）

第1項 当省により発布された指令に特別に指定される林産物に関する場合を除き、当省あるいは管轄州により発行される原産地・目的地証明あるいは当人の合法性を証明する文書を有さずに、何人も林産物を移動もしくは貯蔵することはできない。

第2項 本条第1項に違反して得られた林産物が腐りやすいものである場合、当省あるいは管轄州は、当該林産物を適切な市場価で売却し、裁判所の判定が下されるまで代金を保管する。

第13条（禁止行為）

第1項 いかなる者も、

イ. 国有林および州有林の *Hagenia abyssinica*、*Cordia africana*、*Podocarpus gracillior*、*Juniperus procera* を利用・収穫してはならない。

ロ. 保護林におけるいかなる樹木の伐採、その生産物の利用、あるいはその他の行為もしてはならない。

第2項 本条第1項に拘らず、いかなる者も国有林および州有林内において、当省ないし管轄州からの書面による許可書を所有することなく、

イ. 木を伐ってはならない。

ロ. 一時的、恒久的に拘わらず入植してはならない。

ハ. 家畜を放牧してはならない。

ニ. 狩猟を行ってはならない。

ホ. ミツバチの巣箱をかけたり蜜を採取してはならない。

第3項 いかなる者も当省ないし管轄州からの書面による許可書を所有することなく、国有林、保護林、州有林において、林産物を採取したり、天然資源に害を及ぼし得る行為を行ってはならない。

第4項 国有林および州有林においては、大規模な農業、鉱業、道路建設、井戸の掘削、灌漑、ダム工事等の行為を行うために、あるいは上記の行為に免許を与えるためには、前もって当省ないし管轄州に相談し、許可を得なければならない。

第14条（森林監督および林産物の移動の監視人）

第1項 国有林および州有林の森林監督は、当省ないし管轄州により発行された命令に従い、本宣言第8条第1項、第9条および第13条に違反する行為に対して森林を保護する。

第2項 当省ないし管轄州により発行される命令に従い、林産物の動きを監視する監視人は以下の権限と義務を有する。

1 本宣言の第13条第1項に規定される林産物を顧慮し、

イ. 林産物の運搬手段を監視する。

ロ. 原産地・目的地証明を作成するよう、林産物を移動、加工、所持する者に要請する。

2 本宣言第12条第1項に違反して移動ないし貯蔵される林産物を接収する。

3 接収した林産物の詳細に関し、当省ないし管轄州に対して速やかに報告する。

第3項 森林監督および林産物の動きを監視する監視人は、勤務中は、当省ないし管轄州が決める制服を着用し、身分証明書を携帯する。

第15条 (協力義務)

いかなる者も、本宣言ならびに本宣言に従って発布される規則および命令を実行する上で、当省および管轄州に協力する義務を有する。

第16条 (罰 則)

下の各項に該当するいかなる者も、刑法によりより重い罰則が課せられる場合を除き、2年以内の禁錮または5,000ブル以下の罰金、もしくはその双方を課される。

第1項 樹木を伐採、林産物を採取・加工あるいはその他の方法で利用する者。ただし、本宣言ならびに本宣言に従って発布される規則および命令に則って行われる場合を除く。

第2項 森林の境界標を破壊、破損、変造する者

第3項 火入れその他の方法により森林に害を及ぼす者

第4項 本宣言の第13条に違反する者

第17条 (本宣言の施行により廃止する法律等)

第1項 以下の法律はこれより廃止する。

イ. 森林及び野生生物ノ保全ト開発ニ関スル宣言 No.192/1980 の森林関連分

ロ. 国有林ノ保全ニ関スル規則 No.344/1968

ハ. 国有林ノ利用ニ関スル規則 No.345/1968

ニ. 保護林ノ管理ニ関スル規則 No.347/1968

ホ. 森林官ノ権限ニ関スル規則 No.349/1968

ヘ. 森林監督ノ権限ニ関スル規則 No.350/1968

第2項 製材用材及び単板用材ノ取引ニ関スル規則 No.351/1968 は本宣言の下に有効であるとみなされ、今後とも有効であるとする。

第18条 (施行日)

本宣言は、公報への掲載の期日を以て発効するものとする。

1994年3月28日、アデイス・アベバにて

エチオピア暫定政府大統領 メレス・ゼナウイ

添付資料 5. EFAP プロジェクト概要

Compilation of Summary Profiles

Summary Profile for TFPP-1

Title: Rehabilitation of Industrial Plantations
Cost: US\$ 4.1 million

The project would be implemented in two phases: 1995 (Phase 1) at a cost of US\$.8 million, and 1996-2005 (Phase 2) at a cost of US\$ 3.3 million. It supports the proposed FREMP-2 (expected to be completed in 2003) and has the specific objective of supporting NFPA forest management planning and also ensuring the proper management of existing state plantations (mainly planted over the last two decades) as soon as possible. Phase 1 would survey and prepare rehabilitation and management plans. It would be carried out by FDIMPDD and the local NFPAs staff, supported by technical assistance and some equipment, and by the participation of local communities. Phase 2, which should start as soon as local NFPA staff are able to plan and supervise the operations and find buyers for the wood to be produced, would implement these plans (30,000 ha at an average cost of US\$100/ha). It would be carried out by the SFCDD and local NFPA staff, together with laborers supported by the World Food Program. Because large areas of the state plantations require thinning, this project is expected to increase wood supply immediately. The rehabilitation plans would actively consider the involvement of private entrepreneurs, either as lessees of government land with responsibility for rehabilitation works, or under management concessions once plantations have been rehabilitated.

Summary Profile for TFPP-2

Industrial Plantation Expansion.
Cost: US\$ 205.5 million (public US\$ 105.5 million, private US\$ 100 million)

This 20 year program would provide industrial logs beyond the year 2013, when the supply of industrial logs from existing state plantations is expected to decrease rapidly. The program establishes (at an average cost between US\$650-763/ha) and maintains about 242,000 ha of new industrial plantations within NFPAs. The identification of land for plantation establishment would be part of the survey work for NFPA management plan preparation (see Project Profile Summary for FREMP-2). The program would be implemented through a series of component projects over the period 1994-2013. The projects would provide support for the establishment of new state plantations with SFCDD as the implementing agency and in full coordination with NFPA management plan implementation. The MoNRDEP would establish a Private Forestry Development Unit (PDU), reporting directly to the Vice-Minister, which would promote private sector involvement in establishing new plantations, or leasing or managing existing Government plantations. The PDU and the SFCDD would coordinate to ensure that private sector involvement in plantation development and management in all cases is compatible with NFPA management plans. In 2041 the new plantations would be expected to produce an annual supply of 5.8 million m³ industrial logs, 1.3 million m³ construction poles and fence posts, and 2.5 million m³ fuelwood.

Summary Profile for TFPP-3

Feasibility Study for Industrial Plantations N. Ethiopia
Cost: US\$ 0.3 million

The study to be carried out by SFCDD over six months in 1995 would assess the availability of land for industrial plantations in northern Ethiopia and prepare preliminary implementation plans to establish these plantations. The availability of land for plantations to support the development of a pulp and paper industry (Project Profile Summary for FREMP-5) would also be assessed. Since most of the industrial plantations to be rehabilitated or established (TFPP-1, 2, and 3) would be located in NFPAs in the southern and southwestern part of the country, this project would specifically analyze the feasibility of producing and processing wood raw material in the more populated northern parts. High transportation costs could be saved and the prices of sawn timber kept at a reasonable level. The project would provide support for a technical assistance team which would work closely with counterparts from SFCDD.

Summary Profile for TFPP-4

Peri-urban Fuelwood Development.

Cost: US\$ 22.5 million (public US\$ 10.5 million, private US\$12 million)

This 15-year project is to increase the supply of fuelwood, poles, and posts in urban areas by encouraging farmers in peri-urban areas to plant woodlots for cash crop, and by improving the environment for producing and marketing wood products. An initial planning phase, to be implemented over six months (starting soonest), would assess farmers' attitudes toward a proposed project in peri-urban areas of selected towns (Makale, Debre Tabor, Harar, Der Dawa, Awassa, Arba Minch, Nekemte, Ghimbe, Asala, Ambo, and Debre Markos have been identified as likely candidates). If the results are favorable, the project would be formulated in detail, including the design of possible incentive mechanisms such as free fertilizer to farmers who convert agricultural land to wood production (compensation for loss of agricultural production up to first harvest). Over a 15 year period, the minimum target would be for 40,000 ha of farmland to be converted to pole and fuelwood production: a conversion of 2,700 ha per year, involving some 11,000 families. Expected yields from new on-farm peri-urban woodlots would be 13.5 m³/ha per annum comprising 60 percent fuelwood and 40 percent poles. The project would provide support in the form of technical assistance for Phase 1 and the first five years of Phase 2, as well as training, equipment, and fertilizer to participating farmers for their first three years of operations. Project design would include the establishment of suitable institutional arrangements to ensure the necessary cooperation between MoNRDEP and MoA's extension department for implementing the project. The proposed Private Plantation Forestry Development Unit of the MoNRDEP (see Summary Profile TFPP-2) would play a key role in guiding project design. A suitable NGO could play an important role in fostering collaboration among farmers, and between farmers and the external agencies that provide extension or other inputs or services.

