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**SMALLHOLDER OIL PALM
PRODUCTIVITY STUDY
(ADB TA NO. 790-PNG)**

VOLUME II

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ANNEX I

Notes on the Preparation of Survey Data Entry and Processing

NOTES ON THE PREPARATION OF SURVEY DATA ENTRY AND PROCESSING

1. The enumerators record sheet consists of two sets of observations.
2. The first set deals with all activities by the people on the block at the time of the visit.
3. It includes one pair of observations concerning oil palm activities.
4. Further oil palm observations are given on the reverse of the form.
5. If no oil palm activities are under way on the block at the time of the visit the second set of observations are not made.
6. If there are any oil palm activities going on the second set of observations are recorded.
7. All observations on the first side relate to individual persons on the block and to the individual activities.
8. The observations are coded so that they can be sorted by the computer.
9. On the record sheet the code number is 4 digits long (a fifth code letter is added in the computer database).
10. On the record sheet the first digit refers to the group of activities:
 - 1... oil palm
 - 2... subsistence
 - 3... other economic
 - 4... household
 - 5... leisure
 - 6... activities
 - 7... traditional
11. The second digit refers to a particular activity within a group:
 - 11.. oil palm activity on the block
 - 12.. oil palm activity on another block
 - 21.. gardening on the block
 - 22.. gardening off the block
 - 23.. hunting
 - 24.. fishing
 - 31.. wage earning off the block
 - 32.. wage earning on the block

33.. self employed off the block
34.. self employed on the block
35.. selling at the market

41.. buying at the store or market
42.. doing housework
43.. child minding
44.. transacting business at the bank

51.. sleeping or doing nothing on the block
52.. going walk-about
53.. doing or watching sport
54.. making a social call

61.. doing an educational activity
62.. doing a church related activity
63.. attending a (non-religious) meeting
64.. sick or in hospital
65.. giving or gone to a party
66.. any other (non-traditional) activity

71.. pasin tambuna

12. The last two digits of the code number refer to particular individuals on the block, their age and their sex.
13. The third digit indicates age (except for head of household) and the fourth digit indicates sex (odd numbers 1,3,5,7,9 for males; even numbers 2,4,6,8 & 0 for females).
14. The names, ages and sex of each block member was recorded in advance and the code number assigned on the following basis:

..11 The male head of household

..12 his wife (or a female head of household)

..21, ..23, ..25, ..27, ..29 males over 60 years old

..22, ..24, ..26, ..28, ..20 females over 60 years old

..31, ..33, ..35, ..37, ..39 males between 41 and 60

..32, ..34, ..36, ..38, ..30 females between 41 and 60

..41, ..43, ..45, ..47, ..49 males between 26 and 40

..42, ..44, ..46, ..48, ..40 females between 26 and 40

..51, ..53, ..55, ..57, ..59 males between 18 and 25

..52, ..54, ..56, ..58, ..50 females between 18 and 25

..61, ..63, ..65, ..67, ..69 males between 14 and 17

..62, ..64, ..66, ..68, ..60 females between 14 and 17

..71, ..73, ..75, ..77, ..79 males between 7 and 13

..72, ..74, ..76, ..78, ..70 females between 13

..81, ..83, ..85, ..87, ..89 males under 7
..82, ..84, ..86, ..88, ..80 females under 7

15. Not every combination of numbers will occur on any one block.

Examples:

1111 the head of the household is reaping oil palm

4112 the wife is at the market buying food

4361 a girl between 14 and 17 is child minding

6171 a boy between 7 and 13 is at school

16. The enumerators do not have to know the meaning of the code number.
17. They simply circle the appropriate number linking the name of the person to the job or activity.
18. The number codes can be entered into a computer more quickly than alphabet codes (such as "y" for yes or "n" for no).
19. The computer will be able to group people by age, sex, oil palm and non-oil palm activities within and between blocks.
20. On the oil palm side of the form only the first set of observations relate to people and the work they are doing.
21. The second set on this side are concerned with other aspects such as the kind and amount of fertilizer, the age of the palms, the state of the equipment, etc.
22. These answers use similar number codes to those on the first side of the sheet but a different digit is added to the computer database to distinguish the answers from the different sides of the sheet.
23. The walk number (one of seven alternative routes), the time of day, the date and day of week are also recorded.
24. Hand-written comments are made on a separate sheet.

INSTRUCTIONS FOR KEYBOARD OPERATOR

1. Record sheets should be kept in separate piles for each recorder/subdivision.
2. Each day's work (11 record sheets per recorder/subdivision) should be paper-clipped together with side one uppermost,
3. It is not necessary to sort the sheets into numerical order of the block number - the computer will accept them as they come.
4. If one or more sheets are missing do not start that set of

records until they are located or otherwise accounted for.

5. Care should be taken when turning from side one to side two that the question asked by the computer ("Which side number 1 or 2 ?") is correctly answered.
6. To help remember this and to avoid accidental duplication of data entry the keyboard operator should initial the bottom right hand corner of each side when the last record on that particular side has been entered.
7. The data entry is designed to be self-checking as it is entered but this cannot prevent wrong data being entered accidentally or carelessly.
8. The data will be printed out as it is entered (or immediately afterwards) so that it can be checked for accuracy against the field record sheet.
9. The field record, initialed on both sides, is clipped to the print out and checked (preferably by a separate person) before filing.
10. Summarised data will also be printed out at predetermined intervals (each day, each week, each fortnight, each month, or between any chosen dates).
11. The data summaries will use the code numbers to sort data by age, sex, activity, date and time of day.
12. Statistical analysis will be carried out as and when appropriate.
13. Hand-written remarks and comments by the field enumerators will be entered separately from data but can be linked by the block number, walk number, time of day, date and code number to the related observation.

ANNEX 2

Memo from PNG OPRA Extension Agreement

MEMORANDUM

From EXTENSION AGRONOMIST
PNGOPRA - DAMI.
 Our Reference 112/44
 Date 28th May, 1990



To DIRECTOR OF RESEARCH
PNGOPRA - DAMI.
 Your Reference _____

FACILITATING THE "ADB-SMALLHOLDER PRODUCTIVITY STUDY/SURVEY"

Some Notes and Observations

Commencing on the 17th - 21st of May 1990, the first series of introductory visits were made with the ADB Consultants (CB & HCH) to the six Subdivision OICs in aid of clarifying the aim and proposed methodologies in executing the forthcoming rural survey. The second series was a "permission-to-visit" (PTV) the blockmeetings which involved the selected candidates for the survey from the 22nd - 24th of May 1990. Only the Agrosociologist (CB), OPRA's Extension Agronomist (PN) and the respective Subdivision staff were the participants. There were a total of 66 households (blocks) intended for this survey from the six settlement subdivisions. Village oil palm survey will follow. At the end, only 6% of the selected household heads needed replacements. In all the encounters one if not the only prominent agronomic points of concern raised were the ever increasing decline of FFB output as measured by physical discoloration of palms, low number of bunches being produced and size of and weight of individual bunches. Physical factors such as rivers, terrains, hills, leading to difficult access and erosion were also of concern. The general consensus was that the simple short term solution these problems are; alternate allocation of blocks, however, this ultimately will give rise to increased multiple blockholders.

The following clarification was felt to be necessary to enable the above survey to take place in the Hoskins Oil Palm Project. At each meetings, the PNGOPRA's role and contribution to the improvement of the smallholder oil palm farmer and the oil palm industry as a whole since PNGOPRA was born in 1980 was explained.

- a. The difference between OPRS (NBPOD) and OPRA both based at Dami as two completely different research organizations, the former dealing with seed production and the latter with oil palm cultivation.
- b. The infrastructure of OPRA in PNG since 1980.
- c. The obvious achievements to-date, namely the introduction of the pollinator (*E. kamerunicus*), control and monitoring of the leaf eating sexava species.
- d. Continuous investigations and campaigns towards fertilizer (inorganic) use and smallholder block upkeep. Arising from these meetings the following subdivisions have earmarked sites to be included in the additional demonstration scheduled for 1990. One each from Galai II (1577), Sarakolok (920), Kavui (1692), and three sites from VOP Central; Mai, Morokea, and possibly one from Mingae, making a total of 8 as approved. The DOR will field visit all sites for final approval.

- e. The latest addition being the smallholder productivity study sponsored by DAL, in which PNGOPRA is co-operating. This study was outlined to the effect that at this stage of the Project lifespan the PNG Government has realized that the need to unburden the social obligations of peoples in a cash-based social system (block household) is important in relation to fully utilizing the available/non-availability of blockbased resources. Acknowledging that apart from ever fluctuating world commodity prices which is beyond anyone's control, socially related constraints do affect the individuals' input in FFB production.

For your information.

Nav

PETER NAVUS
EXTENSION AGRONOMIST

PN/lfm

c.c: Project Co-ordinator
Kimbe.

c.c: ADB - Agrosociologist
Dami.

ANNEX 3

Letter from Field Recorder

NARIWIN

Block 1827

Sect 9.

KAVU⁸

20-6-90

NARAWIN'S daughter inform me that
her father's mother - gone to
Broussi. to pay Bride price (Custom)
She said she has been inform by
people not to sign any paper or do
any thing.

She told me. to come around on Monday
when her father (NARAWIN) comes -

— Thank.

WAWIL

7-6-90

ANNEX 4

Harvest Frequency

HARVEST FREQUENCY OF SURVEYED SMALLHOLDERS AND REASONS FOR NOT HARVESTING.

KAPORE -----> TIME SEQUENCE 10th June 1990---> end of July 1990.

	Case Studies/Production Range	Harvest 1	Harvest 2	Harvest 3	Harvest 4
0 % > 25%	Case Study 1 Kapore	H	H	H	NIL "ZERO PRICE" PAYOUT
0% -> 25%	Case Study 2 Kapore	H	NIL UNKNOWN	H	NIL "ZERO PRICE PAYOUT
25% -> 50%	Case study 3 Kapore	H	H	NIL UNKNOWN	H
25% -> 50%	Case Study 4 Kapore	H	H	H	H
25% -> 50%	Case Study 5 Kapore	H	H	NIL UNKNOWN	H
50% -> 75%	Case Study 6 Kapore	H	H	NIL UNKNOWN	NIL "ZERO PRICE" PAYOUT
50% -> 75%	Case Study 7 Kapore	H	H	H	H
50% -> 75%	Case Study 8 Kapore	H	H	H	NIL "ZERO PRICE" PAYOUT
50% -> 75%	Case Study 9 Kapore	H	H	H	NIL "ZERO PRICE" PAYOUT
75% -> 100%	Case Study 10 Kapore	H	H	H	NIL "ZERO PRICE" PAYOUT
75% -> 100%	Case Study 11 Kapore	H	H	H	NIL "ZERO PRICE" PAYOUT

H = Harvest frequency for this period recorded by N.B.P.O.D. Even top producers, with top harvest frequencies felt like celebrating this week! Zero Price Payout covered the week 23rd -> 26th July 1990 - during, Harvest 4 1990.

TAMBA: -----> TIME SEQUENCE 12th, June 1990 --> 12th July 1990.

	Case Studies/Production Range	Harvest 1	Harvest 2	Harvest 3
0% -> 25%	Case Study 1 Tamba	H	H	H
25% -> 50%	Case study 2 Tamba	NIL, H/H VISITED A RELATIVE ON MOMOTA SUB- DIVISION (NEAR KAPIURA)	H	H
25% -> 50%	Case Study 3 Tamba	H	H	H
50% -> 75%	Case Study 4 Tamba	H	H	H
50% -> 75%	Case Study 5 Tamba	H	H	H
50% -> 75%	Case Study 6 Tamba	H	H	H
50% -> 75%	Case Study 7 Tamba	H	H	H
75% -> 100%	Case Study 8 Tamba	H	H	H
75% -> 100%	Case Study 9 Tamba	H	H	H

H = Harvest frequency for this period recorded by N.B.P.O.D.

	Case Studies/Production Range	Harvest 1	Harvest 2	Harvest 3	Harvest 4
0% -> 25%	Case Study 1 Sarakolok	H	H	H	H
25% -> 50%	Case Study 2 Sarakolok	H	H	H	H
25% -> 50%	Case Study 3 Sarakolok	H	H	H	H
25% -> 50%	Case Study 4 Sarakolok	H	H	H	H
25% -> 50%	Case Study 5 Sarakolok	H	H	H	H
50%-> 75%	Case Study 6 Sarakolok	H	H	H	H
50% -> 75%	Case Study 7 Sarakolok	H	H	H	H
50% -> 75%	Case Study 8 Sarakolok	H	H	H	H
75% -> 100%	Case Study 9 Sarakolok	H	H	H	H
75% -> 100%	Case Study 10 Sarakolok	H	H	H	H

* Harvest 3 occurred the week before the "Zero Price" payout and has not influenced the harvest.

BUVUSSI (cont.) -----> TIME SEQUENCE 12th June 1990 ---> 12th July 1990.

Case Studies/Production Range	Harvest 1	Harvest 2	Harvest 3
50% -> 75% { Case Study 8 Buvussi	H	H	H
50% -> 75% { Case Study 9 Buvussi	H	H	H
75% -> 100% { Case Study 10 Buvussi	H	H	H
75% -> 100% { Case Study 11 Buvussi	H	H	Nil family member a victim of crime H/H attending to law & order matters.

	Case Studies/Production Range	Harvest 1	Harvest 2	Harvest 3
0% -> 25%	Case Study 1 Buvussi	H	H	NIL H/H & family attend funeral of close family member on a block nearby
25% -> 50%	Case study 2 Buvussi	H	H	NIL H/H attend to food garden with wife
25% -< 50%	Case Study 3 Buvussi	H	H	Nil Unknown
25% -> 50%	Case Study 4 Buvussi	H	Nil off block H/H attended court matters in Kimbe and Lands Dept visit.	Nil In-law-was not on the block she had gone to stay with family elsewhere
25% -> 50%	Case Study 5 Buvussi	H	H	Nil caretaker joins brother to attend harvest on the owners second block at Mosa village
50% -> 75%	Case Study 6 Buvussi	H	H	H
50% -> 75%	Case Study 7 Buvussi	H	H	Nil House build & work on a second block near Poinini

KAVUI -----> TIME SEQUENCE, 10th June to 1st August 1990.

Case Studies/Production Range		Harvest 1	Harvest 2	Harvest 3	Harvest 4
0% -> 25%	Case Study 1 KAVUI	H	H	H	Nil Zero Price Payout
0% -> 25%	Case Study 2 KAVUI	H	H	H	H
25% -> 50%	Case Study 3 KAVUI	H	H	H	H
25% -> 50%	Case Study 4 KAVUI	H	H	H	Nil Zero Price Payout
25% -> 50%	Case Study 5 KAVUI	H	Nil - son, the harvester help to H/H returned to his wife's parents block in Buvussi & wasn't on this block	H	H
25% -> 50%	Case Study 6 KAVUI	H	H	H	Nil nephew harvester followed wife back to her fathers block on another sub-div.
50% -> 75%	Case Study 7 KAVUI	H	H	H	H
50% -> 75%	Case Study 8 KAVUI	H	H	H	H
50% -> 75%	Case Study 9 KAVUI	H	H	started harvest before harvest order due to knowledge his family would not be available H	H

KAVUI (cont.) -----> TIME SEQUENCE, 10th June to 1st August 1990.

Case Studies/Production Range		Harvest 1	Harvest 2	Harvest 3	Harvest 4
75->100%	Case Study 10 KAVUI	H	H	H	H
75->100%	Case Study 11 KAVUI	H	H	H	H

H = Harvest frequency for this period recorded by N.B.P.O.D.. Zero price payouts influenced 3 growers not to harvest, zero price payouts made 23rd July 1990 -> 26th July 1990.

GALAI ---> TIME SEQUENCE 26th June 1990--> 6th August 1990.

	Case Studies/Production Range	Harvest 1	Harvest 2	Harvest3	Harvest4
25% -> 50%	{ Case Study 1 GALAI	H	H	H/H group harvesting on another block as well as own HCL	NIL unclear but, week after Zero Price Payout
25% -> 50%	{ Case Study 2 GALAI	H	NIL	H	H
25% -> 50%	{ Case Study 3 GALAI	H	H	H	H
25% -> 50%	{ Case Study 4 GALAI	H	H	Son harvesting in a group harvest on another block	H
50% -> 75%	{ Case Study 5 GALAI	H	H	H	H
50% -> 75%	{ Case Study 6 GALAI	H	H	Group harvest (outside)	NIL _ not enough ripe fruit
75% -> 100%	{ Case Study 7 GALAI	H	H	H	H
75% -> 100%	{ Case Study 8 GALAI	H	H	H	H

H = Records by N.B.P.O.D. and D.A.L. Galai. The 4th harvest occurred 1 week after the Zero price payouts, this may have had an influence on the two blocks unharvested.

The tables showing harvest frequency of smallholders and reasons for not harvesting shows the extent of non-harvest effects due to family obligation:-

- (i) Illness - TB, malaria, other sickness severely restricted harvest activity to some growers in this range.
- (ii) Custom e.g. "Garamut" - These activities influence harvest on all production ranges. Ceremonial activities.
- (iii) Planting up a new block with seedlings - family planting. This activity receives priority over harvesting. The whole family and relations come together to do this activity. It is a new activity, a new bisnis for a relative, a new start and a reason for celebration. The recipient of this work effort usually reciprocates by helping harvests in blocks of those people who helped plant the block. This activity has similar affect across all production ranges in VOP.
- (iv) House building - relatives come together and help in a village to build a new house or repair an existing one. This take precedence over harvests, but again those helped can return the obligation by assisting on the blocks of the helpers. This activity has a similar effect across all production ranges in VOP.
- (v) Religious celebration

The preparation for these celebrations e.g. the Franciscan Day mentioned can involve up to 1 week of the young men attending bush camps to prepare ceremonial dress, hunt pigs and collect wildfowl eggs for feasting. These activities are pleasurable and build strong bonds amongst family members and friends attending. As there is a high degree of relationship by marriage in these systems, most groups are interrelated. Such camps and festivities cement bonds between young men. The ones attending are usually the ones most involved in the harvests. Even though a harvest may be missed through such a ceremony, it is usually recouped by the amount of reciprocal harvesting involved on block harvests other than their own blocks. This was seen over the three VOP production ranges.
- (vi) Funerals.

Due to the close family relationships in village society, loss in a community is felt by everyone. Elders and wives tended to spend longer at the funeral celebrations than their sons and daughters. The parents spent 2-3 days involved with some funerals. Funerals also in other nearby villages were attended. These occurred often, three times at Rikau during the survey.

(vii)

Examples of shared harvesting of blockholders through interrelationships.

Case Study 3 Rikau revealed the following profile over the 33 days surveyed. The young harvester was the brother of the block owner who was studying at a church institute in Rabaul for 12 months. This grower was 18-25yr. of age. His oil palm activity profile during the survey saw him, during a council day, act with many other young people from the village, to plant a new block of oil palm seedlings.

Youth Day - helped in felling a new block in order to plant oil palm.

Brother helped harvest his father's block.

Brother helped his cousin - on his Mother's side harvest his block (Case Study 8 Rikau) as part of a youth group harvest.

Harvest oil palm on his brother's block (Case Study 3 Rikau).

Oil palm harvest on another brother's block.

Helped a cousin planting out new seedlings - first plantings.

Another block, assistance given to planting out new seedlings.

Total of 12 days oil palm work on 8 different blocks.

-----> TIME SEQUENCE 8th Sept 1990-----> 8th Oct 1990.

Case Studies/Production Range		Harvest 1	Harvest 2	Harvest 3
LOW	(	Nil - caretaker		NIL - "Garamut"
	(	attending church		ceremony &
	(	meeting at Kapore	H	Franciscan Day
	(			celebration Mosa
	(			Village.
MEDIUM	(	NIL - no one on the	NIL - present on	
	(	block.	block, reason for	
	(		no harvest unknown	H
MEDIUM	(		* H - reciprocal	NIL - "Garamut"
	(		harvest from C.S. 6	ceremony &
	(	H	Gaungo and C.S.4	Franciscan Day
MEDIUM	(	NIL * Harvesting		celebration Mosa
	(	brother-in-laws block		
	(	on C.S.3 Gaungo &	H	NIL * Harvester
MEDIUM	(	maintaining a new	relative assists.	harvesting
	(	planting.		another block for
	(			employment some
MEDIUM	(	NIL * Harvesting a		distance away.
	(	friends block at	H	
	(	Kapore.		H
MEDIUM	(		* H - reciprocal	NIL * H/H
	(		harvest from C.S.3	commercially
	(	H	Gaungo	harvesting for
MEDIUM	(			an employer
	(			elsewhere.
	(			
MEDIUM	(	NIL - making a large		NIL "Garamut"
	(	food garden	H	ceremony &
	(			Franciscan Day
	(			celebration, Mosa

GAUNGO VILLAGE (cont.):

-----> TIME SEQUENCE 8th Sept 1990-----> 8th Oct 1990.

Case Studies/Production Range		Harvest 1	Harvest 2	Harvest 3
HIGH	(Case Study 8 GAUNGO	H - youth group harvest.	NIL * TRADITIONAL CEREMONY CALLED "GARAMUT" for H/H daughter	NIL - "Garamut"
	(Case Study 9 GAUNGO	H Employed labour	H Employed labour	H
	(Case Study 10 GAUNGO	H	H	NIL 2nd son a harvester admit to Kimbe Hospital Mother (widow). attending
	(Case Study 11 GAUNGO	NIL - Fishing?	H	NIL "Garamut" ceremony & Franciscan Day Day Mosa village
	(			

Time Sequence 8th Sept 1990 -> 8th Oct 1990.

Case Studies and Production Range	Harvest 1	Harvest 2	Harvest 3
Case Study 1 MOSA	NIL - H/H absent, living Kapore, newly producing block, low fruit quantity	H. * Brother harvest in H/H absence Brother a Top producer	NIL Franciscan Day Celebrations
Case Study 2 MOSA	NIL * 3->4 days maintenance clean up by H/H & wife just after harvest schedule	H	NIL - Franciscan day celebrations - 1 week traditional preparation
Case Study 3 MOSA	NIL * H/H was clearing & planting a new block for a family member. The entire family had pooled manpower	H	NIL - Franciscan Day celebrations. one weeks traditional preparations
Case Study 4 MOSA	H	H	NIL - Franciscan Celebration.

LOW

MOSA VILLAGE (cont.)

Time Sequence 8th Sept 1990 -> 8th Oct 1990.

Case Studies and Production Range	Harvest 1	Harvest 2	Harvest 3
Case Study 5 MOSA	NIL - Living near Talasea but doing temporary employment during this time	H	NIL - AS ABOVE
Case Study 6 MOSA	NIL - Illness of wife & admission to Kimbe Hospital.	H	NIL 1 weeks traditional preparation.
Case Study 7 MOSA	H	* - resident of C.S. 11 Mosa harvested H	NIL - Franciscan Day Celebration
Case Study 8 MOSA	NIL * H/H had a very precise fruit count that initiate a harvest - not reached this harvest	H	NIL - 1 weeks traditional preparation for Franciscan Day celebration
Case Study 9 MOSA	H	H	NIL - AS ABOVE
Case Study 10 MOSA	H	H	NIL - AS ABOVE
Case Study 11 MOSA	H	H	NIL - AS ABOVE

MEDIUM

HIGH

H - Harvesting records cross checked with N.B.P.O.D. Note, some other oil palm work is done in spite of no harvest. The Franciscan Day celebration was a Catholic celebration to mark the original opening day of the community school in the village.

*NOTE:

All blocks harvested before the religious celebration. This is a similar pattern as was seen and recorded in Mai village - refer Harvest Frequency MAI /BALABOLO.

Case Studies & Production Range		Harvest 1	Harvest 2	Harvest 3	Harvest 4
LOW	Case Study 1 KAUS	H	H	H	H
	Case Study 2 KAUS	H	H	H	NIL - staying in the village with relatives
MEDIUM	Case Study 3 KAUS	NIL - UNKNOWN possibly a funeral feast to prepare.	H	H	H
	Case Study 4 KAUS	H	H	H	H
	Case Study 5 KAUS	H	H	H	H
MEDIUM	Case Study 6 KAUS	H	H	H	NIL -H/H working a logging ship in a contract gang for S.B.L.C.
	Case Study 7 KAUS	NIL - said fruit shortage no harvest - possible a funeral feast to prepare.	H	NIL - House construction + wife and family went to Bialla	NIL - wife and family hadn't returned from Bialla, H/H and remaining family gone to village to stay
MEDIUM	Case Study 8 KAUS	H	H	H	H

KAUS BLOCKS (cont.).

--> TIME SEQUENCE:- 6th Sept--> 13th Oct 1990.

Case Studies & Production Range		Harvest 1	Harvest 2	Harvest 3	Harvest 4
HIGH	Case Study 9 KAUS	H	H	H	H
HIGH	Case Study 10 KAUS	NIL - preparation of a funeral feast.	H	NIL - High amount of gardening activity some distance away. Dry season	H
HIGH	Case Study 11 KAUS	H	H	H	H

H - Harvesting records cross checked with N.B.P.O.D.

BALABOLO 6ha blocks.

TIME SEQUENCE 6th SEPT 1990 -> 12th OCT, 1990.

Case Study and Production Range		Harvest 1	Harvest 2	Harvest 3	Harvest 4
LOW	Case Study 1 BALABOLO	H group harvest	H group harvest	Celebration KAVUI Catholic church NIL.	H group harvest
	Case Study 2 BALABOLO	H group harvest	H group harvest	Celebration KAVUI Catholic church NIL.	H group harvest
MEDIUM	Case Study 3 BALABOLO	H group harvest	H group harvest	Celebration KAVUI catholic church NIL.	H group harvest
HIGH	Case Study 4 BALABOLO	H group harvest	H group harvest	H	H group harvest
HIGH	Case Study 5 BALABOLO	H group harvest	H group harvest	Celebration KAVUI Catholic church NIL.	H group harvest

MAI VILLAGE 2ha blocks.

Case Study and Production range		Harvest 1	Harvest 2	Harvest 3	Harvest 4
LOW	Case Study 1 MAI	NIL - absent from village & block - reason unknown	H	NIL - Celebration KAVUI Catholic church	H
	Case Study 2 MAI	NIL - Husband absent, working away, wife left to handle block work.	H	NIL - Celebration KAVUI Catholic church	NIL - Husband absent -working nearby, wife left to manage
MEDIUM	Case Study 3 MAI	NIL - unknown	H	Nil - Celebration KAVUI Catholic church	H
MEDIUM	Case Study 4 MAI	H	H	NIL - Celebration KAVUI Catholic Church	H
HIGH	Case Study 5 MAI	NIL - uses youth groups regularly	H	NIL - Celebration KAVUI Catholic church	H
HIGH	Case Study 6 MAI	H	H	NIL - Celebration KAVUI Catholic church	H

* Note a full harvest on 2 ha, blocks was conducted before the church celebrations.

RIKAU VILLAGE:

Case Studies and Production Range	HARVEST 1	HARVEST 2	HARVEST 3	HARVEST 4
Case Study 1 RIKAU	NIL -funeral of a block holder from village	NIL - food gardening	NIL - Egg collection - preparation for a great feast. HOUSE BUILDING of a	H - delayed due to borrowed tools
Case Study 2 RIKAU	NIL - children with T.B. Rx nearby hospital. - illness.	NIL - children Rx T.B. in Hospital.	H 2nd son harvests and quickly leaves for pig hunt in preparation for a feast	H
Case Study 3 RIKAU	NIL funeral of a block holder from the village	H	NIL - * helping cousin plant out a new oil palm block	H
Case Study 4 RIKAU	NIL-funeral of a block holder.	H-*late due to borrowing of tools being used elsewhere	NIL - H/H constructing a new house.	H

RIKAU VILLAGE (cont.)

Case Studies and Production Range		HARVEST 1	HARVEST 2	HARVEST 3	HARVEST 4
MEDIUM	Case Study 5 RIKAU	NIL-funeral + * Planting out CAC rep seedlings in a family working party - new block	H	NIL - helping relative construct his house. Egg collection - for great feast.	H
MEDIUM	Case Study 6 RIKAU	NIL-Funeral	H	NIL-all stay on husband's father's block at Tabai Rikau	H
MEDIUM	Case Study 7 RIKAU	NIL-funeral * + son helping plant C.A.C. reps new block oil palm.	Son-in-law harvests in H/H's sons absence. H	Son-in-law harvests H	Son-in-law harvests
MEDIUM	Case Study 8 RIKAU	NIL-funeral + * brother helping plant C.A.C. reps new oil palm.	NIL * Harvest brother's block as he was employed elsewhere	Big youth group harvest H (family)	H Brother of H/H harvested other blocks also.

RIKAU VILLAGE (cont.)

	Case Studies and Production Range	HARVEST 1	HARVEST 2	HARVEST 3	HARVEST 4
HIGH	Case Study 9 RIKAU	NIL-funeral attendance	H	H	H
HIGH	Case Study 10 RIKAU	NIL-funeral. + * sons helping plant out C.A.C's reps new block.	H	NIL * Helped C.S 11 Rikau harvest in a reciprocal arrangement.	H
HIGH	Case Study 11 RIKAU	NIL-funeral attendance	H	H	* NIL-stick lining C.S. 10 Rikau's block, recipro- cating harvest 3 Much other activity on other block

H - Harvesting records cross checked with N.B.P.O.D.

* Note - the amount of oil palm activity on other blocks if a harvest is not conducted on a growers own block.

WAISI VILLAGE:

Time Sequence 3rd Sept --> 15th Oct 1990.

Case studies/Production Range	HARVEST 1	HARVEST 2	HARVEST 3	HARVEST 4
LOW	Case Study 1 WAISISI	NIL - Widow pruned block.	NIL	H
		Harvests done with bunches on H head. alternate harvest.		
LOW	Case Study 2 WAISISI	NIL - Unknown	NIL H/H	H
		Harvest done with bunches on H head. alternate harvests.	hunting and gardening - height of dry season.	
LOW	Case Study 3 WAISISI	Harvests done with bunches on H head.	NIL - Family stays in his illness, village some staying at distance wives village. away.	Brother harvested H
LOW	Case Study 4 WAISISI	NIL - Unknown.	NIL. Large new garden at the back of oil palm, working on this.	H

Time Sequence 3rd Sept --> 15th Oct 1990.

Case studies/Production Range	HARVEST 1	HARVEST 2	HARVEST 3	HARVEST 4
MEDIUM				
Case Study 5 WAISISI	NIL. Gardening (height of dry season)	H	NIL * did a reciprocal harvest with case 8 Waisisi, (brother)	Harvested by H C.S.8 Waisisi
MEDIUM				
Case Study 6 WAISISI	NIL. Reason unclear	H	NIL-gardening (height of dry season)	H
MEDIUM				
Case Study 7 WAISISI	H	H	H	H
MEDIUM				
Case Study 8 WAISISI	H	H	Brother helped harvested. H	* also a reciprocal harvest C.S.5 H WAISISI as well as own block.
HIGH				
Case study 9 WAISISI	H	H	H	Family at wives village H H/H remains to harvest.
HIGH				
Case Study 10 WAISISI	NIL H/H working in POM for 1 year	H	NIL H/H absent Wife/relative managing	H Group harvest
HIGH				
Case Study 11 WAISISI	H	H	H	H

Harvesting records cross checked with N.B.P.O.D.

* The lower producers, C.S. -->4 are harvesting by carrying out bunches on the head due to no wheelbarrowes, this is such a slow process that harvests appear to possibly become alternate due to the strain.

ANNEX 5

Commercial Banking

INTERVIEW WITH COMMERCIAL BANKS KIMBE - RELATING TO SMALLHOLDERS IN REGARD TO FINANCIAL ATTITUDES:

MANAGEMENT OF WESTPAC AND PNGBC KIMBE.

1. The managers both indicated how lending policy to smallholders has had to tighten, due to lower prices and the inability of lower producers to handle higher levels of debt. Previously Westpac had a policy targeting a particular yield as a production guideline. The policy was found too lenient for repayments and too hard to administer. Now lending is to the top 10% of settler producers and also down to the 75 -> 80t/year region. Very few growers from V.O.P. would have tonnage levels on 2ha. which could qualify them for commercial lending situations. Only 1 out of 10 growers would have personal loans approved by one bank, the other had a much higher rate of approval but based on the same criteria of lending.

2. Both commercial banks had to tighten lending policy substantially 2 years ago (1988). Both banks had to wipe off substantial sums on smallholder debt caused by too lenient a lending policy during times of high prices in 1984 without due consideration of repayment capabilities on a production basis. Lending now is based on a much more realistic ability to repay while maintaining a living income to the grower.

3. Requests for personal loans to settlers were highly related to non oil palm matters. These being in order of priority:

- *1. Airfares for travel to home areas.
- 2. Tools and materials for completion of improved houses.
- 3. Customary, bride price and funeral (customary feasts).
- *4. School fees in January.
- 5. Lease rentals.
- *6. Purchase of other blocks for sons.

4. Lending had to be severely curtailed because at present prices and with commitments to the Agricultural Bank taking priority, commercial bank debt can't be handled other than from growers with solid production histories and history of repayments of previous loans.

*5. In January - February, commercial banks find a major upturn in settler requests for loans concerning school fee applications. The sum of K300/boarding student and K150/day student must be found and paid within a certain time limit in a single amount. The managers both commented that this is an area of major concern to growers.

6. Savings are extremely modest from smallholders. What is in hand gets spent and distributed amongst family and relatives as it comes in.

7. There is a high rate of illiteracy on the signing for loan withdrawals.

8. Some applicants for loans don't have realistic expectations of a loan.

9. Lending from banks for this form of lending is virtually unsecured due to the difficulty of obtaining a mortgage, only high producers, or low risk applicants have any chance of success.

10. The settlers requesting loans rarely have title documents available.

11. Most loan requests were for less than K1,000 at this rate no stamp duty is required. Stamp duty is K10/loan above that level. The establishment fee on lending is K60/loan of any size. This figure, no one queries, or questions, even, for loans as low as K200 this is viewed as totally necessary and people are prepared to pay, to get the principal for what they wish to achieve.

12. Ability to successfully repay a loan within time and guidelines of lending is favourable to subsequent lending.

13. A record of personal loans through P.N.G.B.C. was as follows, October 1990. Total of 43 settlers and 6 village oil palm.

- 4 Kapore
- .1 Kaus
- 16 Tamba
- 1 Mosa village
- 7 Sarakolok
- 1 Gaungo
- 4 Buvussi
- .1 Genemboku
- 2 Galai
- 1 Gule
- 5 Kavui
- 1 Kulungi
- 5 Kavugara

This range of debt was K200 -> K1000.

ANNEX 6
Agricultural Bank

AGRICULTURE BANK - SMALLHOLDER FINANCIAL ATTITUDES:

1. Growers had the option during time of high oil palm price to put aside money for their houses in a savings scheme a few Tolai people put money this way, most smallholders put nothing aside.

2. During the lending restrictions by the Agriculture Bank, lending was geared towards more commercial activities whereby a quick return could ensue. Money was lent for P.M.V.'s whereby 50% -> 60% of cash has to be in hand.

Sources of finance for lending for motor vehicles are:-

- (a) Agriculture Bank
- (b) Credit Co-operation
- (c) Nambawan Finance

3. Housing improvement loans of settler houses set as an incentive to poison grew from K500 -> K1,500 -> K3,000 without obviously being tied to the more prudent aspects of bank lending.

4. As of 1st July 1990, existing oil palm accounts numbered 2336 accounts with K6,020.650 outstanding, New oil palm accounts numbered 274 with K970,450 outstanding. From the 30th March '90 when lending restrictions were lifted to October '90, 357 loan applications had been processed with a further 267 outstanding.

Production Range	Kapore	Tamba	Sarakolok	Buvussi	Galai	Kavui	Kavugara	Total
0->25%	1	0	0	0	0	1	0	2
25%->50%	0	4	1	2	0	2	2	11
50%->75%	2	11	5	2	2	2	3	27
75%->100%	1	1	1	0	0	0	0	3

V.O.P. - 3 blocks high producers. 2 blocks production unclear. 1 block very low.

Lending situation here were sound on a production basis. The group 50%->100% are dominant, 30:13.

Westpac. - settler personal loans 70 loans still outstanding but repayment mostly now in hand and under control.

Production Range	Kapore	Tamba	Sarakolck	Buvussi	Galai	Kavui	Kavugara	Total
0->25%	3	0	4	0	0	3	0	10
25%->50%	4	6	3	14	1	8	0	36
50%->75%	4	1	2	7	1	8	0	23
75%->100%	1	1	0	0	0	0	0	2

Here, the lower producers are 46 as to higher producers 25. Debt repayments for the lower producers are reportedly now in hand but a policy linked strictly to production even in times of high prices and prudent lending policies adhered to are desirable for the industry. Settlers are obviously keen to seek personal loans, the priorities are listed and such priorities are incentive to seek debt - but it should only be through the mechanism of proven productivity, ability to repay while maintaining satisfactory quality of home life.

14. O.I.C.'s on subdivisions are spending a lot of their time putting together these requests for personal loans from smallholders of which a high proportion are unsuccessful.

ANNEX 7

Table of Average FFB Price 1983-1989

TABLE OF AVERAGE PRICE/TONNE F.F.B. PAID TO SMALLHOLDERS
(including stabilization funds.)

YEAR	AVERAGE PRICE/TONNE
1989	K27.92
1988	K33.21
1987	K22.66
1986	K21.42
1985	K47.77
* 1984	K62.48
1983	K29.42

Responses to prices in 1984 were seen across all production groups in the order of approximately 50% of survey sample.

ANNEX 8

Agricultural Bank/Commercial Bank Debt Sample Survey

AGRICULTURE BANK DEBT in SAMPLE SURVEY - SETTLEMENTS:

Production Range 0 -> 25%		25% -> 50%	50% -> 75%	75% -> 100%
All sample blocks had debt (7 blocks)		5 blocks - no agriculture bank debt - no housing	4 blocks - no debt (including 1 with an improved house)	7 blocks - no agriculture bank debt
AVERAGE K4,611		16 blocks - with improved housing AV. debt K4407	16 blocks with debt (improved houses AV. debt K3081	5 blocks with agriculture bank debt AV.K2471
TOTAL NO	7	21	20	12
AVERAGE INCOME '89	K829 -00 (29.7 tonnes)	K1496-00 (53.6 tonnes)	K2471-00 (88.5 tonnes)	K3387 (121.32 tonnes)

AGRIC BANK 1 REPAYMENTS 50%

AGRIC BANK 2 REPAYMENTS 33%

The high debt levels of growers < 50% in relation in incomes are noted.

Commercial Bank Debt combined with Agriculture Bank Loans - settlements (survey sample):

Type of Loan	% -> 25%	25% -> 50%	50% -> 75%	75% -> 100%
AGRIC BANK 1	3	5	1	1
AGRIC BANK 2	2	10	9	4
COM BANK	-	2	1	3
AG BANK 1 + COM	1	-	2	0
AG BANK 2 + COM	1	-	4	1
NIL	-	4	3	3
TOTAL SAMPLE SIZE	7	21	20	12

AGRICULTURE BANK DEBT in sample survey:

VILLAGE OIL PALM:

LOW PRODUCTION	MEDIUM PRODUCTION	HIGH PRODUCTION
10 x 2ha repaid 1 x 6ha repaid	11 x 2ha repaid	10 x 2ha repaid
AV. 2ha debt recent planting/house K1,266 (5 blocks)	AV. 2ha debt, house, recent plantings K905	AV. 2ha debt, house/ recent planting K1338-00
AV. 4ha debt K3,634 (2 blocks)	AV. 4ha debt K2248	AV. 4ha debt K1240
AV. 6ha debt negligible (2 blocks)	AV. 6ha debt negligible	AV. 6ha debt K2,780
19	28	19
2ha K700 (25t) 4ha K1,660 (59.4t) 6ha K935 (33.5t)	2ha K1080 (38.66t) 4ha K2050 (73.4t) 6ha K1728 (61.9t)	2ha K1370 (49t) 4ha K2515 (90t) 6ha K2419 (86.7t)

COMMERCIAL BANK AND AGRICULTURE BANK DEBT (- sample only).

LOW	MEDIUM	LARGE
1 Commercial Bank 1 Saving and Loan Society	1 Saving and Loan Society	1 Saving and Loan Society + AGRIC BANK 1 Commercial Bank + AGRIC BANK

The debt involving Agriculture Bank and Commercial Banks is in hand.

ANNEX 9

PMV Purchase via Lending Institutions

P.M.V. (Public Motor Vehicles) - smallholder financial attitudes.

There are 5 outlets of vehicle sales in Kimbe - they are:-

New Guinea Motors

Ela Motors

Boroko Motors

K.B.S.A.

Hastings Deering.

Sales to oil palm growers were modest in 1989 due to financial constraints on the Agricultural Bank and Commercial Banks.

OUTLET	TOTAL VEHICLE SALES	HOSKINS SETTLERS	VILLAGERS (O.P NOT SPECIFIED	BIALLA OIL PALM
N.G. MOTORS	82	app. 10	app. 10	app. 15
ELA MOTORS	89	7	1	0
BOROKO MOTORS	78	N/A (BUT LOW)	N/A	N/A
KBASA	49	14	3	3
HASTINGS DEERING	17	NIL	NIL	NIL
TOTALS	315	> 31	app. 14	app. 18

The total of 315 sales was made up of 22 passenger and 293 commercial vehicles.

* Previously settlers had grouped together to buy P.M.V.'s, but management problems occurred, dissention etc, and things didn't work out, now prefer family ownership or individual block ownership. Previous to this in these businesses on a group basis, when money was lost the family suffered for it, now these activities are preferred to be run as family or individual concerns.

ANNEX 10

Stettin Bay Lumber Company

STETTIN BAY LUMBER COMPANY (S.B.L.C.)

INFLUENCE ON FINANCIAL ATTITUDES TO SMALLHOLDER TIME AND LABOUR

1. S.B.L.C. is a large timber company situated in a position to be close to the bulk of the Hoskins Oil Palm Settlement Scheme and to influence Village Oil Palm and settlement areas because of its wide area of activity over forestry areas in the vicinity.
2. The reafforestation programme involves the planting of = 5,000 ha of trees. These are currently replanted at the following areas:-

Mopili	2,500 ha planted.
Buvussi	1,570 ha
Lakiamata	800 ha
Porta Galai	170 ha (near Mosa village)
Malalimi	120 ha.

The present rate of planting is aimed at 750 ha/yr for 20 yrs since 1988. The plan is for 10,000 ha to be established on the north coast and 5000 ha established on the south coast. If this is not possible 15,000 ha is proposed by the north coast. This expansion will require a further labour input from village and youth group contractors for reforestation in the future. As reforestation is established, tending and bush cutting are required which brings in the employment of contract groups.

These people work periodically when required. This suits settlement residents as additional income can be made to supplement oil palm. It also uses available manpower on the blocks.

In October, the following groups of contracts were employed.

- * 3 Mingai groups involving approximately 50 men.
- 5 Morobe groups, 4 being from Kavui, and one Galai.
- 4 Sepik groups, 3 from Galai and 1 Buvussi group.
- 2 Madang groups, (Simbi) from Madang and 1 Madang group from Galai II.
- 7 other groups, 3 Central Nakanai, 1 Togulo area 2 others from settlements and 1 whose origin was unclear had either given up or no longer existed.

The average size of the groups was 5 - 10 people and contracts ranged from K100 - K150 for 3 - 4 weeks work (10 men in the group).

Obviously groups form and disband regularly. The total

payout for 1989 on contract tending and brushing was in the region of K116,000. A total of 25 groups could be involved at various times within a year. The concept of contract work appears popular with Morobe and Sepik groups, not with Tolai groups.

3. Loading of logs onto ships at S.B.L.C. Buluma is done also on contract labour from nearby villages. This is done through a private locally based stevedor company. There are 165 names of local village men largely based in V.O.P. growing areas nearby who occasionally work in these gangs. The gangs consist of 20 men/gang and the work is obviously popular by the number of men recorded in the survey who actually spent 4 or 5 days occasionally in this work. They involved Heads of household and their sons. Since 1st Jan 1990 to 31st Aug 1990 48,350 cub. m. of logs had been loaded by these contract workers at a payout of approximately K32,000 over that time.

ANNEX 11

Off-block Employment

OFF BLOCK EMPLOYMENT - FAMILY MEMBERS IN SURVEY SAMPLE

SETTLEMENTS:

Production Range	MALE	FEMALE	TOTAL	SELF EMPLOYED	No. of SAMPLE BLOCKS
75% -> 100%	5	1	6	1	12
50% -> 75%	17	1	18		20
25% -> 50%	7	0	7	1	21
0% -> 25%	5	2	7		7
TOTAL	36	4	40	2	60

SKILLS AND RELATIONSHIPS TO H/H:

75-100%

- 1 Chain saw operator] relationship not] residing on
- 1 Dump truck driver] clear] 1 block
- 1 Secretary, Kimbe business - daughter
- 1 Apprentice logging company - son
- 1 Youth worker - son
- 1 Labour, plantation - brother (oil palm/coconuts)
- 1 self employed with multiple businesses

50-75%

- 1 Truck driver MTL - son
 - 1 High School teacher - son
 - 1 Bank teller - son
 - 1 OK TEDI apprentice - son
 - 1 OK TEDI position not known - brother
 - 1 Bank teller - adopted son?
 - 1 Major commercial Kimbe Stevedoring company - H/H
 - 1 Truck driver - son-in-law
 - 1 Local magistrate H/H
 - 1 Porgera mine, son
 - 1 Reafforestation - contract - casual - son
 - 1 Bank teller - daughter
 - 1 Oil Mill technician - son-in-law
 - 3 Storekeepers (employed) - 1 son
 - 2 related to H/H nature of relationship unclear
 - 1 working in Rabaul - son (position unclear)
 - 1 P.M.V. driver - son-in-law
- 25-50%
- 1 Security N.B.P.O.D. - son
 - 1 Working Rabaul - unknown - son
 - 1 Church pastor - son

1 Dump truck driver - brother
1 Plantation (oil palm) - position unclear - son
1 Forestry graduate - son
1 Storekeeper - son
1 Self-employed H/H (store)

0 -25%

1 Plantation (oil palm) - position unclear - son
1 Driver, timber company - son
1 N.B.P.O.D. supervisor - H/H
1 Bank teller - daughter }
1 dentist - son } one family
1 Medical technician - daughter } (one block)
1 Auto electrician - son }

ANNEX 12

Group Lending

ANNEX 12

GROUP LENDING = APPROPRIATE TO VILLAGE OIL PALM.

* - particularly tools/ fertilizer for oil palm.

A. Objectives

The objectives of group lending are:-

1. To facilitate optimum use of limited formal administrative staff.
2. To expedite credit delivery by making single disbursements per group.
3. To promote participation of local village leaders in credit supervision and recovery and to facilitate ease of oral exchange with a large number of farmers at a given time.
4. To promote collective responsibility for the purpose of full repayment of loans.

B. Identification of Viable Groups

The following basic factors should be considered in the identification of viable groups:-

1. Group coverage e.g. settlement scheme or village extension.
2. Socio - economic and cultural homogeneity.

C. Size of group

Twenty/group would be maximum.

D. Group Leadership

1. Qualities of a group leader - should be of honest character and should command respect of other group members so that he is able to influence group activity towards goal setting and goal achievements.

E. Loan Application

The group as a whole, should be as free of formal debt as possible. Those with access to tools fertilizer credits with the Agriculture Bank should not be involved.

F. Loan Recovery

This could be made by deductions through N.B..O.D., F.F.B. payments the same as happens now for Agricultural Bank deductions, and commercial bank deductions.

G. Special condition

Failure by a group to meet 100% payment will result in the exclusion of the group from future credit programmed.

- H. Group lending elsewhere in developing countries has given good results. Due to village structure of close and widely interrelated family groups with largely low levels of Agriculture Bank and Commercial Bank debt, low cost of living because of self sufficiencies in food and shelter, village oil palm could handle this form of credit for badly needed wheelbarrow and aluminium harvesting poles. Rikau village, with its strong structure of leadership and close community and a need to improve tool supply could be suitable to trial such a form of lending.

DECEASED ESTATES - BUVUSSI SUBDIVISION

Title transfers of deceased estates and clear definition of ownership are causing disincentives to production e.g. in Buvussi out of the 26 deceased estates passed to sons two have title transfer, these two blocks have 25-50% production and has 50-75% production. The remaining 24 estates remain untransferred, the production ranges of these blocks are as following:- 16 blocks 25-50% production. 8 blocks 50-75% production.

ANNEX 13

Survey Findings - Tables

- Original Heads of Households**
- Improved Housing %**
- Production related to Terrain Constraints**
- Production related to Block Populations**
- Deceased Estates**

SURVEY FINDINGS - TABLES

ORIGINAL SETTLERS STILL ON BLOCKS.

TAMBA	SARAKOLOK	BUVUSSI	GALAI	KAVUI	KAVUGARA
81.9%	77.8%	72.6%	60%	93.4%	70.2%

ORIGINAL SETTLER SONS/WIFE/DAUGHTER TAKEN OVER FROM FATHERS:

N/A	16.5%	7.8%	9.5%	INCLUSIVE	19.25%
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TOTAL % OF BLOCKS.ORIGINAL SETTLERS AND IMMEDIATE DEPENDENTS.

81.9%	94.3%	80.4%	69.5%	93.4%	89.45%
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FIGURES FOR KAPORE NOT SUPPLIED.

IMPROVED HOUSING (SETTLEMENTS) - COMPLETED/INCOMPLETE

	TAMBA	SARAKOLOK	BUVUSSI	GALAI	KAVUI	KAVUGARA
No	90	166	232	139	203	118
%	46.6	63.6%	67.6%	60%	63.8%	73.3%

IMPROVED HOUSES (SETTLEMENTS) - INCOMPLETE.

	TAMBA	SARAKOLOK	BUVUSSI	GALAI	KAVUI	KAVUGARA
No.	29	32	ABOVE	ABOVE	ABOVE	ABOVE
%	28.2	12.3%	INCLUSIVE	INCLUSIVE	INCLUSIVE	INCLUSIVE

TOTAL IMPROVED HOUSING COMPLETED AND INCOMPLETE.

	TAMBA	SARAKOLOK	BUVUSSI	GALAI	KAVUI	KAVUGARA
	74.79%	75.86%	67.6%	60%	63.8%	73.3%

KAPORE DATA NOT SUPPLIED.
BLOCKS (SETTLEMENT) SUBJECT TO TERRAIN RESTRICTIONS.

PRODU- CTION RANGE	TAMBA	SARAKOLOK	BUVUSSI	GALAI	KAVUI	KAVUGARA
75-100%	N/A	-	-	1	2	1
50-75%	N/A	5	3	4	39	13
25-50%	N/A	3	15	10	90	12
0-25%	N/A	-	-	4	9	3
TOTAL	N/A	8	18	19	140	29
%	N/A	3.0%	5.2%	8.2	44.0	18.0

KAPORE NIL RESTRICTIONS.

75% -> 100% (Tamba N/A) = 4 0% -> 25% = 16.
50% -> 75% = 64 210 blocks bar Tamba.
25% -> 50% = 130

RATIO 2.15:1
< 50%: >50%

BLOCK PRODUCTION/BLOCKS POPULATIONS > 20 PEOPLE.

PRODU- CTION RANGE	KAPORE	TAMBA	SARA- KOLOK	BUVUSSI	GALAI	KAVUI	KAVUGARA
75-100%	1	NIL	-				
50-75%	6	POPLN.	3	3	4	6	3
25-50%	1	> 20	2		4	5	2
0-25%	-		-	-	-	1	-
ENB	4						
SEPIK	3			3	4	6	
WNB	1					1	
MOROB					1	3	3
MADANG					1		
CHIMBU					1	2	2
GULF					1		
TOLAI						2	

TOTAL 28 blocks 50% -> 100% production.
 15 blocks 0% -> 50% production.

RATIO 1.9:1. >50% : <50%

DECEASED ESTATES - BUVUSSI SUBDIVISION

Title transfers of deceased estates and clear definition of ownership are causing disincentives to production e.g. in Buvussi out of the 26 deceased estates passed to sons two have title transfer, these two blocks have 25-50% production and has 50-75% production. The remaining 24 estates remain untransferred, the production ranges of these blocks are as following:- 16 blocks 25-50% production. 8 blocks 50-75% production.

ANNEX 14

Education - Family Obligation & Incentives to Smallholders

- Ponini Agricultural Centre**
- Kapore Community School**
- Buvussi Community School**
- CODE Correspondence**
- Hoskins High School**

*3. The settlement male students that attend have made their own decision about attending as feeling the training appropriate rather than parental pressures to do so such as High School. During the survey, 2 survey blocks were visited where Ponini graduates were in charge of blocks and both were doing well. It was felt their training had been appropriate and beneficial to the type of business enterprise they were now heading. One blockholder was in a 75% -> 100% range and the other 25% -> 50% but with good future prospects.

Production ranges using 1989 values were applied to the male and female students from settlements attending in 1988, 1989, and 1990 collectively.

PRODU- CTION RANGE	KAPORE		TAMBA		SARA- KOLOK		BUVUSSI		GALAI		KAVUI		KAVUGARA	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0-25%														
25-50%		1	1		2		4				1	4		1
50-75%	3	4	6		1				1			2	3	
75-100%											1		2	

2 males, 1 BUVUSSI, 1 KAVUI production figures N/A

MALES.

0% -> 25% - no students
 25% -> 50% - 2
 50% -> 75% - 12 students } 88% higher.
 75% ->100% - 3 students } production

range.

FEMALE.

0% -> 25% - no students
 25% -> 50% - 12 students -> 60% lower
 50% -> 75% - 8 students -> 40% higher
 75% ->100% - no students

Women students from settlements tended towards the lower producers, the skills learnt of home science may be perceived by lower producers as useful skills for their daughters, perhaps to attract more favourable bride price and as appropriate to the family situation.

* The type of male settler student attracted to a Ponini education is obviously from a good production background and views it as useful and worthwhile to the block. This is tied to home attitudes also.

(d) There is a high drop out rate with girl students due to:-

1. Marriage

EDUCATION: - FAMILY OBLIGATION AND INCENTIVES TO SMALLHOLDERS

1. PONINI AGRICULTURE CENTRE:(Catholic Church).

(a) Ponini Agriculture Centre commenced in the heart of the oil palm areas, in the early 80's. It's aim was to give students, minimum age 16yrs (preferably older) with grade 6 and not completion of Grade 10 further education with a practical Agricultural leaning. The fees are K100/year (K50 before school starts and K50 by end of June).

(b) The total number of enrolled students possible is 40 male students and 40 female students.

(c) Enrollment make up is as follows:-

YEAR OF ENROLMENT	TOTAL No.of STUDENTS	%SETTLERS	%SETTLER
1990	41 MALE 23 FEMALE 5 BOYS	12% 6 GIRLS	26%
1989	46 MALE 40 FEMALE 6 BOYS	13% 10 GIRLS	25%
1988	87 TOTAL ENROLLMENTS 8 BOYS 5 GIRLS		
1987	87 TOTAL ENROLLMENTS 23 MALE AND FEMALE	26%	
1986	83 STUDENTS 22 MALE AND FEMALE	26.5% (FIRST YEAR GIRL TAKEN IN)	
1985	52 STUDENTS TAKEN IN 11 BOYS	21%	
1984	43 STUDENTS TAKEN IN 14 BOYS	32.6%	
1983	41 STUDENTS TAKEN IN 20 BOYS	49%	
1982	37 STUDENTS TAKEN IN 21 BOYS	56.75%	

The number of male students attending Phoniness from settlement blocks has decreased substantially since its opening. Now most of the students (male) come from Talasea villages. This area is currently expanding rapidly into village oil palm. The reasons settler sons are not attending in higher numbers may be the following:-

1. Disillusionment with the qualification - it may not be what they feel is required.

*2. The founding headmaster actively promoted settlement involvement - he left in 1987 (?) and the same active recruit in settlements has not continued.

2. Sickness of a mother at home
3. Some families can not afford to pay the fees
4. Parents take daughters out of school

KAPORE COMMUNITY SCHOOL:(Interview NOVEMBER 1990.)

Two individual oil palm subdivision schools were visited and interviews conducted with the Deputy Headmaster, Kapore (longest established school) and Buvussi oil palm subdivision community school Headmaster, the 2nd largest school in the province. The Deputy Headmaster related that:-

1. After many years experience in teaching children in settlement schools and village oil palm areas he had found a good attitude with parents on settlements as they were very interested in sending their children to school. Children from village areas did not have as much parental enforcement to attend he felt.
2. Settlement children were striking in their:-
 - (a) Competitive spirit
 - (b) Female students were very competitive with male students, school population 94 females 128 males. (KAPORE 1990)
 - (c) Settlement children are exposed to radio - common on blocks, parents listen to news items.
 - (d) The environment of many mixed groups of people is stimulating to young children.
 - (e) The settlements are exposed to people with better outside employment situation than many villages, this can stimulate a home environment.
 - (f) In village situations, girls can be kept back more to help mother's rather than complete an education.

BUVUSSI COMMUNITY SCHOOL:(NOVEMBER 1990 Interview)

1. Buvussi community school is only second to Kimbe community school in student enrollments. The relative close numbers in male and female students is a striking feature of parental attitudes to educate girls. The classes one to six are split up into 2 because of the size of enrollments. The sex ratio is as follows:-

1990.

