ETHIOPIA

European Development Fund

Coffee Improvement Project III

Mission Draft Final Report

MID TERM REVIEW

February 1991

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<td>Agricultural Implementation, Research and Improvement Centre</td>
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<td>Commercial Bank of Ethiopia</td>
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<td>ECMC</td>
<td>Ethiopian Coffee Marketing Corporation</td>
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<td>European Currency Unit</td>
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<td>Ethiopian Domestic Distribution Corporation</td>
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<td>ERR</td>
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<td>Ethiopian Transport Construction Authority</td>
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<td>GNP</td>
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<td>Government of Ethiopia</td>
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<td>Institute of Agricultural Research</td>
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<td>ICA</td>
<td>International Coffee Agreement</td>
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</table>
ICO          International Coffee Organisation
IRR          Internal Rate of Return
MCTD         Ministry of Coffee and Tea Development
MOA          Ministry of Agriculture
NAO          National Authorising Officer
NBE          National Bank of Ethiopia
NPV          Net Present Value
OECD         Organisation for Economic Co-operation and Development
OFCOD        On Farm Co-operative Demonstration
OFCOR        On Farm Co-operative Research
ONCCP        Office of the National Committee for Central Planning
OSCFER       Office of the State Committee for Foreign Economic Relations
PA           Peasant Association
PADEP        Peasant Agriculture Development Project
PCDPI        Peasant Coffee Development and Project Implementation (Department)
PIU          Project Implementation Unit
PME          Planning, Monitoring and Evaluation
RO           Research Officers
SC           Service Co-operative
SMS          Subject Matter Specialist
TA           Technical Assistants
TDEE         Technology Department and Engineering Enterprise
TOR          Terms of Reference
T&V          Training and Visit (System)
ULV          Ultra Low Volume
VLV          Very Low Volume
WD           Wheel Drive

Weights and Measures

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1. INTRODUCTION

Acknowledgements

1.01 This report is co-financed by the European Communities from credits of the European Development Fund and is presented by Agrisystems srl for consideration of the Government of Ethiopia. It does not necessarily reflect either the opinion of the latter or of the Commission of the European Communities.

1.02 The Mission composed of staff of the Agrisystems srl team has prepared this report on the basis of work carried out as part of a Joint Evaluation Team. The Mission wishes to express its appreciation to the members of the Team as well as the Vice Minister of Coffee and Tea Development (MCTD) and the management and staff of the Peasant Coffee Development and Project Implementation (PDCPI) Department, MCTD, the Institute of Agricultural Research, the Agricultural and Industrial Development Bank (AID Bank) and other Ethiopian organisations. The Mission's thanks also go to the (EEC) Delegation of the European Communities in Addis Ababa.

Terminology

1.03 It is important the following terms are understood to describe work carried out:

(a) Joint Evaluation Team represents the Team of Government and Agrisystems srl staff who worked together in Ethiopia to produce an Interim Report presented to the Vice Minister of MCTD on Monday 17th December, 1990. When findings are represented as those of the Team then they represent conclusions reached as part of the Interim Report; and

(b) Mission represents the staff of Agrisystems srl. Where findings are represented as those of the Mission then they represent conclusions not included in the Interim Report.

Terms of Reference

1.04 In accordance with the terms of reference for this mid term review of CIP III a Joint Evaluation Team has prepared an Interim Report and the Mission a Draft Final Report summarising the findings of the groups. Detailed terms of reference are set out separately in Annex 1.

Work Done

1.05 In carrying out the assignment the Team:

(a) reviewed the basis of the Project - the Joint Evaluation Team Report dated February 1987, the CIP III Project Formulation Document dated March 1987 and the Project Financing Agreement approved 21st December, 1988;

(b) reviewed the progress of the Project based on results and reports either prepared by or available in MCTD, IAR and other involved agencies; and
visited Project areas in Sidamo, Illubabor and West Hararghe and discussed Project progress with staff, Co-operative and Peasant Association members and farmers involved in the Project.
2. MAJOR INFLUENCES ON CIP III

Overview of the Project Formulation Document 1987

2.01 The 1987 Project Formulation Document was written as a successor to two earlier CIP Projects and in the context of (i) Ethiopia's increasing difficulties in meeting its ICO quotas of 80,000 to 90,000 tonnes; and (ii) recent debilitating effects of drought, rising food prices and unfavourable coffee prices which led to reductions in coffee areas with negative environmental consequences. As a result CIP III was seen as a continued effort in existing Project areas in persuading farmers to stump and spray their coffee, and for the introduction of planting to individual farmers.

2.02 The Project was originally envisaged as covering the 15 woredas covered under CIPs I and II and providing extension services, credit and inputs to previously established and newly established coffee areas. The Project aimed to train annually 25,000 farmers in new production techniques. In addition a pilot food crop improvement scheme was to be introduced as well as provision of other studies including aerial photography. Finally coffee research expansion was to be funded. Project costs were estimated at Birr 106 million (ECU 41.9 million).

The Project Financing Agreement 1988

2.03 The Project as agreed was wider in scope than the Formulation Document covering the earlier 15 woredas plus a further three new woredas. Project costs were estimated as ECU 61 million (Birr 154 million) over five years consisting of ECU 28.5 million by way of grant and ECU 9.6 million by way of Special Loan to finance the credit line from the EEC with a further contribution of ECU 22.9 million from GOE. The Project scope was:

- Continued coffee extension activities in 15 established CIPAs
- Planting and stumping activities in three new CIPAs as well as new nurseries
- Promotion of food crops in the farming system
- Coffee research programmes in breeding and agronomy
- Establishing three new CIPA offices and a CIP HQ in Addis Ababa
- Aerial photography
- Processing and storage facilities for sundried coffee
- Training
- Technical assistance
- Other recurrent costs

2.04 Special conditions attached to the EEC financing consisted of:

(a) the lifting of restrictions on food imports from areas of surplus to deficit production would continue;

(b) continued monitoring of coffee farm gate prices to ensure that they give producers incentives to increase coffee production;

(c) establishment of an autonomous coffee research unit;

(d) securing of financing for all recurrent costs including appropriate staffing; and
2.05 The conditions outlined above have been satisfied with the exception of incentive producer prices and the establishment of an autonomous coffee research unit. These are discussed elsewhere in the Report.

Impact of the New Economic Reform Programme

2.06 On 7th March, 1990 GOE issued a new economic policy, based on the principle of a mixed economy and which aimed to stimulate small scale producers and encourage the private sector. In general and assuming that the administrative arrangements necessary for such a change are implemented, then the prospects for the coffee subsector are very encouraging. It will allow private investment in coffee (including the establishment of modern coffee estates), security of tenure for land users and devotion of efforts by farmers to their own land.

2.07 In addition to the general changes outlined above, the grain quota system was totally abolished in March 1990 thereby allowing farmers to sell all their surplus produce on the free market whilst allowing movement of produce from surplus to deficit areas. Since many coffee areas are deficit producers and coffee farmers concentrate on food security when they are not assured of a supply in the market, this reform will allow such farmers to concentrate more of their efforts on coffee. Details of the Programme are set out in Annex 2.

Impact of the New Coffee Policy

2.08 Independent of the above national economy changes the coffee subsector was radically changed by reforms introduced at various times towards the end of 1989. These were brought about in part by the suspension of international coffee quotas on 4th July, 1989 with a consequent collapse in world coffee prices. In principle there has been a considerable liberalisation of the coffee industry in Ethiopia, particularly in trading and marketing with some revival of the private sector, although many of these changes have yet to be implemented. In addition, common holdings were distributed to individual farmers and, in response to the fall in world prices, minimum producer prices for washed and sundried coffees have been set; this is in addition to reductions in the initial threshold level of imposing surtax. The effects on production are beginning to occur especially in the CIP areas where previously most investments were made to common holdings. Details of the reforms are set out in Annex 3.