Summary Profile for TFPP-5

Community Woodlot Management and Rehabilitation

Cost: US\$7.2 million (public US\$1.2 million, private US\$6 million)

This program would improve the conditions and management of about 35,000 ha (or 70 percent) of existing community plantations, thereby contributing to improved local supplies of fuelwood, poles, and construction wood. It would involve two phases. First, a two year phase (starting soonest) when community woodlots would be surveyed, planning personnel trained, and a management plan model (based on consultations with local community representatives about plantation management and benefit sharing) prepared. The second phase of the program would involve assisting individual communities in the design (local application of the management model) and implementation of community-specific woodlot/production plantation management plans. This phase of the program could be implemented over a 15 year period. The key role of the Government would be to provide technical input into the preparation of rehabilitation and management plans to overcome the technical and managerial constraints that have limited the yields. The implementing agency would be CFSCDD or the proposed new Land Husbandry Department (TDDP-6), with support from the agricultural extension service of MoA. NGOs would be invited to assist local communities in mobilizing member support for local projects. Public sector funding would involve support for technical assistance, vehicles, and equipment to allow governmental technical staff to effectively carry out their roles under the program. Local communities would be expected to contribute with labor and cash inputs into the rehabilitation of their plantations.

Summary Profile for TFPP-6

Incentives for Protection and Farm Forestry

Cost: US\$ 56.7 million

This incentive program would be implemented during 1994-2013, to improve the supply-demand imbalance of fuelwood and other wood products, such as construction wood, poles, and fodder; and to contribute to soil conservation and increased productivity of agricultural land. It would encourage farm forestry, and catchment and protection forestry activities by providing incentives, including subsidized fertilizer, to farmers who participate in community protection forestry schemes, and seedlings to farmers who engage in individual farm forestry. The seedlings would initially be supplied by nurseries (TFPP-9). Later, farmers would produce their own seedlings. The seedling supply scheme would be administered by the proposed new Integrated Agricultural Extension Service in collaboration with the proposed Farm Forestry Division of the new Land Husbandry Department of MoA. The fertilizer subsidy scheme would be handled by NGOs working with the Government extension agencies. The NGOs would help viable rural organizations to use the incentive schemes to promote participation by farmers in community planned and operated protection forestry schemes.

Summary Profile for TFPP-7

Farm Forestry Planning Study

Cost: US\$ 0.8 million

This study, to be implemented as soon as possible over an 18 month period, would investigate traditional farm forestry practices in the main agro-ecological zones. Specifically the study would focus on geographical distribution of the practices, their main characteristics and benefits (as perceived by farmers), and the factors which limit more widespread adoption. The results would provide a basis for incorporating traditional agro-forestry practices into farming systems-based research. Where appropriate traditional practices would be included in farm forestry extension messages. The study would also identify sources of farm forestry seed supply (link to TFPP-8). In addition, it would identify farmers who are willing to participate in on-farm testing of farm forestry technologies or willing to help promote farm forestry practices. An evaluation workshop would be held with all participants at the end of the first year. The implementing agencies would include the MoA and its extension staff in collaboration with MoNREP, the Forest Research Center and the Institute for Agricultural Research. The project would provide support for technical assistance and equipment required for the study.

Summary Profile for TFPP-8

Seed Supply Development

Cost: US\$ 1.2 million

The project, to be implemented during 1994-98, would improve the quantity and quality of supply of tree, shrub and forage seed. This would contribute to the proposed activities in the farm forestry sector, in plantation establishment and enrichment, as well as in nursery development (TFPP-9). Ultimately, however, farmers should be able to produce improved seed by themselves. This project would support the ongoing FRC/UNSO National Seed Procurement and Tree Improvement Project to achieve nationwide coverage. An additional regional seed center would be established. The project would also provide training and equipment. It would be complemented by the Forage Development and Fattening Component of the 5th Livestock Project, which is concerned with improving the supply of legume seed, including tree legumes. The implementing agencies would be FRC and MoNRDEP.

Summary Profile for TFPP-9

Nursery Rehabilitation and Development

Cost: US\$ 13.8 million

The proposed project will rehabilitate nurseries operated by SFCDD and CFSCDD to ensure the supply of tree seedlings during the initial five years of the TFPP. 450-600 million seedlings will be required annually, primarily for farm and community forestry. In the longer term, the project supports a phasing out of government-operated forestry nurseries, in favor of farmers developing their own seedling production. The project would be implemented in two phases: the first 12 months for a planning study, followed by a second four-year to implement the nursery rehabilitation program. Under Phase 1, a field survey of the existing nurseries would be the basis for preparing a nursery rehabilitation plan, including the selection of nursery sites for use as extension service demonstration centers. In Phase 2, the rehabilitation plan would be implemented, extension/demonstration centers used to promote farmer-operated nurseries and farmer-produced seedlings, and the rehabilitated state nurseries turned over to community organizations according to a phased plan. The project would mainly provide support for training, including to farmers, and equipment. It would be closely linked to TFPP-8. The implementing arrangements would involve MoA and its extension service, and the SFCDD of MoNRDEP.

Summary Profile for TFPP-10

Apiculture Development

Cost: US\$ 6.2 million (public US\$ 3.6 million; private US\$ 2.6 million).

This project, to be implemented over a four to five year period will increase the quantity and quality of honey and wax production through improved apiculture management and marketing. Improved management of production by farmers would be done through the introduction of modern box hives in rural areas. Improved processing and marketing of honey and bee wax would be achieved by encouraging the private sector to establish collection centers and processing, packaging and distribution plants. Also, the project would strengthen the program of MoA's Holetta Bee Research and Training Center. This center would be the implementing agency. With favorable conditions for apiculture and the sale of its products in local and foreign markets, the production of honey and bee wax is expected to improve both in quantity and quality. The project would provide support for training, technical assistance, and equipment.

Summary Profile for TFPP-11

Bamboo and Reed Research and Development

Cost: US\$ 1.7 million

This project would strengthen the management and use of the native bamboo and reeds species. Phase 1 (four months) would assess the market for bamboo and reeds as raw material for export, manufacturing, and marketing of artifacts, and the use in the paper and pulp industry. If favorable, a research and development program would be carried out in Phase 2. This would include several components. Biological research (The Forest Research Center, and Institute of Agricultural Research, would help develop management techniques. Studies would be carried out on industrial utilization (Wood Utilization and Research Center) and artisanal utilization (Ethiopian Cottage Industries Development Agency). An extension service would be piloted to promote improved bamboo and reed resource management and a sustainable supply of raw material (MoA and MoNRDEP with the proposed Extension Service in cooperation with local communities). A Bamboo Project Steering Committee would be formed to coordinate project activities. The project would provide support for technical assistance, equipment, and training.

Summary Profile for FREMP-1

Development of a National Forestry and Natural Resources Data Base.
Cost: US\$ 13.6 million.

This project, to be implemented during 1994-96, will map Ethiopia's major vegetation types, especially the forest and woodland areas, establish a monitoring capability for changes in land use, and identify land use options for the conservation and development of woody biomass resources. This would be achieved by expanding the ongoing Woody Biomass Inventory and Strategic Planning Project (WBISPP) to cover the whole country, providing expertise, equipment, and training for the staff of the State Forest Conservation and Development Department (SFCDD), and MoNRDEP, in image analysis and other techniques. The result would be an improved data base for macro-level land-use planning and natural resource, particularly forestry, management. Also, the project output would pave the way for more detailed forest resource inventories required for the preparation of management plans for NFPAs. The implementing agencies would be SFCDD, MoNRDEP, and WBISPP.

Summary Profile for FREMP-2

Forest Management Planning
Cost: US\$ 6.0 million.

This program, to be implemented through the period 1994-2003, would ensure sustainable use of the remaining high forests by surveying, demarcating, taking inventory, and preparing and/or revising forest management plans for the 57 National Forest Priority Areas (NFPAs). The management plans, which eventually would cover an area of 2-2.5 million ha of natural high forests, would be prepared in a sequence determined by the respective NFPA's importance for forest resources management. As the lead agency responsible for the project, the Forest Demarcation, Inventory and Management Planning Division (FDIMPDD) would receive technical assistance, training, and other support. Multidisciplinary inputs into the preparation of plans would need to be secured through the appropriate institutional arrangements. These arrangements are necessary to ensure the viability of forest management plans in the context of land use and rural development. The need for participation by local people living around or inside NFPAs in the planning process would be paramount. The forest management planning program would be followed by an implementation phase (FREMP-3).