Class	Boys	Girls	Total
1	43	42	85
2	50	29	79
3	46	32	78
4	44	39	83
5	31	31	62
6	24	25	49
TOTAL	238	198	436

2. The school fees are K15/child which is within reach of all blockholders, yet still 5% -> 6% of students parents have not fully paid this fee, - part payments yes. Overall, parents are very caring about their children's education, the very few who do not complete fee payments are the ones who do not seem to care enough about their children's education.

3. Absenteeism.

1990.

MONTH	% ABSENTEEISM
February	17%
March	18%
April (a)	9%
May	18%
June	15%
July (b)	20%
August	17%
September	13%

October, November figures N/A.

(a) Substantial decrease in production and harvesting due to agitation concerning renegotiating FFB formula. Children not taken out of schools for harvesting.

(b) Zero price payment month. NB: Highest absentee rate These figures indicate, at times high absenteeism. The Headmaster reported the highest incidence of absenteeism occurs because children follow their fathers at pay days as this is the one time in the month they are able to get any treats etc. Note the highest rate of school absenteeism 20% was for July 1990. the month of the zero price pay-out.

*The Headmaster said parents come to the school and ask permission for their children to come out of school and help with the harvests.

4. Parents expectations

Parents ambitions for their children are for them to go to High School and get a paid job - often this is not realistic with the student involved. If children do not go to high school, which is a high %, than they must make the block their livelihood.

COMMUNITY SCHOOL'S (SETTLEMENTS) POPULATIONS AS % OF TOTAL 1989 SUBDIVISIONAL POPULATIONS.

Oil Palm Subdivision.	% school children as of total population.
KAPORE	13.4 % (179)
TAMBA	13.6 % (210)
SARAKOLOK	* 19.2 % (406)
BUVUSSI	15 % (418)
GALAI	9.1 % (203)
KAVUI	13 % (355)
KAVUGARA	13.1% (216)

The importance of this group aged 7 -> 13 yr can be seen in the numbers and % make up of the population. (approximately 2,000 students/year).

During school holidays particularly this workforce come in to play a part in assisting with harvests. This group plays an important part in the gathering of loose fruit in the block.

C.O.D.E. - CORRESPONDENCE COURSES: (College of Distance Education).

1. 23 students at Buvussi at the time of interview were doing correspondence courses to do high school grades. Parental support is very important - home environment usually makes a big difference in success or failure.

HOSKINS HIGH SCHOOL: (interview Oct 1990 with the Headmaster).

In 1989 list to enter Hoskins High School from grade 6 exams was as follows:-

1.

SCHOOL	No. TOTAL STUDENTS SELECTED FOR HIGH SCHOOL		AREA
LAVEGE	5/15	(33.0%)	V.O.P.
VAVUA	15/25	(60.0%)	
MALALIA	17/23	*(74.0%)	
VALOKA	12/19	(63.0%)	
KALU	4/17	(24.0%)	
SIKI	7/18	(39.0%)	SETTLEMENT
KWALAKESSI	17/36	(47.0%)	V.O.P.
MAI	7/22	(32.0%)	V.O.P.
GALAI	8/29	(27.6%)	SETTLEMENT
BUVUSSI	21/54	(39.0%)	SETTLEMENT
KAVUI	27/44	(61.0%)	SETTLEMENT
KAPORE	17/28	(61.0%)	SETTLEMENT
TAMBA	14/26	(54.0%)	SETTLEMENT
MOSA	15/22	(68.0%)	SOME VOP
SARAKOLOK	38/53	*(72.0%)	SOME VOP

Sarakolok % of acceptance to high school appeared high at 72% and Galai very low at 27.6%.

* Malalia is a large United Church centre where many children whose parents are associated with V.O.P. blocks in surrounding villages attend. 74% is the highest acceptance rate and it parallels the highest settlement rate of acceptance at Sarakolok.

The break up of students at Hoskins High School for 1990 for the 4 grades was as follows:-

At the beginning of 1990 - 595 students had enrolled, normally 610 students attend Hoskins High School of which 331 male and 264 female. There are 10% more female students attending by ratio to males than the national average.

2. The area break up of total students attending is as follows:-

OIL PALM AREAS (SETTLEMENT)		V.O.P. AREAS (OR POTENTIAL AREAS)	
TAMBA	30	KOIMUMU	5
BUVUSSI	68	LAVEGE	5
GALAI 1 AND 2	34	GALILO	9
SARAKOLOK	69	GAVUVU/MALALIA	10
KAVUI	59	KOLOLO	2
KAPORE	26	KARAPI	6
SIKI/TABAI - RIKAU	10	VAVUA	18
		GULE	12
		MAKASILI	4
		RIKAU	4
		RAPURI	5
		VALOKA	11
		MAI	6
TOTALS	296 (52%)	97	(17%)

(Later in the year some drop outs occurred).

OTHER AREAS:

MOSA (N.B.P.O.D) 42 NAHAVIO 7
BULUMA/DAMI 42 LAKIAMATA 3
(S.B.L.C., O.P.R.S., O.P.R.A. Forestry
Dept)
OTHERS - from 83 other areas not mentioned
above:

177

TOTAL 570 students (day and boarding) 81 settler block students are boarders, or 27.4% of settler students attending. 33 students from V.O.P. areas or areas that have shown interest in joining V.O.P. in the future, - 34% of students from such areas are boarding.

3. Production ranges related to boarding settlement students
Out of the 81 students attending as boarders from settlement blocks 69 students had traceable production ranges based on 1989 figures.

The following ranges are shown:-

SETTLEMENTS ONLY

Production Range	Boarding Males	Boarding Females	TOTALS
0% -> 25%	4	4	8
25% -> 50%	5	11	16
50% -> 75%	12	26	38
75% -> 100%	5	2	7
TOTALS	26	43	69

The ratio of students male: > 50% = 1.89
male: < 50% = 1

The ratio of students female: > 50% = 1.87
female: < 50% = 1

The ratio of boarding
settler students > 50% = 1.88
< 50% = 1

This gives an indication that less high school students by proportion are emerging from the lower production ranges (0% -> 50%) due to: -

1. School fee costs.
2. Overburden of debt in this range caused by loans for improved houses.
3. Inability of low producing growers to find the lump sum required in January all at one time.
4. Costs to attend 1991

K300/boarder/year.
K160/day student.

These fees are due the first. school month February and they are compulsory in one lump sum. Students find the money when the pressure is on. Money is easily found in order to live, by students e.g. trade store items but not to buy a new book.

5. Drop out rate

During 1990, 35 students dropped out of schooling, 19 of these students came from oil palm settlement areas or 54% of total.

KAVUI	3
BUVUSI	5
SARAKOLOK	5
GALAI	3
KAPORE	3

The % drop out of 54% is in line with the total representative % of oil palm settler students.

* The Headmaster remarked this year that some students who had left expressed the sentiments that they found it more interesting to be with ex student youth gangs than to continue with their education.

* The student drop out rate through examination failure in passing from grade 8 -> grade 9 and from grade 10 to tertiary institutes means a number of 120 students/year finish their education and are back into V.O.P areas/settlements or other community areas in the vicinity of the scheme.

Parents do not mind children going back to blocks as they feel they will help with the block. Many children want something better and get away for awhile and want to see something of the outside world, but they intend to come back. 22% of students graduate from grade 10 and progress to tertiary levels and institutes.

ANNEX 15

Community Development Officer Interview

- Youth**
- Women**
- Sport**

COMMUNITY DEVELOPMENT OFFICER C.D.O. INTERVIEW NOVEMBER 1990
(NAHAVIO)

During an interview with the C.D.O. the following was related.

YOUTH - SETTLEMENT

1. Youth in the settlement generally see their future as going onto an oil palm block of their own. With the population increase from an average of 7 people/block in 1980 to 9 people in 1990, this is going to be a difficult area for the future. Parents are endeavoring to address the issue by:-

(a) application for a new block for a son. (b) purchase of a 2nd block for a son. (c) membership of associations aimed at business links with home provinces. Youths see land availability as one of their problems.

2. Many youths have lost touch with their original home villages. If they go to visit, they prefer to stay for 1 month, or a short while and return. They would rather be living on the oil palm scheme. They see W.N.B. as their home, their future. They call themselves "mange welpam".

3. Youths are saying they have too much free time on their hands.

4. Youth groups (formal) in settlements principally consist of men and a few women. Women's fellowship groups usually cater to women's groups.

5. Youth group motivation in oil palm activities such as harvesting and brushing a block spring from the following - money to get together for:-

*(a) Church group activities *(b) Sporting group activities
(c) Personal income (d) Family obligation - immediate and in-laws blocks.

The church affiliated groups are better organized than groups just springing up instantly. The C.D.O. works closely with church affiliated groups because of their higher success rate.

6. The C.D.O. in 1991 wishes to put together a Youth Week - conducted every two years, whereby young people from smallholder blocks - settlement and V.O.P. can come together put on displays, show projects worked on, cultural exhibits, dancing and debate.

WOMEN ON THE SETTLEMENTS (SOCIAL).

1. The women's fellowship groups tend to include H/H wives and their daughters. The Presidents are usually the wives of H/H - the group of H/H and wives are still the main force of the decision makers of the settlements and their position is reinforced with such election as President. Secretary positions

usually go to younger women, the daughters who are better educated.

2. The C.D.O. finds workshops within the settlements become dominated by men if group workshops are held. Women are disadvantaged in these situation and don't get a real chance.

3. Women, within their own group fellowships tend to vote the following kind of woman as a fellowship President:-

(a) A woman with an outspoken husband is usually outspoken herself and exhibits strength. (b) Wife of a pastor. (c) Women with formal meeting experience who have been involved in previous church fellowship.

4. The C.D.O. felt a great need existed for basic home budgeting and basic financial management for settlement women. Particularly with the number of improved houses now c 60% of all settlement blocks.

SPORT

The benefits of sport to the youth of the settlements and village Oil Palm are the following:-

(a) Fitness - as the age group 14 - c 30yrs is involved in the highly physical side of oil palm work - harvesting, barrowing and piling of fruit, the aspect of fitness is paramount to good productivity. (b) Maintains interest in settlement life and avoids the situation of too much idle time for young people. (c) It is a way of communal bonding - making friendships. Harvesting and oil palm work ISN'T done as an isolated activity - it is a team effort. The best blocks always have communal support systems of other blockholders. (d) Discipline with training. Oil palm harvest schedules require discipline to maintain. (e) Forward planning. This is a component make up of the majority of good performances. (f) Competition development. This is a most notable trait of very top performers. (g) Character building. (h) Team work. - oil palm harvesting is always a product of team work - be it father - son, father - daughter, mother - son, son - son etc.

The best blocks have a high degree of family organization and cooperation.

During August 1990, a sports carnival for oil palm youth was held at Kapore show ground for 1 week. It was attended by 800 - c 900 ACTUAL PARTICIPANTS. The carnival was viewed by thousands of people. The carnival also took a high degree of organization. It is to the great credit of the C.D.O. that this carnival was so well organized, successful and popular amongst the oil palm youth.

The disciplines being promoted are soccer, rugby touch, netball, volleyball, softball, and women's soccer. This gives a good coverage to both men and women which is very desirable.

45.04t/2ha.

PLANTING DATES

1/4/80

The 4 out of 5 of blockholders and associates in this community are in the top 70% - 100% production range of Mosa village producers with the other producer handling 4ha, spread in 2 areas and meeting expected yields.

1 family in Mosa village itself are S.S.E.C. religion and on Sunday's, the S.S.E.C. Pastor holds a service on this block with this community and the Mosa village family. The remainder of the village people are Catholic.

The H/H of B.N. 66 and the H/H of Case Study 7 Mosa are from the same clan at Leim village, inland from Mosa village and up on a mountain range.

The man residing with H/H of Case Study 11 Mosa is a clan member of H/H Case Study 7 Mosa and was helping with the harvest on the block belonging to Case Study 7 Mosa the day prior to our visit. He helps his "kandre" often with work on this block.

Planting Dates: January 1980 (2 ha)

Production

Year	Yield	Tonnes/ha t/ha	Expected Yield t/ha	+ t/ha
1989	39.016	19.5	24	- 4.5
1988	35.938	17.97	24	- 6.03
1987	40.2	20.1	24	- 3.9
1986	41.9	20.95	22	- 1.05
1985	40.3	20.15	20	+ .15
1984	34.316	17.16	16	+ 1.16
1983	24.852	12.43	8	+ 4.43

Monthly Production (tonnes)/Frequency of Harvesting 1989

Month	Monthly Production (tonnes)	Frequency of harvesting
Jan	5.73	2
Feb	5.1	2
Mar	2.648	1
Apr	4.75	4
May	3.8	2
Jun	3.168	2
Jul	3.9	2
Aug	2.8	2
Sept	1.14	1
Oct	2.62	2
Nov	1.2	1
Dec	2.16	1
Totals	39.016 (tonnes)	22

Average tonnes/harvest = 1.77 tonnes
Average No. of nets/harvest = 2.2 nets/harvest

HARVESTING TOOLS

Harvesting pole was hidden on the block by H/H. He wasn't present and his wife accompanied us.

BLOCK CONDITION

1. Black bunch count is done on this block.
2. No circle weeding had been carried out on the palms and loose fruit shoots were abundant around the palms.
3. Brushing maintenance low in some areas.
4. 1 x 50kgs Ammonium Sulphate was issued on the 7/17/80.

CONSTRAINTS

1. Circle weeding would allow better loose fruit collection.

INCENTIVES

1. This producer, harvests and looks after his brothers block. The brother has been gone for sometime from the block. He is young and has just married. He paid a large sum for a bride price. The indication was that H/H had looked after this block since before harvest commenced and that his brother wants H/H to benefit financially from his hard work over that period of time before coming back to live on it or attend it. + t/ha declines at approximately the time attention would have been commenced with his brother's block.

Year	Case Study 7 Mosa Production	Brother's Block Production	Combined Expected t/ha	Combined + t/ha tonnes/ha
1989	39.016	39.744	20	19.69 - .31
1988	35.938	19.108	16	13.76 - 2.24
1987	40.2		24	20.1 - 3.9
1986	41.9		22	20.95 - 1.05
1985	40.3	Planting 4/24/85	20	20.15 + .15
1984	34.316		16	17.16 + 1.16
1983	24.852		8	12.26 + 4.43

(Planting Date January 1980)

1. The combined block efforts now indicate a producer who in 1989, met yields that could be achieved.
2. The cousin of Case Study 11 Mosa was helping harvest the block the previous day, it is thought this man may have contributed to the improved 1989 performance of Case Study 11 Mosa.
3. It appears that the community the H/H lives in is a very productive group with oil palm production.

The 5 blocks involved in this community showed the following performance for 1989

Block No.	Yield/Area	Tonnes/ha	Expected Yield t/ha	+ t/ha
(1980) Case				
Study 7 Mosa	78.76t (4ha)	19.69	20	- .31
(1985) 76	52.416 (2ha)	26.21	16	+10.21
(1980) 66	49.7 (2ha)	24.85	24	+ .85
(1980) 56	46.668 (2ha)	23.33	24	- .66
(1980) 65	45.04 (2ha)	22.52	24	- 1.48

FAMILY OBLIGATION

1. 1 daughter at community school.
- *2. H/H works at community work, house building.
3. The care of his brother's block and the harvester involved in his block have been referred to already.
4. During the school holidays his daughter goes to stay with her grandparents at Leim village.

CASE STUDY 9 GAUNGO

BLOCK NO. 13

Date of field visit: 6th September '90

Family ORIGIN : Gaungo Village

STATUS	AGE
Head of Household	41 - 60 years
Wife of H/H (now divorced)	41 - 60 years
Daughter (Ulamona)	Unknown
Son	Unknown
Wife (Sepik) Daughter-in-law	Unknown

Son	Unknown
Wife (Morobe) Daughter-in-law	Unknown

Son	26 - 40 years
Wife (Gaungo)	26 - 40 years

Son (deceased, previous block owner 1987)	
Daughter	18 - 25 years
Daughter	14 - 17 years

The blockowner is one of the clan leaders of the village. This blockowner, in his duties as clan leader is responsible for the distribution of land among villagers and outsiders that wish to come into the villagers society. Outsiders must prove themselves over a period of time and follow Gaungo customs well for a period of 2 years before being allowed land. If someone is not satisfactory they have to go.

The head of household worked initially as a tractor driver on Sarakolok subdivision from 1969 to 1972 when he left to go to Nahavio, the central administration of Hoskins Oil Palm Scheme. He remained there as a driver for another 7 years.

His children wished to be near him as he was alone so they built houses near his house. One son has an improved house, and works as a driver for a Trade Store Company at Kapore. This son has planted 4 ha of oil palm and built his improved home with funds on the Agriculture Bank 2nd planting loan. Another son and family are presently living in the father's cooking house but a new house (settler style) is being constructed next to the father's house. This son also works as a truck driver for a local trucking company.

The 3rd son has a house next to the brothers new construction of settler style. This son also works as a grader driver for a local Kimbe construction company. Next to his house, a small bush material house is constructed where a Chimbu man who lives is employed to help cut fruit on the block of the 3rd son. This helper is a NBPOD harvester and now also has taken up a new block in Section 4. He comes and goes on a temporary basis as when required.

One house, next to the clan leaders house was a women's house, where household's daughters and grand daughter stayed.

The son who is deceased (1987) was described by his sister-in-law as being very entrepreneurial and having many business activities e.g. poultry project.

	2nd Son's block		
3rd Son's block	Father's block, Clan Leader (deceased son's block)	1st Son's block	Family housing Community

		Son 4ha production 1989	
		56.87 tonnes	
	1st Son	Wife Sepik.	
		*Wife's relative employed	
		to assist	
	Improved	on block (SEPIK)	
		Planting Dates: May 1980	
		(2ha) Oct '87	
		(2ha).	
	house	Employed: Truck driver	
		Kapore store	

4ha production 1989 46.5 tonnes
 Daughter 2nd Son's Planting Dates: May 1980
 Temporary May 1989
 Women's house Employ son-in-law to help
 house (Kitchen)
 Father Employed: Truck driver with
 (men's house) local trucking company
 Clan Leader
 2ha, Production 58t for 1989.
 Planting Dates: May 1980.

2nd Son's new house
 under construction (Settler style)

3rd Son's house Production 1989, 50.7tonnes, 2ha
 (Settler Planting Dates:Feb '84 (2ha) .
 house) Employ Chimbu harvester to assist
 on block
 Employed: grader driver with local
 company.

Labourers house
 (Chimbu) For 3rd Son
 NBPOD Harvester now blockholder Section 4.

Planting Date May 1980 2ha

Production FATHER'S BLOCK

Year	Production	Tonnes/ha	Expected Prodn (t/ha)	+ t/ha
1989	58.1	29	24	+5
1988	46.5	23	24	-1
1987	51.1	25.6	24	-1
1986	56.3	28.15	22	+6.15
1985	47.7	23.8	20	+3.8
1984	36.97	18.5	16	+2.5
1983	14.3	7.15	8	-.85

Production 1st Son's Block

Planting Date 16th May 1980 2ha } 4ha
 22nd Oct 1987 2ha }

Year	Production	Tonnes/ha	Expected Prodn (t/ha)	+ t/ha
1989	56.87	28.43	24	+ 4.43
1988	42.678	21.339	24	- 2.661
1987	51.7	25.85	24	+ 1.85
1986	50.4	25.2	22	+ 3.2
1985	43.4	21.7	20	+ 1.7
1984	33.488	16.74	16	+ .74
1983	12.814	6.41	8	- 1.59

Production

2nd Son's Block

Planting Dates May 1980 } 4ha
 May 1989 }

Year	Production	Tonnes/ha	Expected Prodn t/ha	+ t/ha
1989	46.5	23.25	24	-.75
1988	42.4	21.2	24	-2.8
1987	42.5	21.3	24	-2.7
1986	49.3	24.7	22	+2.7
1985	42.7	21.4	20	+1.4
1984	33.3	16.7	16	+.7
1983	12.5	6.3	8	-1.7

Production

3rd Son's Block

Planting Dates 14th Feb 1984 2ha

Year	Production	Tonnes/ha	Expected Prodn t/ha	+ t/ha
1989	50.7	25.35	20	+5.35
1988	43.234	21.6	16	+5.6
1987	27.8	13.9	8	+5.9
1986	8.2	4.1	0	+4.1
1985				
1984				
1983				

Monthly Production/Harvesting Frequency 1989 (tonnes)

Month	Monthly Production (tonnes)	Harvesting Frequency
January	6.98	3
February	5.98	3
March	4.0	2
April	5.714	3
May	5.72	3
June	5.134	3
July	5.15	3
August	5.0	2
September	2.66	2
October	3.28	2
November	4.68	3
December	3.78	1
TOTAL	58.08 t	30

Average tonnes/harvest = 1.94 tonnes/harvest
Average no. of nets/harvest = 2.4 nets/harvest

Harvesting Tools

Short aluminium pole/hook with a detachable bamboo extension.

There was a longer pole for harvesting but it had been carried to Gule village with youth group on the day of the field visit and was to be returned that afternoon.

1 wheelbarrow had a tyre taken off and taken to the Nahavio workshop centre for repairs. The wheelbarrow was starting to rust out.

Block Condition

1. Excellent maintenance of brushing and circle weeding.
2. All loose fruit had been picked up from the block and was a totally opposite situation to the 10 others visited.

Constraints

1. Said he works alone as his sons are all busy working elsewhere and are interested in their driving.
2. The grower wishes to plant a 2nd 2ha area. O.I.C, DAL at the moment have to give priority to new plantings, due to increased interest, and when possible will be able to attend to those wanting to put in 2nd plantings. Staff levels are inadequate to cope with present high demand.

Incentives

1. Top producer on a tonne/ha basis for the village. Exceptional compared to settlements also.
2. The blockholder was very aware of the value of picking up loose fruit and the fact that this was where the majority of the money came from. He quoted an example of a net of loose fruit he saw which exceeded 1 tonne. This attitude was not seen on the other blocks visited and as this man was one of the village leaders, even his high production success had not changed others views of the value of loose fruit collection.
3. The grower wishes to plant up a 2nd 2ha of oil palm.
4. Fertilizer was received and distributed on the immature palms.
5. Oil palm knowledge received during his many years work with DAL.
6. High frequency of harvest.
7. Family social management and organization good.
8. Very co-operate with D.A.L.
9. Entrepreneurial household.

Miscellaneous

1. 2 bags of fertilizer were under the house of the 3rd son. These were 30Kg bags of ammonium chloride for application on the Chimbu worker's newly planted block (now 12 months) in Section 4.
2. The youth group doing the work on Gule consisted of 4 or 5 men] who had gone to 3 Gule blocks to work for 6 women] that day. Transport picked them up in the morning and would return them in the evening. The group were community school leavers and the men cut fruit and the women pushed the wheelbarrows. The group are all related to the grower.
3. The grower also had a coconut block planted from Hoskins DPI material. The grower wanted an Agriculture Bank loan to plant cocoa underneath.

Food Gardens

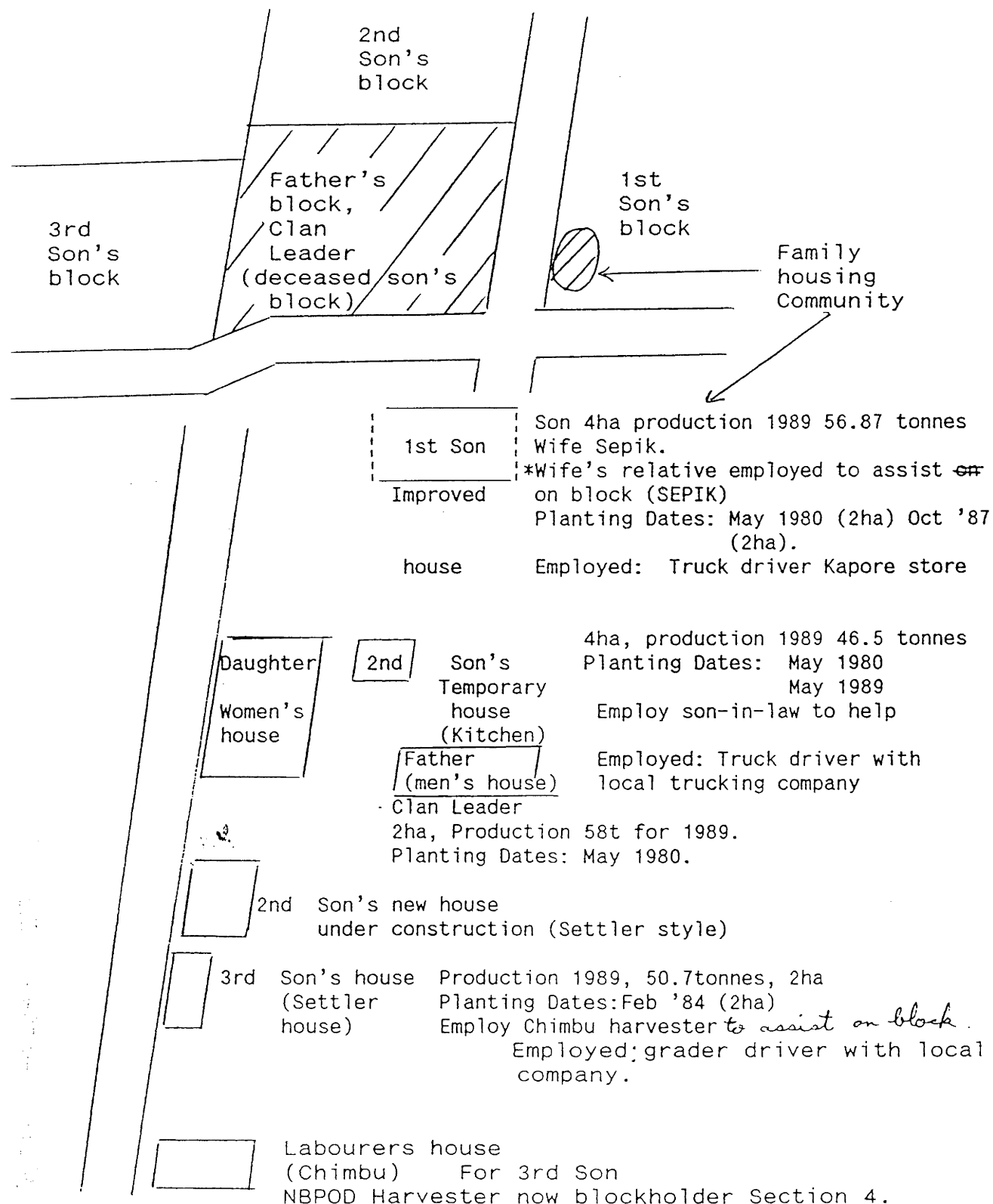
An enormous taro garden was grown at the back of the block. This was a family plot but the grower said most of the work was done by himself. One plot belonged to his sister. The taro looked overall, quite healthy. Some was sold in Kapore and Kimbe markets.

FAMILY OBLIGATION

1. The H/H spent much time during these recordings visiting Mosa village in order to make arrangements to remarry.
2. One daughter attended S.S.E.C. Gavuvu bible studies centre for literacy.
3. The previous wife lived with her brother in the village.
4. Daughter (14 -> 17yrs) was part of the youth harvesting group described in Case Study 6 GAUNGO - brother's group.

ASIAN DEVELOPMENT BANK SMALLHOLDER OIL PALM PRODUCTIVITY STUDY

DRAFT - FILE NAME: D:\REPORTS\SURVEY\HOSKINS\GAUNGO6



ANNEX 16

Specific Cast Study No 7 - Mosa

SPECIFIC CASE STUDY No 7 - MOSA

BLOCK NO. 31

Date of field visit: 12th September, 1990

FAMILY

ORIGIN: H/H KAULONG (Leim Village) wife, Mosa Village.

INLAND

STATUS	AGE
Head of Household	26 - 40yrs
Wife of H/H	26 - 40yrs
Daughter	7 - 13yrs
Daughter	7 - 13yrs
Daughter	0 - 6yrs
Daughter	0 - 6yrs

The grower lives in a community of Inland/Mosa people on a single block and not in the village or on his own block. The community resembles a small village and the layout is as follows.

B.N. 66

SOUTH SEAS
EVANGELICAL CHURCH

TRADE
STORE

1989 PRODN 39.016t
PLANTING

DATE JAN'80 /2ha

1989 PRODN BROTHERS BLOCK
39.744t

PLANTING DATE 4/24/85

CASE STUDY 7 MOSA

LEIM VILLAGE (H/H)

RESIDENCE MOSA VILLAGE (WIFE)

B.N. 76 PRODN

1989, 52.416/2ha

PLANTING DATE

2/26/85

HOUSE of

BROTHER of

H/H B.N. 76, HE

COMES & GOES

MEN'S
HOUSE
H/H CASE
STUDY 7
MOSA
H/H+
B.N.66
LIVE HERE
PLUS MALE
VISITORS
(KAULONG
PEOPLE)
COMING &
GOING

COMMUNAL
KITCHEN

TRADE
STORE
B.N. 56

PRODN 1989 49.7t
(2ha)

BN 66

HOUSE

H/H LEIM VILLAGE

WIFE, MOSA VILLAGE

KITCHEN

B.N.56

H/H MINGAE
(BACK
OF TOGULO

PLTN

WIFE
FROM

INLAND

RESIDENCE

(SISTER TO WIFE

OF CASE STUDY

ALSO
1989
PRODN

46.668t

7 MOSA)

PLANTING
1/11/80

2ha

PLANTING 1/21/80

B.N. 65
PRODN

'89

ANNEX 17

Religion

RELIGION

Interviews conducted with ministers from the Catholic Church, Assembly of God and South Seas Evangelical Church which have considerable influence within the areas affected by smallholder production. Unfortunately time didn't allow for interviews with Lutheran United Church or Seventh Day Adventists as these churches also have major parts to play in these areas.

MAI MISSION - CATHOLIC - OBSERVATIONS OF SOCIAL ASPECTS OF THE HOSKINS OIL PALM SCHEME:

1. Congregation size -

- Galai I 80 adults, for average Sunday - Buvussi >200 adults
- 400 -> 500 adults, Christmas
- Kapore 250 adults
- Kavui 400 adults

There is a considerable range in fluctuation of numbers. The Fathers estimated from Kwalakessi to the Dagi which encompassed Sarakolok, Tamba, Buvussi, Galai I and II, Mosa village, N.B.P.O.D. and Gaungo village, 800 births/year would occur for the whole parish inclusive if all denominations, of which 500 -> 600 of these births would be from settlements. Out of the 800, births, 400 babies would be born Catholics.

This indicates the size of the rate of population increase and the worry being expressed about childrens futures.

2. GAMBLING FOR MONEY, the problem has spread to villages such as Mai and Buluma, even to small children. Children now have been known to steal money to paly cards this was not occuring in the past. Much gambling was reputed to be done in secret where serious money was being turned over. * Gambling/alcohol together are a real fuse for trouble. * The Fathers see the serious consequences of family breakup in blocks caused by gambling. Often gambling is associated with prostitution when the activity becomes an addiction.

A serious disincentive was the incidence of serious gambling recorded within this production group. The potential for this behaviour to be instilled in children of all production bands is high. There is much incidence of card playing - this is not a problem. The problem with gambling is that a husband, father, son - can lose a months production work of the entire family. All production, on high or low producers blocks is rarely done in isolation on the settlements, to see the leader or dominant partner lose the families input in this manner is certainly not conducive to wanting to work towards the contribution of such an income. It can create a source of family conflict, disunity and disruption. The dangers of gambling addiction in women is a path to prostitution, in order to acquire the funds to gamble. This can disrupt the family and lead to the breakdown of family units - the cornerstone of smallholder production. In the village areas surveyed gambling was not seen or recorded like the situation on some of the settlement schemes. This was largely due to the strong church influences over village communities and the

extensive family support systems of village communities. Seven out of twenty-one (33%) of blocks in this production range had gambling activity recorded. Some subdivisions seem quite free of it and others not. Other production ranges had incidence recorded but not to this degree with such devastation.

3. FAMILY OBLIGATION: Family disintegration can have a serious effect on women particularly if they have no relatives they can turn to on the settlements. It is not like a village structure, where family are available. On settlements, if a wife's parents are not available, people she may turn to usually can only be for a temporary period and then she is forced to move on again. The Fathers remarked they had seen only a few cases to such a stage but they were severe. Also they remarked that women will accept any sort of treatment rather than to be out on the street with nothing in the above situation. Women don't leave the blocks to run away to nothing, especially on the settlements. Children from broken homes are more susceptible to turn to crime.

4. Much intermarriage between different groups of people is occurring:

5. Children speaking PIDGIN ONLY: Children on the settlements sometimes speak pidgin only and the original languages are fading. Children are losing their cultures through not having their "ples" languages.

6. DISTURBANCES - in the early 1970's several inter ethnic disturbances and violence, along ethnic lines rocked the scheme at one point. Now people react individually to violent acts.

* Father Willy had lived 23 years in W.N.B. Province and Father Alphonse had been the parish priest for Mai, Buvussi/Galai for 3 years.

BANAULE - FRANCISCAN MISSION Father John was the parish priest to Sarakolok/Tamba and Mosa village. His observations were as follows:-

1. He had noted the great interest in sport of the young people in the 5 Catholic Youth Group's based at Sarakolok. These groups totalled = 120 young people who worked on community activities, or block harvests and played a lot of sport on Saturdays and Sundays.

2. Often, people didn't come to church because they were harvesting oil palm.

3. The young people see their future as being on the blocks and that oil palm required their attention to be productive. For most it will be their livelihood.

4. Ethnic groups and loyalties dominate what is done, still on the settlements, after 23 years.

ASSEMBLY OF GOD - KIMBE:

An interview was conducted with the Pastor A.O.G. The Paster and

his family had been in the area for several years and he had helped build permanent material churches on most of the Hoskins Oil Palm Scheme Subdivisions:-

1. People have a great spirit of community when they build their churches and everyone works together to achieve the final result.

2. The A.O.G. congregation was = 2,000 strong on the subdivisions. The greatest congregation was at Galai I and II and Buvussi (1,000)

3. The feeling was that alcohol did not feature presently as the major problem it did at the height of the high prices in the early 80's.

4. The attitude to money was to satisfy needs, month to month, and to invest in "bisnis".

5. The Chimbu/Sepik congregations mixed well, worked closely. - as this was the majority of people from Buvussi within the congregation.

6. Churches were situated at Buvussi, Galai I and II, Sarakolok, Kavugara and Kavui community centres.

*7. People from the congregation get together and find the funds themselves to construct a church. The cost of the church was K4,000 -> K6,000 each, they have all been built in the last 4 years.

*8. Cell groups are people on one or 2 sections of a subdivision who meet at a block during the week at evenings. The people have organised this themselves. It had formed a community core.

9. Church congregations doubled since being moved off the blocks (temporary) to the community centres. Churches now seen as accessible to everyone, rather than perhaps people of the blockholder's group only.

S.S.E.C. - SOUTH SEAS EVANGELICAN CHURCH:

1. Gavuvu S.S.E.C. Mission has a Bible School which teaches Literacy. This school influences settlements and village areas.

2. The school has a curriculum which continues for 2 years initial term and 1 year practical. Wives of students also are interested in learning literacy.

3. Ismin, Mengai and other inland villages are interested in literacy classes.

4. The aim of the literacy classed which are conducted are aimed at teaching reading and writing Pidgin - as well as the inland villages mentioned, there are block literacy courses on Kavui also.

5. A youth rally in September attracted 600 participants for youth activities.

6. The Bible School at S.S.E.C. headquarters is aimed at teaching leadership. There are 54 men and women students and fees are K30/single, K40/married/year as basic fees. The school students grow their own food and be as self supporting as possible.

*7. S.S.E.C. conducted evangelic meetings in Kapore in 1990. These meetings attracted 500 -> 600 people/night over 7 nights for 7 meetings. The tent was taken to Bilomi (Kapiura), Garua, Navari, Kapore and a similar response was seen throughout. The Pastor commented on the number of people who had previously committed criminal activities who had come forward to publicly denounce their past ways.

8. CONGREGATION (1989) - SETTLEMENT:

	KAPORE	SARAKOLOK	BUVUSSI	GALAI	KAVUI
No. of ADULTS (congregation)	38	51	100	118	175
No. of children	20	20	24	40	96
TOTAL	58	71	124	158	271

TOTAL SETTLEMENTS = 682 people.

TOTAL SETTLEMENTS: = 682 PEOPLE.

V.O.P.

	GAUNGO	ISMIN	MENGAI	LEIM	MOSA VILLAGE
No. of ADULTS	57	37	41	76	20
No. of children	25	14	10	45	12
TOTALS	82	51	51	121	32 (MAINLY LEIM PEOPLE)

INLAND PEOPLE:

TOTAL: V.O.P. = 337 people.

ANNEX 18

OIC's Views

ANNEX 18.

THE VIEW FROM THE OIC, DAL

OIC's were requested to list constraints to Agricultural Extension on their individual subdivision and VOP areas. The following list summarizes problem areas as seen by:-

SETTLEMENT OIC's DAL

- *1. Internal interference - growers not tending to listen to DAL advice but following other elements of the community. This is leading to frustration for DAL and confusion in the population.
- *2. Price frustrations occurring with growers, particularly the "zero price pay-out" agitation.
- *3. Settlers feeling they don't require advice because they feel they have adequate knowledge about oil palm and don't keep an open mind to advice from DAL
- *4. Diversion from agricultural activities to other tasks.
- 5. Mobility of some growers - absenteeism.
- 6. Multiple blocks owned by one blockholder - management skills of some not enough to cover these areas.
- 7. Land title ownership.
- 8. De-hiring of vehicles caused a constraint to Agricultural Extension - vehicle sharing earlier in 1990.
- 9. Agriculture Bank suspension of accounts.
- *10 Poor office conditions and thefts from one office had a demoralising effect on staff. Petty thieving of DAL office property is causing a demoralising effect throughout subdivisions and in some cases results in a "siege" mentality.
- *11 Children of settlers seem quite ignorant of extension advice given.
- *12 Chasing up replacement and lost/damaged lease title documents.
- *13 Disputed/illegal sale of state leases (Land mediation meetings etc).
- 14 Disputed land boundaries.
- 15 Deceased estates, beneficiaries very reluctant to pay fees for land transfers. Slow transfers causing problems of definition of ownership.
- 16 Lands Dept not supportive in forfeiting or tending poorly

maintained blocks.

The OIC is the key to communication with smallholders and if his problems are not addressed and support given one of the most important elements to keep the scheme together and productive is undermined. Points 1, 2 particularly, were mentioned by most OIC's.

2. VILLAGE OIL PALM OIC's.

1. Inability of growers to reside on the block meaning contact can be difficult.
2. Geographical outlay of villages, that isolated road net work affects time of travel.
3. Loan constraints from the Agriculture Bank in restricted lending policy (earlier in 1990).
4. Customary and cultural ceremonies - social obligation affect DAL extension activities.
5. No regular monthly or quarterly meetings.
6. Lack of field days.
7. Fuel rationing and constraints.
8. Partial harvesting and lack of loose fruit collection.
9. Grower mobility.
10. Project sites too far to villages.
11. Young people taking blocks.
12. Outside employment.
13. Low price.
14. Growers not adequately motivated.

* The contrast of the problems of settlement OIC's is striking - the problems of VOP OIC's are more extension and agriculturally orientated, the problems of settlement OIC's are more political, price and non-agricultural centred. The settlement OIC's need urgent relief from such a distracted work environment and to be able to get back to trying to deal with agricultural problems. OIC's were encouraged to list the factors they saw that they felt led to successful agricultural extension and agricultural activities on their subdivisions or VOP areas.

SETTLEMENT OIC's - DAL.

1. Use of demonstration blocks as an example to the rest of farmers.

2. Field days - inside and outside of subdivisions.
3. Working directly with farmers on a one-to-one basis and seeing positive response.
- *4. Individual block approach during quarterly block inspections.
5. Holding meetings to convey extension message and programmes.
- *6. Statistical analysis of crop and discussion with the grower.
7. Sectional group meeting, settlers/family.
8. Extension approach to individual settlers.
9. Identification of individual problems and find remedies.
10. Use of visual aids.
11. Field demonstration.
- *12 Settlers to make their own decision and seek ideas from family members.
- *13 Good working relationships with the farmers.
- 14 Informal contacts and discussions with individuals in the blocks.
- 15 Identification of leaders and use them to assist in other activities.
- 16 Planning and discussion with staff on work programmes or weekly and monthly basis so that all staff understand what is to be carried out.
- *17 Farmers who aren't swayed by political motives.
18. Faster application of Agriculture Bank loans and funds come in time.
- 19 Forfeiture, tending of abandoned or poorly maintained blocks.

2 VILLAGE OIL PALM OIC (DAL).

- *1. Effective communication net work through committees and farmer contacts improves, also DAL and growers relationships.
2. Loan approvals.
- *3. Issue of tools.
4. Improvement on road standards adds personal pride.
- *5. Engagement of youth groups on planting contracts.

- *6. Regular block visits much on informal basis helps to build farmer confidence in officers.
- *7. Regular consultation helps keep staff on track.
- 8. Keen and interested farmers.
- 9. Field demonstrations.
- 10. Resource e.g. transport, to enable the job to get done.

N.B The OIC's who completed the enquiries here have, as an average 15 years experience with oil palm work either with Hoskins, Bialla or Popondetta schemes. The time allocation study on OIC's is based on the same officers and same high experience input.

ANNEX 19

Oil Palm Mill - Effect on Productivity

OIL PALM MILL EFFECT ON PRODUCTIVITY

The importance of the milling process is paramount to productivity. It is no use to make manpower and financial inputs into improving settler productivity if inefficiencies at the processing stage undermine gains in the field.

The Mosa oil palm factory processes fruit 75% received from smallholders, 25% plantation within this mill, what happens with what smallholders are doing, is critical.

Harvest rounds of less than 7 days have been found to get a high percentage of unripe fruit - this is undesirable. 10 day rounds have proven to be the best timing for satisfactory fruit quality.

The extractor rate of oil is a critical area of production. Loose fruit contains = 70% more oil to weight than F.F.B. Mill extraction rates could be improved substantially by picking up loose fruit. If the extraction rate lifts, this reflects in a better price to growers. A range has been quoted of possibly K2 - >K4/tonne difference could be made with F.F.B. price to a grower if this fruit was collected.

MILL EFFICIENCY.

The area of process control in the mill e.g. unstripped bunches, and inefficient recovery at clarification are the two major areas where big losses could occur if rigid controls aren't being kept up. It is vital to have properly trained people in this area, e.g. a 5% lose in efficiency of the 1989 throughput of Crude Palm Oil (C.P.O.) using Dec '90 oil price of U.S.\$351/tonne would result in a U.S.\$784, 238 loss. 1989 C.P.O. was 44,688.54 tonnes - this is just an example to demonstrate the importance of this point. A 5% lose can go unnoticed quite easily and account for large financial losses.

Mill design also contributes to efficiency e.g. Kapiura Mill being of a very advanced design.

Mosa mill being of an older design, had cages to handle 2.5 tonnes of fruit, Kumbango, 3.5 tonnes and Kapiura 11 tonnes cages for batch sterilization. This facilitates ease of handling.

Mosa mill grew with capacity and technology, improvements had to be made along the way. Kapiura mill, which also services some V.O.P. areas in the Bialla smallholder blocks has benefited from past technology from its inception. Smallholders should reap the benefit of these advancements in mill efficiency in Kapiura.

Mill effluent Mosa and Kapiura Mills at present are subject to a programme of pollution control to clean up mill effluents into Kapiura rivers and the Dagí. This is indeed welcome as villagers fish these waters.

Fish are probably the most important source of dietary protein for coastal villagers. Health and oil palm productivity are closely linked.

ANNEX 20

Oil Palm OIC's Settlement Time Allocation Studies

OIL PALM OICs TIME ALLOCATION STUDIES

OIC SUBDIVISION DATE & WEEK 1, 2, 3, 4, SEP, OCT, NOV, DEC

A.M. (MORNING)

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
7.00-9.30 AM	1. 8.	1. 8.	1. 8.	1. 8.	1. 8.	OTHER -
	2. 9.	2. 9.	2. 9.	2. 9.	2. 9.	Specify e.g Medical
	3. 10.	3. 10.	3. 10.	3. 10.	3. 10.	emergency, Harvest
	4. 11.	4. 11.	4. 11.	4. 11.	4. 11.	information
	5. 12.	5. 12.	5. 12.	5. 12.	5. 12.	
	6. 13.	6. 13.	6. 13.	6. 13.	6. 13.	
	7. 14.	7. 14.	7. 14.	7. 14.	7. 14.	
9.30-12.00 AM	1. 8.	1. 8.	1. 8.	1. 8.	1. 8.	
	2. 9.	2. 9.	2. 9.	2. 9.	2. 9.	
	3. 10.	3. 10.	3. 10.	3. 10.	3. 10.	
	4. 11.	4. 11.	4. 11.	4. 11.	4. 11.	
	5. 12.	5. 12.	5. 12.	5. 12.	5. 12.	
	6. 13.	6. 13.	6. 13.	6. 13.	6. 13.	
	7. 14.	7. 14.	7. 14.	7. 14.	7. 14.	

P.M (1 P.M. ONWARDS)

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1. 8.	1. 8.	1. 8.	1. 8.	1. 8.	OTHER -
	2. 9.	2. 9.	2. 9.	2. 9.	2. 9.	Specify.
	3. 10.	3. 10.	3. 10.	3. 10.	3. 10.	
	4. 11.	4. 11.	4. 11.	4. 11.	4. 11.	
	5. 12.	5. 12.	5. 12.	5. 12.	5. 12.	
	6. 13.	6. 13.	6. 13.	6. 13.	6. 13.	
	7. 14.	7. 14.	7. 14.	7. 14.	7. 14.	

CLARIFICATION OR SPECIFICATION OF AN ACTIVITY

~~Any~~ Comments Section

DEFINITION OF TERMS FOR O.I.C. TIME ALLOCATION SURVEY

1. AGRICULTURAL EXTENSION AND AGRICULTURAL ACTIVITIES (FIELD)

e.g. Block inspections, quarterly, meetings, field days, advice about harvesting times etc. Sexava/palm poisonings

2. SPECIAL SERVICES WORK (FIELD)

- (a) Deceased estates
- (b) Sale of blocks
- (c) Boundary disputes
- (d) Political situations and involvement
- (e) Enforcement of council rules e.g. pig constraints
- (f) Enforcement of other laws
- (g) Law/Order situations
- (h) Pay out cheque FFB involvement
- (i) Land matters

3. AGRICULTURAL EXTENSION AND AGRICULTURAL ACTIVITIES (OFFICE)
e.g. discussing fertilizer application to a blockholder or villager, Sexava, palm poisonings.

4. STAFF ADMINISTRATION

Attending to staff inquiries, discipline, personal matters, pay queries etc.

5. OFFICE DUTIES - SPECIAL SERVICES
(as for 2 but in an office instead of field)

6. OFFICE DUTIES - OTHERS

7. MEETINGS - D.A.L.

8. MEETINGS - SPECIAL SERVICES (REFER NO. 2)

9. MEETINGS - OTHERS (specify)

10. AGRICULTURE BANK WORK (FIELD or OFFICE)

11. LANDS DEPARTMENT WORK (FIELD or OFFICE)

12. OTHER GOVERNMENT DEPARTMENTS - Specify.

13. STATION - MANAGEMENT e.g. vehicle services or transport servicing.

14. ANY OTHERS/MISCELLANEOUS - Specify

INSTRUCTIONS FOR FORM USE

1. Circle week the form is filled out + the month.

2. Circle the numbers relating to the activities in the morning 1st half + what occurred in the 2nd half of the morning.
Circle the numbers relating to afternoon activities.

3. Underline the one most dominating activity for that period
of time in each of the 3 sections/day.

4. Saturday activities, just briefly specify e.g. Notification of harvesting rounds, health problem.

5. If clarification is required to a specific item - notes can be made in the section provided on the 2nd page.

6. Please fill out the accompanying form also. This will be helpful information.

OFFICER IN CHARGE

SUBDIVISION

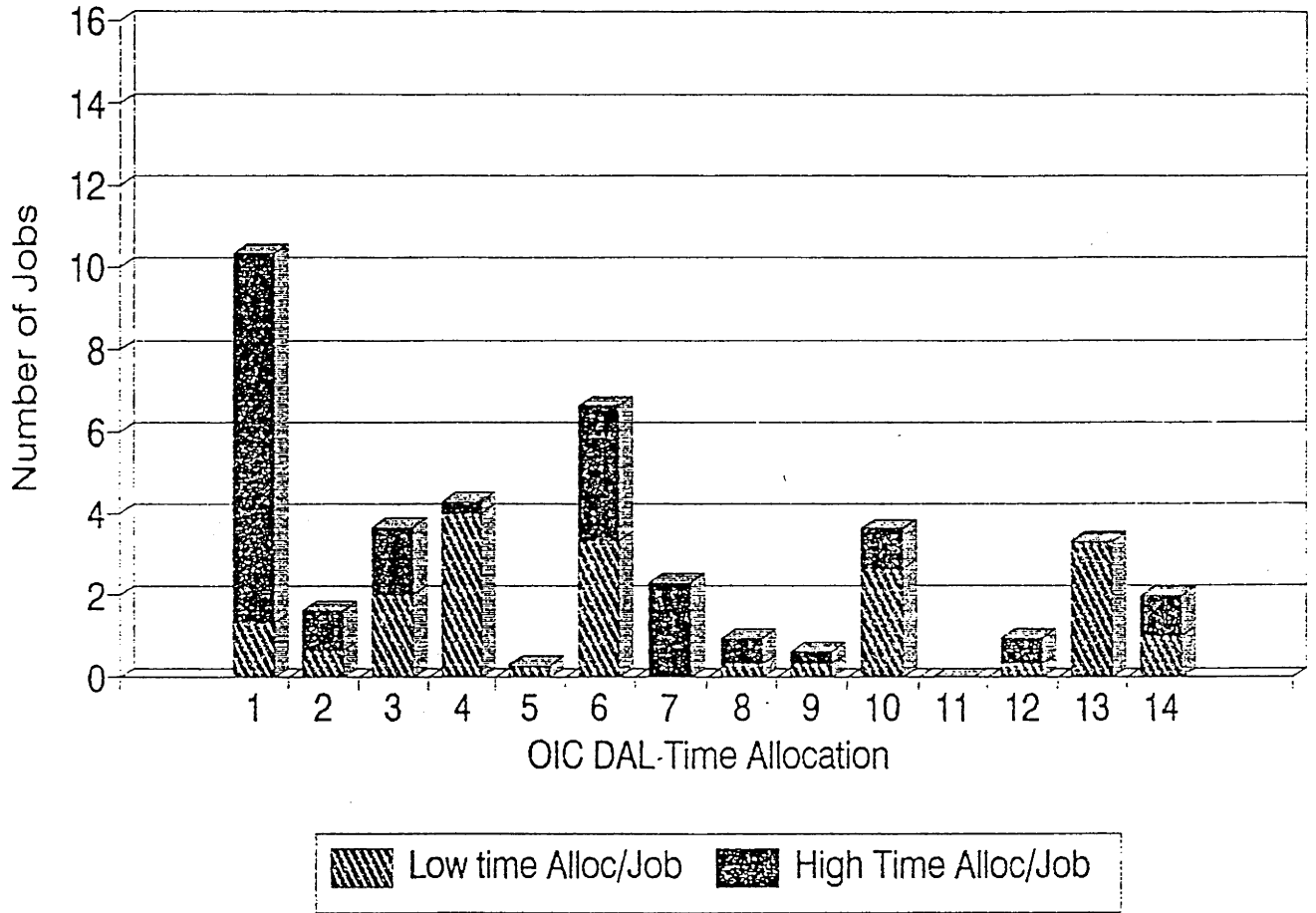
Constraints to Agricultural Extension and Agricultural Activities on your sub-division (list from most difficult to least difficult)	Factors that lead to successful agricultural extension and agricultural activities on your subdivision (list most successful factors first)

*Can you also comment if you hold night meetings/size of group/No. of families/you're assessment of their success or not/how often held in 12 months?

TIME ALLOCATION STUDY OICs DAL.

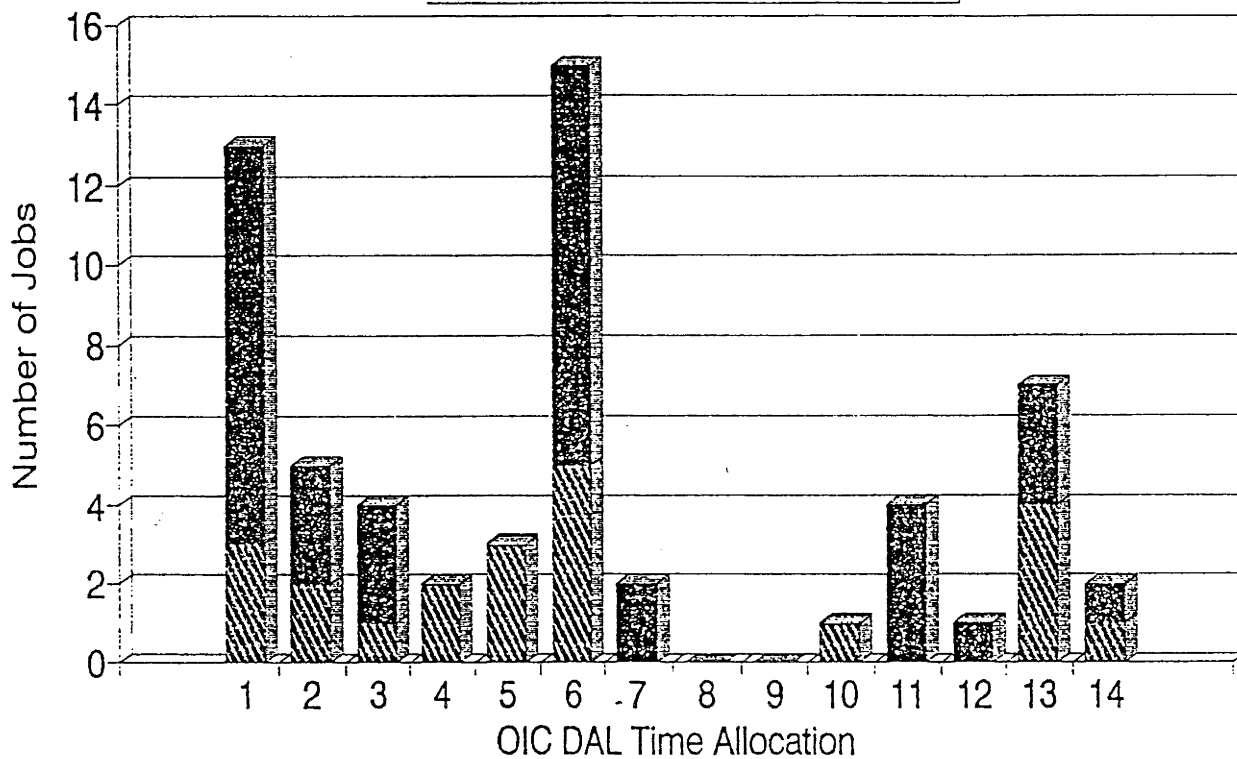
1. The time allocation for field extension by VOP OICs is substantially higher than settlement OICs graph 3. High time allocation decreases substantially in graph 3, No 1 because of other distractions not related to agricultural extension.
2. The time allocation of Special Services associated duties No. 2 & 5 of the OIC is seen to increase substantially from Siki, Graph 2, a new subdivision to that of the older subdivisions, Graph 3.
3. Time spent on Lands matters No. 11 increases substantially from Graph 2 to Graph 3. The absence on VOP is indicative of the internal systems attending to land matters in the villages.
4. The low time VOP officers spend on Special Services activities No. 2 & 5 is most obvious in comparison to Graph 3.
5. Note the substantial amount of time spent referred to in Graph 3 of No. 14 - "other/miscellaneous duties". This is far ahead of the other 2 groups. This is a function of time with land settlement on the scale of Hoskins Oil Palm Scheme.
6. Note the high time spent on "office duties others" No. 6 incurred by settlement OIC's because of the diversity of settlements. (Graph 2 & 3).
7. The ease of dealing with VOP. growers in regard to agricultural extension matters is a function of the higher quality time for that purpose being implemented by VOP, OICs. It would be to the overall advantage of the industry if settlement OICs could attain the same levels. The only way to do this is to render more field assistance by creating an oil palm Special Services position and oil palm lands officer.

