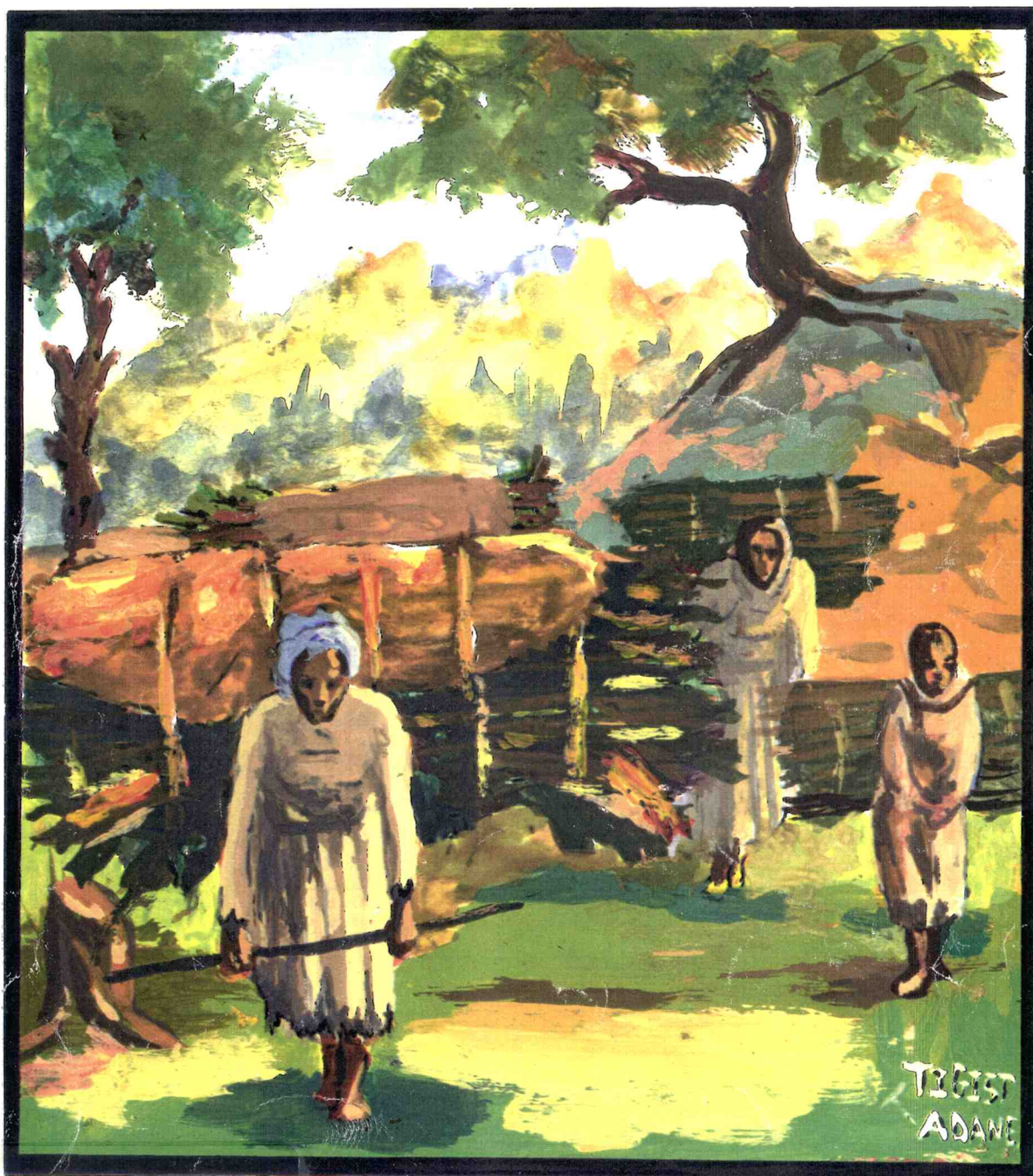


WOMEN FUELWOOD CARRIERS IN ADDIS ABABA AND THE PERI-URBAN FOREST

**Report to International Development Research Centre (IDRC)
and
National Urban Planning Institute (NUPI)**



by Fekerte Haile

International Labour Office

Geneva

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Abbreviations

ADF/FPP	African Development Fund/Fuelwood Plantation Project
BTLB	branches, twigs, leaves and bark
CIDA	Canadian International Development Agency
CSO	Central Statistics Office
CFPME	Construction and Fuelwood Production and Marketing Enterprise
CEPPE	Cooking Efficiency Programme Planning in Ethiopia
DELTA	Development Education Leadership Teams in Action
EBirr	Ethiopian Birr
FAO	Food and Agriculture Organization
FOB	Free of board
FAWCDA	Forestry and Wildlife Conservation Development Authority
GJ	Giza joule
GOE	Government of Ethiopia
HASIDA	Handicrafts and Small Scale Industries Development Authorities
ha	hectare
IDRC	International Development Research Centre
ILO	International Labour Organisation
kg	kilogramme
km	kilometre
l	litre
m ³	cubic metre
MOA	Ministry of Agriculture
NUPI	National Urban Planning Institute
PAs	Peasant Associations
sq.m	square metre
UNDP	United Nations Development Programme
UDAs	Urban Dwellers Associations
WB	World Bank
WFCs	Women fuelwood carriers
Currency: 1 Birr = 0.52 US\$	

Summary

This report presents the findings of an action-research project to assist women fuelwood carriers in Addis Ababa, Ethiopia. It was carried out by the International Labour Office (ILO) in collaboration with the National Urban Planning Institute (NUPI) between June 1988 and April 1991. The project was financially supported by the International Development Research Centre (IDRC), the Norwegian Government, the Canadian International Development Agency (CIDA) and the ILO.

The city of Addis Ababa requires large amounts of fuelwood to satisfy its energy needs. Women and children backloading mostly branch-wood and leaves into town supply about one-third of the requirements. In spite of the extremely arduous work, they have very low incomes and belong to the most disadvantaged sections of society. For want of alternative livelihoods, the women contribute to the depletion of the peri-urban forests of Addis Ababa. Guarding and harassment have been ineffective in dissuading the women from pursuing their illegal activity.

The project set out to develop interventions that would help to alleviate or resolve this conflict. It carried out studies to complement and cross-check available information on the fuelwood carriers and the supply of the city and in parallel to set up self-help groups for women to enable them to improve their present situation.

Attitude studies among fuelwood carriers showed that they are conscious of the present over-use of the resource as well as of the need for forest conservation. A revised estimate puts the number of urban-based fuelwood carriers at well over 10,000 women and children. Earlier findings on high loads and long distances were confirmed: women were found to walk 30 km on average (round trip) and to carry an average load of 30 kg. Studies of the fuelwood supply system (not under the project) suggest that human and animal transport are very competitive and would probably continue to play an important role, but the former would only be acceptable if the drudgery of the work could be alleviated.

Socio-economic surveys revealed that about half the carriers had been on the job for 1-9 years only. More than 40 per cent are below 20 years of age. Migration is a major reservoir of new entrants into the occupation. About 60 per cent of the carriers are the heads of their respective households. Education levels are low: almost three-quarters of the carriers are illiterate. Housing, water supply, access to health services and child care facilities are all extremely poor.

Of an average working day of 10 hours, about 7 hours are spent fuelwood gathering and carrying. The monthly expenditure of a household ranges between 24-54 EBirr and averages 37 EBirr (US\$18).

Four self-help groups were set up in neighbourhoods with a concentration of fuelwood carriers. Initially, 181 women registered. After some drop-outs early in the project, stable groups with more than 160 members have remained with the project to date.

The groups went through a process of communication training, problem analysis and identification following a methodology adapted by the project from various pedagogical concepts. They then proceeded to proposing possible interventions that would solve their problems and to examining the feasibility of these interventions. Role plays and drama were used extensively during these stages.

Interventions proposed by the women all aimed at finding an alternative occupation. Project staff assisted in examining the viability of the proposals. For the income-generating activities the women aspired to, the project assisted in arranging training, in obtaining equipment and in acquiring land. These activities are grain-grinding, soap-making, vegetable farming and beekeeping with ornamental plant production. Land acquisition proved to be a major obstacle because of long administrative procedures. As a result, interim activities had to be initiated that would provide the women with a bridging source of income until the original proposals could materialise. The interim activities include spinning, weaving, carpet-making, basket-making and the manufacture of wooden stools.

While project experience suggests that alternative sources of income can be developed, it is also clear that these will have to be complemented by a lasting solution on the forestry side. Unless the carriers are integrated into forest management and harvesting in an orderly and legal fashion, intolerable working conditions and forest degradation will continue because new carriers will take the place of those transferred to other jobs.

Because of this and because administrative procedures for alternative employment opportunities have to be streamlined to make a replication of the project strategy feasible on a large scale, the project actively pursued a policy dialogue and attempted to disseminate its findings as widely as possible. Project experience suggests that a two-pronged strategy of developing alternative jobs and making fuelwood carrying part of a sustainable forest management and fuelwood supply system is the only solution to the present conflict between basic needs and resource conservation.

The approach through self-help group formation is viable. The project drew up a proposal for a large-scale follow-up using the research project's approach and experience. This proposal, calling for US\$1.23 million for a first three-year phase, is at present under consideration by a potential donor.

1. Introduction

1.1. Background

1.1.1 *The situation*

With more than 42 million inhabitants and a surface of 1.22 million square kilometres, Ethiopia is the third largest African country in terms of population and the ninth largest in terms of area. The country is one of the poorest in the world, belonging both to the group of least developed countries (LLDC) and to those most seriously affected by the sharp rise in oil prices in the mid-1970s (MSAC).

For about 95 per cent of its energy supply, Ethiopia depends on biomass, i.e. wood, crop residues and cattle dung. This situation will change only very slowly in the coming decades.

Over 90 per cent of all energy is consumed in households. This holds true for rural and urban households alike: in the Ethiopian capital, Addis Ababa, 96 per cent use fuelwood, charcoal or other biomass, these sources between them accounting for more than 80 per cent of total consumption. The situation is similar for all urban areas in the country, where 10-15 per cent of the population lives.

Addis Ababa, the capital city of Ethiopia, had a population of 1.8 million until April 1989, when the Addis Ababa area expanded to include peasant associations and rural towns around the city (see Figure 1). As a result, the region covers an area of 216.7 sq.km with an urban and rural population of 2.3 million (1).

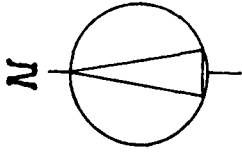
Administratively, the region is divided into 19 awrajas (districts) having 284 kebeles (sub-districts), 325 PAs and 6 rural towns. Figure 1 shows only 14 awrajas because the boundaries of the remaining 5 are not yet definitively demarcated (2). In this new administrative structure, the expansion of Addis Ababa is more towards the south and south-west of the city.

While in rural areas, fuel is largely a subsistence commodity, urban dwellers are supplied through commercial channels. The "urban shadow" of Addis Ababa extends several hundred kilometres into the Rift Valley. The bulk of the supplies is met from forests located in a 100 kilometre radius around the town, however.

Four different agents cater for the citizens of Addis Ababa: a state-owned wood-marketing operation using trucks covers 20-25 per cent; peasant farmers living around the city transport about 35 per cent of the fuelwood on donkeys; woodfuel merchants operating pick-ups and trucks or acting as intermediaries account for 6 per cent. The balance of some 35 per cent is met through backloading fuelwood carriers.

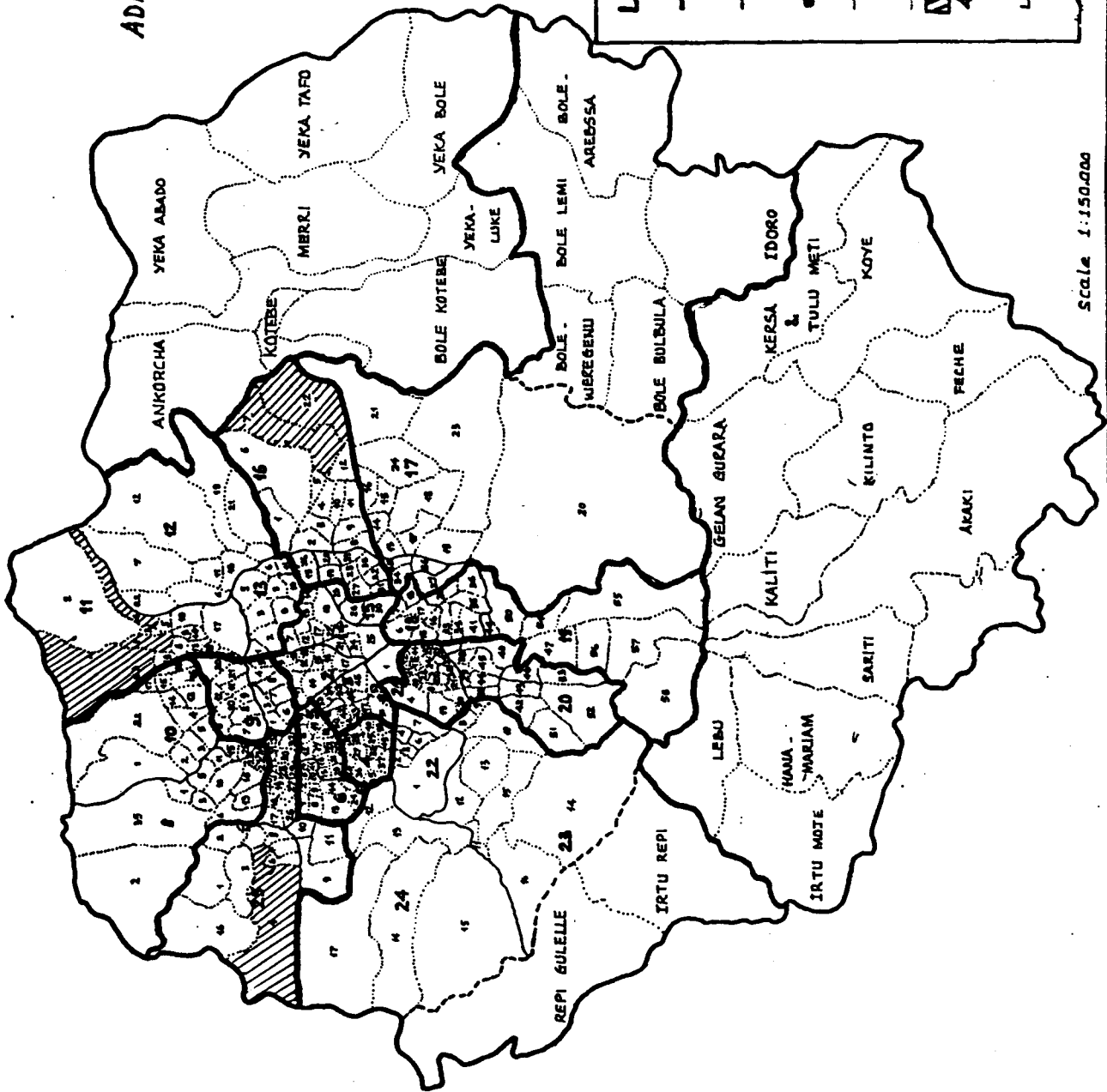
The problems of the deficiencies of the supply system are discussed in a study conducted in 1985 under the auspices of the Addis Ababa Master Plan (3).

ADDIS ABABA ADMINISTRATIVE REGION



LEGEND

- NEW ADMINISTRATIVE BOUNDARY.
- FORMER ADMINISTRATIVE BOUNDARY.
- NEW AMAZATA BOUNDARY.
- FORMER KEFTEGNA BOUNDARY.
- KEBELE BOUNDARY.
PROJECT SITES
4, 6
- [KEFTEGNA, KEBELE] CODE NO.
LEBU NAME OF KEBELE.



Scale 1:150,000

1.1.2 The problem

One of the most serious problems identified in this study is the working and living conditions of the fuelwood carriers. More than 90 per cent of them are mostly urban-based women. The women were estimated to number more than 70,000 (a figure that since has been revised). They belong to the poorest and most underprivileged groups in society. They eke out an income that barely permits survival from cutting small stems and branches and gathering leaves and bark in coppice stands of Eucalyptus in the vicinity of the town. Not disposing of other means of transport or carrying aids, they walk an average distance of 12 km with a bundle weighing 35 kg on their backs. About half of the women have no husband and another 15 per cent are effectively heads and principal supporters of households because their spouses are ill or separated from their family in search of employment elsewhere.

Two-thirds of the women depend entirely on fuelwood carrying for their livelihood. The remainder get some additional income from farming, food processing or handicrafts. Children are either involved in fuelwood transport too, or have to be left alone for 2-3 days in a week.

The heavy loads and long distances covered have a most debilitating impact on the women. Most complain about chest and back pain and have deformed spinal columns. The incidence of miscarriage among female fuelwood carriers is 16 per cent on average and 44 per cent in the age group 35-44 years. Their nutritional status is very poor; the average body weight is only 46 kg and decreases with age and number of years on the job. The situation is aggravated further by the semi-illegal or illegal status of fuelwood gatherers which exposes them to harassment from forest guards, peasants and criminals through confiscation of their bundles, beating up and even rape. To avoid these risks, many women work clandestinely at night or in the early morning hours.

Forced to take whatever fuelwood they can get, the women unwillingly contribute to an inefficient use of the scarce forest resources around Addis Ababa. Their cutting disrupts rotation cycles and the moisture content of the wood they sell is very high, which greatly reduces its calorific value.

Well-focused interventions are urgently called for to alleviate the intolerable working and living conditions of the fuelwood carriers, to resolve the conflict between the fuelwood demand, sustained forest resource management and the importance of fuelwood transport as the basis for the livelihood of thousands of families. The present period is crucial because major development projects are being implemented and government policies are being reconsidered. Large-scale reforestation and forest rehabilitation are under way with World Bank and African Development Bank funding in Addis Ababa's peri-urban forests. A report to the World Bank reckons with colossal social problems regarding people dependent on the forests.

In order to improve the understanding of the situation of women fuelwood carriers and to develop models capable of alleviating or resolving the present conflict between forest resource degradation and the needs of the women and their families dependent on fuelwood transport for their livelihood, the International Labour Office

(ILO) and the National Urban Planning Institute (NUPI) developed a proposal for an action-research project.

The initial proposal, submitted to the International Development Research Centre (IDRC) of Canada for funding, had the following anticipated results and beneficiaries:

Through an applied research of 12 months with the active participation of the beneficiaries in self-help groups, institutional and technical interventions liable to improve the situation of the female fuelwood carriers were identified, tested and evaluated. Such interventions include:

- the integration of the women into the regeneration of the forest resource and its management, e.g. through nurseries operated by women or plots assigned for afforestation through women's groups; such activities would be undertaken in close collaboration with the GOE/World Bank Addis-Bah project;
- the introduction of a different transport technology (ergonomically designed simple back-packs could greatly reduce health problems resulting from carrying; other alternatives are carts or donkeys);
- grouping of the women in co-operatives could permit stocking and improved marketing of fuelwood as well as provide sufficient funds to invest in pack animals and to use them efficiently. Co-operatives would also permit forward linkages with baking, brewing, food preservation;
- work of women in groups increases safety at work and offers opportunity to organise child care in self-help kindergartens;
- the creation of alternative, i.e. not woodfuel-related, sources of employment and income.

Given the present poor knowledge about the situation, the aspirations of the women and the attitude of institutions and interest groups concerned, prejudging and imposition of preconceived ideas would be fatal. The study supported through this project obtained the information required for well-focused interventions and paved the way for large-scale action through the dissemination of its findings. Specifically, the project review workshop provided an opportunity to reach a consensus about the integration of the fuelwood carriers into national and communal policy. Based on the findings, GOE/ILO would be in a position to approach donors for development projects to complement national efforts.