Summary Profile for FREMP-3

Implementation of Forest Management Plans
Cost: US\$ 78.6 million.

This program, to be implemented through a number of properly packaged individual projects over a twenty year period starting 1994/95, would enable the staff of the State Forest Conservation and Development Department (SFCDD) and privatized forest industry enterprises to introduce improved forest management techniques. The program would bring into proper management and development some 800,000 ha of production forests and provide for the protection and conservation of about 1.2 million ha of natural high forest. The program would support implementation by the NFPA agencies/administrations of the agreed management plans (prepared under FREMP-2) involving the establishment of infrastructure works (road constructions, buildings, housing, telecommunications, water supply etc. and their possible links to the local communities), boundary plantings, silviculture planting, and monitoring of plan implementation. Implementation of plans will be governed by the rights and obligations of the state and local communities as laid down by the adopted management plans. Individual projects would support these activities through the training of staff, infrastructure construction, and transport, logistics, and technical assistance for NFPA administrations. The program would be feasible only if the necessary policy decisions are taken to allow NFPA administrations to sell forest products at market values, and to have direct access to part of the revenue from wood sales for the management of the forests. The program shall also provide for graduating NFPA administrations into autonomous enterprises.

Summary Profile for FREMP-4

Woodland and Bushland Survey

Cost: US\$ 1.0 million.

There is virtually no reliable information above woodland resources. A one year program would provide data on the area and condition of the woodland and bushland, encroachment by cultivators, extent of degradation and erosion, and the distribution of traditional use by local communities. These would be basic data to help determine development initiatives that might succeed, and what role government should play. The extent and status of the woodland would be determined from the expanded, Woody Biomass Inventory and Strategic Planning Project (WBISPP) imagery, land use planning aerial photography and aerial reconnaissance. The latter would also provide pastoral livestock numbers on a sample basis. This overview would be supplemented by rapid rural appraisal studies of selected local communities using woodland. The MoNRDEP (lead agency) including the proposed Land Husbandry Department, would work with the existing Animal Husbandry Department of the MoA, and possibly with ILCA (aerial reconnaissance).

Summary Profile for FREMP-5

Woodland Management

Cost: US\$ 6.3 million

This 5-6 year project, including an introductory planning phase, would support the development and implementation of participatory, sustainable management techniques for the woodlands of Ethiopia. These lands total about 200,000 km² and are traditionally used by nomadic and pastoral tribes. Due to past government policies, drought, and civil war, the continued existence of many of these woodlands is threatened. Since little is known about indigenous use or modern management of woodlands, the project would: seek to increase the knowledge of key factors affecting the ecological balance of the woodlands; conduct applied research; study and implement and evaluate mini-pilot management schemes relevant to woodland management (focusing on woody biomass-related issues); and through these activities and training opportunities help to create an awareness of the need to support sustainable management of the woodlands at the policy making and technical levels of Government and private institutions. The design of the project would draw heavily on the experience of woodland management elsewhere in Africa, limited as it may be. Possible areas for locating project activities would be the woodlands of Borena, Ogaden or Ormo. On the government side, the FRC within MoNRDEP (lead agency) and the proposed Land Husbandry Department and the existing Animal Husbandry Departments within MoA would be responsible. Field activities would best be implemented through a suitable NGO.

Summary Profile for FREMP-6

Middle Awash Woodland Conservation

Cost: US\$ 4.0 million

This five year program would include a number of components including (1) development of Afar owned irrigated tree plots for fire wood production (2) road side planting with *Leucaena* (for fire wood and browse) in irrigated areas, (3) tree planting on the eastern boundaries and western perimeter of the irrigation schemes, (4) tree planting around worker's villages (5) tree planting on abandoned saline areas (6) establishment of shelter belts. It would involve the work force of the irrigation schemes as well as the local Afar. Providing the full cooperation of the Afar was obtained, the planting of *Acacia* and *Prosopis* along water retaining stone lines in degraded areas could also be undertaken to provide browse and some fire wood.

Summary Profile for FREMP-7

Institutional Strengthening of Ecosystems Conservation.

Cost: US\$ 10.0 million.

This five year project, to be implemented during 1994-98, would strengthen conservation organizations and their efforts at central, regional, zonal, and Woreda levels; improve the management and conservation of forest ecosystems; and increase conservation awareness of the government and the general public. The project would focus on the establishment and capacity building of a proposed Ecosystems Conservation Department (ECD) within MoNRDEP, which involve a reorganization from the present EWCO. The ECD would be given the mandate to conserve flora and fauna and to coordinate conservation within protected areas. The project would support the following activities: (a) establishment of a Conservation Area Planning Unit to prepare and help implement management plans for all conservation areas (balancing interests of biological conservation, the development of ecotourism, the interests of local communities, as well as production development and utilization activities); (b) establishment of a Community Conservation Unit to form the basis for a Conservation Extension Service within the proposed Integrated Agricultural Extension Service of the MoA (Ch. 6, Sec. B), using existing Tourist/Education Officers in National Parks and sanctuaries; (c) training of staff in business and management, community development, forest ecology, conservation biology, and conservation area planning (based on a training needs assessment); (d) establishment of an effective system of environmental monitoring of biological conservation; and (e) upgrading management and financial systems. Several new conservation areas in priority ecosystems, complete with infrastructure and management plans, would be established as part of the project. The project would provide for training staff, logistics and equipment for the new ECD, construction of infrastructure in conservation areas, and technical assistance for assisting in management, planning and training.

Summary Profile for FREMP-8

Planning of Conservation Area Management.

Cost: US\$ 1.5 million.

This three year project (planning study), would establish priorities for *in situ* conservation of biological biodiversity. This is an urgent task given the severity of past and ongoing degradation of ecosystems which are hosts to important endemic species. In addition, the resources available for conservation are limited and need to be allocated based on priorities that consider biological importance, condition of areas, and attitudes of local people. Some areas may have to be dropped because there is simply not enough left to protect. The project would survey existing parks and sanctuaries as well as areas outside the protected area network, such as the high forests of the southwest, the Dry Evergreen Montane Forests of the Ethiopian Plateau, and the southern mountains, bushlands and woodlands. Based on this survey and a set of criteria to be developed, the study would propose which of the existing conservation areas are redundant and which additional areas should be conserved. Based on a model to be developed, management plans for a few key conservation areas and surrounding buffer zones would be prepared, taking into account the needs of the surrounding communities as well as other socio-economic factors. These plans would be based *inter alia* on the technical feasibility of managing biodiversity (location, size etc, of the protected area), the social feasibility (involvement/benefit-sharing with the local community) and economic considerations. The proposed survey would also provide important input to the formulation of NFPA management plans (FREMP-2). The project would provide technical assistance, some equipment, and in-service training for the staff of the proposed new Ecosystems Conservation Department (the old EWCO) within the MoNRDEP.

Summary Profile for FREMP-9

Forest Genetic Resource Conservation

Cost: US\$ 0.7 million.

The three year project, to be implemented soonest, would support *ex situ* conservation of genetic diversity of important tree and shrub species. Until now, the emphasis of *ex situ* conservation efforts has been on crop and forage plants. The project would enable the Plant Genetic Resource Center (PGRC) to collect and store tree and shrub seeds. The Forestry Research Center (FRC) would establish field nurseries for these species. Local communities would be involved in these genetic conservation efforts. PRGC and FRC would be the implementing agencies. The project would support technical assistance, equipment, and the training of government and local people. It would need to be closely coordinated with the FRC/UNSO Seed Project.

Summary Profile for FIDP-1

Wood Processing Industry Rehabilitation Study
Cost: US\$ 0.5 million

An ten month study would be undertaken in 1995/96 in two phases to assess the viability of all primary processing units in the state sector of Ethiopia's forest industries and formulate viable rehabilitation proposals. In a first phase, the assessment would evaluate each processing unit in regard to technical conditions and performance, availability of raw material, operating costs, first estimate of rehabilitation costs, and projected profitability after rehabilitation. Based on the findings, it would be decided which units should be closed and which should be considered for rehabilitation and/or expansion and thereby also be subjected to organizational and financial restructuring and privatization. Some plants may best be closed immediately because of their conditions. During a second phase, the study would prepare detailed proposals (feasibility studies) for rehabilitation of the production capacity of the main enterprises plans. The proposed technical assistance project would provide technical support for a team of specialists to work with the specialists of MoNRDEP and other government agencies. The project is a necessary preparatory study for the proposed FIDP-2.

Summary Profile for FIDP-2

Rehabilitation of Wood Processing Enterprises
Cost: US\$ 15.0 million.