Time Allocation Study (grouped)
All VOP



Time Allocation Study (over 4 weeks)
Siki Subdivision

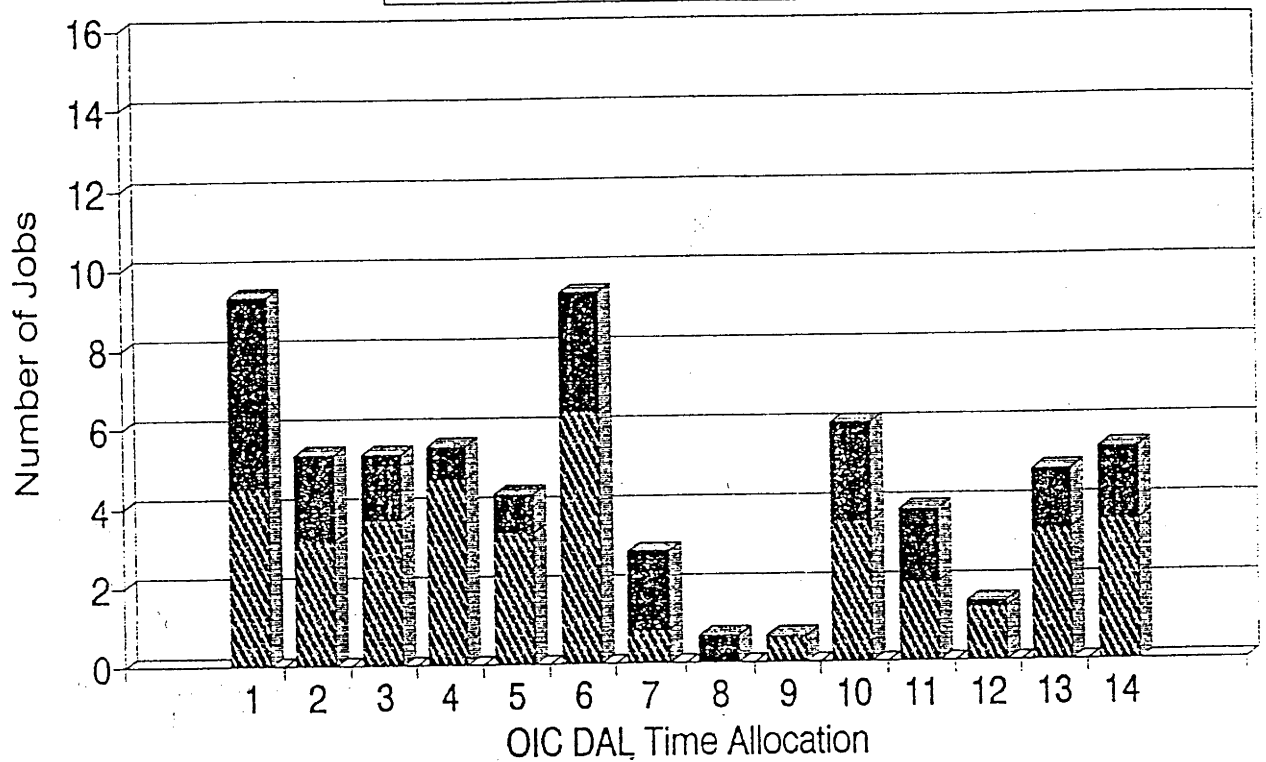
(Commenced planting 1984)



Low time Alloc/Job High Time Alloc/Job

Time Allocation Study (grouped)
BUV, GAL, KAV, KVG, SKK & TAM

(Plantings commenced 1968-1972)



 Low time Alloc/Job  High Time Alloc/Job

ANNEX 21

Survey Samples & Population Graphs

TABLE 1
SURVEY SAMPLES AND POPULATION GRAPHS

SETTLEMENTS

SUB DIVISION	TOTAL NO. OF BLOCKS 1989	TOTAL POPN. /S-D	SURVEY POPN. SIZE(a)	TOTAL POPN. %	BLOCKS SURVEYED %	AVG. POPN. PER BLOCK	AVG. POPN. /SURVEY BLOCK
KAPORE	134	1225	92 (11)	7.5	8.2	9.0	8.5
TAMBA	193	1370	84 (9)	6.1	4.7	7.0	9.3
SARAKOLOK	261	2349	94 (10)	4.0	3.8	9.0	9.4
BUVUSSI	343	2721	90 (11)	3.3	3.2	8.0	8.2
GALAI	232	2221	77 (8)	3.5	3.4	9.6	9.6
KAVUI	316	2756	100 (11)	3.6	3.5	8.7	9.2
TOTALS	1479	12642	537 (60)	4.3	4.1	8.6	9.0

VILLAGE OIL PALM

VILLAGE	TOTAL NO. OF BLOCKS 1989	TOTAL POP.N. /S-D	SURVEY POP.N. SIZE(a)	TOTAL POP.N. %	BLOCKS SURVEYED %	AVG. POPN. PER BLOCK	AVG. POPN. /SURVEY BLOCK
GAUNGO	48	NA	74 (11)	NA	22.9	NA	6.7
MOSA	99	NA	76 (11)	NA	11.1	NA	6.9
MAI	73	NA	38 (11)	NA	8.2	NA	6.3
BALABOLO	17	NA	38 (11)	NA	29.4	NA	7.6
KAUS	14	NA	78 (11)	NA	78.6	NA	7.1
WAISISI	34	NA	89 (11)	NA	32.4	NA	7.3
RIKAU	65	NA	77 (11)	NA	16.9	NA	7.0
TOTALS	350	NA	461 (66)	NA	18.9	NA	7.0

(a) Number of blocks sampled at each location

TABLE 2

SETTLER AND V.O.P. SAMPLES

SETTLEMENTS POPULATION SURVEY SAMPLE

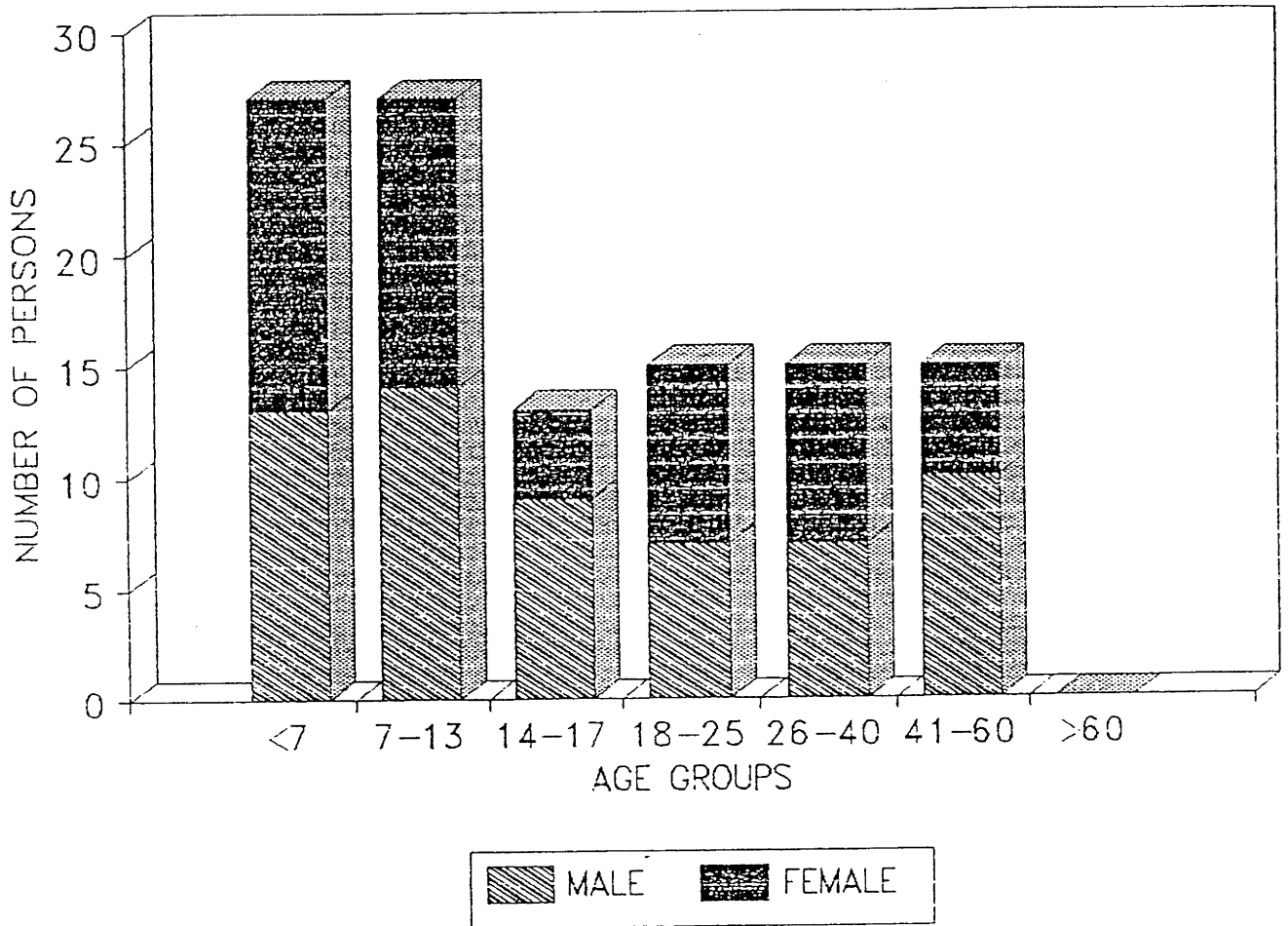
RANGE OF PRODUCTION	NO. BLOCKS SURVEYED	SURVEY SAMPLE SIZE	NO. OF OBSERVATIONS AND INFORMATION OF MOVEMENTS
0-25%	7	45	1,702
25-50%	21	189	6,373
50-75%	20	194	6,001
75-100%	12	109	3,547
TOTALS	60	537	17,623

VILLAGE OIL PALM

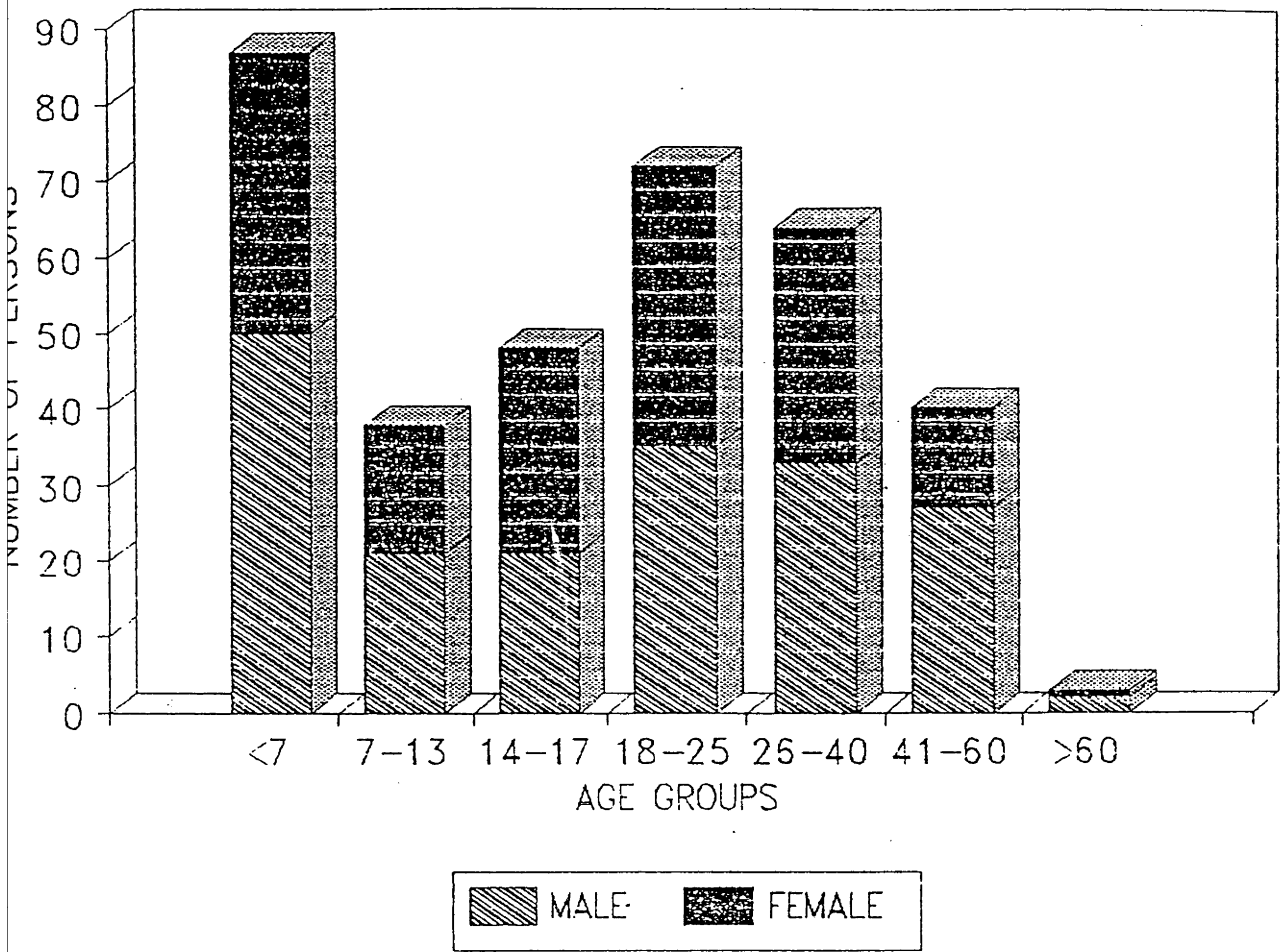
RANGE OF PRODUCTION	NO. BLOCKS SURVEYED	SURVEY SAMPLE SIZE	NO. OF OBSERVATIONS AND INFORMATION OF MOVEMENTS
LOW	19	113	2,887
MEDIUM	28	209	5,631
HIGH	19	162	4,454
TOTALS	66	484(a)	12,972

(a) The difference of 23 people to Table 1 VOP due to the number of extra people (family, friends) coming in to give assistance that were not direct family

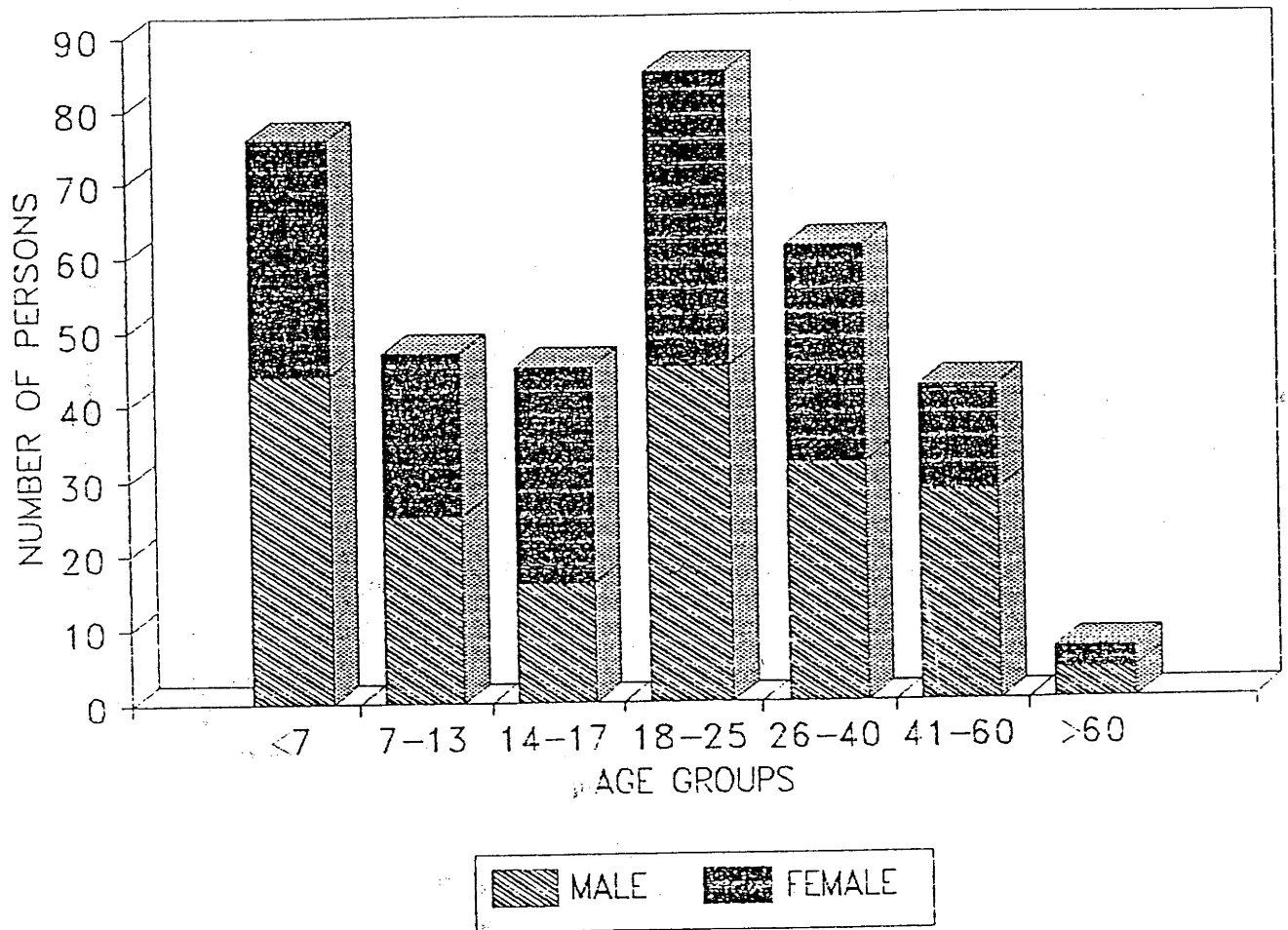
AGE & SEX DISTRIBUTION
SETTLER 0-25% YIELD CATEGORY



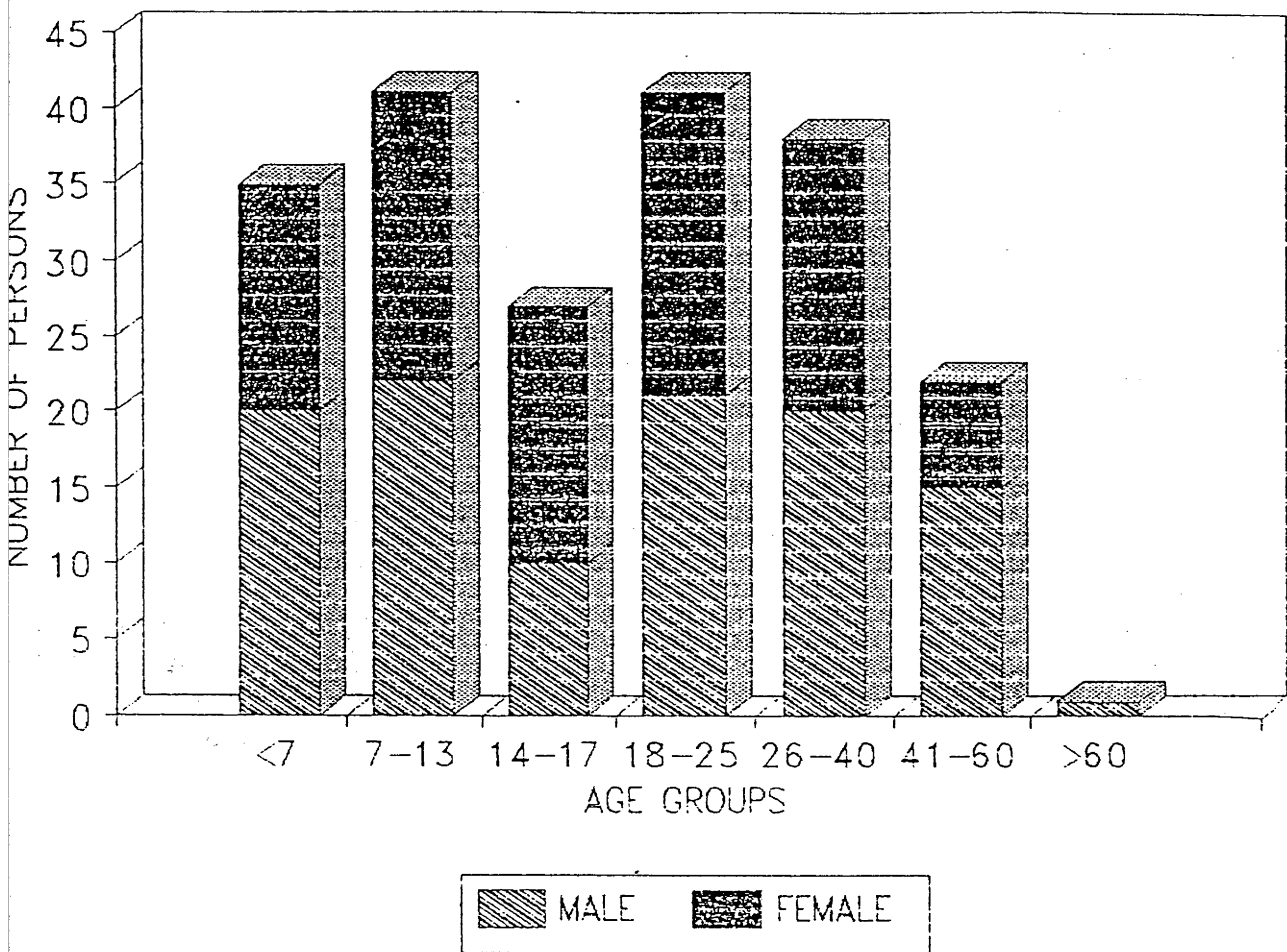
AGE & SEX DISTRIBUTION
SETTLER 25-50% YIELD CATEGORY



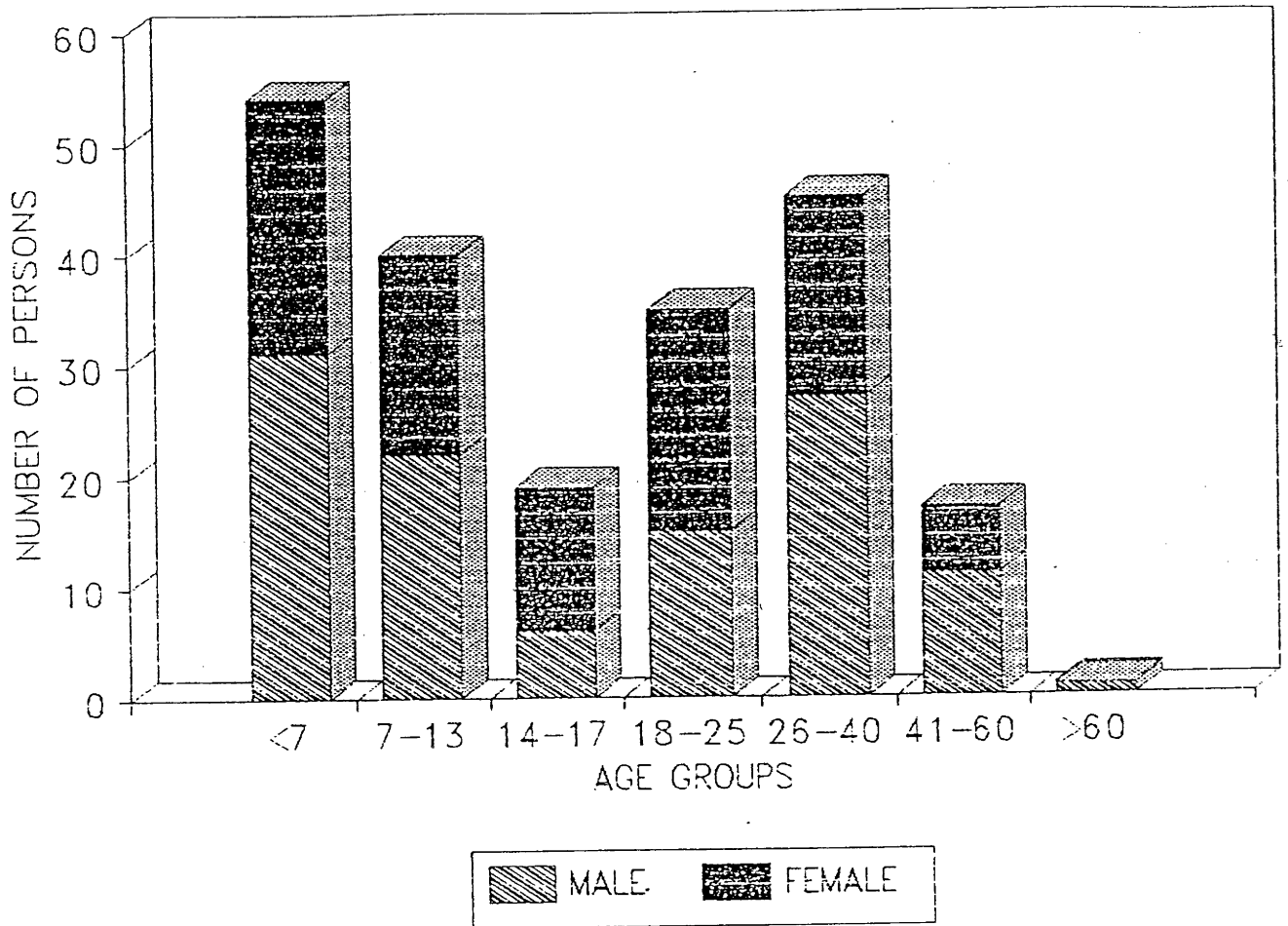
AGE & SEX DISTRIBUTION
SETTLER 50-75% YIELD CATEGORY



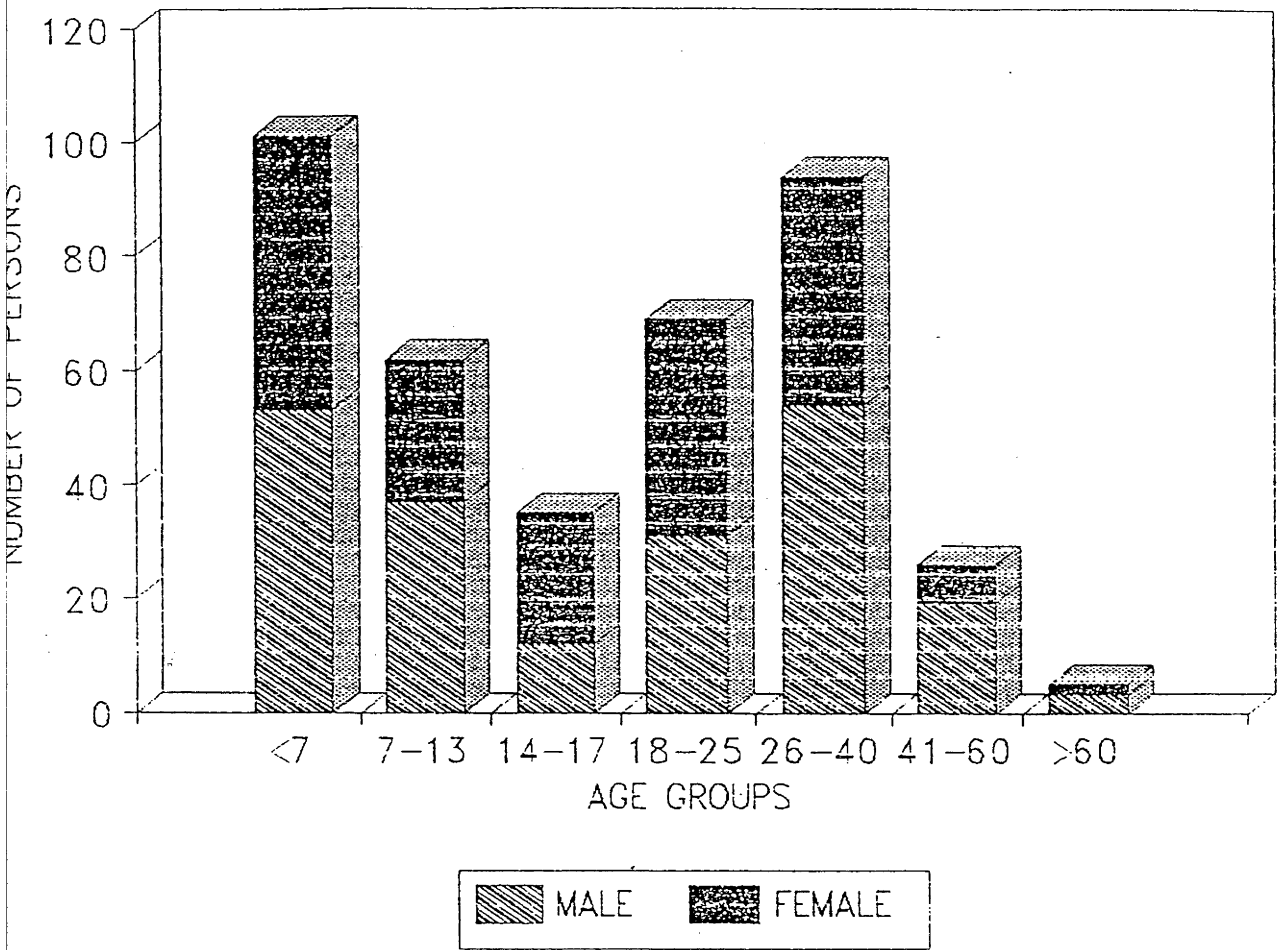
AGE & SEX DISTRIBUTION
SETTLER 75-100% YIELD CATEGORY



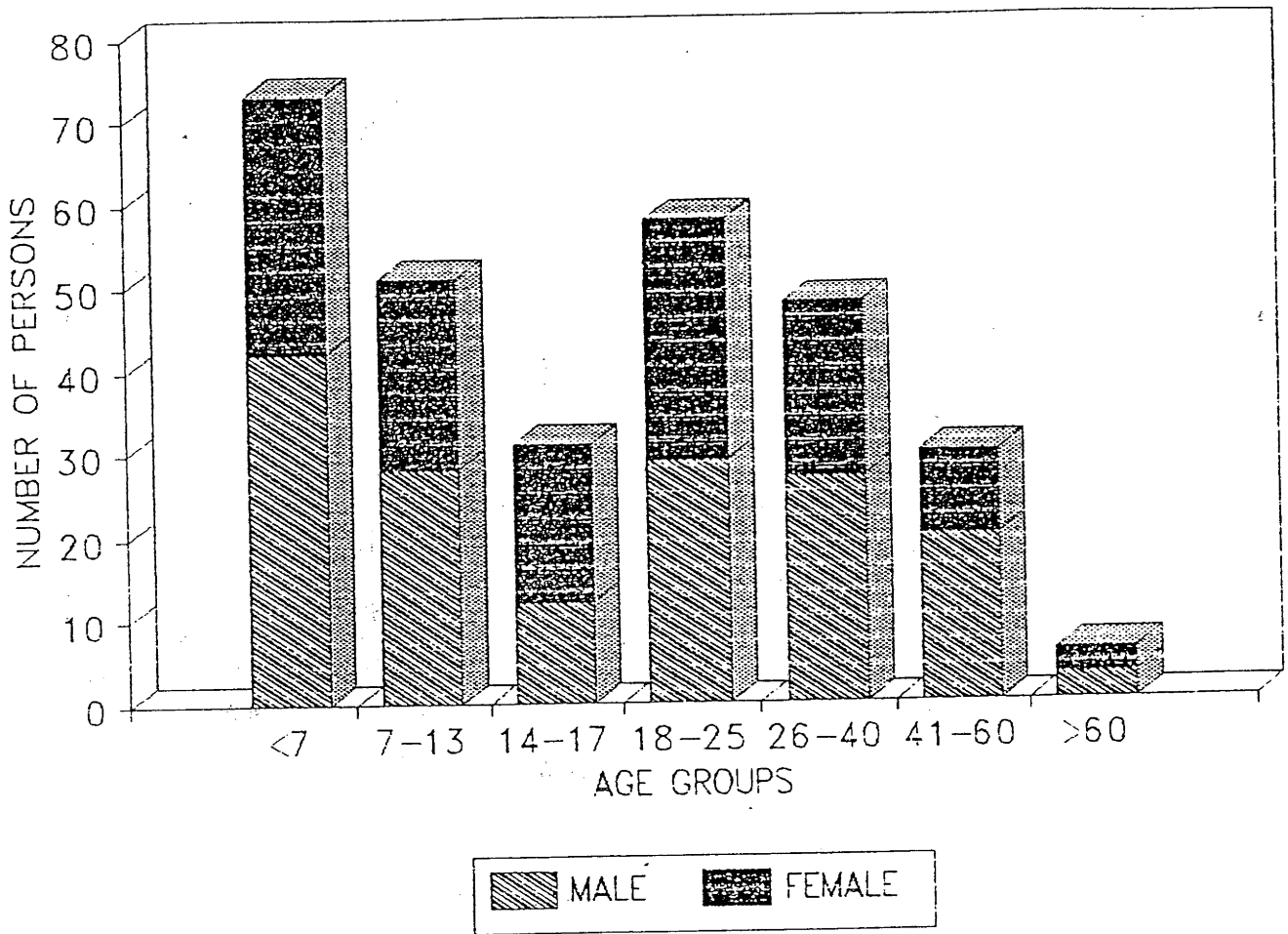
AGE & SEX DISTRIBUTION
VOP LOW YIELD CATEGORY



AGE & SEX DISTRIBUTION
VDP MEDIUM YIELD CATEGORY



AGE & SEX DISTRIBUTION
VOP HIGH YIELD CATEGORY

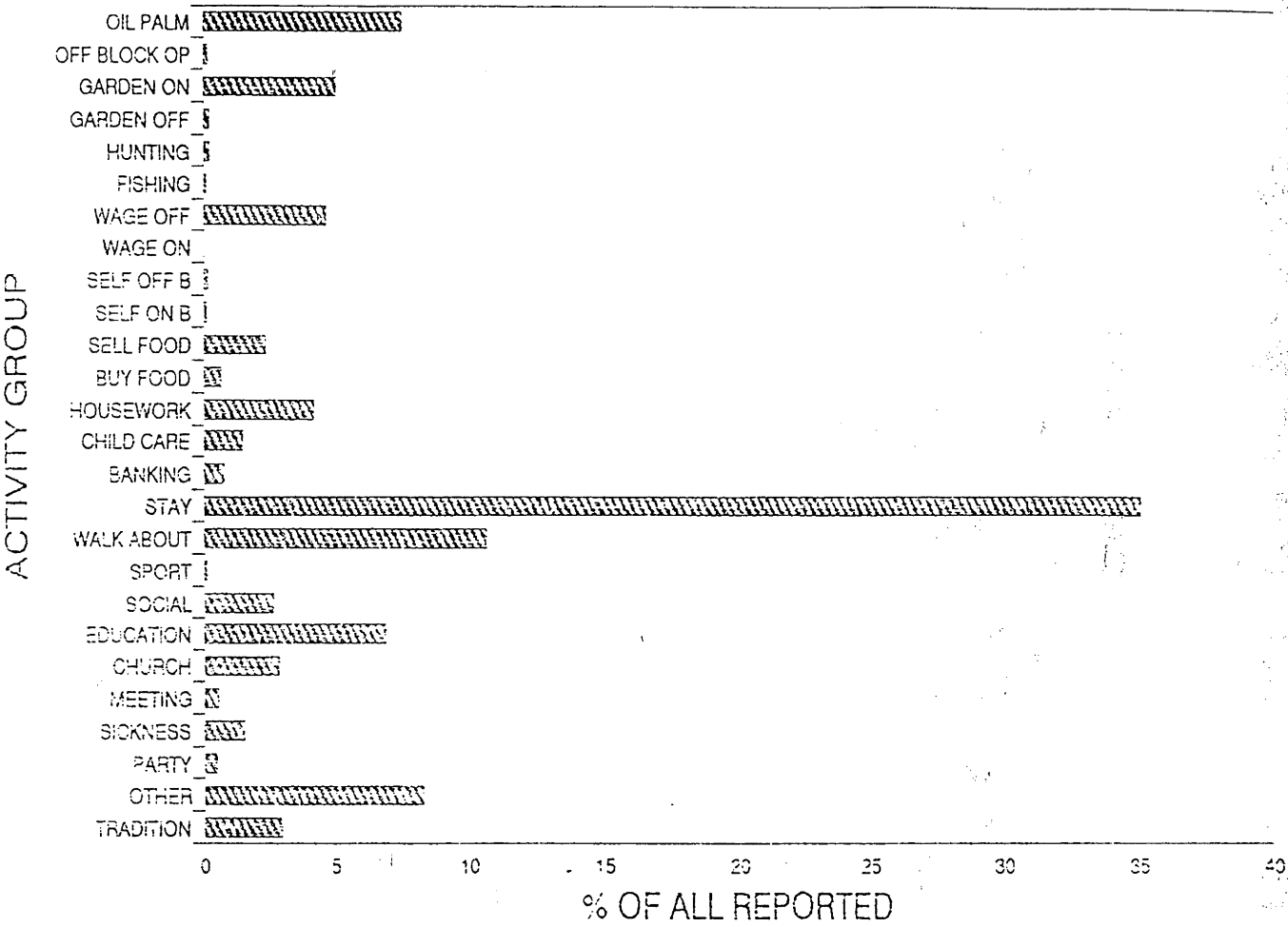


ANNEX 22

Time Allocation Graphs

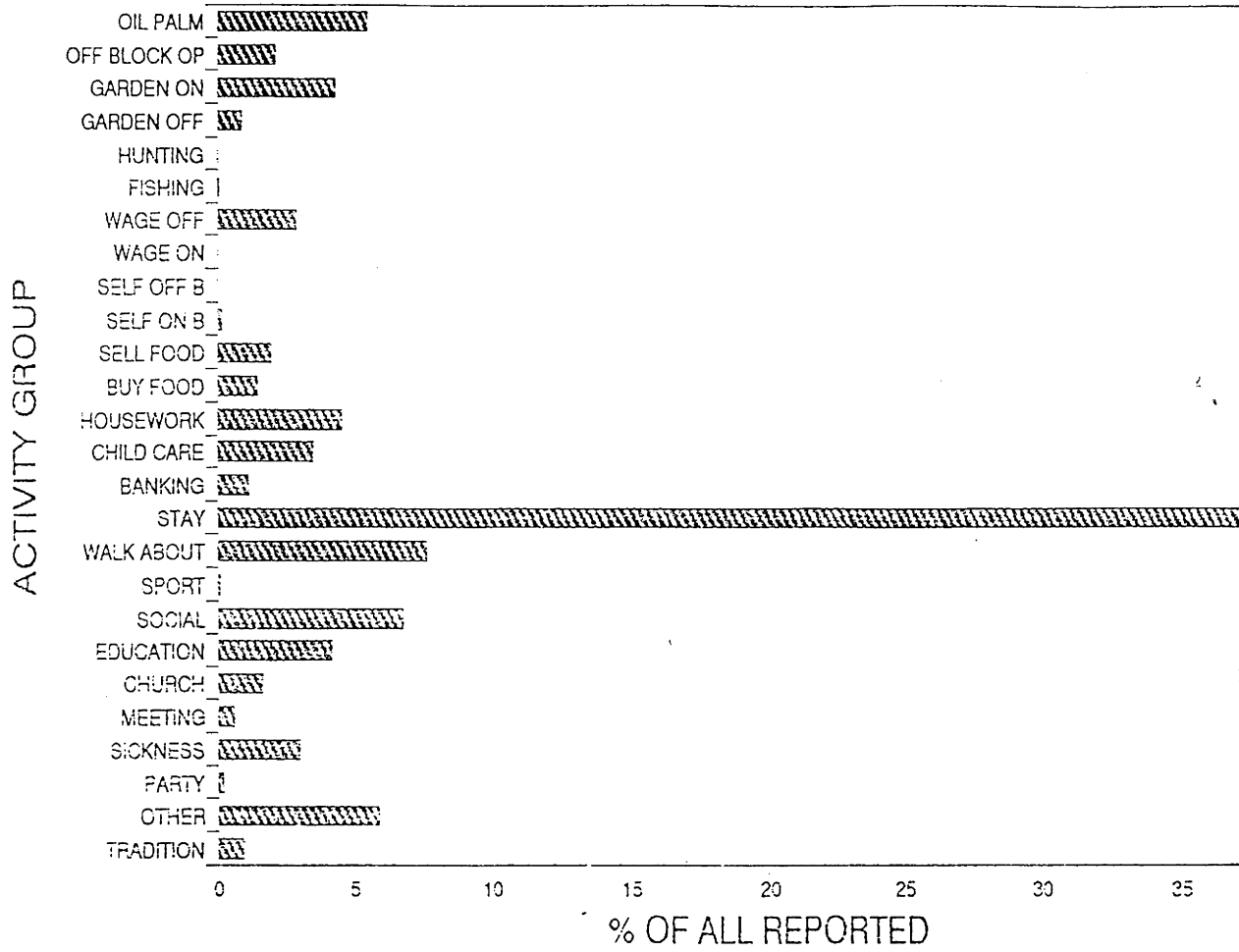
TIME ALLOCATION GRAPHS

ALL ACTIVITIES - SETTLEMENTS
0-25% YIELD CATEGORY

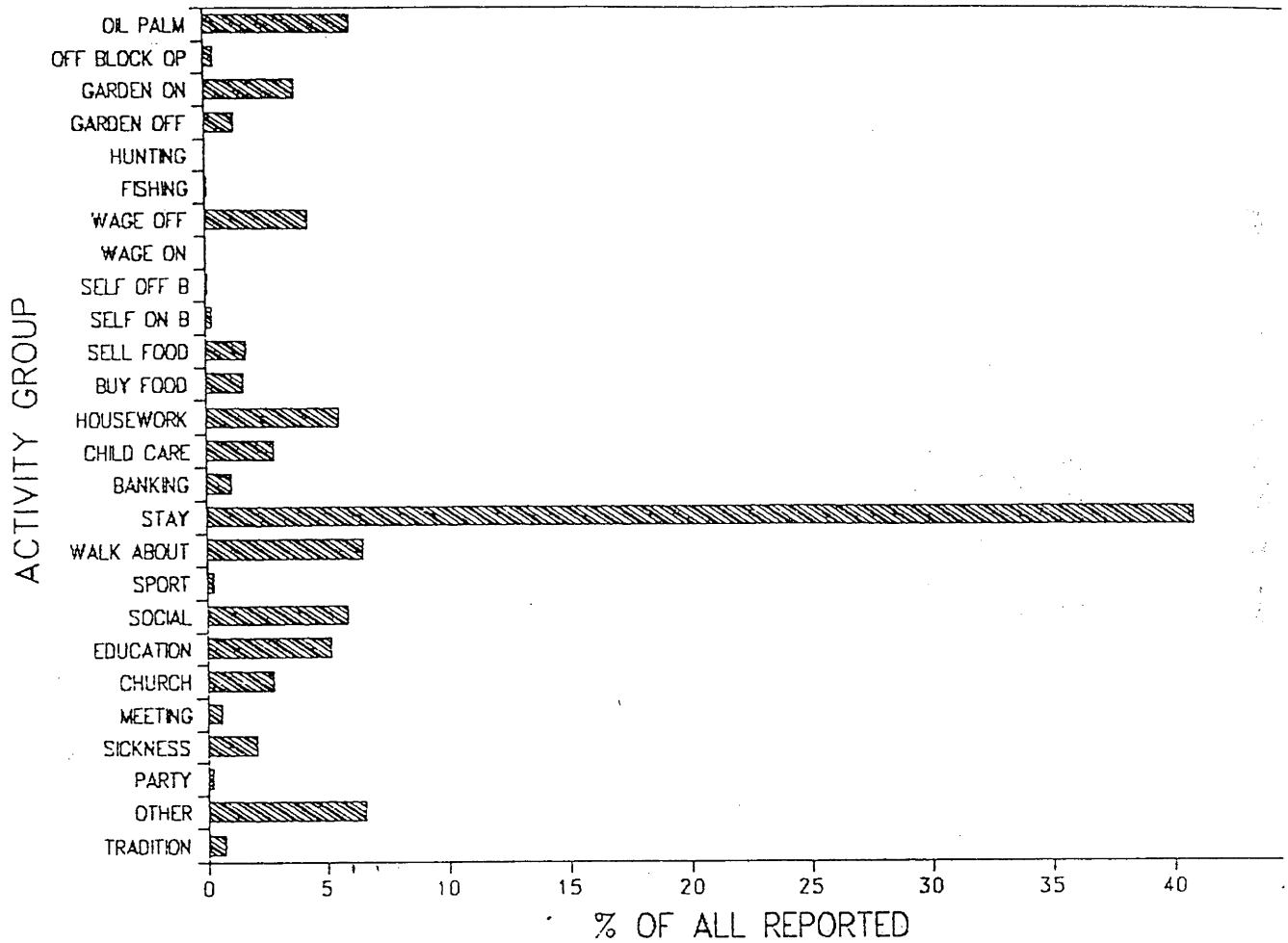


ALL ACTIVITIES - SETTLEMENTS

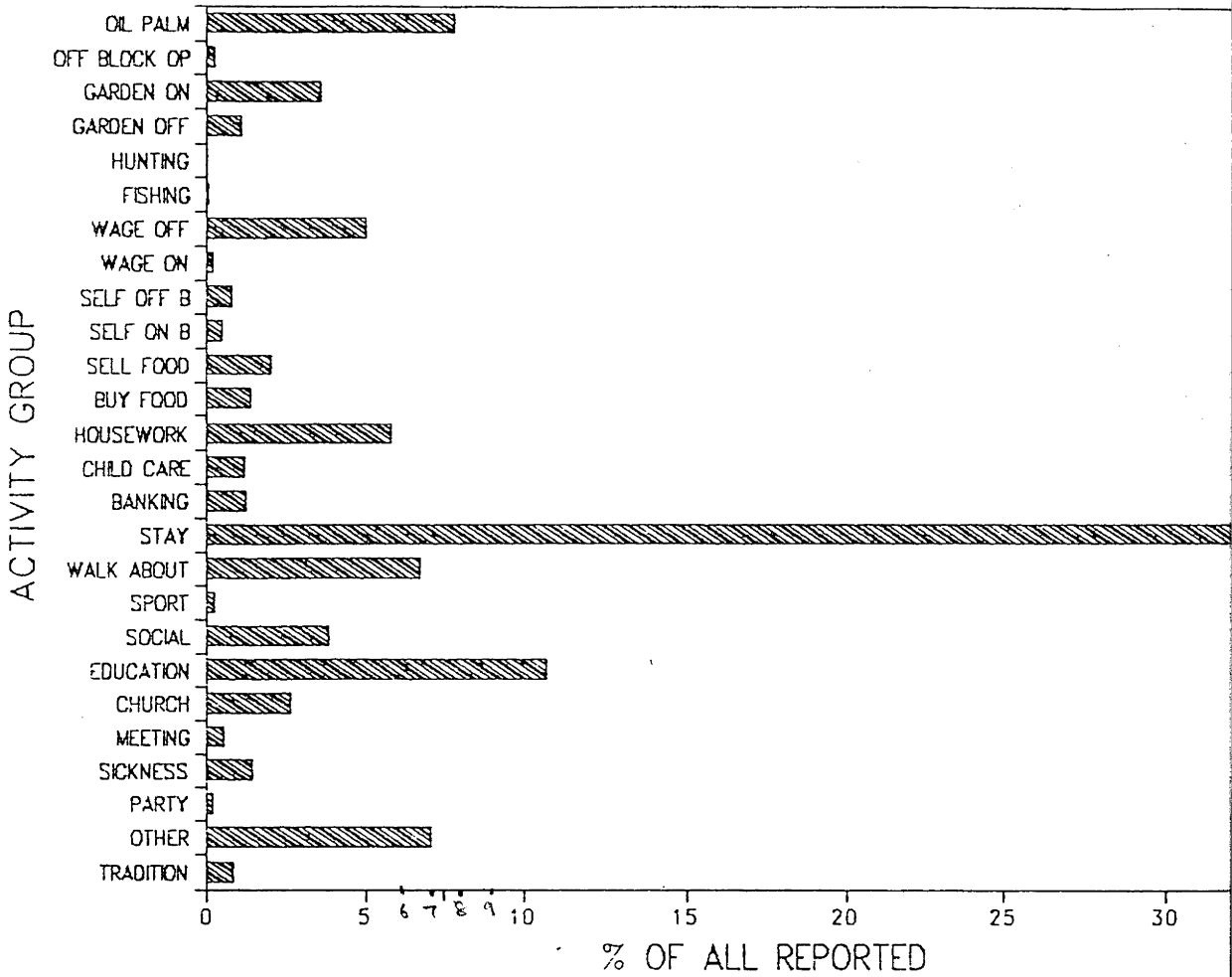
25-50% YIELD CATEGORY



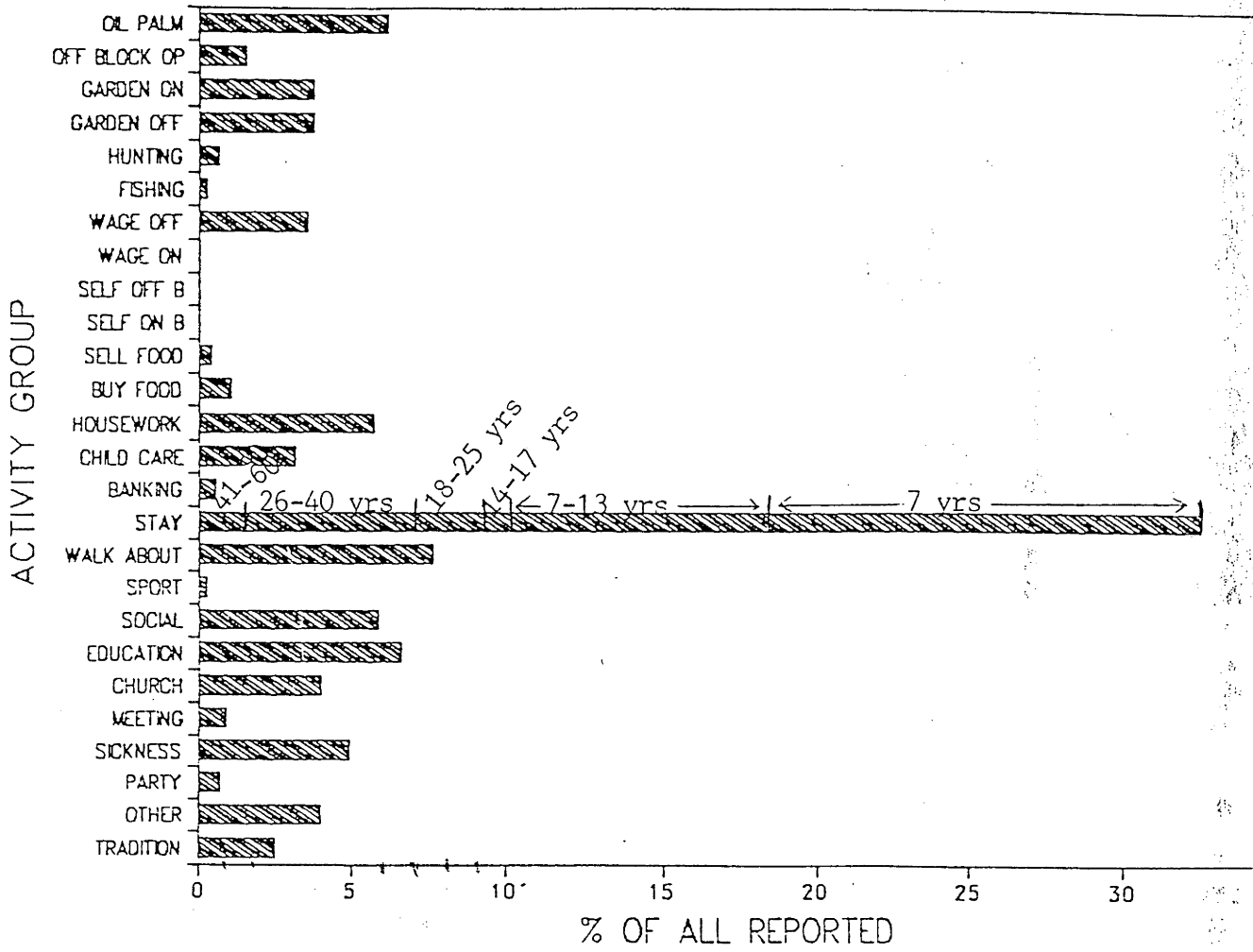
ALL ACTIVITIES - SETTLEMENTS 50-75% YIELD CATEGORY



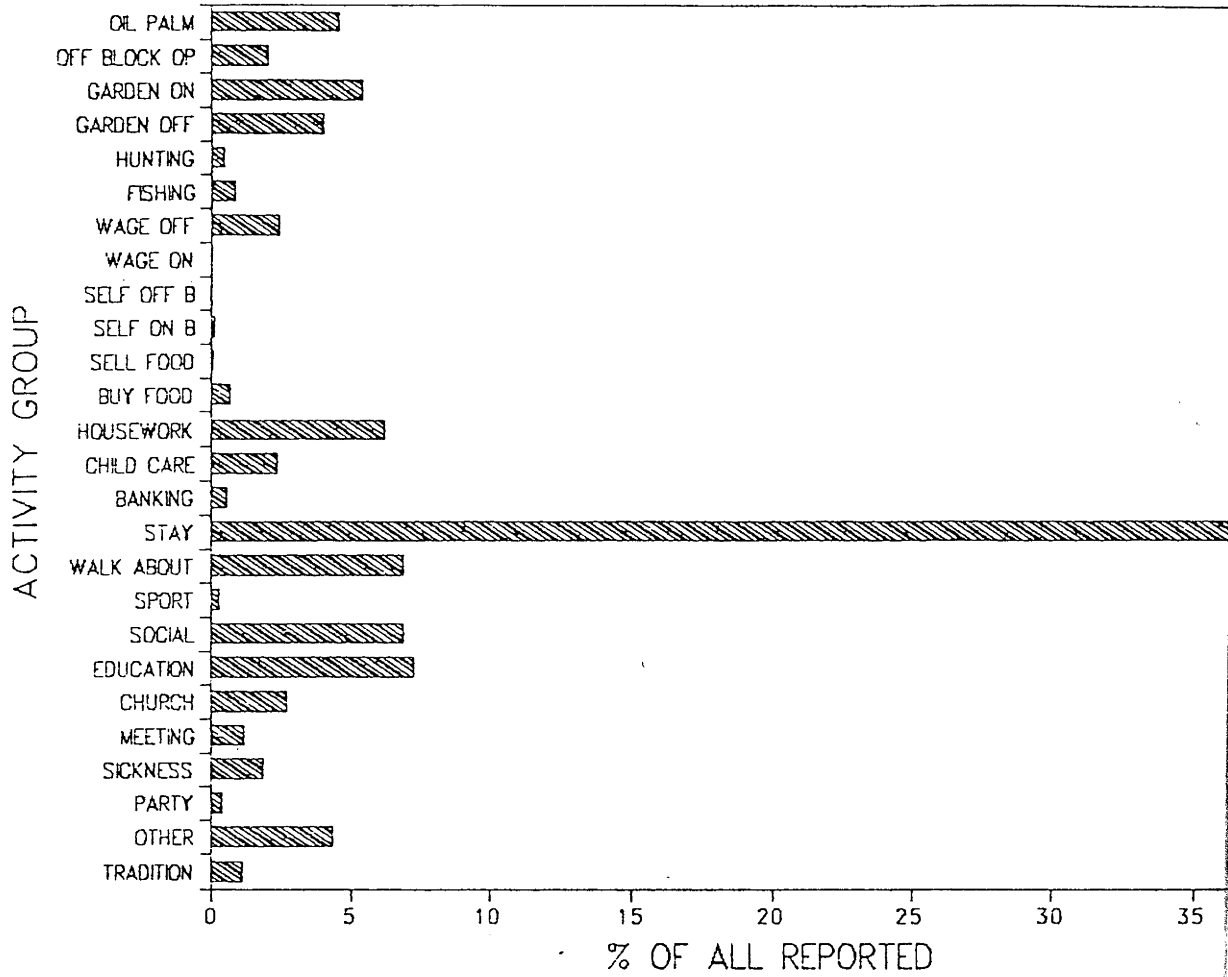
ALL ACTIVITIES – SETTLEMENTS 75-100% YIELD CATEGORY



