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POST OFFICE BOX 30261
NAIROBI KENYA

October 14, 1983

Ms. Sara Tinsley, Director
Office of Women in Development
3243 NS
Agency for International Development
Washington DC 20520

Dear Sara,

Please find enclosed a copy of a paper on Kenyan women. It was done in cooperation with the Kenyan Central Bureau of Statistics on my own time and money so I could use the data in subsequent publications without referral through AID. Nevertheless, my hope is that it will be useful to USAID for its programs in Kenya. Too often basic data are in a form which preclude further analysis, hence the style we adopted for this report.

I regret that I was unable to attend the AWID meeting and look forward to hearing about it and perusing papers presented.

With best wishes,

Sincerely,

Carolyn Barnes
Social Analyst
Analysis Division

MEMORANDUM

NOVEMBER 1, 1983

TO: SARAH TINSLEY

FROM: NADINE HORENSTEIN

SUBJECT: COMMENTS ON CAROLYN BARNES' PAPER:
KENYAN SMALLHOLDERS AND THE DIVISION OF LABOR

Carolyn's paper provides very detailed quantitative information on the division of labor by type of household and within households. Data for the study were erived from a Division of Labour Module designed and administered by the Central Bureau of Statistics in 1978/79, supplemented with other data gathered as part of an Integrated Rural Survey. The households surveyed are "widely dispersed in the crop growing regions of the country..." No exact location is given.

The paper gives information on the key characteristics of the household head and of the household. These households were classified as having a married man head of household, an umarried woman head of household, or a married woman head of household. The divisions of labor on maize, coffee, tea, pyrethrum and livestock activities are discussed. The data show that there are significant differences between smallscale farming households based on marital status and sex of the household head. The data also show that there is no precise division of labor by sex on crop and livestock tasks since frequently more than one sex performs the same task. Household maintenance, however, is predominantly a woman's responsibility.

The authors state that they have limited their interpretation of the data in order to make the information available to planners, implementers and researchers who wish to do further analysis. My feeling is that the data by itself is very dry and it is easy to get bogged down in it. I think that the data is clearly useful, especially for those who need micro information on division of labor etc...I am not totally knowlegdeable on our project portfolio in Kenya, but I assume that some of this information could be useful depending on where the villages are located. The paper would be more useful as a piece that could stand by itself if there were some background and supporting information about Kenyan smallholder farming, the agricultural sector, and the basic institutions and infrastucture. I also assume that she has contacts in the field at the project level that could help her get the data into the hands of people who would find it the most useful and practical.

~~[illegible]~~ ~~thanks~~

DEP - for the library perhaps we should make copies available discuss w/ NH. sk.

NH — your opinion?

D.

-1-

Kenya

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KENYAN SMALLHOLDINGS AND THE DIVISION OF LABOUR

CAROLYN BARNES AND LINDA WERNER

FOR

CENTRAL BUREAU OF STATISTICS
MINISTRY OF ECONOMIC PLANNING
GOVERNMENT OF KENYA.

AND

UNITED STATES AGENCY FOR
INTERNATIONAL DEVELOPMENT
NAIROBI.

1982

This report focuses on the division of labour on Kenyan smallscale farms. The smallholder households are categorized into three types based on the head of household. Prior to analyses of the division of labour, information on key characteristics of the heads of households, household composition and size, and land and its use are assessed based on household type. Data on labour regularly performed on agricultural and household tasks are analyzed by two methods. First, certain kinds of tasks are assessed on the basis of household type and composition. Second, using a sub-set of all households with resident men and women, labour inputs by task are analyzed by type of household. The relationship between the kind of task and who performs it is addressed. The information provides insights on the contextual situation on smallscale farms, as well as labour used, which should be useful for planners and those who implement programmes.

Data for the study were derived from a Division of Labour Module designed and administered by the Central Bureau of Statistics (CBS) in 1978/79, and supplemental information from the same households interviewed that year under the CBS Integrated Rural Survey IV. Annex I provides information on the methodology used in data processing. Because the Division of Labour study did not identify households headed by Unmarried Men, this type of household is not reported upon. Households headed by women are sub-divided because it was hypothesized that those headed by married women differ from those of unmarried women. In most instances, the hypothesis proved to be true.

Because head of household is a key concept used, it is important to specify the way the term is defined. CBS classifies the head of household as "the senior member of the household resident in the household compound or though residing elsewhere returns at frequent intervals." When both the husband and wife are resident most of the time, the man is considered the head.

In the Division of Labour survey, the only information obtained on children was on those aged 6-14, a category who are potential contributors of labour. Thus, in this report the term children refers to this age group unless otherwise specified. Also, the terms men and women are used to refer to those age 15 years or above, refer to at least one man and at least one woman respectively, for ease of writing style.

In the tables, dashes (-) mean no one is in this category, and zeros (0) stand for less than one percent. In most tables the total sample sizes are in parentheses. Many tables deal with household composition and labour inputs; in these W denotes at least one woman, M stands for at least one man and C refers to at least one child. When O is used in the tables on labour inputs, it stands for other categories of labour than those specified.

No attempt has been made to assign weights to the sample interviewed. Thus, the description and analyses refer to those households providing the information rather than an extrapolation from these cases to Kenyan smallholders in general. The households covered in the sample are widely dispersed in the crop growing regions of Kenya, and do not include those on former large-scale farms, within the strictly pastoral regions nor along the coastal belt in North East Province.

Key Characteristics Of Household Head

Age, level of formal education and main occupation are assessed since these factors may relate to control of and access to resources. They also vary significantly between the three types of households, and hence illuminate differences. The average age is 47 for Married Men, 37 for Married Women and 55 for Unmarrried Womenheads of households. The latter leads to the conclusion that most Unmarried Women are widows or divorcees, rather than younger women who might be expected to marry and thus gain access to more resources through their husband. In comparison, Table 1 reveals that almost one-third of the Married Women are under 30 years old.