The major beneficiaries of this project would ultimately be the more than 70,000 women and their families depending on fuelwood carrying for their livelihood in Addis Ababa.

The 50-100 women directly participating in the study would benefit from the formation of self-help groups and the interventions introduced with the assistance of the project.

Support through the project would enhance the National Urban Planning Institute's capability to base its plans and policy guidelines for woodfuels, the most important source of energy and a significant source of employment and income, on a thorough evaluation of possible interventions.

1.2 Project objectives

The immediate and long-term objectives of the action-oriented research project are summarised below:

1.2.1 Long-term objectives

The general long-term objectives of the project are:

- (a) to identify appropriate economic interventions which will lead towards the improvement of the working and living conditions of women fuelwood carriers in Addis Ababa; and
- (b) to organise women into legally recognised groups which can operate economic enterprises that will enable them to attain self-sufficiency.

1.2.2 Immediate objectives

The immediate objectives are designed to pave the way towards the attainment of the long-term objectives. These specific objectives include:

- (a) to assist self-help groups of fuelwood carriers in identifying and analysing their situations;
- (b) to carry out detailed socio-economic analysis of the fuelwood supply system to Addis Ababa;
- (c) to disseminate and discuss the results of the study and develop plans of action pertaining to identified initiatives with relevant government and/or international agencies and other interested groups.

The project proposal was accepted by the Government of Ethiopia as well as by IDRC and financed for an initial 15 months with US\$68,757. It was later extended until April 1991 with a supplement of US\$24,000 from IDRC. Additional funding was obtained from Norway (US\$80,032), the Canadian Embassy (US\$30,000) and the ILO's Regular Budget (US\$15,000).

Field activities started with the appointment of the project field director and author of the present report in June 1988.

This report will highlight the two-and-a-half years' activities and research results. Chapter 2 describes methodologies used for the action-oriented research project. Chapters 3-5 cover research findings - historical background of forest management,

current policy and future prospects, the land ownership issue, women's view of the forest resources, prices of fuelwood in the city, the socio-economic profile of women fuelwood carriers, and problem and intervention identification. Chapters 6 and 7 deal with the pilot testing of identified interventions to develop alternative sources of income and with the dissemination of project findings.

2. Research methods

The action-oriented socio-economic intervention research employed various educational and development concepts and communication tools, in addition to conventional social science research methodology. The former included the concepts by Paulo Freire (4), the DELTA (Development Education Leadership Teams in Action) groups (5) and feminist research methodology by Maria Mies (6).

Primary and secondary data were collected using structured and non-structured questionnaires, observations, person-to-person interactions, formal and informal interviews, role play skits, group discussions, assembling puzzles, dialogues, archive research, photo and tape recordings. In all of these approaches women were the main actresses.

2.1 Research sites

Research areas encompassed the peri-urban forests and urban kebeles in Addis Ababa. Specific project sites were selected on the basis of an earlier study made by Addis Ababa Master Plan Project Office (Figure 1). Those zones having a high concentration of WFCs and poor living conditions, were selected in consultation with higher and kebele officials. Willingness of the kebeles to host the project was also taken into consideration in selecting study areas. The names and identification numbers of the kebeles retained as project sites as well as their populations at the start of the project are summarised in Table 1.

Table 1: Populations of seven kebeles in four awrajas of Addis Ababa where the WFC's project was carried out (1988)

Awraja	Kebele	Male	Population Female	Total
Gulele (H.8)	01	1 812	2 030	3 842
Entoto (H.11)	01	2 238	2 143	4 381
	04	2 507	2 675	5 182
	23	6 625	5 538	12 160
Yeka (H.16)	07	3 156	6 824	10 080
	22	6 500	6 000	12 500
Kolfe (H.25)	04	6 949	6 633	13 582

Source: respective kebeles.

2.2 Selection procedures for group members

The target group of this action-oriented research project was women fuelwood carriers in Addis Ababa who earn their livelihood by doing informal harvesting, transport and trading of biomass fuel. Fuelwood carriers are of different types: some completely rely on fuelwood selling; others use it as a supplementary income source; others gather BTLB for their household use in order to minimise their fuelwood expenses. Therefore, the following procedures were used to select samples of WFCs from each of the selected kebeles.

Kebele offices provided the project with lists of 850 women fuelwood carriers whose reported main source of income was given as fuelwood carrying. Influential women in the neighbourhoods were also used to identify and select women who were solely dependent on income generated from BTLB sale. Information meetings were organised to familiarise the target group with the project. It was thoroughly explained that participation was entirely voluntary. Initially, through interviews, 181 women were selected on the basis of criteria set by the project staff. These criteria were: the level of dependency on fuelwood income; women household headship; large household size; low income; poor housing conditions; and age. Only women in the age bracket 15-60 years were considered, i.e. neither children nor elderly women where chances for a reorientation towards other occupations were regarded as slim.

As can be observed in Table 3, between 80 and 100 per cent of the selected women depend entirely on fuelwood carrying. Between one-third and three-quarters are the heads of their respective households consisting of 4.8-6.7 members on average. The monthly income was estimated at 31-46 Birr per woman. Except for one kebele, most households lived in a single room. Thus, the project was able to identify economically deprived groups who were interested in participating in the socio-economic intervention research project (Tables 2 and 3). Of the 181 women, 167 remained to be project participants throughout the two-year programme. Thirteen women were dropped because of high absenteeism rates.

Table 2: Age distribution of women project participants

Age Groups Awraja	Kebele	No.	Age Groups (%)					Total
			10-19	20-29	30-39	40-49	50-59	
Gulele	01	11	54.5	18.2	18.2	9.1	-	100.0
Entoto	01	18	5.5	27.8	55.6	-	11.1	100.0
	04	24	4.2	8.3	62.5	4.2	20.8	100.0
	23	51	26.0	18.0	32.0	22.0	2.0	100.0
Yeka	07	12	-	50.0	25.0	25.0	-	100.0
	22	12	8.3	16.7	33.3	41.7	-	100.0
Kolfe	04	53	24.6	11.3	37.7	26.4	-	100.0
Total		181						

Table 3: Employment, headship, household size, income, housing conditions of women participants

Awraja	Kebele	No.	%	Complete dependency on BTLB (%)	Women household headship (%)	Average household size	Average income /month	One-roomed house (%)
Gulele	01	11	6.1	100.0	45.4	5.2	45.90	72.7
Entoto	01	18	9.9	88.9	72.2	5.0	34.16	61.1
	04	24	13.3	87.5	66.7	4.8	31.87	20.8
	23	51	28.2	98.0	64.0	5.0	41.50	64.0
Yeka	07	12	6.6	100.0	33.4	6.7	40.83	66.0
	22	12	6.6	100.0	50.0	5.4	39.58	75.0
Kolfe	04	53	29.3	80.4	56.0	6.0	40.12	64.7
Total		181	100.0					

The distribution of final project participants was 54 from Kolfe, 92 from Entoto and 21 from Yeka awrajas.

2.3 Participatory self-help group development

The project used various techniques of self-help group development procedures. Each group went through five steps:

- orientation about project;
- selection of group leaders;
- training of group leaders;
- training of group members; and
- identification of problems and interventions.

At the outset, before the formation of self-help groups, potential women participants were properly oriented about the objectives, goals and implementation procedures of the project. This gave women the opportunity to question project objectives and implementation plans. This process of initial interaction helped the project to gain insight into the women's perspectives and to respond to queries raised by participants.

As a second step participants were organised into self-help groups and were assisted in the election of their group leaders. Before the election of group leaders the women and project staff agreed on a set of criteria for determining group leadership qualities. The criteria included influential personality, literacy, trustworthiness, ability to express oneself in conveying messages, ability to command respect, readiness to spend time with the project and willingness to serve as group leader. In many instances two leaders were elected from each group and, in a few cases, three leaders per group were selected. The need for multiple leadership arose because of different circumstances. One instance was that participants came from different zones within a kebele and each

sub-group preferred to have a group leader from its respective zone to facilitate communication. Secondly, in situations in which an elected group leader lacked the necessary literacy level, it was found essential to complement her services by electing a co-leader with an adequate educational background. Thirdly, under certain circumstances it was necessary to have another person to act as a group leader in the absence of the other.

The third step was the training of group leaders in basic concepts and simplified forms of community-based development, communications, group planning and goal definitions, thrust and team building, and facilitation. The training process employed various techniques of communication such as role play skits, assembling puzzles showing drawings of relevant symbols. These simple techniques were effective in enabling group leaders and later members to actively participate in project activities and become critically aware of development approaches. After their training, group leaders acted as "animators". During the regular group sessions that followed, they facilitated group training problems and intervention identification.

Step four was the training of self-help groups using already trained group leaders. This was essential before attempting to objectively assess the socio-economic situation of women's self-help groups. In the first four months, each women's self-help group had a two-hour training session per week. They were trained in how to use communication tools to avoid gaps that could result in misunderstanding and disruption. They were also trained in ways of identifying their problems and developing interventions to solve them. Thus, group leaders and project staff broke communication barriers through iterative training of self-help groups. The use of various role play skits particularly helped group members to initiate discussion and interact/speak out freely. Appropriate symbolic drawings used as puzzles were useful in identifying common problems and their solutions.

Figure 2: Symbolic puzzle drawings used in identifying and solving problems
(Sets of several puzzles are distributed among group members who only together can identify the objects depicted and complete the puzzles.)



The fifth step involved the processes of identifying, defining and analysing problems and interventions. These processes employed simplified procedures. Group members explained their situation to enable the group to define a specific problem based on its own experiences. Such participatory group interactions clarify the problems and pave the way for the identification of alternative interventions.

The groups spent several months going through the five steps, with the bulk of the time required for step 5.

2.4 Questionnaires

This participatory method was further supplemented by various structured and non-structured questionnaires. Questionnaires were used to gather data on:

1. women's attitude towards the forest resource;
2. fuelwood supply and prices in the city (time series data collected twice per month);
3. rural-urban migration;
4. property ownership;
5. access to social services;
6. education;
7. household expenditure (time series data collected daily for nine months); and
8. time-budget (time series data collected daily for four months).

Questionnaires were simplified to avoid complications in gathering data. In particular the questionnaires for the time budget and household expenditure data were much simplified so that they could be completed by women participants and/or their children. To do this, the women were trained on how to keep records of their time-use and household expenditure. In order to avoid memory lapse they were asked to skip recording if they forgot to do it the same day.

Because of this, time-budget and expenditure figures are missing from some records. In instances where the mothers were illiterate, their children helped to complete the records. This practice helped women participants to use their literacy education and learn to be self-reliant in keeping their personal records.

Other questionnaires were filled in by the project staff. In addition to gathering data from respondents, project staff, in each case, weighed fuelwood bundles as they were transported into the city by women. To do this, the burden was weighed with the woman carrying it. This also helped to relate burden weight with the weight of the woman or the child carrying the burden. For the purpose of comparison, the weight of bundles and prices were also collected from retailers.

Questionnaire data were processed both manually and using computer facilities of the National Urban Planning Institute.

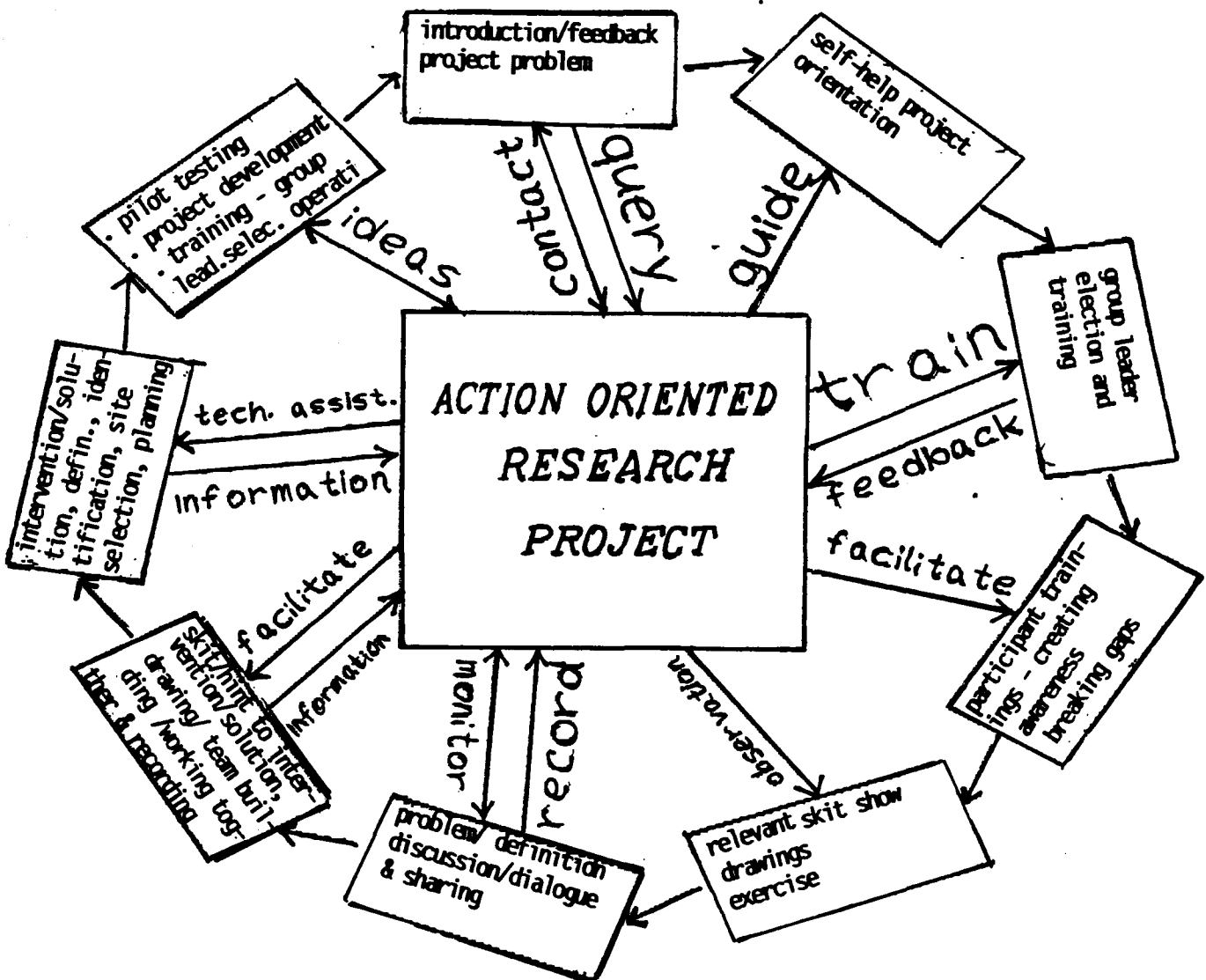
2.5 Feasibility studies

After thorough discussion in the groups, a number of ideas for interventions, mostly alternative sources of income, were retained for closer examination. Technical and economic feasibility was assessed with the help of graduate staff of NUPI.

An overview of the methodology and the relationship between project staff and group members in the various phases is provided in Figure 3.

Figure 3: Sessions and iterative training

Iterative group training, problem and initiative identification, project development and implementation process as major elements of action-oriented research project. After project development and initial implementation, this process repeats itself in terms of tackling technical, business, personnel management, selection of leaders, training, etc.



3. Findings and discussion

3.1 Management of forest resources: Historical resumé

The history of the management of natural resources in Ethiopia is as old as the history of the Horn of Africa. The region was endowed with an immense wealth of natural resources. History has recorded that the beautiful buildings erected by the Egyptians for worshipping during the 15th century B.C. were possible only because of the special forest resources taken from Ethiopia. Herodotus and Homer wrote about the beauty of the Ethiopian forest resources. It is recorded that Queen Makeda had a trader by the name of Tamrin who used to sell ivory and incense of different types to the Arabian Peninsula. To indicate the wealth of the Ethiopian forest Professor Lithman wrote in his book "Habeshat" that the Ethiopian forest was so thick that rain reached the ground hours after (7).

Queen Yodit, 858-898, set fire to and destroyed a huge amount of forest resources in the north in order to eradicate the hiding place of Libnead and his men. In 1527, Giragne Mohammed also burned several forests in the north since they were a hiding place for Christians. King Dawit I, 1382-1411, was probably the first Ethiopian king who placed forest guards to protect forest and wildlife resources (8). He appointed a man called "Wabe Shebelle" to be responsible for the forest and wildlife resources in Keffa, Wolega and Illubabur provinces. Wabe Shebelle in turn appointed his brothers and friends to help him in his task. The place where he and his group settled was called after him.

During the reign of Libne Dingel, 1559-1563, a Portuguese traveller, Francisco Alvarez, wrote about the forest destruction by Queen Yodit. He also wrote his observations about trading on various types of fruits, herbs, medicinal plants and incense. He observed that the land was covered with forests, wild and domestic animals.

More recently, King Tewodros attempted to teach the people about the value of forest resources. But later, King Yohannes IV, 1871-1889, was probably the first Ethiopian king to give forest guidelines to his people. He sensitised the people about the value of forests and wild life on both religious and economic grounds.

Towards the turn of the 19th century, that is during the reign of Menelik II, 1890-1914, urbanisation began in Ethiopia in several areas. This was the beginning of a major forest destruction period. After Menelik settled at Ankober, the forest resources in the area were completely used up for construction and fuelwood and he was forced to relocate the capital to Inewari. This movement from place to place in search of fuelwood and construction material continued until Menelik settled at Entoto near Addis Ababa.

3.2 Addis Ababa peri-urban forest resource management

Merigeta Eshete Bederessu, aged 94, who has lived in the area of Mount Entoto for the whole of his life, vividly recounts the history of the management of the Addis

Ababa peri-urban forests. According to him, the natural forests around the mountainous region of Addis Ababa were state owned. The state had assigned *Ligabas*¹ who supervised the forest and controlled forest guards. During this period, the dwellers of Addis Ababa town were allowed to cut and use the forest three times a year free of charge. That is, every four months, residents used to cut the amount of wood they needed for the purpose of construction and firewood in the presence of the *Ligabas* and forest guards. This was known as *zerefa*². This was practised because of the small number of residents in Addis Ababa. There is some similarity between this and the "Hizaite" forest reserve management system practised in Eriteria (9).

Later, as the demand for wood increased because of population growth, the natural forest resources around Addis Ababa were quickly depleted. This situation forced Menelik II to introduce the range of eucalyptus forest (mostly *Eucalyptus globulus*) in the vicinity of Addis Ababa. The eucalyptus plantation in Addis Ababa was intensified after the King ordered the distribution of one hundred tree seedlings to each resident, which they were ordered to plant, tend and utilise. According to Merigeta Eshete, Addis Ababa residents started selling fuelwood as a private property six to seven years after this individual plantation was ordered. At the same time, the state leased the land in and around Addis Ababa to the *Rases* (aristocrats) and *Mekuanints* (dignitaries). These landlords intensified the management and control of the then privately owned eucalyptus forests. Because the landlords employed local tenants to guard and strictly control the resource, the forests were reportedly properly managed (10). Nevertheless, there are no yield figures indicating the productivity of the Addis Ababa peri-urban forests during this period. Furthermore, there were no legal guideline on forest resource management and use until the first forest legislation was issued after the war in the 1930s (11).