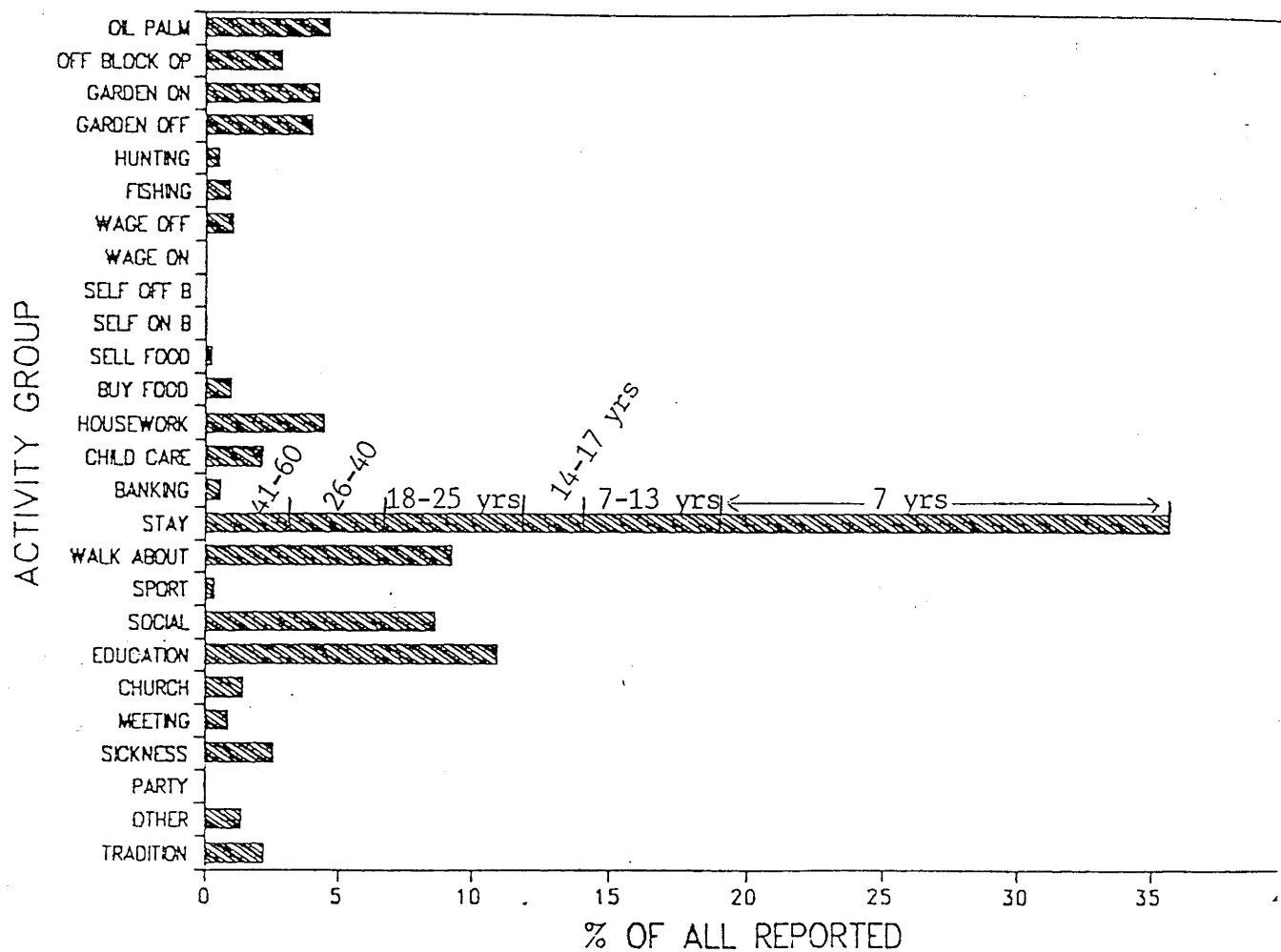
ALL ACTIVITIES VOP LOW YIELD CATEGORY



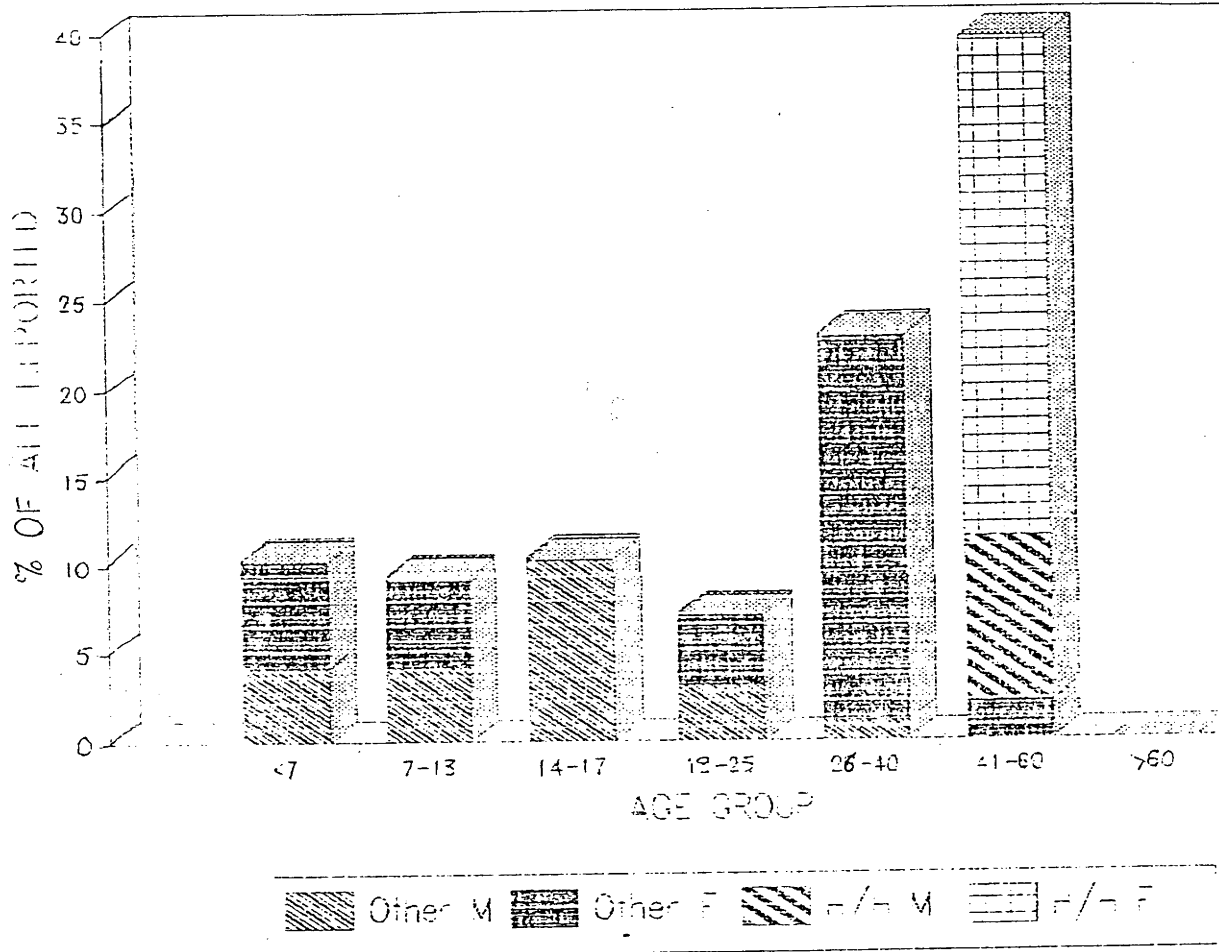
ALL ACTIVITIES VOP MEDIUM YIELD CATEGORY



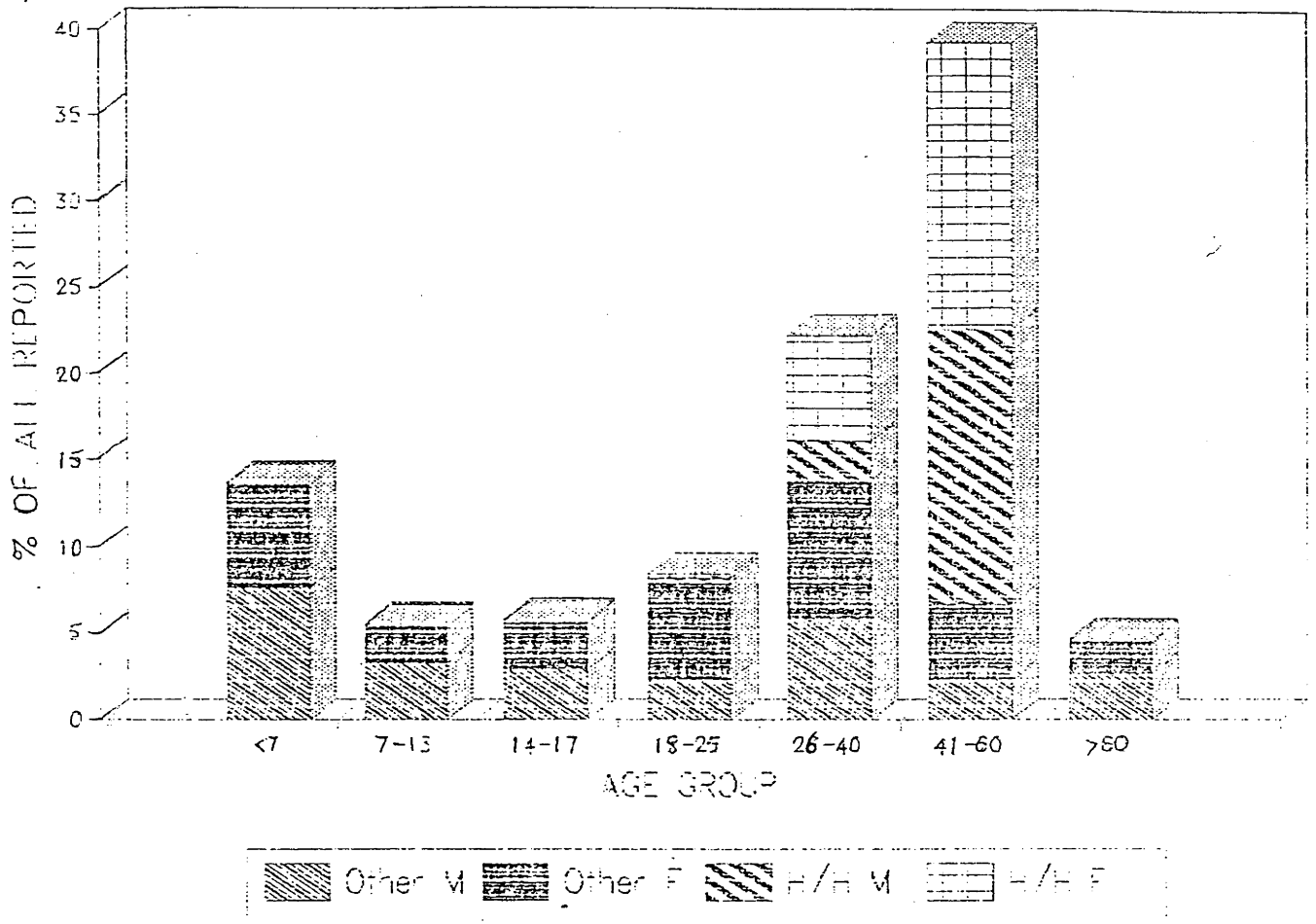
ALL ACTIVITIES VDP HIGH YIELD CATEGORY



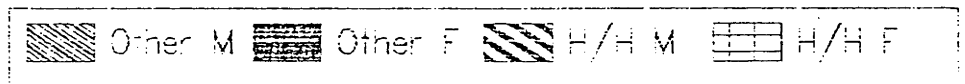
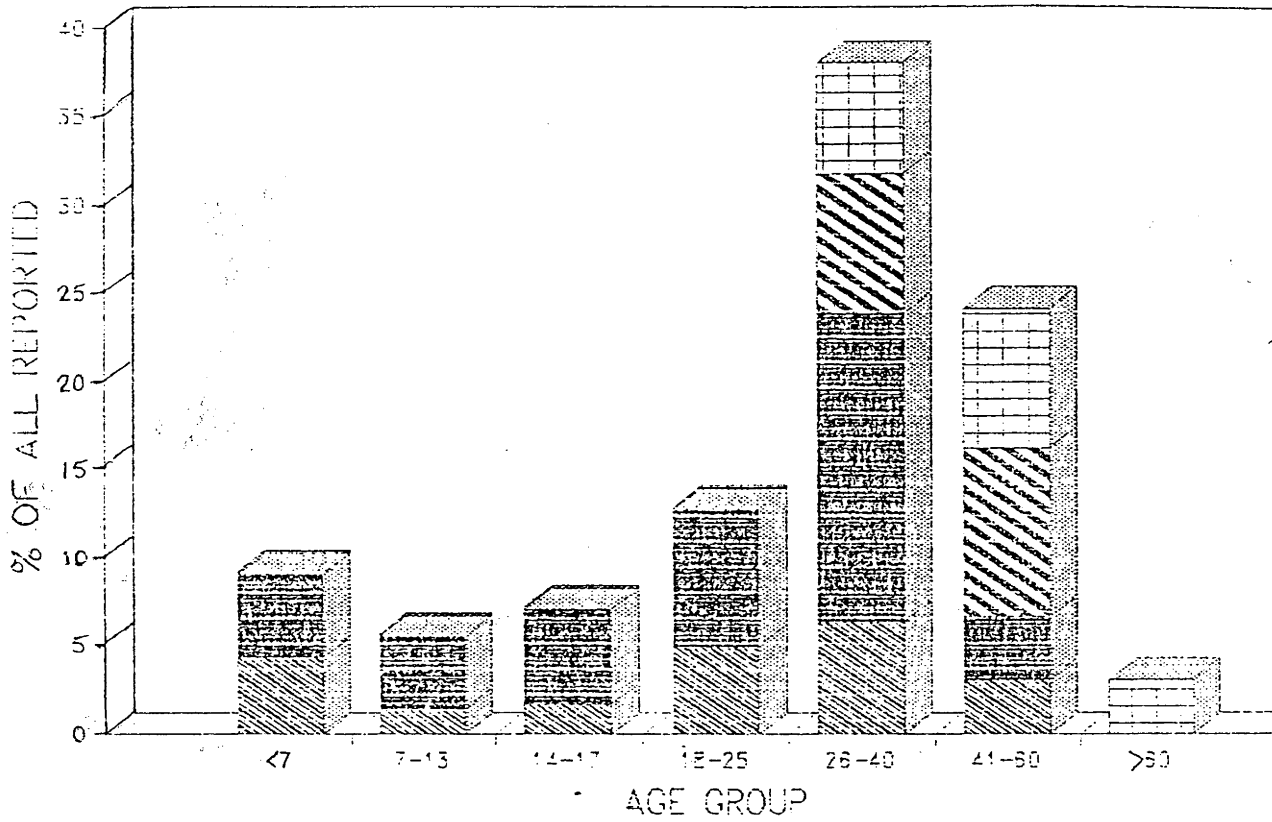
SUBSISTENCE
0-25% YIELD CATEGORY



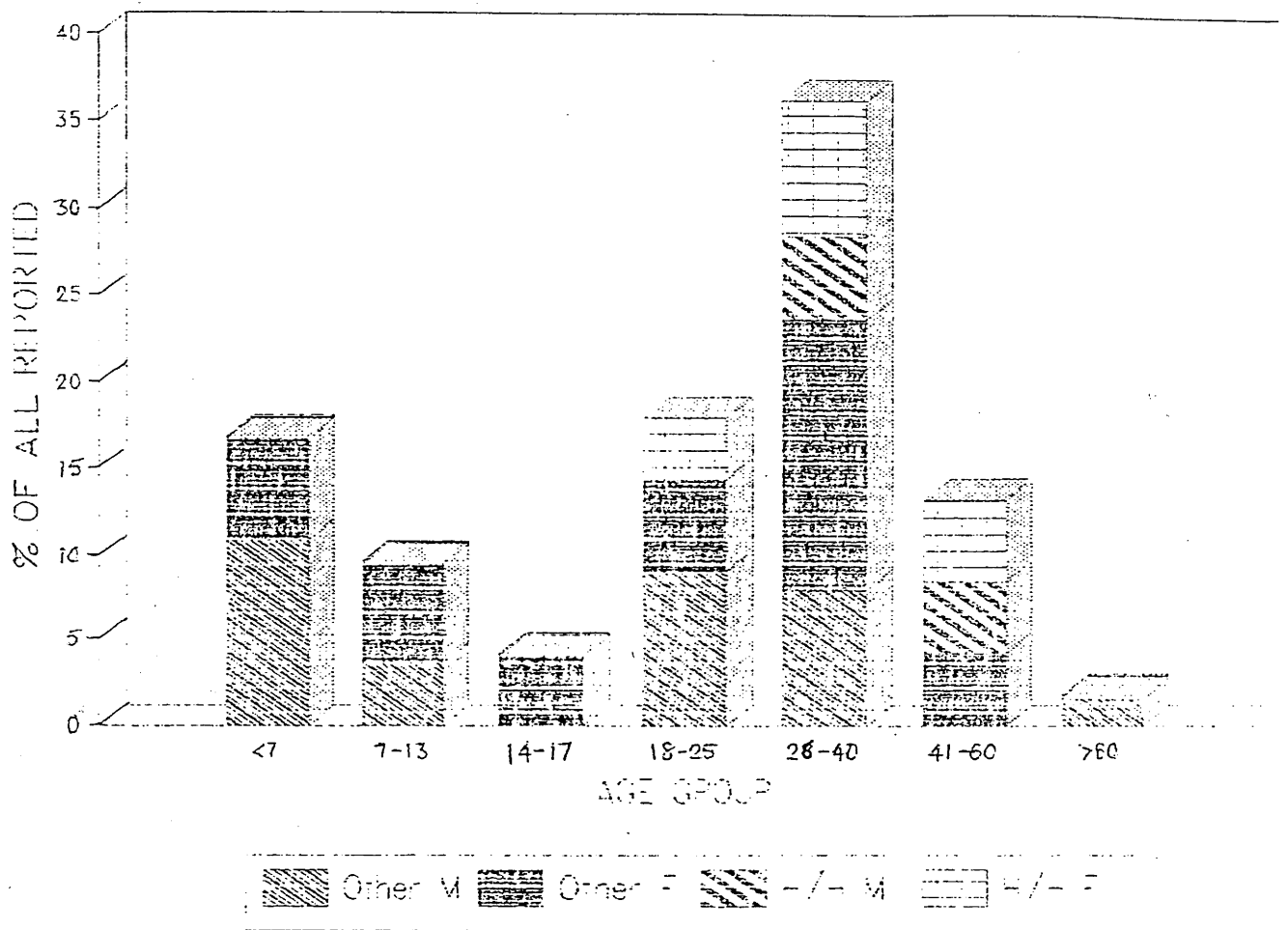
SUBSISTENCE
25%-50% YIELD CATEGORY



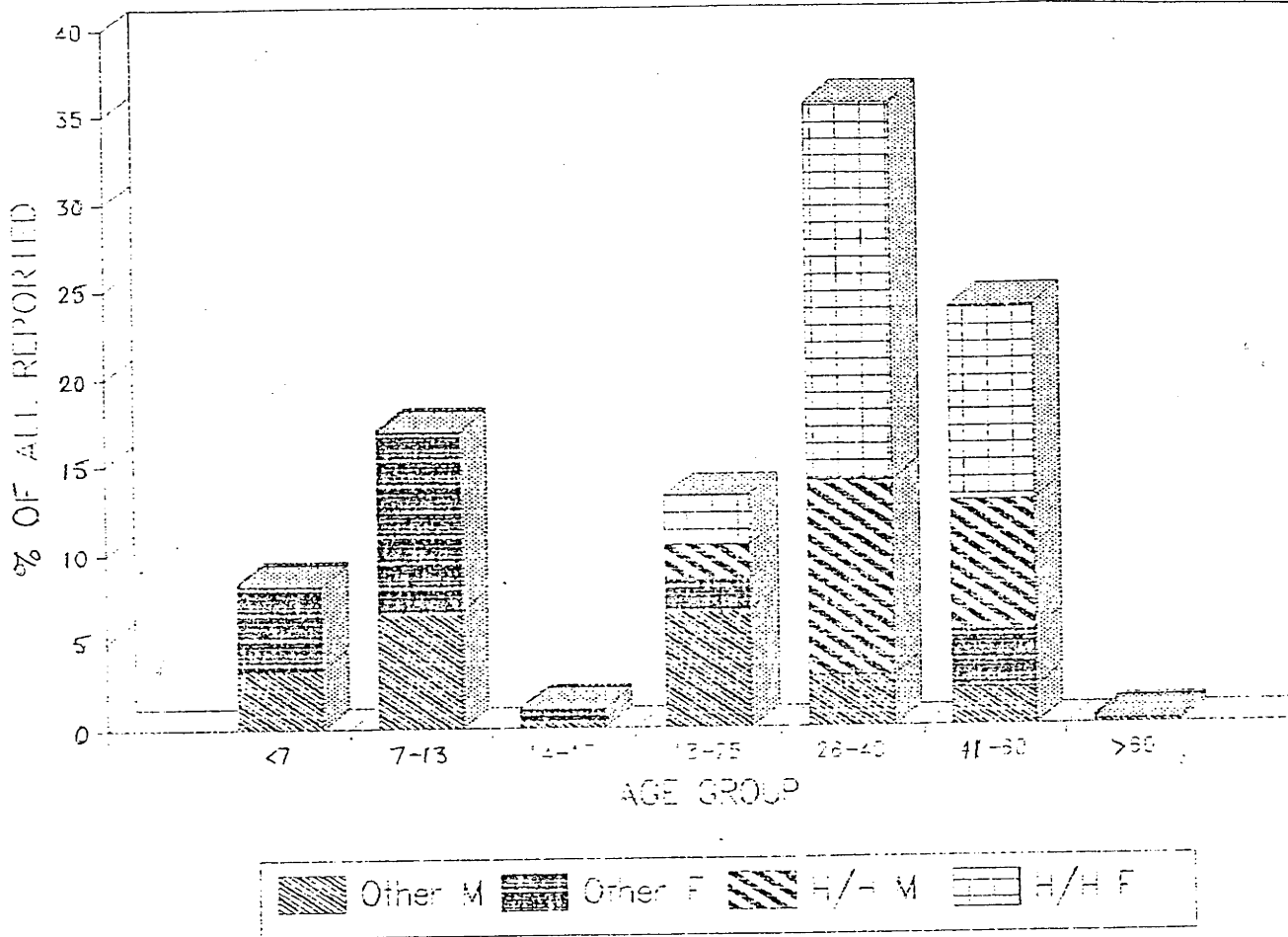
SUBSISTENCE SETTLEMENT 50-75% YIELD CATEGORY



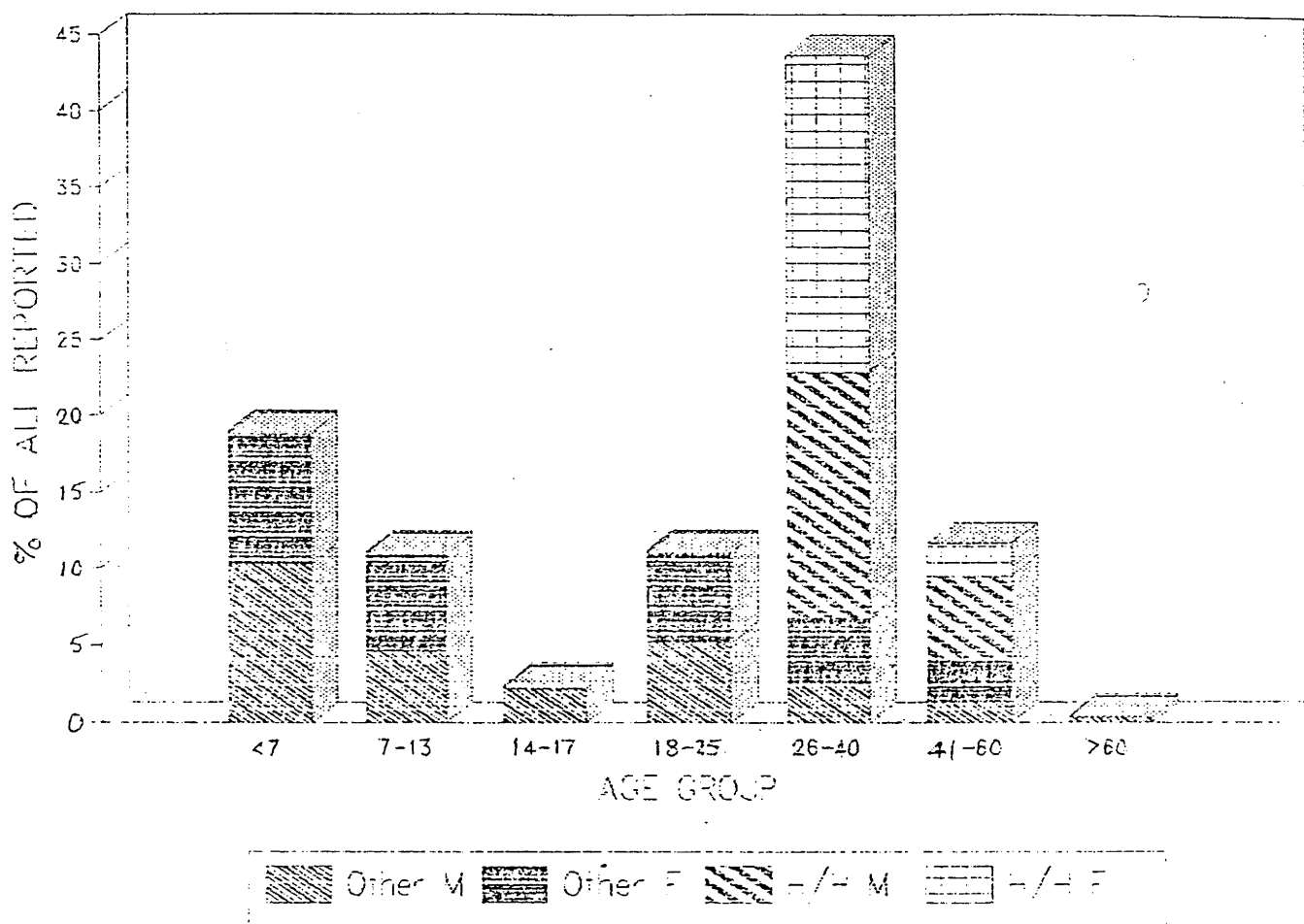
SUBSISTENCE 75-100% YIELD CATEGORY



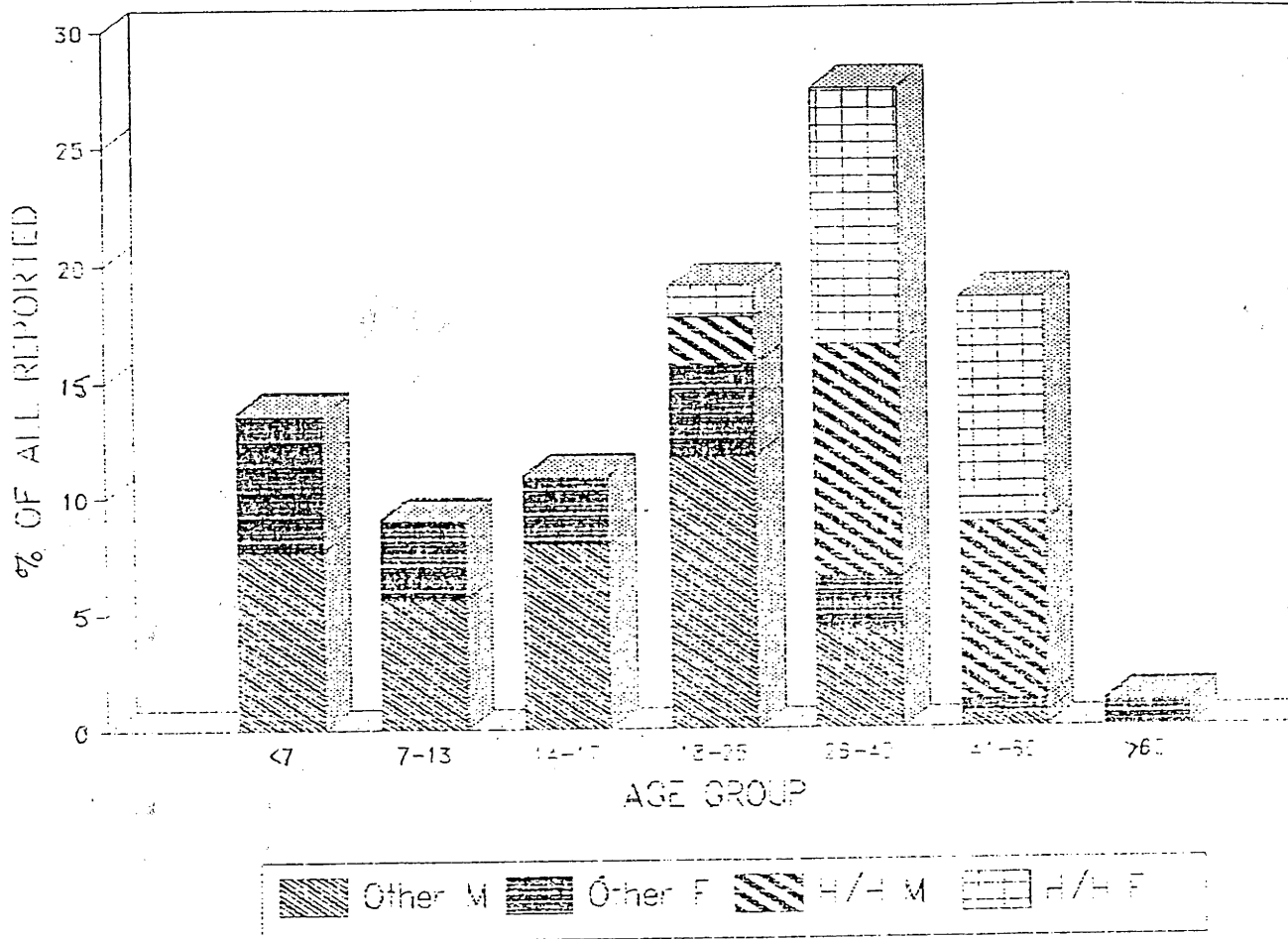
SUBSISTENCE
VOP LOW YIELD CATEGORY



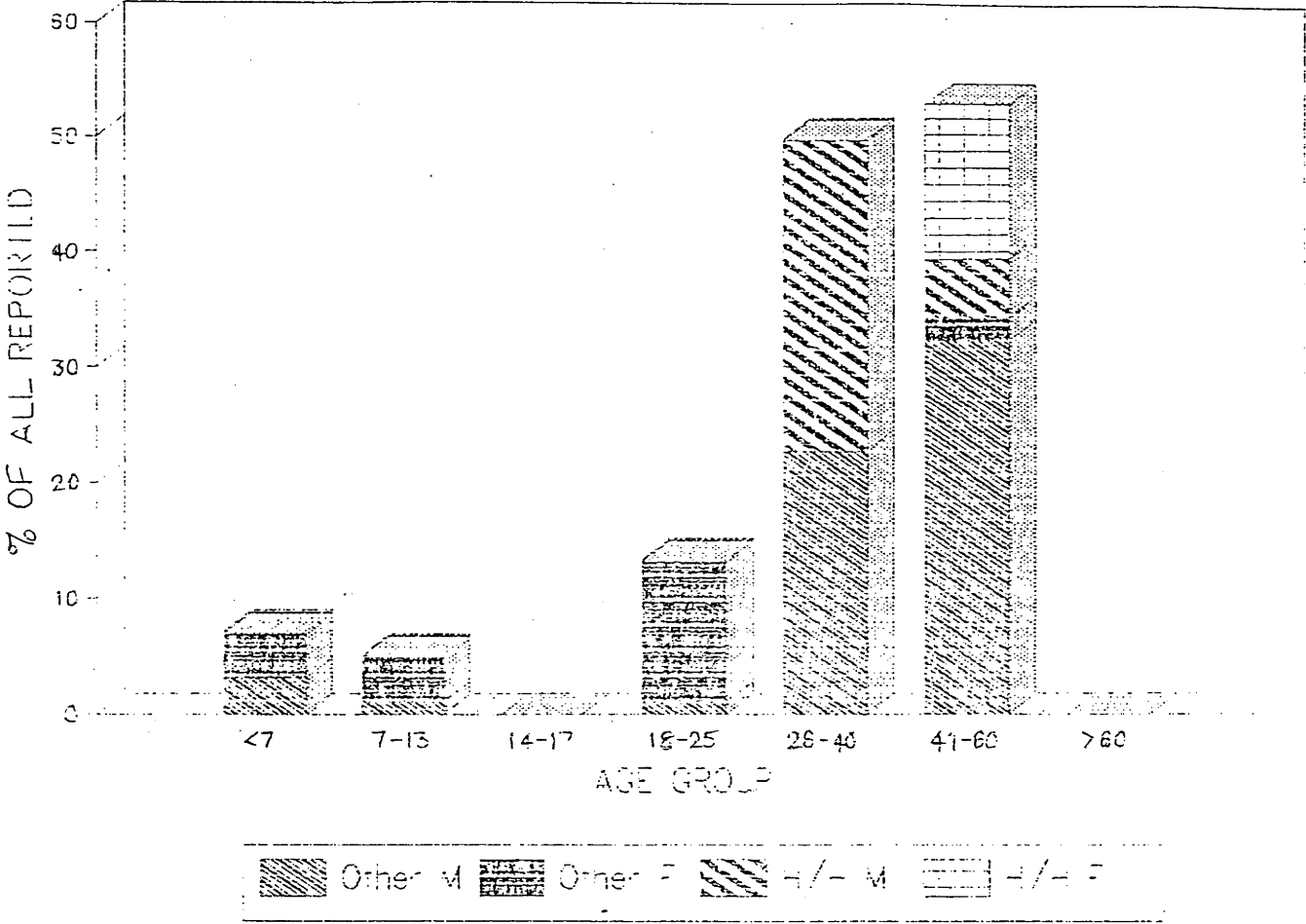
SUBSISTENCE VOP MEDIUM YIELD CATEGORY



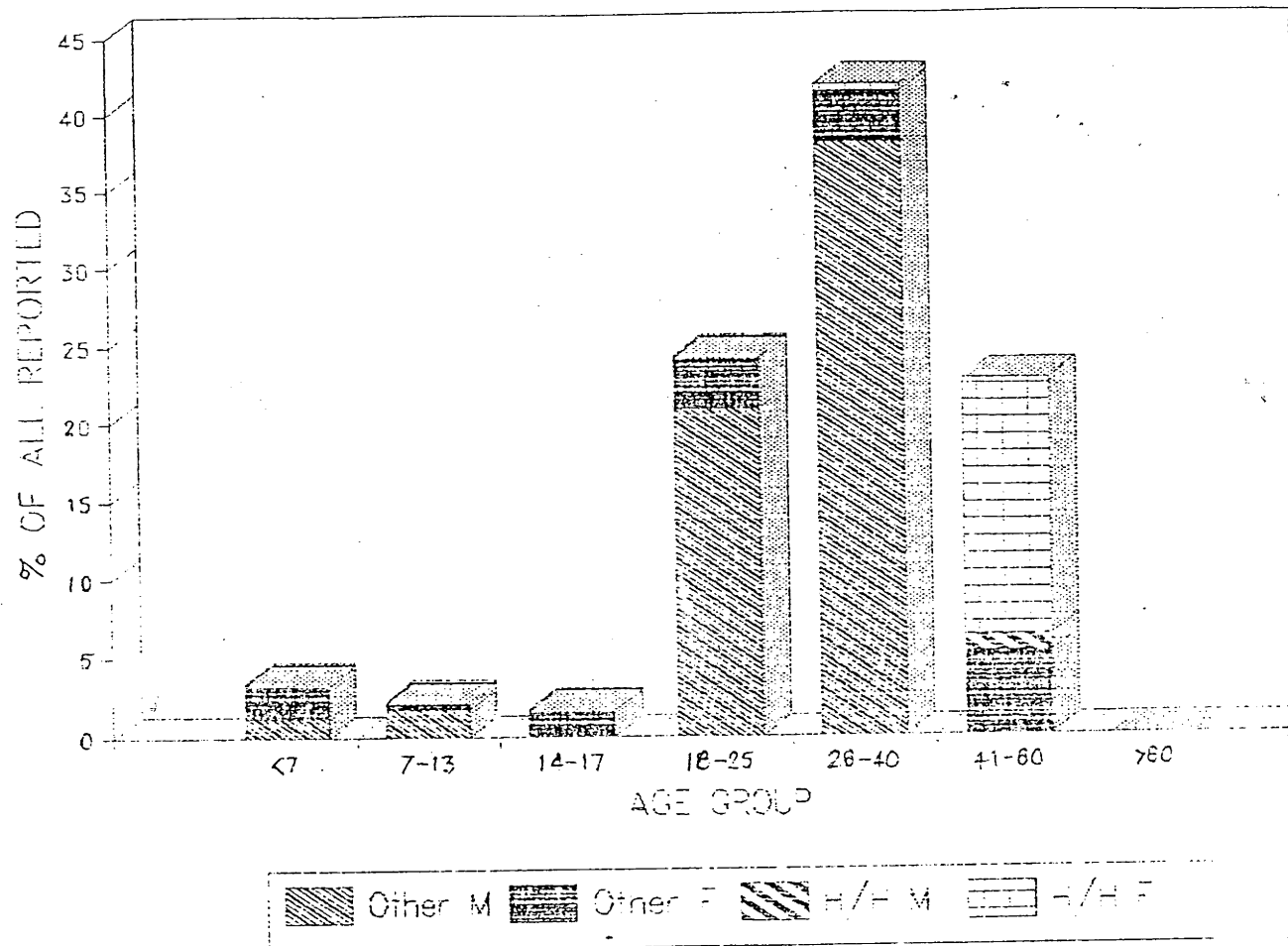
SUBSISTENCE VOP HIGH YIELD CATEGORY



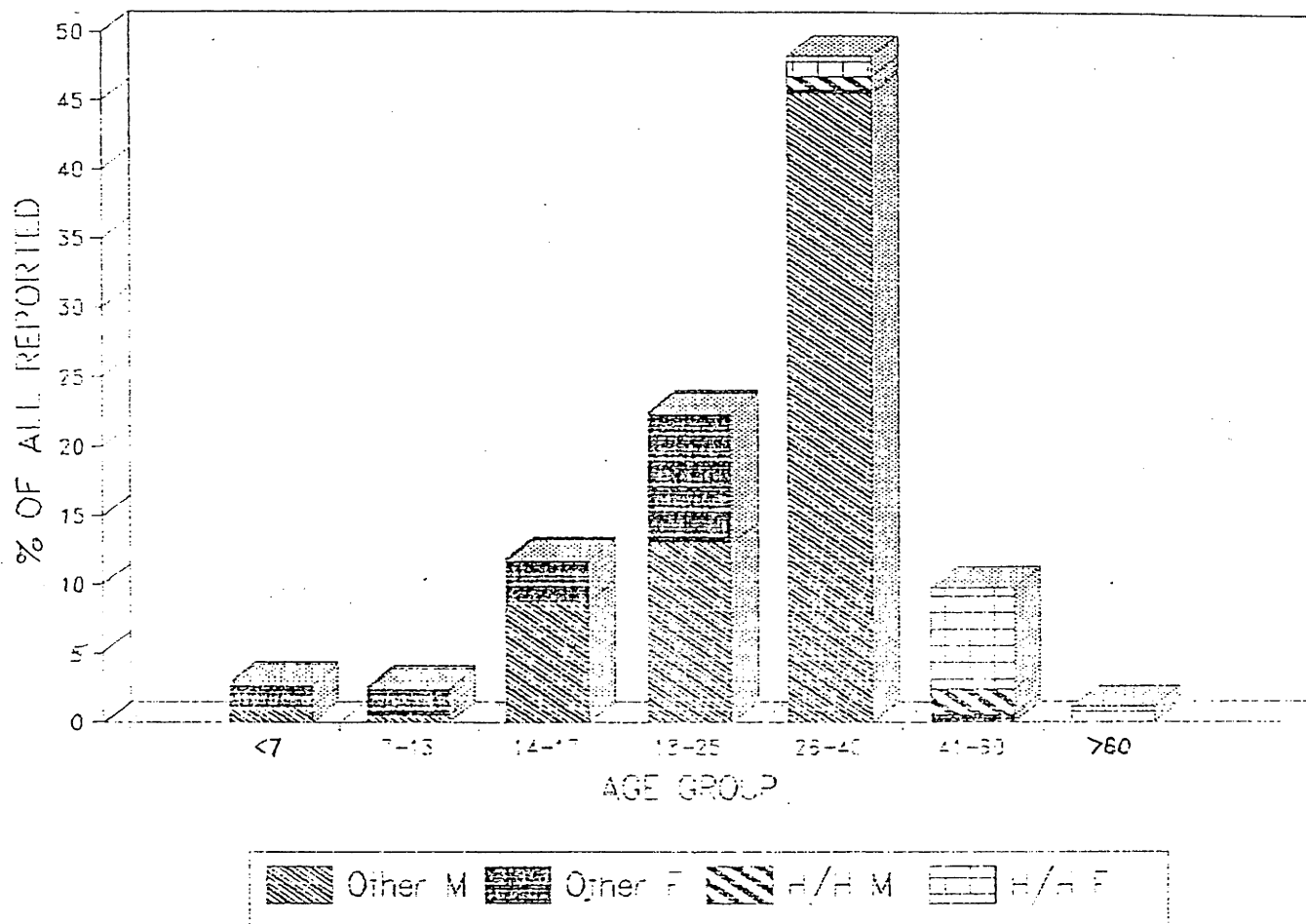
OTHER ECONOMIC
0-25% YIELD CATEGORY



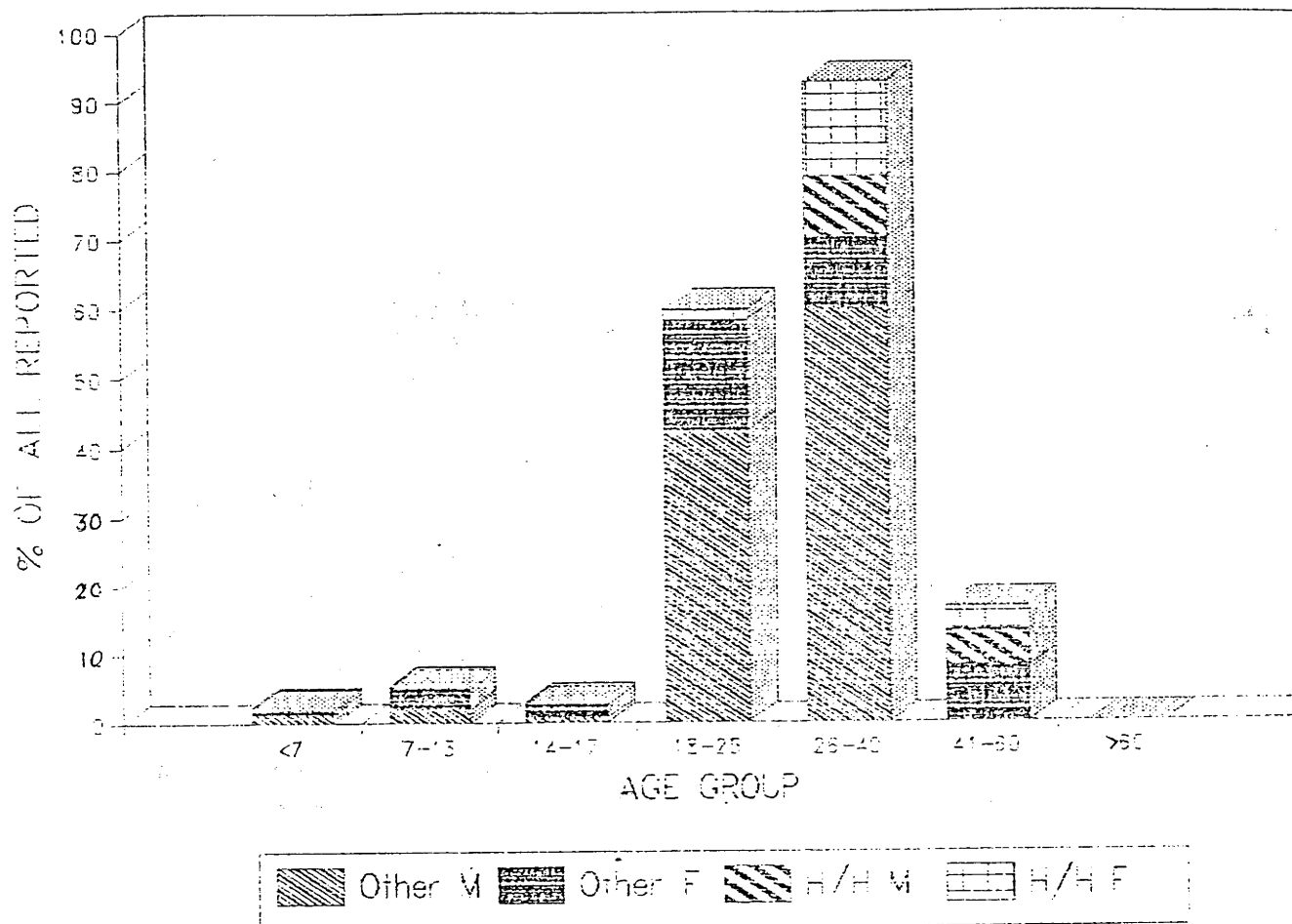
OTHER ECONOMIC
25-50% YIELD CATEGORY



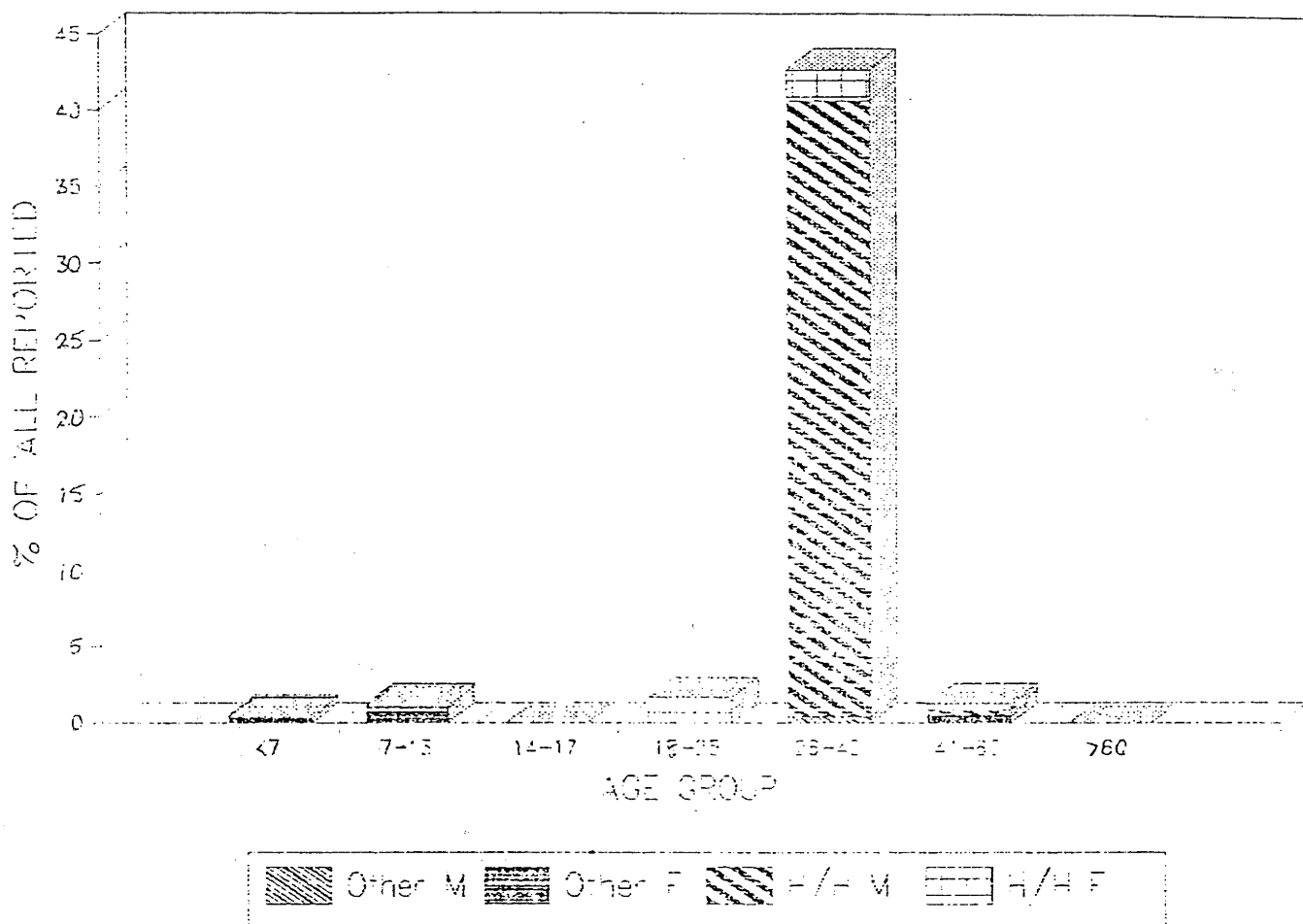
OTHER ECONOMIC
SETTLEMENT 50-75% YIELD CATEGORY



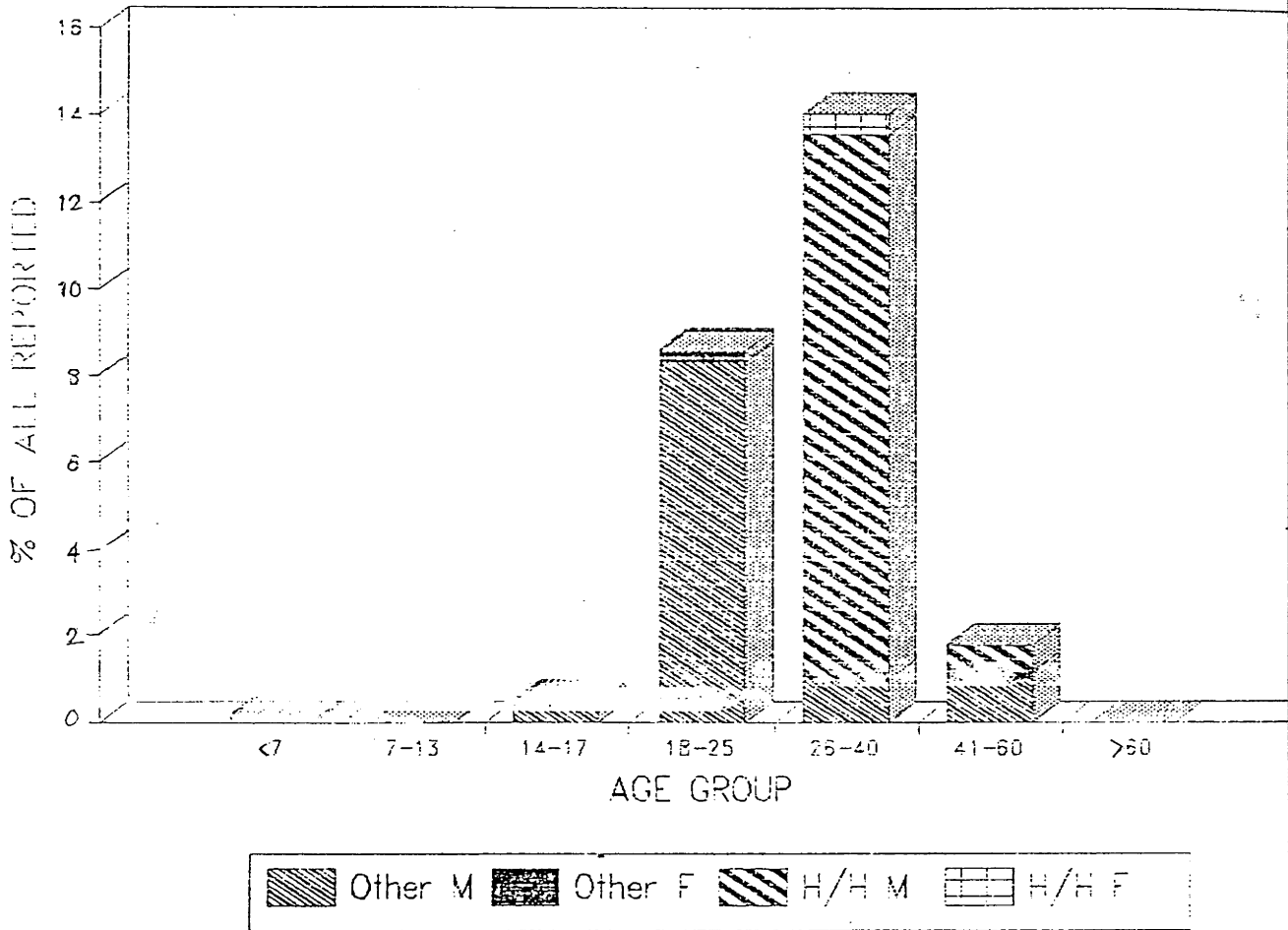
OTHER ECONOMIC 75-100% YIELD CATEGORY



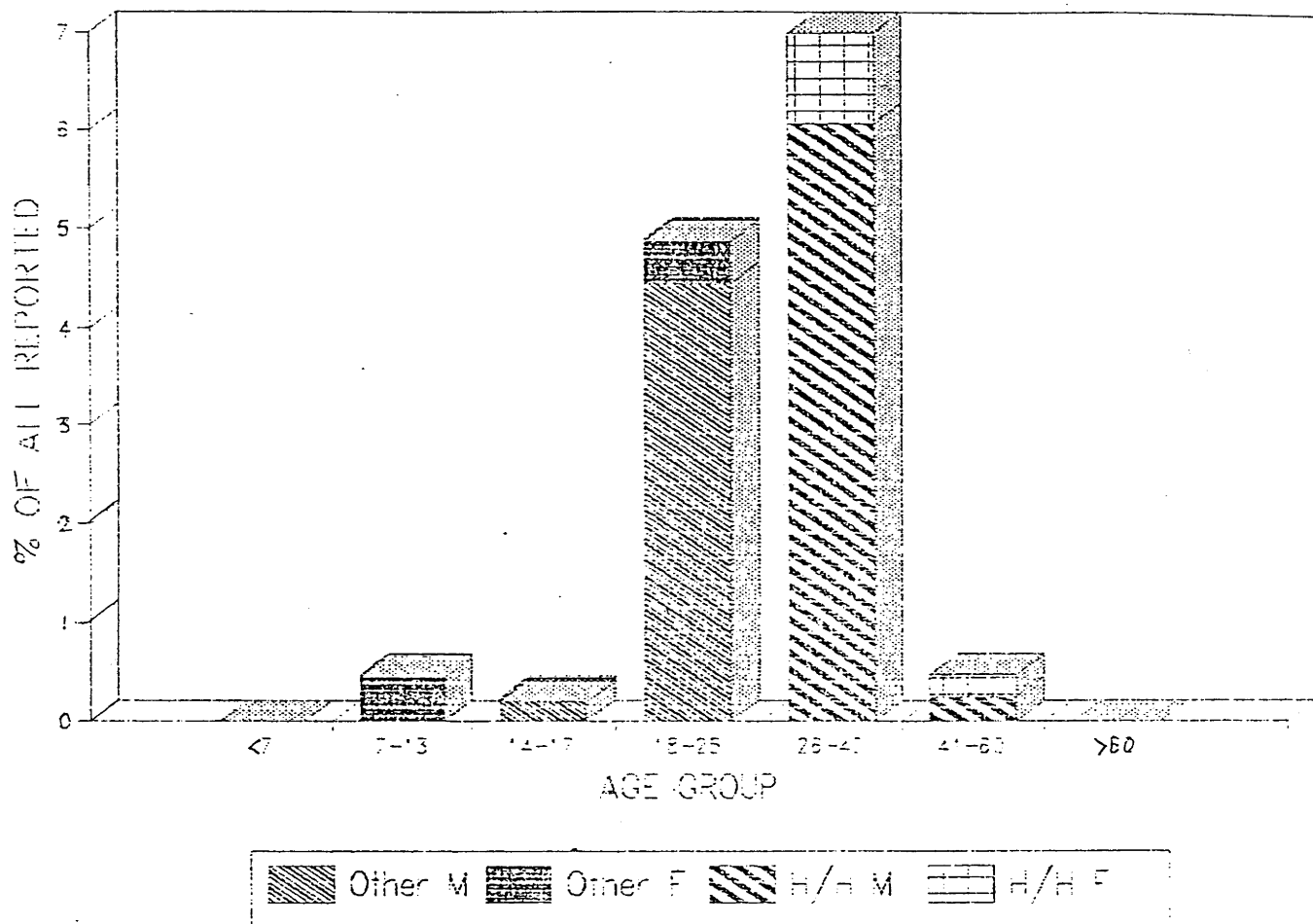
OTHER ECONOMIC
VDP LOW % YIELD CATEGORY



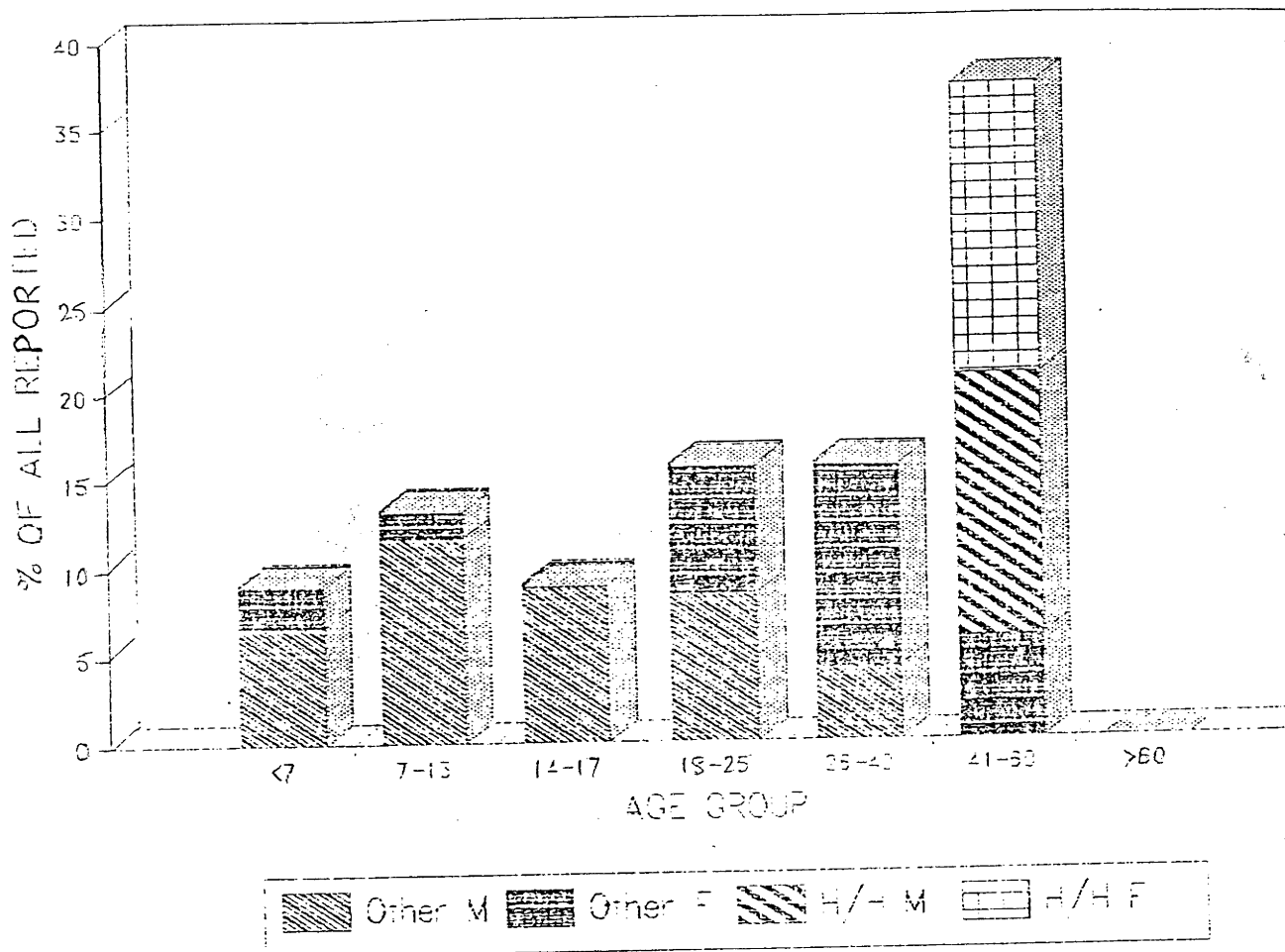
OTHER ECONOMIC
VOP MEDIUM YIELD CATEGORY