This project, to be implemented during 1995-97, would support a program for rehabilitating wood enterprises in the state sector. The details of the program would be prepared under a Wood Processing Industry Rehabilitation Study (FIDP-1), expected to be carried out in 1994. The program would address the immediate needs for rehabilitation of the production capacity of selected state wood enterprises involving saw mills and factories in the veneer, plywood, panel board, and joinery industries. The expansion of the wood processing capacity would be done through private sector investment, consistent with the TGE's Economic Policy. The rehabilitation works would be implemented by the respective state enterprises. To qualify for investment support (which should be given on commercial terms) from the banking system and/or the Government, the enterprises are expected to have adopted and initiated the implementation of action plans covering the necessary organizational and financial restructuring of their respective enterprises. The project would provide the technical assistance required to undertake the detailed sectoral planning, coordination and supervision of the rehabilitation program, and assistance to the state enterprises for implementation of individual rehabilitation projects. Therefore, a Project Coordination Unit would be established in an appropriate ministry. This unit would draw on technical people from government agencies and be supported by an internationally recruited team of specialists (continuation of technical assistance from FIDP-1). Support for rehabilitation program would need to be contingent upon government actions to liberalize the wood products markets and implement the policy to charge economic stumpage rates.

Summary Profile for FIDP-3

Wood Processing Industry Expansion Study.

Cost: US\$ 0.6 million.

This study, to be implemented over a twelve month period in 1996/97, would produce a forest processing industry expansion plan within the framework of which private sector investment in wood processing can be promoted and coordinated. The plan would set out the projected investment requirements in various segments of the wood processing industry over the next 20 years. These projections would be based on programs for expansion of the industrial wood production capacity and the projected yields from industrial plantations. The plan would be built up from assessments of the requirements by forest production area and their assigned priorities. It would include determining investment costs on the basis of pre-feasibility studies of individual investment projects or representative models for expansion projects (saw mills for NFPA, sawmills for industrial plantations etc). The planning study would also undertake a study of optional courses of actions to satisfy the growing and unmet demand for paper, including examining the feasibility of establishing a pulp mill using wood. The plan would determine the economic, social and environmental impact of proposed investment program. The study would be undertaken by the proposed new Private Forestry Development Unit in the MoNRDEP with the help of a technical assistance team consisting of local and international specialists. On the basis of the expansion program prepared, the Government would invite the representatives from the regional governments and the private sector for a workshop, and hold further discussions and consultation with private sector parties.

Summary Profile for FIDP- 4

New Sawmills for Natural Forests and Plantations

Cost: US\$ 100 million (private sector)

The annual demand (projected requirements) for sawn timber is expected to increase from its present level of 340,000 m³s to about 1.5 million m³s by the year 2014. The supply is projected to increase to 1.2 million m³s. The absorption by present sawmills and plywood factories of incremental supply is limited and will necessitate new investments in saw mills. It is projected that 8 new sawmills will be required for processing timber from natural forests, starting 1997 with investment staggered up to 2006. Similarly, 5 new sawmills would be required for processing industrial plantation timber starting in 1996/97. These investments can only come on stream in pace with the completion and start implementation of NFPA management plans, the decontrol of marketing and pricing of wood products, and Government taking the necessary measures to facilitate private investment in industrial plantations.

Summary Profile for FIDP-5

New Veneer and Plywood Mill.

Cost: US\$ 10 million (private sector)

By the early years in the next decade, the projected growth in demand for veneer and plywood products will outstrip the present capacity and the economic extension of such capacity of the two existing state mills. can be expanded. A new mill will therefore be required. Deregulation of marketing of processed wood products is required to support private sector investment.

Summary Profile for FIDP-6

New Medium Density Fiberboard Factory.

Cost: US\$ 20 million (private sector)

Ethiopia has two state-owned factories producing reconstituted panel boards, a particle board factory and a fiberboard factory. The mills are 25-30 years old and virtually beyond their economic life. A Medium Density Fiberboard (MGF) factory would be suited to replace these old units by say year 2005, and would also be able to produce panel board products with the best export possibilities. Integration of the proposed plant with a plantation wood sawmill would secure an efficient and competitive combination.

Summary Profile for WEDP-1

Promotion of Improved Wood Stoves

Cost: US\$ 13.5 million

This project, to be implemented over a 5 year period starting in 1993/94, would consolidate and expand work done under earlier improved-stove development projects (particularly the Cooking Efficiency Improvement and New Fuels Marketing Project (CEINFMP) started under the World Bank Energy I Project) with particular emphasis on extension and training. It would therefore undertake the preparatory work for launching a subsequent national program to distribute improved cooking stoves. The project would comprise three components: (a) The Addis Ababa (urban) component, involving stove design and testing, social surveys, and assistance to stove producers, all to be implemented by the National Stove Testing Center; extension training and support to regional cooking stove programs; (b) the Tigray and Harar regional components, each involving social surveys, stove testing and development, and extension through centers to be established. The project would provide continued support for further stove testing and development to the CEINFMP professional team operating the already existing National Stove Testing Centre in Addis Ababa, and for management of the Tigray and Harare programs. Extension centers would be established and Subject Matter Specialists, extension agents, artisans and householders would be trained. In addition, private sector production of improved stoves would be encouraged by support for a revolving fund to commission private sector production of stoves, which would subsequently be sold to retailers and then to the public. The implementing agencies would be the Ministry of Mines and Energy in collaboration with MoA, through the proposed Integrated Agricultural Extension Service in rural areas (TDDP-4). The program would provide support for civil works, training, equipment and transport, and technical assistance.

Summary Profile for TDDP-1

Natural Forest and Plantation Forestry Research

Cost: US\$ 6.3 million

The project, to be implemented during 1994-98, would improve the research capacity of the Forestry Research Center (FRC) within MoNRDEP. Given that IAR would have the lead responsibility, the FRC would be able to concentrate its efforts on the management of national forests and plantations. The project would help to strengthen the management of FRC as an autonomous research organization, develop the research capacity of FRC staff through a comprehensive training program, and provide support to key components of a national research program in the area of natural forest and plantation management. The project would provide support for research equipment and transport. Training would be provided through post-graduate training for students, in-service training for diplomats/technicians, and study tours. The project would also support a technical assistance team which would assist the FRC management in staff training, establishing and managing the research program. MoNREP would be the implementing agency.

Summary Profile for TDDP-2

Farm Forestry Research
Cost: US\$ 3.8 million

The project, to be implemented through the period 1994-96, specifically intends to improve the arrangements for farm forestry research by integrating farm forestry research with the ongoing farming system research program of MoA's Institute for Agricultural Research. Soil conservation research should also be included. The research, conducted both on-station and on-farm, would be carried out by multidisciplinary, zonal research teams focusing on the integration of farm forestry technologies into the various farming systems in HPP, HPC, and LPC zones. The design of the project would be determined through detailed discussion between research workers, extension staff and participating farmers. A rapid rural appraisal of the local farming system would form the basis for such discussions, and for the selection of participating farmers. The project should focus on the proposed farm forestry technologies, including homestead tree planting, field tree planting, farm woodlots, farm boundary tree planting, woody legume planting, and windbreaks. In addition some on-station work would be undertaken, including species trials and management trials concerning establishment technologies (e.g., using rooted poles); tree protection to enable planting in grazed areas, and harvesting practices. The project would provide technical assistance, support to the development of the teams, as well as training, equipment and transport. The implementing agency is MoA's IAR. Links with the ICRAF's Agroforestry Research Networks for Africa should be established.

Summary Profile for TDDP-3

Windbreak Research
Cost: US\$ 0.8 million

The project, to be implemented over a five-year period (start soonest), assesses the feasibility of introducing windbreaks in the HPC and LPC zones. If proven successful under local circumstances, windbreaks could form an important part of the farm forestry program in the highlands. By reducing soil and moisture loss, windbreaks can both increase wood supply and contribute to higher crop yields. The program would assess the feasibility of introducing windbreaks into current farming systems, determine effective design, management and harvesting techniques, establish windbreak prototypes in each of the zones, and monitor and evaluate their impacts. A management committee would be established under the IAR, including members of the FRC, MoA's extension service, community leaders, and participating farmers. The project would provide support for a consultant windbreak research specialist, a study tour, and equipment and transport. Implementing agencies would be IAR in collaboration with the FRC and MoA's extension service.

Summary Profile of TDDP-4

Integration of Agricultural Extension

Cost: US\$ 4.4 million

This project, to be implemented during 1994-98, would support the establishment of an Integrated Agricultural Extension Service (IAES) in which each Development Agent would cover crop, livestock, fodder, and tree production, as well as soil and water conservation and land-use planning. The current extension service lacks a farm forestry content and operates parallel to the community forestry and soil conservation service. The proposed new IAES would adopt a more participatory approach (TDDP-5) and operate on the basis of land use plans formulated in cooperation with local communities (SIP-1). The project would provide support for technical assistance, including a senior extensionist and a training/curriculum development specialist, to help: (a) draw up a detailed plan for reorganization of the present extension systems in accordance with the principles of integration and participation; and (b) implement this plan particularly in respect to training of staff. It is expected that the IAES would be staffed by existing MoA extension staff, Catchment Technicians from the old CFSCDD who would become DAs, and about hundred MoA Home Economics Staff. The following training would be supported: regional workshop for up to 3,000 DA and DAS staff as well as for up to 15,000 farmer extension workers, fellowships for BSc and MSc training, and study tours for senior staff. Support would also be provided for equipment and transport. MoA would be the implementing agency. The training program component would be closely coordinated with the re-orientation training proposed under TDDP-5.