The private ownership of the eucalyptus plantation continued until the 1974 revolution which gave forest ownership to the state (12). By 1974, private owners had established and managed about 20,000 hectares of forest land around Addis Ababa. These forests supplied the city with construction and fuelwood material and were subject to mismanagement and destruction (13). With the abolition of the monarchy in 1974, these forests came under the management of state agencies, urban dwellers associations and peasant associations. This shift of ownership resulted in unplanned exploitation and fast deterioration of these plantations. The 1974, revolution had a significant positive impact on the development of community forestry in rural areas (14). Around Addis Ababa, however, the poor forest management after the revolution coupled with the accelerating demand for wood for construction and domestic purposes, have depleted the forest resources and decreased the annual yield substantially. A recent report based on satellite imagery data analysis demonstrated that the plantation around Addis Ababa decreased by about 33 per cent during a span of three years, 1973-1976 (11).

1. *Ligaba* - an appointee who passes directives from the king and the prime minister to concerned bodies and makes sure government orders are implemented. He is the authority who allows applicants to see the king and higher authorities.

2. *Zerefa* - looting.

In recent years, government, with the assistance of international donor and lending communities, is trying to tackle the current problems of supply of fuelwood and construction material by undertaking plantation projects. Among these, the World Bank (WB) and the African Development Fund (ADF) in collaboration with the Ministry of Agriculture (MOA) are trying to upgrade the eucalyptus plantations in the Addis Ababa region. An area of 14,637 ha of land was planted from 1984-89 (11).

Although the World Bank Addis-Bah project and ADF/Fuelwood Production Project are expected to partially solve the fuelwood problem in the future, they are directly or indirectly affecting the lives of the population located in the project areas. Farmers in the rural and semi-rural project areas have been relocated, giving up their residential, farm and grazing land for plantation programs. On the other hand, a significant number of women and their families who depend on carrying and supplying fuelwood to Addis Ababa are left without any alternative plans for their livelihood.



The degenerated status of the peri-urban forest

3.3 Present forest policy and future prospects

Rights and obligations regarding ownership and management of peri-urban forests are unclear. Forest legislation and a number of directives exist but were only partially implemented.

A new, resource development oriented draft forest policy has been submitted to the Government for consideration by the MOA. It addresses the issues of forest ownership, conservation, management, research, training and forest-based industry and trade.

A novelty in the draft forest policy proper is the introduction of private forest ownership as one of six categories of ownership. The other categories are: national, autonomous regions, administrative regions, co-operatives and government agencies.

The option of private forest ownership ties in with the "mixed economy declaration" issued by the Government in March 1990 which provides for a bigger role of the private sector in the economy of the country. It is expected that private ownership would reactivate tree planting and tending by a multitude of individuals which had virtually disappeared for the last 15 years.

The new forest policy, if enacted, would open important new opportunities for the legal involvement of fuelwood carriers in forest management and harvesting. They could be attributed ownership individually or collectively through co-operatives. They might also be given land/forest usufruct rights in forests owned by their municipality.

At present there is a policy and procedural vacuum concerning the status of the peri-urban forest, preventing the project from making progress on the ground. On the other hand, the present debate constitutes an important opportunity for the project to influence policy decisions in favour of vulnerable groups of forest users. The need for specific provisions for such groups, in particular for women, is exemplified by the experience with the implementation of the land reform in 1975 and by the insurmountable administrative hurdles facing such groups when pursuing their cause.

3.4 Land use rights, forest resource management and women

Prior to the 1975 Public Ownership of Rural Lands Proclamation, land ownership and land use right were major social and economic problems. In this respect, the land reform has significantly changed the rural economy of Ethiopia. In theory, although unbiased with regard to gender, in practice, women did not receive equal treatment.

Though the land reform seemed to give an equal treatment of the sexes by asserting that: "... without differentiation of the sexes, any person who is willing to personally cultivate land shall be allotted rural land sufficient for his maintenance and that of his family" (15), critiques have indicated its lack of clarity when it comes to the rights of women to land use. It has been emphasised that the proclamation did not put the rights of women to land use in proper perspective: i.e., it does not give women direct possessory right to land use. Therefore, women's benefit from the land has been limited and indirect (16, 17, 18). In the limited cases where women own land, they can easily lose their rights due to divorce or migration.

Even though the legislation gives full right to any citizen to acquire land, the bureaucratic red tape is beyond the capacity of groups such as WFCs, particularly in the city of Addis Ababa. Even the fuelwood carriers project has found it difficult to go through the process of acquiring small lots of land for the purpose of setting up alternative income-generating activities. Since acquiring land for future WFC activity was found to be a primary step to develop small-scale industries and businesses, the government was requested for land. After exhaustive justifications were presented and an initial positive response obtained, the actual procedure of acquiring the land was an

endless and frustrating task. During several months, project staff and women self-help groups spent full days attempting to legally acquire the land. Although the project has advanced to a promising stage of acquiring the land after an effort of more than one year, the self-help group project has not yet received the required lots. There is an urgent need to streamline procedures and to make them more transparent. The delays and uncertainty caused by present administrative practices are the single biggest obstacle to a larger-scale shift of women from fuelwood carrying to other income-generating activities.

3.5 Fuelwood collectors and the forest resource

The group of women who gain their livelihood by collecting and supplying fuelwood to the city are viewed differently by different people. One group of people - including those who are involved in forest control and management - consider them as agents of forest destruction. They perceive them as a group who are disobediently attempting to further their financial gain. They think that this group of women has no understanding of the value of the forest resources. In contrast, those who cared to examine more closely the situation of these women, their attitudes and motives, view them as a conscientious group of people trying to eke out a livelihood for themselves and their families and at the same time understanding and appreciating the values of forests in contributing towards sustaining both the environment and themselves.



Erosion

This study attempted to find out how women fuelwood carriers view forest resources. To this end, questionnaires were formulated to collect data, inter alia, on the following:

- how do WFCs perceive the forest resource?
- what do they think about the importance of the forest resource?
- do they observe change in the peri-urban forest situation? If so:
- what do they think are the reasons for the change?
- how do they themselves evaluate the forest resource management?

Although this group of women is in a sense uneducated, they were found amazingly conscious about the value of the forest. A large number of them indicated the fact that trees are not only useful as a source of income, fuelwood and construction material but essential in protecting the soil from erosion, giving the land its green beauty and attracting rain. Some put it that a tree is like a child and has to be taken care of.

Table 4a : Perception and view of women on the importance of trees

Perception	%	Importance	(%)		
			1st	2nd	3rd
Human use	68.0	livelihood + fuelwood	50.8	32.5	20.5
Protection from erosion	20.0	construction, furniture + poles	25.0	29.6	7.6
Attraction of greenness	9.0	wildlife habitat	6.1	6.8	5.3
Need care like a child	6.0	rain attraction + spring source	4.6	6.1	3.8
		protection against erosion	3.8	1.5	1.5
	N = 119			N = 132	

Respondents clearly indicated the importance of forest resources on both economic and environmental grounds. The importance of forest as a source of income to a large number of families was stressed, whereas the forest as a source of domestic fuelwood, as wildlife habitat and environmental protection, were equally emphasised by WFCs.

Table 4b: Observed changes in the forest resource and their reasons

Change	(%)	Reasons for change	(%)	
			1st	2nd
Highly decreasing	90.9	Guards' inability to control illegal cuttings	51.5	5.3
Becoming better	2.3			
No change	5.3	Increased number of harvesters and overcutting	31.7	3.0
Many changes	0.8	Increased demand for fuelwood and construction	6.1	4.6
		Multiple problems	4.6	2.3
		Inadequate replantation	0.8	3.8
	N = 131		N = 128	

Ninety-one per cent of those interviewed replied that the Addis Ababa peri-urban forest is continuously decreasing in area and density. They also stated (95 per cent) that because of the deteriorating condition of the forest, it has become difficult for them to gather a sufficient amount of BTLB to support themselves. There were several reasons for the accelerated decrease of the forest resource around Addis Ababa. Among the major reasons given were that :

- forest guards were unable to effectively control illegal cuttings;
- increase in the number of tree harvesters and overcutting;
- increased demand for fuelwood and construction material in the city; and
- absence of adequate replantation.

All WFCs believed that the peri-urban forest where they collect BTLB belongs to the government.

3.6 Addis Ababa: Present forest area, fuelwood supply and prices

3.6.1 Production and consumption

The most recent, and probably most accurate, estimate resulting from an inventory in 1989, puts the area of Eucalyptus forest around Addis Ababa at some 30,000 ha (19). Annual production from this forest is thought to be some 142,000 m³ per year which is considerably less than was assumed earlier. On-going rehabilitation and plantation projects are expected, at maturity, to increase the production potential to some 280,000 m³ of fuelwood, plus 240,000 m³ of poles annually.

Consumption and supply figures quoted by different authors strongly disagree with one another. A study by IT Power in 1988 (20) attempted to measure the inflow of woodfuel into the town by a survey of carriers at the major points of entry. An extrapolation of the results led to an estimate of annual supply of 120,000 t or 320 t/day.

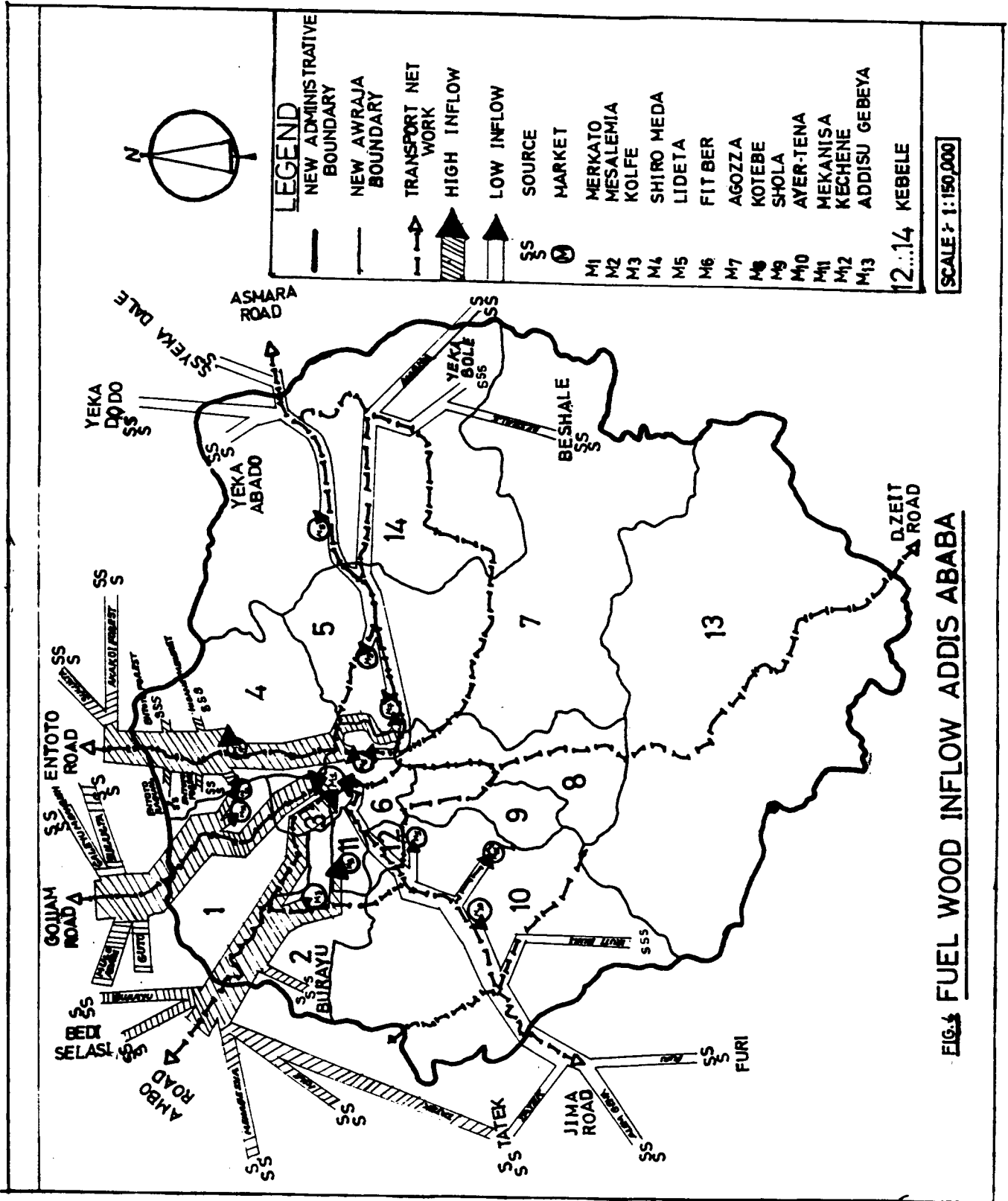


FIG. 4 FUEL WOOD INFLOW ADDIS ABABA

This supply figure is at variance with those for measured consumption which all suggest much higher levels of intake. One of the most accurate, longitudinal surveys in a representative sample of Addis Ababa households found consumption to be about 10 MJ/person/day or 0.75 kg of wood/cap./day. With an estimated 1.6 M inhabitants in 1989, this translates into some 440,000 tons of fuelwood per year. Other surveys have suggested even higher levels, which are, however, probably overstated. Still, the gap between measured supply and measured actual consumption remains and cannot be removed by dismissing consumption data as flawed.

The IT Power suggestion that the gap may be explained by drastic changes, that is decreases in biomass consumption, over the last few years, is unlikely. Despite rapid increases in the consumption of non-biomass energy such as kerosene, biomass has retained its high share of 80 per cent of total supply. With a rapidly-growing population, a major reduction in biomass consumption in absolute terms is virtually impossible.

The question of the supply and consumption levels and their relation to the production potential of the forest are relevant because they indicate the size of the imbalance and secondly because they are the only basis for estimating the number of carriers involved.

Direct enumeration in surveys is bound to lead to undercounting, as exemplified by the IT Power study. The reason is that fuelwood enters the city on five major access roads, eight other main roads and in addition dozens, if not hundreds, of minor roads, paths and tracks. Backloading of fuelwood also takes place at night or in the early morning hours to avoid interception by guards.

Regarding the balance between resource utilisation and regeneration, it is safe to assume that the former considerably exceeds the latter and that the forests continue to undergo degradation.

3.6.2 Supply channels

As to the number of fuelwood carriers, particularly urban-based women, recent consumption estimates suggest that the number of 70,000 advanced in the 1985 study was too high. The IT Power tally arrived at some 6,000 urban-based women regularly involved in fuelwood carrying and accounting for some 25 per cent of supply. In addition, it reckons with some 4,000 children dependent on income from fuelwood carrying and working year-round. The total figure of about 10,000 women and children has to be considered a minimum estimate. The actual figure may well be twice as high.

The implications for the present project are that its premises remain valid. The women do, for want of alternatives, contribute to the degradation of forest resources and the alleviation of this pressure is an important objective. Secondly, the applicability of interventions proposed by the project on a very large scale is an important criterion when evaluating the relevance and potential of project findings.

While the various studies on the energy supply of Addis Ababa disagree on the absolute quantities of wood and on the numbers of carriers involved, there is generally agreement concerning the share of the various suppliers in the market.

In theory, the only legal supplier is the para-statal Construction and Fuelwood Production and Marketing Enterprise (CFPME). In practice, however, there is a great deal of flexibility. CFPME does not supply more than 20 per cent of the total fuelwood and charcoal supply of the city. CFPME relies on a fleet of trucks to supply its 43 depots in the city from a radius of about 100 km around Addis Ababa.

One of CFPME's tasks is to curtail profiteering by offering fuelwood well below the market price. The resulting shortages are handled through a system of rationing cards issued by the kebeles. A family is entitled to 2 bundles of wood every 15 days.



Fuel transported by donkeys

Farmers from adjacent rural areas using donkeys to transport fuelwood account for about one-third of the biomass flow. A further third is handled by women and children backloading wood and BTLB into town. According to project surveys, 80 per cent of the women transport mostly BTLB while the remainder transport wood. Data collected under the present project indicate slightly lower average loads but higher average travel distances than earlier studies. The average weight of bundles recorded in 1989/90 was about 30 kg against 35 kg in 1985. The distance travelled, however, was almost 30 km round trip against 24 km previously. In well-guarded sections of the forest, women walk up to 35 km in order to avoid harassment by forest guards.

Particularly disturbing findings are that the maximum load was 77 kg and that pregnant women and children also carry heavy loads. Women in advanced stages of pregnancy were observed to travel 11 km with an average load of almost 22 kg on their backs. The same figure was recorded in the IT Power survey as an average load for children.

3.6.3 Transport cost and prices

The IT Power study (20), as well as the one on wood marketing for the Addis-Bah project (19), produced interesting findings regarding the comparative cost of the various means of transport. They conclude that the official estimate for transport cost by CFPME trucks was only half the actual cost which ranges from 3.8 to 6 Ecents/kg fuelwood. This gives truck no cost advantage over human and much less over animal transport. This is particularly true over distances below 30 km. If not only financial cost but also economic opportunity cost for labour and imported goods (trucks, spare parts, petrol) are taken into account, human and animal transport turn out to be by far the cheapest means for shorter distances. Both studies therefore strongly recommend maintaining the present mix of carriers. While economically and socially very desirable, from an occupational health point of view this option is only acceptable if at the same time the health impact from heavy loads can be reduced to tolerable levels.

Because of their mandate (CFPME) or the relative strength of their position on the market, different carriers obtain diverging prices for the fuelwood. The CFPME's price of fuelwood bundles is about 50 per cent lower than the open/black market price (Table 5).

Table 5: The CFPME's price of different types of fuelwood, 1990

Type of fuelwood	Price (Birr)	Weight	Price/Ec/kg
Eucalyptus fuelwood	2.55/bundle	25 kg	0.10
Eucalyptus BTLB	2.00/bundle	25 kg	0.08
Eucalyptus fuelwood	46.69/m ³	600 kg	0.08
Non-eucalyptus forest fuelwood	61.44/m ³	650 kg	0.09

Source: CFPME

The supply of fuelwood to CFPME by Addis-Bah is reported to be at a low price. The standard price CFPME pays for fuelwood is 10 Birr/m³. In fact, an Addis-Bah consultancy report indicates that if the plantation project continues to supply fuelwood at the present price, it will face a substantial financial loss (19).

Aside CFPME, the price of fuelwood by private suppliers depends on the volume of supply, season, type of fuelwood, moisture content and point of supply. In the fuelwood price survey, obtaining the correct market price was relatively difficult. Fuelwood carriers, donkey drivers and retailers gave lower prices when interviewed. To

circumvent this problem, project staff acted as actual buyers and interviewed purchasers, though this did not allow recording of bundle weight.

As reported by an earlier survey, more than 30 per cent of the fuelwood requirement of the Addis Ababa households is met by peasants who use donkeys to transport the wood from the neighbouring plantations. This group on average sells a bundle of fuelwood for 5 Birr.

Women and children who use their backs to transport the wood to the city sell a bundle of BTLB with an average weight of 25.6 kg for 3.50 Birr on average, i.e. 0.13EB/kg. In unusual circumstances when fuelwood is scarce, some women have reported selling a bundle of dry fuelwood as high as 8 Birr. Women reported that since dry wood commands a better price, they always preferred to dry the material before selling it. Under pressure to earn an income the same day, fuelwood carriers often accept relatively low prices. In part, this is due to the fact that the wood and BTLB on offer is often fresh. The moisture content reduces its calorific value and this is reflected in the price the consumer is pressured to pay.



Fuelwood transported by women and children

The highest price recorded during the survey for a bundle of wood was 12 Birr. This was a retailers price for dry *tid* (juniper) wood weighing 25 kg. Usually, the average retailer price for any type of bundle weighing about 22 kg was 7.50 Birr (Table 6).