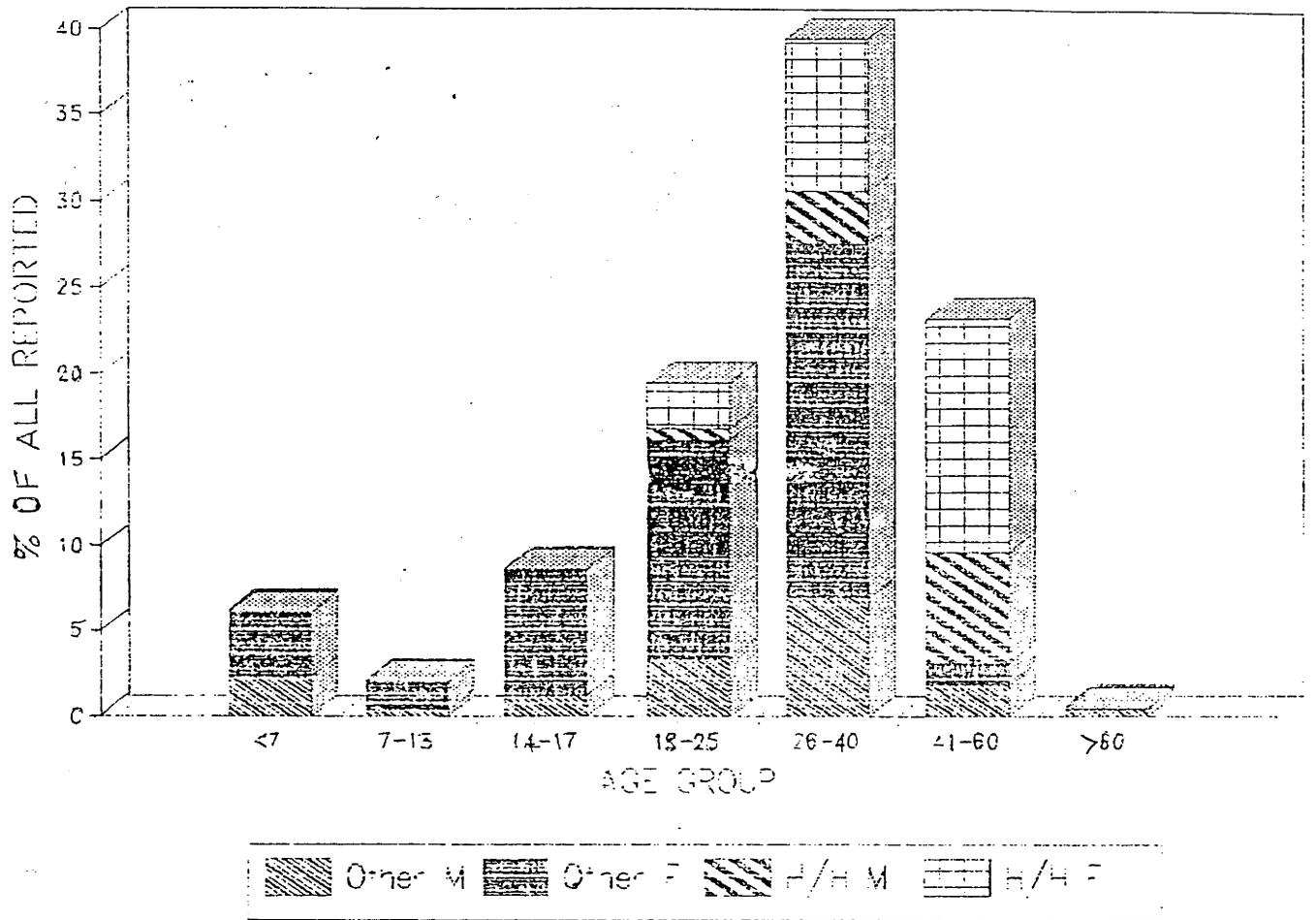
OTHER ECONOMIC
VCP HIGH YIELD CATEGORY



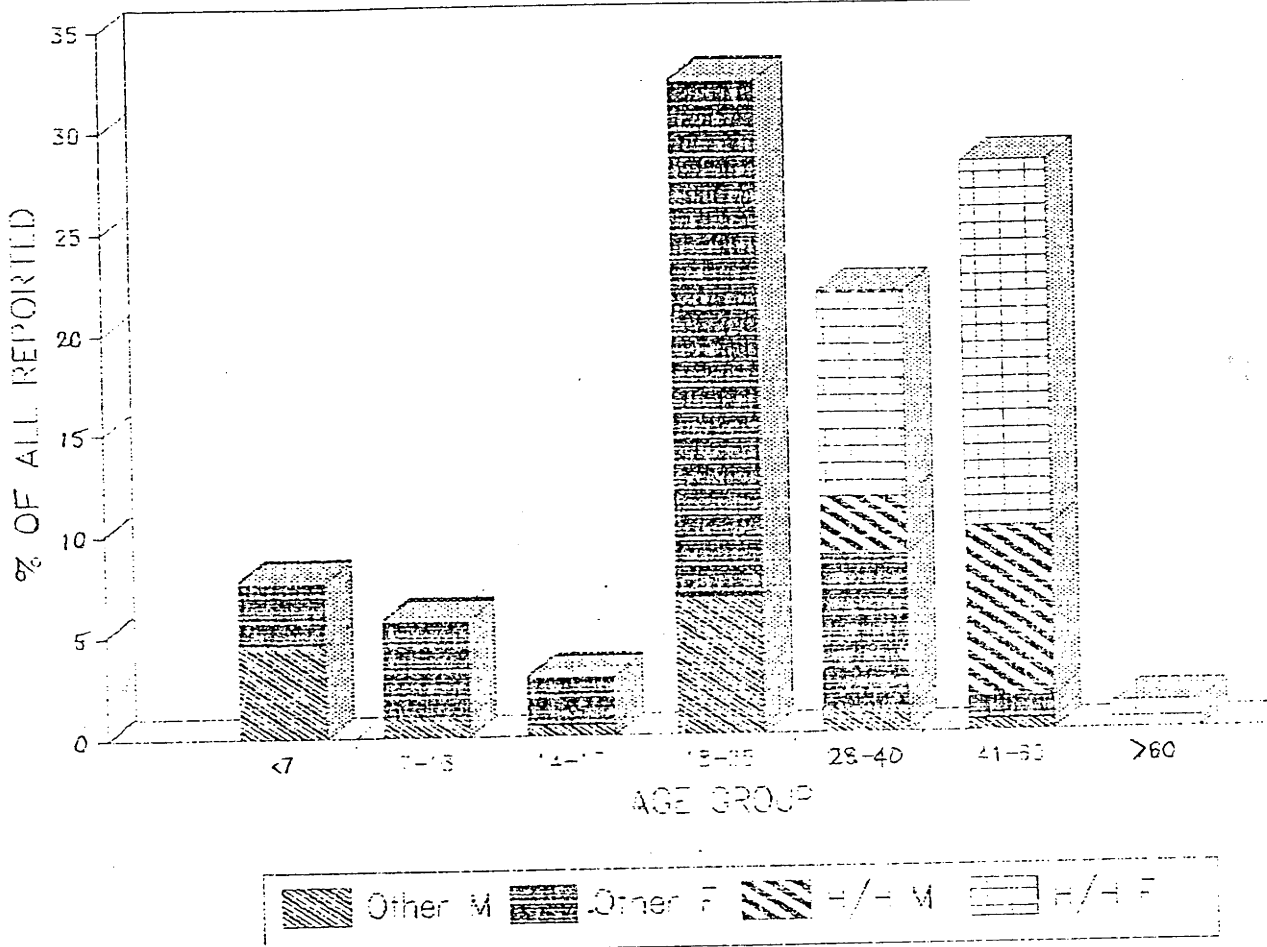
HOUSEHOLD 0-25% YIELD CATEGORY



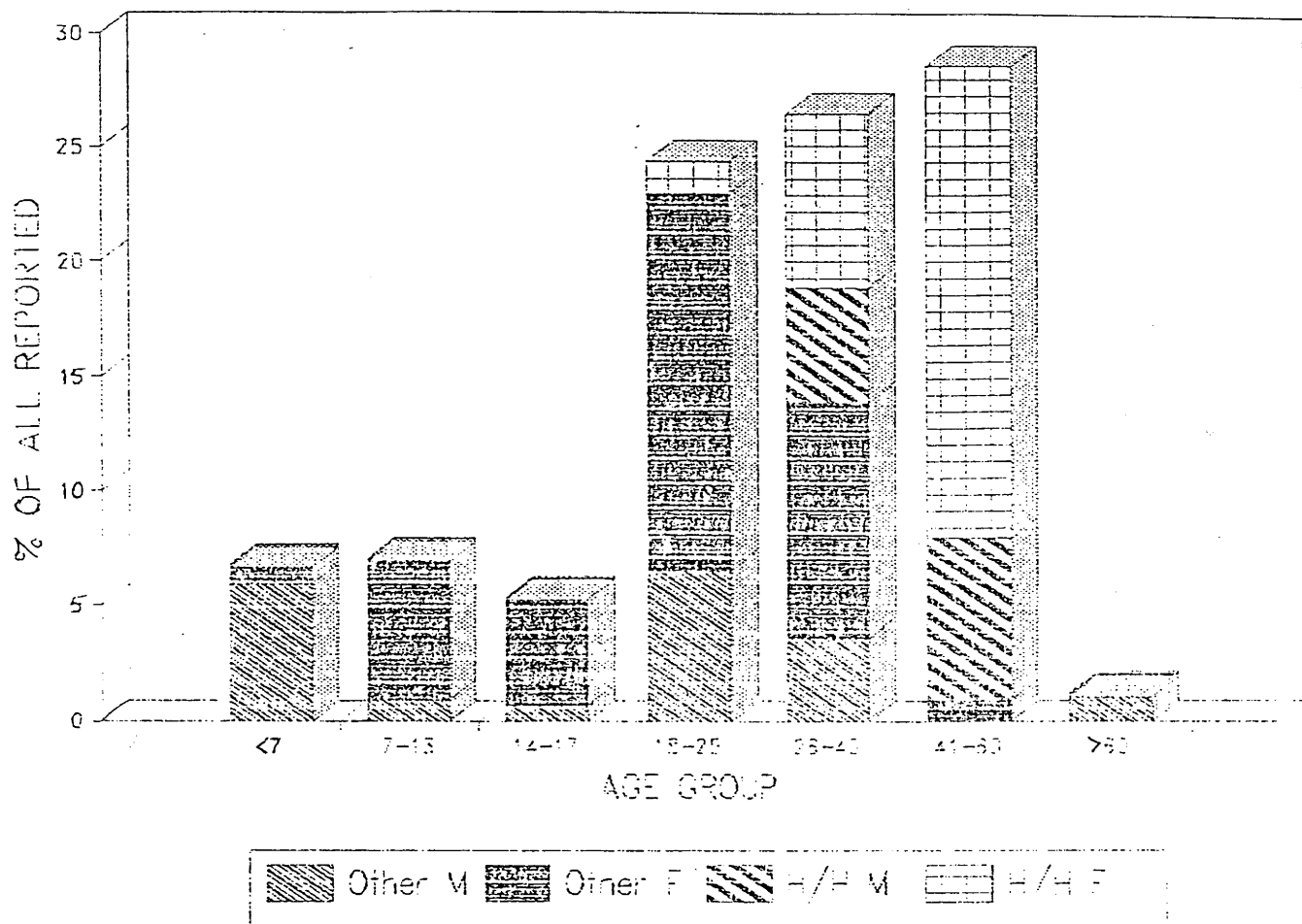
HOUSEHOLD 25-50% YIELD CATEGORY



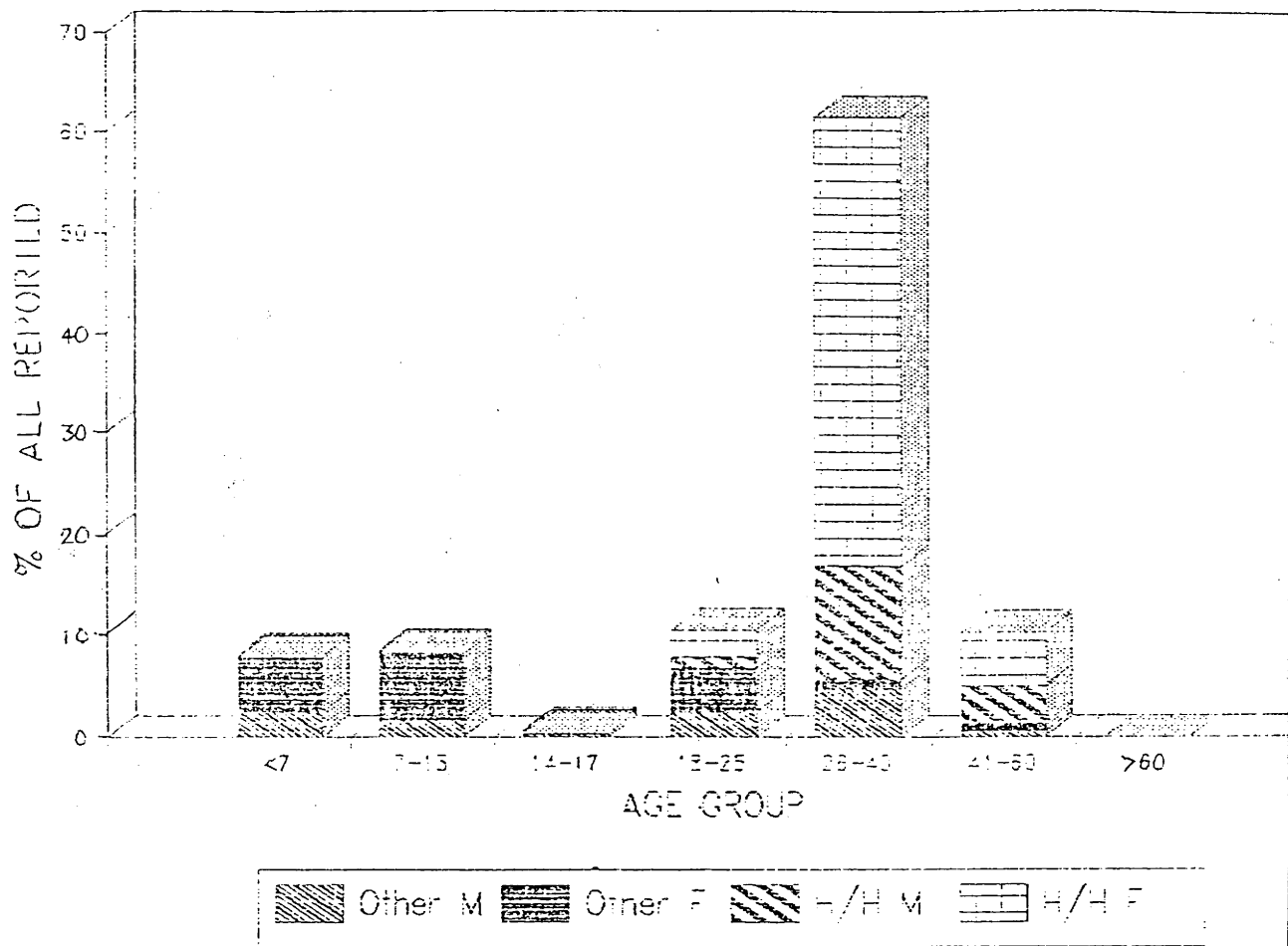
HOUSEHOLD SETTLEMENT 50-75% YIELD CATEGORY



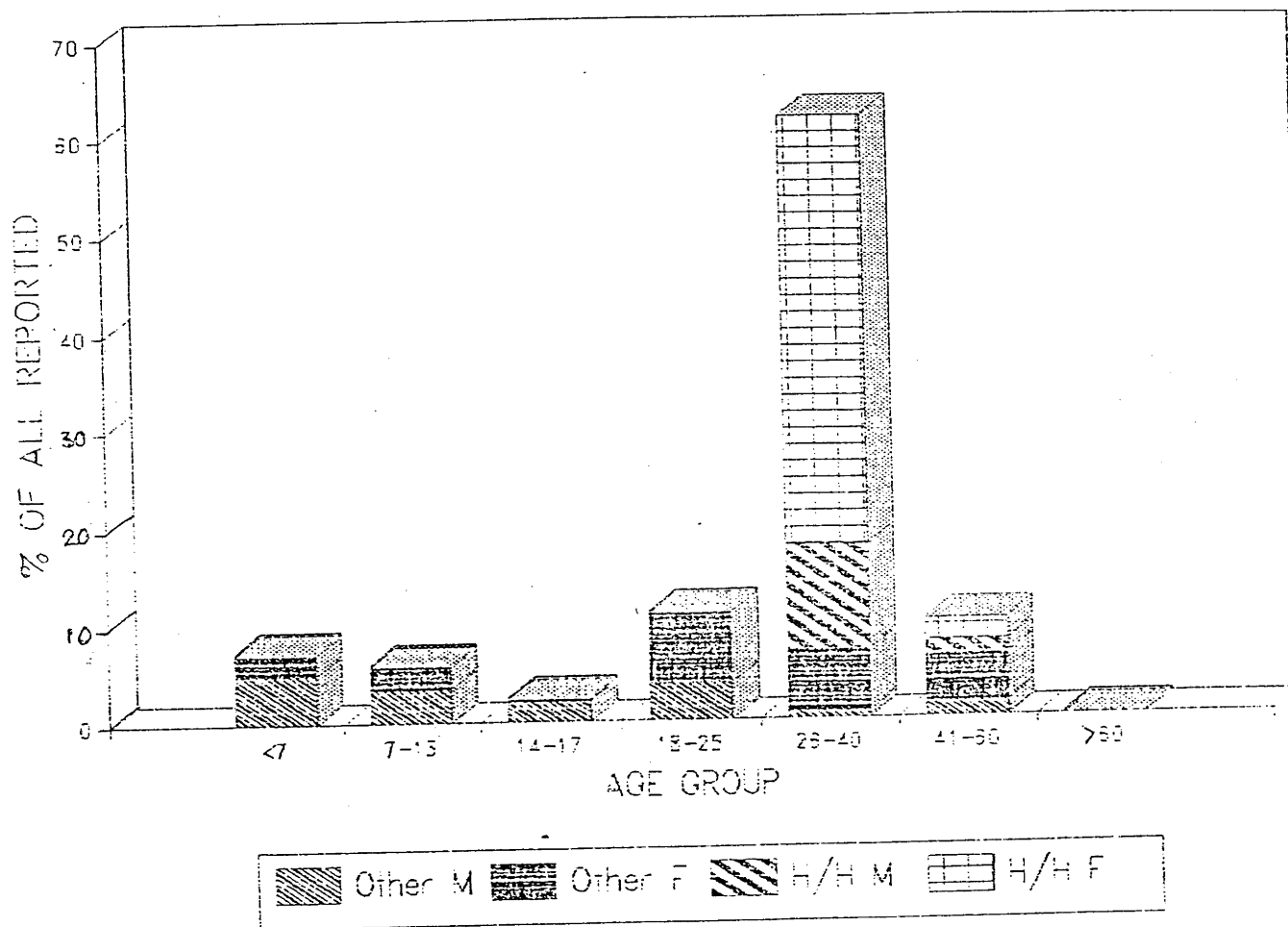
HOUSEHOLD 75-100% YIELD CATEGORY



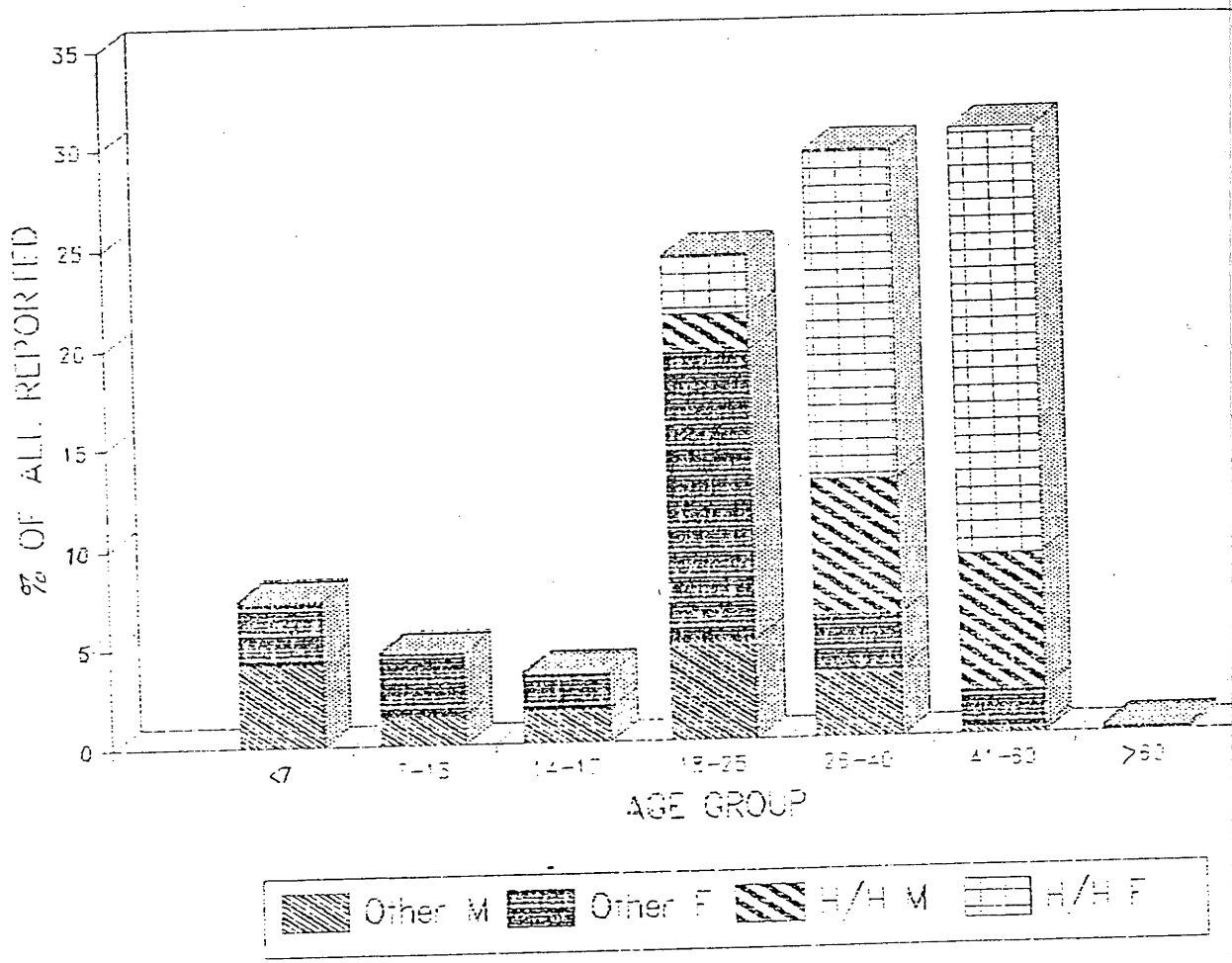
HOUSEHOLD VOP LOW YIELD CATEGORY



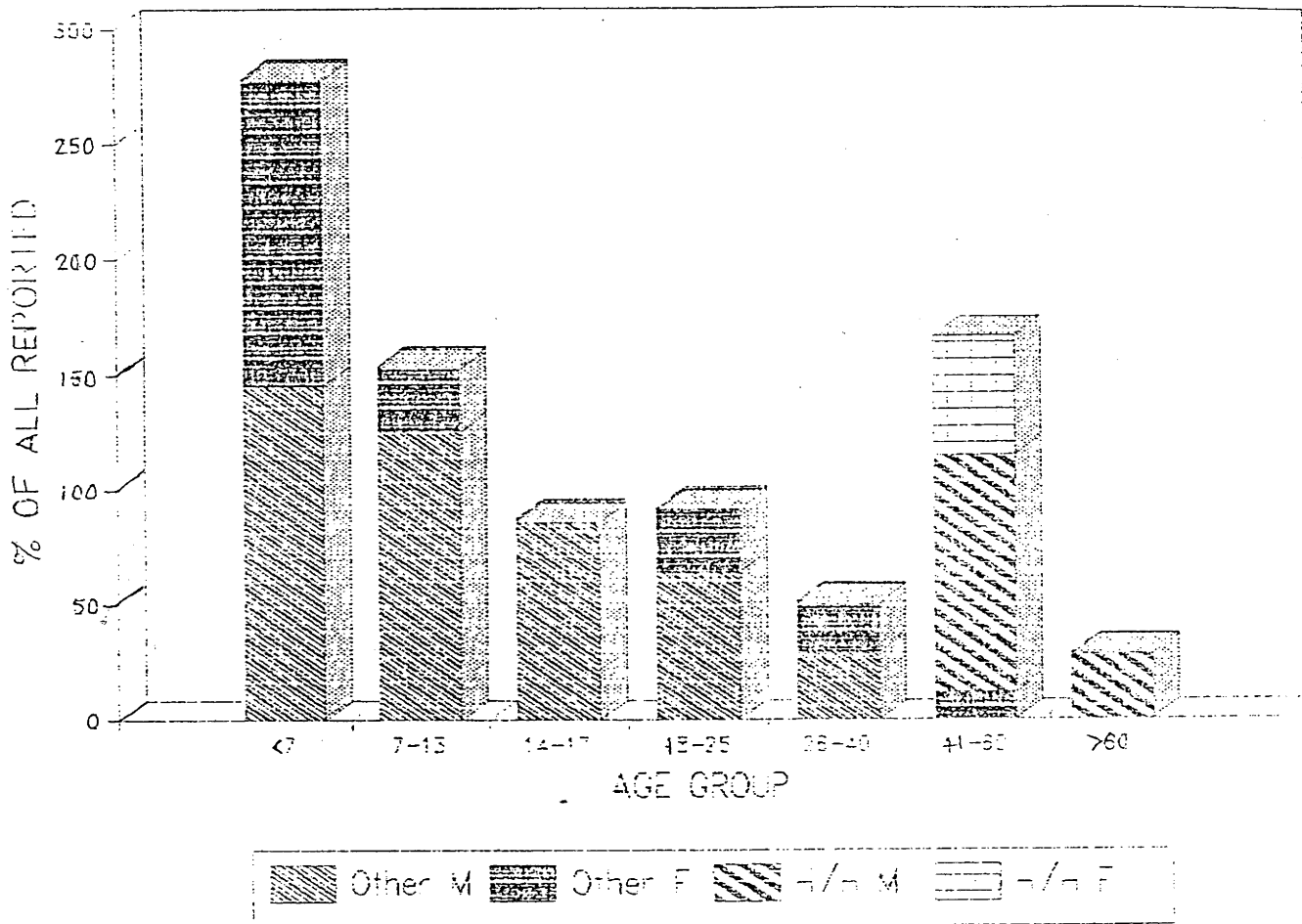
HOUSEHOLD
VOP MEDIUM YIELD CATEGORY



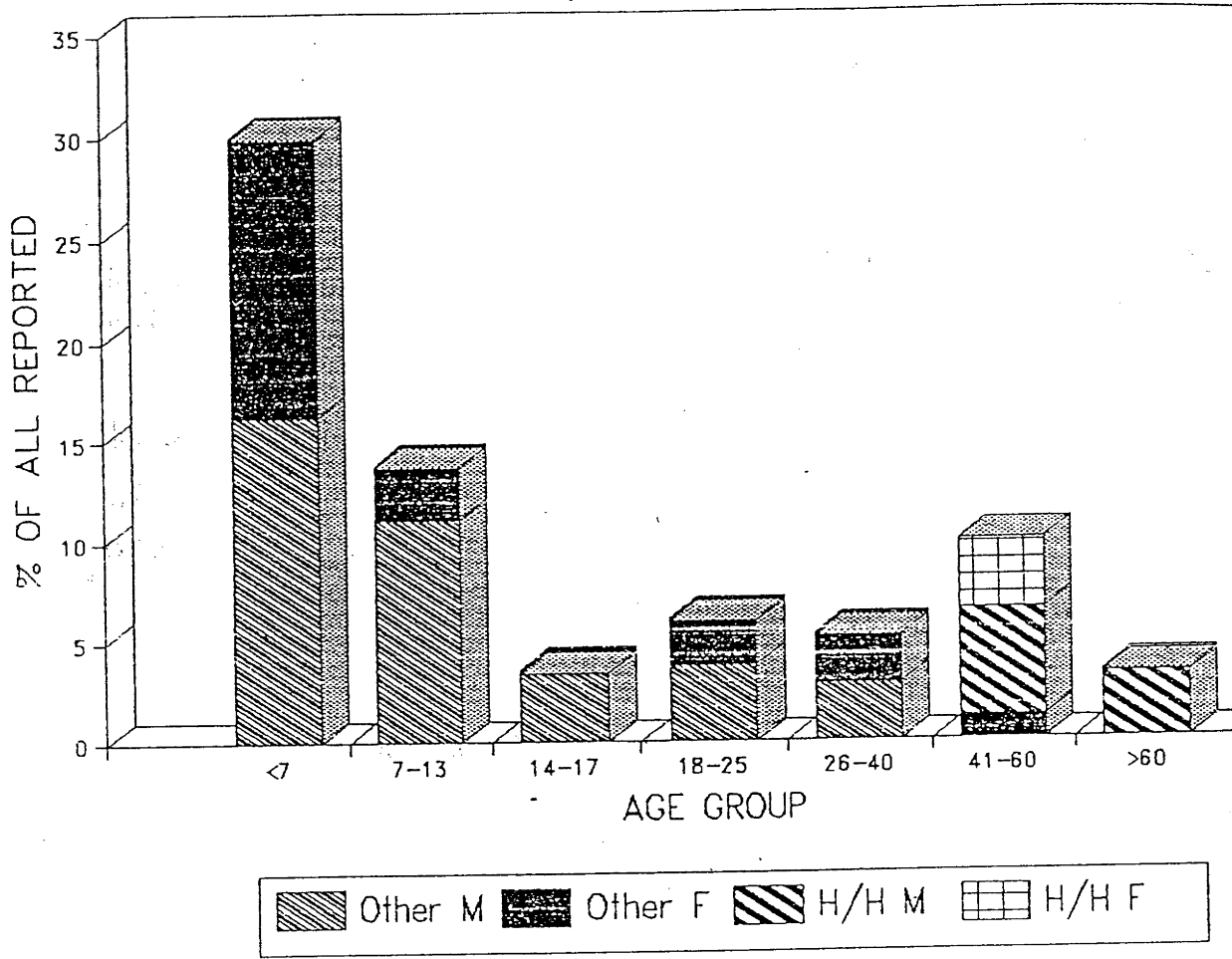
HOUSEHOLD VCP HIGH YIELD CATEGORY



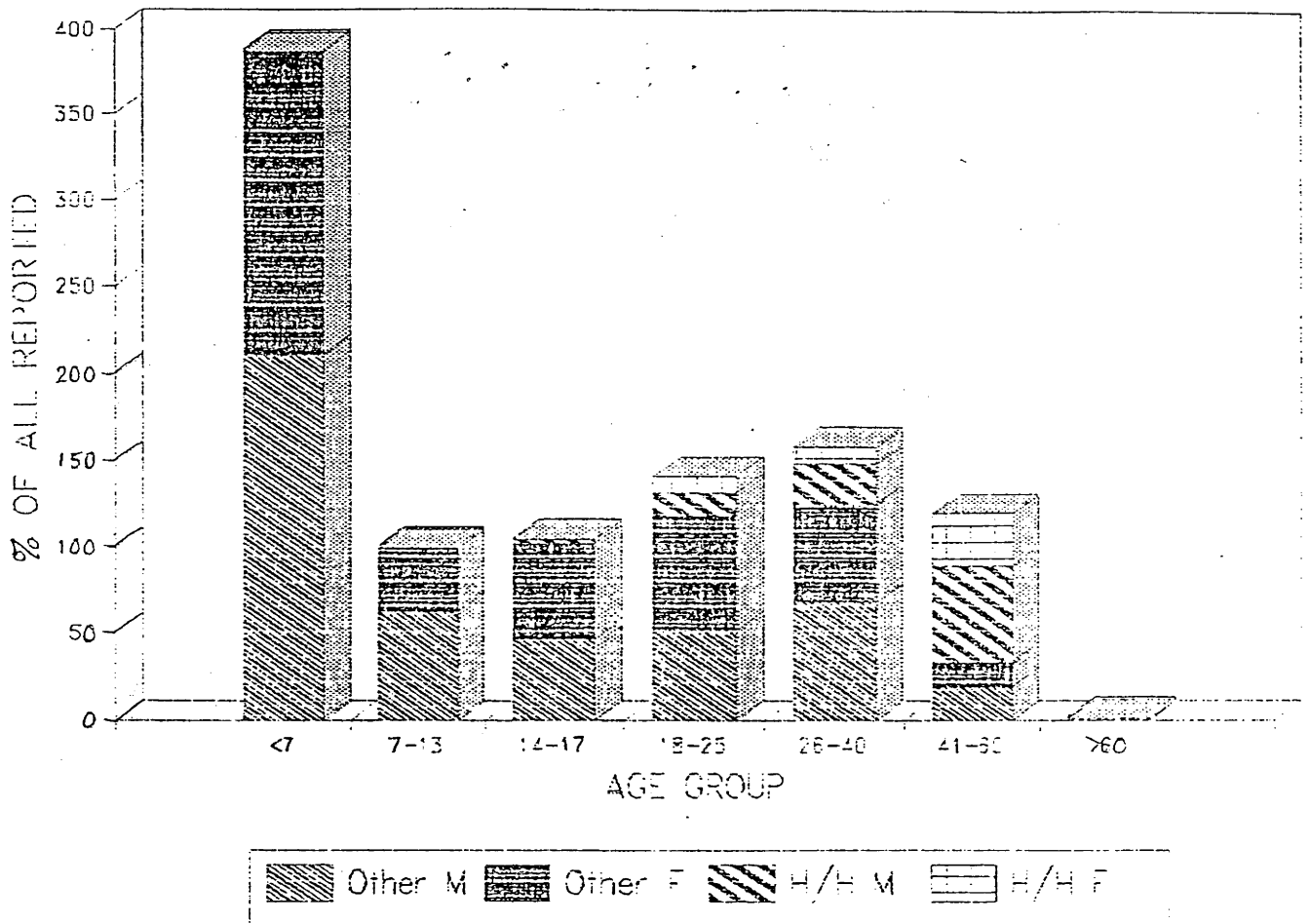
LEISURE 0-25% YIELD CATEGORY



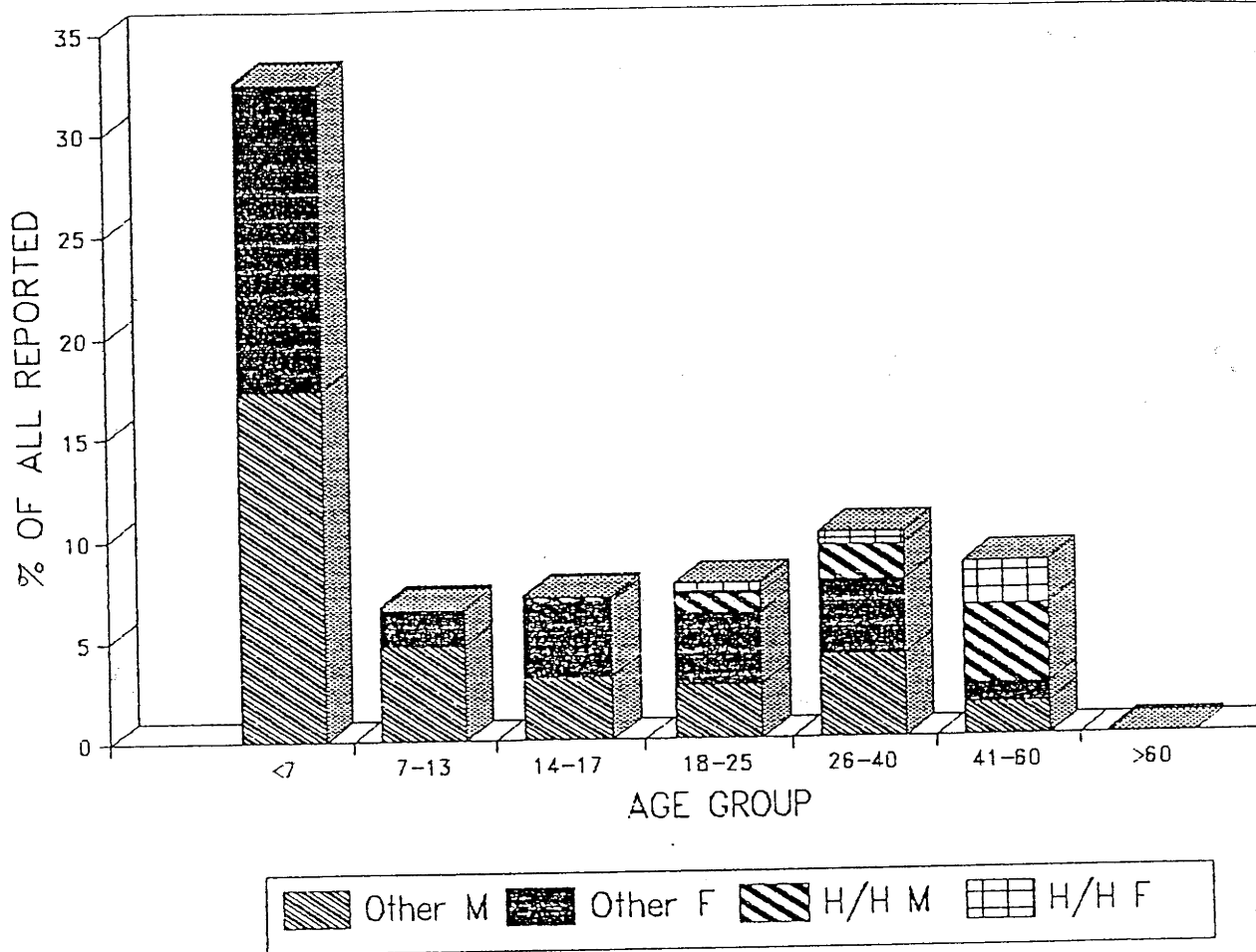
LEISURE - STAY/SLEEP
0-25% YIELD CATEGORY



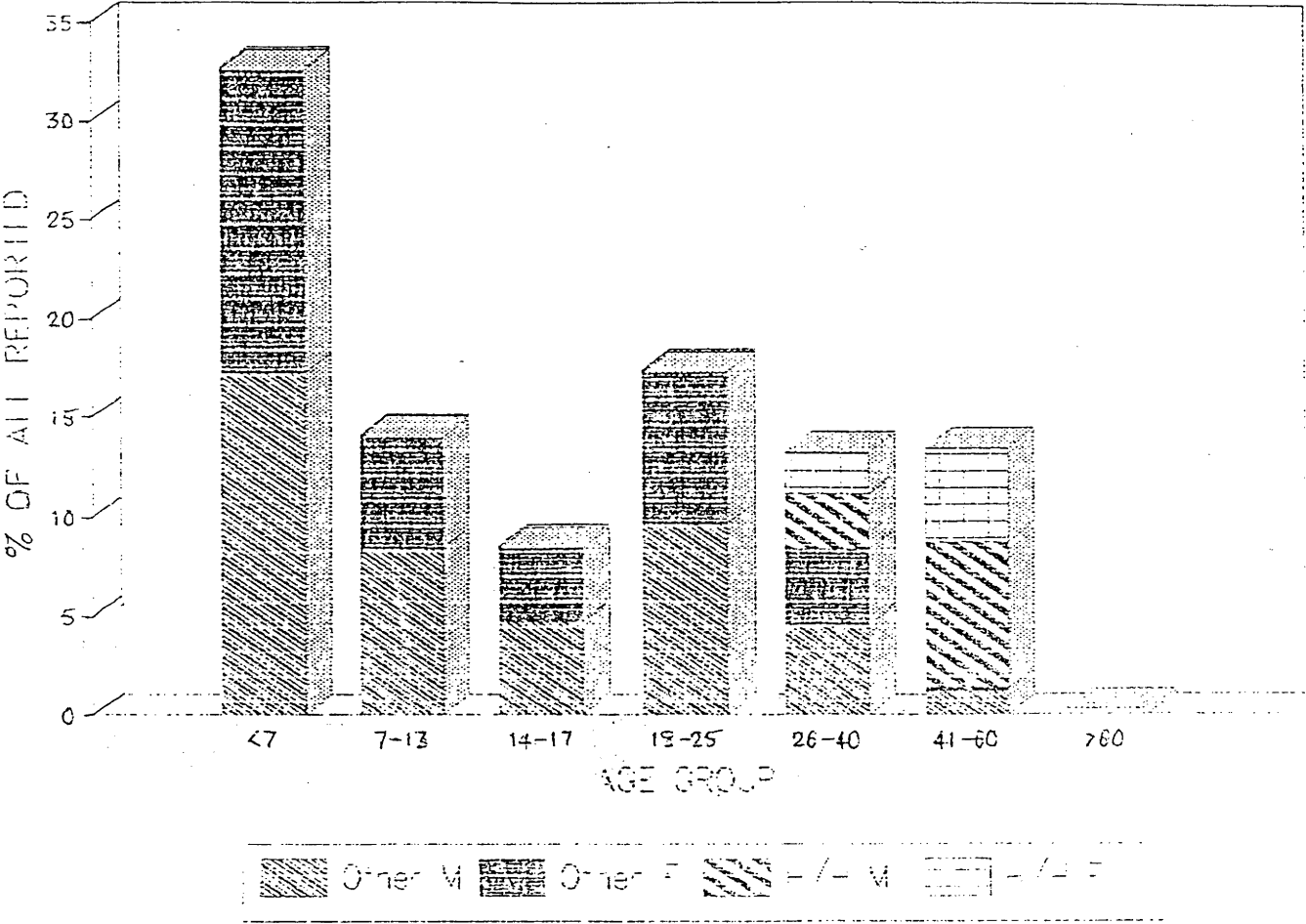
LEISURE 25-50% YIELD CATEGORY



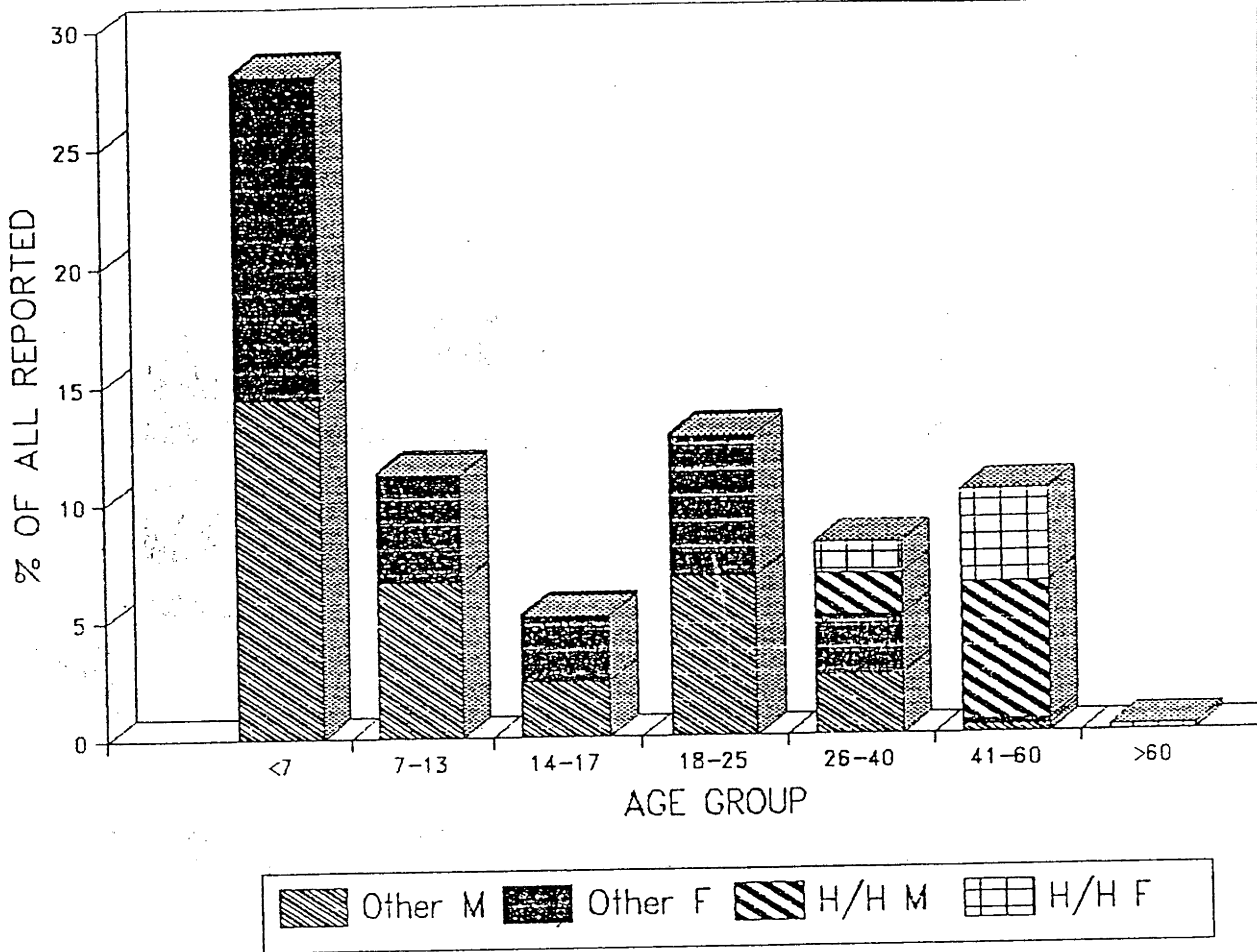
LEISURE - STAY/SLEEP
25-50% YIELD CATEGORY



LEISURE
SETTLEMENT 50-75% YIELD CATEGORY

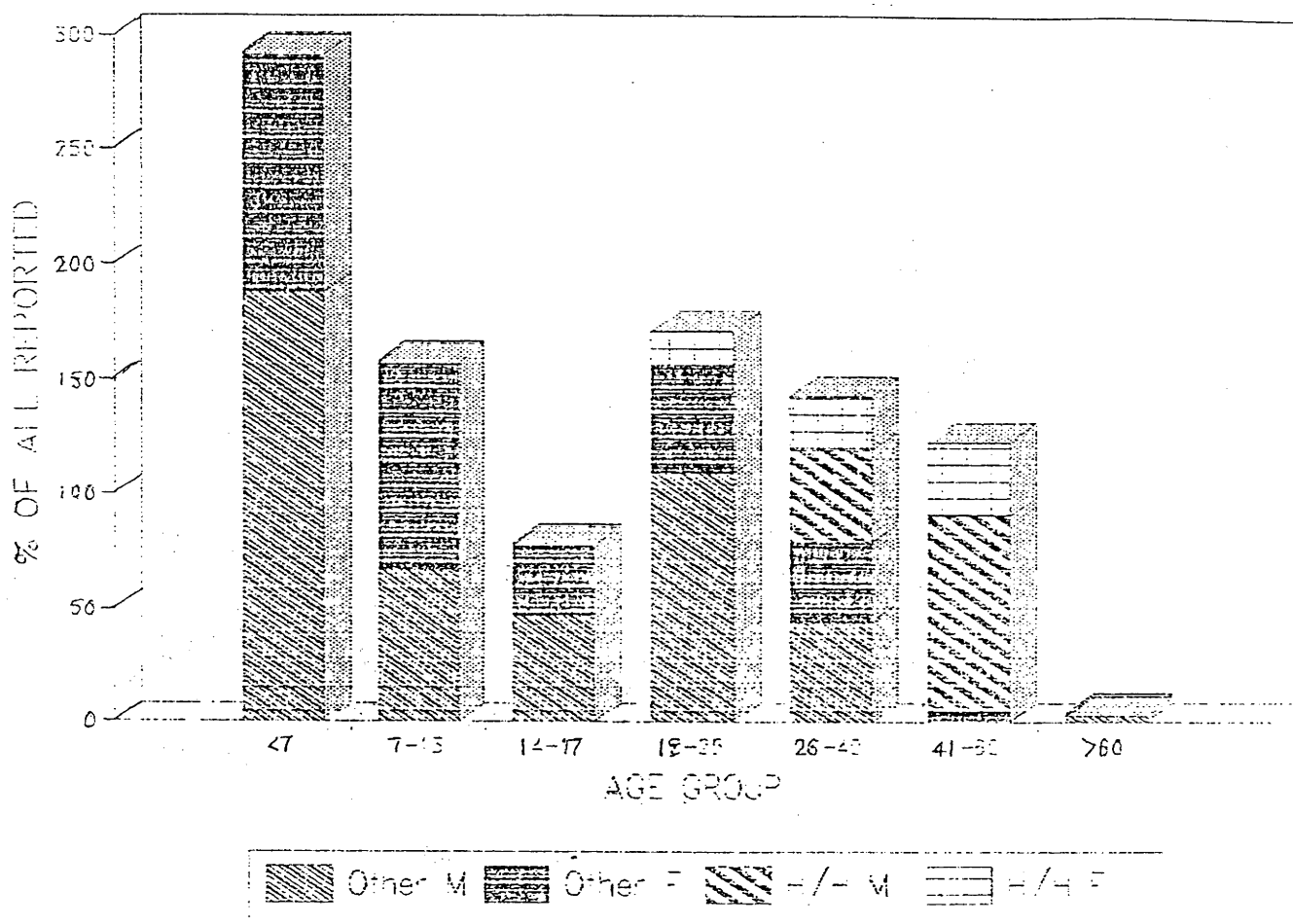


LEISURE - STAY/SLEEP
SETTLEMENT 50-75% YIELD CATEGORY

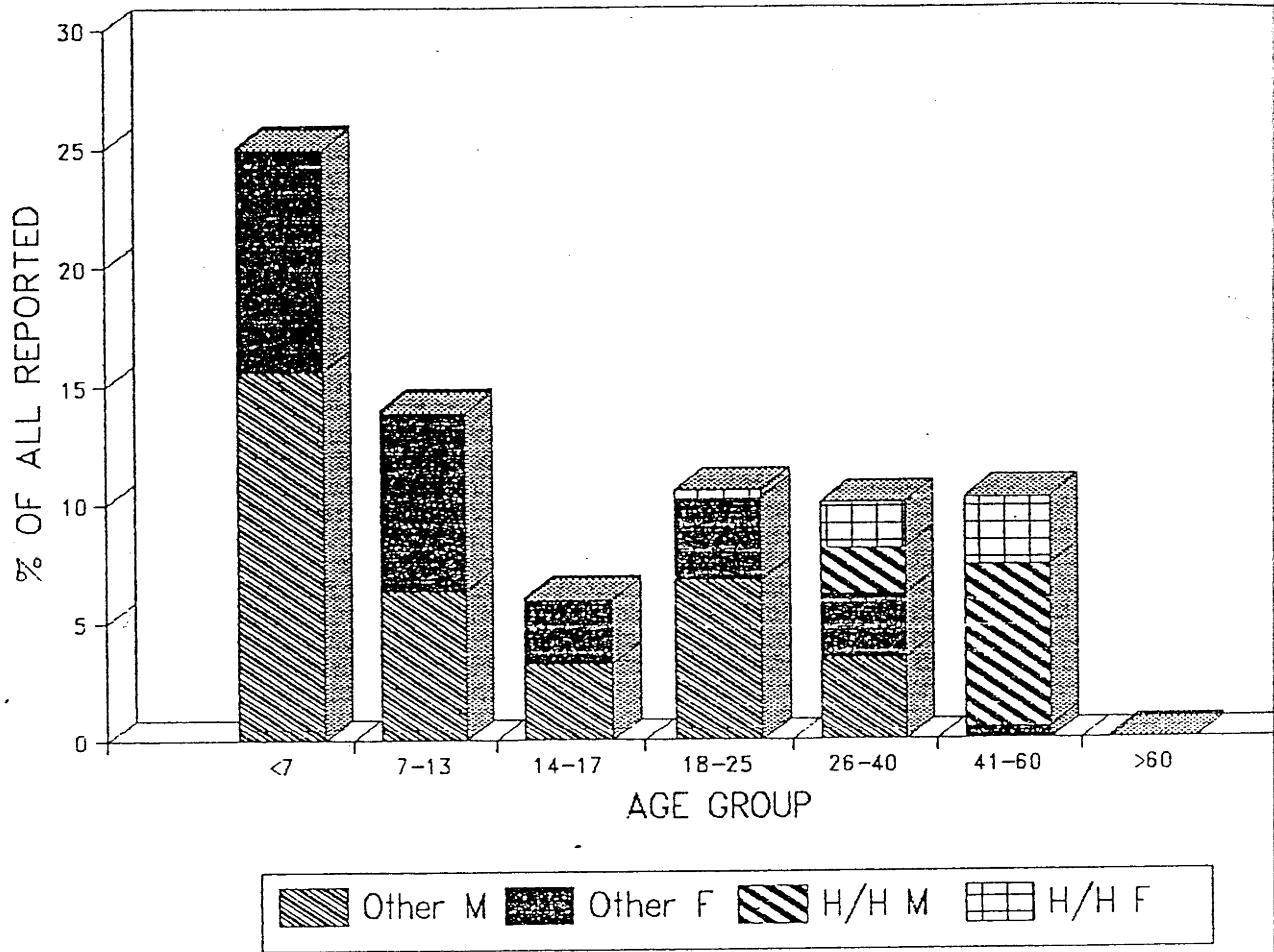


LEISURE

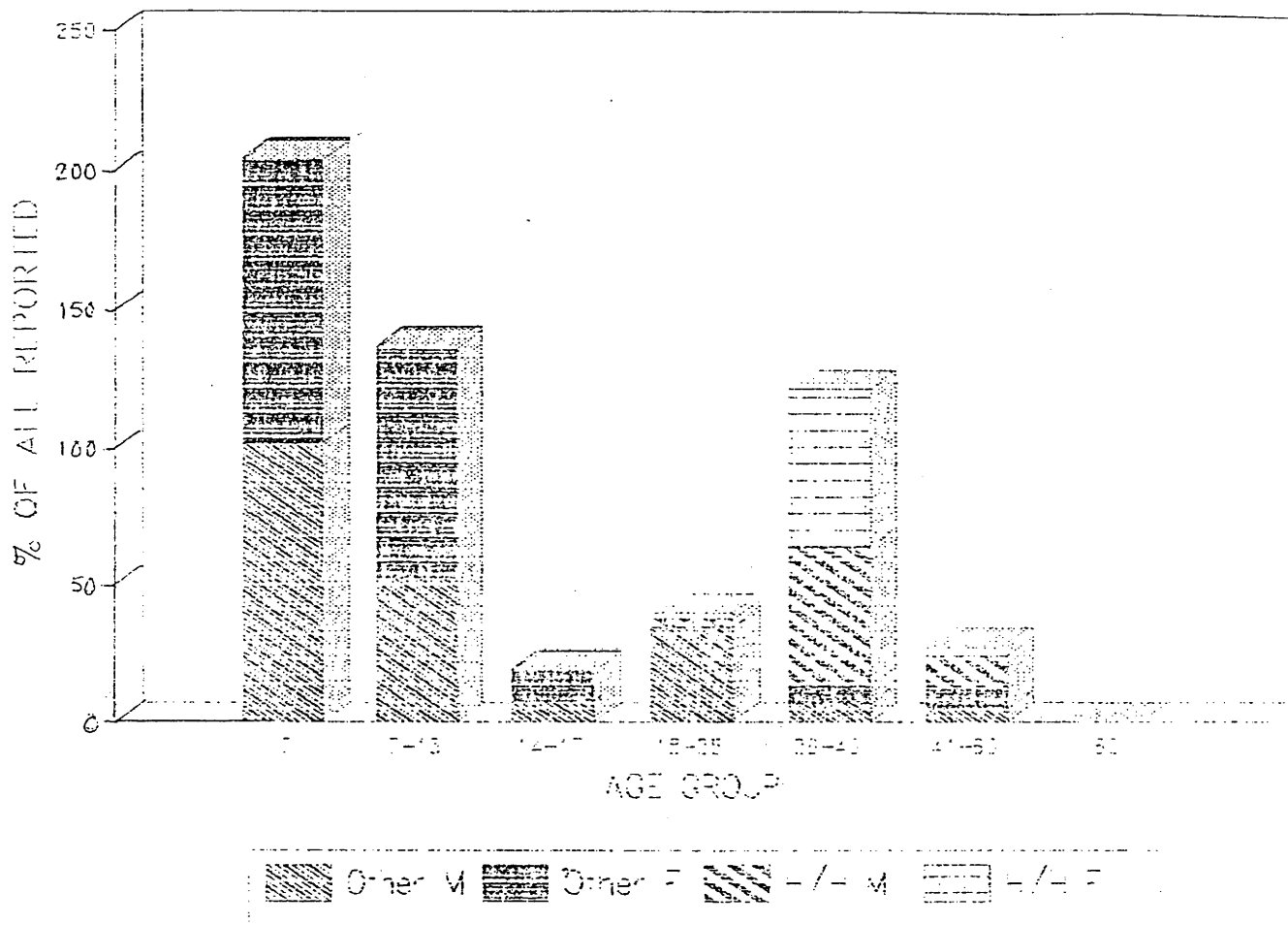
75-100% YIELD CATEGORY



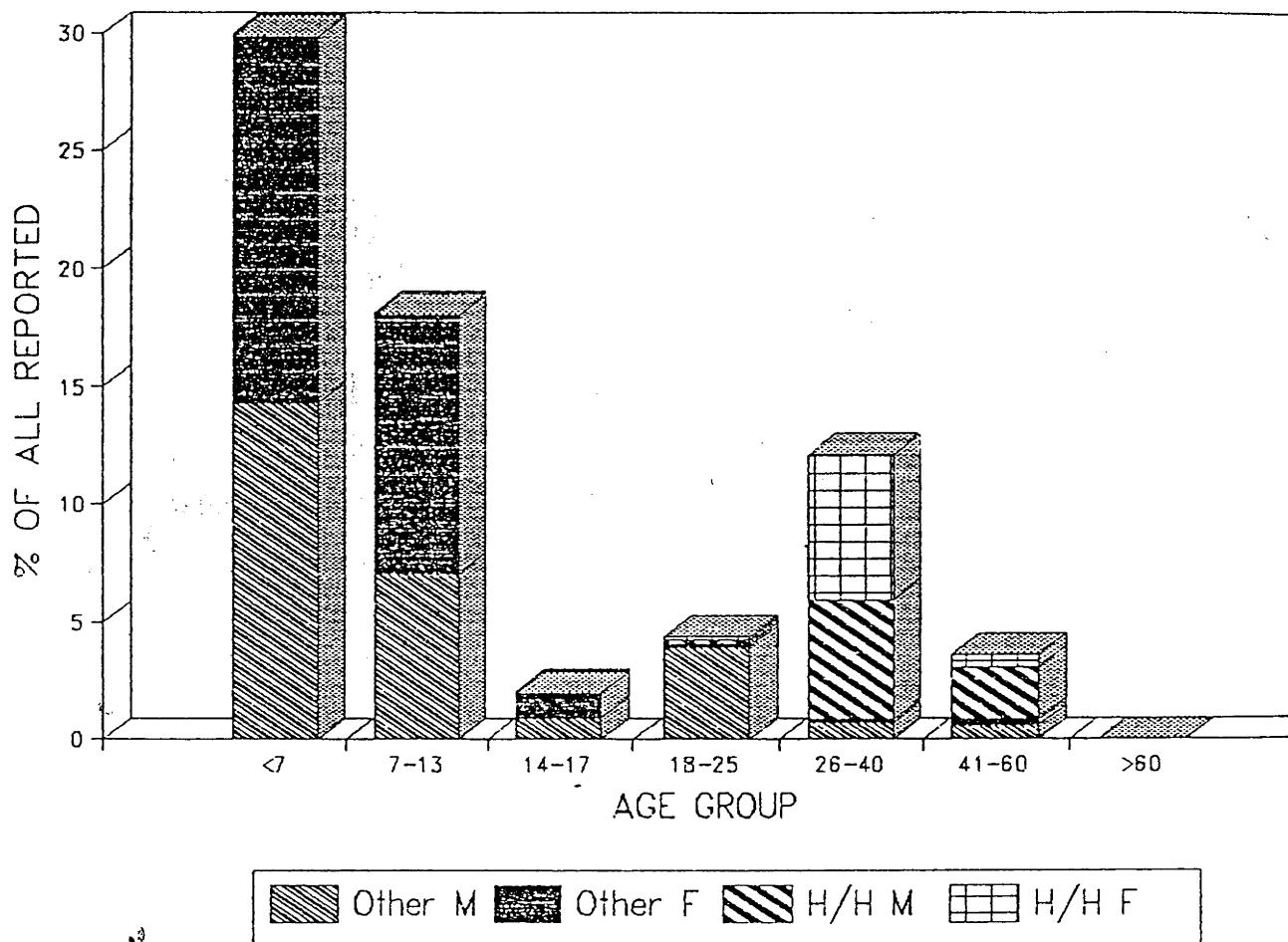
LEISURE - STAY/SLEEP
75-100% YIELD CATEGORY