Major Donor Interventions in the Coffee SubSector

2.09 Over the last 15 years donors have invested with Government in various aspects of the coffee subsectors. In summary, and taking into account projects which although not yet approved are likely to be so, the investments cover:

(a) coffee production in the 54 main coffee growing areas (formerly woredas) including establishment of nurseries, demonstration plots and a well structured extension system. To a much lesser extent this has covered production of food crops and soil and water conservation in the same areas;

(b) rural infrastructure construction consisting of close to 2,000 kms of rural roads as well as stores and offices;
(c) construction of 174 coffee washing stations and 89 hulleries, as well as spare parts for existing hulleries in the co-operative and private sectors;

(d) construction of a 28,000 tonne coffee mill and a coffee training centre;

(e) establishment of the capability to manufacture coffee pulpers as well as assistance for private sector wholesalers, exporters, and coffee equipment manufacturers and repairers;

(f) establishment of a washed coffee classification system based on quality, with additional investments in the training of coffee liquorers;

(g) training of coffee managers, marketers, planners, technical and extension staff, farmers and co-operative employees;

(h) investments in coffee research;

(i) strengthening of the planning and policy capabilities in MCTD; and

(j) the carrying out of surveys and studies of the coffee industry including establishment of a baseline of coffee production in Ethiopia.

2.10 The coverage, as can be seen is extensive and there are no major areas in the subsector which have not received investments, except perhaps the less important coffee growing areas (numbering 86).

2.11 Details of major donor interventions are set out in Annex 4.
3. PERFORMANCE UNDER CIP III

Introduction

3.01 Detailed findings of performance under CIP III are set out in Annex 5 to 19 of this report. They closely follow those set out in the Interim Report. It is therefore proposed to summarise the recommendations in this report with cross references to the Annexes as appropriate.

Summary of Recommendations

3.02 The recommendations contained in the Annexes are set out below by topic (referenced to the relevant Annex).

A. Organisation, Management and Training

Extension and Agronomy Organisation

Annex 6, section A, para 7
Extension and agronomy should be kept together with some of the activities of this Team being taken over by the Adaptive Research Advisory Unit (in particular demonstration and trials);

Adaptive Research

Annex 6, section A, para 8
The Adaptive Research Advisory Unit should be responsible to the Deputy General Manager and renamed the Adaptive Research Team;

PCDPIID Organisation

Annex 6, section A, para 10
The Department's General Manager should be assisted by two Deputy General Managers, one being responsible for operations and the other for finance and administration. Thus the Operations Manager would be responsible for the following units:

(i) Extension and Agronomy
(ii) Plant Protection
(iii) Co-operative Promotion, Audit and Credit
(iv) Product Processing
(v) Adaptive Research, and
(vi) Training

The Finance and Administration Manager would be responsible for:

(i) Administration
(ii) Engineering
(iii) Finance, and
(iv) Logistics
The General Manager, in addition to overall supervision, would have direct control of:

(i) Planning, Monitoring and Evaluation Team, and
(ii) Internal Audit;

**Internal Audit Services**

Annex 6, section B, para 7
Internal Audit Services should have the capability to carry out systems audits;

**Programme Co-ordinating Committee**

Annex 6, section D, para 4
In view of the relatively short time remaining in the Project and the need to ensure its balanced implementation by the implementing agencies, it is necessary to set up a Programme Co-ordinating Committee under the Vice Minister;

Annex 6, section D, para 5
The Committee should be set up as follows:

(a) the Committee is formed, chaired by the Vice Minister, with one representative each from implementing agency management, the NAO and the EEC Delegation;

(b) in view of its lead role in implementing the Project the PCDPI Department should provide the Secretary to the Committee;

(c) the Committee should meet at least monthly to review Project progress, in particular those involving Project co-ordination;

(d) in between meetings it will be necessary for day to day co-ordination to be carried out and for this reason it will be necessary to appoint a Project Co-ordinator (assisted by secretarial support). The Project Co-ordinator will assist in the Committee's deliberations, by providing the necessary reports; and

(e) the scope of the Committee's work will include:

(i) review of Project progress,

(ii) consideration and decision making on co-ordination activities, and

(iii) consideration and direction of follow on Project;
Training under CIP III

Annex 6, section E, para 17
As regards training:

(a) the thrust and direction of the approach to farmer training is supported by the mission in a maximum amount of ECU 500,000 (assuming per diems and other local costs are paid by GOE). However, in carrying this out it is important that:

(i) given the long lead times for engaging assistance and the relatively short time left in the Project action to commit funds should be initiated as soon as possible,

(ii) contracts should be carefully screened to ensure that contingencies are not unreasonably inflated and that amounts represent value for money; and

(iii) audio visual investments should be tied in with the other investments to train farmers;

(b) following on from Annex 6, section E, para 17 (b)(ii) the Mission supports the expenditure on audio visual equipment and training in a maximum amount of ECU 120,000;

(c) the total to be committed in Annex 6, section E, paras 17 (a) to (c) above is ECU 910,000 (ECU 290,000 + ECU 500,000 + ECU 120,000) say ECU 900,000. Thus of the original allocation of ECU 1,790,000 it is likely that ECU 890,000 say ECU 900,000 will be uncommitted; and

(d) it is recommended that this balance is allocated as follows:

<table>
<thead>
<tr>
<th>ECU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance uncommitted</td>
</tr>
<tr>
<td>6 further M.Scs.</td>
</tr>
<tr>
<td>Short term training - lump sum</td>
</tr>
<tr>
<td>To be re-allocated</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
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Locally Financed Training

Annex 6, section E, para 24
Service units should be included in the locally financed Training Budget;
B. Agronomy

Coffee Nurseries

Annex 7, section A, para 5
Greater attention should be given to correct hardening off by shade removal in quarters over the last four to five months coffee seedlings are in the nursery;

Seedling Quality

Annex 7, section A, para 7
In order to ensure the maintenance of seedling quality coupled with the early wet season planting out time it should be ensured that:

(a) heavy mbuni (jenfal) is not sown to produce coffee seedlings but that it is hand hulled and parchment beans are selected for seedling production;

(b) in general the extension services should be prepared to provide selected seeds of recommended selections to farmers for their nurseries, i.e. large seeds to produce large, strong seedlings;

(c) field plantings should be done in the first quarter and not the last quarter of the main rains (generally after 50 to 100 mm of the main rains have fallen);

(d) in the farmer nursery beds seedling rows are spaced 20 cm apart with at least 15 cm between seedlings in the row; and

(e) where pest conditions permit, the interrow space between seedlings aligned across the bed width, is mulched with fine grass at the end of the wet season. A most suitable grass would be Khuskhus grass (Vetiveria zizanioides) which could be grown around the edge of the coffee plot;

Coffee Population

Annex 7, section A, para 11
Future small farmer tall coffee planting/replanting in all the better rainfall areas but excluding the Hararghie region, should be made at 1.5 x 1.5m double staggered lines with 2.5m between the double lines, giving a theoretical tree population of 3,333 trees/ha. Double staggered lines of coffee trees are more satisfactorily treated with chemical sprays and should grow more regularly to facilitate both annual and cycle conversion pruning;

Coffee Tree Spacings

Annex 7, section A, para 12
In Hararghie the spacings should be wide and populations lower. Where regular annual intercropping is to be practised tall coffee should be planted at 3 x 2m in a single line giving 1,666 trees/ha; where a pure stand of coffee is required in the longer term with intercropping in the early establishment years (2 years) and at cycle conversion (1 year) the population should be increased to 2,000 trees/ha at a spacing of 2.5 x 2m;
Tall Coffee Stumping

Annex 7, section A, para 15

For tall coffee stumping:

(a) for established forest coffee after selection of one main 'mother' stem and removal of all other vertical stems that may be present, select a lateral branch at the lowest possible point on this vertical and reduce it to non cropping dimensions of 3 to 6 leaf pairs. Cut the stem at a 45° angle 2 to 4 cm above this point. The pruned lateral will act as a lung branch ensuring survival of the stem and root system but it should not carry any crop. In some cases it may be 1 to 1.5m above ground level in which case considerable care and attention is necessary to see that all suckers arising on the stem at more than 15 to 25 cm or less above ground level are removed as soon as they are observed to be developing. This technique will prevent death of the mother stem and root system. At the time of final sucker selection for the next cycle cut the mother stem off at a 45° angle, 30 to 40 cm above ground level. If sucker development on the mother stem at more than 15 to 25 cm above ground level is not regularly and thoroughly done new sucker development at the bottom of the mother stem may be deficient;

(b) when converting the planted/replanted CBD resistant selections to a new multiple stem cycle this should be done without total loss of crop during the conversion period. Where two or more vertical heads were present in the old cycle, select one tall, strong mother stem and remove all others. Cut the primaries off this mother stem to leave a short head to carry a small crop (say 0.5 to 1.0m long) and pinch out the growing point at the top; this stem will serve as a lung branch and may be cropped for one or two seasons until the newly selected suckers arising from the low stem (below 15 to 25 cm above ground level) are seen to be coming into flower. At this time cut the mother stem off at a 45° angle, 30 to 40 cm above ground level. This is also the system of cycle conversions recommended for the Hararghe region; and

(c) it is essential for successful lung branch stumping to remove all unwanted sucker development as early as possible from the mother stem. Furthermore it is essential to have as much light as possible reaching the base of the tree to stimulate sucker development and to avoid etiolation of early growth. Where the residual head is left to crop during the first year or perhaps two years, but where it is too rigid and vertical (above the base of the tree) thereby providing too much shade, all the inside primary branches can be removed (to the tip of the vertical) to reduce the shade factor and to encourage the vertical to bend outwards and downwards;

Multiple Stem Pruning System for Plantation Coffee

Annex 7, section A, para 25

The recommended multiple stem pruning system for the several spacings and plant
populations and the recommended numbers of vertical cropping stems (heads) per cycle for planted/replanted coffee are as follows:

(a) 1.3 x 1.5 x 3m 4-row planting staggered, theoretically 4,102 trees/ha (this spacing is not recommended for the small farm holding) -

1st cycle
Good quality trees with 3 to 4 primary pairs below 40 to 45 cm above ground level should be capped in the field 2 to 3 cm above a pair of primaries. This will hold back the vertical development of the tree, induce strong root development, increase skirt primary growth and control early cropping levels, preventing any tendency to early overbearing. When the two suckers that develop from the base of the node and two primaries immediately under the capping point are about 10 to 15 cm tall, remove one of them to leave one vertical head only in the first cycle. Carefully remove the primary branch above the retained sucker but leave the opposite primary above the sucker that is removed. Annual pruning will be to remove any further sucker growth until the end of the first cycle and then removal of all primary branches after carrying two crops. The total number of bearing heads will be 3,800 to 4,102/ha.

2nd cycle
Stump convert with a lung branch of the old single vertical, well cut up and tipped to provide a small yield to cover the costs of conversion. Select two new verticals (at height 15 to 25 cm above ground level) at the denser population to give 8,200 verticals/ha or 3/ha at the lower population to give 11,400 verticals/ha. To increase the number of verticals to the optimum in this four row spacing, select two verticals on the two inside rows and three verticals on the outside rows where there is more light to give 10,255 verticals/ha. During the cycle prune annually to remove all other sucker growth regularly, cut off primaries after carrying two crops and handle regularly to control secondary growth and to keep the centre of the tree open to light and air.

(b) 1.5 x 1.5 x 2.5m 2-row planting staggered, theoretically 3,333 trees/ha (this spacing is recommended for the small farm holding except in the harsher conditions of the Hararghe Region -

1st cycle
Cap as in (a) above; retain both of the suckers that develop at the node below the capping point, removing both the primaries in the axils of the suckers at the time of selection. Prune annually as described under (a) above.

2nd cycle
Stump convert with a lung branch of one of the two old heads, removing the poorer one completely. Select three
suckers for three verticals in the second cycle giving 9,999 
verticals/ha. During the cycle, prune annually to remove 
all other sucker growth regularly, cut off primaries after 
carrying two crops and handle to control secondary 
growth and to keep the centre of the tree open to light 
and air.

(c) Harsher, drier climate of the Hararghie Region 3 x 2m single lines giving 
1,666 trees/ha or 2.5 x 2m single lines giving 2,000 trees/ha -

1st cycle Cap as for (a) 1st cycle but retain two verticals as for (b) 
1st cycle. Prune annually as described previously.

2nd cycle Stump convert with a lung branch of one of the two old 
heads, removing the other completely. However, select 
four or at the most five suckers for vertical head 
production in this cycle. If the trees are strong at the 
time of conversion take five verticals on the trees at a 3 x 
2m spacing and four at a spacing of 2.5 x 2m increased to 
six and five verticals respectively but no more;

Multiple Stem Pruning System for Forest Coffee

Annex 7, section A para 26
The recommended multiple stem pruning system for rejuvenated/rehabilitated forest 
coffee at approximately 3,500 trees/ha and the number of cropping verticals, is as 
follows:

(a) 1st cycle - Stump the old trees as described in para 25(b) above. 
Select three suckers to give three verticals/tree. Prune 
annually as described in para 25, to remove all suckers, all 
primaries that have carried two crops and all unwanted 
secondary growth. If the forest tree stem diameters are 
of small diameter indicating weak trees for their probable 
age, take only two vertical heads for cropping in the first 
cycle.

2nd cycle - Stump conversion as for the first cycle but taking three or 
at the very most, four suckers to provide bearing verticals. 
At lower tree populations, e.g. 2,500 trees/ha four or 
perhaps five vertical cropping heads may be retained. 
Prune annually to remove all other sucker growth, all 
primaries that have carried two crops and all unwanted 
secondary growth;

Uniform Pruning

Annex 7, section A, para 27
For the sake of pruning simplicity it is important that a block of trees of the same age or 
block of mature forest trees, are subjected to a uniform annual pruning system. To treat 
each tree as an individual, varying the pruning on an individual tree basis, complicates
the main pruning routine;

**Timing and Methods of Pruning**

Annex 7, section A, para 28
It is essential that the main pruning is done as soon as possible after the last harvesting operation is completed. The only exception to this important timing of the pruning operation is where trees have suffered overbearing dieback with significant defoliation. Under these conditions it is better to delay pruning until vegetative regrowth has taken place except where such trees have a large, dense bushy skirt growth below the region of dieback. Such trees should be 'skirted', i.e. the main skirt primaries removed and secondary growth on residual skirt primaries (if any) also removed to drive future growth into the upper parts of the tree where it is most needed. After suitable delay primaries with tip dieback in the middle-upper section of the tree, that have carried only one crop may be cut back at this time to a strong growing secondary which can take over the primary function for one crop or in exceptional circumstances, two crops but no more;

**Altitude Zones**

Annex 7, section A, para 35
As regards division of altitude zones:

(a) the yield assessment survey of coffee age and yield are pursued for a further two years (season) beyond 1989/90; and

(b) the yield assessment of coffee age and yield at different altitudes be continued but with a spread of four rather than three altitude zones (as outlined in Annex 7, para 33);

**Weeding**

Annex 7, section A, para 42
As regards weeding:

(a) because of its particularly poisonous nature and the general preference for manual weed control, use of Grammoxone should be phased out and current stocks be used up but not replenished;

(b) for newly planted coffee in the first two field years when the problem is perennial grass weeds, Fusilade rather than Roundup is applied because it does not harm the young coffee tree. Where the weed problem is both grass and broad leaved weeds Roundup should be used with great care;