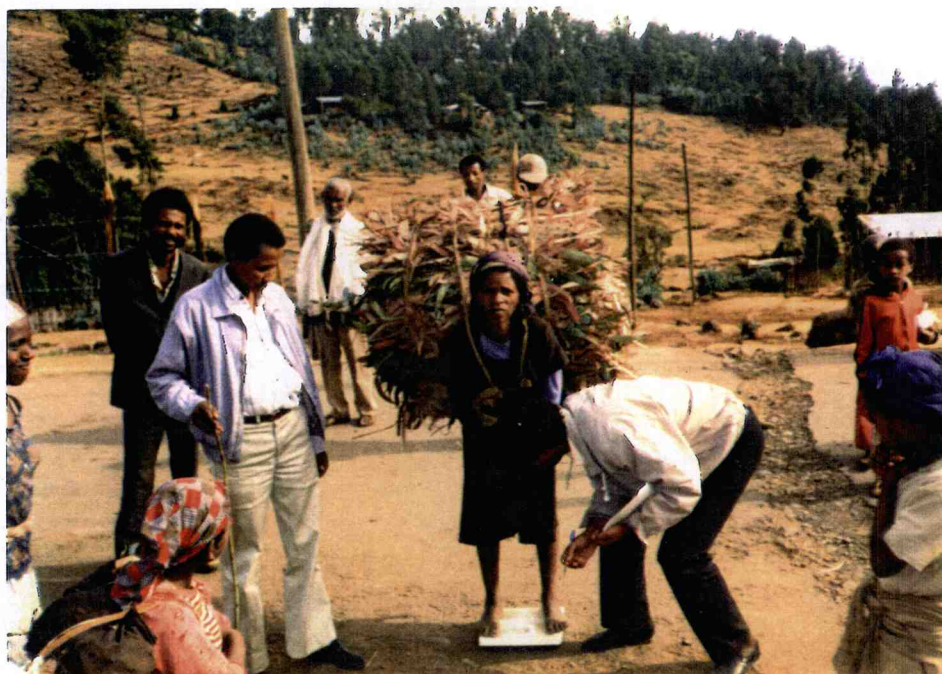
Table 6: Retailers' price of fuelwood in Addis Ababa, 1990

Type of wood	Average weight of bundle in kg per bundle	Average price in Birr	Average price in in EB/kg
Eucalyptus wood			
bundle 1	15.5	3.80	0.25
" 2	24.4	7.14	0.29
" 3	33.0	9.00	0.27
Non-eucalyptus forest wood			
bundle 1	14.0	6.25	0.45
" 2	23.8	9.92	0.42
" 3	31.0	9.00	0.29

It is interesting to note that non-motorised transporters pay 0.08 EB/kg of fuelwood and 0.04 EB/kg of branches and leaves to the forest owner. This is about four times the price paid by CFPME. On top of this, donkey owners and women carriers pay bribes of 20 per cent of the above prices (20). With the same prices paid to Addis-Bah, the afforestation and rehabilitation works would have a positive return.

Though it was difficult to obtain the actual retailer price, the 1600 retailers in Addis Ababa get 0.50 to 3 Birr profit per bundle. This is mainly because the other individual suppliers will not be available all the time to satisfy the requirement of fuelwood users. Retailers get their supply mainly from lorries, taxis, bus drivers and peasants. Since these suppliers have no place to store and sell their fuelwood, they dispose of it to retailers at a lower price.

The price of fuelwood in Addis Ababa has been escalating continuously for the last few years. The 1988 fuelwood price has increased by up to 6 times compared to 1975 (11), i.e. considerably faster than the general cost of living index. The general explanation given for this price escalation is short supply of fuelwood as a result of fast-dwindling forest resources, the rapidly growing population of Addis Ababa and the overall increase in the cost of living, such as transportation, food, etc.. This fuelwood price escalation is in spite of the fact that a large percentage of population uses kerosene as a supplementary energy source. Had it not been for this alternative energy source, the fuelwood price picture could have been worse still.



Burdens were weighed as they came into the city

4. Socio-economic characteristics of women in fuelwood transport

4.1 Age distribution and years in fuelwood transport

The age of fuelwood carriers ranges from 8 to more than 60 years (Table 7).

Table 7: Age distribution of women carriers surveyed for price

Age group	Number	%
1-9	4	1.9
10-19	88	41.3
20-29	26	12.2
30-39	33	15.5
40-49	36	16.9
50-59	16	7.5
60+	10	4.7
Total	213	100.0

Since the work of transporting fuelwood is highly debilitating, about 50 per cent of the women have been on the job for only 1-9 years (Table 8). Even though there is

an indication of rapid turnover, about 10 per cent of the women have been on the job for more than 20 years.



Table 8: Number of years in fuelwood transport business

No. Years	Number	%
1-9	65	49.3
10-19	52	39.4
20-29	13	9.8
30	2	1.5
Total	132	100.0

The majority (58.2 per cent) of the women at present engaged in the fuelwood transport business used to support themselves by doing handicrafts and small retail trading. These activities include enjera baking, selling vegetables, bewing tela (local beer), spinning cotton and carpeting. Most have given up these activities because of non-availability or high prices of raw material.



This woman is eight months' pregnant and travels 11-12 km carrying 15 kg of biomass almost every day

4.2 Rural-Urban migration

Migration contributed substantially to filling the ranks of the fuelwood carriers. A high influx of women to Addis Ababa was reported during the Italian invasion (around 1940) (21). More recently, a report in 1973 indicated 11 per cent more female migrants into urban Ethiopia. This figure is explained by women migrating to urban areas for better educational and employment opportunities and escaping from famine (22). However, the 1984 census showed no significant difference between female and male migrants. The number of female migrants was only 2 per cent higher than that of male migrants (23).

Among women fuelwood carriers, 71.7 per cent migrated from rural areas and rural towns to Addis Ababa. They originated from different provinces, namely: Shoa (48 per cent), Gamo Gofa (25.5 per cent), Wollo (11.2 per cent), Gojjam (6.1 per cent), Gondar (4.1 per cent), Sidamo (3.1 per cent), Tigray (1.0 per cent) and Eritrea (0.7 per cent).

In the current survey, the reasons given why women migrate to Addis Ababa include: transfer of family; escape from husbands, relatives and employers; death of family members (husband, children, parent); seeking employment; following relatives; in search of education and better life; just to live in the city; for medical treatment and better health.

Eighty per cent of the women migrants were married before they left their place of birth. Of these, 70 per cent have had 1 to 9 children. Eighty-two per cent of the women migrated with their husbands or relatives while 18 per cent migrated leaving husbands, children and other relatives behind.

Before they migrated to Addis Ababa, the majority, 68.1 per cent, were engaged in farm labour, handicrafts and trade. Only 4.4 and 5.8 per cent had land and farm of their own.

A number of migrant women said that after moving to Addis they were faced with serious problems in supporting themselves and their families. With broken marriages and no employment, the only alternative available to them was to be employed as housemaids or fuelwood carriers.

Two-thirds of the women surveyed were not content with city life, mainly because they suffered from financial problems, personal problems, loneliness and depression. One-third of the women, however, although the life in Addis Ababa is not what they dreamt about, found the life in Addis Ababa better than their past rural life.

4.3 Marital status

The survey under the present study confirmed earlier findings regarding the predominance of single women who are the heads of their household among fuelwood carriers.

Most of the women project participants were married between 7 and 15 years of age, whereas 26 per cent were married at the ages of 17 to 20. Forty per cent of the 127 women participants interviewed were at present married, while 50 per cent were either divorced, widowed or separated (Table 9). Traditionally, elders in the community play an important role in legalising marriage. Among the project participants, 82.3 per cent of the marriages were customarily arranged by elders.

Table 9: Marital status of project participants

Status	Number	(%)
Married	51	40.2
Divorced	33	26.0
Widowed	20	15.7
Separated	11	8.7
Single	12	9.4
	N = 127	100.0

The high incidence of women heads of households, and often sole income earners, is a severe constraint on the possibilities of the women to invest time in training because they cannot afford to forego income.

4.4 Education

The level of literacy was found to be high among project participants. Only 19 out of 133 women were illiterate. In contrast, the level of illiteracy among non-project participant women fuelwood carriers was higher (Table 10). This difference might be explained by the fact that most of the selected participants were younger and the literacy level in this group is higher. Secondly, the educational approaches by the project have encouraged participants to enrol in literacy classes. Furthermore, 29 per cent of the participants have completed elementary or secondary education.

Table 10: The educational level of project participants and non-participant women fuelwood carriers in Addis Ababa, 1990

Education	Participant		Non-participant	
	No.	(%)	No.	(%)
Illiterate	19	14.3	156	73.2
Literate	75	56.4	8	3.8
Elementary	21	15.8	43	20.2
Secondary	18	13.5	6	2.8
Total	133	100.0	213	100.0

Some women fuelwood carrier project participants attempted to complete their secondary education, hoping that this will enable them to improve their lives by getting some employment other than fuelwood transport. But to their dismay they had to continue in this activity because there were no other employment opportunities even after they completed grade 12. However, after participating, they expressed satisfaction with the opportunity to utilise their reading and writing skills in the project and fruitfully interact with others even though their high school education did not enable them to get jobs.

As would be expected, the group members face several constraints when pursuing their education. Since they lack the essential background, their level of understanding is low. Furthermore, inability to pay the school fee, time and health problems such as poor sight were indicated as some of the problems hindering their progress in education. Because of these and other gender-related problems such as marriage, pregnancy and childbirth, about 77 per cent of them were drop-outs. Thirteen per cent indicated their interest in continuing with their classes.

In conclusion, women in the fuelwood business perceive education as an important tool in improving their life. As a result, they have struggled to complete at least their high school education. Most were unable to attain this goal because of lack of the necessary background, financial support and family problems. Some have completed high school without, however, obtaining a better income as a result. The positive attitude towards education and relatively high levels already attained by some women are a major asset for the formation of self-help groups.

4.5 Social services

Housing, access to water supply, light, health centres, transportation and kindergartens are briefly treated in this section of the report in order to assess the living environment of women participants.

4.5.1 Housing

Only 13 per cent of the women owned the mud shacks they are living in. For all fuelwood carriers, the housing environment is extremely filthy and would normally be considered unfit for human habitation. Sixty-eight per cent of the household units have no latrine, while the remaining 32 per cent share common pit-latrines. Furthermore, most of these latrines are old, often flooded and require cleaning and maintenance. These unsanitary conditions, coupled with high population densities, make the environment highly hazardous, particularly to children.

Fifty-four per cent of the project participants share a single multi-purpose room with other household members and/or other families. The common room is used for cooking, dining, storing, sleeping and as a living room. Some even do not have such a room; they live with others as dependents or use the corner of a kitchen as a sleeping place against payment of a small amount of money every month.

During the survey about three-quarters had wooden and metal beds. Of these, 64 per cent share a single bed with more than two family members. Because of the limited space, some sleep with their heads towards the bottom of the bed. Twenty per cent of them use the mud floor covered with *selien*¹ for sleeping whereas 7 per cent of the group use straw mattresses laid on the floor.

Although this group lives in the city, only 86 per cent have electric light, while the rest use kerosene lamps.

1 *Selien* - a thin carpet-like floor covering made of dried palm leaves.



Kerosene lamp

4.5.2 Domestic water supply

Water fetching is one of the jobs traditionally assigned to women and children. The majority of the project participants get their water supply from central municipal supply points paying a cent per bucket. However, the most deprived of the group, 5.3 per cent of the participants, obtain their domestic water requirement free from natural springs and wells. It is reported that the same fraction (5.4 per cent) of the Addis Ababa household units are unable to get clean drinking tap water and therefore get it from protected and unprotected wells and springs (21).

One's ability to buy adequate amount of water and laundry/toilet soaps has an important influence on personal hygiene and health. About 80 per cent of the interviewees wash their body and clothes once a week. The rest get this opportunity less often and some go without a bath for a number of weeks, not only because of lack of water but because of inability to buy laundry/toilet detergents and soap.

4.5.3 Health services

Health is one of the major problems of the households of WFCs. Out of 132 women interviewed 97 (73.5 per cent) indicated some sort of illnesses in the family. According to the health problem reports, about 72 per cent of the cases are related to mothers and daughters who are involved in transporting fuelwood. Frequently reported illnesses include headache, stress, stomach-ache, rheumatism, asthma, muscular and pulmonary pain, eye problems and diarrheal diseases.

The demand for health services in Addis Ababa is growing parallel to the population. Health service institutions are overcrowded, understaffed and facilities are inadequate. The general reality becomes harsher when it comes to low-income groups such as fuelwood carriers. A large majority of them cannot afford to pay for health services and free services are difficult to get. As a result, about 92 per cent replied that they face difficulties in getting any kind of health services. Among these health service problems, the inability to pay for medical service and drugs has been indicated as a major one (Table 11).

Most (67 per cent) members of households go to public clinics for medical treatment, while 17 per cent of the women reported the use of holy water as treatment. Few visit unlicensed village health attendants because they charge less. These village health services have been a major source of medical maltreatment.

Table 11: Reasons for not getting health services by WFCs

Reasons	(%)
Cannot afford	57.0
Hospitals are overcrowded	20.7
Cards are difficult to get	14.0
Cannot pay for transport	8.3
	N = 121

4.5.4 Kindergarten facilities

At present there are kindergarten facilities and services in different communities in Addis Ababa. Although the rate varies, all KGs charge for their services. WFCs cannot afford to pay KG fees. They leave small children aged six and below at home and take those who are older to the forest with them. Those who are left behind with someone to look after them or without anyone to take care of them are exposed to various types of dangers such as motor accidents, falling and drowning.

Improved child care and supervision are important factors to take into account in the selection of interventions and in work organisation.



At times, mothers are forced to take all their children, even the little ones, to the forest

4.5.5 "Edir"¹

Edir is a voluntary savings association of members of a community, an ethnic group, a profession and a religious groups. The major objective of an *edir* is to help and accompany members in time of hardship, illness and death. Nowadays, the role of *edir* has developed also to help and share with members in time of happiness. The financial source of an *edir* is the weekly or monthly contribution of each member. Since *edir* is considered as an insurance in time of stress, it has become appealing and essential to any group, particularly a poor community of people. That is why women fuelwood carriers are strong believers in *edir*.

Eighty-six per cent of WFCs are members of different local *edirs*. As indicated earlier, since *edirs* are considered a source of insurance in times of stress, some 30 per cent of the women are members of 3 to 5 different *edirs*. Hence, the monthly membership fee of a woman could range from 1 to 8 Birr.

This shows that the membership fees of different *edirs* vary from income group to income group. To a fuelwood carrier, the *edir* membership fee of 8 Birr per month is a lot of money. However, when women were asked why they spend that much money

1. *Edir* - community-based self-help association whereby members help each other during death and other emergencies through financial support and personal service.

on *edir*, they responded that this was an essential investment. *Edir* is an association which comes to help them when they lose a family member and handle the funeral and other expenses. This is also true in time of happiness and need for financial outlay and personal services. They stressed that a poor person without an *edir* would have no-one even to bury him/her.

In addition to *edir*, fuelwood carriers also invest on *ekub*.¹ This is a temporary social grouping whereby members deposit a given amount of money periodically (usually, weekly, bi-weekly and monthly) to raise a revolving fund each time the money is given to a member by lots or based on specific need of a member. Because of the low income of fuelwood carriers, however, only 31 per cent of them deposit in one or two *ekub* groups. Those women who are *ekub* members save an average of 1.5 Birr per month through this system. This is the lowest percentage in any strata of the society, which indicates how meagre WFCs income is. Income saved through *ekub* deposits is used for major investments or expenditures such as clothing and furniture (39 per cent) debt payment (20 per cent), and savings for time of hardship (41 per cent).

4.6 Time-Budget

A time-budget study was carried out to find out how fuelwood carriers allocate the parts of a day for various income-generating, social and domestic activities. This was designed to help later in the planning of activities during implementing interventions. The study was carried out during the months of January to April. One hundred and forty-two women from 6 kebeles recorded their daily activities using a prepared format. The number of days on which records were taken varied from month to month, kebele to kebele and individual to individual. Finally, however, they recorded a total of 63,342 working hours in 6,607 days. Each record was made on the same day the work was done. Whenever a woman forgot to record on the same day she was told not to do the record.

In this section, results from sample kebeles 11-01, 11-23, and 16-22 are reported (Table 12). Women in the study group worked up to more than 14 hours a day. The average number of working hours was 10. For fuelwood carriers, a significant part of their working day was spent on gathering, transporting and selling BTLB. This activity on average took seven-and-a-quarter hours per working day. The remaining three hours of the working day was allocated to activities such as cooking, shopping, cleaning and social activities.

1. *Ekub* - traditional way of saving - a revolving fund whereby group of people agree to deposit an equal amount of money periodically and given to a member sequentially.

Table 12: Number of hours spent per day on fuelwood collecting, transporting and selling activity in relation to the average daily working hours

H-kebele	No.of women recorded	Range of working hrs/day	Av. working hrs/day	Range of hrs spent on fuelwood	Av. hrs on fuelwood	% total
11-01	17	8:06-14:30	11:02	2:30-11:00	8:19	75.4
11-23	43	4:37-12:45	9:33	3:12-11:37	6:48	71.2
16-22	7	8:37-12:25	10:30	3:27-9:07	6:33	62.4
	67		10:01	7:14	72.2	

4.7 Household expenditure

Household expenditures of 144 women participants from 6 kebeles were recorded daily for nine months (April-December 1989) to determine expenditure patterns, and extrapolate income estimates.

Expenditures were recorded under the following categories:

1. food and beverages;
2. clothing and footwear;
3. furniture and utensils;
4. utilities and energy;
5. savings;
6. occasionals; and
7. others.

Women participants do not have any monthly or weekly household budget allocations as such. Their expenses are on a daily basis. Since they subsist on sales of fuelwood gathered every day, they buy their daily requirements from local *gulits* (small open markets). Therefore, their daily expenses are influenced by the magnitude of their daily fuelwood sales. Hence, whatever is left from their daily food and other incidental expenses is saved for *edir*, *ekub* and other social obligations.

Expenditure patterns of this group of women varied from kebele to kebele and from season to season. In some kebeles average monthly expenses went as high as 54 Birr per household, whereas in some kebeles average monthly expenses amounted to only 24 Birr. This was explained by differences in income which in turn are determined by the ease of availability of BTLB near their respective kebele.

The seasonal variations in amount of expenditure were more significant. The magnitude of expenditures in some months, particularly during the month of August (which includes the Ethiopian months of *Nehasie* and *Pagumen*) is nine times the amount of a low expenditure month. The seasonal variation of expenditure is mainly dictated by the occurrence of major holidays during the month. Purchase of school material for children had also significantly affected the expenses.

Based on the recorded data, food and beverages were relatively the highest expenses, absorbing 31.2 per cent of the total household expenditures. As far as food consumption pattern is concerned, pulses and cereals were found to be the most frequent meals. Vegetables and fruits were the food items least consumed by the households surveyed. This could be due to the high prices of vegetables and fruits and also to the fact that these foodstuffs are less able to appease hunger. Only 4.8 per cent of the households were found to get meat and dairy products in holidays. Of these, some even went to the extent of borrowing money to prepare traditional meals of chicken and beef stew for the sake of their children's feelings.

Women were asked if they had additional food sources that were not recorded in the expenditure forms. Some women indicated that they used to get relief supplies from missionaries during the survey months. Others showed that they were fed in the households where they occasionally carry out household chores.

On the basis of 144 sample households in six kebeles, the average monthly expenditure of WFCs was found to be 36.67 Birr. This finding is not significantly different from monthly income estimates of other surveys (Table 13).