Summary Profile for TDDP-5

Re-Orientation Training of the Extension Service

Cost: US\$ 1.4 million

This project, to be implemented during 1994-95, would improve the skills of the staff of MoA's extension service to adopt and implement an integrated and participative approach. Each Development Agent would become a multipurpose agent covering the whole farming system, promoting farmer-to-farmer exchanges, and collaborating with farmer extension workers. The project would provide support for a technical assistance team of four trainers who would conduct 14 Training of Trainers five-day courses each for 15 participants. The resulting cadre of 210 trainers would then conduct 75 regional five-day courses for 900 SMSs, to be followed by 200 five-day courses for 2,800 DA's and the catchment technicians recruited into the integrated service. This training cycle, concentrated in the off-season, would take two years to cover the whole country. The focus would be on the "bottom up" approach, extension methodology, communication skills, creating community awareness, mobilization and participation, and confidence building. The project would also support equipment and transport. MoA would be the implementing agency. The project is closely linked to TDDP-4 and SIP-1.

Summary Profile for TDDP-6

Establishment of a Land Husbandry Department within MoA
Cost: US\$ 4.5 million

This project, to be implemented during 1994-98, would specifically improve land management practices by creating a new Land Husbandry Department (LHD) within MoA's Integrated Agricultural Extension Service. This LHD would be responsible for community and farm forestry, soil and water conservation, as well as local-level land use planning. Operating through land husbandry subject matter specialists, it would increase the awareness of communities and farmers for the need to adopt farm forestry technologies, water harvesting techniques, and soil conservation measures. With the creation of this department the previous functional isolation of various subject matter components could be avoided and thus help launch a large farm forestry program. The project would provide technical assistance in soil and water conservation, water harvesting and farm forestry. It would work closely with the technical assistance team of TDDP-5. In addition, support would be provided for three land husbandry advisers who would work specifically at regional and woreda level. In-service training would be provided in farm forestry and soil and water conservation for up to 1,000 SMSs and selected DASs and DAs. The training of crop production and fodder production SMS would not be included. The former are outside the scope of this project and the latter should be catered for by the 5th Livestock Project which is currently being prepared. Fellowships at the BSc and MSc level, and study tours for senior staff, would also be supported, as well as some equipment and transport. Specific support to a Local-Level Land Use Planning Unit within the Land Husbandry Department would be provided under SIP-1.

Summary Profile for SIP-1

Local-level Land-use planning.
Cost: US\$ 10.7 million.

This project, to be implemented during 1994-98, would strengthen the capacity of MoA to support local-level land-use planning through the Local-Level Land-Use Planning Service that would be part of the proposed Land Husbandry Department in MoA. The project would be complementary with TDPP-. The Local-Level Land-Use Planning Service would deal with rural development in general, and with farm forestry, soil and water conservation, and fodder issues in particular. It would play a major role in helping rural communities and farmers adopt improved land management practices, including planting trees, thereby increasing agricultural productivity, and reducing rangeland degradation and soil erosion. The implementing agency would be the proposed Land Husbandry Department within the MoA's Integrated Agricultural Extension Service. The project would provide support for a team comprised of a land-use planning/land management specialist and a rural sociologist. They would be responsible for assisting in the establishment and training of the new Local-level Land-use planning Service. The team would assist its MoA counterparts in assembling and training about 420 two-person local-level planning teams for both the regional and the Woreda level, through a process of training of trainers and on the job training. Through the DAs, the regional aWd woreda teams would assist Peasant Associations or other farmers associations and community organizations in initiating and marketing local land-use planning. The project would also provide equipment and transport for the new Local-level Land-use planning Service. It is closely linked to TDDP-5, TDDP-6, and TDDP-7.

Summary Profile of SIP-2

Aerial Photography.
Cost: US\$ 50 million.

This project, to be implemented during 1994-2003, would consist of a phased effort to provide up-to-date aerial photography for Ethiopia at a scale of 1:25,000. It would contribute much needed data to various endeavours, including local-level land-use planning (SIP-1), inventory and management planning of high forests (FREMP-2), as well as enhanced soil conservation, land registration, rural infrastructure development, and revision of the national 1:50,000 topographic map series. The project would provide support for an aerial photography specialist to assist the Ethiopian Mapping Authority (the implementing agency), in collaboration with the other government departments, in drawing up a priority air photography program and in contracting documents. On the basis of these documents, commercial air survey companies would be invited to tender for the work involved. The specialist would also provide guidance on the assessment of tenders and on quality control of the air photography undertaken. The project would also provide support for the air photography contracts and for air conditioned storage for both the air photograph negatives and the prints and photomosaics.

Summary Profile for SIP-3

Vetiver Hedge Soil Conservation
Cost: US\$ 2.5 million

This project, to be implemented during 1994-2000, would promote the widespread adoption of a simple but effective soil conservation technique, planting *Vetiver zizanoides* grass hedges on the contour. The project would be undertaken through extension work by the staff of the proposed Integrated Agricultural Extension Service, who would be trained in vetiver-based conservation technology under TDDP-6. The project, therefore, includes financial provision for the production of vetiver slips, and transport to distribute the slips. To initiate this project, a number of existing nurseries would be upgraded (TFPP-9) to produce vetiver slips. The nurseries would be selected on the basis of their proximity to communities which express interest in planting vetiver in the course of local-level land-use planning discussions (SIP-1). The implementing agency would be MoA's proposed Land Husbandry Department.

Summary Profile of SIP-4

Feasibility Study for a Land Management Development Fund
Cost: US\$ 0.2 million

This study, to be implemented within 6 months in 1994/95, would examine the feasibility of creating a land management development fund which, as far as possible, would be administered by the community. The fund may be established as an incentive mechanism to (a) where appropriate, give compensatory payment to farmers for adopting technologies which may not yield benefits in the short run, but which are important to protect the natural resource base; (b) speed up the rate of adoption of technologies which otherwise would not be a priority to farmers; and (c) encourage communities or groups within a community to adopt sound land management practices on common lands and for the protection of upper catchment areas. The project would provide support for technical assistance to investigate possible financial arrangements and technical and community aspects, based on the experience in other parts of the world. MoA would be the implementing agency.

Summary Profile for SIP-5

Animal Nutrition Improvement

Cost: US\$ 23.4 million

In an effort to continue and expand the forage development work of the World Bank-funded Fourth Livestock Development Project, this project, to be implemented during 1994-2003, would address the severe pressure on pastures due to the shortage of animal feed by increasing forage production and improving animal nutrition. The project would also result in higher crop production due to the increased efficiency of better fed oxen for cultivation, improved soil and water conservation resulting from enhanced crop and legume cover, increased production and supply of domestic fuelwood (e.g. from *Leucaena/Sesbania* grown in farm compounds), and reduced pressure on natural pastures. The need for integrating forage development with the cropping systems and controlling soil erosion would be emphasized. This could be achieved by promoting the introduction of legumes under annual and perennial crops, and planting forage strips and tree/shrub legumes. Forage seed production would be expanded using small contract growers. An Animal Nutrition, Forage and Rangeland Extension Section would be created within the MoA which would provide SMSs in forage production and rangeland extension. In addition, a livestock development monitoring unit would need to be strengthened within the Main Department to continue to monitor the physical and financial aspects of the project. The Livestock Department of the MoA would be the implementing agency. The project would support training of Subject Matter Specialists and multi-disciplinary Development Agents in forage production and range management/improvement, in order to provide a technical extension package, covering improved forage utilization by all types of livestock. Support would also be provided for training of farmers, study tours, postgraduate training, transportation for the extension service, equipment for seed stores, and technical assistance.

Summary Profile for SIP-6

Ox Plow Development

Cost: US\$ 7.6 million

This project, to be implemented during 1995-97 (Phase 1) and during 1998-2002 (Phase 2) endeavors to replace the traditional plough pulled by paired oxen, with the single ox plough being developed by the International Livestock Centre for Africa (ILCA). Since maintaining a pair of draft oxen requires a large breeding herd which cannot be afforded by many farmers, this new technology would enable more farmers to have their own animal power for plowing, thus increasing agricultural yields due to more timely cultivation. Phase 1 would be contracted to a team of scientists to be provided jointly by ILCA, the IAR and MoA, under the direction of ILCA. It would consist of a feasibility study to refine the new ox plow technology and determine its possible effects on the different farming systems. Development agents of MoA and farmers would participate in research planning and in testing the technology. MoA would also play a major role in technology extension/transfer. Based on the results of Phase 1, the adoption of single ox ploughing would be promoted through extension packages in Phase 2. This would include farmer training courses, credit provision and the supply of improved grass and legume seed. The project would provide support for training of extension staff and farmers, technical assistance, and a revolving credit fund. The implementing agencies for Phase 1 would be ILCA together with the Institute for Agricultural Research and MoA, and for Phase 2, MoA with its extension staff.