(c) spot application of herbicide to control perennial grass patches should be made with Fusilade applied at the correct growth stage of the grass for maximum benefit; and

(d) in coffee aged three years or older (field age) chemical control of general mixed weed growth should be made with Roundup: spot application of herbicide for perennial grass control would better be done with Fusilade applied at the optimum growth stage for maximum growth;
Knapsack Sprayers

Annex 7, section A, para 43
The recommended type of knapsack sprayer is, for example, the Cooper-Pegler CP15 (15 litre capacity) or CP 20 (20 litre capacity) with the red 'prolijet' nozzle to apply 150 to 200 l/ha of spray containing either 4 l/ha of 36 percent EC Roundup or 6 to 8 l/ha of 12.5 percent Fusilade. With Fusilade but not with Roundup, the use of a blue 'prolijet' nozzle is possible and this would reduce the volume of application to 100 to 130 l/ha;

VLV Spraying

Annex 7, section A, para 44
To further reduce the water volume/ha, always a major problem with small farmer spraying, it is recommended that field testing is undertaken with the VLV (Very Low Volume) technique using the CP15 plus a VLV-50 nozzle as produced by Delavan for, for example, Cooper-Pegler Ltd. The field testing should be carried out jointly by research and extension staff working closely together;

Intensive Weed Control

Annex 7, section A, para 45
More intensive weed control in the coffee would be beneficial to both yield and quality (bean size). Furthermore when coffee is planted into a properly cleaned field area mulching the seedlings and provision of a temporary shade cover, e.g. a grass 'hat' supported by a stick tripod, will help greatly to suppress renewed grass growth;

Tree Shade in Hararghe

Annex 7, section A, para 49
No tree shade should be planted with coffee in this region; of far greater value will be temporary 'hat' shade in the first year and mulching for the first two years in the field;

Tree Shade Elsewhere

Annex 7, section A, para 53
As regards tree shade in coffee plots it should be ensured that:

(a) erratic or irregular shade tree cover in planted coffee plots is carefully infilled with permanent shade trees to achieve an even, high, light shade cover. Whilst a tree type that produces an umbrella shaped canopy above a single straight stem and gives even stippled or dappled shade is the preferred form, relatively compact tree forms that provide 'blob' shade for the coffee as the sun travels overhead are acceptable. Final spacing of the mature tree will be closer if they provide 'blob' shade; and

(b) more attention should be paid to annual shade tree management to ensure optimum spacing and the lifting of the cover to at least 1.5 to 3m above the tops of the coffee tree. This allows free air circulation and lateral light ingress. In coffee under mature, old forest trees this distance will often be much greater, as much as 5 to 10m or more above the coffee
Fertiliser Types and Application

Annex 7, section A, para 72
As regards fertiliser:

(a) a much higher proportion of the coffee requiring pruning should be pruned and then treated with fertiliser, e.g. estimated area for pruning 1989/90 was 23,544 ha, area actually pruned was only 2,541 ha and area fertilised was only 4,830 ha, which figure includes young field coffee;

(b) if economy of fertiliser use is necessary modifications should be made logically in terms of weeding, pruning and shade degree standards rather than varying minimal rates, omitting applications to heavily weed infested, unpruned or heavily shaded coffee;

(c) the rates of compound fertiliser applied to CIP coffee should be those given in Annex 7, Table 16, based upon the quantity of N noted and with the compounds specified. Until research has produced specific answers rates should not be varied between regions;

(d) when present stocks of 20:10:10 compound fertiliser have been used up the formula should be changed to 15:15:6 for young planted coffee in the first three field years and to 15:5:15 for cropping coffee. If it were to be available a better compound for cropping coffee would be 20:4:20 as currently produced for coffee in Papua New Guinea; and

(e) there is a need for further study of the nutritional status of coffee particularly with respect to leaf N, P, K and Zn. Missing information about the leaf S and B status is also required and the survey information should be related closely to soil type and basic soil analysis. Such a study might be located on the 72 existing demonstration coffee plots where yields are already recorded provided pruned treatments are correctly applied. There is also a need to test the efficiency of foliar Zn application and this too could be done on trees in the coffee demonstration plots. Both investigations should be simple joint research - extension staff projects possibly associated with the MOA or university analytical facilities;

Spraying for CBD

Annex 7, section A, para 81
As regards spraying for CBD:

(a) future surveys of CBD sprayed areas be fully assessed over six spray rounds;

(b) that IAR Plant Pathology urgently test the efficiency of Octave applied by ULV in the same manner as Daconil;
(c) the CIP spray team in one of the regions run a pilot project to control CBD using the ULV equipment with Daconil in one CIPA, closely monitored by regular field assessments;

(d) CIP should approach any local agents (if available) for equipment and enquire whether pre-mixed formulations are available, e.g. emulsifiable mixture(s) in bottles that can be rapidly attached to the sprayer. Information relevant to these enquiries should be available from IAR; and

(e) in view of the apparently greater efficiency of Octave compared with Daconil fungicide, future control of CBD should be exercised using the former material, but only after current stocks of Daconil have been exhausted;

Coffee Leaf Rust

Annex 7, section A, para 87
As regards CLR:

(a) since the presently planted CBD resistant selections are not CLR resistant a coffee breeding research programme is required to introduce CLR resistance with the objective of producing national coffees of high yield and quality with both CBD and CLR resistance;

(b) that the CLR unit should be more logically located geographically, should be closely integrated with breeding and pathology research within an effective national coffee research institute and should be provided with reasonable standards of accommodation, laboratory equipment and office furniture under the next phase of the CIP. Co-ordination should be with the implementation of the long-term TA plant pathology and breeding inputs; and

(c) rapid action is taken to identify and develop a control for the dieback condition in the Hararghe coffee region by (i) bringing in at the earliest opportunity a specialist consultant from, for example, the CAB International Mycological Institute, London for a short diagnostic visit (two weeks) to identify the causal agent, indicate likely control measures and outline a practical research programme, and (ii) establish at the earliest opportunity the long term TA plant pathology input to make any necessary investigation, as soon as an independent national coffee research institute has been established;

C. Extension

Extension Approaches

Annex 7, section B, para 5
In terms of the present approaches to extension:
extension staff at all levels starting with the SMS's, be tutored in simple explanatory basic plant science as it applies to the "why" of pruning, handling, desuckering, shade tree cover and management, weed control, etc. The teaching should be simple, basic and straightforward so that the Development Agent is able to put the explanation across to the farmers. This can best be achieved by providing a short term TA input of 2 x 4 to 6 weeks/year over 2 to 3 years. The TA should be an experienced arabica coffee agronomist with internationally wide coffee experience and knowledge who would tour in the CIPAs with the extension staff giving some classroom and much practical field tuition relevant to current agronomic field recommendations; and

the Development Agent working with the Contact Farmer should employ widely an On Farm Co-operative Demonstration (OFCOD) approach whereby he and the farmer jointly apply the recommended treatment to a number of coffee trees so that the Contact and Follower farmers can observe results for themselves. This approach is not currently used in the field at all as far as could be ascertained;

Coffee Demonstration Sites

Annex 7, section B, para 9
In order to improve the effectiveness of coffee demonstration sites:

(a) yield data from the CBD resistant cultivars in the treatment plots on these sites be examined carefully to compare main treatment effects. To enhance data reliability it will be necessary to classify sites by coffee age, selection, shade level and regularity, altitude and any other specific variables;

(b) standard pruning and shade control must be carried out and maintained regularly to all pruned plots on any one site and over all the sites;

(c) where sites have spare coffee trees available the effect of an anti-leaf fall Copper tonic spray should be evaluated (± 30 sprayed trees) by tagging leaves and recording leaf life ± spray. The spray should be applied in May after strong leaf growth has occurred; and