Table 13: Average monthly expenditures of 144 WFC's households from 6 kebeles, Addis Ababa (April to December 1989)

Month	Food & Beverages	Clothing & Footwear	Utensils	Furniture & Energy	Utilities & Savings	Other Occasionals	Con- sumption	Total
April	14.00	5.87	2.30	3.60	6.68	1.74	3.11	37.30
May	10.00	8.53	2.10	3.50	6.15	1.53	4.98	36.79
June	8.34	16.54	1.07	5.66	5.81	3.73	3.72	44.87
July	11.51	6.48	1.15	5.97	4.53	1.11	1.97	32.72
August	26.35	13.54	1.64	14.18	6.56	1.54	4.90	68.71
Sept.	8.80	11.92	0.71	4.60	3.35	2.65	7.20	38.69
Oct.	8.33	3.27	0.87	2.48	5.02	0.57	0.84	21.38
Nov.	8.55	12.00	2.39	3.27	3.95	0.94	1.12	32.22
Dec.	7.16	2.58	0.80	2.49	2.88	1.27	0.32	17.50
Mean	11.44	8.97	1.44	5.08	4.99	1.67	3.10	36.67



My hands are empty!

5. Problems and intervention identification

The socio-economic survey gave preliminary information to situate the problem and intervention identification process. The actual procedures for identifying problems and alternative interventions followed the principle of participation of the self-help groups concerned. From the outset, the action-oriented research took the position that the process of problem analysis, selection of alternative solutions and development of implementation approaches must be carried out mostly by women participants themselves with project staff mainly acting as resource persons. As a result, the level of identification with the project was very high among participants. They call the project *Dirijitachin*, meaning "our organisation". The whole approach of this exercise not only facilitated project activities but created high levels of day-to-day progress in awareness and leadership and co-operation ability among WFCs. This was possible because each interactive discussion was recorded and analysed.

While the problem and intervention identification routine was rather meticulously detailed and extended over a period of 6-8 months, only brief summaries are reported below.

5.1 Identifying problems

Step 1: Definition

The first step in handling a new topic by the group was defining terms and concepts. The first concept defined was the word problem. In their view a problem was "When the mother could not feed her child", "when there is no health", "when there is no shelter", "when there is no money to pay for rent" , "when one could not work and earn income", "when there is no forest..no income...no food...no life".

Step 2: Enumeration of problems

The problem identification sessions were emotionally charged. Participants freely expressed their personal problems and hardship experiences in life. Women shared with their fellows their hidden sufferings and oppressive social and economic relations. They were so attached to one another that all members broke into tears when they heard their fellow woman talking about her problems.

Step 3: Streamlining of the problem areas

Role plays were extensively used to name problems, to clarify the cause - effect relationships between them and to identify the various actors. Women enjoyed the use of drama and spontaneously developed skits. A young woman carrier with 12th grade education was inspired to write a poem describing the life of the group members. The original text in Amharic as well as the English translation are reproduced on pages 42 and 43.

The discussion on problem identification took several sessions. Finally the important problems were categorised into three groups:

- (1) Problems associated with the work of fuelwood collecting, transporting and selling;
- (2) Problems associated with unemployment/underemployment and low income; and
- (3) Social problems dealing with spouse, and other family members.

The problems of collecting fuelwood stem from the illegal nature of the work. During collecting BTLB women face harsh beating by forest guards, raping and confiscation of fuelwood. The only way out of this predicament for WFCs is to bribe several guards before they leave the forest with the biomass they collect. In addition to the forest guards, women are maltreated and raped by other men too. Participants reported that several women have died as a result of such beating and raping. One of the self-help group members was beaten to death. Since she was the head of a household, her children were left without any parental support. Now, two of her older daughters are engaged in fuelwood carrying. Even after such gross crimes against these women, no-one reports the case to higher authorities and no legal action is taken.

The other problems are associated with transporting fuelwood. Because of the long distances they cover and the heavy burdens they carry, the women bitterly expressed the pain and the sufferings they go through daily. They experienced fall injuries and bone fractures. The heavy weight of BTLB bundles, coupled with the rugged hills they go up and down, the inadequate amount of food they get, and their poor health and old age make the activity so harsh that they broke into tears every time they talked about it.

There are two problems associated with selling BTLB. Since they arrive in town late and they need some money to buy food for the children, they will be forced to sell it at lower price. Secondly, the BTLB they collect, particularly when it is not dry, fetches a lower price.

The second group of problems stressed by participants dealt with the lack of alternative employment. They have no other skill than fuelwood transport. Therefore, they try to subsist in this activity for up to 30 years though the income is so low as to hardly support their families. Hence, they raised the issue of some sort of training and alternative means of employment as a major area of concern.

The social problem is confounded with low income and poverty, broken or unsuccessful marriage, lack of family planning, stress and frustration. The absence of enough money to buy food due to BTLB confiscation results in unco-operative and discontented household members, which results in quarrels and turmoil in the family. Since there is little harmony in a family of empty stomachs, the participants suggested that the only way out of this social quagmire is by solving the economic problems.

My bitter life as a wood collector

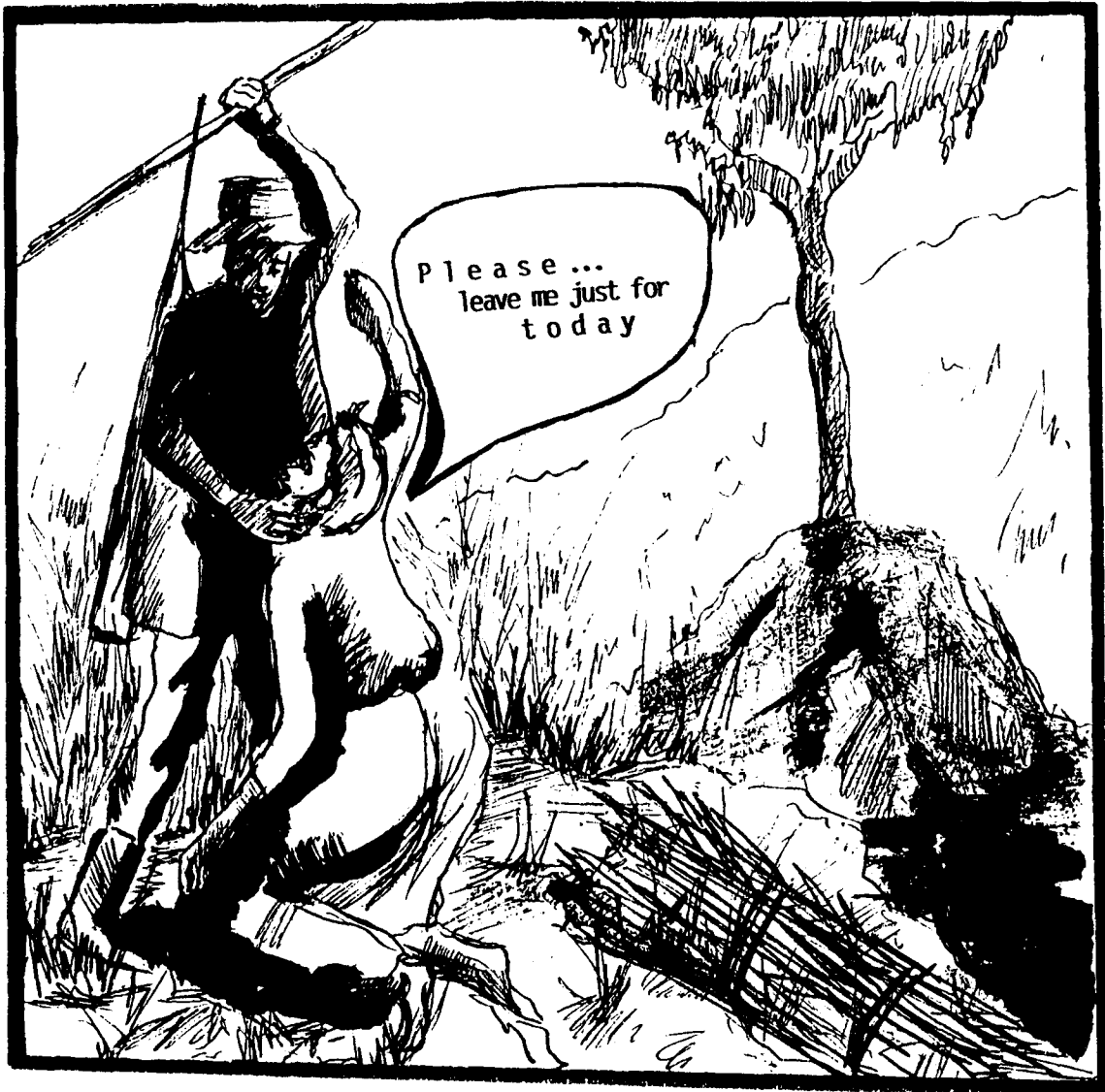
Waking up several times, thinking morning has come.
 Tying my waist firmly,
 When the dark starts to go away
 I go to collect firewood from the forest.
 Picking up my ropes,
 I start on my way, barefooted.
 I start my journey, preoccupied,
 Resisting the fear, the cold and the frost.
 I pray to my God to protect me from any danger.
 I increase my speed to reach the place,
 Watching out for the hyena and other beasts.
 I start my collection before the guard comes.
 After tying up what I have found and gathered,
 I start on my way back with my collector friend.
 We go a little way and cross the river:
 Two guards suddenly appear.
 Even if we beg them, weeping and weeping,
 They hit us with a stick and are very angry.
 Then they ask us for money.
 We give them the little money we have.
 They take it and release us.
 Feeling relieved, we go on a little bit.
 After going up the hill and descending it,
 Other forest guards suddenly catch us.
 We tell them we are collecting the rubbish -
 We didn't cut a tree,
 And we beg them to release us just for that day.
 They chase us both with a stick after taking the wood away.

My children wait for me at home,
 But I arrive empty-handed.
 Thorns tear my feet, I stumble and hurt myself.

The cold, then the heat of the sun afflict me every day.
 But this is not enough - the guards beat me, too.
 All my efforts have become useless,
 I risk my life.
 Oh life! Oh life! Oh cruel life!
 Striving, toiling to fill our bellies.
 But even this had become impossible.
 A bitter life, lived in the dark.

But the government plans to release us from this agony,
 Job opportunities have come for wood collectors.
 It is a salvation to all of us -
 A bright future is waiting ahead.

Tsehay Deres



5.2 Identifying interventions

Step 1: Definition

In the intervention identification process, women employed a similar approach to that indicated earlier. Initially, they defined new concepts such as solution to a problem. Frequently they developed and performed role play skits to explain in a picturesque way how problems could be solved. They defined a solution as a decision or an action that becomes instrumental in removing an existing problem. According to participants, problems are solved "when one recovers from illness", "when one is alleviated from financial burden",..."when one is employed". For them, having a job is equivalent to a solution. Solutions were classified into two: namely, permanent and temporary. Since participants were exposed to relief supplies, they clearly understood and differentiated between temporary and permanent solutions to problems. They also discussed the difference between feasible or practical solutions and ambitious or impractical attempts to solving problems.

Step 2: Criteria setting

Prior to identifying alternative solutions to their pressing problems, participants listed a set of criteria to assess the suitability and viability of alternative interventions. They agreed to list and rank potential interventions on the basis of the financial, technical, equipment and managerial requirements, the availability of raw material, the existence of continuous local markets and profitability. Thus, alternative candidate income-generating ventures were prioritised based on the above criteria.

Step 3: Identification and prioritisation of interventions

Through exhaustive discussions, the women's groups identified 20 possible income-generating activities (Annex 2). To these, an additional 10 were suggested by project staff. The latter suggestions included mostly ideas that would not have occurred to the women because of their limited knowledge of unconventional income-generating activities. Using the set of criteria indicated above and participatory discussions and consultations, the women's groups and project staff were able to select and prioritise seven interventions which were considered feasible and viable. These were:

1. Vegetable farm;
2. Beekeeping, flower and seedling production;
3. Bakery and fresh yeast production;
4. Grain mill;
5. Cottage industries such as soap-making and toothpaste manufacturing and the production of plant-based pharmaceuticals; and
6. Eucalyptus essential oil extraction;
7. The formation of women's co-operatives on the rehabilitation, management and marketing of forest plantations.

Since these seven business activities were identified without any technical studies, it was deemed necessary to undertake feasibility studies to ascertain their financial, technical and managerial feasibilities.

It is important to note that all groups discussed interventions exclusively in terms of alternative jobs to fuelwood carrying. Only after it had been suggested to them by project staff did they consider option 7, i.e. transformation of fuelwood carrying into an acceptable and legal occupation.

5.3 Feasibility studies on identified interventions

Feasibility studies on:

1. vegetable farm;
2. beekeeping;
3. bakery;
4. grain mill;
5. soap-making;
6. essential oil extraction from eucalyptus;

7. fresh yeast production; and
8. manufacturing of toothpaste

were carried out by a group of NUPI staff consisting of an agricultural economist and an animal scientist. Two proposed interventions, namely, the production of plant-based pharmaceuticals, seedling and flower production and the rehabilitation, management and marketing of forest plantations were not studied since these required more time, funds and specialists. These feasibility studies will be carried out in the future.

NUPI staff was only available for a limited period of time. Due to this constraint, each project was considered with only one set of assumptions. Throughout, conventional industrial standards were assumed for buildings and equipment. As a result, most investment needs are overestimated. Using simpler facilities and scaling down the size of the operation, the cost threshold for embarking upon an activity can be brought down considerably.

5.3.1 Vegetable farm

The feasibility study on the establishment of vegetable farm, after analysing the physical, economic, technical, managerial and financial parameters, identified with the help of women an area of 2.5 ha at Entoto Awraja, Higher 11 Kebele 23. The land is located near a river for possible irrigation. Climatically, the area is suitable for production of cool season vegetables such as carrots, beetroot, potatoes, cabbages and other leafy vegetables. A marketing survey has shown that there is a potential market outlet for vegetable produce.

The investment cost for the vegetable farm is estimated to be about 84,000 Birr of which 61.5 per cent is budgeted for land development and 33 per cent for equipment. Assuming that there will be two crops (harvests) annually on the 2.5 ha of land, the direct production cost is estimated at 6,277.50 Birr per year. This amount is almost equally shared between labour and material expenses. The overhead cost is estimated to be 15,342 Birr. Most of this amount will be allocated for salaries and purchase of consumables. The annual total revenue is calculated to be approximately 30,000 Birr with a slight increase as the farm becomes established. The benefit/cost ratio is calculated to be 1.22. On half-day shift operation, the vegetable farm will employ 36 women and two men guards.

5.3.2 Asko apiary

The proposed beekeeping venture is located in Higher 8 Kebele 35 on the Addis Ababa-Ambo road. This area was selected mainly because of the availability of river water nearby and different species of introduced trees to serve as source of flower nectar of the bees.

The total investment cost is estimated to be 24,443 Birr. About a quarter of this investment cost is budgeted for land clearance, construction and fencing. The remainder is planned for facilities, equipment, raw material, transport, training and labour. A budget of 3,600 Birr as a working capital is allocated for the first year until the first

harvest is attained. This amount of money is required for fencing and the initial operating cycle. The annual operating cost, including 10 per cent contingency allowance, is estimated to be 4,490 Birr. Eighty-eight per cent of this amount is budgeted for labour expense. Based on an annual production of 864 kg. of crude honey, the total revenue will be 5,184 Birr per year.

5.3.3 *Bakery*

A bakery is proposed in Higher 11 Kebele 01. The total initial investment estimate including net working capital for the bakery with the capacity of 1,000 loaves per hour is 146,933 Birr. Operating at full capacity, the plant will require an annual manufacturing cost of 248,097 Birr. The annual revenue estimate from this operation is 330,000 Birr.

Since there will be shortage in flour supply, a grinding mill is linked with the bakery operation. These two units of interventions will require a workforce of about 30 women.

5.3.4 *Grinding mill*

A grinding mill is proposed to be located near the bakery plant. The mill will require an initial investment of 74,300 Birr excluding net working capital. If it operates at full capacity, the plant will require an operating cost of 14,346 Birr and the expected annual revenue will be 14,364 Birr.

5.3.5 *Laundry soap*

A soap-making plant is proposed in Higher 16 Kebele 07 requiring an initial investment (including net working capital) of 203,000 Birr. The total production cost when the plant operates at full capacity will be 840,000 Birr. The net present value at 10 per cent discounting rate is estimated to be 1.5 million Birr. This intervention will absorb a workforce of 60 women.

5.3.6 *Essential oil extraction from Eucalyptus leaves*

Different species of Eucalyptus are grown in Ethiopia. One of the potential interventions studied was the production of essential oils from Eucalyptus leaves. These essential oils have various uses in the pharmaceutical industry, in the production of mouth-washes, dental formulations, sprays, medicated soaps, etc. Although Ethiopia used to export some amount of essential oils, at present the country imports several tonnes per year. Therefore, it was assessed that there are both local and foreign markets for essential oils.

Although resources were not available to assess detailed investment requirements, based on the information from an Italian company, the FOB price of an extraction unit, type AISI 311, with two cooling water condensers with a capacity of 1500l each is about US\$73,000. In addition to the high initial investment, two factors will make the implementation of this intervention less feasible at present. These are the level of

expertise that the plant may require, and handling foreign marketing. Simpler, smaller and less costly extraction units are available from Indian appropriate technology centres. Before proposing this intervention for implementation, further studies will be required.

5.3.7 *Baker's yeast*

Even though the production of baker's yeast is feasible both economically and technologically, the capital investment requirement could not be estimated. The machinery and equipment required for the plant are not available domestically and quotations are not accessible from outside suppliers. The main raw material such as molasses will be locally available. It is also reckoned that local demand for yeast is high. However, this intervention again may require high initial capital outlay in foreign currency and some level of technical know-how. Therefore, it is also suggested that a further feasibility study be undertaken before considering this intervention.

5.3.8 *Toothpaste production*

Since there is no native producer, a market for toothpaste is available locally. Some of the raw materials required are domestically available, while others need to be imported. The operation of the plant requires some trained personnel, particularly in the areas of production management, chemistry, machinery, etc. The intervention will require essential equipment and machinery that needs to be imported.

As for the production of essential oils and baker's yeast, proper feasibility studies were not undertaken regarding toothpaste making, mainly because there were no local experiences. Therefore, to consider whether toothpaste production is feasible or not there is a need for thorough study.

To obtain additional advice on these propositions from institutions and NGOs, they were presented and discussed at a one-day national workshop organised by the project on 16 August 1989. A copy of the report on the workshop is given in Annex 3.

6. Implementation

6.1 Transitional activities

There was a gap between the time project participants completed basic training, problem and intervention identifications and the initiation of the actual interventions. This gap has been mainly caused by the delay in acquiring land for the various self-help projects.

In order to maintain the interest of women participants, the project initiated interim period small-scale activities until the facilities are organised for the major income-generating interventions. These transitional activities included basket-making,

carpet work, cotton spinning and weaving. They were designed to accomplish the following:

- (1) Initially, women had been participating in project activities without any sort of income. In spite of this lack of material incentives to continue with the project, drop-out rates were low after early on in the project when one group had disintegrated. A year after its initiation, some 160 women were still participating regularly in the project. It was felt, however, that the women might lose interest in the project if hands-on progress could not be demonstrated soon. The transitional activities thus helped to keep up their interest in the project because they earned some income from their work.
- (2) Prior to engaging themselves in the transitional activities, women were trained in basket-making, carpet work and weaving. The manufacture of wooden stools was added in December 1990. This exercise was useful in two ways. Firstly, the project staff and the trainees gained valuable experience in organising a specific skill training, the use of trainers from other agencies, and in determining the trainability of participants. One of the findings was that fuelwood carriers can become effective trainers for other group members. The group initially trained in basket-making later trained another group so successfully that the latter are now producing much better baskets and earn a higher income. These lessons will be valuable in the implementation of the actual interventions later. Secondly, the women acquired useful skills in basketry, carpet work and weaving that they could continue to use in producing these items at home in their spare time to supplement their income.
- (3) Since this involved actual operation, division of labour and sharing of responsibilities, it enabled women to develop the art of working and solving problems together. The women gained indispensable business experience with raw material procurement and marketing. The latter provided feedback on consumer taste and preferences which they incorporated in the design of their products.