Summary Profile for PMEP-1

Strategic Land-use Planning

Cost: US\$ 4.2 million

This project, to be implemented during 1994-98, would help establish a national framework for strategic land-use planning. A Strategic Land-use Planning Unit would be established in a centrally-placed, Government Ministry/Agency, so that it may function above sectoral land-use interests. The unit would be responsible for storing, retrieving, and analyzing natural resources and socio-economic data; preparing briefs on major land-use planning and development issues; and advising decision makers at central and regional level on the sound use of land resources. The unit would be linked to regional land-use planning units, and would need to be supplied with natural resource and socioeconomic data (FREM-1). It is expected that these activities would help to rationally resolve land-use conflicts and thereby help reducing current land pressures that arise from a lack of planning and are intensified by the high growth of human and livestock populations. The project would provide training for government officials at central and regional levels, including study tours. It would also provide support for technical assistance, including land-use planning and socio-economic specialists, equipment and materials.

Summary Profile for PMEP-2

Monitoring and Evaluation

Cost: US\$ 3.1 million

This project would be implemented during six months in 1995 (Phase 1) and through 1995-98 (Phase 2). Phase 1 would identify the minimum monitoring and evaluation (M&E) requirements for the natural resource and forestry sector, assessing the effectiveness of current M&E arrangements, and making proposals to improve them by considering a range of options. Based on the recommendations of Phase 1, Phase 2 would set up a M&E unit, probably within the MoNRDEP. The project would provide technical assistance for Phase 1 and equipment and transport for Phase 2. The technical assistance team would include a natural resources manager with considerable M&E experience, a natural resources economist, and a data systems specialist. During Phase 1, the project assistance would support the work of a Task Force on M&E in National Resource Development. During Phase 2, the support would be channeled to MoNRDEP and its new M&E section. An enhanced flow of information on project performance should provide a basis for improving policy and project implementation.

Summary Profile for HRDP-1

Curricula Development for Education in Forestry and Natural Resource Management

Cost: US\$ 0.6 million

This project, to be implemented over a period of 12 months (starting 1994), would help formulate revised school, institute and university curricula in forestry and natural resource management. It would support the work of a Technical Working Group (TWG) on Curricula Development that would be established by the proposed Inter-Ministerial Task Force on Forestry and Natural Resource Management Education and Training. The TWG would be given its detailed Terms of Reference based on guidelines for curricula development that the Task Force would establish, based on its review of training needs and institutional capacity. The TWG would submit its report to the Task Force at the end of 10 months work. The Task Force would, based on its consideration of the TWG's work, initiate appropriate action for implementation of adopted recommendations. The project would provide for a technical assistance team, comprising of a forest management specialist, a conservation education specialist, and a farm forestry specialist. The main implementing agency would be MoE.

Summary Profile for HRDP-2

Education and Training in Forestry and Natural Resource Management
Cost: US\$ 21.8 million

This project, to be implemented over a 10-year period (1995-2004), would assist in the implementation of the recommendations for establishment of a re-oriented and broadened curriculum for education and training in forestry and natural resource management that is expected to be prepared by an Inter-Ministerial Task Force (HRDP-1). The project would provide support to local training institutions that would be involved in implementing the new curricula. These new curricula would be expected to support vocational training, farm and community forestry as well as soil conservation training, the linkages to forest research, natural forest management, woodland and bamboo grooves management, and ecosystems and wildlife management. The project would provide support for long-term technical assistance (lecturers for AUA, trainers for vocational training centers) and short-term technical assistance (production and/or translation of textbooks, curriculum revision and development, short-term training courses in areas such as pedagogy and management, provision of external examiners, establishment of M&E systems, manpower planning). The project would also provide for equipment, teaching material, and vehicles, as well as in-service training, practical training and study tours.

Summary Profile for HRDP-3

Forest Industries Training
Cost: US\$ 1.1 million

The project, to be implemented 1995-97, would provide training to the staff of the developing forest industries, both public and private. The training will include both formal and on-the-job training. The formal training would be provided at the Boter Becho Training Institute where the necessary curricula and courses would be developed, including courses for management, supervisory and specialized vocational worker level training. The project would provide support for training, equipment, and a forest industries training specialist who would assist in developing a series of courses in these subjects. On-the-job training, particularly in sawdoctoring and saw operations, would be provided in the sawmills and plywood mills, plus job instructor training.

Summary Profile for HRDP-4

Environmental Education
Cost: US\$ 6.3 million

This project, to be implemented over a five-year period (1995-2000) would promote environmental awareness at all levels of the society, particularly among school children, and contribute to rural development based on sustainable use of natural resources. Specific outputs expected from the project would be: development and strengthening of the MoE's capacity in environmental education; improved environmental curricula, enhanced capacity to produce environmental education material; and development of school tree nurseries and demonstration woodlots. MoE, as the main implementing agency, would collaborate closely with MoA, MoNRDEP, MMP, the Ministry of Information, MSFIC, and NGOs. To ensure coordination of the various envisaged activities, a coordinating body would be set up, including representatives of government and other agencies. The project would provide support for technical assistance in the fields of environmental education and communication, the training of trainers, teaching materials, magazine production, and school activities.

Summary Profile for HRDP-5

Conservation Awareness and Education

Cost: US\$ 2.6 million

This project, to be implemented over a five-year period (1995-1999), would promote conservation awareness among the general public. Special focus would be on the population living around conservation areas. The Ethiopian Wildlife and Natural History Society (EWNHS), in collaboration with the Ethiopian Wildlife Conservation Organization (EWCO), has initiated promotional programs in this field. The proposed project would involve an expansion of EWNHS's Conservation for Survival Program. As such, it would support school education, workshops and seminars, publication of education material and magazines, and the development of ecotourism. The capabilities of both EWCO and EWNHS would be strengthened and promoted. The project would provide support for the services of a conservation and environmental education specialist, training, study tours, equipment and transport, as well as teaching and educational materials for specific activities in communities and schools. The implementing agencies would be MoNRDEP, together with MoE and EWNHS. This project is closely linked with HRDP-4.

添付資料6. S/W協議の概要

本件S/W協議は、平成7年8月に派遣した事前（コンタクト）調査団の調査結果が極めて良好であり、一部の課題を除いてほぼ合意に達したため、事前（S/W協議）調査団は派遣せず、エチオピア事務所を通じて打ち合わせを行った後、エチオピア事務所長と先方政府代表者間においてS/Wの署名を行うこととした。

コンタクトミッション派遣時とS/W協議において、状況の変化があった点や新たに明らかになった点について以下にまとめることとする。

(1) エチオピア政府機構の再編

平成7年9月にエチオピア国政府の再編があり、直接のカウンターパート機関である森林野生生物保全・開発局は天然資源開発・環境保全省から農業省へと移ることとなった。これは、組織再編により天然資源開発・環境保全省自体が解体されそれぞれ関係する省庁に部局が移管されたために生じた事態である。省庁が変更になったのみであって、職務内容・人材等については、変更がないとのことであり、S/Wの署名及び本格調査の実施における問題はないと考える。

(2) スタディエリア

スタディエリアは、コンタクトミッションにて確認したとおり10NFPAとすることにした。スタディエリアでは、航空写真を撮影し森林の位置図を作成するもので、地形図についてはスタディエリア全域では作成せず、今後同国自身で地形図の作成及び管理計画の策定を行ってもらうためにインテンシブエリアと同様の仕様にて作成するものとする。

スタディエリア全体の面積は、事前（コンタクト）調査で確認した時点では160万haであったが、今回航空写真撮影範囲の検討にあたって約270万haであることが判明した。これは、NFPA自体の境界が判然としていないことに起因すると考えられ、今後カウンターパート機関が自ら管理計画を策定するうえでも必要となることから、本格調査を通じて再度境界の確定を先方機関に促す必要があると考える。

(3) インテンシブエリア

インテンシブエリアは、コンタクトミッション派遣時には、2つのNFPAすなわちBongaまたはBelete-Geraを含む地域から選定すべきであることを確認し、S/W協議で決定することとしていた。Bonga, Belete-Geraの両地域は、天然林が広く分布しているものの、近年人口圧等により資源が減少傾向にあるため、資源管理の必要性が高い地域である。事前（コンタクト）の協議では、上記の2つのNFPA内から優先度の高い区域を15万ha程度選定し、S/W協議時に決定することとした。