(d) for future demonstrations consideration should be given to modifying some of the existing treatment comparisons to provide for a comparison between the farmers' practice, the full package of recommended practices (weeding, uniform pruning, handling, desuckering, even light controlled shade well cup up) with fertiliser, without fertiliser and with a green legume crop in the interrow, a total of five plots. A sufficient number of such demonstrations should be started in the same year to provide replication by year and with time, e.g. say at 11 sites. Since coffee tree age varies greatly between sites all the coffee should be of one field age or two different field ages at the very most;
Coffee Manuals

Annex 7, section B, para 12
Work on these two manuals be undertaken at the earliest opportunity. It might be undertaken by local specialists with an external editor or by specialised inputs of technical personnel funded from the project;

Field Coffee Surveys

Annex 7, section B, para 13
In future two classes of planted and two classes of stumped coffee are recorded;

Horticultural Crops

Annex 7, section B, para 21
A short term TA specialist input be made during 1991/92 to review achievements, identify and prioritise problems, e.g. farm storage, quality, marketing and propose future tactics for specific crop developments and training. It may be desirable to review current research programmes for these crops in relation to field problems. For this as for other short term TA inputs there may be the possibility of seconding personnel from one of the PADEP's or by local recruitment;

Home Economics

Annex 7, section B, para 24
To make the extension messages more effective:

(a) this programme should be strengthened. For this purpose a short term advisory TA input by an experienced rural home economist would be beneficial;

(b) one or two degree training scholarships are offered to improve in house technical input to this subject;

Soil and Water Conservation

Annex 7, section B, para 28
A straightforward set of recommendations to be followed for all newly planted coffee areas is as follows:

(a) all narrow-base contour terraces should be level not graded;

(b) on slopes less than 10 percent:

(i) plant coffee in straight lines across the slope,

(ii) apply grass mulch (or other organic mulch) across the slope in strips along every second coffee line, or around individual trees. Slash or weed but leave the slashed weed growth in every other interrow during the rains to act as an erosion barrier, and
(iii) if intercropping is practised crop residues should be left as a surface mulch and the soil disturbed as little as possible;

(c) on slopes of 10 to 20 percent:

(i) construct narrow base level contour terraces at appropriate intervals (see (e) below). Either strip mulch along the contour coffee rows or individual tree mulch the coffee and leave strips of slashed weed growth between every coffee row during the rains. When the coffee is mature and with strip mulching along the rows, the contour terraces do not have to be maintained.

(d) on slopes of more than 20 percent:

(i) as for (c) except that strip mulching is even more important and narrow based contour terraces must be permanently maintained, especially during the rains. Slashed interrow weed strips must be left to prevent soil wash and to enhance water conservation;

(e) as a simple general guide vertical intervals between narrow base contour terraces should be:

10% slope - 1.2 metres vertical interval,
15% slope - 1.5 metres vertical interval,
20% slope - 1.8 metres vertical interval;

(f) with slopes greater than 30 percent it is necessary to step-terrace the land (broad based terraces) on the contour. The steep slope of the terrace should be planted with a suitable stabilising grass such as vetiveria; and

(g) on no account should extensive slopes greater than 50 percent be cultivated;

D. Coffee Research

Coffee Research Direction

Annex 8, section B, para 4
As regards coffee research under CIP III:

(a) all funds for research under CIP III are frozen until there is agreement to and establishment of an independent autonomous Ethiopian Coffee Research Institute with full control over its funds, policies, staff programme and all sub-stations. The autonomy was and is a special condition of the CIP III Financing Agreement. The freezing would affect all research investments as set out in the Financing Agreement except the completion of Phase I on the Areka Sub-Station;

(b) when agreement is reached in (a) top priority is given to obtaining three experienced, qualified, internationally recruited technical assistance inputs in Coffee Breeding, Coffee Agronomy and Coffee Pathology to
head up these departments, for a minimum period of three years each. This is partially provided for in the Financing Agreement;

(c) in addition a fourth three year technical assistance input is secured to fill the post of Research Director. This position requires a strong, qualified and experienced coffee researcher/administrator who can initiate, establish, mould, organise and manage the institute, guiding it through the formative years; and

(d) the director of the new institute through the Coffee Research Advisory Committee and in the knowledge of the Board of Directors, will require funds for short term specialist inputs from time to time;

Areka Research Station

Annex 8, section B, para 7
Areka Sub-Station is deleted from any participation in CIP funded coffee research activities;

Coffee Research Working Relationships

Annex 8, section B, para 8
For the benefit of future coffee research strong working relationships are fostered between the new independent coffee research institute, university and college science departments for the benefit of joint research and development, e.g. study of the boron status of coffee in the CIPAs and of perennial grass root exudate antagonism with coffee root development, as potential Ph.D studies. It is of course basic and understood that close working relationships exist between coffee research and extension services;

Coffee Leaf Rust Research

Annex 8, section D, para 4
The Team believes that CLR is becoming a problem of sufficient seriousness in some areas and recommends that:

(a) the work of the CLR centre should be re-integrated into the coffee research programme of the independent national institute;

(b) consideration be given to a new, less cramped location;

(c) that improved facilities, equipment and furnishings are provided for the work of this centre and the housing of the valuable coffee varieties/differentials; and

(d) these changes should be co-ordinated with the technical assistance officer (Plant Pathology) input to research;

Plant Genetic Resource Centre

Annex 8, section E, para 2
Under future breeding studies and when the technical assistance breeder has taken up
his post, funds should be provided for an upgraded standard of maintenance of this collection. Furthermore, and in the interests of the nation's coffee industry, a coffee genetic research conservation strategy, already initiated, should be implemented as soon as possible;

E. Procurement and Civil Works

Civil Works Procedures

Annex 9, section A, para 10

Given the bottlenecks in procedures the following proposals are made:

(a) that the National Authorising Officer should chair a series of three one-day workshops on all aspects of EDF procedures relating to works and supply contracts including the acceptance stage for supply contracts and the procedures for interim payments through to the final payment for works contracts. The workshops should be attended by representatives of all the parties interested in the success of the CIP programme, namely the EEC Delegation, PCDPID (including Heads of Planning, Engineering, Logistics and Finance Sections), IAR and AID Bank. The suggested outline for the first two days is a major presentation by the EEC followed by shorter papers presented by each of the participating organisations (three papers in the case of PCDPID) on how EDF procedures are dealt with in practice. A final paper on the second day by the NAO. The third session, which could be a week later than the first two (consecutive) days would be a general discussion among all the participants on the problems brought to light and on an agreed common approach to solving them. Representatives from BATCODA and MCTD should also be invited to attend.

This series of workshops will give all parties the opportunity of becoming more familiar with EDF procedures, improve the working relationship between participants and reduce avoidable delays in the future programme implementation. The workshops will also give the EEC the opportunity to explain the new EDF General Conditions due to be implemented after 1st July 1991, and includes coverage of procurement procedures by international tender as well as civil works contracts because, although procurement procedures are better understood than works contract procedures, there is still much room for improvement. AID Bank will need procurement advice to implement the credit programme on coffee processing; and

(b) the Programme Co-ordinating Committee, as stipulated in the Financing Agreement, should be established under the Vice Minister MCTD. It should consist of senior managers (or their representatives) from all the implementing agencies - PCDPID, the Coffee Research Institute and AID Bank plus representatives from the EEC Delegation and the NAO. Regular monthly meetings should be held which will include on the agenda progress reports and minuted agreed actions.
Had this proposal been implemented from the beginning of CIP III the delays that have affected the civil works and hulleries programmes would have been reduced. At this (relatively late) stage of CIP III implementation there remain very substantial work programmes, programmes which will benefit considerably from regular communication and an exchange of ideas between the different implementing agencies;

**CIPA Offices and Stores**

Annex 9, section B, para 8

As regards future construction on CIPA offices and stores:

(a) the Fisseha Genet construction programme be completed taking into account the current variation of contract request, the boundary fencing and the hard-standing area; and