Working together



Weaving



Carpet work

During this interim period, a total of 130 women participated in the test activities: 87 in basketry; 15 in carpet work; 7 in weaving; 21 in spinning. By February 1991, the total number of women employed had risen to 143.

It was interesting to note that the quality of their work improved day by day. During this period, they were paid a trainee allowance of 1.50 Birr per half working day. This was to help them financially since they could not go to the forest to collect BTLB. In addition, they have been selling their produce (sisal baskets, carpets made of thread and wool, cotton shawls). Twenty-five per cent of the proceeds were shared among the producers. The additional fund for the supplementary daily allowance was kindly contributed by CIDA (Canadian International Development Agency).



Produced baskets, mats and carpets



Soap making

In October/November 1990 the training allowance was phased out and the women's income depended entirely on their individual production. Fifty per cent of the sales value of their produce has been paid to each woman every fortnight. The remainder has been used to purchase raw material and tools and to develop a capital fund. A considerable spread was apparent between top producers and those with less skill or investing less time.

Table 14 gives the highest and the lowest monthly income obtained from the transitional activities. It shows a wide gap between individuals with earnings diverging by a factor of more than 30. There are, however, also major differences between the various activities. Incomes from weaving and stool making are both highest and most consistent, i.e. with the least gap between highest and lowest earnings. It should be noted that the low minima are generally due to illness or childbirth, drastically reducing the working time of the woman concerned.

Table 14: Maxima and minima of monthly income from transitional income-generating activities (in Ebirr)

	Basket making	Spinning	Weaving	Stool-making	Carpet-making
Maximum	114	97.5	120	199	96
Minimum	6	3	54	30	6

Returns to work have improved over time as quality and design have better matched with consumer demand. Further gains in this direction are possible, as are higher prices for speciality goods such as spinning very fine yarn for traditional clothing. Some women who have moved into such market niches have already done very well for themselves.

Already now income from the transitional activities for the more skilful and productive women compares very favourably with earnings from fuelwood carrying which rarely ever exceeds 50 Birr per month. This shows that rather conventional activities can be quite gainful. It is planned to retain the activities at a lower scale even after the main income-generating projects have been installed because they diversify and stabilise the economic base of the groups.

Efforts are required and are under way to reach a wider range of customers. At present, marketing takes place mostly at bazaars and weekly sales stands in international hotels and organisations. This market is small, though with a high purchasing power, and seasonal (Christmas!). These limitations will be overcome by obtaining a shop for the sales of the women's products and by working under contract for a handicraft marketing centre with sales outlets of its own. Negotiations in both respects are under way.

In addition to these interim period activities, the project negotiated with the WB-financed Addis-Bah fuelwood plantation the employment of 48 women as casual labourers. They were paid 3.00 Birr per day for digging holes and tending trees. This was an attempt to finally integrate women in the Addis-Bah project. It was, however, unsuccessful because the project site was too far for the women to travel every day and the plantation project was not enthusiastic in employing this group of women.

6.2 Progress towards pilot testing of interventions

The activities that had been retained as the major sources of income for pilot testing are shown in the overview below along with the groups that want to undertake them and the transitional activities they are at present engaged in.

Table 15: Activities retained as the major sources of income for pilot testing

	Planned activity	Group (Kebele)	No. of women	Present activity
(a)	Vegetable farm	11/23	43	Stool making, spinning, baskets
(b)	Grain milling	11/04-01	46	Spinning, weaving, baskets
(c)	Beekeeping and ornamental plants	25/04	54	Carpet-making, spinning
(d)	Soap-making	16	16	-

The status of preparation and implementation is as follows:

- (a) **Vegetable farm:** together with NUPI and the municipality, a 3.5-4 ha plot has been identified. A certified survey needs to be carried out before a land title can be granted. Funds for fencing and for constructing a store are available. A suitable trainer in horticulture has been identified. Starting date unclear.
- (b) **Grain and spice milling:** a suitable plot of about 500 m² has been identified and is ready for transfer of ownership to the group. A container will be purchased from an NGO as a store. The land needs to be levelled and fenced. A shed is to be constructed. A mill and accessory equipment have been imported. Training is to be provided by the local agent of the mill manufacturer. Expected starting date April/May 1991.
- (c) **Beekeeping and ornamental plants:** a plot proposed by the municipality is located in a very remote area with no access road. The identification process has to be relaunched. Expected starting date uncertain.

- (d) Soap-making: four women participated in a four-month training course in soap-making kindly provided by Hope Enterprises. These women will in turn train the others in the group. The group has been offered a plot in a neighbouring kebele which will ultimately also become their property. Soap-making equipment has been purchased from local manufacturers. Caustic soda and fat, the soap ingredients, are available. Expected starting date April 1991.

Looking into the reasons for the long lag between intervention identification and actual start-up, it soon becomes clear that the main bottlenecks are neither technical nor financial but administrative. In spite of major efforts by the projects, it has taken more than a year to get to the point where two plots of land can be registered in the groups' names and be handed over. The streamlining of this procedure will be crucial and in fact a precondition for the replication of the project approach on a larger scale.

6.3 Integrating women into forest management

While the government planning and forest services were reluctant to accept the need to integrate the fuelwood carriers into forest management, the project maintained this stance throughout. The numbers of women and children involved are large and opportunities for economically viable alternative livelihoods are limited. Even if it were possible to transfer the bulk of the present number of carriers to another occupation, this would almost certainly create a "draught" into the vacated posts. General levels of un- and underemployment, coupled with continued pressure from rural-urban migration, would soon replace parting carriers by new ones. To preserve the forest resource in the future, a system of controlled, regulated access to all current users, including fuelwood carriers, will be needed.

It was an important role for the project to act as a spokesman for the fuelwood carriers vis-à-vis the authorities and as a mediator between the parties in an attempt to resolve their conflict. This task has been pursued through repeated discussions with the Forest Service, the responsible Vice-Minister of Agriculture, staff of the Addis-Bah project and representatives of the World Bank.

The ideas advanced by the project met with great reluctance on the side of the Addis-Bah project, particularly from the national project manager and from field-level project staff. This reluctance resulted in the attempt to employ women as labourers in the project being short-lived. Addis-Bah refused to go out of their way to overcome problems of transport, lack of tools and long intervals between pay-days.

After intensive lobbying throughout 1990, the dialogue has been resumed with promising results. The understanding reached in talks with project and World Bank staff in November/December 1990 is that:

- the Addis-Bah project accepts the need to assist the fuelwood carriers wherever possible;
- Addis-Bah will take measures against harassment of women by forest guards. Guards are to be selected more carefully and trained. They are also to be issued

strict guidelines on their duties and measures authorised. Finally, they are to wear at all times uniforms with clearly visible numbers so that infractors can be identified;

- since Addis-Bah faces labour shortages on its sites, it is to provide the ILO/NUPI project with a detailed plan on labour requirements. The carrier project will register collectors and match labour requirements from groups;
- the future marketing system of wood from Addis-Bah plantations will ensure access to supplies for the carriers by restricting the volume sold to a person per day. This measure would keep wholesale retailers out.

It remains to be seen to what extent the Addis-Bah project will live up in practice to these commitments.

7. Dissemination of results and follow-up

7.1 Dissemination

Both because of the pilot nature of its activities and because of the importance of policy aspects, active dissemination of project experience and findings is crucial for the achievement of its objectives. The project used displays, exhibitions, papers presented at conferences and publications as channels to inform nationally and, to a lesser extent, internationally.

Displays and exhibitions were shown at numerous bazaars, in the ECA building in Addis Ababa and at ILO headquarters in Geneva. Papers were presented at the project's mid-term workshop in 1989, at the 2nd Annual Conference of the Inter-African Committee on Traditional Practices in 1990 and at a workshop on Women and the Environment in Addis Ababa in March 1991.

Reports and articles on the project were published in the *World Health Magazine* 1990 and in the *General Report for the ILO Forestry and Wood Industries Committee* in 1991. An article will be published in the *International Labour Review* later in 1991.

7.2 Follow-up

From the outset, the project was to pave the way for effective assistance to fuelwood carriers on a much larger scale. In order to procure the necessary funding, a document for a follow-on project was prepared in 1990. The German Government has shown interest in financing it and the project is currently with them for consideration.

A copy of the document for the 6-year project with a donor contribution of US\$1.23 million for the first three years is provided in Annex 4.

8. Conclusion and recommendations

This section of the report deals with inter-related social and economic problems, policy issues and options related to energy supply and the employment of women fuelwood carriers in Addis Ababa. As pointed out earlier, the high rate of deforestation, fast decreasing yield and the overall deteriorating conditions of the Addis Ababa peri-urban forest have been points of concern. High demand for fuelwood for household energy and poor management (over-cutting - some plantations are cut on a 1-to-2-year rotation) have resulted in low annual yield. This forest situation threatens not only the supply of fuelwood to the city (since 80 per cent of the households depend on fuelwood for energy) but severely affects the livelihood of thousands of women and children who depend on fuelwood selling.

Because of the serious current fuelwood shortage and anticipated household energy problem in the future, several attempts have been made to solve the problems of future fuelwood supply to the city. Nevertheless, the employment and associated social problems of a large number of poor women and children fuelwood carriers have not been addressed by government agencies or other groups. The consideration of this group of people in the newly formulated forestry policy is not clear either. But the reality remains that a large number of poor community members supply a significant proportion of the fuelwood requirements of Addis Ababa and rely solely on the income generated from it. In addition, they are not given any place in the fuelwood plantations and upgrading schemes and future development programmes.

The project's research has confirmed the dire economic and living conditions women and children fuelwood carriers have to endure. But it has also shown that the carriers have an awareness of resource conservation needs. They show a responsible attitude towards the forest. The challenge is to overcome the present situation in which the compelling need for a day-to-day livelihood forces them to undermine the resource base on which they depend.

Most significantly, the project found that the women are keen on overcoming that situation and will make considerable efforts to this end. The approach of group formation, awareness raising and training developed under the project is accepted by the women and is an effective institutional tool for the design and implementation of interventions.

It can be relied upon to pursue the two options for solving the present problems.

These options are: firstly, that women fuelwood carriers be integrated into the forest management and utilisation system; and, secondly, various interventions in terms of alternative employment opportunities be encouraged.

The involvement of carriers in forest management and utilisation schemes could be broadly conceived under three alternative models. These are:

- (a) women in groups or as individuals could be employed by the rehabilitation projects for land preparation, planting and tending. They could also contribute in nursery management activities.
- (b) women's groups organised as co-operatives or associations could act as contractors for the tending, harvesting and marketing of wood and produce under agreement with forest-owning agencies. This may require the supervision of competent technical services by the State Forest Department or other Agencies.
- (c) women's groups could enter into long-term lease agreements or be accorded usufruct rights for tracts of forest against payment of rent and a guarantee to adhere to the provisions of a management plan laid out and supervised by the forest service. This proposition may need high level organisation of the women concerned and strong policy and technical support from the government.

The last two solutions would provide an opportunity to introduce more efficient tools, thereby increasing the regeneration and production capacity. It would also appear to help in reducing the waste at present resulting from the sale of fresh wood with a relatively low net rate of energy utilisation. The involvement of women in forest management and the development of alternative income-generating enterprises could be inter-related, depending on the nature of the enterprises selected.

As far as alternative income-generating activities are concerned, the project's experience suggests that it is possible to identify activities that are economically viable and that can at the same time be handled by women with a limited educational background and no or little prior experience in other occupations. It is interesting to note that the majority of the activities that are considered promising are quite conventional rather than totally new to Addis Ababa. It has to be noted that none of the proposed activities has been going on for long enough to have passed the test of time.

This is largely due to the single largest constraint to setting up alternative business: the administrative procedures necessary to acquire plots of land on which to establish production facilities are extremely time-consuming. If this bottleneck can be removed, the concept of complementing self-help effort with technical and financial inputs from a project is replicable on a scale that would have a significant impact on the lives of the fuelwood carriers and the peri-urban forests of Addis Ababa.

A concrete proposal for such a project is available (see Annex 4) and under consideration for funding.

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Annex 1

Number of female fuelwood carriers who carried weight burden equal to or more than their body weight, their average body weight, burden weight, distance travelled carrying, total distance travelled, number of years in the job, complaints by age group

Age	No.	Body weight (kg)	Burden weight (kg)	Distance travelled (km)	Total distance covered (km)	No. of years in the job	Complaints
10-15	11	38.4	49.5	11.5	21.2	1.6	Pain due to heavy burden Internal pain Eye or headache Falling down
16-20	3	34.0	46.0	12.0	23.3	3	Falling down
21-25	3	45.6	53.7	14.6	19.0	2.7	Pain due to heavy burden Rape
26-30	2	45.5	53.5	4.0	15.5	8.5	Pain due to heavy burden Internal pain
31-35	8	47.5	55.6	14.0	27.0	3.7	Eye or headache Internal pain Pain due to heavy burden
36-40	11	46.5	57.5	11.5	29.5	5.5	Chest & back pain Pain due to heavy burden Eye or headache
41-45	6	46.2	64.2	13.7	25.8	4.8	Chest & back pain Eye or headache Internal pain Falling down
46-50	5	46.4	54.4	10.2	21.6	5.4	Chest & back pain Eye/headache Falling
51-55	3	43.3	48.0	15.7	28.3	6.7	Pain due to heavy burden Eye/headache Falling down
56-60	3	49.0	56.0	10.0	20.6	6.3	Pain due to heavy burden Chest & back pain Falling down
61-65	1	43.3	45.0	15.0	30.0	5.0	Pain due to heavy burden
66-70	1	45.0	55.0	25.0	40.0	7.0	Overall illnesses

Source: Fekerte Haile, 1985.

Annex 2**20 possible income-generating activities
identified by women's groups**

1. Vegetable, seedling and ornamental plant production
2. Beekeeping
3. Bakery
4. Grinding mill
5. Poultry
6. Shoe making and repair
7. Food processing
8. Restaurants
9. Concrete blocks manufacturing
10. Kindergarten
11. Handicraft
12. Fruit and vegetable selling
13. Soap making
14. Edible oil industry
15. Cosmetic industry
16. Sweater factory
17. Glass factory
18. Butchery
19. Photograph
20. Hair dressing

Annex 3

**Report of one-day national workshop
16 August 1989****I. INTRODUCTION**

1. Brief introductory remarks were made by Ms. Fekerte Haile, Field Director, Project ETH/88/MOI/IDR, who welcomed the participants to the Workshop. She said that the Workshop was designed to inform various national and international agencies about the project activities, research results, problems and issues, in order to exchange ideas and get feedback for future directions.

2. Opening remarks were made by Ms. Metu N. Belachew, Workshop Chairperson. She pointed out the problems of consumption and supply of fuelwood, and that the needs of women had not been addressed heretofore. She said that the focus of attention of this Workshop would be to see how women were affected by this situation.

Each participant was then invited to introduce her/himself.

II. OPENING REMARKS

3. Engineer Techeste Ahderom, General Manager, National Urban Planning Institute (NUPI), was invited to make opening remarks. He recalled that in 1985 a research was conducted in Addis Ababa, under the Addis Ababa Master Plan Project, predecessor of NUPI, entitled "Household Energy in Addis Ababa - the Supply and Consumption of Fuelwood". 95% of the energy supply in Ethiopia depended on bio-mass, he continued. In Addis Ababa 96% of households use fuelwood, charcoal and other bio-mass. From 1983-86 extensive socio-economic studies were carried out by NUPI, including housing, transportation, social services, industrial enterprises, commerce and other services. In one sector, the energy and forestry sector in Addis Ababa, the review showed that although there was a decisive move to use alternative sources of energy during the coming twenty years, there was no significant change in the pattern and use of fuelwood. There was a need to reserve adequate space at all levels for planting new, and rehabilitating existing forests. He identified 6 different categories of needs for forests as follows, for

- wood-based industries
- furniture and household equipment
- household fuelwood
- construction industry

- recreational and conservation purposes
- ornamental trees for streets and gardens.

4. Fuelwood carriers catered to almost 35% of the household energy needs in Addis Ababa, said Eng. Techeste. 90% of the the fuelwood carriers were urban-based women who are the poorest of the poor. They numbered about 70,000. Their income barely met their needs for survival. They carried 35kg, and traveled an average of 12 km per day. 50% were single, and the other 50% were heads of households. They had no other source of income. Two-thirds of the women depended entirely on fuelwood carrying for their livelihood.

5. This ILO/NUPI Project was a follow-up to the previous project. In view of the expected dislocation of the women, Eng. Techeste urged for the need to plan ahead for the 10% of the urban women, as no one knew what would happen to them. A limited case study needed to be conducted to create alternative employment for the this group of women. In this Workshop, participants would have a chance of hearing some of the preliminary results of this Project. In view of the overall strategy being followed by NUPI, NUPI would be willing to contribute whatever would be necessary to realize the results of this research.

6. Eng. Techeste wished the Workshop participants a fruitful discussion and deliberation. But he expressed scepticism that any concrete results would follow. He pointed to the fact that many studies had been conducted, but that they had never been able to pass from the stage of tokenism to really large-scale implementation. He reiterated the fact that the target group was well known, with well-known problems, that would surely escalate in the next few years. He suggested that this posed a great challenge for donors as well as government agencies, to look seriously into this problem and implement a really action-oriented program.

III. REMARKS BY ILO REPRESENTATIVE

7. Mr. Hailu Telahun, Officer-in-Charge of the ILO Regional Office for Africa was next invited to address the Workshop participants. He welcomed the participants on behalf of ILO. He outlined the project aims and encouraged the Workshop participants to consider alternatives for the future development of the fuelwood carriers. He said the ILO would be ready to examine recommendations from the Workshop. He acknowledged with appreciation the assistance rendered to the Project by various agencies, including NUPI, IDRC, CIDA, IAC, WORLD VISION and the concerned Kebeles in undertaking studies and training programmes effectively.

IV. HIGHLIGHTS OF INTERIM RESEARCH REPORT

8. Ms. Fekerte Haile next presented the highlights of the interim research report, dated July 1989. She first briefed the participants on the background for the study on women fuelwood carriers in Addis Ababa, who in a 1985 study, were said to supply 35% of Addis Ababa's households with fuelwood. Yet their living and working conditions were so bad, as to warrant immediate intervention by government and development agencies.

9. A 1984/85 socio-economic study by the Addis Ababa Master Plan Office was followed by a project initiated by ILO and NUPI in 1988, and financed by IDRC. Its aim was to identify viable interventions based on the scrutiny of the problems of this group of women, and was launched for an initial period of 15 months.

PROJECT OBJECTIVES

10. Ms. Fekerte outlined the long and short term objectives of the Project. The immediate objectives were

- a) to assist the self-help groups of fuelwood carriers in identifying and analysing their own situation;
- b) to carry out detailed socio-economic analysis of the fuelwood supply system to Addis Ababa;
- c) to disseminate and discuss the results of the study and develop plans of action pertaining to identified initiatives with relevant government and/or international agencies and other interested groups.

METHODOLOGY

11. The participants were informed about the methodology used for this research project. 4 Highers and 8 Kebeles were selected based on the previous study. 180 women were selected from 7 Kebeles from a total of 850 women using a set of pre-determined criteria. Thus the most economically disadvantaged women, and who showed interest in participating in the model self-help group were identified.