LEISURE
VOP LOW YIELD CATEGORY

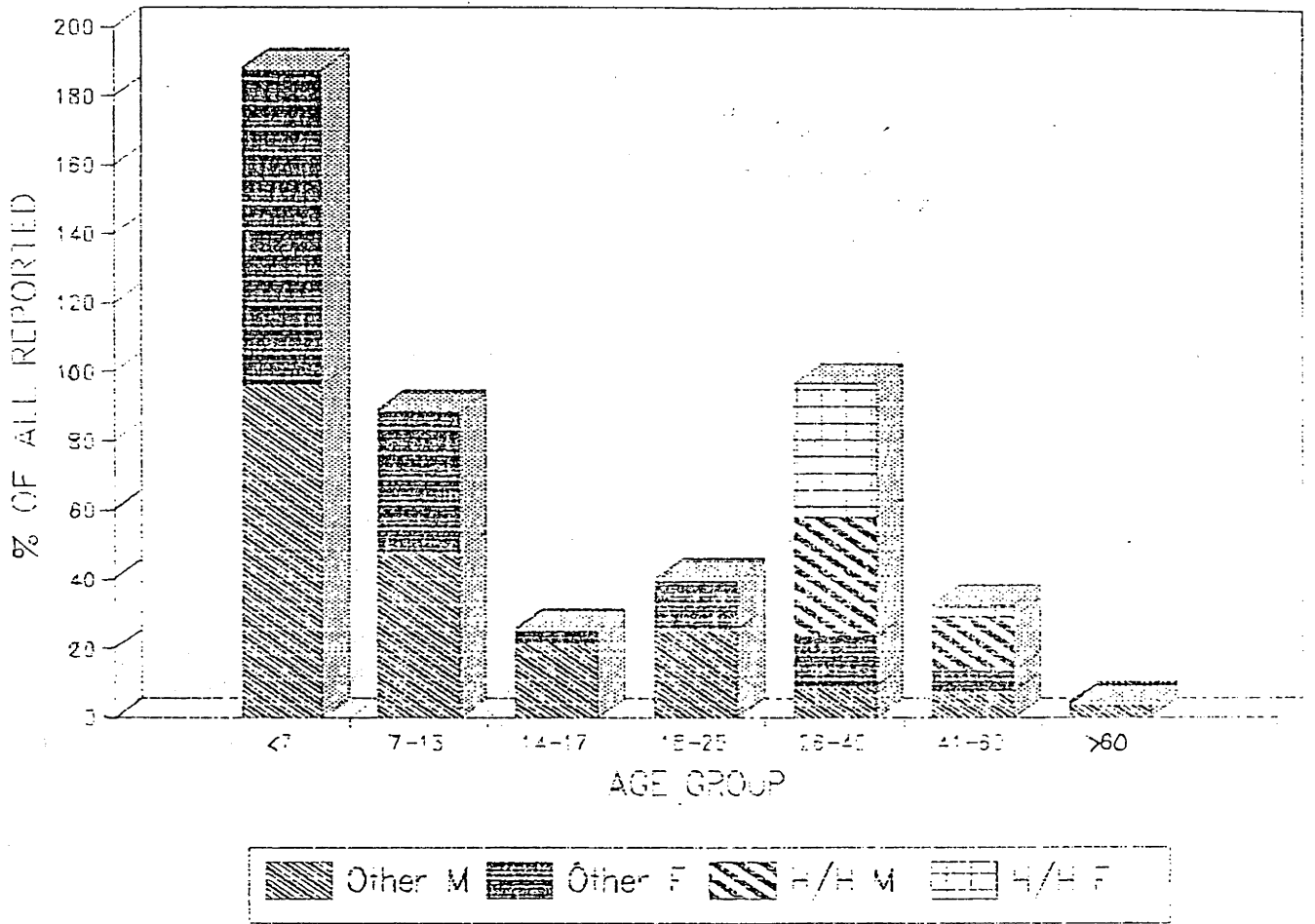


LEISURE - STAY/SLEEP VOP LOW YIELD CATEGORY

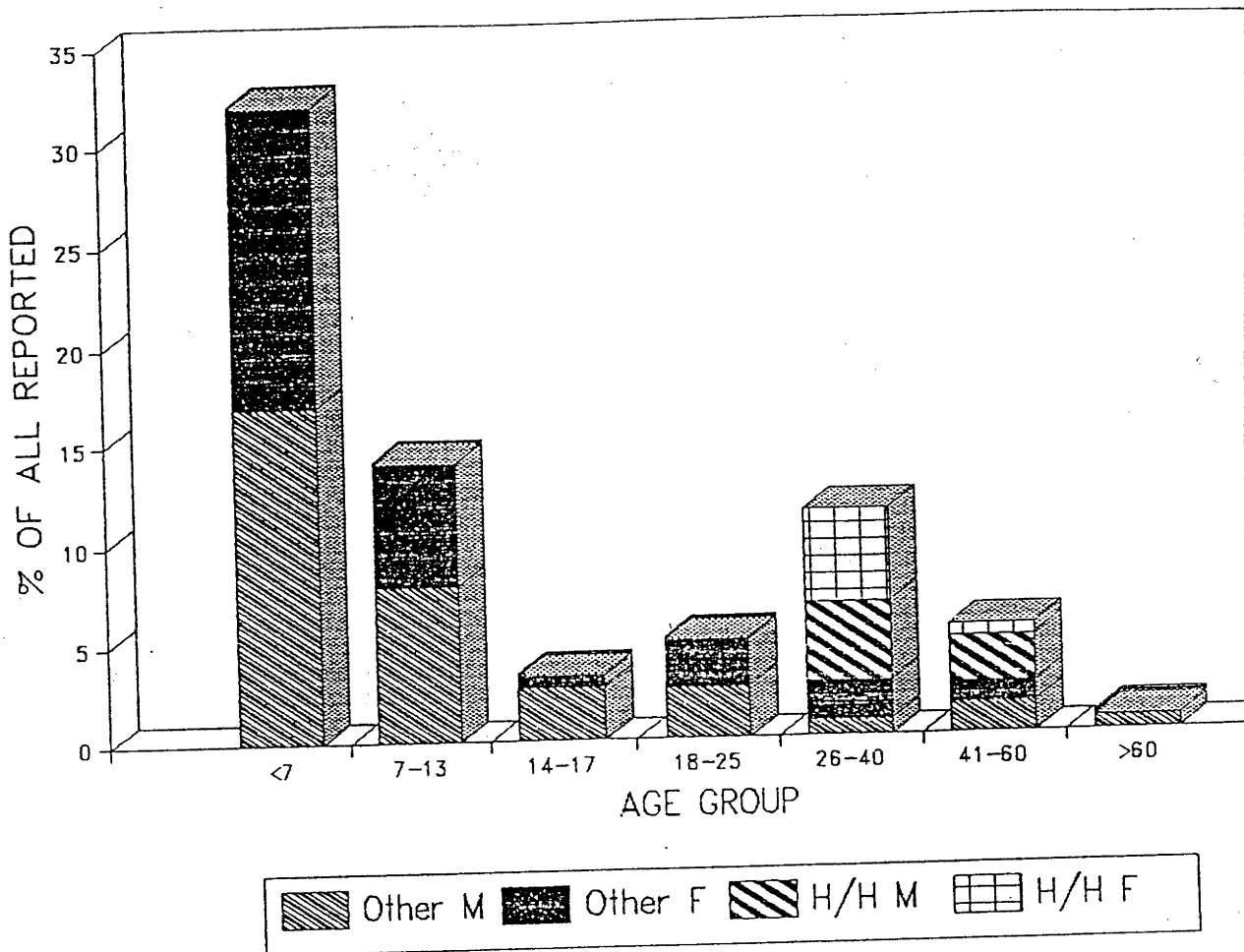


LEISURE

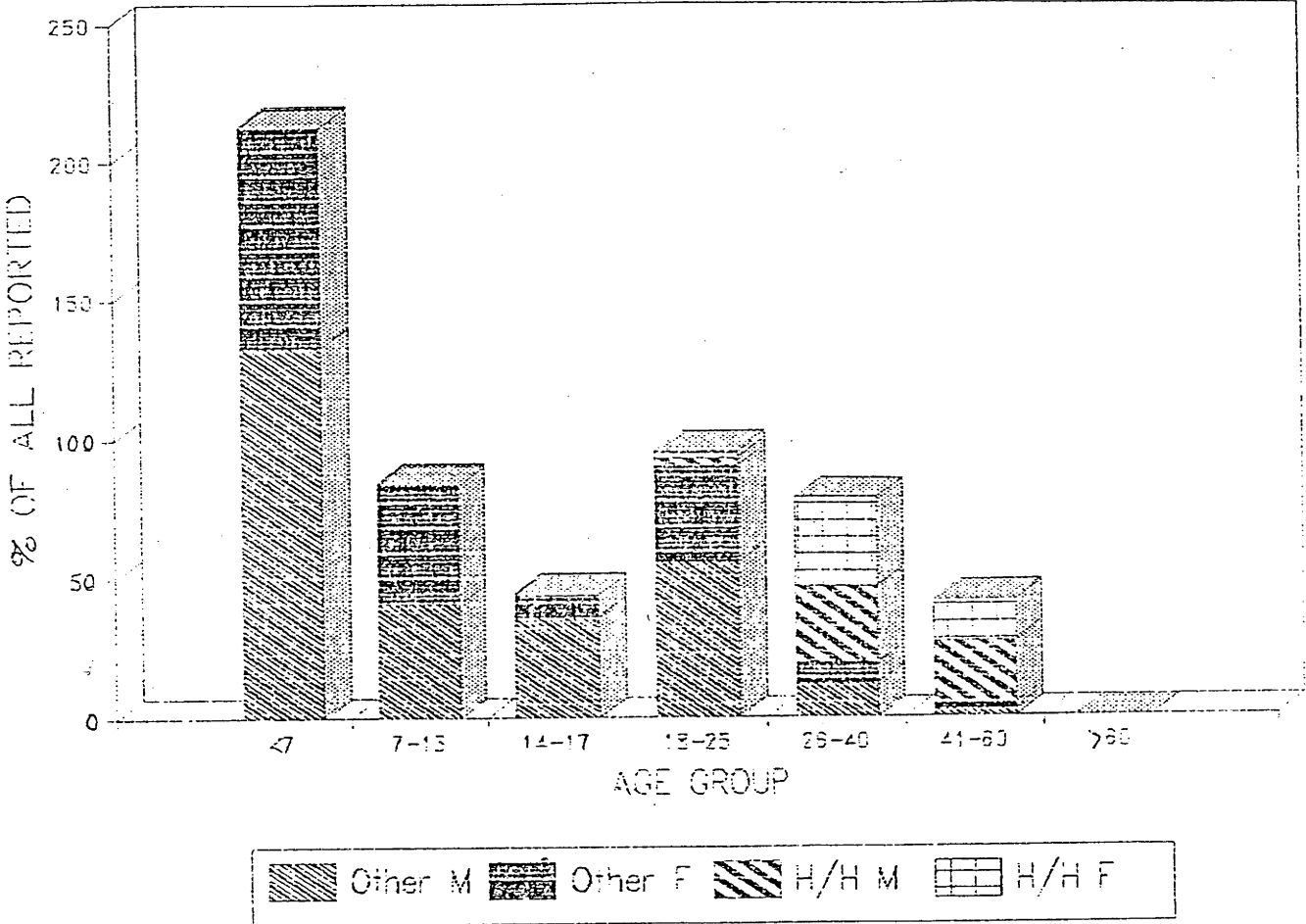
VOP MEDIUM YIELD CATEGORY



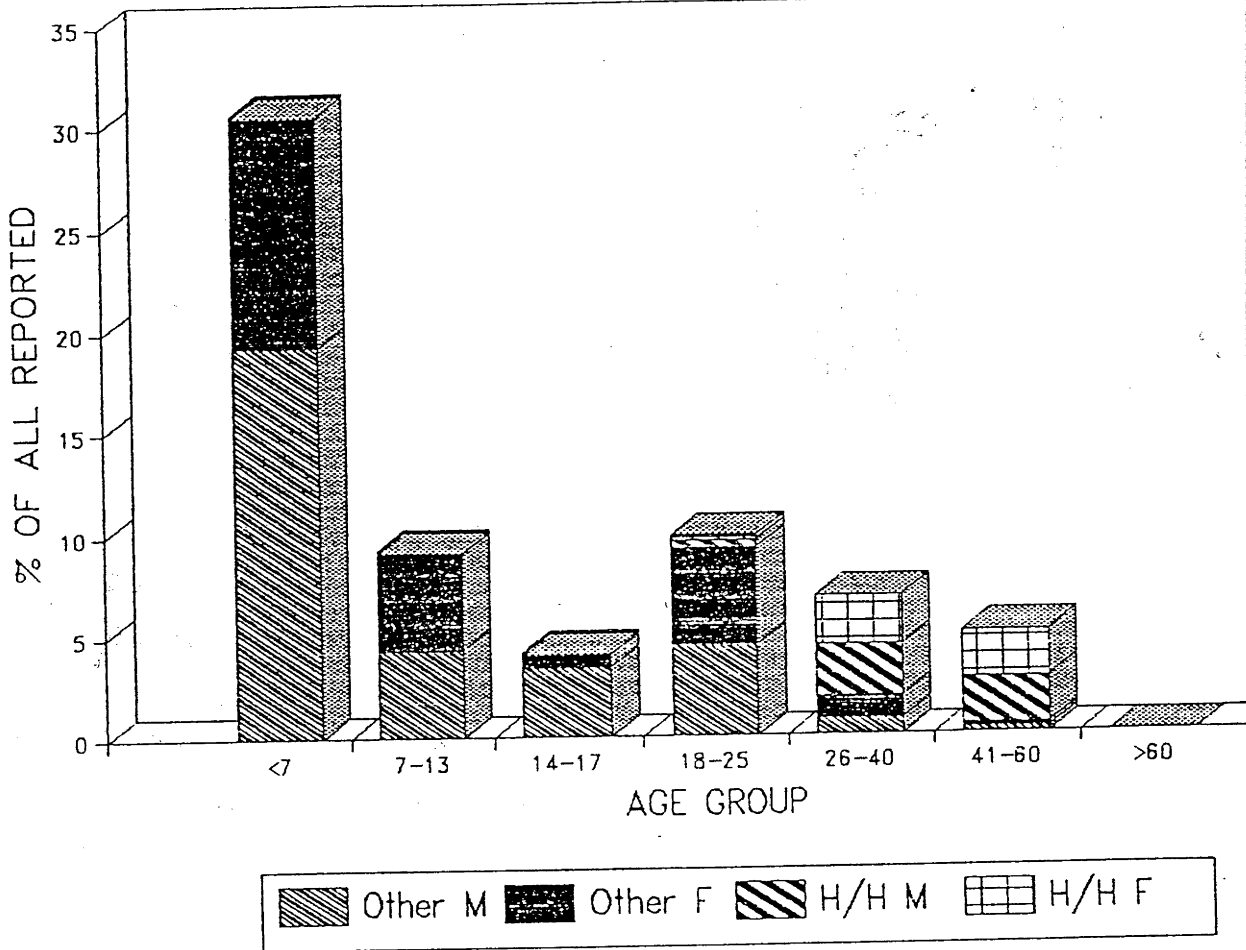
LEISURE - STAY/SLEEP VOP MEDIUM YIELD CATEGORY



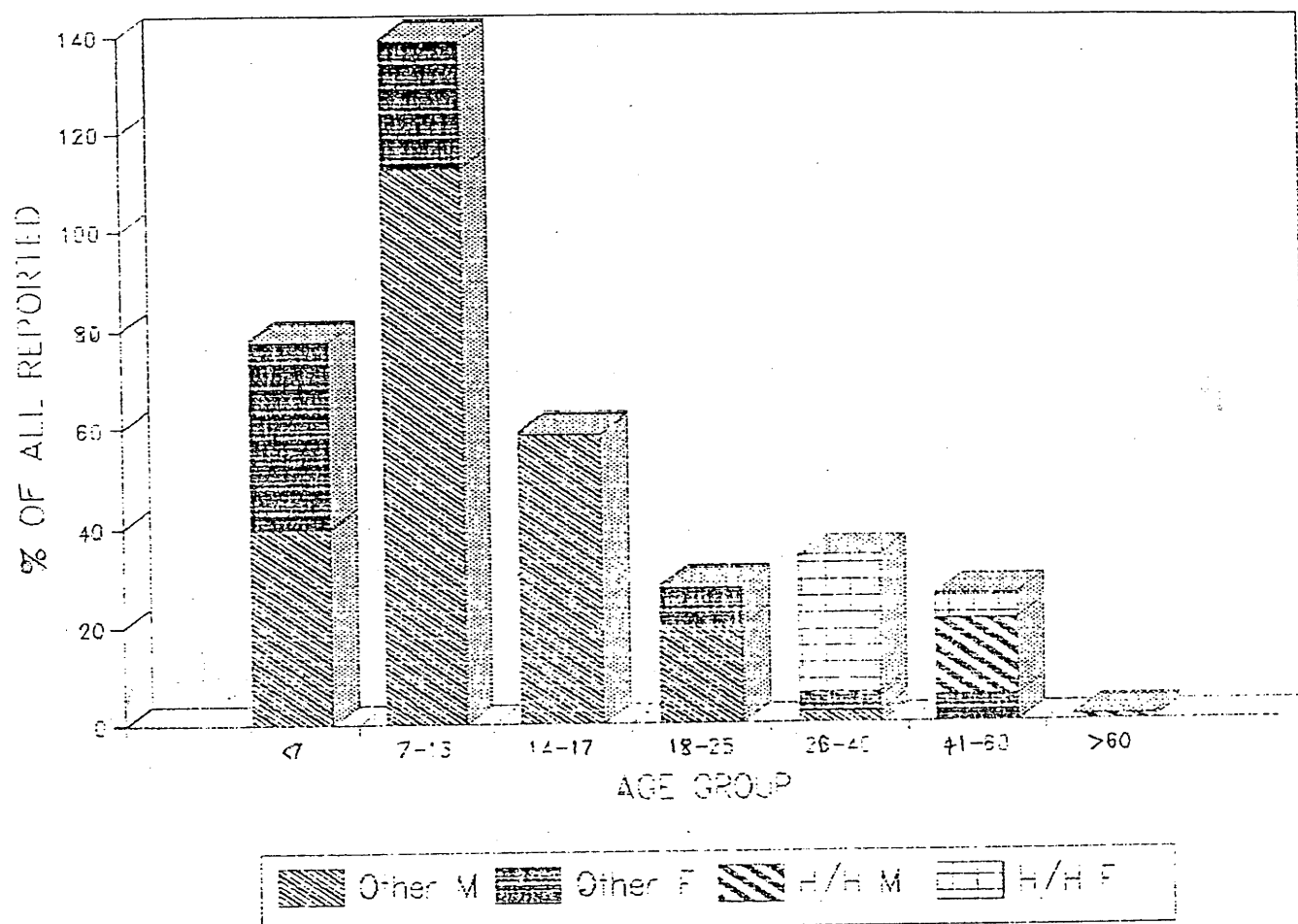
LEISURE
VOP HIGH YIELD CATEGORY



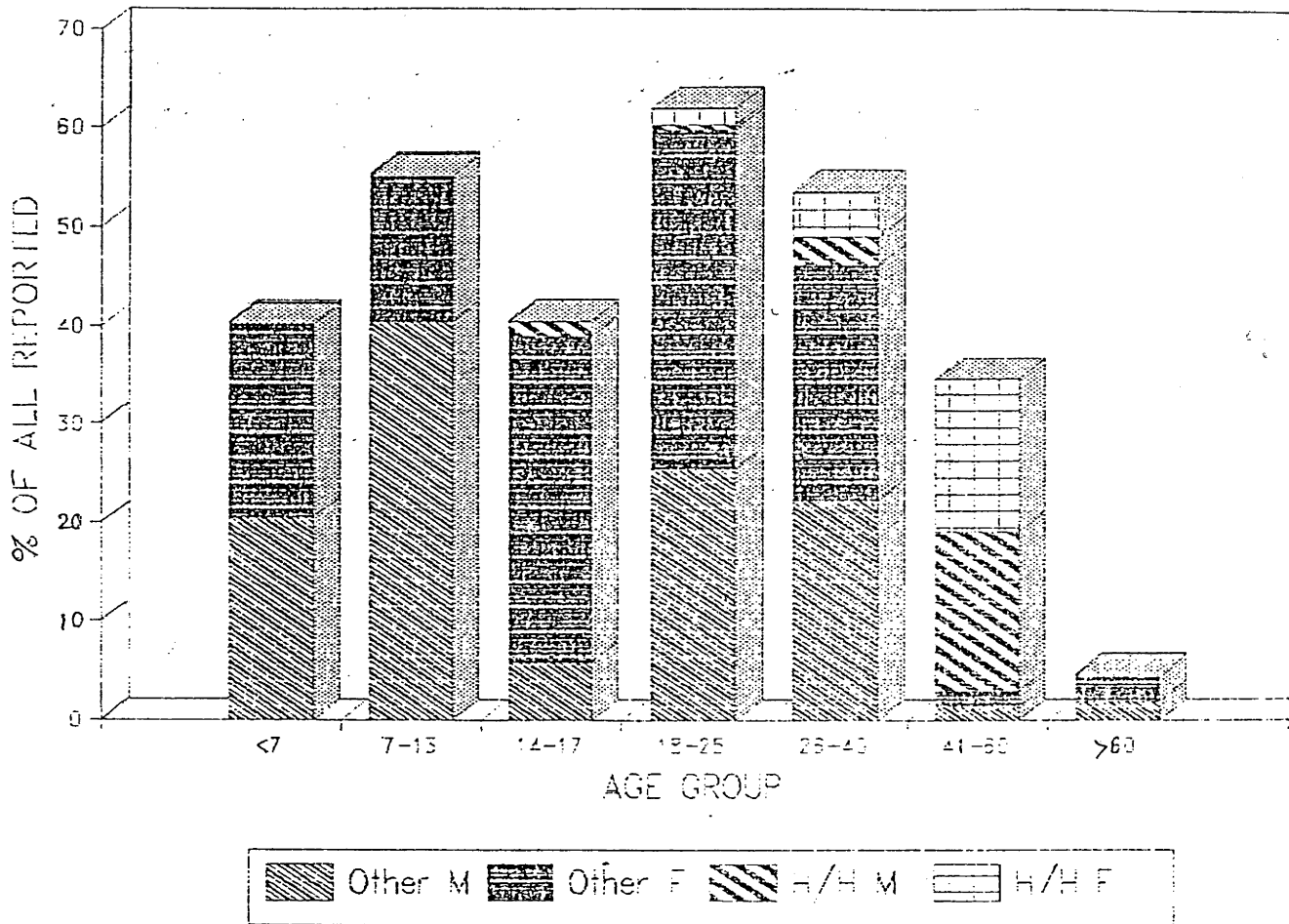
LEISURE - STAY/SLEEP VOP HIGH YIELD CATEGORY



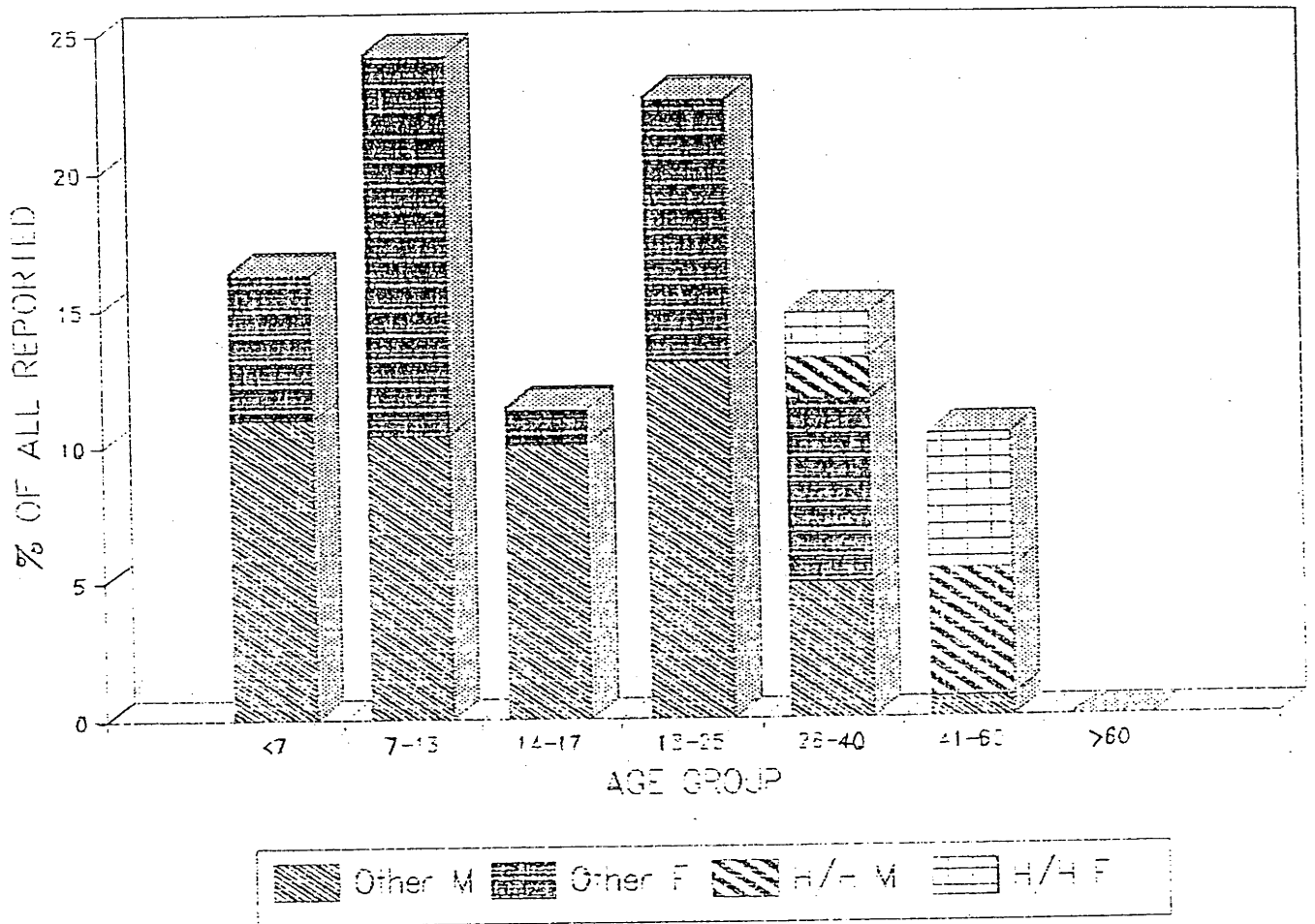
ACTIVITIES 0-25% YIELD CATEGORY



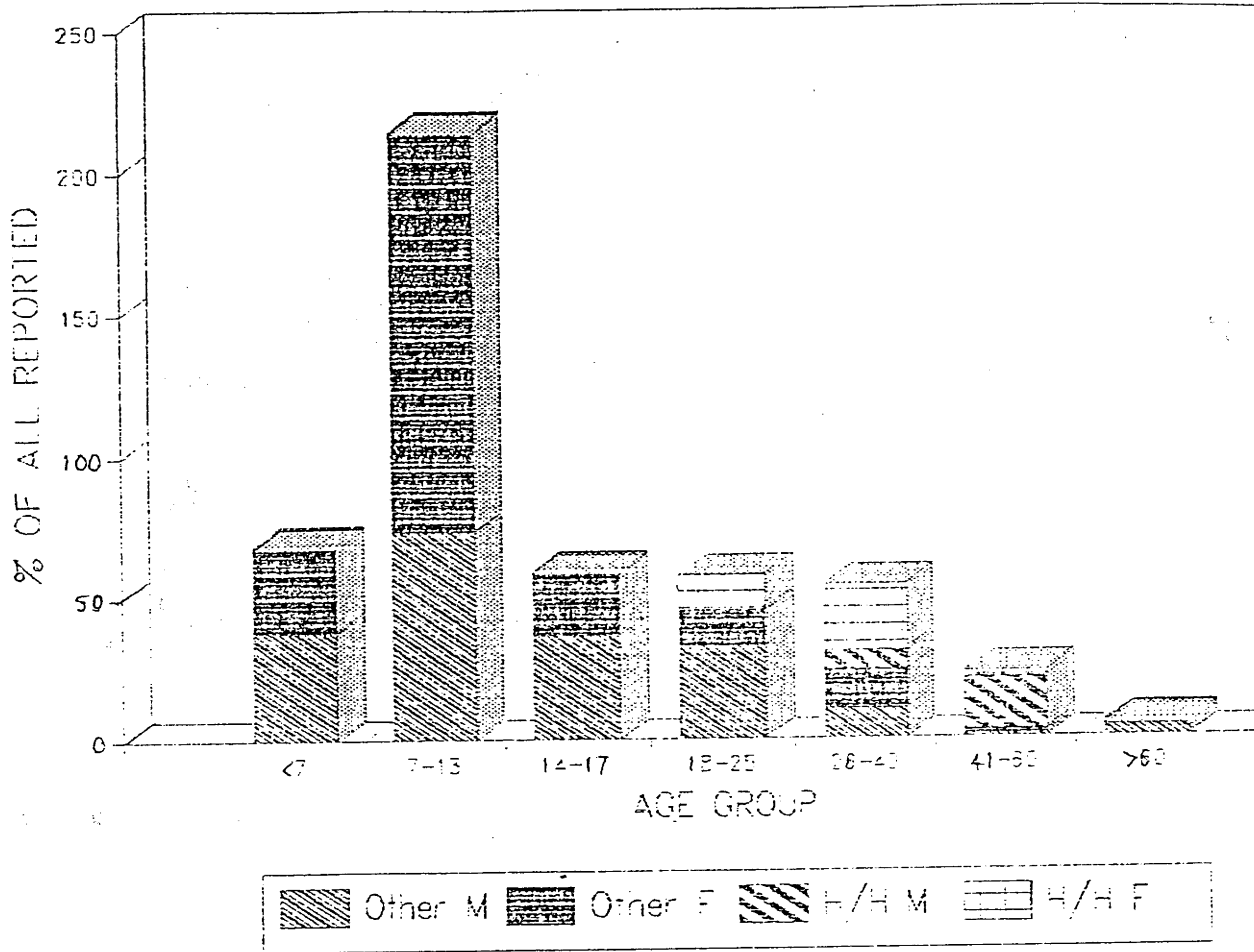
ACTIVITIES 25-50% YIELD CATEGORY



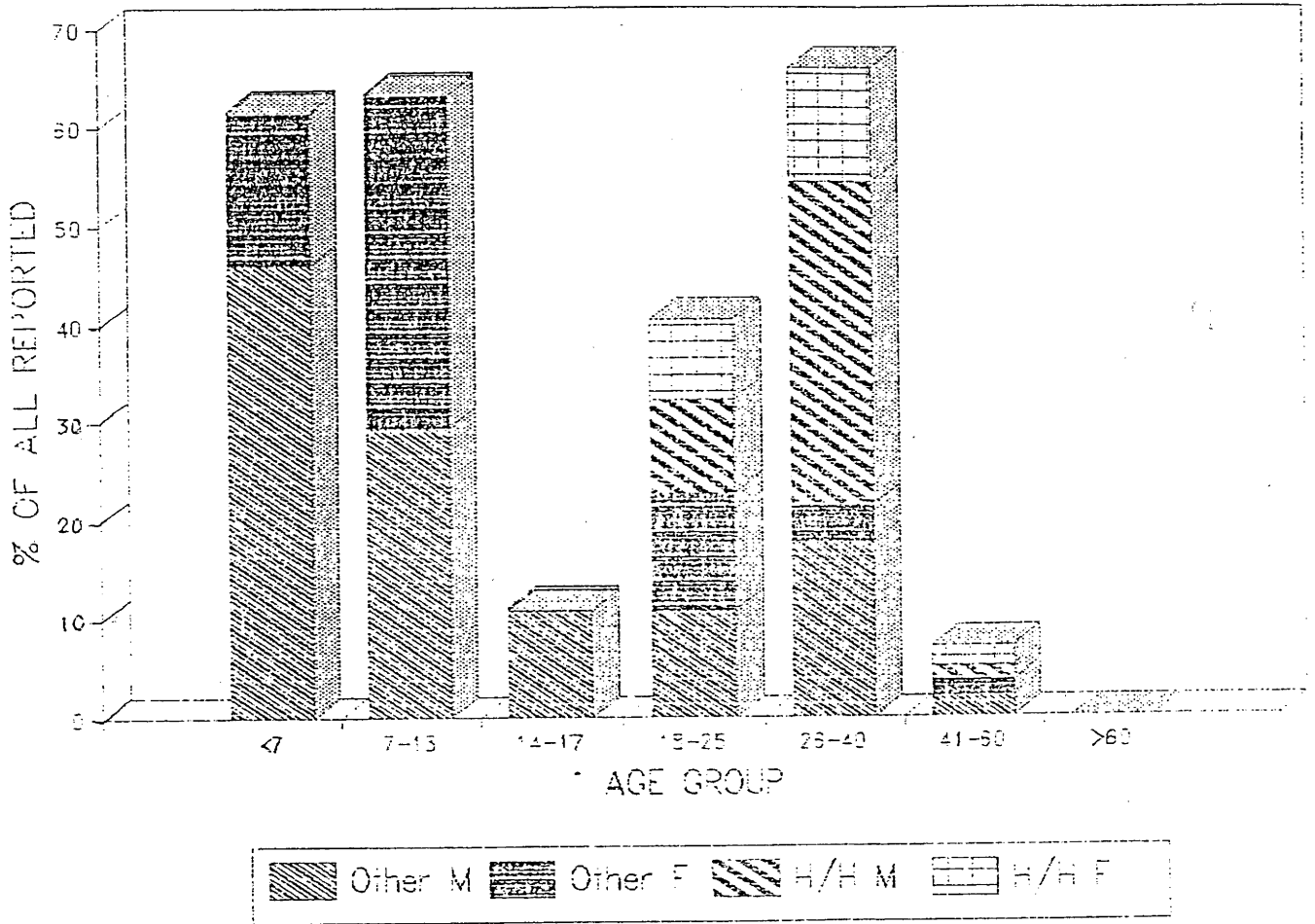
ACTIVITIES SETTLEMENT 50-75% YIELD CATEGORY