(b) invitations to bid be submitted to suitable contractors (on a restricted tender basis) for Limu Kossa 1 and Limu Kossa 2 offices and stores. This is an urgent matter since the funds for construction should be committed by the end of 1991. The contract time for completion should be limited to 270 days;

**Headquarters Building**

Annex 9, section B, para 17

The proposals for the headquarters building are that:

(a) negotiations between MCTD/PCD PID and Addis Ababa Municipality should continue, with a view to establishing clearly the following points:

(i) the Municipality is prepared to allow the building work to progress in three phases with the three-storey block adjacent to MCTD'S building being built as phase one,

(ii) the Municipality will pay the full construction costs of those parts of the three-storey block over which it claims ownership plus the relevant proportional costs of the foundations and basement car park (full costs include design and supervision costs), and

(iii) that payments by the Municipality will be made in instalments as building proceeds; and

(b) dependent on a satisfactory outcome of the negotiations in the first proposal, the tender procedure for selecting a consulting engineer can proceed, with the successful bidder producing the preliminary and final designs for phase one only;
Areka Research Station Construction

Annex 9, section C, para 10

Proposals are as follows:

(a) Areka phase one be completed so that the research centre can be occupied by IAR staff. This will involve:

(i) IAR proceeding with a Variation of Contract order for the above groundwater distribution system, septic tank and site electrical distribution, and

(ii) IAR initiate a restricted tender (or make a direct agreement with an EEC approved contractor) for Areka’s borehole drilling, according to EDF procedures and without delay;

(b) the whole of the balance of the IAR programme (including the supply of vehicles, agricultural machinery and equipment as well as the civil works) be postponed until the issue of an autonomous Coffee Research Institute is satisfactorily resolved; and

(c) any further site work at Areka (beyond the phase one proposals above) should be subject to an analysis of Areka’s work programme and its contribution to coffee research, as opposed to other crops. Such an analysis should be submitted to the EEC to justify any further investment;

Coffee Processing Facilities

Annex 10, section C, para 1

The proposals for investments in coffee processing facilities using the Special Loan facilities are that:

(a) AID Bank and the EEC should proceed with the preparation and signing of a financing agreement for the loan component of CIP III regarding coffee processing;

(b) AID Bank should receive institutional support as detailed in the ITAD Draft Credit Programme Report of January 1990.

   Estimated cost  
   ECU 305,000;

(c) AID Bank should receive ECU 1,000 for each of the proposed compact hullers to offset the costs incurred in the selection of customers. This amount will cover the considerable transport and accommodation costs for ADB Bank staff who will have to make site visits and financial assessments of an estimated one hundred potential huller customers.

   Cost 25 x ECU 1,000  
   ECU 25,000;
(d) 20 one-tonne, four wheel drive diesel pickups and 7 ten-tonne 2x4
drops side trucks be procured by international tender as support vehicles
for the estimated 20 Pinhalense hullers which will operate in CIP areas.

There are a number of EEC manufacturers who can supply suitable
vehicles, e.g. (Landrover for pickups, Mercedes Benz and Fiat for both
trucks and pickups). Tender evaluation should give emphasis to the
existing population of similar vehicles in the country and the availability
of spare parts from local agents.

Estimated cost
- 20 x pickups (including 10 percent spare parts) at ECU 25,400 ECU 508,000
- 7 x 10-tonne trucks (including 10 percent spare parts) at ECU 51,700 ECU 361,900;

(e) 25 compact hulling units be procured by international tender according
to the specifications given in this Annex.

Compact hulling units are manufactured by Paul Kaak in Germany.
Another possible supplier is Denlab International from the U.K. A
detailed guide price has been obtained from Paul Kaak.

- 25 compact hullers at ECU 69,700 each ECU 1,742,500;

(f) The factory/stores buildings to house the hulling units should be built
using conventional building practices as opposed to prefabricated
buildings. However, certain building materials (galvanised sheets,
reinforcing rods, nails) which are in short supply in Ethiopia should be
procured by international tender.

The pack of imported building materials for each hullery (as detailed
earlier in this Annex) is estimated to cost ECU 6,800. The overall cost of
construction including the imported items is estimated at ECU 135 per
square metre or ECU 40,500 for the 30m x 10m building.

- For 25 buildings the cost is ECU 1,012,500;

(g) 25 one-tonne four wheel drive diesel pickups and 8 ten-tonne 2x4
drops side trucks be procured by international tender as support vehicles
for the proposed 25 hullers.

Estimated costs:
- 25 x pickups (including 10 percent spares) at ECU 25,400 ECU 635,000
- 8 x 10-tonne trucks (including 10 percent spares) at ECU 51,700 ECU 413,600;

(h) seventeen sets of 130 tonnes/annum washing station machinery be
procured by international tender. Specifications as for CPMP II stations
(Annex 10, Table 4)

- seventeen sets at ECU 27,100 ECU 460,700;
(i) **34 one-tonne four wheel drive pickups should be procured by international tender as support vehicles for the washing stations.**

Estimated cost 34 x pickups (including 10% spares)
at ECU 25,400  
ECU 863,600.

**Aerial Surveys and Mapping**

Annex 11, section A, para 10

It is proposed that:

(a) invitations to tender be submitted to suitable aerial survey companies on a limited tender basis for the stereoscopic aerial photography of 5 million hectares at a scale of 1:20,000;

Some suitable EEC based organisations able to undertake the aerial photography are:

- French National Mapping Agency (IGN), Paris
- Hansa Luftbild, Munster, Germany
- KLM Aero Karta, Holland
- Cartographic Services (Southampton), United Kingdom

Bidders would need to know the number of separate areas to be photographed and their location. The successful bidder would co-ordinate its programme through the Ethiopian Mapping Authority and produce two sets of photographic contact prints plus a set of flight index diagrams. Given favourable weather the estimated time for the actual survey is six weeks, followed by a four week period for developing and printing. The estimated cost for a 1:20,000 5 million hectare survey is ECU 550,000, a figure which includes the cost of aircraft mobilisation;

(b) the Ethiopian Mapping Authority be commissioned to produce new land-use maps based on the 1:20,000 aerial survey for all 15 Awrajas. The time required for this exercise would be nine months at a estimated cost of 10 Birr per square kilometre. 33,000 square kilometres would cost 330,000 Birr or ECU 118,000. The time required to produce all the maps would overrun into 1992 but the commitment of funds would be in 1991;

(c) the Ethiopian Mapping Authority be made aware of PCDPID's interest in the topographic maps for W. Harargie so that the EMA can schedule their production accordingly;

(d) four complete sets of 1:50,000 topographic maps for the CIP areas be purchased from the EMA, plus the missing maps from the Planning Team's collection.

Allocation of these topographic maps is suggested as follows:

- one complete set for the Agronomy/Extension HQ Section
- one regional set for each Regional Office
- one set of local maps distributed to each CIPA/Awraja Office
- one set for field use by CIPA extension staff

Cost of these topographic maps is ECU 1,000.

(c) the Ministry of Agriculture Mapping Unit be commissioned to produce land suitability classification maps for two Awraja’s on a 1:20,000 scale.