The differences observed in the level of formal education (Table 2) between the two types of households headed by women can partially be explained by variations in age, since the older Unmarried Women had less opportunity for schooling than the younger Married Women. Men, however, are more likely to have some education and to have had more years of schooling than women who are heads of households. This is mainly due to the preference families gave to sending boys rather than girls to school when there was a financial constraint, and is linked with social expectations.

Almost all women who head households (95 percent) classify farming as their main occupation. Among the Married Men, however, only 75 percent list themselves as mainly farmers. Ten percent of the Married Men work mainly as unskilled labourers. An additional ten percent of the group are engaged in semi-skilled or skilled jobs, including service occupations such as sales and office clerks. Among the five percent who have a professional or administrative position, teaching is the most common occupation.

TABLE 1 : PERCENTAGE DISTRIBUTION OF AGE OF HOUSEHOLD HEAD BY TYPES OF HOUSEHOLDS

	Under 30 yrs.old	30-39 years	40-49 years	50-59 years	60+ years	TOTAL %	No.
Married Men	13	21	25	18	22	100	(1673)
Married Women	34	30	20	9	7	100	(145)
Unmarried Women	3	10	24	25	38	100	(345)
Total %	13	20	25	18	24	100	(2163)

TABLE 2 : PERCENTAGE DISTRIBUTION OF EDUCATION HEAD BY TYPES OF HOUSEHOLDS

	NONE	Std 1-4	Std 5-8	Form 1-2	Form 3+	TOTAL %	No.
Married Men	55	18	23	2	2	100	(1731)
Married Women	60	17	19	3	1	100	(149)
Unmarried Women	90	8	2	0	0	100	(348)
Total %	61	16	19	2	2	100	(2228)

The higher proportion of Married Men than heads of other types of households employed off-farm is attributable to the generally low levels of education among women heads of households which prevent access to many types of jobs, and to social expectations which place more daily household maintenance and childcare responsibilities upon women than men (this is substantiated later in the analyses of the division of labour by various tasks).

Household Composition And Size

The composition and size of a household are related to its potential labour pool and ability to generate an income, as well as demands upon existing resources. Significant differences arise in the composition and size of households between the three types. Table 3 shows the household composition based on resident members over 5 years of age. It reveals that only 59 percent of all small farm households are composed of women, men and children; and, this type is most often found among Married Men households. Also, households headed by Married Men more often than other types of households consist of men and women, but no children aged 6-14. In those households headed by women, but with men resident, these men are most likely sons or close relatives, but they might also be resident labourers; the data do not reveal the relationship.

The type of household and its size are interrelated. While the overall average number of household members (including children under six years old) is 6.32, the differences between the types of households are significant (Table 4). On the average Married Men households are larger (6.78 members) than those of Married Women (5.48 members) and Unmarried Women (4.19). And, reflecting the average number of total members, the average number of children aged 6-14 and of men resident on the farm is highest for Married Men and lowest for Unmarried Women, and are statistically different. The average number of women resident, however, is almost the same for the Married Men and Unmarrried Women households.

Table 4 shows that most of the children attend school. This hinders them from regularly contributing labour on the holding, as will be shown later. Labour inputs from cildren are largely foregone as a long-term investment in education.

Households tend to have more resident women than men. Although there is no statistically significant difference in the average number of women between the types of households, when assessing the percentage distribution of women by type of household (Table 5) the data are significant. Ninety-one percent of the Married Women, eighty-four percent of the Unmarried Women and eighty-two percent of the Married Men households contain less than three women. In regards to the number of resident men, as might be assumed, they are most often found in households headed by Married Men. Sixty percent of the Married Women and sixty percent of the Unmarried Women households have no men resident.

TABLE 3 : PERCENTAGE DISTRIBUTION OF HOUSEHOLD COMPOSITION BY TYPES OF HOUSEHOLDS*

	W	WM	WMC	WC	MC	TOTAL %	No.
Married Men	1**	27	68	4**	0	100	(1731)
Married Women	16	6	34	44	-	100	(149)
Unmarried Women	32	18	22	28	-	100	(249)
Total %	7	24	59	10	0	100	(2228)

* This does not include children under the age of six

** These probably are households where the male head is of ten absent.

TABLE 4 : HOUSEHOLD MEMBERSHIP AVERAGES BY TYPES OF HOUSEHOLDS

	Married Men	Married Women	Unmarried Women	Signifiance Level
No. Household Members.....	6.78	5.48	4.19	.000
No. Women Resident....	1.70	1.58	1.69	NS
No. Men Resident....	1.44	.58	.55	.000
No. Children (6-14 yrs) resident...	2.04	1.97	1.11	.000
No. Children (6-14 yrs) resident schooling.....	1.70	1.72	.88	.000
No. Children (6-14 yrs) resident not schooling...	.36	.25	.24	.017

Seventeen percent of the households have only women, or women and children resident. As expected, this composition is most frequently found in households headed by women. A striking 32 percent of all Unmarried Women and 16 percent of the Married Women households have only women resident. Households with only women and children are more often those of Married Women than Unmarried Women; this probably relates to the tendency for Married Women to be younger than Unmarried Women, which place the Married Women in a child-rearing period. In those cases of Unmarried Women reporting children resident on the holding, many of these might be grandchildren.

Among the Married Men households, five percent report no man resident. This may mean that the man resides on the holding only about half the time, or it may identify cases where the definition of household head has not been correctly applied. Only one household reports no woman resident. This household is excluded from later analyses on the division of labour, since it represents less than one percent of the Married Men households.

Land and Its Use

Ecozone affects the potential use of the land, and a correlation is found between type of household and its ecozone. (Annex II explains the manner in which the ecozonzes were constructed.) A larger percent of the Married Men households than other types are found outside the Food and Livestock Ecozone (Table 6). Among the households headed by women, a higher percent of the Unmarried Women than Married Women are located in the High Value Cash Crop and Cotton ecozones; however, a larger proportion of the Married Women than Unmarried Women households are situated in the High Value Cash Crop Ecozone.