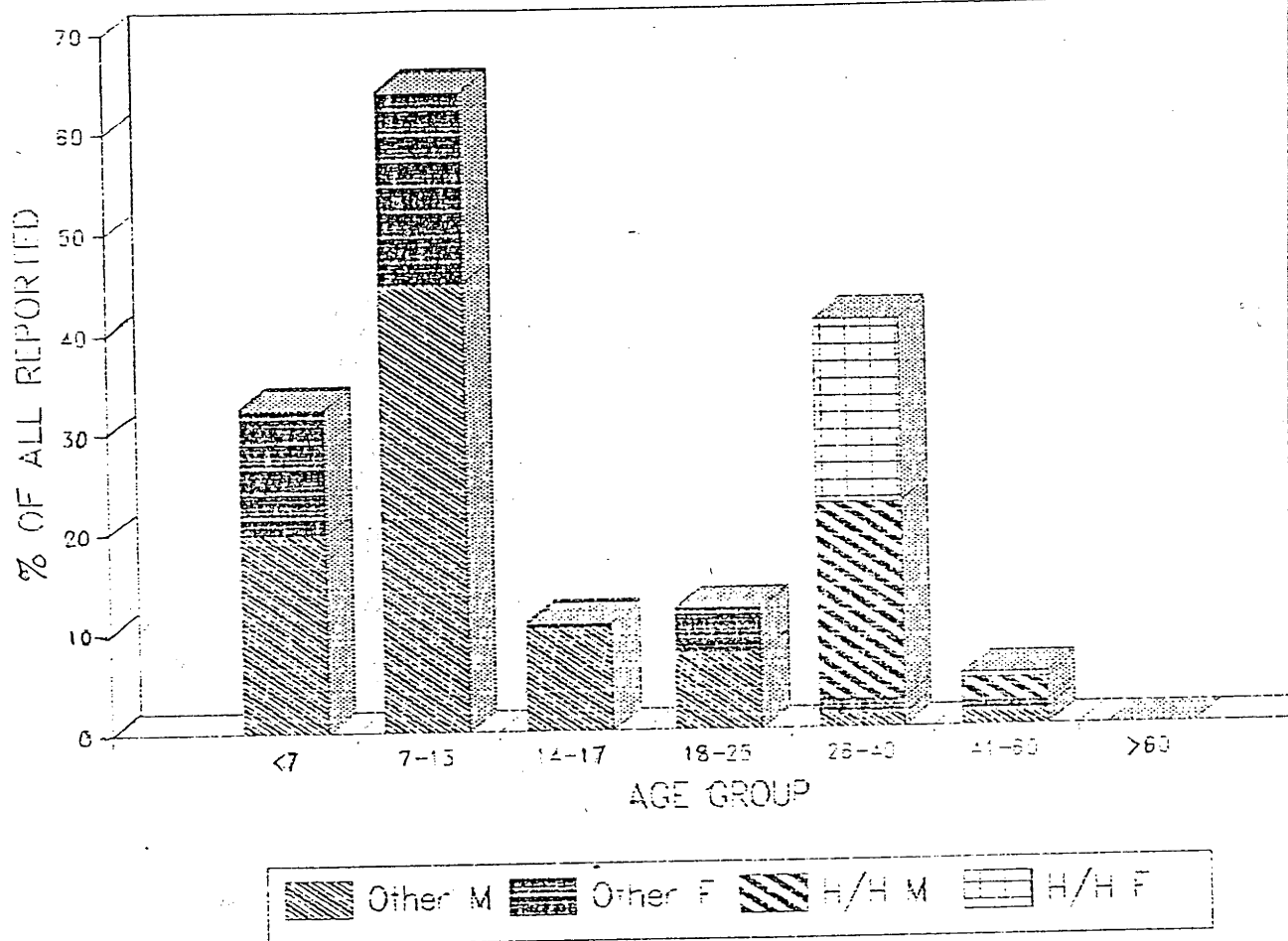
ACTIVITIES 75-100% YIELD CATEGORY



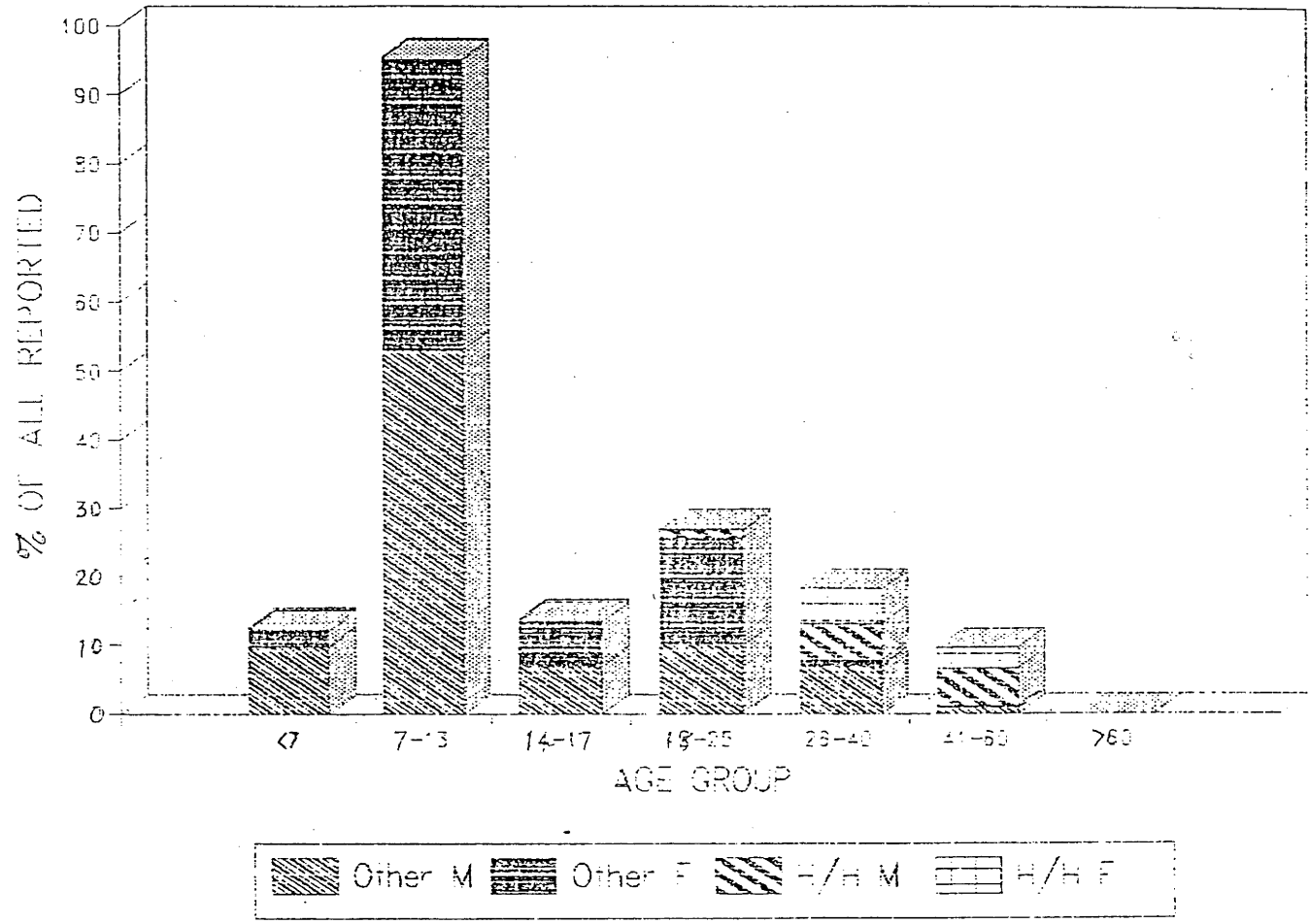
ACTIVITIES VOP LOW YIELD CATEGORY



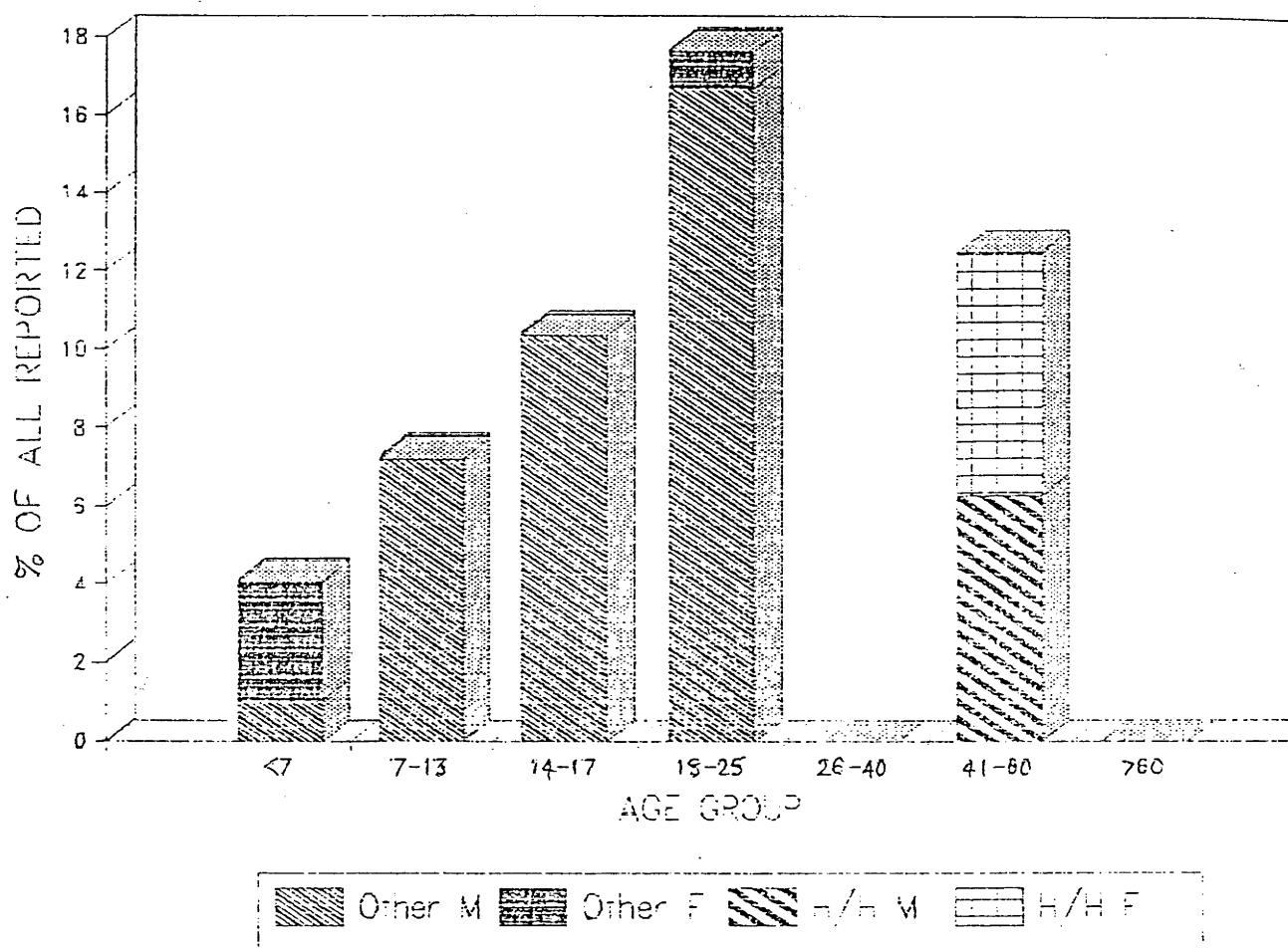
ACTIVITIES VCP MEDIUM YIELD CATEGORY



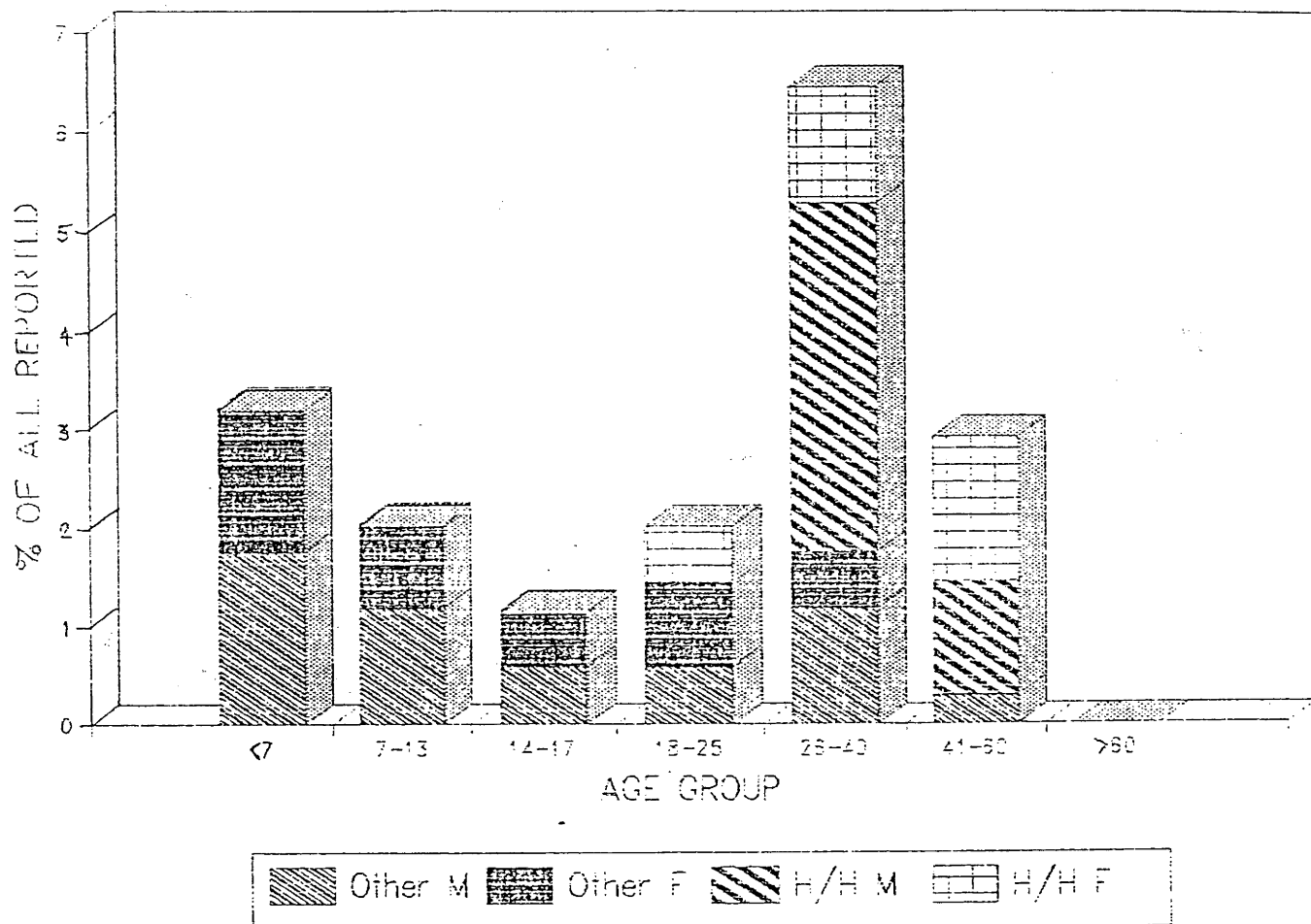
ACTIVITIES
VOP HIGH YIELD CATEGORY



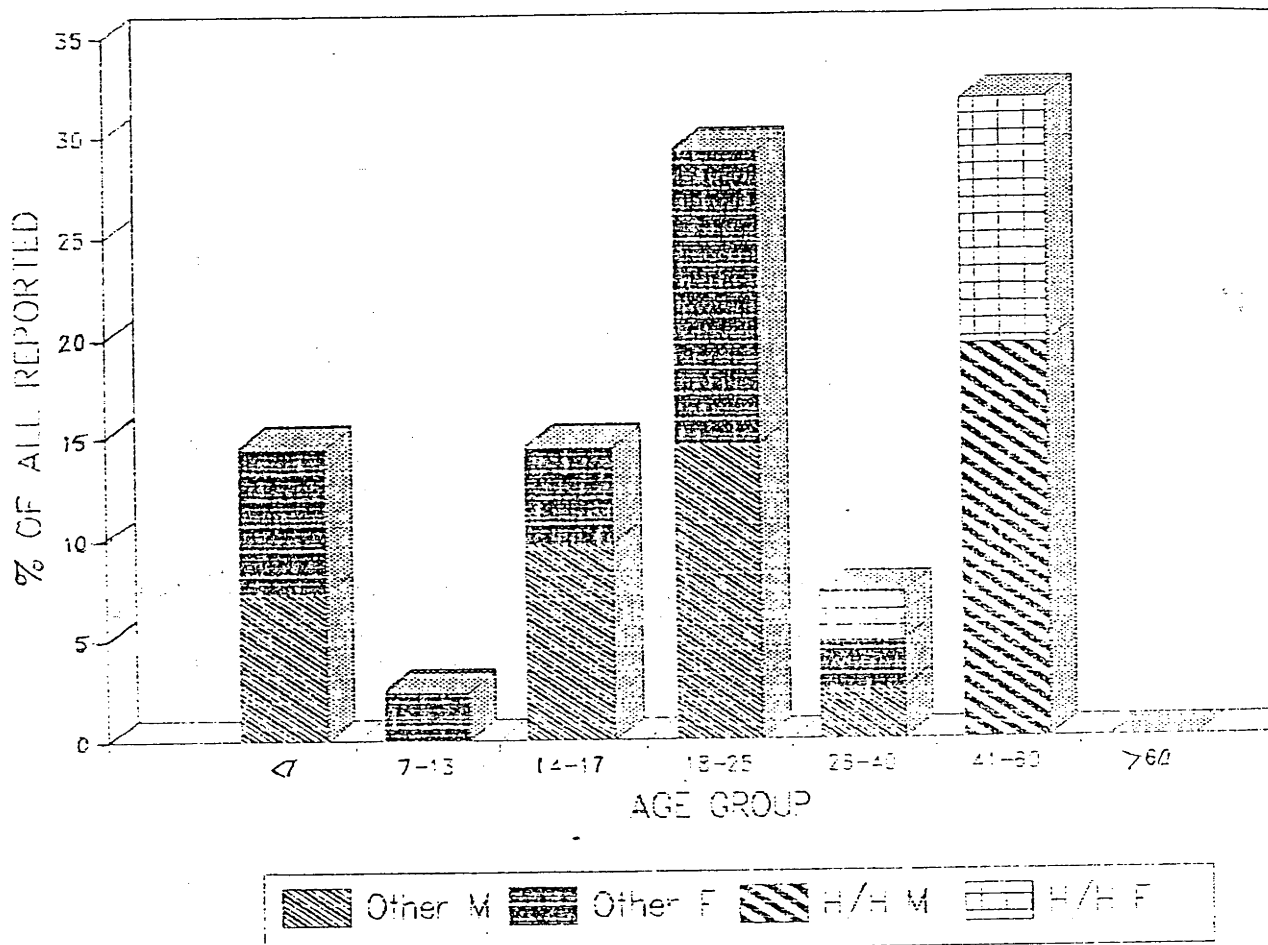
TRADITIONAL
0-25% YIELD CATEGORY



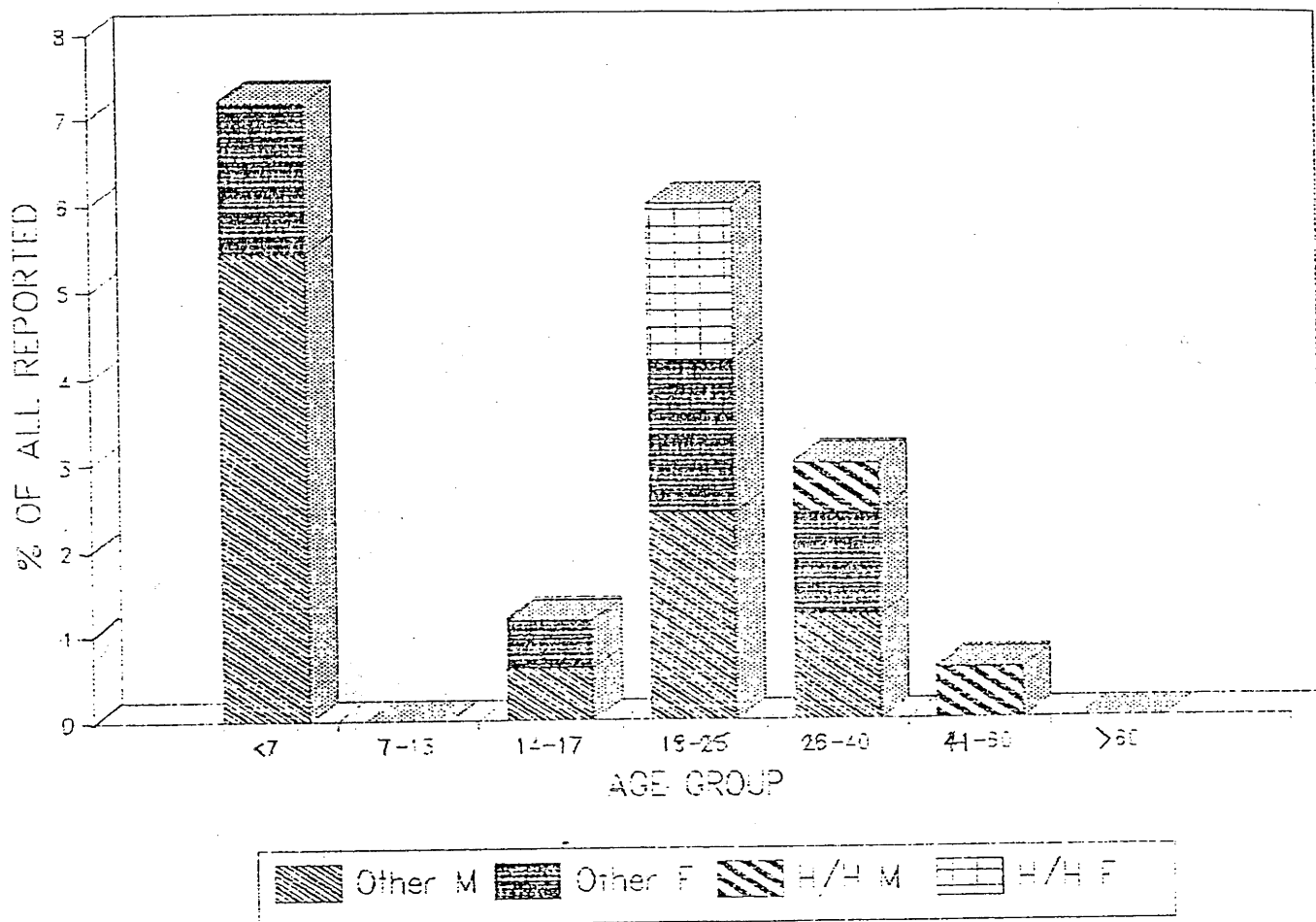
TRADITIONAL 25-50% YIELD CATEGORY



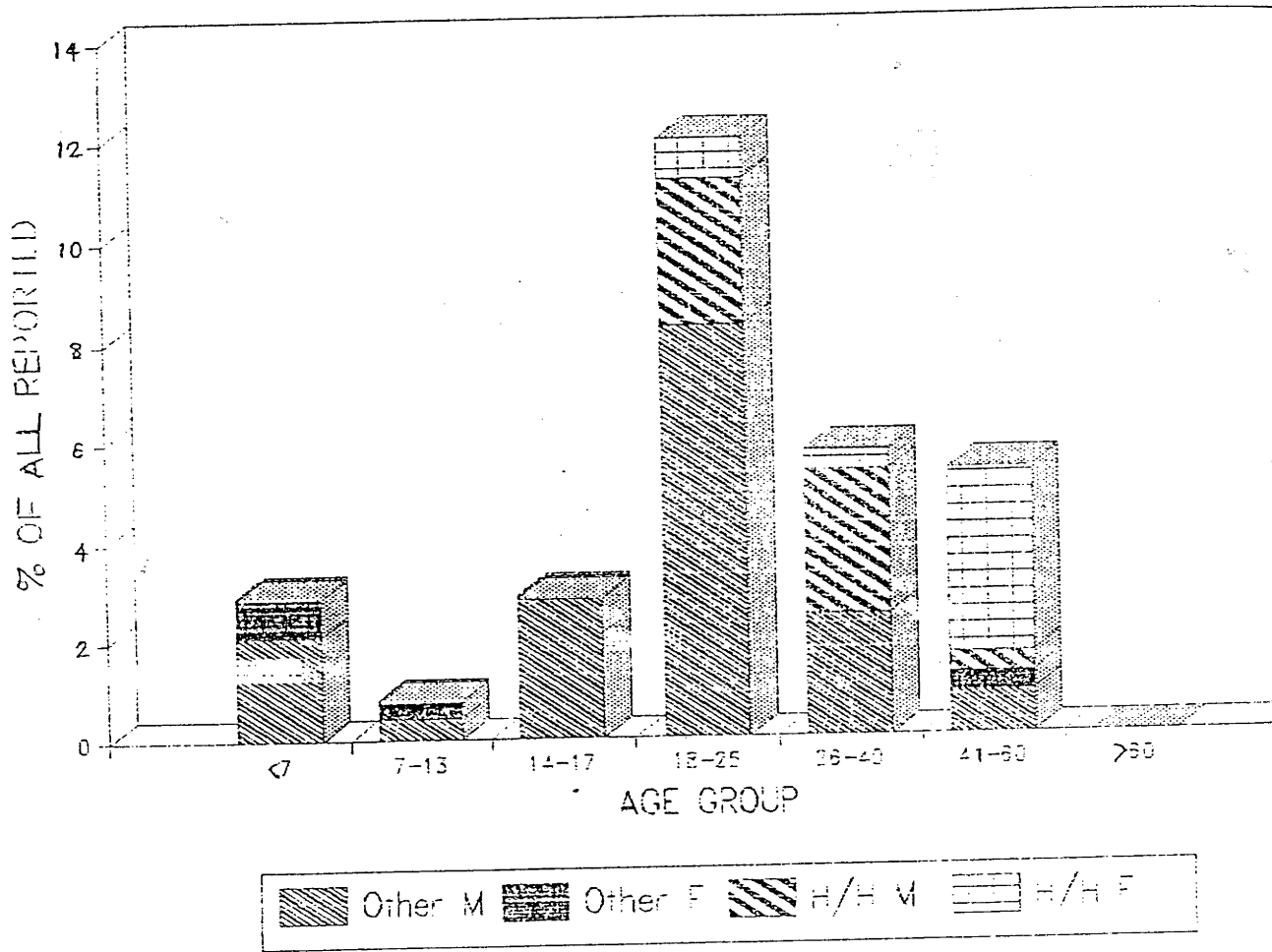
TRADITIONAL SETTLEMENT 50-75% YIELD CATEGORY



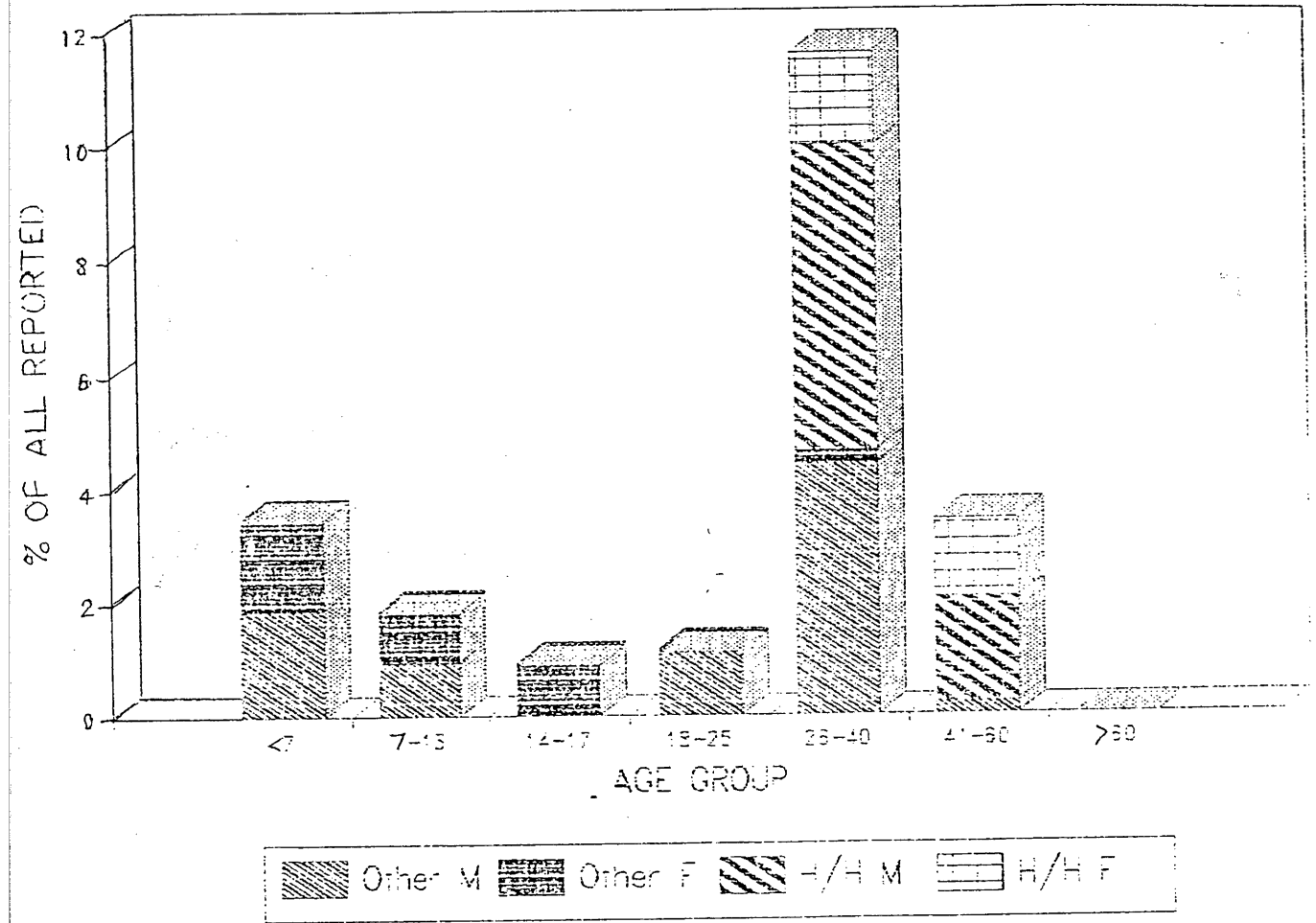
TRADITIONAL 75-100% YIELD CATEGORY



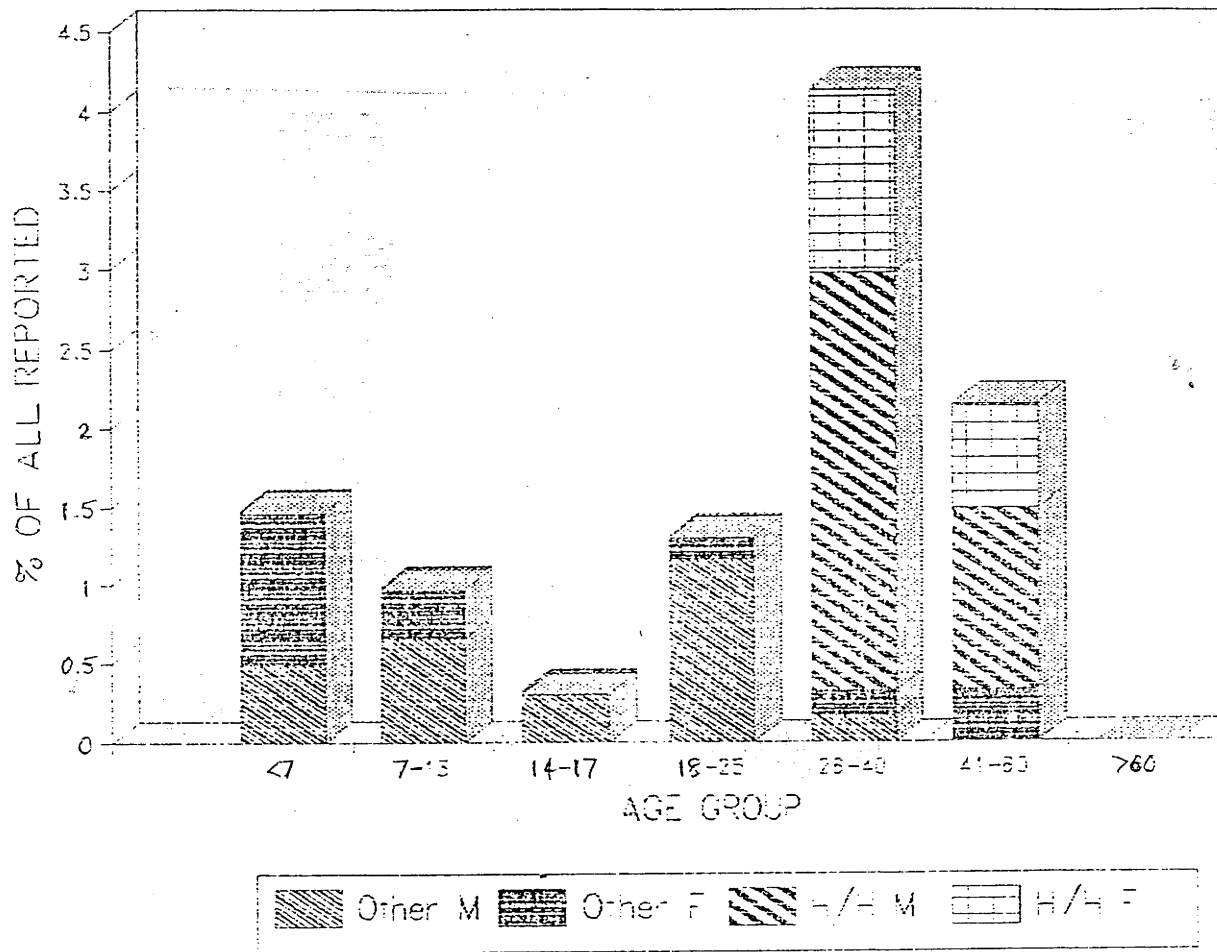
TRADITIONAL VOP LOW YIELD CATEGORY



TRADITIONAL VOP HIGH YIELD CATEGORY



TRADITIONAL
VOP MEDIUM YIELD CATEGORY



ANNEX 23

Oil Palm Activities Graphs - Settlements

OIL PALM ACTIVITIES - SETTLEMENTS

1. "Harvesting, all settlements" graph shows this task in divided between the heads of households and other block residents, largely male in the 14 to 40 years age group. Some recordings of women harvesting were made particularly in 1st replants or on 3rd plantings. The recordings of harvesting =7 years was meaning that this age group were accompanying older family members at the time, not actually harvesting.
2. "Barrowing Fruit" divided between H/H and wives in the 26- 40 years group equally, in the 41-60yrs age group it becomes physically more difficult for women and more the prerogative of H/H. In the 18-25 years group wives more than H/H barrow as H/H is usually of a physical state to harvest. The importance of sons, daughters, (in-laws) with barrowing fruit is obvious from the graph.
3. "Loose Fruit" was obviously the prerogative of wives of H/H and female members of the block. The importance of the children's role in block productivity is clear by this graph, particularly school children and pre school children under the age of 13 years of both sexes. This task, being the physically least strenuous is why there is such a large women's/children's role.
4. "Stacking Bunches", the importance of the 18-25years age group in this task is seen. Children under 7 years are accompanying parents during the task, not actually performing the task. H/H and wives share this task.
5. "Maintenance", these tasks were defined as cutting drains, other digging, and mending tools. All except mending tools, these activities are strenuous and were mainly performed by the 18 --- 25 years age group. Mending tools was largely the prerogative of the H/H.
6. "Weed Control", these activities being circle weeding, harvest paths, inter - rows, digging out kunai, spraying. The graph shows the importance placed on these activities by the H/H himself. The contribution of younger family members is obvious.
7. The importance of the family performing as a team is shown by these graphs. The importance of the 18-25 years group also is demonstrated.

Oil Palm Activities Village Oil Palm

1. Harvesting is done in V.O.P. by H/H and other males principally between the ages of 14 --- 40 years. The 18-25 years group shown are often relatives and friends working in youth groups.
2. Barrowing shows similar trends to settlements in that the H/H and wife in the 26-40 years range tend to share this task. Wives of H/H do less of this work over 41 years of age.

3. Loose fruit collection is again shown to be the prerogative largely of women particularly wives of the H/H. Children under 13 years and daughters or sisters 18-25 years are also important in this task.

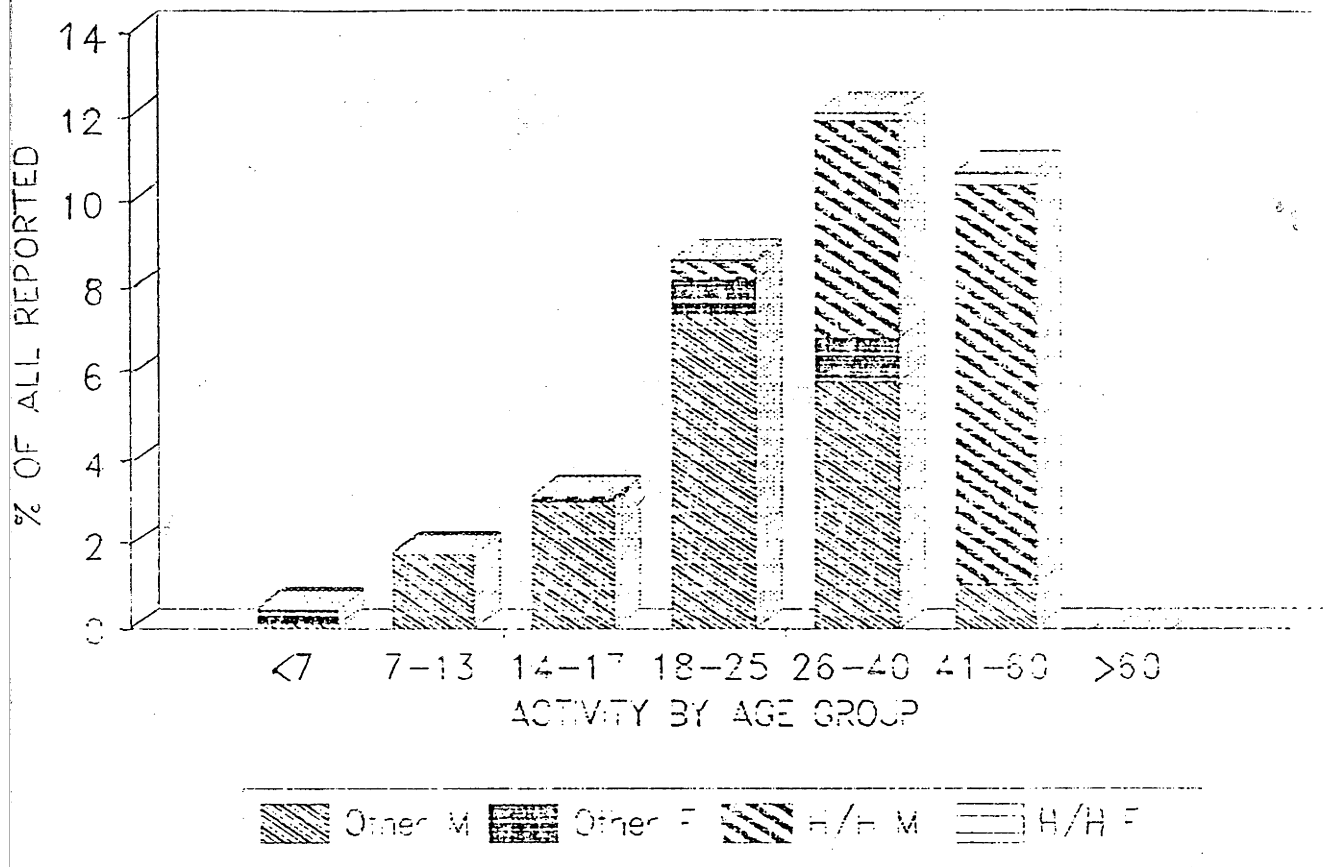
4. Stacking bunches has the similarity to settlements in that H/H and wives, principally in V.O.P. 26-40 years share this task.

5. Unlike settlements, maintenance is very much the prerogative of the H/H and his wife because of their younger age group to settlements, they can handle this area of tasks.

6. Weed control. Like settlements, weed control is usually carried out by the H/H and in V.O.P. wives are also sharing this task with husbands.

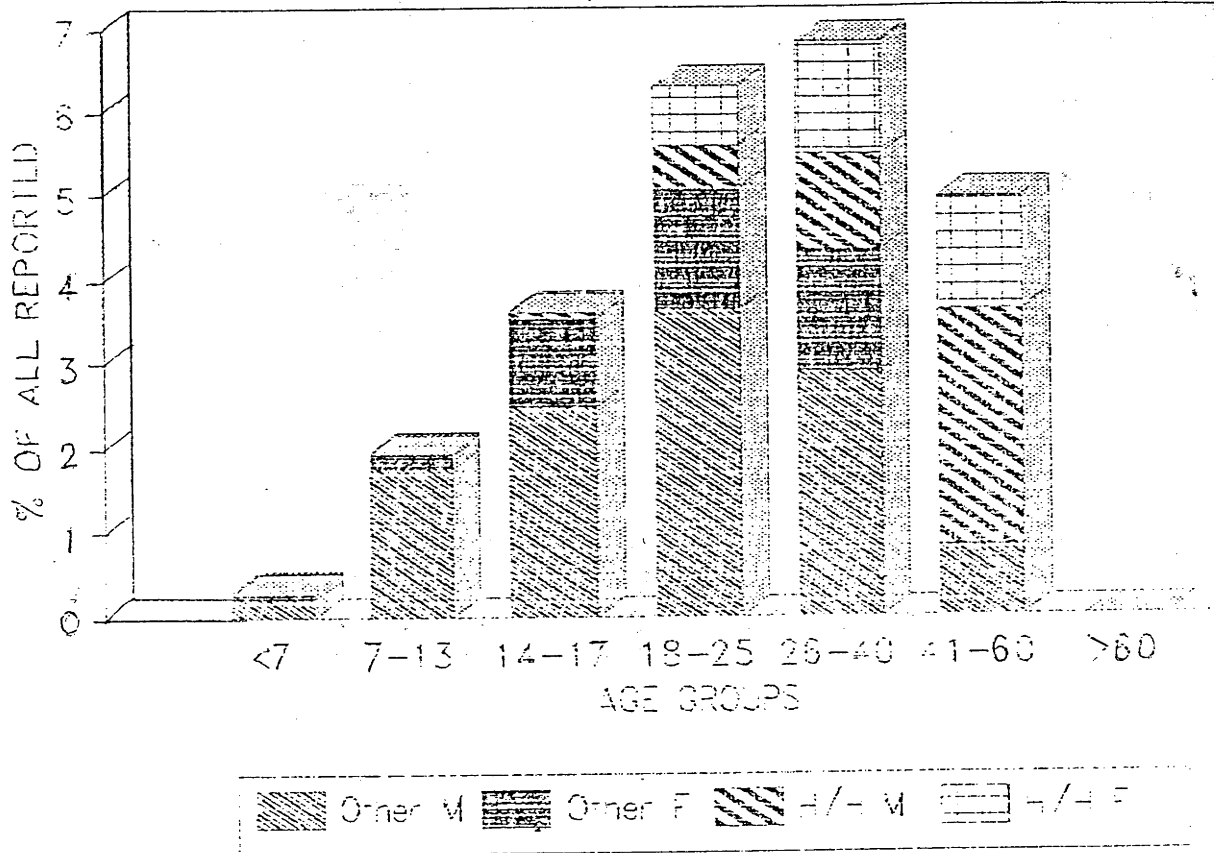
7. Due to the younger average age group of V.O.P. H/H and wives, many tasks are done by themselves because of their higher physical ability over settlers whose age means their families are paramount to assistance. Harvesting youth groups are seen in V.O.P. 18-25 years for harvesting, barrowing, loose fruit and stacking. Their contribution is substantial.

HARVESTING ALL SETTLEMENTS



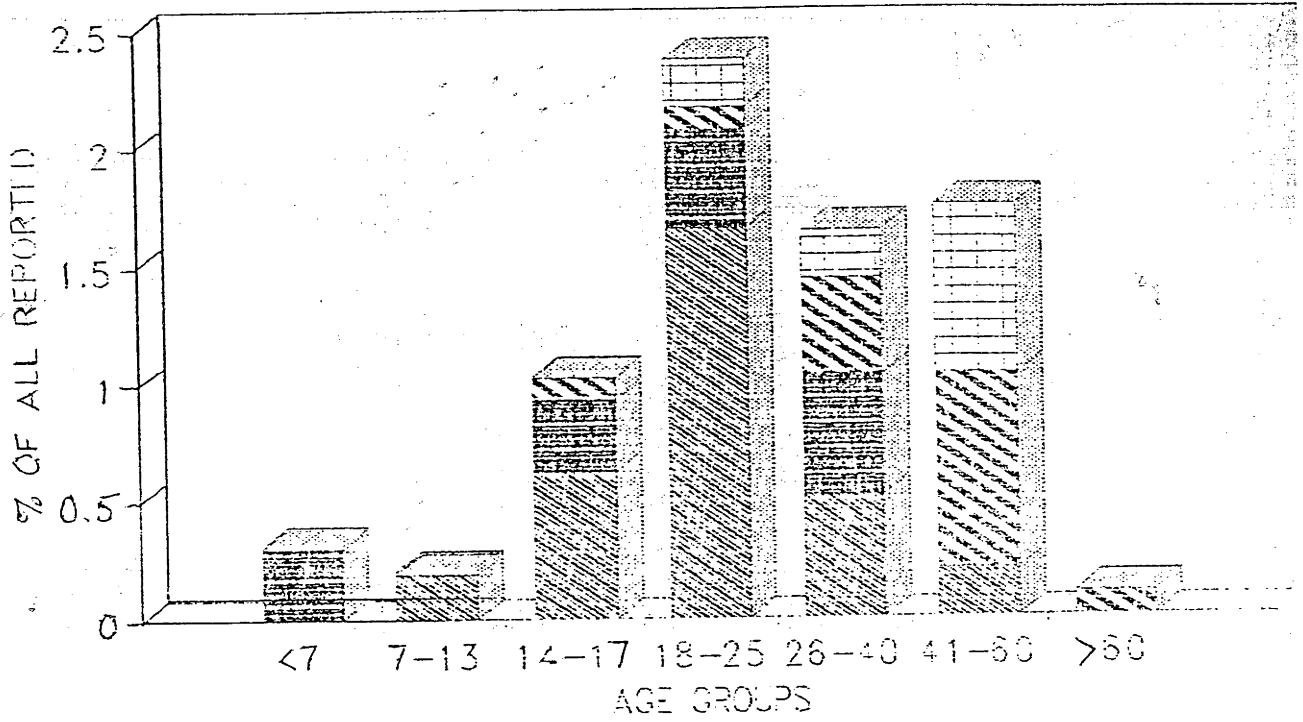
BARROWING FRUIT

ALL SETTLEMENTS

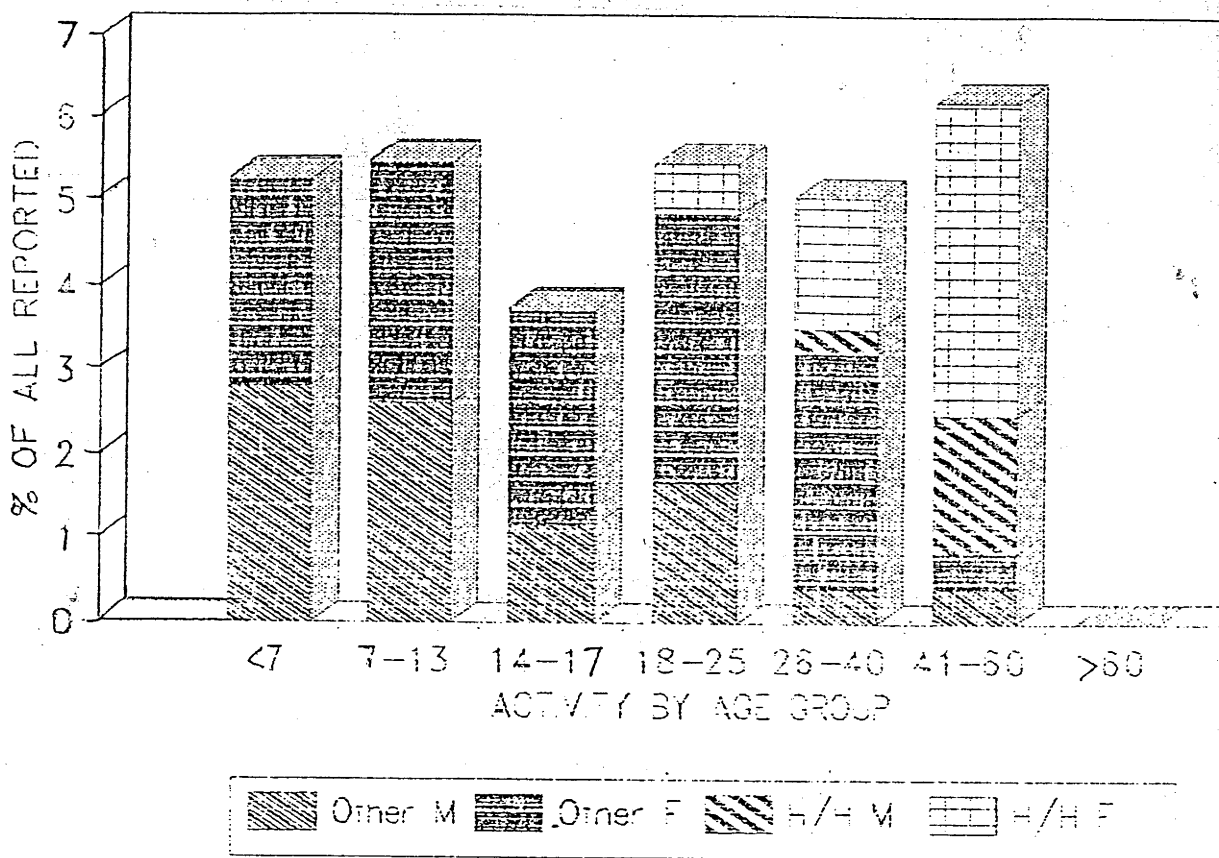


STACKING BUNCHES

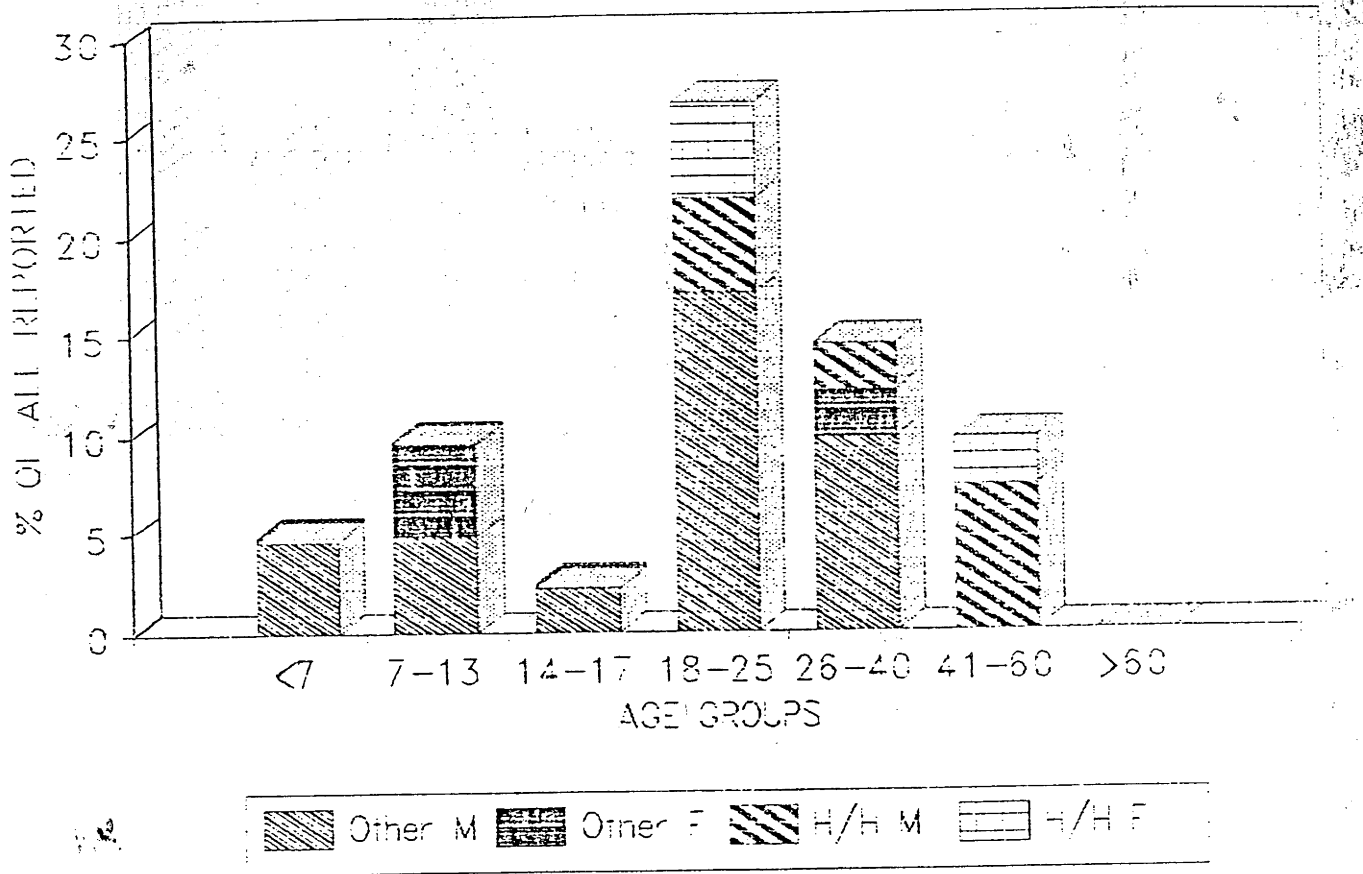
ALL SETTLEMENTS



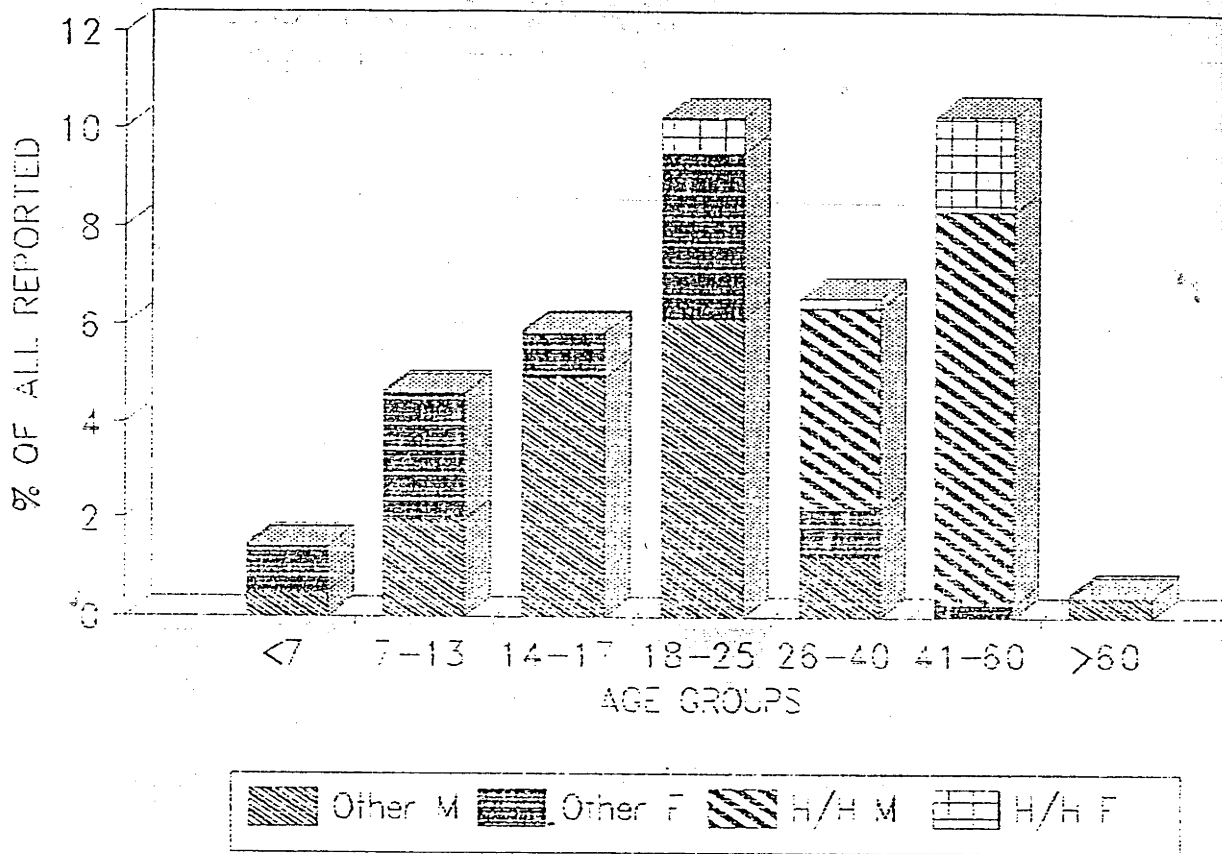
LOOSE FRUIT ALL SETTLEMENTS



MAINTENANCE ALL SETTLEMENTS

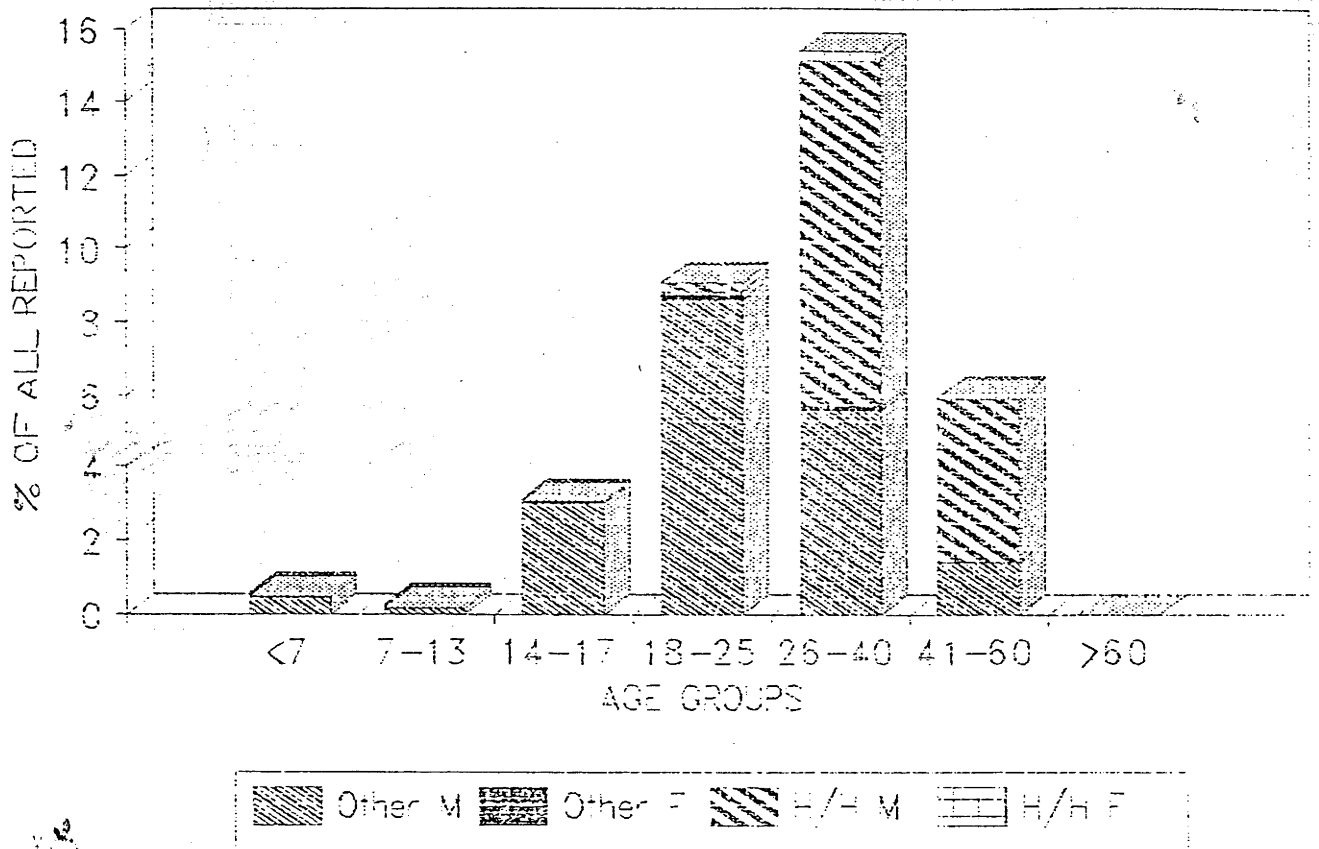


WEED CONTROL ALL SETTLEMENTS



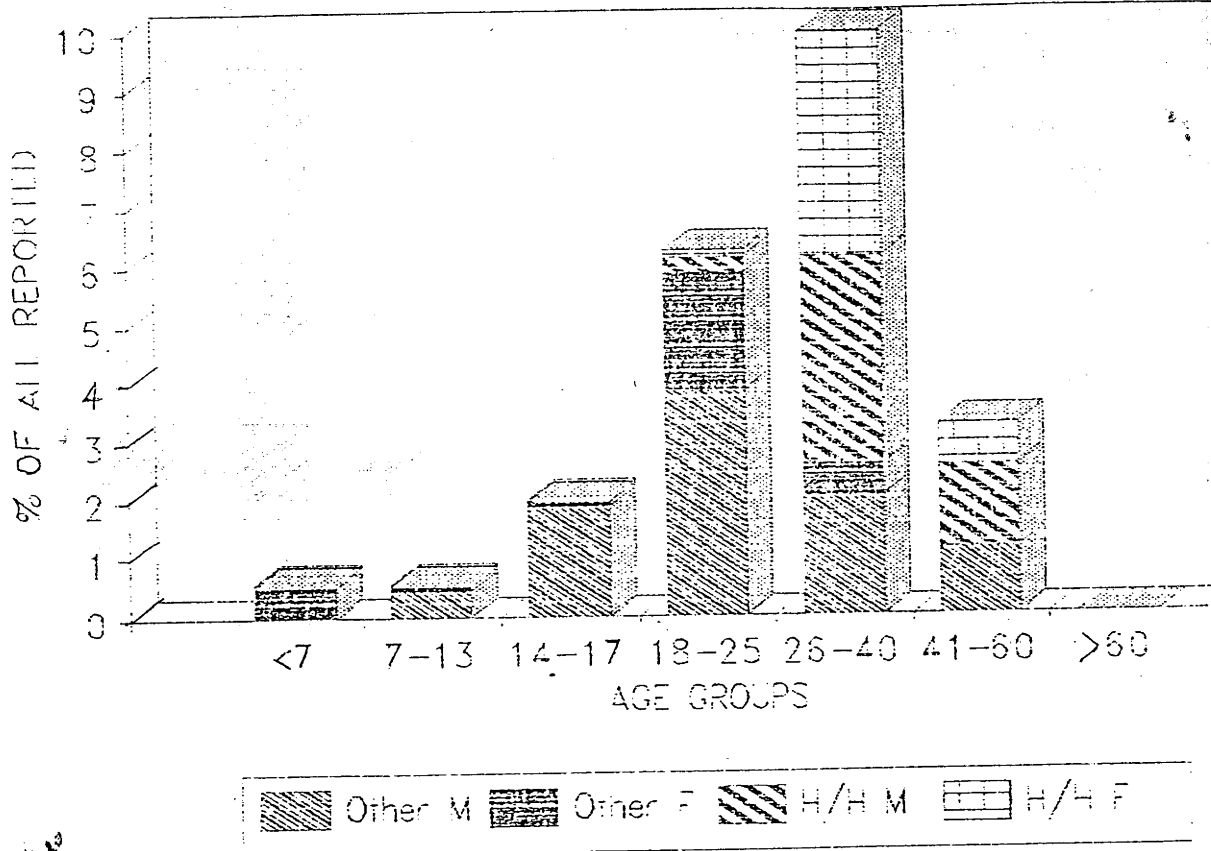
HARVESTING

ALL VOP



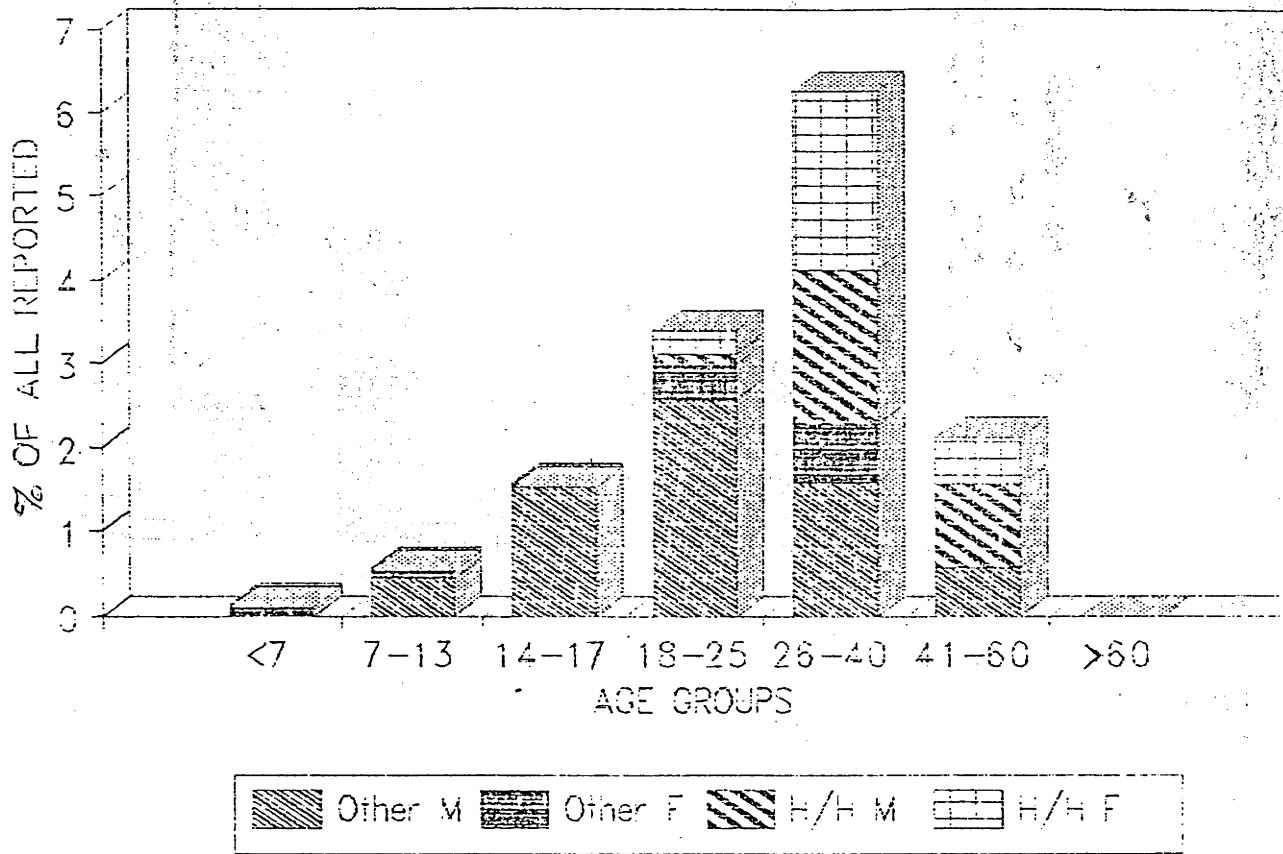
BARROWING FRUIT

ALL VOP

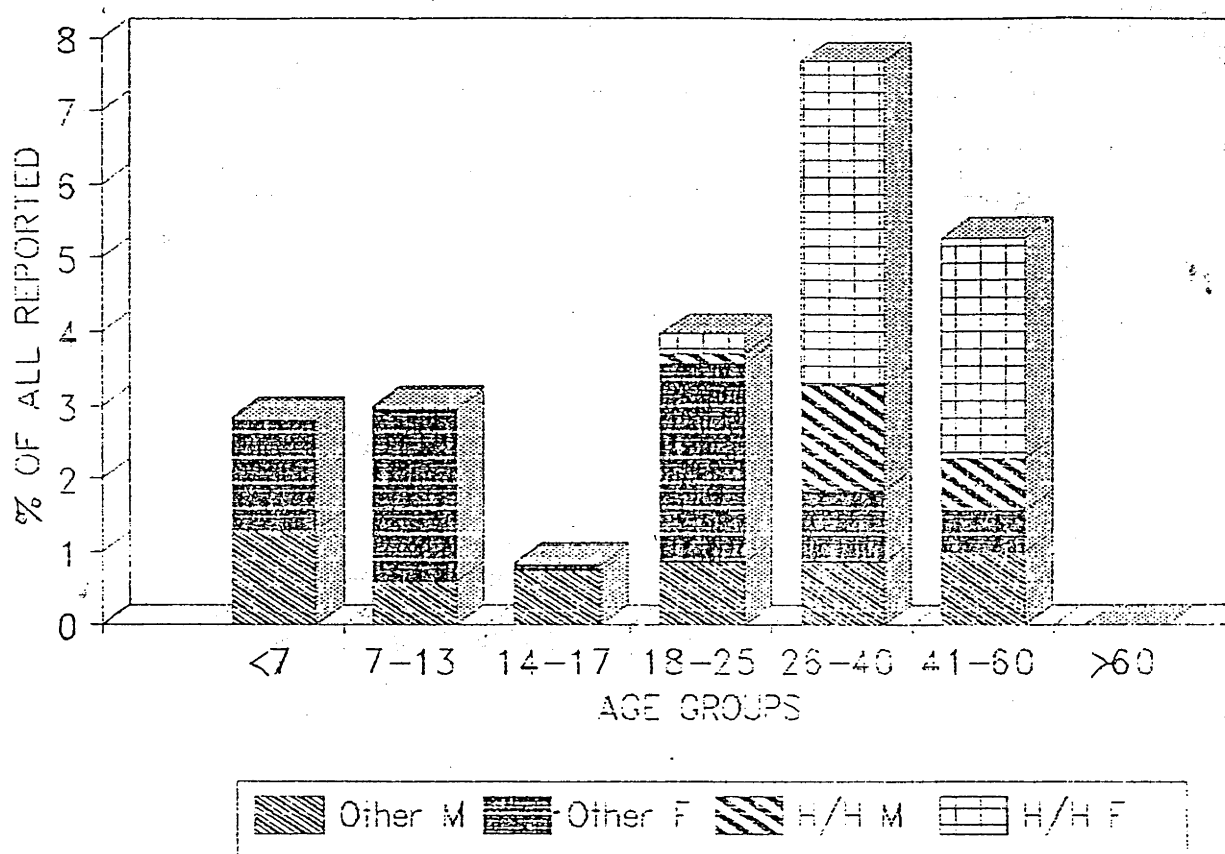


STACKING BUNCHES

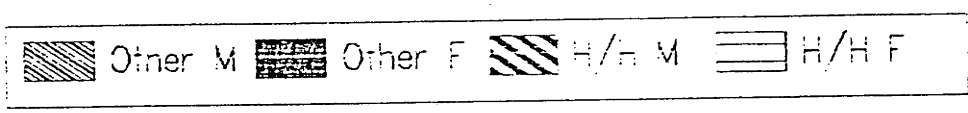
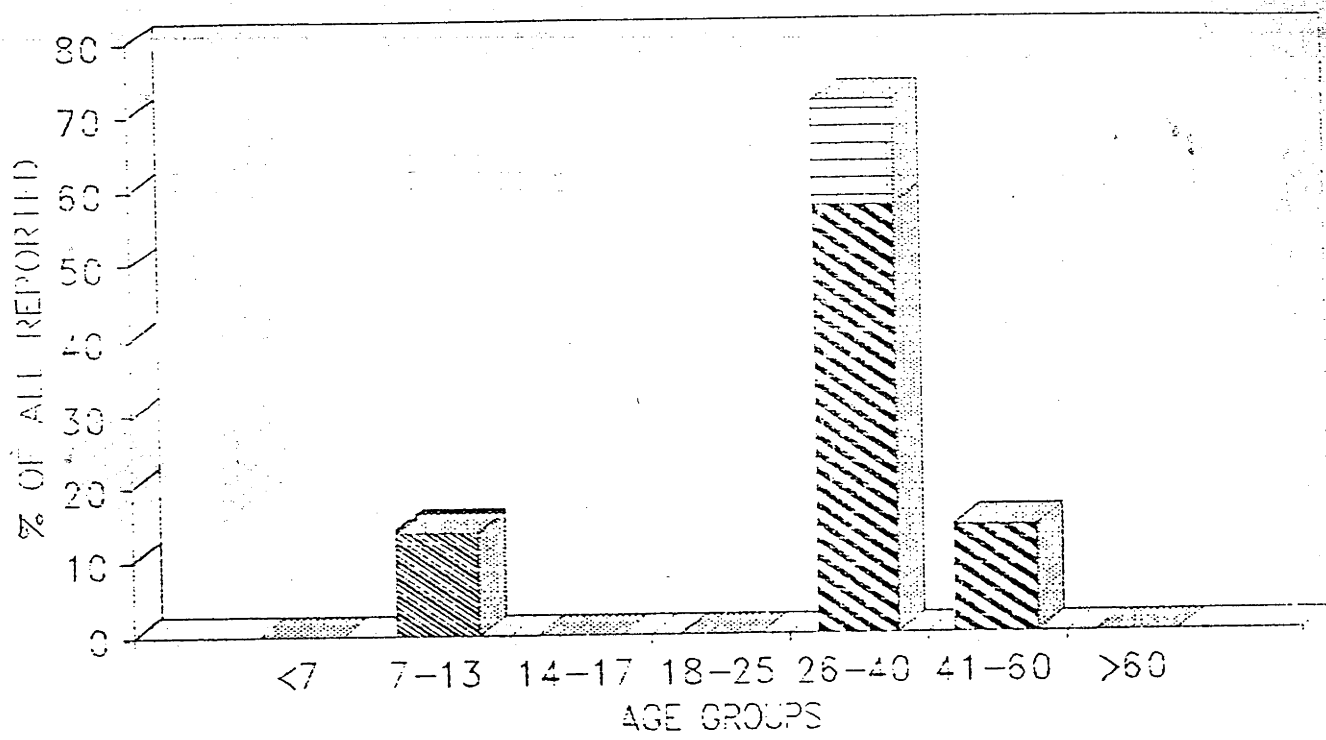
ALL VOP



LOOSE FRUIT ALL VOP

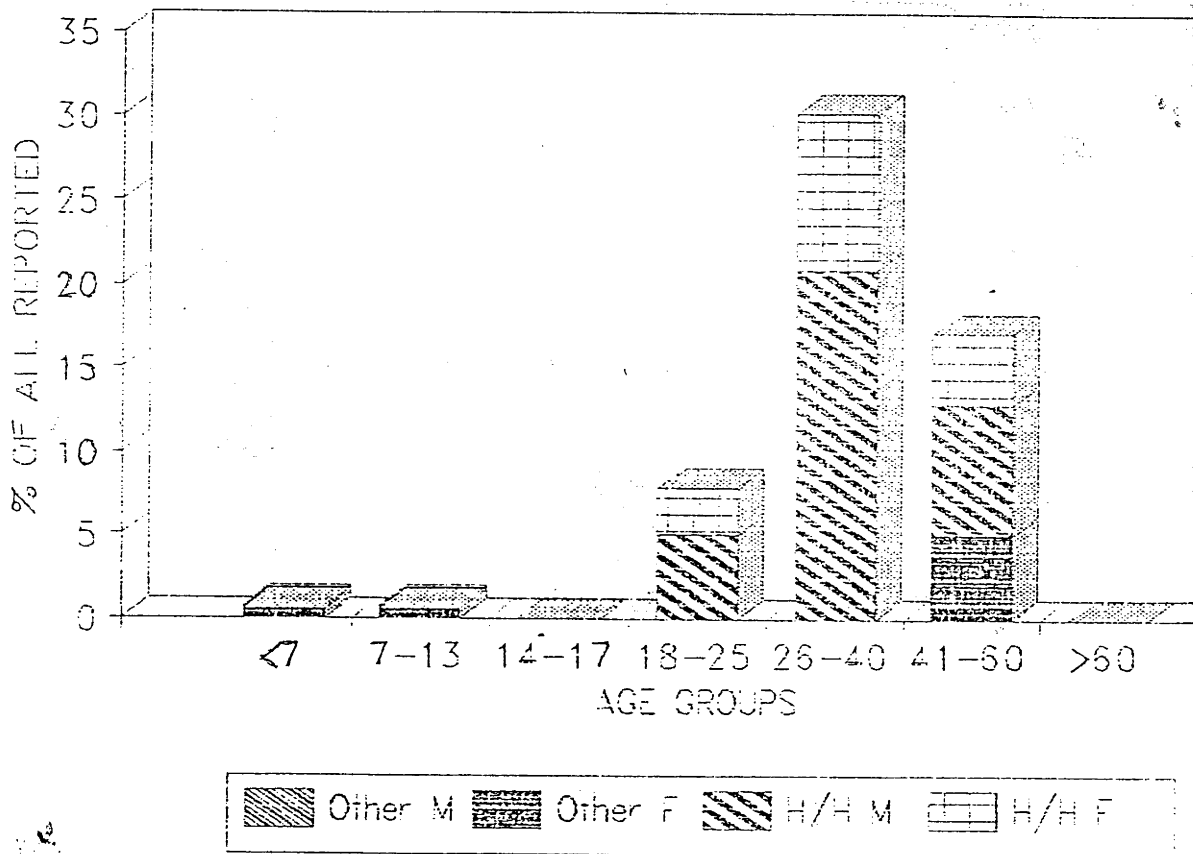


MAINTENANCE ALL VOP



WEED CONTROL

ALL VOP



ANNEX 24

Attitudes - Marketing Food Crops

ATTITUDES TO LABOUR/TIME AND FINANCIAL RETURNS WIVES OF H/H -
MARKETING FOOD CROPS:

Marketing Food Crops - Settlements

1. In settlements it is obvious that wives of the H/H are dominant with marketing of food crops. Daughters in the age group 0-25 years often accompany mothers for
 - (a) security
 - (b) companionship
 - (c) assistance in carrying produce.
2. There is a notable absence of men from this section of any form of marketing registered.