This would be a pilot exercise to decide the mapping requirement during a possible CIP IV. Suggested Awraja’s with contrasting conditions are Kossa and Daro Lebu. The estimated cost (Birr 20 per square kilometre) for these two Awraja’s would be Birr 143,000 or ECU 51,000. Given the Mapping Unit’s other commitments during 1991, two awraja’s is a feasible workload. The finished maps and accompanying reports will be ready by the end of 1991 (assuming that the aerial photographs and EMA’s land use maps for these two Awraja’s be available by the end of June 1991);

F. Planning, Monitoring and Evaluation

Target Setting

Annex 12, section A, para 5
Targets are set (even if unofficially) which:

(a) are considered desirable and attainable for the success of the Project;

(b) will enable Project management and EEC staff to re-allocate resources in the most efficient manner; and

(c) will ensure the follow on Project is prepared in time so that there is no discontinuity between it and CIP III;

Data Collection

Annex 12, section B, para 16
Changes should be introduced as follows:

(i) the systems changes which will allow simplification and reduction of work required for regular reporting continue, particularly on the monthly forms; and

(ii) meetings are held with the local non-Departmental bodies requiring information, and agreement reached on the standardisation of reporting possibly using the existing internal forms;

Surveys

Annex 12, section B, para 21
As regards surveys:

(a) yield assessment surveys, which do not include checking harvests to
measure actual yields, should be amended to do so, if necessary, from demonstration plots; and

(b) a national coffee production survey should be initiated similar to the surveys of 32 and 95 coffee growing woredas conducted in earlier years. The survey should be as national as possible and not limited to the MCTD areas;

Annual Reports to the EEC

Annex 12, section C, para 6
As regards annual reports:

(a) before an Annual Report is prepared (usually October each year) the EEC Delegation should meet Project management to agree on the format and contents of the Report;

(b) after receipt of the Annual Report the EEC Delegation should review its results with CIP management. This may require further follow up by the latter. A forum for this will be the Programme Co-ordinating Committee (Annex 6); and

(c) a regular annual supervision mission of the Project should be carried out by the EEC some six months after the issue of the Report (April/May of each year). Each mission should contain members with the relevant technical expertise;

G. Inputs and Credit

Storage of Inputs

Annex 13, section A, para 7
As regards storage of inputs:

(a) all imported items should be checked for quality and expiry date before they are provisionally accepted and despatched to the Regions. Where specifications are inadequate, provisional acceptance should not be issued; and

(b) where items in the Regions are suspected of being time expired then samples should be brought to Addis Ababa and checked in the laboratory. If these are found to be so then the items can be disposed of at designated locations in accordance with Government regulations;

Credit Systems

Annex 13, section B, para 12
In order to improve the existing credit system:

(a) properly qualified and experienced credit management should be engaged. This would be done by seconding or hiring at least one manager from another credit institution or by offering employment to a
recently retired bank officer. In the Mission’s opinion it is not sufficient, as has been recommended by the Department, to provide only short term training and study tours to the existing manpower. This is because, given the timeframe a person, with the necessary experience and background, is required immediately; and the Mission’s conclusion that short term training (presumably overseas) and study tours in particular are poor value for money (see Annex 6, section E);

(b) requiring the new appointee(s) outlined in (a) above to establish as a minimum those items mentioned in Annex 13, section B, para 10 above. Included in this will be a review of the credit process, in particular whether or not PAs should remain part of the credit chain, with proposals for a new credit chain if deemed necessary and the requirement for SCs to repay loans irrespective of whether or not the PA has paid the SC; and

(c) strengthening the credit collection capacity at those Awrajas where overdues are highest. PCDPI Department has pointed out the reasons for some of the overdues and these are accepted. However, the contentions that "the Project has laid out its own ways and means of collecting these repayments from each individual" and "all individuals have committed themselves to repay the loan according to PCDPI’s time schedule" is no substitute for a professional and well managed approach to credit. This will include more intensive credit collection efforts in those areas where overdues are highest;

Credit Conditionality

Annex 13, section B, para 13
Any future EEC Project in coffee in which there is a credit component should precondition effectiveness of the Project on conclusion of credit arrangements with a recognised credit institute. These arrangements are normally concluded through a Subsidiary Loan Agreement;

H. Co-operative’s Viability

Co-operative’s Viability

Annex 14, para 8
In order to ensure Co-operatives, whose future viability is in doubt, can be turned around:

(a) the Co-operative Promotion, Audit and Credit Team at the field level should collectively review the situation of each Co-operative at least quarterly taking into account (i) Co-operative Organisers past and most recent knowledge of each Co-operative, including their most recent management accounts, (ii) past and most recent audit reports, and (iii) the current credit position of the Co-operative including status of arrears. In order to accomplish this it is important that the accounting, auditing and credit situation is current and up to date;
(b) Co-operatives identified as having potential problems should then be investigated in more detail by the Co-operative Organiser in order to identify whether or not a particular Co-operative is in difficulty and if so the nature of the problem; and

(c) once a Co-operative is identified as potentially weak intensive procedures should be brought into force through special (management) audit. In addition members in General Meeting should be informed of the problem, situation and the causes at the earliest opportunity as well as the necessary steps to be taken to correct the problem. This will involve concentrated action by the Co-operative Officer and may even require Co-operative Officers of specific abilities to be selected to supervise the remedial measures;

I. Coffee Taxation

Coffee Taxation Policy

Annex 15, section B, para 14
A fixed ad valorem tax should be imposed at a rate which would ensure a given percentage of the FOB price for both sundried and washed coffee producers - in the mission's opinion no less than say 65 percent. This would provide an incentive to producers to expand their coffee production, and for washed coffee producers there should be a change to a daily announced price for delivery of cherry to washing stations as is the present case for sundried coffee producers;

J. Accounts and Audit

CIP Audits

Annex 17, section B, para 2
In order to catch up on past years audit of CIP accounts the EC 1981 (1989) accounts should be given to the Audit Services Corporation by end February 1981 and the EC 1982 (1990) accounts should be submitted by no later than end May 1991;

CIP Audit Report

Annex 17, section B, para 4
Steps are taken as a matter of priority to resolve those items still outstanding in the 1987 audit report, as well as any other items that may have subsequently arisen;

K. Other Topics

Revolving Fund

Annex 17, section A, para 3
As regards disposition of balances in the Revolving Fund:

(a) collections on account should be deposited to the Revolving Fund bank account no later than three months after receipt. It is understood that efforts will be made to improve the existing situation;
resolution of the dispute with AID Bank should be a priority based on the established positions. The accounts should then be adjusted;

in view of the inability of the Central Bank to provide foreign exchange then the amounts should either earn interest at the prevailing rates (by deposit with CBE) or discussions held with the EEC to utilise the amounts elsewhere; and

further to (c) above the possibilities for utilisation of the funds include -

(i) provision of local costs for farmers to buy locally manufactured tools and improved seeds (from ESC) for food crops,

(ii) local costs of nurseries which are subsequently recovered from farmers,

(iii) purchase of horses and mules including saddles for DAs,

(iv) demonstration materials for use with farmers, e.g. carts, ploughs, etc., and

(v) payment for access roads for washing stations (such roads will not be charged to Co-operatives under the AID Bank credit component); and

Computerisation

Annex 18, section B, para 3
Training should be undertaken and remaining funds utilised for the purchase of further calculating equipment, computers and software to assist:

(a) the Planning Team at Headquarters in the compilation of regular reports. This will require computers and software;

(b) the Planning Team in the field for assisting in their day to day work. This will require calculating equipment (a pocket calculator for each member of staff and one adding machine with paper roll for every two staff). It is not envisaged that computers will be stationed in the field; and

(c) the Finance Division at Headquarters, initially at least for the preparation of the payroll and debtors ledger. This may be extended to a complete accounting package. Provided the Division can gain exclusive use of the existing Wang equipment then software will be required. Otherwise a computer and software should be procured.
4. USE OF REMAINING FUNDS

Introduction

4.1 This is presented in summary form. Details are set out in Annex 19.

Uncommitted Balances

4.2 A calculation of uncommitted balances shows the following:

<table>
<thead>
<tr>
<th>Calculation of Uncommitted Balances</th>
</tr>
</thead>
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<tr>
<td>EDF</td>
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<tr>
<td>Special Loan &lt;(ECU'000s)---</td>
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<tr>
<td>Grant      &gt;</td>
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<td>Government Recurrent Costs</td>
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<table>
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<th>Per Financing Agreement</th>
<th>9,600</th>
<th>28,500</th>
<th>11,900</th>
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<tr>
<td>TOTALS</td>
<td>9,600</td>
<td>11,776</td>
<td>14,195</td>
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</table>

Strategy

4.3 The strategy for the remainder of the Project should be to maximise investments in coffee production according to farmer demand and not artificially restrict the latter according to a schedule of utilising funds over the full five year Project life.