Land is a crucial factor affecting the ability of farm households to earn a cash income and produce food for domestic consumption. Whereas the average size of land is 1.7 ha. for all holdings, statistically significant differences appear based on household type. The average size of the holding operated by Married Men is 1.87 ha, by Married Women 1.11 ha. and by Unmarried Women 1.19 ha. An examination of the relationship between age and average size of holding shows that the average size of holding tends to increase with age among the Married Men households, whereas the average size holding among Unmarried Women households is largest for those under 30 years of age. No clear pattern of age and size of holding emerges among women headed households.

Although this study excludes households with neither land nor crops, seven percent are recorded as having no land (Table 7). These are probably cases where no data were reported, since most of the heads of these households report self-employed farming as their main occupation.

About half of the smallholdings studied are less than one hectare (Table 7). Sixty-one percent of the Married Women, 64 percent of the Unmarried Women and forty-five percent of the Married Men households have less than one hectare of land. The larger size holdings are more often found among Married Men than other types of households.

TABLE 5: PERCENTAGE DISTRIBUTION OF NUMBER OF WOMEN AND MEN RESIDENT BY TYPES OF HOUSEHOLDS

WOMEN	NONE	1	2	3	4	5+	TOTAL %	No.
Married Men....	0	54	28	11	5	2	100	(1731)
Married Women..	-	57	34	6	2	1	100	(149)
Unmarried Women	--	49	35	12	3	1	100	(348)
Total %	0	54	30	11	4	1	100	(2228)
MEN								
Married Men ...	5	63	21	8	2	1	100	(1731)
Married Women..	60	25	12	3	-	-	100	(149)
Unmarried Women	60	27	11	2	0	-	100	(348)
Total %	17	55	19	7	2	0	100	(2228)

TABLE 6 : PERCENTAGE DISTRIBUTION OF ECOZONE BY TYPES OF HOUSEHOLDS

	High Value Cash Crops	Cotton	Food and Livestock	Total %	No.
Married Men	35	10	55	100	(1731)
Married Women	30	4	66	100	(149)
Unmarried Women	27	11	62	100	(348)
Total %	33	10	57	100	(2228)

When calculating the average size of the holding with the number of residents, land per capita is .32 for Married Men, .34 for Unmarried Women and .24 for Married Women. The small amount of land per person and the fact that two-thirds of the Married Women live in areas where none of the main cash crops are grown help to explain the absence of their husbands who have probably left for more gainful employment.

Among the households interviewed, production of coffee, tea, pyrethrum and cotton is limited. Table 8 provides a summary on each ecozone. It shows the number of each type of household by ecozone and the percent of each type of household which produces certain cash crops. Within each zone, no statistical differences arise between the types of households and the growing of certain crops. However, it is significant that a higher proportion of Married Men households than either the Unmarried Women or Married Women households are found in the High Value Cash Crop Ecozone. The small percent of households found cultivating cotton, coffee, tea or pyrethrum in the Food and Livestock Ecozone is related to the way the ecozones were constructed (Annex II).

Although a larger percent of both types of households headed by women are situated in the Food and Livestock Ecozone, the average number of cattle owned, as well as the actual number of improved and unimproved cattle is higher among Married Men. The average number of cattle owned is 5.2 for Married Men, 2.9 for Married Women and 3.1 for Unmarried Women. The reason for Married Women tending to have fewer cattle than other types of households is partially attributable to the relatively young age of the head, which indicates less opportunity to invest in cattle. In terms of agricultural programmes, it is important to note (Table 9) that ownership of cattle is widespread: 23 percent of the households have at least one improved animal and 41 percent have at least one unimproved animal. Thus, cattle keeping is more common among smallholders than production of a cash crop.

Off-farm income increases farmers' ability to purchase agricultural inputs, as well as meet basic needs. Table 10 shows that among Unmarried Women households 29 percent have no regular, monthly off-farm income and 64 percent receive less than Sh. 300/- per month. That a greater proportion of Married Women have a higher off-farm monthly income than do Unmarried Women is most likely attributable to remittances from absent spouses. The tendency towards a higher monthly off-farm income among Married Men households is the result of the off-farm income earned by theheads being taken into account. In contrast, the data do not account for the income earned by the absent spouses of the Married Women, but only that portion distributed to the farm household.

TABLE 7 : PERCENTAGE DISTRIBUTION SIZE OF HOLDING (HECTARES) AND TYPES HOUSEHOLDS

	None/ Not Reptd	Less 1	1-1.9	2-2.9	3-3.9	4-4.9	5+	TOTAL %	No.
Married Men	7	45	20	11	5	3	9	100	(1730)
Married Women	5	61	20	7	2	1	4	100	(149)
Unmarried Women	4	64	15	7	3	3	4	100	(348)
Total %	7	49	19	10	4	3	8	100	(2227)

TABLE 8 : PERCENTAGE DISTRIBUTION BY ECOZONE OF CASH CROPS BY HOUSEHOLD TYPES AND COMPOSITION

	Married Men	Married Women	Unmarried Women	Total Number	Level of Significance (X2:0.01)
HIGH VALUE CASH CROPS					
Total Number of Households	597	45	93	735	-
% Growing Coffee	52	47	40	371	NS
% Growing Tea	22	18	12	151	NS
% Growing Pyrethum	21	24	18	154	NS
% Growing Cotton	1	-	-	4	NS
COTTON					
Total Number of Households	177	6	37	200	-
% Growing Cotton	80	100	73	174	NS
%Growing Coffee	1	-	-	2	NS
FOOD AND LIVESTOCK					
Total Number of Households	957	98	218	1273	-
% Growing Cotton	3	3	2	39	NS
% Growing Coffee	5	1	4	58	NS
% Growing Tea	2	3	2	24	NS
% Growing Pyrethum	2	2	2	28	NS