今回のS/W協議では、先方はBongaとBelete-Geraの両地域をインテンシブエリアとし

て定義するよう提案してきたが、当方としては2つの地域をインテンシブエリアとすることは、対象面積が広すぎるため2年間の調査で管理計画を策定するのは難しいとのことで、対象地域の絞り込みを提案した。最終的にFWCDDは、Bongaは未開地域が多く日本人が調査を実施するにはコンディションが厳しい地域もあることから、Belete-Geraをインテンシブエリアとすることでお互い合意した。


(4) 航空写真の撮影

本開発調査では、S/Wで合意したとおりスタディエリアで航空写真を撮影することとしている。撮影の適期は12月であるため、平成7年のタイミングを逸してしまうと本格調査自体が1年遅れとなってしまう。S/W締結後、業務実施契約を締結して本格調査団が航測会社に委託する通常の方法では年度内実施が不可能となってしまうため、今回はエチオピア事務所が直接航測会社と契約し航空写真を撮影することとした。航測会社の選定にあたっては、ベッチョ平原農業開発計画調査（1994年8月～1996年3月農調部農調課にて実施案件）の実績を踏まえ、エチオピア国空軍では実施体制に問題があることから、スウェーデンの航測会社に委託する方向で検討している。

THE SCOPE OF WORK
FOR
THE FOREST RESOURCES MANAGEMENT STUDY
IN THE SOUTH WESTERN PART OF
ETHIOPIA

AGREED UPON BETWEEN
THE MINISTRY OF AGRICULTURE
AND
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Addis Ababa,
November 27, 1995



Mr. HIROSHI MATSUTANI
Resident Representative,
JICA Ethiopia Office,
Japan International Cooperation Agency
JAPAN



Mr. ALEMAYEHU YIRGU
A / Head,
Department for Bilateral
Cooperation
Ministry of Economic Development
and Cooperation,
ETHIOPIA



Mr. KIDANE MENGISTU
Head,
Forestry and Wildlife Conservation
Development Department,
Ministry of Agriculture
ETHIOPIA

I. INTRODUCTION

In response to the request of the Government of Ethiopia (hereinafter referred to as "the Government of Ethiopia"), the Government of Japan has decided to conduct the Forest Resources Management Study in the South Western Part of Ethiopia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulation in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of Ethiopia.

The present document sets forth the scope of work with regard to the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

- 1 to take aerial photographs and assess forest distribution in the Study area.
- 2 to conduct forest inventory and prepare forest management plan for the Intensive Study Area.
- 3 to carry out technology transfer to the counterpart personnel of the Government of Ethiopia in the course of the Study.

III. STUDY AREA

1 Study Area

The Study Area covers ten (10) National Forest Area (NFPAs) i. e. Belete-Gera, Bonga, Sigmo-Gaba, Yayu, Gebre Dima, Sibto-Tole, Kobo, Sele-Anderacha, Abobo-gog, Godere and Yeki.

2 Intensive Study Area

The Intensive Study Area covers Belete-Gera NFPAs. Preparation of topographic map,



forest inventory and formulation of a forest management plan shall be conducted for the forest area in the Intensive Study Area.

IV. OUTLINE OF THE STUDY

1 Phase I Study (Work in the Study Area)

1-1 Preparation of aerial photographs (scale: 1/25,000)

1-2 Preparation of forest location map (scale: 1/250,000), using the existing topographic map (scale: 1/250,000)

2 Phase II Study (Work in the Intensive Study Area)

2-1 Preparation of Land-use/vegetation map (scale: 1/50,000) using the existing topographic map (scale: 1/50,000)

2-2 Data collection and analysis of the following items:

- (1) natural conditions
- (2) socio-economic conditions, including gender roles
- (3) relevant plans, laws and regulations
- (4) forest and forestry conditions

2-3 Preparation of topographic map (scale: 1/25,000, contour interval: 10m) for the forest area

2-4 Forest inventory including the following items:

- (1) forest type classification and forest inventory
- (2) preparation of soil map (scale: 1/25,000)
- (3) estimation of stand volume
- (4) compilation of inventory book

2-5 Formulation of a forest management plan consist of following components:

- (1) determination of compartments
- (2) resource management plan
- (3) forest protection plan
- (4) afforestation plan
- (5) utilization plan
- (6) social forestry plan including extension and dissemination plan
- (7) infrastructure plan
- (8) erosion control plan
- (9) administrative framework
- (10) project cost estimation and project evaluation
- (11) initial environmental impact assessment
- (12) monitoring plan

V. WORK SCHEDULE

The Study shall be carried out in accordance with the attached tentative work schedule (APPENDIX-1).

VI. REPORTS

JICA shall prepare the following reports in English for the Government of Ethiopia (APPENDIX-1)

1 Inception Report:

Twenty (20) copies at the beginning of Phase I Study.

2 Progress Report:

Twenty (20) copies at the beginning of Phase II Study.

3 Interim Report:

Twenty (20) copies at the middle of Phase II Study.

4 Draft Final Report:

Twenty (20) copies at the end of Phase II Study. The Government of Ethiopia will provide JICA with its comments on the Draft Final Report within one (1) month after receipt of the Draft Final Report.

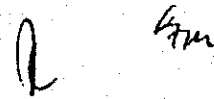
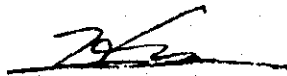
5 Final Report:

Fifty (50) copies within two (2) months after receipt of the comments from the Government of Ethiopia on the Draft Final Report.

VII. UNDERTAKING OF THE GOVERNMENT OF ETHIOPIA

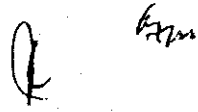
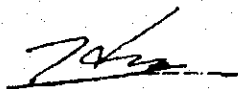
1 To facilitate smooth conduct of the Study, the Government of Ethiopia shall take necessary measures:

(1) to secure the safety of the Japanese Study Team (hereinafter referred to as "the Team"),



- (2) to permit the member of the Team to enter, leave and sojourn in Ethiopia for the duration of their assignment therein and exempt them from foreign registration requirements and consular fees,
- (3) to exempt the members of the Team from taxes, duties and other charges on equipment, machinery and other materials brought into Ethiopia for the conduct of the Study,
- (4) to exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowance paid to the members of the Team for their services in connection with the implementation of the Study,
- (5) to provide necessary facilities to the Team for remittance as well as utilization of the funds introduced into Ethiopia from Japan in connection with the implementation of the Study,
- (6) to secure permission for the study team to enter wherever possible for the implementation of the Study,
- (7) to make arrangement for the Team to take all data and documents (including topographic maps and pictures) related to the Study out of Ethiopia to Japan,
- (8) to provide medical services as needed. Its expenses will be charged to members of the Team.

2 The Government of Ethiopia shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arises from gross negligence or willful misconduct on the part of the members of the Team.



- 3 The Forestry and Wildlife Conservation and Development Department of the Ministry of Agriculture (hereinafter referred to as "FWCDD") shall act as counterpart agency to the Team and also as coordinating body in relation with the regional government office, other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
- 4 FWCDD shall, at its own expense, provide the Team with the following in cooperation with other organizations concerned:
 - (1) available data, maps and information related to the Study,
 - (2) counterpart personnel,
 - (3) suitable office space with necessary equipment in Addis Ababa and Jima,
 - (4) identification cards.

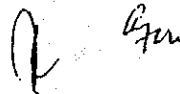
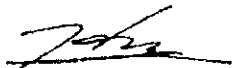
VIII. UNDERTAKING OF JICA

For the implementation of the Study, JICA shall take the following measures:

- 1 To dispatch, at its own expense, the Team to Ethiopia
- 2 To pursue technology transfer to Ethiopia counterpart personnel in the course of the Study.

IX. OTHERS

JICA and FWCDD shall consult with each other on any matter that may arise from or in connection with the Study.



APPENDIX-1

TENTATIVE STUDY SCHEDULE

Description	Month																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Work in Ethiopia																				
2. Work in Japan																				
Report Phase																				

Note : IC/R: INCEPTION REPORT PR/R: PROGRESS REPORT IT/R: INTERIM REPORT
 DF/R: DRAFT FINAL REPORT F/R: FINAL REPORT

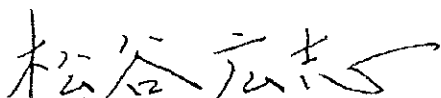
MINUTES OF MEETING
OF
SCOPE OF WORK
FOR
THE FOREST RESOURCES MANAGEMENT STUDY
IN THE SOUTH WESTERN PART OF
ETHIOPIA

The main issues discussed and agreed upon by both sides in relation to Scope of Work for the Study are shown in the ANNEX-1 as attached hereto.

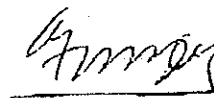
The list of participants in a series of meeting is attached in the ANNEX-2.