12. Initially participatory observation method was used, which was followed by the use of multiple approaches of data collection and formation of self-help groups on each project site. Each group elected their leaders, who were trained in the concept of community-based development, communication and facilitation, and who then acted as animators. They helped the other women to identify problems and interventions.

13. Simplified questionnaires were also prepared to obtain

quantifiable data on women's time-budget, household expenditure and price of fuelwood in Addis Ababa. These were filled by the women participants, who were trained on how to complete them or by their children.

FINDINGS AND DISCUSSION

14. Ms. Fekerte then described in brief the situation of forests around Addis Ababa, and their ownership before and after Menelik II introduced eucalyptus trees in 1885, and right down to the 1974 Revolution. The current supply problem of fuelwood as well as construction material was being addressed by the government with donor assistance. The World Bank and the African Development Fund (ADF) together with the Ministry of Agriculture were trying to upgrade the eucalyptus forests and establish new plantations around Addis Ababa.

15. The impact of these plantations on the lives of the inhabitants of the project areas was significant. Relocation of farmers and their families had resulted, and a significant number of women fuelwood carriers and their families were left without any alternative means of livelihood.

16. Ms. Fekerte further pointed out that due to lack of proper management and a replantation program, destruction of the peri-urban forest and a reduction in yield had resulted. The supply of fuelwood to Addis Ababa was not coordinated, she said, and needed to be addressed seriously. 40% of what was supplied to the city was freely collected. The urgent need to address the problems faced by a large group of women was the focus of this Project, since the large donor-assisted fuelwood projects had failed to consider the social dimension of the problem.

17. The Workshop participants were informed that about 20% of the women in the Project were below 20 years of age, 76% between 20 and 40 years, and 4% were above 40 years. 8% had completed High School, 21% had Elementary education, 33% were literates, and 38% illiterates. The women's average income was Birr 37 per month, which was spent in supporting an average household of 5 members. 60% of the Project participants were heads of households. The remaining 40% were married to persons who in most cases were unable to support their families economically. 59% of the households had children below the age of 5, and over 11% of the households had to care for handicapped family members.

18. 68% of the households had no pit-latrines, and the remaining 32% shared common pit-latrines, which were in need of maintenance. 54% of project participants shared a single multi-purpose room with other household members and/or other families.

8% did not own such a room. 64% of the women participants shared a single bed with more than two family members. 20% of them used the mud floor for sleeping, which was covered with dried palm tree leaves, and 7% used straw mattresses laid down on the floor. The remaining 6% used wooden and metal beds of their own.

19. Ms. Fekerte then spoke about the time-budget study that was conducted to determine how the women fuelwood carriers allocated their time in a day. Data was collected over a four-month period from January to April 1989. 179 women participated in this study. 9 major activities were identified including,

- preparing and serving food
- fetching water
- cleaning
- wood chopping, milling, spinning and sewing etc.
- fuelwood gathering and other income earning activities
- visiting clinics and traditional medical practitioners
- going to the market
- night school
- social obligations.

Since the data analysis was not yet complete, this and the study on household expenditure, as well as price of fuelwood in Addis Ababa, would be reported in the final Workshop.

20. 3 major category of problems had been identified by the project participants dealing with fuelwood collection, transporting and selling activities. Because of the semi-illegal nature of the work, the women were exposed to the dangers of being beaten and raped by forest guards, or paying bribes to them, as well as confiscation of the biomass they had collected. There were even reports of women who had died after being beaten and/or raped.

21. Women reported that they spent 9-12 hours in fuelwood collection a day. They carried the fuelwood on their backs, and some had spent 30 years engaged in this burdensome activity. Traditionally it was the women who carried fuelwood. Men were given the opportunity of being hired as daily labourers which gave them a better and more secure income. Even if women were engaged as daily labourers, they were paid less than their male counterparts.

22. It was observed that the women managed to obtain an income of Birr 3-5 per day on a successful day. At times they were forced to sell at a very low price. Moreover the husband's income did not augment the family income, but was usually spent on drink. If the women were unable to collect sufficient fuelwood, their children starved. This situation caused much stress and conflict.

. IDENTIFIED INTERVENTIONS

23. Through the process of interactive discussions and other such methodological tools, women self-help groups were given the opportunity of identifying alternative initiatives, to help solve their socio-economic problems, and a set of criteria was used to do this. 20 interventions were thus identified by the women themselves, and a further 10 were proposed by the project staff. Finally 7 major initiatives considered viable were selected as follows:

- vegetable and edible mushroom production
- beekeeping
- grain mills
- bakery and fresh yeast production
- eucalyptus essential oil extraction
- cottage industries (soap production, tooth paste manufacturing, production of plant-based pharmaceuticals)
- formation of women's cooperatives on the rehabilitation, management and marketing of forest plantations.

Ms. Fekerte reported that feasibility studies were being carried out, and would be tested on a pilot project level, which needed technical and financial inputs from national and international agencies. The outcome of the pilot schemes would be evaluated in a final workshop involving interested groups and potential donors.

PROBLEMS IDENTIFIED DURING RESEARCH

24. Ms. Fekerte finally highlighted a number of problems, social and economic, as well as policy issues for the participants' attention, as follows:

- the fast decreasing yield and the deteriorating conditions of the Addis Ababa peri-urban forest plantations;
- the old age of many of the plantations and poor management;
- the threatened supply of fuelwood to the city;
- the severely affected livelihood of those dependent on selling fuelwood;
- the increased amount of time spent by women fuelwood carriers in collecting bundles of twigs and leaves than ever before;
- the lack of attention by government and other agencies in addressing the problems of a large number of women fuelwood carriers.

V. .DISCUSSION OF PROBLEMS, POLICY AND FUNDING, ISSUES AND RECOMMENDATIONS

25. The Chairperson expressed her hope that participants would make a valuable contribution to the project ideas, solutions, and policy issues. She invited questions and comments on the Report.

26. A question was raised by the Addis Ababa Fuelwood Plantation Project representative on the price of fuelwood being given as Birr 37 per month, which he said was very low. It was explained that the calculation was based on interviews with the women fuelwood carriers, omitting bribes etc., and on the fact that the women did not go to the forests on Saturdays and Sundays. The Chairperson pointed out that this amount did not reflect the value of fuelwood in Addis Ababa, but the earnings of the women.

Eng. Techeste added that one generally obtained a distorted picture when conducting such a survey. In a 1986 study the poverty line in Addis Ababa was Birr 136; now it was much higher than this figure. Eng. Techeste pointed out that the problem was two-fold, lack of gainful employment, and lack of protection by the law. Alternative sources of employment must be found very soon, he said, either forestry-related, or micro-enterprises.

Ms. Fekerte confirmed plans to obtain precise information on their exact expenditures, so that information on their exact income would be known.

27. A question was posed by the Redd Barnen representative on self-help groups. Clarification was given to the effect that 180 women had been organized into self-help groups, with their own leaders. These groups would act as models.

28. The FADEP representative expressed appreciation for Ms. Fekerte's Report. She said the age of the women and girl fuelwood carriers worried her, as it seemed they were becoming younger and younger. Regarding possible interventions, she suggested consideration be given to construction of carriages to carry the fuelwood, and to the need for appropriate technology. She felt there ought to be ways of channeling the money back to the women. Ms. Fekerte pointed out that the women needed to be a legal entity. Also there was a policy issue involved regarding land use.

29. The representative of the Self-Help Group from Higher 17, kebele 20 suggested that production of briquettes could be one project idea, in which the women could be engaged.

30. The representative from the Office of the National Committee for Central Planning (ONCCP) wondered whether it would be feasible to establish new bakeries since there was excess capacity, and whether some of the suggested interventions were suitable for the level of education of the women. Ms. Fekerte responded by saying that feasibility studies would first be conducted, as mentioned earlier. Comments by the representative from the Ministry of

Labour and Social Affairs (MOLSA) was then invited by the Chairperson.

31. The HASIDA representative explained that licenses were not being given for bakery operations. She however expressed her keen interest in the briquette production idea mentioned earlier. She said that the idea of making carts may not be feasible because the work of the women was illegal.

32. The MOLSA representative felt that vegetable production, bee-keeping and grain mills seemed to be feasible ideas. She said there was a possibility of leasing land for dairy farming, but not for fuelwood production. If REWA and NGOs could become involved together with the Ministry of Agriculture, this possibility could be further investigated.

33. An expert from NUPI pointed out that the number of women fuelwood carriers was likely to remain the same or decrease slightly. He felt that a variety of factors should be looked at:

- increased demand for bio-mass and the expected implementation of projects and programmes of peri-urban forestry;
- innovation in the means of transport;
- improvements in the conditions of collection in the forests, such as shelters during the rains;
- means of transportation of the fuelwood into the city;
- correlation between transportation flow of this commodity and pricing. Improved transportation was needed to the city gates and within the city.

He said this activity could not be considered as a marginal one, and it would not disappear in a short time. Particular attention had to be given to the marketing problem. The foreign currency component of such a project was likely to be quite high, and one would have to look at the multiplier effects. Further, employment of some of the women in 2 other sectors would have to be looked at, namely in the

- production of paper from eucalyptus
- construction sector ("chikka" and brick houses).

There was a need to develop this sector, and particularly the possibility of earth bricks production.

34. The representative from ADF Fuelwood Plantation Project

informed the participants about his project. It cost Birr 2,000 to establish a hectare of fuelwood plantation. 70% of the workers in the nurseries were women from the rural areas, he said. Land shortage was a big problem, which was needed by the peasants for grazing. For harvesting, three times more labour was needed than for establishing such a plantation. After 2 years, the project would end, and yet the tree ownership issue was still pending. One idea was the formation of a co-operative, but how this should be done needed studying. Illegal cutting of trees would continue. He reported that during the peak season, 7,000 workers were employed from a norm of 500. He said that the project tried to absorb as many women as it could in the Project. Regarding the suggested project ideas, he felt bee-keeping was costly. He informed the Workshop that a national forestry policy was being submitted to the Council of Ministers, but that it was not gender-sensitive.

35. The representative from CRDA asked what should be done to assist this group of women, and if it were indeed possible to see their situation in isolation. The lack of a national land-use policy was a major constraint.

36. The representative from IAC raised a query regarding the reclamation of waste-land, and wondered if women in PAs could be related to the Forestry Department, and be involved in the management of the forests, or if a group of people, who were sensitized to gender issues, could be involved in the preparation of a future management plan. Alternative employment as in the processing of forest products should be considered.

37. The representative from MOLSA commented on the 7 project ideas given earlier. She said access to raw materials was very important, and that a market study was needed. The women should be given marketing and accounting skills. She felt that production of mud cakes was another alternative idea that should be explored.

38. The Redd Barnen representative inquired if grants for starting small businesses based on individual interests had been considered. Ms. Fekerte reconfirmed the fact that the project was working with self-help groups, and individual interests had been identified. The representative of the Higher 17 Self-Help Group pointed out that income-generating projects usually ended up in failure, as problems were faced with obtaining raw materials. Co-operatives should be promoted. The MOLSA representative pointed out that there were NGOs who could help women start up their own small projects, as was the case in South America.

39. The Chairperson then asked the participants for their opinions on how to address these issues, as most of those present, represented donors. The NCA representative suggested that these findings be shared with NGOs. The FADEP representative said she was in favour of grinding mills, day-care centers, programs of

adult education, and courses in accounting and management skills.

40. The UNICEF representative felt that the organization issue was more important than project ideas, which were subject to feasibility studies. His main worry was how to organize the women into strong groups. While women-specific projects were not being encouraged, he wondered whether this was being advocated here. The IAC representative said that women were being marginalized both in women in development projects as well as women-specific projects. Clarification on community-based projects was very necessary.

41. The Chairperson stated that the participatory process was a slow process and took longer to reflect results. Both approaches should however be taken into consideration. The CRDA representative raised a question as to whether it was not feasible for the women's groups to enter long-term lease agreement or be accorded usufruct rights for tracts of forest.

42. The MOLSA representative felt that since these women had domestic responsibilities, a health component should also be included. The CRDA representative suggested there should be an integrated project, with the active involvement of the Ministries of Labour, Agriculture and NGOs. It was further suggested that there be a steering committee composed of members from technical ministries and other concerned organizations, national and international, to facilitate and to provide access to what the women needed.

VI. CLOSING

43. The Chairperson extended her appreciation to all the participants on behalf of CIDA and the Workshop organizers. She urged them to take this sector of society into consideration in their work, and to consider the impact and effects of their own activities on these women.

Rapporteur: Ruth E. Abraham
UNDP

Annex 4

Follow-on project proposal

INTERNATIONAL LABOUR ORGANISATION
MULTI-BILATERAL PROGRAMME OF TECHNICAL COOPERATION

Project Document

Project Title: Employment Promotion For Women
Fuelwood Carriers Through
Organisation

Geographical Coverage: Kebeles in Addis Ababa, Ethiopia

Project Language: English and Amharic

Project Site/Venue: Addis Ababa, Ethiopia

Starting Date: October 1990

Duration: 6 years (in two phases of three
years) *

Donor Contribution: US\$1,231,334

Cooperating Government
or Agency in Recipient
Country: Women's Affairs Department of
the Ministry of Labour and
Social Affairs, and the Addis
Ababa Regional and Municipal
Governments.

* Project budget includes the first three years only.

1. BACKGROUND AND CONTEXT

Addis Ababa, the capital of Ethiopia, with 1.8 million inhabitants, depends primarily on biomass (fuelwood, leaves, charcoal) for 80% of total energy consumption. The bulk of this biomass is supplied from within a 20 km radius around the city, from eucalyptus coppice forests established at the end of the last century by Menelik II. Harvesting, transport, and marketing are done by a state-owned marketing corporation, which accounts for less than 20% of the total; and informal suppliers including peasants, urban dwellers, and merchants. The urban dwellers engaged in fuelwood transport supply between a quarter and a third of overall consumption. This group is essentially comprised of a large number of women and children, estimated in the range of 10,000 to 70,000 individuals, who depend on fuelwood carrying and sale for their livelihood.

The fuelwood carriers live in town and commute several times each week to the forests, where they harvest small diameter twigs and leaves. The fuelwood is stacked into bundles weighing between 15 and 50 kilograms, carried on the back, and transported by the carriers on foot over a distance of 10 - 15 kilometers to be sold to individual households or at urban markets.

The fuelwood carriers belong to the poorest section of society. The majority (60%) of the women carriers are female heads of households. Fuelwood carrying is their major, often sole source of income, bringing the equivalent of US \$ 20.00 per month, which supports an average family of five members. Most fuelwood carriers live in slum areas, often in a single "multi-purpose" room or in a small rented space in a private house.

The majority of the peri-urban forest is contained within a large-scale World Bank - financed Addis Bah project designed to upgrade and extend the forest supplying Addis Ababa. While the Addis Bah project appears to have been successful in improving the condition and extent of the forest, to date women fuelwood carriers have not been successfully integrated into the Addis Bah activities, or in other national forest programs and plans, in a way that maximizes sustained use practices or that optimizes the potential economic, technical, management, labor, and transport roles of the women. Discussions with relevant parties are underway to devise ways and means of integrating the women fuelwood carriers into the rehabilitation efforts and, in the medium term, into a sustained yield management and utilization of the forest resource.

Additionally, as the significant role of women fuelwood carriers in urban fuelwood transport and supply is unrecognised and even discounted at the policy and planning levels, there is a need to widely disseminate research findings and information about the women fuelwood carriers to all levels of planners and decision-makers with the NGO community and Government. While much has been learned about the identity, socio-economic status, and roles of the women fuelwood carriers, research still needs to be undertaken on their overall numbers, relative income derived from fuelwood (the

degree to which it is a unitary or supplemental source of household income), nutritional and health aspects, ergonomic aspects of cutting and transport, and other areas.

Despite the fact that women fuelwood carriers have few economic alternatives to their present occupation and that they contribute substantially to the energy supply of the city, their activities are illegal. Given the large number of people involved and the hundreds of access tracks to the forest, guarding and prosecution have not been effective, but have severe consequences for individuals that are intercepted. Harassment by forest guards through beatings, confiscation of fuelwood, and extortion are routine; rape has also been reported by many women. There were indications that some women have not survived "questioning" by the guards. Forest guards demanding bribes from the women is very common to escape prosecution and to avoid confiscation of the wood; some women must pay bribes several times during a single trip from the forest.

While urban demand exceeding sustainable supports and harvesting taking place in a disorganised manner, the women have contributed to the degradation of the peri-urban forests of Addis Ababa against their will and long-term interests. The women depend on the forest and are aware of this.

Since June 1988 the ILO has been implementing a research project, in collaboration with the National Urban Planning Institute (NUPI) on women fuelwood carriers in Addis Ababa, with financial assistance from IDRC, Canada. This action-research project, which will terminate in July 1990, was directed at analyzing the socio-economic situation of the carriers, with a view to carrying out action programs based on the field research, using a participatory approach. The research project was designed to find ways to reconcile economic, social, and environmental concerns, inter alia, through the involvement of women's self-help groups, and to test promising interventions on a pilot scale. These interventions aim at the creation of alternative employment opportunities on the one hand and the integration of women fuelwood carriers into a sustained yield management of the forests on the other. Therefore, both forest-based and non-forest income generating and employment creating activities are being pursued.

The research project has gained the confidence of the carriers, and has succeeded in organising 140 women into four groups in three kebeles. These groups have received some initial training in group formation and organisation, and have embarked on income-generating activities identified by the women themselves. Activities already commenced include soap-making and mat-making. Feasibility studies have been carried out on two other activities identified by the women (vegetable farm and beekeeping), that will be initiated during the project bridging period. Further feasibility analysis will be conducted on a milling and baking operation during the bridging period. Additionally, numerous other options and activities identified by the women will be explored.

Despite its relatively small size the research project has met with great appreciation and support among Government institutions, international organisations, and the beneficiaries. As a small project it has had far-reaching consequences in terms of ground-breaking research, policy influence (although this was not a specific goal), and in enabling the empowerment through group formation of disadvantaged, previously isolated individuals. Building on the successful approach and the momentum gained by the research project, it is now proposed to extend and broaden the activities in a new, six-year project conducted in two three-year phases.

The strategy pursued by the project to help reinstate the equilibrium between the forest resource on the one hand and the needs for energy of the city and for income of the carriers is to reduce the number of carriers at least temporarily through the development of alternative employment opportunities while the remaining carriers harvest the resource according to management plans. This will contribute to stabilising supply levels until new resources become available from the African Development Bank and World Bank supported afforestation and rehabilitation projects in a few years' time.

The proposed project will retain the research, income generation (non-forest and forest-based activities), and group organisation objectives of the prior project, but will also pursue objectives in policy (the integration of women fuelwood carriers in policies, plans, and programs) and institution building (strengthening the capacity of the newly-created Women's Affairs Department of the Ministry of Labour and Social Affairs). Particular attention will be paid to the mechanisms for financing and the long-term sustainability of the project activities. Certain aspects of the project, such as group formation and empowerment, asset creation, and income generation, will be based upon the experience and approach developed by the ILO in its Asia regional and African projects.

The Government of Ethiopia recently announced that a new economic policy is to be established based upon privatisation and a more open, mixed economy. Parastatal marketing boards for agricultural and forest-based raw materials and products are likely to be dismantled in favor of privatised, decentralised management and control. At present, new policies, mechanisms and procedures with regard to ownership and use of land, forest tracts, trees in existing plantations, private and cooperative roles and procedures, credit, and other aspects are under formulation. A new national natural resources plan for Ethiopia is also under development that will subsume a new forest policy, and under which the Tropical Forestry Action Plan will operate.