TABLE 9 : PERCENTAGE DISTRIBUTION OF NUMBER OF IMPROVED AND UNIMPROVED CATTLE BY TYPES OF HOUSEHOLDS

	NONE	1-3	4-8	9-13	14-18	19+	TOTAL %	No.
IMPROVED CATTLE								
Married Men	74	12	7	3	2	2	100	(1731)
Married Women	87	7	4	1	-	1	100	(149)
Unmarried Women	84	8	4	1	2	1	100	(348)
Total %	77	11	6	2	2	2	100	(2228)
UNIMPROVED CATTLE								
Married Men	57	17	14	6	2	4	100	(1731)
Married Women	61	19	9	8	3	-	100	(149)
Unmarried Women	66	16	12	4	1	1	100	(348)
Total	59	17	13	6	2	3	100	(2228)

The information on agricultural inputs reveals that only a small percent of the farmers report such expenditures. Data on dip and veterinary services, fertilizer and wage labour are examined. Only 25 percent of the households report spending money on dip and/or veterinary services (Table 11), although a large proportion claim to have cattle. This discrepency may be caused by the respondents not knowing the amount spent, rather than being an indication that no expenditures were made, and is worthy of further investigation. Significantly, a higher percent of Married Men households than those of Married Women and Unmarried Women report some expenditure.

In regards to purchasing fertilizer (Table 12), although a higher percent of the Married Women than the Unmarried Women report buying it, the percent of Marrried Men purchasing fertilizer is higher than Married Women. Seventy-eight percent of the households, however, report no expenditures on fertilizer.

Of the fourteen percent of all the households reporting to use wage labour (Table 13). A greater percent of the Married Women than either Married Men or Unmarried Women households have such expenditures.

Division of Labour On Maize

The division of labour by task is examined for maize, and then later for pyrethrum, coffee and tea, and livestock activities to identify any differences. In assessing labour inputs, only those persons regularly performing the work are discussed in the following sections and reflected in the tables. The data are analyzed taking into account the type and composition of the household.

Tables 14-16 reveal that in households composed of only women and men, within each household type, the labour pattern on planting, weeding and harvesting remains similar, with the exception of weeding among Married Women households. A comparison between the types of households, shows that there are a higher percent of cases of women and men jointly working on maize on Married Men holdings than on those headed by Married Women or Unmarried Women. Differences also appear in the marketing of maize (Table 17). Among Married Men households, there are a higher percent of households where maize marketing is done solely by men than in either type of household headed by women. In the latter, maize marketing tends to be done by only the women.

TABLE 10 : PERCENTAGE DISTRIBUTION OF MONTHLY OFF-FARM INCOME BY TYPES OF HOUSEHOLDS

	NONE	SH.100-299	SH.300-699	SH.700+	TOTAL %	No.
Married Men	19	55	20	6	100	(1625)
Married Women	22	56	16	6	100	(144)
Unmarried Women	29	64	5	2	100	(315)
Total %	21	57	17	5	100	(2084)

TABLE 11 : PERCENTAGE DISTRIBUTION OF EXPENDITURES ON DIP AND VETERINARY SERVICES BY TYPES OF HOUSEHOLDS

	NONE	SH. 1-29	SH.30-59	SH.60-89	SH.90-119	SH. 120+	TOTAL %	No.
Married Men	74	11	4	3	1	7	100	(1731)
Married Women	82	9	3	2	2	2	100	(149)
Unmarried Women	79	9	4	1	1	6	100	(348)
Total %	75	10	4	3	1	7	100	(2228)

TABLE 12 : PERCENTAGE DISTRIBUTION OF EXPENDITURES ON FERTILIZER BY TYPES OF HOUSEHOLDS

	NONE	SH.1 99	SH. 100-199	SH. 200-299	SH. 300-399	SH. 400+	TOTAL %	No.
Married Men	77	10	6	3	1	3	100	(1730)
Married Women	79	11	5	3	1	1	100	(149)
Unmarried Women	81	11	4	2	0	2	100	(348)
Total %	78	10	6	3	1	2	100	(2227)

TABLE 13 : PERCENTAGE DISTRIBUTION OF EXPENDITURES ON WAGE LABOUR BY TYPE OF HOUSEHOLD

	NONE	SH. 1-49	SH. 50-249	SH. 250-449	SH. 450-649	SH. 650+	TOTAL %	No.
Married Men	86	3	6	2	1	2	100	(1731)
Married Women	78	7	9	4	1	1	100	(149)
Unmarried Women	89	4	3	1	0	3	100	(348)
Total %	86	4	5	2	1	2	100	(2228)

Among the households which have children as well as men and women, the labour pattern on planting, weeding and harvesting varies only slightlywithin each type of household. Furthermore, women alone perform these tasks in almost half of the Married Women and Unmarried Women households, whereas the percent is much lower for Married Men holdings. Even though children are resident, they assist with planting, weeding and harvesting in only a small proportion of the households. The contribution of labour by children occurs more frequently in Married Men and Unmarried Women households than those of Married Women. In regards to marketing, the percent of men who are the sole sellers of maize is higher in Married Men than in either Married Women or Unmarried Women households. Nevertheless, in about half of the Married Men households, women are the marketers; the percent is much higher in the households headed by women.

Households with only women and children have a higher percent of cases of children contributing labour, than do households which also include men. Nevertheless, in most of these, women are the sole labourers on maize. With the exception of marketing, the labour pattern on planting, weeding and harvesting varies only slightly within each type of household. In almost all of them, women do the marketing.

The tables show that maize cultivation is not just the work of females. When men are present on the holding, in many cases they labour in conjunction with women, sometimes assisted by children. The information does not reveal the identity of the men who work: they may be the sons or relatives of the household head or, in Married Men households, the head. Table 13 indicates that most of the men who perform agricultural tasks are not wage labourers. The data show that labour inputs from children are limited; this is related to the high proportion of them schooling and those present being more involved in livestock activities (as discussed below).

Traditionally the weeding of maize was usually considered as a female task. The data reveal that this designation of work has undergone transformation. The reason for men doing this work probably relates to maize being an important earner of cash among most smallholders.