Addis Ababa

November 21, 1995



Mr. HIROSHI MATSUTANI
Resident Representative,
JICA Ethiopia Office,
Japan International
Cooperation Agency
JAPAN



Mr. ALEMAYEHU YIRGU
A/Head, Department for
Bilateral Cooperation
Ministry of Economic
Development and Cooperation
ETHIOPIA



Mr. KIDANE MENGISTU
Head, Forestry and Wildlife
Conservation Development
Department
Ministry of Agriculture
ETHIOPIA

ANNEX-1

The following are the main issues discussed and agreed upon by both sides in relation to the Scope of Work for the Study.

1. Both sides confirmed that the Study aims to formulate the forest management plan which contribute to the conservation of the Intensive Study Area.
2. FWCCD requested the counterpart training in Japan, and the person who would be dispatched should be related to the Study. JICA promised to convey its request to the Government of Japan.
3. FWCCD requested that the following equipments necessary for the Study be procured by JICA and be donated to FWCCD after the termination of the Study. JICA promised to convey its request to the Government of Japan.
 - a) Four-wheel drive vehicle(s)
 - b) Photocopy machine(s)
 - c) Personal computer(s)
 - d) Fax machine(s)
 - e) Transceiver(s)
4. FWCCD requested JICA to open a seminar on the result of the Study at the end of the Study period at Addis Ababa.
5. The data mentioned in Number VII - 1(7) of the Scope of Work will not include aerial photographs.



ANNEX-2

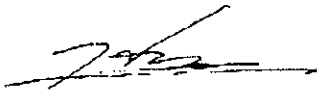
LIST OF PARTICIPANTS

Subject: Discussion of Scope of Work

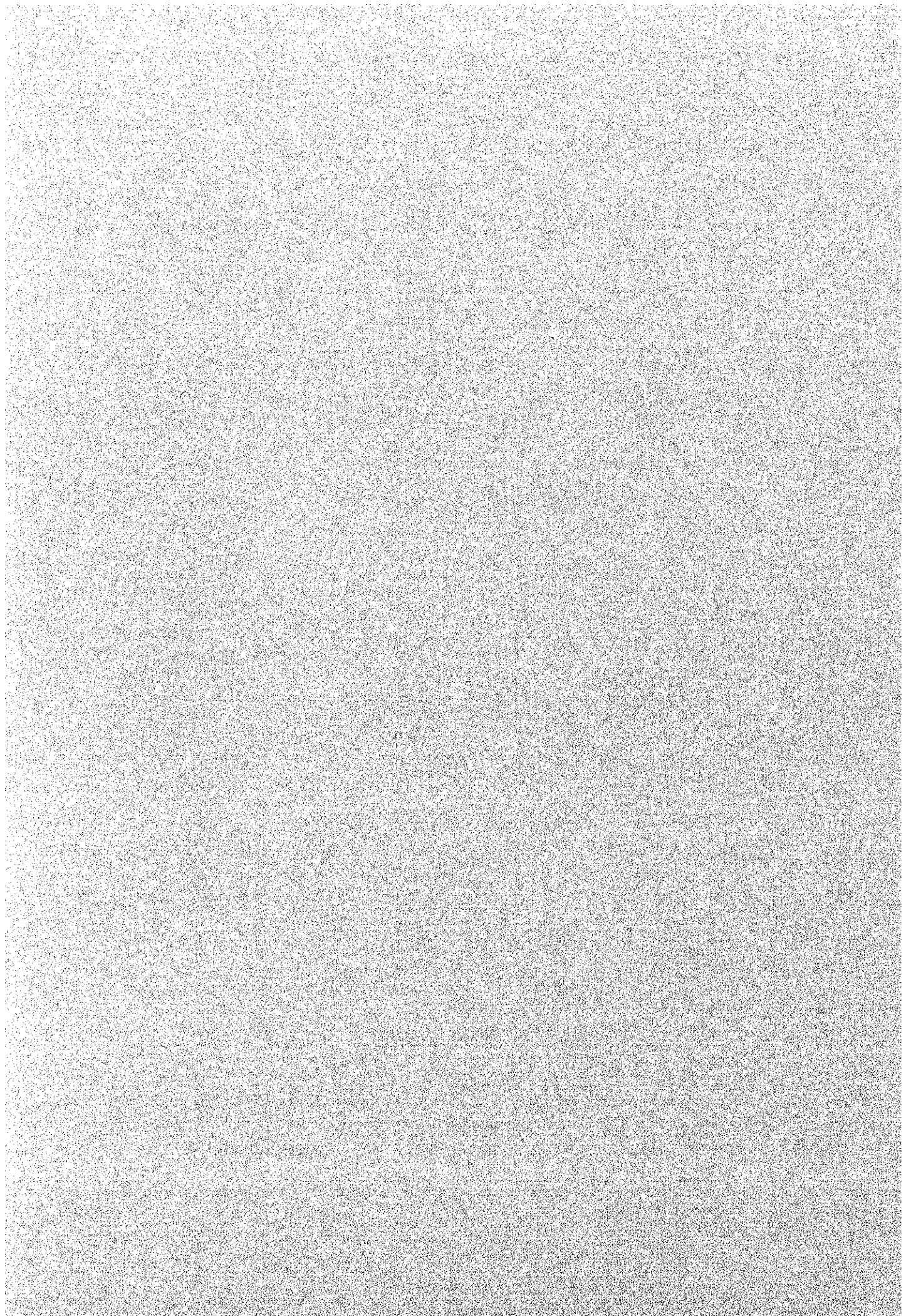
Date: November 21, 1995

Place: Ministry of Economic Development
and Cooperation

<u>No.</u>	<u>Name</u>	<u>Position</u>
1.	Ato Alemayehu Yirgu	Head, Bilateral Cooperation Department, Ministry of Economic Development and Cooperation
2.	Ato Kidane Mengistu	Head, Forestry and Wildlife Conservation Dev't. Department Ministry of Agriculture
3.	Ato Girma Zewdie	Senior Expert, MEDAC
4.	Ato Tamirat Kediro	Senior Expert, MEDAC
5.	Ato Leykun Berhanu	Team Leader, Forest Utilization and protection Division, Ministry of Agriculture
6.	Ato Gebremedhin Hadera	Team Leader, Forest Inventory and management Planning Division, Ministry of Agriculture



参 考 文 献



財団法人 国際協力推進協会、開発途上国国別経済協力シリーズ第3版 エチオピア、平成6年3月

外務省アフリカ第二課、エチオピア概要、平成6年2月

国際協力事業団、国別協力情報ファイル（エチオピア）

国際協力事業団エチオピア事務所、Baseline Study on Animal Husbandry and Forestry in Ethiopia, Addis Ababa, February 1995

柿沼潤、エチオピア企画調査報告書、アジスアベバ、1993年

梶 幹男、エチオピア高地の森林植生と気候条件、森林文化研究 第7巻第1号、1986年

The Economic Intelligence Unit Limited, EIU Country Report 1st quarter 1995 (Ethiopia, Eritrea, Somalia, Djibouti)

Transitional Government of Ethiopia Ministry of Natural Resources Development and Environmental Protection, *Ethiopian Forestry Action Program (EFAP)*, Addis Ababa, 1994

Department of Planning and Economic Development for Illubabor Zone Oromo Regional Government, *Basic Data of Illubabor Zone*, Mettu, February 1995

Food and Agriculture Organization of the United Nations, *The State of Food and Agriculture*, Rome, 1993.

Institute of Ethiopian Studies Addis Ababa University, *Gender Issues in Ethiopia Edited by Tsehai Berhane-Selassie*, Addis Ababa, November 1991

International Labour Organization and the Ministry of Labour and Social Affairs of the Transitional Government of Ethiopia, *Employment Promotion for Women Fuelwood Carriers Through Organization: A Report on Integrating Women Fuelwood Carriers in Forest Management*, Addis Ababa, 1995

Japan International Cooperation Agency (implemented by Nippon Koei Co., Ltd.), *Feasibility Study*

on the Becho Plain Agricultural Development Project Interim Report Annex, Addis Ababa, March 1995

Ottaway, Marina, *Democratization and Ethnic Nationalism: African and Eastern European Experiences: Policy Essay No. 14*, Washington D.C. 1994

Swedish International Development Agency, *Country Gender Analysis for Ethiopia*, Addis Ababa, 1993

The United Nations Children Fund (UNICEF), *Children and Women in Ethiopia: A Situation Report*, Addis Ababa, 1993

Orlander, Goran, Swedish University of Agricultural Sciences, Department of Silviculture, *Volume Tables for Ethiopia, Cupressus lusitanica, Pinus parula Eucalyptus camaldulensis, E. globulus, E. grandis, E. saligna*, Sweden, 1986

Orlander, Goran, Swedish University of Agricultural Sciences, Department of Silviculture, *Growth of some Forest Trees in Ethiopia and Suggestions for Species Selection in different Climatic Zones*, Sweden, 1986