Results

4.4 If this is done it is concluded that under the assumptions made, CIP III funds should be exhausted towards mid 1992 (the end of Project Year 4) as the following table shows. Based on calculations to 31.12.91 the unallocated EDF fund is ECU 2.4 million. This will be exhausted before mid 1992.

4.5 Consequently steps should be taken immediately to formulate the next Project.

4.6 Concurrent with that and bearing in mind the likely course of the existing Project the following steps regarding coffee seedling prices should be carried out:

(a) seedling unit prices to be increased to Birr 0.12 in EC 1983 (1990/91) and annually thereafter so that a farmer pays full cost by end EC 1985 (1992/93); and

(b) contract farmers should benefit from these cost increases by receiving similarly higher payments for seedlings produced by them.
### Allocation of Remaining Funds

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<th>DESCRIPTION</th>
<th>Civil Works</th>
<th>Agricultural Works</th>
<th>Training Equipment</th>
<th>Aerial Survey</th>
<th>Recurrent Costs</th>
<th>TOTALS</th>
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</tbody>
</table>
NOTES
1/ As per Financing Agreement
2/ at rates prevailing at time of transaction
3/ See Annex 16. Converted at current exchange rate - Birr 2.8 = ECU 1
4/ Represents loan - items financed including contingencies are:
   - 25 hulleries plus supporting vehicles, support vehicles
   for AOF funded hulleries, 17 washing stations plus support vehicles,
   institutional support for AID Bank, professional fees
Access roads for washing stations assumed financed out of Revolving Fund
5/ See Annex 21. Provided out of EEC Project formulation funds (approximate
   cost ECU 375,000 to ECU 400,000)
6/ Assumed commitment for 3 storey building adjacent to Ministry Annex 5). Amount
   represents MCTD share of costs (approx. 1/3rd) - remaining 2/3rds financed
   by Addis Ababa Municipality. Figures include 15% contingencies
7/ See Annex 11. Includes 15% contingencies
8/ See Annex 7. Figures include 15% contingencies
9/ Based on Planning Team's assumptions
10/ Assumed that GCE's recurrent cost allocation unavailable for reallocation to
    other cost categories. Therefore assumed fully utilised in this category
11/ Balance available to fund Project into the end EC 1984 (early part of 1992)
5. OPTIONS FOR FUTURE EEC SUPPORT IN THE COFFEE SUBSECTOR

Introduction

5.1 A more detailed discussion of this is set out in Annex 20. A summary of the options are set out here.

Alternatives

5.2 The Evaluation Team examined alternatives as to the breadth and scope of proposed future EEC involvement. The alternatives are as follows (which are not all mutually exclusive and which may be used in certain combinations):

(a) (i) maintain the area scope of the existing Project; or
(ii) expand the area scope by moving into new CIPAs;
(b) (i) expand the intensity of the existing Project by making the new Project similar to an area development Project; or
(ii) maintain the existing concentration on coffee; and
(c) (i) move out of coffee production into coffee processing and/or marketing; or
(ii) stay with coffee production.

5.3 Taking these in reverse order; as regards (c) above the opportunities for large scale expansion into coffee processing and/or marketing are limited and hence these investments are not viable alternatives. Looking at (b) the decision should be based on the lessons learnt from the existing Project. The conclusion is that the practices used in growing of coffee need to be improved. An Area Development Project would work against this objective, the success being limited when measured in CIP III even when the wider scope was not present.

5.4 Thus, taking (a), the question arises as to what extent, if any, should area expansion be included by taking in new CIPAs. Looking at the areas involved it is the Mission’s conclusion that rationalisation of areas is important from the EEC’s point of view. Thus, if there is to be an area expansion then it should be concentrated as much as possible in a few Regions only. It is recommended these be restricted to Sidamo, Illubabor and West Harargie. This will result in an increase in CIP Awrajas from 15 to 18. This number is determined by dropping Ghimbi (Wollega) and Anfillo (Gambella) Awrajas, and adding Dadesse and Limu Seker (Illubabor), Arbe Goma and Shebedino (Sidamo) and Mansella (West Harargie) Awrajas. A possible 19th Awraja to be included is Hagare Mariam in Borena.

Guidelines for the Next Project Formulation

5.5 It is beyond the scope of CIP III to define the scope of the next Project. However, the Evaluation Team has drawn up a set of guidelines for the latter’s preparation. These are as follows:

(a) the Project should be manageable in size which will involve ensuring that organisational arrangements can be put into place to ensure satisfactory implementation. In this regard Project co-ordination will need to be looked at, in particular whether or not there is a need for a staffed Co-ordinating
Committee. This will depend in part on the number of implementing institutions. Also specific institutional support should be clearly outlined at that time;

(b) the Project should concentrate on as few crops as possible and on those the Project staff knows best, i.e. coffee;

(c) where coffee interacts directly with other crops, e.g. intercropping in Harargie, then these crops should be included in the Project;

(d) coffee should not be looked at only from the point of view of production but also from the processing and marketing aspects. If it is decided to go ahead with marketing aspects there will be a need, if not already done so by then, to establish the national and local hulleries situation as regards over capacity. Further the net value added through washing coffee should be determined in different areas including, where economically justified, the ability to satisfy the aspirations of those with smaller amounts of coffee to wash;

(e) coffee research, identified as being in a critical state at present, needs to be improved considerably, provided, of course, that the institutional arrangements are in place by then. It should be a precondition of the next Project that the proposals for the autonomy of coffee research outlined in Annex 8 are in place prior to Project effectiveness;

(f) environmental concerns should be looked at in the areas covered. This should cover not only coffee production and processing (a particular problem here is washing stations effluent) but also the environmental damage caused by the farming systems in which coffee plays an important part;

(g) credit will play an important role and it will be necessary to ensure that there is a Subsidiary Loan Agreement signed with a recognised credit institution prior to the start of the Project;

(h) the arrangements for input distribution will have to be reviewed as indicated in Annex 13; and

(i) because the main output of the Project is likely to be coffee production, desired policy reforms on coffee pricing and taxation should be clearly set out along the lines indicated in Annex 15.

5.6 On the basis outlined above the Mission concludes that the next Project should proceed into the feasibility stage.
## Timing of Project Formulation

5.7 The steps to be taken and the proposed timetable is as follows:

<table>
<thead>
<tr>
<th>Steps to be Taken</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) (i) Project profile to be prepared by Project staff for ONCCP</td>
<td>To be submitted no later than end February 1991</td>
</tr>
<tr>
<td>(ii) Project profile to be reviewed by ONCCP, then passed through NAO</td>
<td>To be submitted to EEC no later than end March 1991</td>
</tr>
<tr>
<td>(b) (i) Project Formulation steps initiated</td>
<td>To be started in February 1991</td>
</tr>
<tr>
<td>(ii) Joint Evaluation Team Fieldwork</td>
<td>To be started no later than mid April 1991</td>
</tr>
<tr>
<td>(iii) Government submission of Project to EEC.</td>
<td>To be submitted to EEC no later than end September 1991</td>
</tr>
<tr>
<td>(iv) EEC to approve Project</td>
<td>To be approved no later than mid March 1991</td>
</tr>
<tr>
<td>(v) Government to fulfil conditions of effectiveness</td>
<td>To be completed no later than end June 1992</td>
</tr>
<tr>
<td>(vi) Start of Project</td>
<td>To commence start of EC 1985</td>
</tr>
</tbody>
</table>

5.8 The above timetable will allow a smooth transition from CIP III to the new Project, whilst at the same time ensuring that there is a significant completion of the outstanding commitments under CIP III.