Division of Labour On Pyrethrum, Tea and Coffee

These three high value cash crops are combined in Tables 18-20 because of the small percent of farmers in the various categories. A comparison of the tables on pyrethrum, coffee and tea with those on maize reveal that if men are resident, they tend to work more on these high value cash crops than on maize. And, only men marketing these cash crops,even in households headed by women, occurs more frequently than it does with maize.

TABLE 14 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR ON MAIZE PLANTING BY HOUSEHOLD TYPES AND COMPOSITION.

LABOUR:	W	WM	WMC	WC	0	TOTAL %	No
Married Men							
W	100	-	-	-	-	100	(16)
WM	23	75	-	-	2	100	(436)
WMC	23	59	14	3	1	100	(1138)
WC	73	-	-	25	2	100	(63)
Total %	26	60	10	3	1	100	(1653)
Married Women							
W	100	-	-	-	-	100	(21)
WM	33	67	-	-	-	100	(9)
WMC	54	40	6	-	-	100	(50)
WC	87	-	-	11	2	100	(63)
Total %	74	18	2	5	1	100	(143)
Unmarried Women							
W	100	-	-	-	-	100	(104)
WM	35	63	-	-	2	100	(57)
WMC	47	35	15	3	-	100	(73)
WC	73	-	-	27	-	100	(94)
Total %	69	19	3	8	1	100	(328)

TABLE 15 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR ON MAIZE WEEDING BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WM	WMC	WC	0	TOTAL %	No.
Married Men							
W	100	-	-	-	-	100	(16)
WM	24	75	-	-	1	100	(435)
WMC	22	58	15	4	1	100	(1137)
WC	74	-	-	26	-	100	(62)
Total %	25	60	10	4	1	100	(1650)
Married Women							
W	100	-	-	-	-	100	(20)
WM	22	78	-	-	-	100	(9)
WMC	50	36	10	-	4	100	(50)
WC	86	-	-	11	3	100	(64)
Total %	71	18	3	5	3	100	(143)
Unmarried Women							
W	100	-	-	-	-	100	(104)
WM	33	60	-	-	7	100	(57)
WMC	44	38	15	3	-	100	(73)
WC	75	-	-	25	-	100	(94)
Total %	69	19	3	8	1	100	(328)

TABLE 16 : PERCENTAGE DISTRIBUTION OF LABOUR ON MAIZE HARVESTING BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WM	WMC	WC	O	TOTAL %	No
Married Men							
W	100	-	-	-	-	100	(16)
WM	24	75	-	-	1	100	(436)
WMC	24	58	13	4	1	100	(1142)
WC	74	-	-	26	-	100	(62)
Total %	27	60	9	3	1	100	(1656)
Married Women							
W	100	-	-	-	-	100	(21)
WM	33	67	-	-	-	100	(9)
WMC	53	39	6	-	2	100	(51)
WC	89	-	-	9	2	100	(63)
Total %	74	18	2	4	2	100	(144)
Unmarried Women							
W	100	-	-	-	-	100	(103)
WM	32	65	-	-	3	100	(57)
WMC	50	34	12	4	-	100	(73)
WC	76	-	-	24	-	100	(94)
Total %	70	19	3	8	0	100	(327)

TABLE 17: PERCENTAGE DISTRIBUTION OF REGULAR LABOUR ON MAIZE MARKETING BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WM	WMC	WC	M	O	TOTAL %	No.
Married Men								
W	100	-	-	-	-	-	100	(12)
WM	49	32	-	-	19	-	100	(304)
WMC	51	28	1	1	19	0	100	(782)
WC	100	-	-	-	-	-	100	(42)
Total %	52	28	1	1	18	0	100	(1140)
Married Women								
W	100	-	-	-	-	-	100	(10)
WM	71	29	-	-	-	-	100	(7)
WMC	89	8	-	-	3	-	100	(35)
WC	100	-	-	-	-	-	100	(39)
Total %	93	6	-	-	1	-	100	(91)
Unmarried Women								
W	100	-	-	-	-	-	100	(75)
WM	73	20	-	-	7	-	100	(40)
WMC	83	9	-	-	8	-	100	(53)
WC	93	-	-	7	-	-	100	(68)
Total %	89	6	-	2	3	-	100	(236)

TABLE 18 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR WEEDING PYRETHRUM, TEA AND COFFEE BY HOUSEHOLD TYPES AND COMPOSITION.

LABOUR:	W	WM	WMC	WC	M	O	TOTAL %	No.
Married Men								
W	100	-	-	-	-	-	100	(6)
WM	18	74	-	-	8	-	100	(102)
WMC	18	66	9	1	6	0	100	(410)
WC	83	-	-	17	-		100	(24)
Total %	22	64	7	1	6	0	100	(542)
Married Women								
W	100	-	-	-	-	-	100	(6)
WM	-	100	-	-	-	-	100	(1)
WMC	54	33	-	-	13	-	100	(15)
WC	94	-	-	6	-	-	100	(16)
Total %	76	16	-	3	5	-	100	(38)
Unmarried Women								
W	100	-	-	-	-	-	100	(15)
WM	11	78	-	-	11	-	100	(19)
WMC	30	44	13	4	9	-	100	(23)
WC	77	-	-	23	-	-	100	(22)
Total %	52	31	4	8	5	-	100	(79)

TABLE 19 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR HARVESTING PYRETHRUM TEA AND COFFEE BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WM	WMC	WC	M	O	TOTAL %	No.
Married Men								
W	100	-	-	-	-	-	100	(5)
WM	20	75	-	-	5	-	100	(98)
WMC	16	67	10	2	4	1	100	(399)
WC	84	-	-	16	-	-	100	(19)
Total %	21	65	7	2	4	1	100	(521)
Married Women								
W	100	-	-	-	-	-	100	(6)
WM	-	100	-	-	-	-	100	(1)
WMC	46	40	-	-	7	7	100	(15)
WC	87	-	-	13	-	-	100	(15)
Total %	70	19	-	5	3	3	100	(37)
Unmarried Women								
W	100	-	-	-	-	-	100	(13)
WM	11	78	-	-	11	-	100	(18)
WMC	26	57	9	4	4	-	100	(23)
WC	64	-	-	27	-	9	100	(22)
Total %	46	35	3	9	4	3	100	(76)