While this portends well for an expanded role for women fuelwood carriers in all aspects and levels of fuelwood supply, in the short to medium term there are as yet no guidelines established as to means and mechanisms. In this situation there is a very timely and significant opportunity for the project to collaborate with

relevant Government and NGO bodies to develop such means and mechanisms at all policy and operational levels.

With regard to forest-based income-generating activities, these will be developed once the appropriate guidelines and policies from the Government have been established. In the interim, the tenurial arrangements and policies for natural resources such as land and trees are under revision, and ongoing donor programs have for the most part become temporarily inactive. It is foreseen that during the bridging period and in the first year of the project emphasis will be placed on the development of policies and organisational mechanisms upon which to base forest-based income-generating and employment-creating activities; operationalisation of these activities will occur as the policies and procedures have been established.

Such means and mechanisms may include inter alia: direct policy statements and operational directives; new arrangements for the organisation of harvesting, transport, and marketing of fuelwood based on cooperatives of women fuelwood carriers; introduction of proper harvesting techniques with appropriate tools and equipment; safety instruction and equipment; establishment of a rationalised cooperative transport network utilising donkeys or vehicular transport, collection and transfer points, drying/storage depots, and marketing outlets; direct access by the women's groups to forest land through usufruct or other rights; the establishment of nurseries for fuelwood, ornamental, and food/fruit-bearing tree species; etc.

Funds have been received from the Government of Norway for the interim period, which will enable the project to come on line, and to support the initiatives started by the ILO/NUPI research project. However, timely and urgent approval for the new project will be needed, so as not to lose the momentum gained by previous project efforts, and to not lose the confidence and interest of the women fuelwood carriers participating in project activities.

2. TARGET GROUP

The target group of this project are poor urban and peri-urban women who earn an income from the collection, transport by backloading, and sale of fuelwood in Addis Ababa. The majority (60%) are female heads of households, and have few alternate sources of cash income with which to support their families. They are mostly unorganised, and do not participate in development policy planning structures. In general, they are overlooked or avoided in the planning and implementation of forestry programmes and projects.

3. OBJECTIVES

Development Objective

The project contributes to creating a balance between the conflict between the basic needs of the women fuelwood carriers, the sustainable management of the forest resource, and urban fuelwood demand and supply.

Immediate Objective (Group Formation)

Self-managed, cohesive groups of women fuelwood carriers able to organise actions to identify and resolve problems without assistance.

Immediate Objective (Income Generation)

Women's groups achieve self-reliance in the management of viable and sustainable employment and income-generating activities.

Immediate Objective (Research)

Better understanding and availability of information on the socio-economic and working conditions of women fuelwood carriers.

Immediate Objective (Institution Building)

Women's Affairs Department of the Ministry of Labour and Social Affairs strengthened and able to implement and coordinate action programs to support urban and rural women.

Immediate Objective (Policy)

Integration of women fuelwood carriers in Government and NGO forestry and other natural resources/conservation programs and plans, through improved policy dialogue at all levels.

4. MEASURES OR INDICATORS OF ACHIEVEMENT OF OBJECTIVES

(Objective 1: Group Formation)

Indicator of achievement/sustainability:

A minimum of nine cohesive groups exist at the end of year three for which the project staff does not perform major management activities, services, or appeals on behalf of the groups: the groups increasingly perform these actions without external support or affirmation.

(Objective 2: Income Generation)

Indicator of achievement/sustainability:

a. Income is derived from the income-generating activities, and such income is in part re-invested in the activity and in part paid to the group members on a regular basis according to a plan approved by the group. The weekly income accruing to group members is at least equivalent to two days' earnings from hauling fuelwood.

(Objective 3: Research)

Indicator of achievement:

a. Research findings are generally accepted by other researchers with a minimum of controversy regarding methodology or analysis.

b. Research findings are used to support the formulation of policy and programs by the Government and by other NGO's (citations may be used as evidence).

(Objective 4: Institution-Building)

Indicator of achievement/sustainability:

The Women's Affairs Department of the Ministry of Labour and Social Affairs actively and dynamically undertakes activities in action-oriented research, group formation, and formulation of policy without external support or initiation.

(Objective 5: Policy)

Indicator of achievement:

New approaches, methods, and programmes are developed and utilized within the Government and relevant NGO's that effectively integrate women into ongoing and new natural resources programs and plans.

5. OUTPUTS

(Objective 1: Group Formation)

- training programs organised and completed in group formation and organisation, and in cooperative organisation;
- nine new groups formed (two in year one; three in year two; four in year three);
- licenses and cooperative registration obtained for mature groups and cooperatives, as required;
- study tours for group leaders conducted;
- study tours for MoLSA and project staff and other relevant Government staff conducted);
- methodology paper completed.

(Objective 2: Income Generation)

Forest-based activities:

- women group members trained and equipped in techniques, safety procedures, management, organisation, and other areas related to the identified activities;
- viable apiary established and operational within the first year of the project;
- at least two other viable income-generating and employment-creating activities operational and self-managed by the third year of the project.

Non-forest based activities:

- women group members trained in book-keeping, management, cooperative organisation, and other aspects related to the identified activities;
- viable soapmaking enterprise at the cottage level established and operational in the first year of the project;
- viable cooperative vegetable farm established and operational by the second year of the project;
- viable milling and baking enterprise established and operational by the second year of the project;

- at least two other viable income-generating activities operational and self-managed by the third year of the project.

(Objective 3: Research)

- research reports and publications prepared and distributed to relevant international and Governmental bodies;
- research findings presented at workshops and seminars;
- research data and findings incorporated in project monitoring and evaluation through feedback process;
- research findings utilized in the identification and formulation of project income-generating activities.

(Objective 4: Institution-Building)

- MoLSA Women's Affairs Department acquired knowledge and experience in successful group organisation methodologies and approaches;
- MoLSA Women's Affairs Department acquired experience and knowledge on action-oriented research methodologies;
- MoLSA Women's Affairs Department has adequate equipment and transportation to carry out group organisation, research, information dissemination, and policy functions.

(Objective 5: Policy)

- Research results and informative analysis on women fuelwood carriers is presented and disseminated in publications at all policy and operational levels;
- Practical guidelines on integrating women programmatically into natural resources programs are prepared and disseminated to relevant Government and international bodies at all levels;
- Policy statements and directives integrating women generally and fuelwood carriers specifically into plans and programmes are adopted by relevant Government and international bodies.

6. PROJECT ACTIVITIES

(General)

- identification and recruitment of project CTA and high-level national counterpart;
- identification and rental of project office;
- agreements with government agencies;
- procurement of office equipment and supplies, and vehicle;
- selection and training of support staff;
- ongoing training programs, study tours, seminars and workshops;
- establishment of project aid fund;
- reporting, self-evaluations, interim and final evaluations.

(Objective 1: Group Formation):

- continued training of existing groups in self-empowerment, self-help methods, cooperative organisation, and in practical methods related to project activities;
- new group formation, including identification and orientation of participants; group animation; training in self-help principles and methods; and training in cooperative formation;
- formation of cooperatives by mature groups, and their registration and recognition as such;

(Objective 2: Income Generation)

Forest-based activities:

- identification of new Government policy directives on forests, land, natural resources, cooperatives, and credit and their related procedures;
- identification of options for group activities based upon the new policy directives;
- identification of sites, technical support, equipment, marketing, training, and other aspects related to the activities;

- conduct socio-economic and technical feasibility studies of the activities;
- training of women group members in the technical, mechanical, managerial, safety, maintenance, and other relevant aspects of the activities;
- procure and install equipment related to the activities;
- secure land for the apiary from municipality;
- finalise honey and beeswax packing, transport, and marketing arrangements;
- procure beekeeping equipment and supplies;
- train women group members in beekeeping;
- record-keeping and book-keeping;
- monitoring and evaluation.

Non-forest based activities:

- completion of training of trainers in soapmaking;
- feasibility study of soapmaking revised to appropriate products, scale, internal organisation and management along group/cooperative lines, and marketing;
- identification of soapmaking facility;
- procurement of soapmaking equipment and raw materials;
- training of women group members in soapmaking by the trainers;
- quality control, recordkeeping, and book-keeping of soapmaking activities;
- marketing of soap;
- feasibility studies of milling and baking be revised to appropriate products, scale, internal organisation and management along group/cooperative lines, equipment, maintenance, sanitation, quality control and marketing;
- identification and/or construction of facilities, procurement and installation of milling and baking equipment;
- training of women group members in managerial, technical, mechanical, maintenance, sanitation, safety, marketing, and other relevant aspects related to milling and baking;

- cooperative registration with HASIDA of the milling/baking activity;
- quality control, recordkeeping, and book-keeping of milling/baking activities;
- marketing of milled and baked products;
- secure land for -En'toto vegetable farm from municipality;
- procure equipment, land preparation, and installation of irrigation system;
- training of women group members in managerial, technical, mechanical, maintenance, sanitation, safe use of agro-chemicals/plant protection, marketing, transport, and other relevant aspects related to vegetable production;
- quality control, record-keeping, and book-keeping of horticultural activities;
- transport and marketing of vegetables to urban markets;
- monitoring and evaluation of all income-generating activities;
- feasibility analysis, planning and implementation of new activities as identified by women's groups in years 2 - 5 of the project.

(Objective 3: Research)

- training of MoLSA staff in use of computers for data processing and analysis;
- ongoing research on socio-economic and working conditions of women fuelwood carriers and fuelwood prices;
- consultancy on nutrition and health aspects (3 w/m);
- consultancy on ergonomic aspects (3 w/m);
- staff research on tenurial issues and impact of new policy changes on women fuelwood carriers;
- write-up and dissemination of research results through published reports, workshops, symposiums, and other forums;
- provision of qualitative and quantitative information to project monitoring and evaluation system.

(Objective 4: Institution Building)

- procurement and installation of office equipment (computer/software, word processor, microcassette recorder);
- training of MoLSA staff in computers and in methods and approaches of group formation;
- workshops and study tours;
- research and documentation on socio-economic conditions of women fuelwood carriers.

(Objective 5: Policy)

- dissemination of research findings on women fuelwood carriers, and the creation of forums for discussion to translate research findings into action programs;
- dialogue at all policy levels on integration of women into natural resources programs/plans;
- workshops and seminars at high and middle levels.

7. INPUTSDonorPersonnel

- (ILO Official Headquarters), 5 w/m over 3 years for backstopping;
- two consultants (3 w/m each, for ergonomic/health studies;
- Project CTA (36 w/m over three years); see attached job description;
- Administrative assistant (36 w/m);
- Secretarial support (36 w/m);
- National and international technical consultants, in the areas of forestry, income generation, specialised activity areas (1 w/m per year);
- Research director (36 w/m) and two research assistants (36 w/m each);
- Secretary-typist (36 w/m).

Equipment

- two four-wheel drive vehicles;
- two typewriters;
- one word processor;
- two desktop personal computer systems (one each for research and administration) printers and software;
- eight calculators with statistical function;
- two standard calculators;
- one photocopy machine;
- one video camera, VCRs and monitors, video tapes and editing equipment;
- one 35 mm still camera, film, and processing;
- measuring devices (spring scales, ergonomic measuring equipment, moisture content [MC] meters, etc)
- office equipment (desks, chairs, tables, files, etc);
- office supplies and stationary;
- vehicle petrol/maintenance/insurance

Aid Fund

- beekeeping equipment and supplies; irrigation equipment and horticultural equipment, tools, plant materials, and supplies; transport devices; milling and baking equipment and supplies; soapmaking equipment and supplies; and raw materials;
- inputs to be determined on future activities by the women groups for activities relevant to their needs.
US \$30,000 per year (90,000).

Travel

- Costs for CTA and National Counterpart, and national and local staff;

Training

- ongoing training in group formation/cooperative development;
- training of national and field level staff in self-help/group formation methods and approaches and in computers;
- study tours;
- specialized training related to individual income-generating activities;
- training materials and supplies.

Miscellaneous

- printing and reporting costs;
- sundries;
- midterm and final evaluations;
- miscellaneous workshop and seminar expenses;
- ILO documents and publications related to project activities.

Government

The Women's Affairs Department of the Ministry of Labour and Social Affairs will contribute a full-time high-level National Counterpart (see attached job description); full-time drivers and secretarial services; part-time technical staff and development workers and group animators who will assist in group formation and organisation; and part-time research staff. The Ministry of Labour and Social Affairs will provide the physical facilities for symposiums, workshops, training, and seminars for Government and NGO personnel. The Ministry will also facilitate access to land for the income-generating activities of the women's groups, and will facilitate the rental of the project office. Additionally, the Ministry of Labour and Social Affairs will provide policy involvement at the highest levels, in support of project objectives.

The Addis Ababa Region and Municipality contribution includes parcels of land for income-generating activities; temporary office space; facilitation and coordination of project activities with kebeles, Urban Dwellers' Associations (UDA's), and other city departments; and part-time technical support and staffing through individual city departments (health/nutrition, agriculture, etc), upon request.

8. PROJECT ASSUMPTIONS

- The Women's Affairs Department of the Ministry of Labour and Social Affairs effectively coordinates procedures and relations with the Addis Ababa regional and municipal offices.

- Adequate funds are provided to support the incipient activities initiated by the former project for an interim bridging period, so as not to lose momentum gained, and the confidence of the participants.

- The Government of Ethiopia develops new mechanisms and procedures for the acquisition of land, provision of credit, and cooperative formation, as per the new economic policy and environmental/forestry plans and policies presently under formulation.

- Raw materials become locally available for supplying the various income-generating activities.

- Feasibility studies provided to the project staff by the National Urban Planning Institute (NUPI), and upon which the project activities are based, are sustainable, comprehensive, accurate, of an appropriate scale and level of technology, and consider the organisational, managerial, maintenance and training needs of the groups.

- The Government appoints a suitably qualified and high-level individual as the National Counterpart, who is capable of affecting and implementing policy.

9 . INSTITUTIONAL FRAMEWORK

The main counterpart organisation to the project will be the Women's Affairs Department within the Ministry of Labour and Social Affairs (MOLSA), and based in Addis Ababa. The Women's Affairs Department is a newly created body following internal reorganisation of the Ministry, and has a broad mandate with regard to development policy and programs. Its role is to formulate and coordinate policy; to have research, information clearinghouse and coordinating functions; and facilitation/coordination of government activities with regard to women. The department has two teams, one concentrating on research issues and the dissemination of information; and the other with responsibilities in action-oriented NGO coordination, policy formulation, and program implementation. The latter team also provides technical assistance to urban and rural kebeles, undertakes monitoring and evaluation, and program assessment. The Women's Affairs Department is the only department within the Ministry mandated to undertake action-oriented programs and project implementation in the areas of income-generation, credit, and training.

It is foreseen that the primary role of the National Counterpart attached to the Women's Affairs Department in the project will be in policy influence, institution-building, and intra-governmental coordination/facilitation. The Department will also support project activities concerning research, income generation, training, and group formation. The role of the CTA is seen as complementing that of the National Counterpart, with primary responsibilities in overall coordination of project activities. The CTA, with a background in community development, will have a primary role in the group formation/income generating activities, and will support the National Counterpart in the areas of policy

and in institution-building. The project Research Director will have primary responsibility for research, monitoring, and information dissemination activities.

The Addis Ababa regional/municipal government, as an indirect partner, has indicated that its role will be to facilitate access to land within the municipality, and the facilitation/coordination of project activities with kebeles, Urban Dweller Associations (UDA's) and with other city departments. The city will coordinate and provide specialized or technical support through individual city departments (health, nutrition, agriculture, etc) as needed.

The project will be facilitated by a Government advisory committee, which will act as a general facilitating body with regard to intra-governmental coordination, and will be comprised of members of relevant Government bodies (MoLSA, Addis Ababa municipal/regional governments, Ministry of Agriculture State Forest Department, and others as appropriate). Individual committee members will facilitate within their own bodies on specific issues as they arise. Within the committee, the Women's Affairs Department will take the lead in coordinating project activities with other relevant government bodies and line ministries and with the Addis Ababa regional/ municipal governments.

Due to a critical shortage of Government office space, the project office will be rented in central Addis Ababa, where the project staff will have close access to both MoLSA and municipal offices.

10. REPORTING, MONITORING AND EVALUATION

It is envisaged that the research component of the project be closely linked to ongoing monitoring and evaluation, through the provision of qualitative and quantitative data and analysis on the socio-economic situation, conditions of work, and other information related to women fuelwood carriers, project participants, and the project indicators.

The project supervisors will submit quarterly reports as well as a midterm and final internal evaluation report in preparation for the standard midterm and final evaluation missions.

Evaluations of the project will be carried out after eighteen months and in the final month of the third year, or at the end of the first phase. The evaluation team will be comprised of a representative of the donor, the ILO, the project team (including Government staff), and one outside observer with relevant experience. The evaluation will be participatory and will be founded on the opinions and experiences of the women involved in project activities. The evaluation findings will be used to improve or augment the design of the present project in its second phase.

Job Description: National Counterpart
Women Fuelwood Carriers Project

Duty Station: Addis Ababa and peri-urban areas
Duration: Three years with possible three year extension

Qualifications:

Minimum Bachelor's/Bacclaireate degree in the social or environmental sciences. Candidate must be a high-level official within the Government of Ethiopia, with at least ten years of experience. The candidate must be familiar with the structure and procedures of the Ministry of Labour and Social Affairs, and be cognizant of current policy and procedural developments within the Government.

Terms of Reference:

1. The National Counterpart will work in tandem with the ILO Project Coordinator to ensure the implementation and achievement of project objectives.
2. In particular, the National Counterpart will have primary responsibility in the following areas, which correspond to project objectives 4 (Institution-Building) and 5 (Policy Formulation):
 - a. strengthening of the Women's Affairs Department within the Ministry of Labour and Social Affairs, and overseeing related project activities;
 - b. formulation of policies and actions to foster the integration of women fuelwood carriers in Government and NGO forestry and other natural resources/conservation programs and plans, through improved policy dialogue at all levels, and overseeing related project activities;

The National Counterpart will be supported in these areas by the ILO/CTA, as needed.

3. The National Counterpart will also facilitate and coordinate relations and activities within MoLSA and the Addis Ababa region/municipality, in collaboration with the project advisory board.
4. The National Counterpart will support the ILO CTA in her primary responsibilities, related to general project coordination, and to objectives 1 (group formation) and 2 (income generation), as needed.

Job Description: ILO Chief Technical Advisor
Women Fuelwood Carriers Project

Duty Station: Addis Ababa, Ethiopia and peri-urban areas
Duration: Three years with possible three-year extension

Qualifications:

Minimum Bachelors/Bacclaureate degree in the social sciences. Candidate must have at least five years' experience in community development at the grass roots level, preferably in working with women's groups. Familiarity with approaches and techniques of fostering group formation and organisation is essential; experience in working with cooperatives is desirable.

Terms of Reference:

1. The ILO/CTA will work in tandem with the project national counterpart to ensure the smooth implementation and achievement of project objectives.
2. In particular, the ILO/CTA will have primary responsibility for general coordination of project activities, including procurement, project office establishment and management, reporting, and equipment.
3. The ILO/CTA will have primary responsibility in the following programmatic areas, which correspond to project objectives 1 (group formation) and 2 (income generation):
 - a. the formation of self-managed, cohesive groups of women fuelwood carriers, and related activities;
 - b. enabling women's groups to achieve self-reliance in the management of viable and sustainable forestry and non-forestry based income generating activities.

The ILO/CTA will be supported in these areas by the National Counterpart, consultants, and by various technical staff within the Government, as appropriate.

4. The ILO/CTA will support the National Counterpart in her primary responsibilities related to policy formulation and strengthening the Women's Affairs Department of the Ministry of Labour and Social Affairs.