TABLE 20 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR MARKETING PYRETHRUM, TEA AND COFFEE BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WM	WMC	WC	M	O	TOTAL %	No.
Married Men								
W	100	-	-	-	-	-	100	(5)
WM	22	56	-	-	22	-	100	(92)
WMC	23	52	3	1	20	1	100	(386)
WC	71	-	-	23	-	6	100	(17)
Total %	25	50	2	2	20	1	100	(500)
Married Women								
W	100	-	-	-	-	-	100	(6)
WM	100	-	-	-	-	-	100	(1)
WMC	50	29	-	-	21	-	100	(14)
WC	93	-	-	7	-	-	100	(15)
	78	11	-	3	8	-	100	(36)
Unmarried Women								
W	100	-	-	-	-	-	100	(12)
WM	33	50	-	-	17	-	100	(18)
WMC	43	43	5	-	9	-	100	(21)
WC	90	-	-	10	-	-	100	(20)
Total %	63	25	2	3	7	-	100	(71)

On holdings which have only women and men, the labour pattern on weeding and harvesting remains almost constant within each household type. Although in each type of household most of the labour is performed by women and men together, the percent of holdings on which women alone weed and harvest these cash crops is higher among Married Men than either Married Women or Unmarried Women households. The marketing of the crops is most often done jointly by women and men; where this is not the case, within each type of household, there is a higher percent of women only marketing than solely men.

On those holdings containing women, men and children, the labour inputs vary according to task. In Married Men households, the most common occurance is men in conjunction with women doing the work; however, in 18 percent women alone do the weeding, in 16 percent only women harvest, and in 23 percent women do the marketing. The percent of Married Men households where only men do these tasks is smaller than cases of only inputs from women. On less than 13 percent of the Married Men holdings children assist. Among Married Women households which include men and children, in 54 percent weeding is done exclusively by women, in 46 percent only women harvest, and in 50 percent women market the crops. In contrast, labour inputs by only women occurs in a smaller proportion of Unmarried Women households.

In households having only women and children, most of the work is done by the women. And, similar to the division of labour on maize, the percent of children labouring is highest among the Unmarried Women households than in either of the other types.

Division Of Labour On Livestock Activities

Grazing of cattle was traditionally a male job, whereas milking of cows was normally done by women at the homestead or by men at the cattle camps. When examining grazing of livestock (Tables 21 and 22), we find a higher percent of smallholdings where the labour is by men alone, in contrast to labour on crops. Also, the percentage contribution by children either alone or with adults is higher than such labour on crops.

An assessment of the division of labour according to composition and type of household reveals that when men are resident grazing of livestock by men is a common occurance. Nevertheless, women alone tend livestock in many of these households. The highest percent (49) appears in the Unmarried Women households which have sheep and goats.

In households which have only women and children, children on the Unmarried Women holdings tend to perform labour more than do those on other types. Nevertheless, only women graze cattle in 51 percent of the Unmarried Women, 68 percent of the Married Women and 47 percent of the Married Men households composed of women and children.

TABLE 21 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR GRAZING CATTLE BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WM	WMC	WC	M	MC	C	TOTAL %	No.
Married Men									
W	100	-	-	-	-	-	-	100	(5)
WM	23	27	-	-	50	-	-	100	(188)
WMC	20	18	6	5	36	6	9	100	(627)
WC	61	-	-	26	-	-	13	100	(23)
Total %	22	19	5	5	38	4	7	100	(843)
Married Women									
W	100	-	-	-	-	-	-	100	(3)
WM	40	-	-	-	60	-	-	100	(5)
WMC	32	4	4	7	39	4	10	100	(28)
WC	68	-	-	14	-	-	18	100	(28)
Total %	51	2	2	9	22	2	12	100	(64)
Unmarried Women									
W	100	-	-	-	-	-	-	100	(22)
WM	31	22	-	-	47	-	-	100	(32)
WMC	29	12	3	9	29	6	12	100	(34)
WC	51	-	-	26	-	-	23	100	(47)
Total %	49	8	1	11	18	2	11	100	(135)

TABLE 22 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR GRAZING SHEEP AND GOATS BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WM	WMC	WC	M	MC	C	TOTAL %	No.
Married Men									
W	100	-	-	-	-	-	-	100	(5)
WM	32	30	-	-	38	-	-	100	(192)
WMC	25	18	7	7	24	6	13	100	(583)
WC	47	-	-	39	-	-	14	100	(28)
Total %	28	20	5	7	26	4	10	100	(808)
Married Women									
W	100	-	-	-	-	-	-	100	(5)
WM	-	-	-	-	100	-	-	100	(1)
WMC	40	8	-	8	20	8	16	100	(25)
WC	70	-	-	13			17	100	(23)
Total %	57	4	-	9	11	4	15	100	(54)
Unmarried Women									
W	100	-	-	-	-	-	-	100	(28)
WM	31	28	-	-	41	-	-	100	(29)
WMC	49	8	-	5	19	3	16	100	(37)
WC	59	-	-	28	-	-	13	100	(39)
Total %	59	8	-	10	14	1	8	100	(133)

TABLE 23 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR MILKING COWS BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WM	WC	M	O	TOTAL %	No.
Married Men							
W	100	-	-	-	-	100	(5)
WM	66	9	-	25	-	100	(190)
WMC	65	12	4	15	4	100	(661)
WC	89	-	11	-	-	100	(27)
Total %	66	11	3	17	3	100	(883)
Married Women							
W	100	-	-	-	-	100	(3)
WM	100	-	-	-	-	100	(4)
WMC	77	-	5	18	5	100	(22)
WC	96	-	4	-	-	100	(23)
Total %	89	-	2	7	2	100	(52)
Unmarried Women							
W	100	-	-	-	-	100	(20)
WM	53	9	-	38	-	100	(32)
WMC	74	8	8	10	-	100	(38)
WC	92	-	8	-	-	100	(47)
Total %	79	4	5	12	-	100	(137)

Milking cows is done usually by women (Table 23). However, especially in households of only men and women, men sometimes perform the work, either alone or shared with women.

Division Of Labour On Households Maintenance And Child Care

Household chores of cooking, cleaning, fetching water and getting wood are considered female jobs. Also, taking care of young children and infants is regarded as a female responsibility. The data on division of labour substantiates that these tasks are done by women. Moreover, whereas in the past children used to assist women with these jobs, nowadays children are infrequently found regularly performing these chores.

Cooking is almost exclusively done by women, even if children are resident. In 88 percent of the Married Men, in 92 percent of the Married Women and 93 percent of the Unmarried Women households women alone do the cooking.

Table 24 shows that in most households, regardless of its type and composition, women do the house cleaning. In a small percent of the households where children are resident, children share the work. The pattern is similar in regard to child care (Table 25), fetching water (Table 26) and fetching firewood (Table 27).

Division Of Labour Within Households With Men And Women

A sub-set of households is analyzed to ascertain if there is a statistical significant difference in the division of a labour between the three types of households if both men and women are resident. This sub-set includes households which have children. The labour categories are (a) women or women and children, (b) women and men or women, men and children; and (c) men or men and children. Table 28 shows that a higher percent of women and men jointly plant, weed, harvest and market maize in Married Men than in other types of households. Married Women households have a higher percent of solely women performing these tasks than do Unmarried Women households. Maize marketing tends to be less of a shared task than the others. In most cases, women alone or with children do the marketing. However, in almost one-fifth of the Married Men households, men or men and children market the crops. The data reveal that each task is performed by women alone or with children in at least a quarter of the households.

Labour by men solely or with children occurs more often on cash crops (Table 29) than on maize in relationship to each task. However, the composition of labour on cash crops varies significantly between the types of households. The work is usually done by men and women or both with children among Married Men households, while the labour is most often performed by women alone or with children in Married Women households. Similar to the marketing of maize, marketing of cash crops is more often the activity of one of the sexes, rather than a shared task.

TABLE 24 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR HOUSE CLEANING BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WC	O	TOTAL %	No.
Married Men					
W	100	-	-	100	(16)
WM	98	-	2	100	(473)
WMC	79	19	2	100	(1144)
WC	74	25	1	100	(61)
Total %	84	14	2	100	(1694)
Marrried Women					
W	100	-	-	100	(23)
WM	100	-	-	100	(9)
WMC	78	18	4	100	(49)
WC	85	15	-	100	(60)
Total %	85	13	2	100	(141)
Umarried Women					
W	100	-	-	100	(99)
WM	97	-	3	100	(62)
WMC	80	17	3	100	(76)
WC	77	21	2	100	(99)
Total %	88	10	2	100	(336)

TABLE 25 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR CARING FOR CHILDREN BY HOUSEHOLD TYPES AND AND COMPOSITION

LABOUR:	W	WC	O	TOTAL %	No.
Married Men					
W	100	-	-	100	(11)
WM	100	-	-	100	(289)
WMC	74	21	5	100	(926)
WC	73	22	5	100	(45)
Total %	80	16	4	100	(1271)
Married Women					
W	100	-	-	100	(12)
WM	75	-	25	100	(4)
WMC	85	13	2	100	(40)
WC	85	13	2	100	(54)
Total %	87	11	2	100	(110)
Unmarried Women					
W	100	-	-	100	(28)
WM	97	-	3	100	(29)
WMC	72	13	15	100	(46)
WC	73	20	7	100	(59)
Total %	82	11	7	100	(162)

TABLE 26 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR FETCHING WATER BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WC	O	TOTAL %	No.
Married Men					
W	100	-	-	100	(16)
WM	97	-	3	100	(471)
WMC	73	25	2	100	(1137)
WC	69	29	2	100	(62)
Total %	80	18	2	100	(1686)
Married Women					
W	100	-	-	100	(22)
WM	100	-	-	100	(9)
WMC	70	28	2	100	(50)
WC	79	18	3	100	(62)
Total %	80	18	2	100	(143)
Unmarried Women					
W	100	-	-	100	(97)
WM	95	-	5	100	(61)
WMC	78	19	3	100	(74)
WC	75	23	2	100	(98)
Total %	87	11	2	100	(330)

TABLE 27 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR FETCHING WOOD BY HOUSEHOLD TYPES AND COMPOSITION

LABOUR:	W	WC	O	TOTAL %	No.
Married Men					
W	100	-	-	100	(16)
WM	96	-	4	100	(464)
WMC	75	22	3	100	(1137)
WC	70	27	3	100	(62)
Total %	81	16	3	100	(1679)
Married Women					
W	100	-	-	100	(23)
WM	100	-	-	100	(9)
WMC	72	24	4	100	(50)
WC	80	17	3	100	(61)
Total %	82	15	3	100	(143)
Unmarried Women					
W	100	-	-	100	(98)
WM	97	-	3	100	(61)
WMC	75	22	3	100	(73)
WC	77	20	3	100	(97)
Total %	87	11	2	100	(329)

TABLE 28 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR ON MAIZE AMONG HOUSEHOLDS WITH WOMEN AND MEN BY HOUSEHOLD TYPE

	W or W+C	W+M or W+M+C	M or M+C	TOTAL %	No.
PLANTING					
Marrried Men	25	74	1	100	(1573)
Married Women	51	49	-	100	(59)
Unmarried Women	43	56	1	100	(130)
Total %	27	71	1	100	(1762)
WEEDING5					
Married Men	25	74	1	100	(1570)
Married Women	46	51	3	100	(59)
Unmarried Women	41	56	3	100	(130
Total %	27	72	2	100	(1759)
HARVESTING					
Married Men	27	72	1	100	(1573)
Married Women	50	48	2	100	(60)
Unmarried Women	44	55	1	100	(130)
Total %	29	70	1	100	(1768)
MARKETING					
Married Men	51	30	19	100	(1084)
Married Women	86	12	2	100	(42)
Unmarried Women	79	14	7	100	(93)
Total %	54	28	18	100	(1219)

In contrast with the division of labour on crops, the labour inputs used grazing cattle, sheep and goats, and fetching wood does not differ significantly between the types of households. In regards to grazing of cattle, men or men and children contributing labour accounts for the highest percent of cases in each type of household. The second most frequent kind of labour input on grazing cattle is women alone or with children. The labour used grazing sheep and goats tends to differ from the pattern found for cattle. In households headed by women, the grazing of sheep and goats is most often done by women or women and children. Among Married Men the proportion is the same for women alone or together with children, and solely men or men jointly with children grazing sheep and goats.

Labour on the fetching of wood (Table 30), used as an indicator of work performed in household maintenance and care, is shown to be done almost exclusively by women or women and children. Almost no variations arise between the types of households.

TABLE 29 : PERCENTAGE DISTRIBUTION OF REGULAR LABOUR ON PYRETHRUM, COFFEE, TEA AND COTTON AMONG HOUSEHOLDS WITH WOMEN AND MEN BY HOUSEHOLD TYPE

	W or W+C	W+M or W+M+C	M or M+C	TOTAL %	No.
WEEDING					
Married Men	19	74	7	100	(664)
Married Women	58	32	10	100	(19)
Unmarried Women	26	66	8	100	(61)
Total %	21	72	7	100	(744)
HARVESTING					
Married Men	19	77	4	100	(648)
Married Women	55	39	6	100	(18)
Unmarried Women	25	70	5	100	(61)
Total %	20	75	5	100	(727)
MARKETING					
Married Men	23	52	25	100	(623)
Married Women	61	22	17	100	(18)
Unmarried Women	48	42	10	100	(59)
	26	51	23	100	(700)

TABLE 30 : PERCENTAGE DISTRIBUTION OF LABOUR GRAZING LIVESTOCK AND FETCHING WOOD AMONG HOUSEHOLD WITH MEN AND WOMEN BY HOUSEHOLD TYPE

	W or W+C	W+M or W+M+C	M or M+C	TOTAL %	No
GRAZING CATTLE					
Married Men	26	27	47	100	(758)
Married Women	43	7	50	100	(30)
Unmarried Women	37	19	44	100	(62)
Total %	28	25	47	100	(850)
GRAZING SHEEP/GOATS					
Married Men	36	28	36	100	(699)
Married Women	55	9	36	100	(22)
Unmarried Women	49	18	33	100	(60)
Total %	37	27	36	100	(781)
FETCHING WOOD					
Married Men	97	2	1	100	(1591)
Married Women	97	3	-	100	(59)
Unmarried Women	97	3	-	100	(134)
Total %	97	2	1	100	(1784)

DISCUSSION

The authors have limited their interpretation of the data since their primary purpose is to make the information publicly available to planners, implementers and researchers who wish to analyze further the content of smallsclae farming households in Kenya. The form of data presentation will allow various analytical frameworks to be used.

The material from the CBS surveys reveal the situation of a broadly based sample of households at one point in history. Although no similar labour data exist for other years which could be used for comparative purposes, earlier case studies and other accounts which describe the division of labour can be used to analyze changes. The 1978-1979 CBS data show that no precise division of adult labour by sex currently occurs on the crop and livestock tasks examined, since frequently more than one sex performs the same task. In contrast, the household maintenance and care tasks analyzed show that they are almost exclusively done by adult women. Analysis of all activities reveals that women bear the brunt of the workload in smallscale farming households.

The CBS studies , analyzed in this paper, document significant differences between smallscale farming households based on the marital status and sex of the household head. Unmarried women headed households tend to be the most disadvantged, while households headed by married men are generally in a more favorable situation. The differences found are partially the result of economic factors. The size of the holding and its location (ecozone) are less favorable in households headed by women than those of married men. This helps explain the reason for men who have claims to the farm departing: they leave for more gainful employment.

This paper discusses labour and other farm inputs. Information is required on the allocation of the output from this labour, if one is to more thoroughly understand intrahousehold dynamics which affect resource use. Such information should be helpful in predicting the feasibility of proposed programs/projects and the trend of changes in smallscale farming households.

ANNEX I: DATA PROCESSING

The Division of Labour questionnaire was administered primarily to women in early 1979, and the Integrated Rural Survey IV was conducted over a twelve month period in 1978 and 1979. In 694 cases the sex of the head could not be determined from the Division of Labor questionnaire, so these were eliminated for purposes of this report. Also, between the time of the two surveys, the sex of the head of household changed in 321 cases. Since these households indicate a fluid situation, whereby sometimes the man and other times the woman was the head, they were not included for this analysis. Further, all households which have neither crops nor land, and those for which data on household membership were incomplete were eliminated. Thus, from an original sample of 3471 households in the Division of Labor survey, 2228 households serve as the unit of anlaysis for this report.

ANNEX II: CONSTRUCTION OF ECOZONES

The ecozones were constructed from a sample of 3471 households covered in the Division of Labor survey. For each cluster (usually consisting of 20 households), information was obtained on the number of households growing (a) cotton, and possibly pyrethrum, tea or coffee, (b) pyrethrum, tea or coffee, and (c) neither tea, coffee, pyrethrum nor cotton. Because some households might grow a cash crop, although the area might not be well-suited for it, it was decided to classify each cluster on the basis of whether or not 40 percent of the household within it fell within either category (a) or (b). For example, if 40 percent or more of the households cultivated cotton, the cluster was classified as in the Cotton Ecozone. When less than 40 percent of the cluster qualified for category (a) or (b), the cluster was listed under the Food and Livestock Ecozone.