Marketing Food Crops Village Oil Palm.

1. The domination of H/H wives particularly 26-40 years is obvious.
Daughters 7-13 years accompany mother's to market for the same reasons as for settlement marketers.
2. Note the appearance of men in the 41-60 years groups who marketed principally brus, (local tobacco), and coconuts.

Health of a population through the availability of nutritious food crops suitable for physical work such as the root crops (high starch), fruit, (vitamins), green (high in iron to give strength and ward off sickness plus help alleviate anaemia in pregnant women).

The costs of living are kept low, particularly relevant in this time of high debt due to the improved houses on the blocks and low prices.

The food gardens help give women, particularly wives of head of household some form of economic independence, a means of providing a more regular income other than a monthly FFB cheque and the chance to be business oriented in their own right with marketing of the food they acquire.

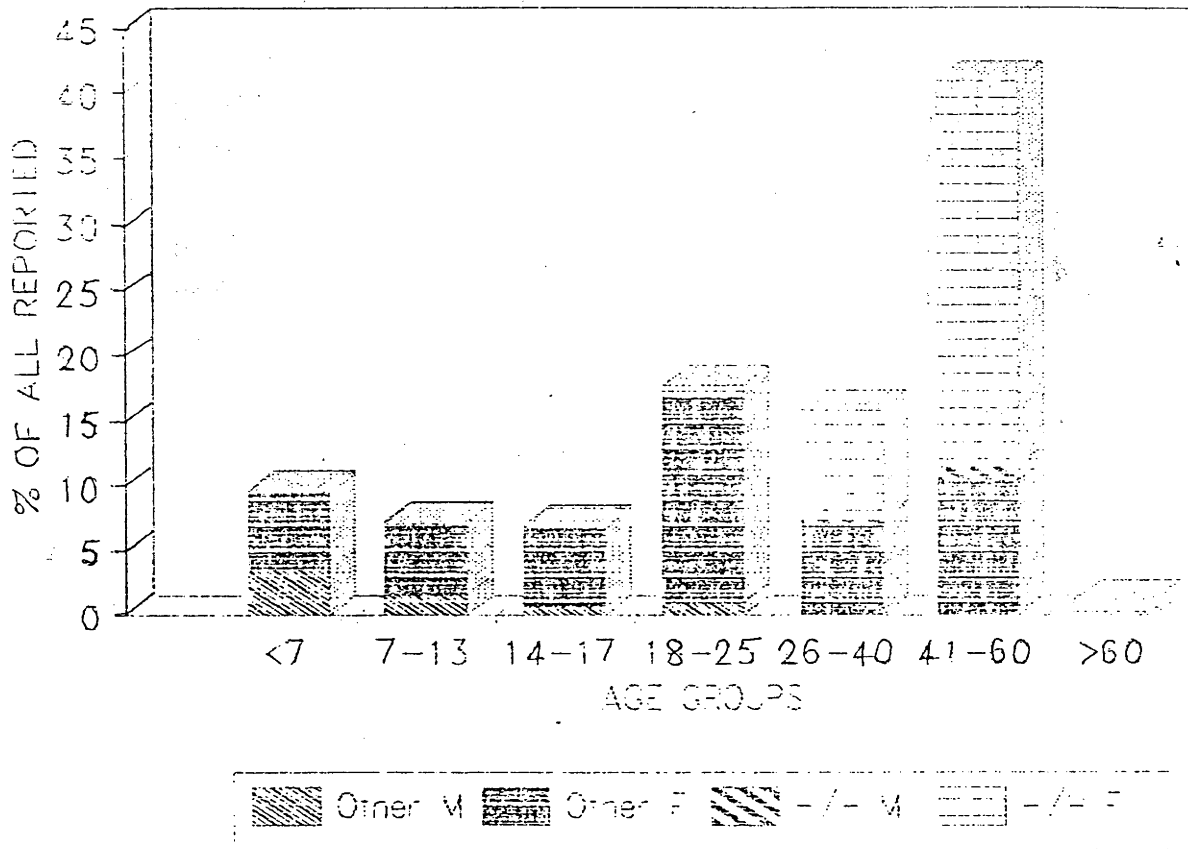
Marketing means they are circulating required food and diet variety to other members of the settlement community as most ethnic groups grow food crops specific to their group e.g. protein rich peanuts are principally grown and marketed by Chimbu women (and men).

Due to the squeeze on gardening area on a block if 6 ha is planted, gardening on restricted areas on the blocks could be done more productively as yields in many cases have declined. Women and men would be kept on the blocks and not have to move off block to find better ground for gardening.

Production Range	Market Activity	Total No. of block
0% -> 25%	4 NIL 2 MARKET, 1 travels to central Nakanai to purchase betel nut for resale in Buvussi settlement.	7
25% -> 50%	3 NIL, 15 VERY ACTIVE & TRAVEL TO KIMBE, BULUMA, KAPORE, MOSA 2 sell on subdivision of residence principally - casual 1 travels to Bialla district, Central Nakanai to purchase betel nut for market resale, KAVUI.	21
50% -> 75%	1 SINGLE MAN, 8 NIL, 8 VERY ACTIVE (BULUMA, KAPORE), <u>1 DYNAMIC!</u> , Marketing on a BUSINESS SCALE 1 travels from Galai to BILOMI (Kapiura plantation) to sell taro grown off block. 1 TRADER, buys betel nut/coconuts from Tabai Rikau for resale Kavui - also sells scones.	20
75% -> 100%	4 NIL, 6 VERY ACTIVE, 2 RUN AS BUSINESSES with Husband and wife involved together.	12

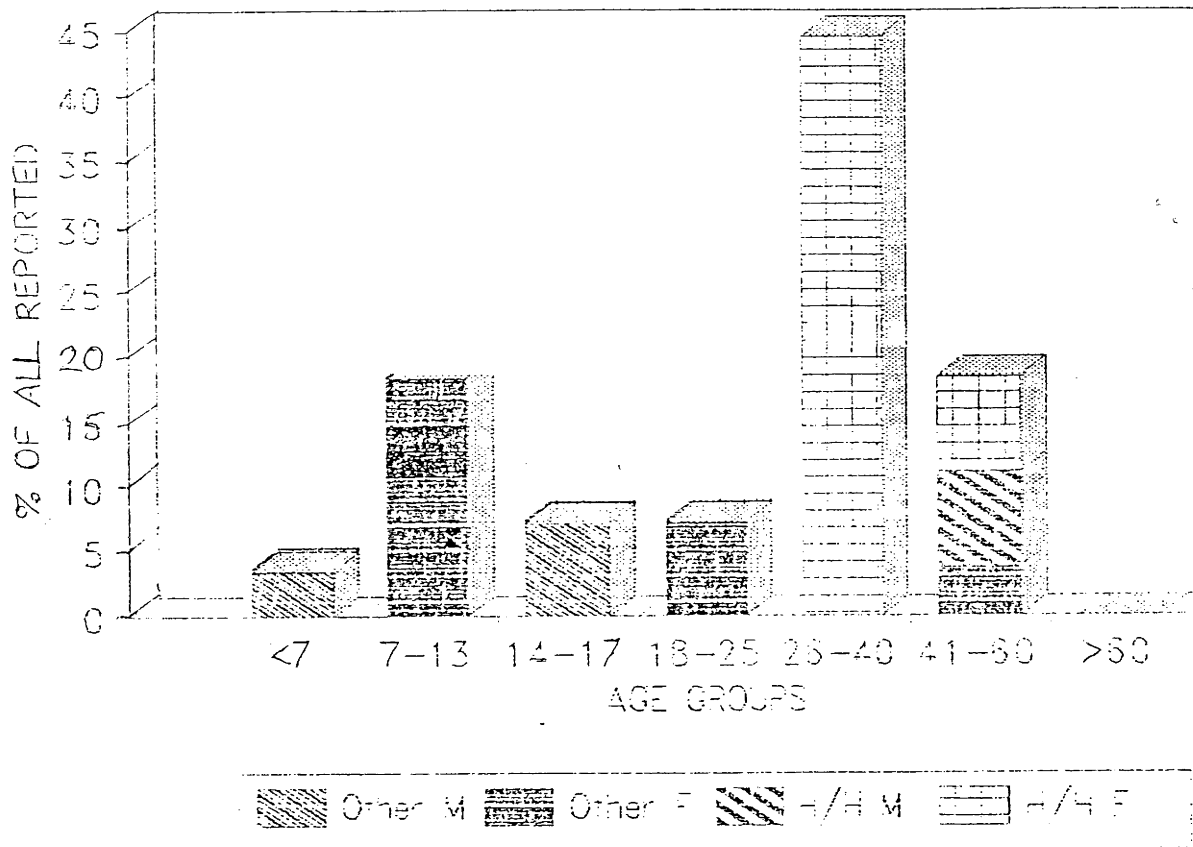
MARKETING FOOD CROPS

ALL SETTLEMENTS



MARKETING FOOD CROPS

ALL VOP



ANNEX 25

Maps

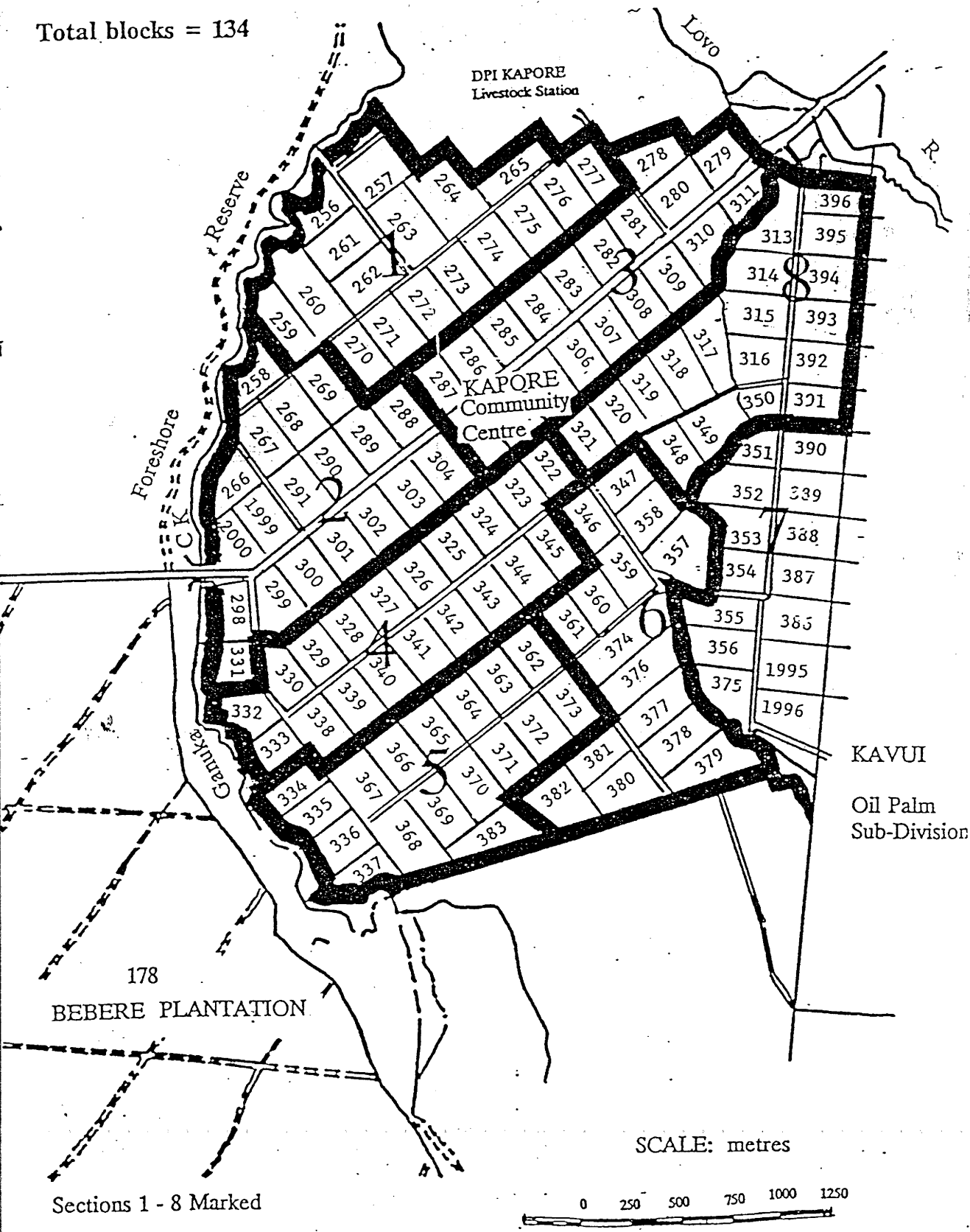
- **Kapore Smallholder Blocks**
- **Kapore 1968 Ethnic Composition**
- **Kapore 1989 Ethnic Composition**
- **Kapore FFB 1989**
- **Kavugara**
- **Kavui**

KAPORE MAP 1

KAPORE

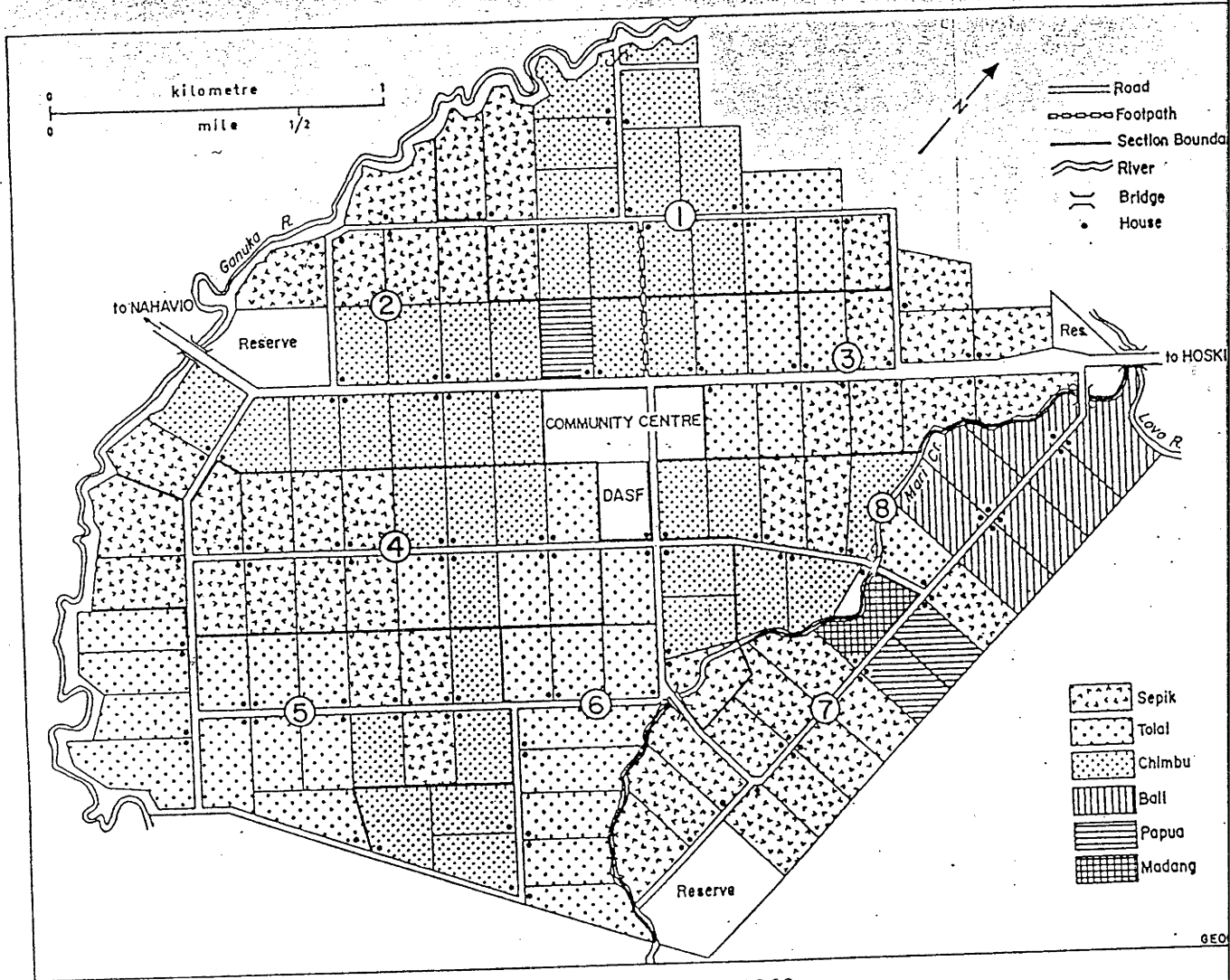
SMALL HOLDER OIL PALM BLOCKS

Total blocks = 134



Sections 1 - 8 Marked

KAPORE MAP 2

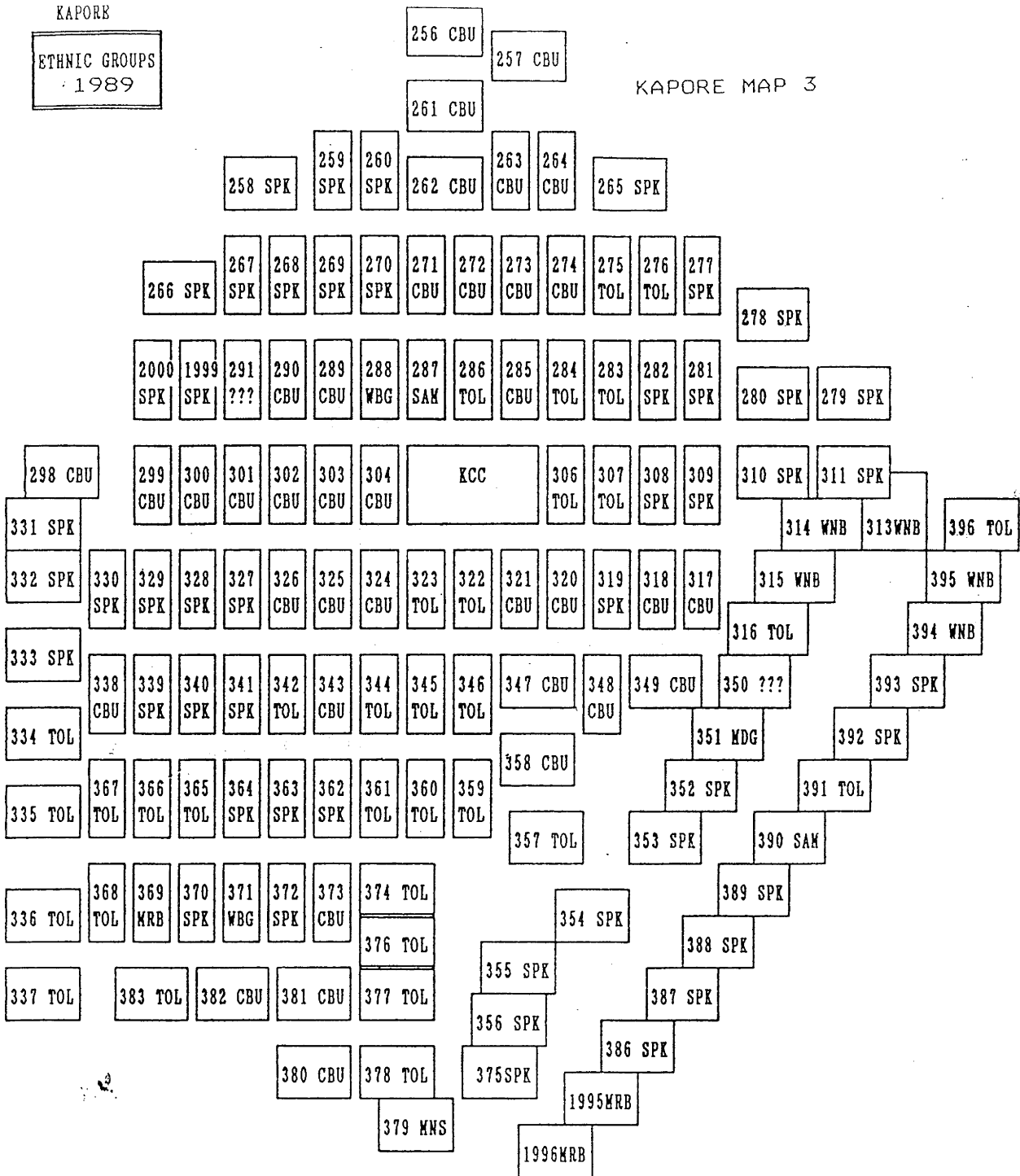


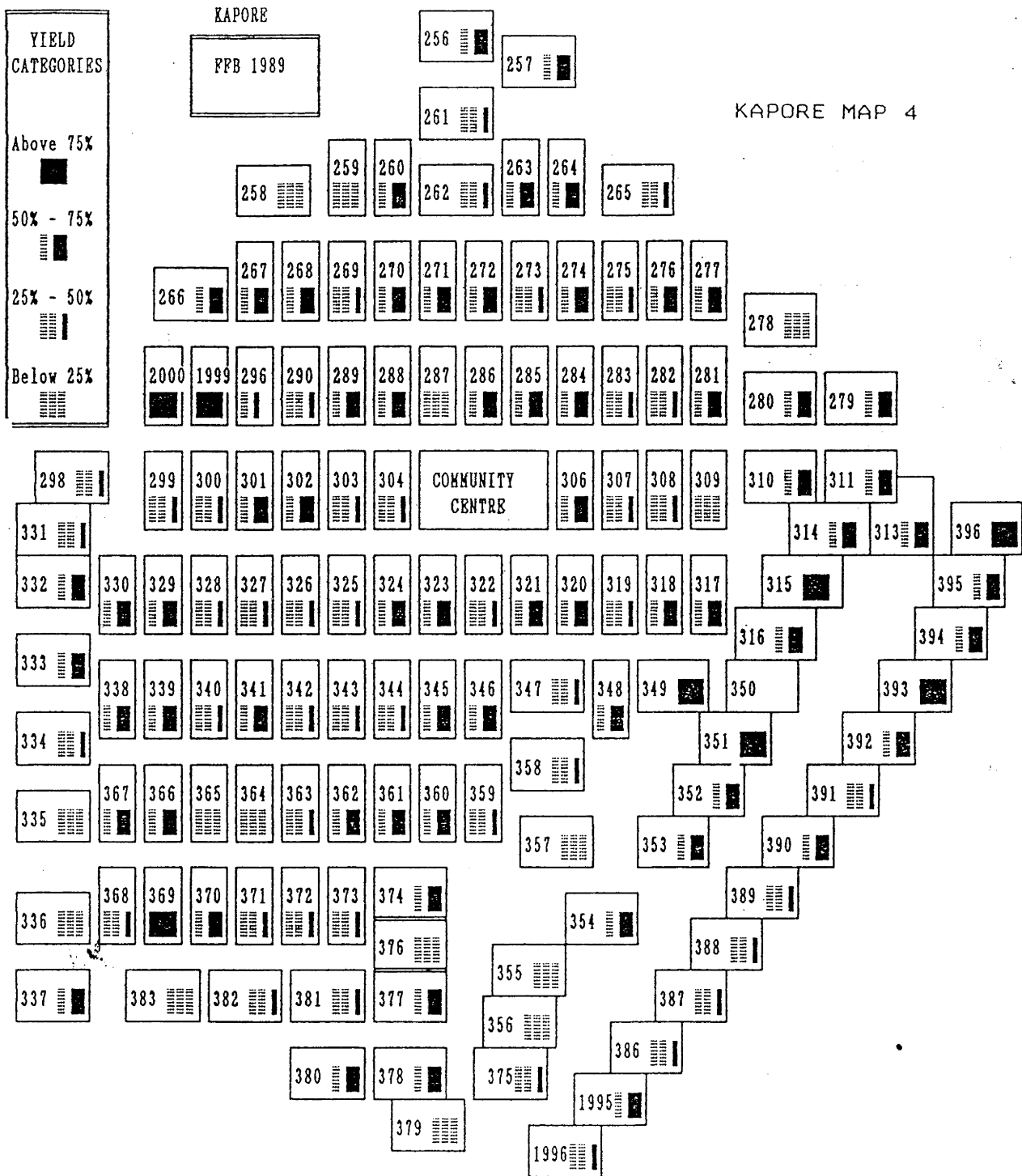
Kapore settlement 1968

KAPORE

ETHNIC GROUPS
1989

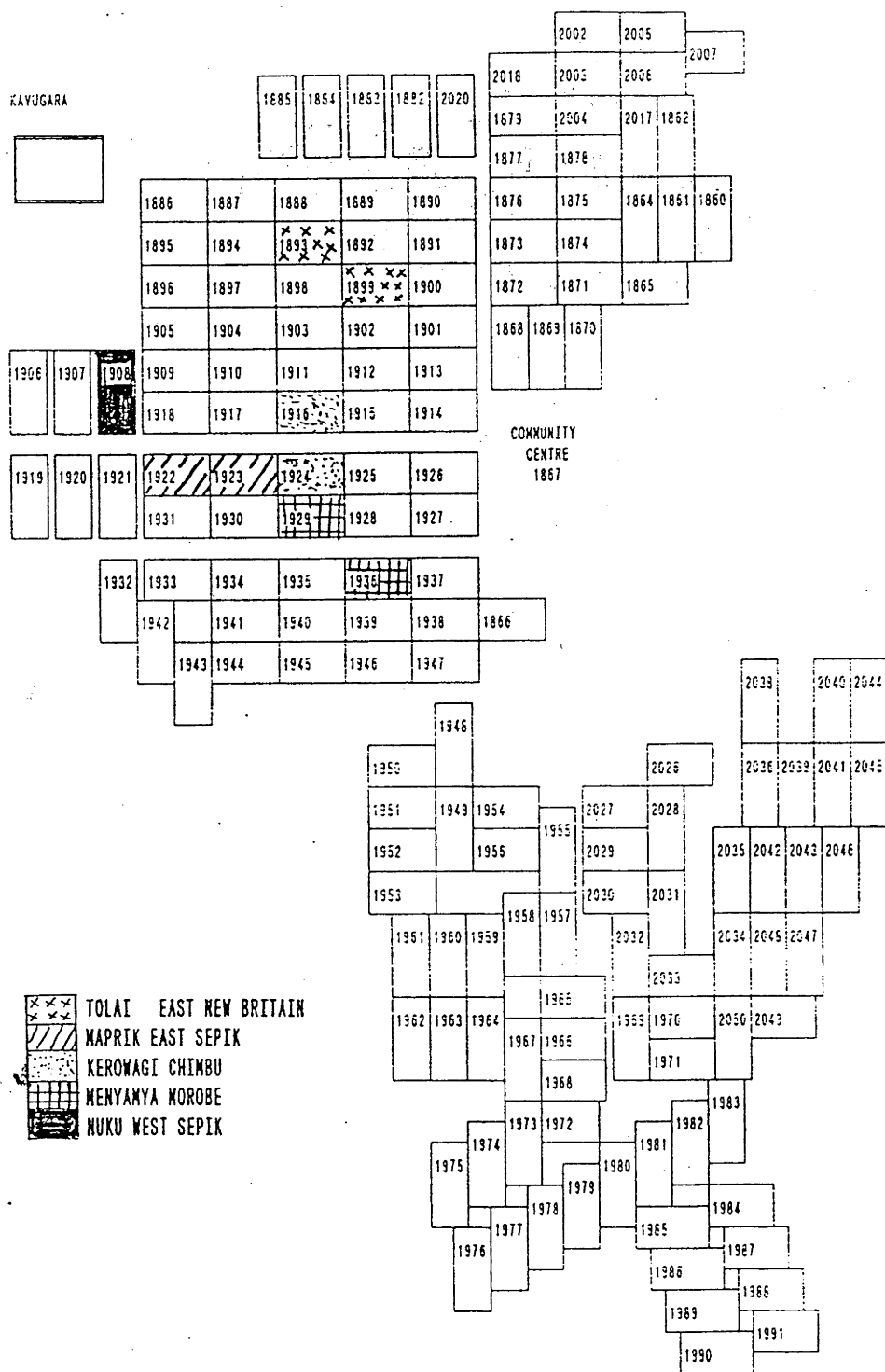
KAPORE MAP 3





IMPORTANT: 5 of the top 8 Kapore producers situated in a close grouping to the far right of the map.

KAVUGARA MAP 1



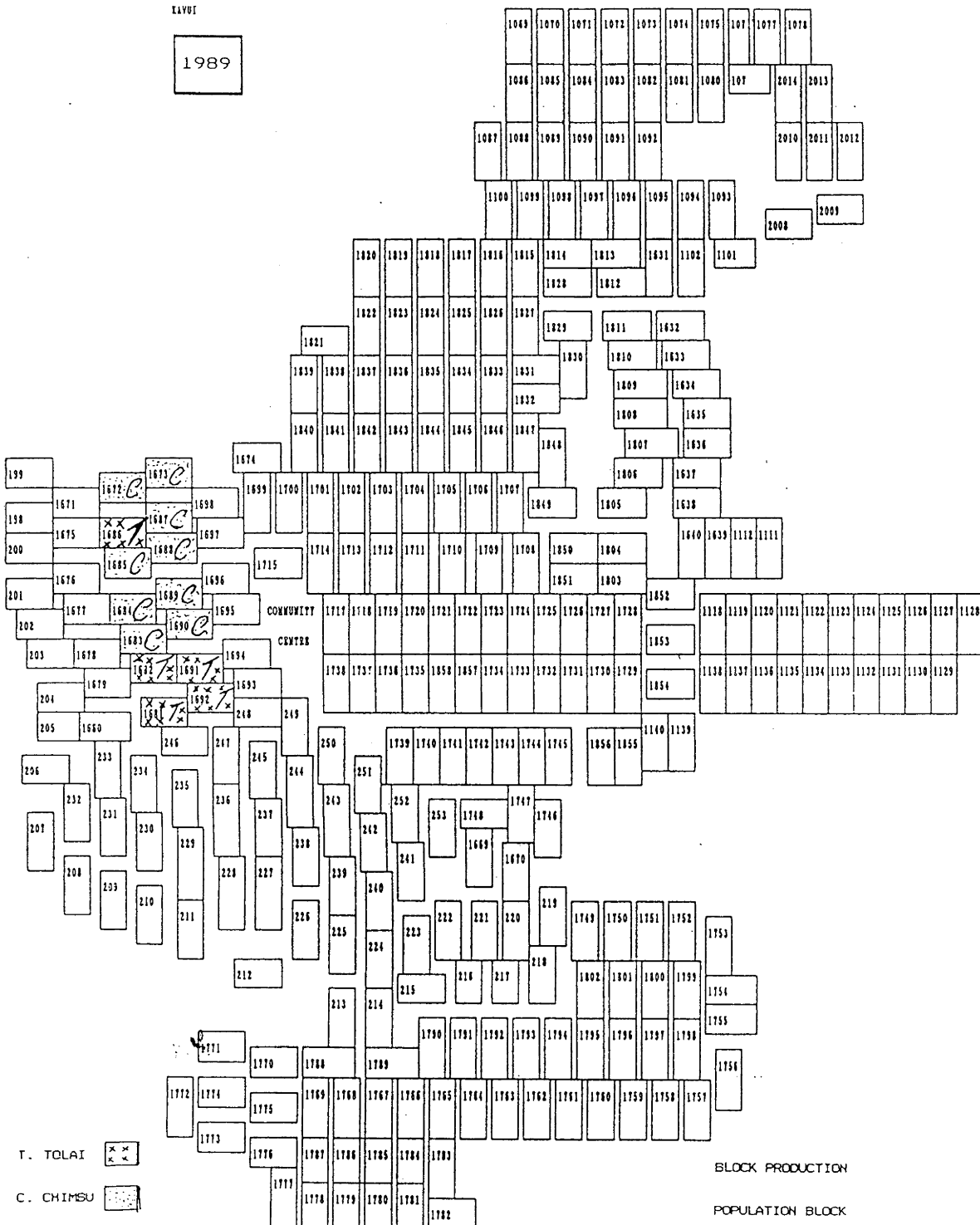
Kavugara yield categories 1989, 75% ---> 100%

NOTE: The close approximation of top producers usually down to similar language and close regional areas reflecting compatible customs and backgrounds.

KAVUI MAP 1

KAVUI

1989



T. TOLAI

C. CHIMBU

BLOCK PRODUCTION

POPULATION BLOCK

TOTAL PRODUCTION 1581-82t

AVERAGE/BLOCK 113t/block

All original settler families, 6.7% of total KAVUI production

from 4.4% of total blocks.

THE MOST PRODUCTIVE CONCERNTRATION OF GROWERS

IN THE SCHEME (RESIDING ALL ALONG ONE ROAD)

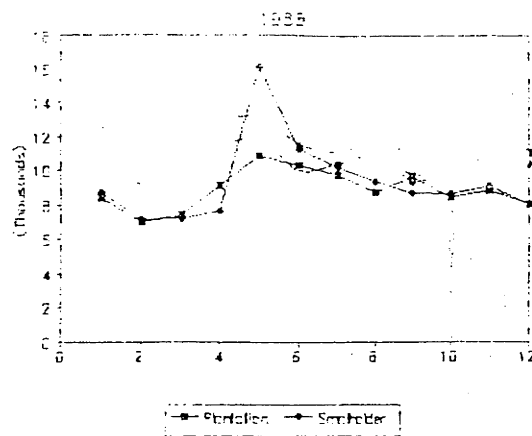
(12) 1692 (T) 146.47t 75% ----> 100%
 (8) 1682 (T) 142.6t 75% ----> 100%
 (7) 1689 (C) 138.57t 75% ----> 100%
 (7) 1673 (C) 134.2t 75% ----> 100%
 (17) 1683 (C) 126.3t 75% ----> 100%
 (4) 1690 (C) 123.0t 75% ----> 100%
 (7) 1688 (C) 114.7t 50% ----> 75%
 (5) 1684 (C) 112.35 50% ----> 75%
 (7) 1691 (T) 111.52 50% ----> 75%
 (8) 1681 (T) 110.85 50% ----> 75%
 (7) 1686 (T) 92.768 50% ----> 75%
 (8) 1672 (C) 80.414 50% ----> 75%
 (8) 1685 (C) 73.094 25% ----> 50%
 (6) 1687 (C) 72.984 25% ----> 50%

ANNEX 26

Smallholder and Plantation Graphs 1-5

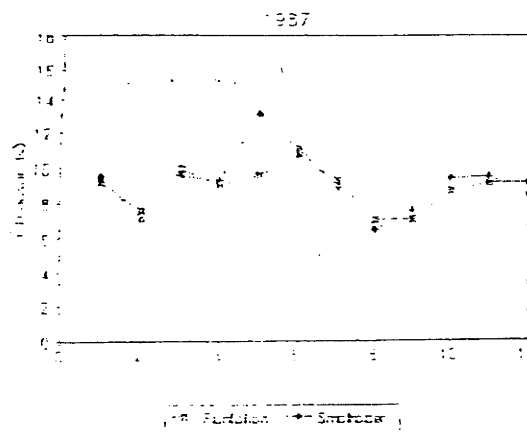
1986	Plantation	Smallholder
1	8347	8740
2	8986	7166
3	7420	7245
4	9076	7628
5	10867	16129
6	10352	11322
7	9772	10228
8	8801	9413
9	9665	8710
10	8406	8672
11	8876	9085
12	8030	8058
	106598	112390

GRAPH 1



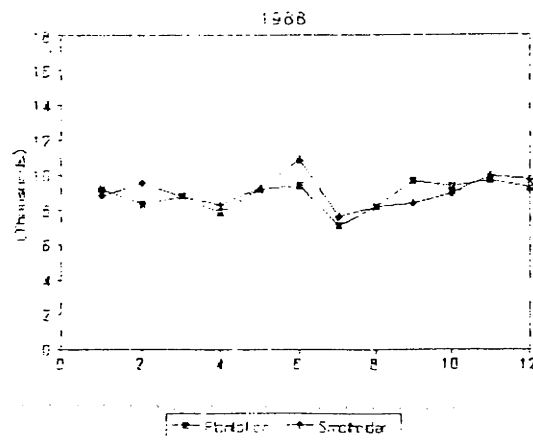
1987	Plantation	Smallholder
	9186	9525
	7472	6980
	9889	9532
	8981	9216
	9560	12952
	10600	10970
	9188	8812
	6874	6384
	6854	7412
	8480	9246
	9014	9318
	9031	8314
	105139	108662

GRAPH 2



1988	Plantation	Smallholder
	9205	8803
	8275	9560
	8783	8767
	7866	8302
	9212	9232
	9373	10844
	7077	7626
	8196	8156
	9665	8357
	9326	8939
	9670	9909
	9257	9760
	105905	108260

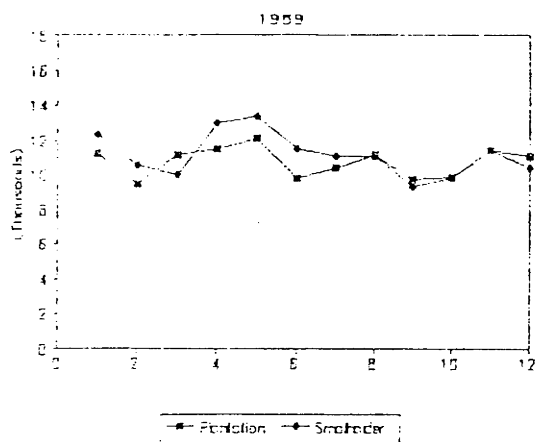
GRAPH 3



1989 Plantation Smallholder

11226	12327
9478	10591
11148	9985
11491	13033
12118	13425
9841	11495
10437	11098
11146	11122
9747	9328
9859	9787
11478	11467
11069	10422
129038	134080

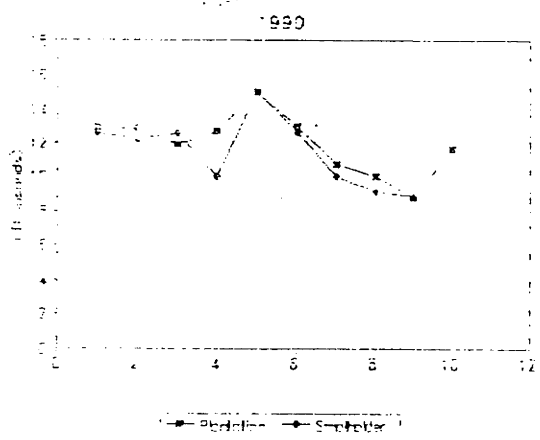
GRAPH 4



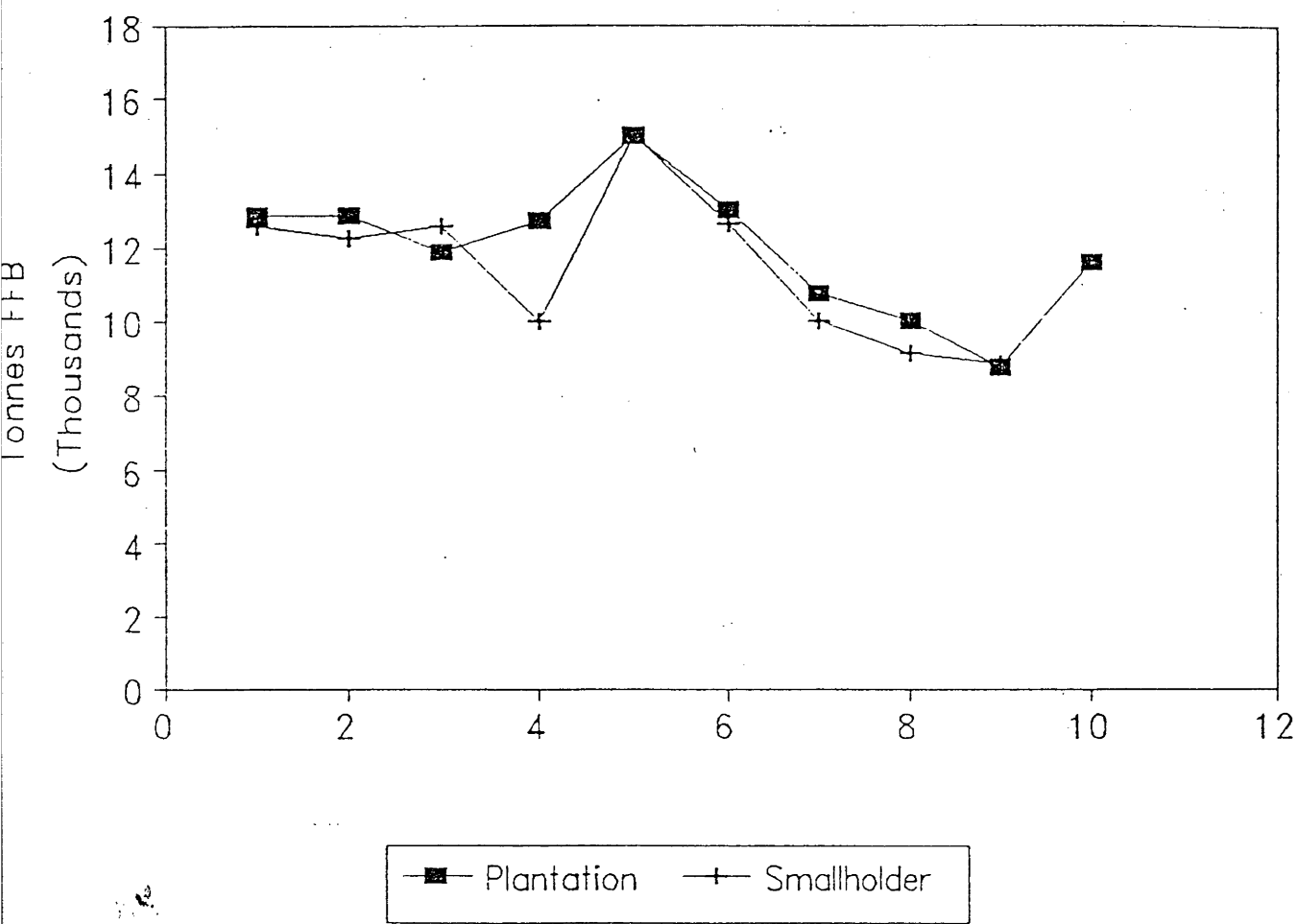
1990 Plantation Smallholder

12901	12608
12880	12263
11893	12601
12719	9994
15013	15009
13013	12629
10754	9989
9894	9136
8760	8630
11591	
119510	103029

GRAPH 5

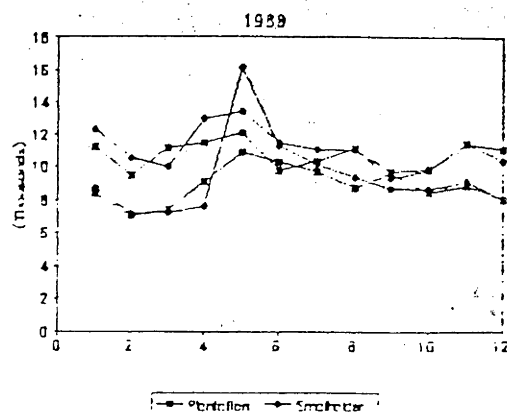


Smallholder & Plantation FFB Production 1990

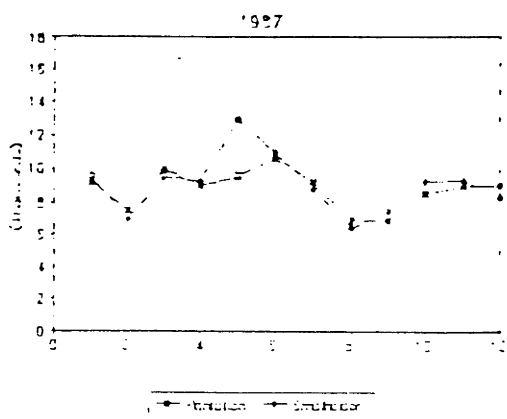


Note: The decline in smallholder production in April 1990 goes against trends set in the previous four years whereby smallholder production follows, or in some cases exceeds, plantation production. The decline by 2,725 tonnes in April 1990 was a result of settlers not harvesting due to the unrest caused by agitation over the pricing formula. It was also noted in Buvussi Community School that month had an absentee rate of only 9 percent, far below usual levels due to students not having to assist with harvest.

1986	Plantation	Smallholder
1	8347	8740
2	6986	7160
3	7420	7245
4	9076	7628
5	10867	16129
6	10352	11322
7	9772	10228
8	8801	9413
9	9665	8710
10	8406	8672
11	8876	9085
12	8030	8058
	106598	112390

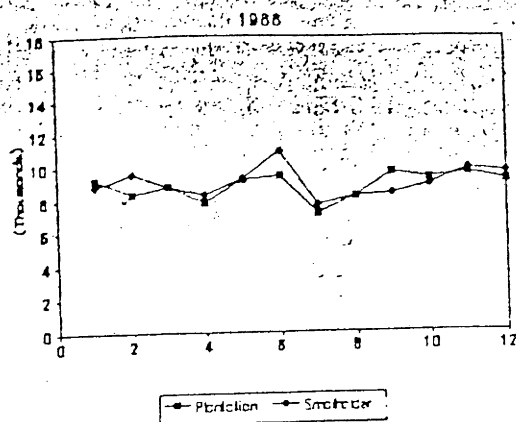


1987	Plantation	Smallholder
1	9186	9525
2	7472	6980
3	9889	9532
4	8881	9216
5	9560	12952
6	10000	10970
7	9183	8813
8	8874	6881
9	6854	7412
10	8490	9246
11	9014	9318
12	9831	8314
	105139	108662



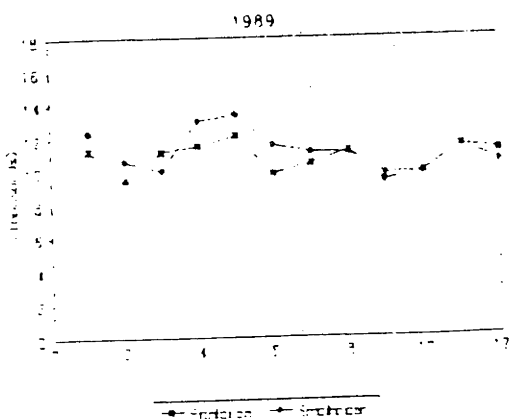
1988 Plantation Smallholder

1	9205	8808
2	8275	9560
3	8783	8767
4	7866	8302
5	9212	9232
6	9373	10844
7	7077	7626
8	8196	8156
9	9665	8357
10	9326	8939
11	9670	9909
12	9257	9760
	105905	108260



1989 Plantation Smallholder

1	11226	12327
2	9478	10591
3	11148	9935
4	11491	13033
5	12118	13425
6	9841	11495
7	10437	11098
8	11146	11122
9	9747	9328
10	9859	9737
11	11478	11467
12	11069	10422



ANNEX 27

Planting Production Gradient Variation, Mosa Village 1985

MOSA VILLAGE 1985 PLANTING PRODUCTION GRADIENT VARIATION

Individual Planting Blocks	Dates	Yield 2/ha (1989)	Yield Range
A	26/02/85	88.9	40.9
B	24/04/85	85.2	37.2
C	14/02/85	80.0	32.0
D	24/02/85	76.5	28.5
E	26/02/85	74.2	26.2
F	02/04/85	69.6	21.6
G	15/05/85	64.1	16.1
H	04/06/85	61.9	13.9
I	24/04/85	58.9	10.9
J	02/12/85	47.2	-0.7
K	02/09/85	46.5	-1.5
L	02/09/85	45.6	-2.4
M	19/08/85	44.4	-3.6
N	19/08/85	44.4	-3.6
O	08/11/85	41.1	-6.9
P	19/08/85	34.2	-13.8
Q	31/07/85	30.8	-17.2
R	31/07/85	29.5	-18.5
S	02/09/85	26.8	-21.2
T	22/10/85	13.1	-34.9

Indication of personal variation in a grower's production

Mosa village blocks planted in 1985 were studied for production. The reason being to get an indication of production diversity which could be attributed to the individual grower himself.

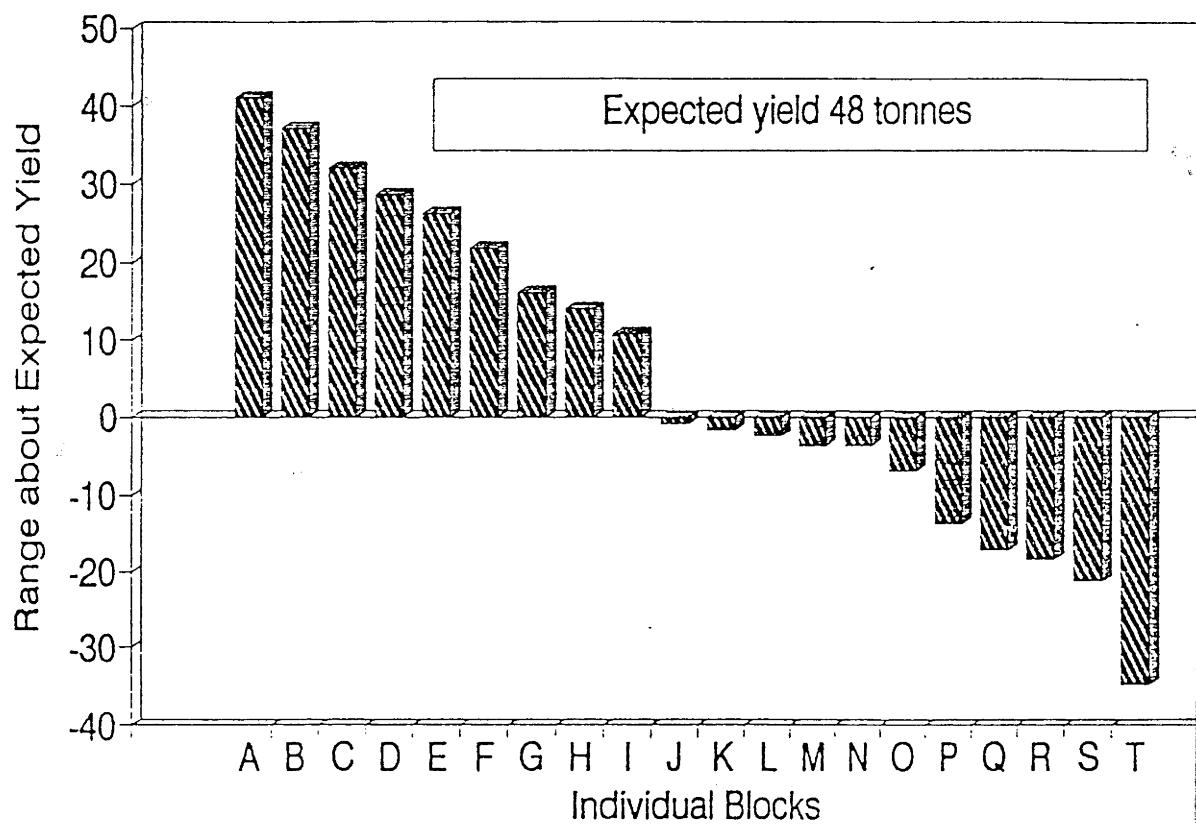
Mosa blocks graphed here were all subjected to the similar conditions of:

1. Climate
2. Soils generally
3. Rainfall
- *4. Ethnic groupings - largely homogenous
- *5. Similar traditional cultural exposure from 1985 to 1989 the range over which production was measured.
6. Similar religious exposure of celebrations
7. Similar gardening patterns
8. Similar block size

Production gradient variation Mosa village 1985 plantings Graph 1, shows the range of production which occurred, strongly influenced by the growers' individual personality, attitudes and make-up.

Production Gradient Variation

Mosa Village 1985 planting



ANNEX 28

Correspondence on DAL Officers Land Mediation



DEPARTMENT OF AGRICULTURE AND LIVESTOCK

TELEGRAM: AGRIC KMBE
TELEPHONE: 93 5275/93 5333
TELEX: 93106
FAX: 93 5530

HOSKINS OIL PALM PROJECT
PMB NAHAVIO
KIMBE. WNBP.
PAPUA NEW GUINEA

Project Field Supervisor
Department of Agriculture & Livestock
NAHAVIO

Date: 12/9/90
Our Reference: OP/12-7-2
Action Officer: O PUKAM/pk
Designation: RDO
Your Reference:
Date:

LAND MEDIATION - VARIOUS

This is for your information and attention that as of 25th July to 12th October have registered this number of blocks up for Councelling.

We were unable to hold Councelling for the month of August due to heavy commitment with ADB Consultant and was postponed to 5/9/90 and than to 12/9/90. However 12/10/90 was put off to 26/9/90 due to D.O Lands was unavailable.

The blocks registered are as:-

<u>SUBDIVISION</u>	<u>PN.</u>	<u>LEASEE</u>	<u>PROVINCE</u>	<u>DECISION</u>
KAVUI	1809	JEFFRY/VINCENT	E. SEPIK	Caretaker out
SARAKOLOK	855	KILE AGUA	CHIMBU	NIL
SARAKOLOK	853	WUKA KALSWA	CHIMBU	BUYER TO RESIDE
SARAKOLOK	916	SKOTI MABO	E. SEPIK	NIL
SARAKOLOK	923	GARE RAKA	WNB (TALASEA)	NIL
KAPORE	288	SUARUA	CHIMBU	NIL
GALAI	1552	HENI IHOHO	SEPIK	Caretaker to purchase
BUVUSI	1182	THRESEA KADAPIA	ENB	Transfere papers with Westpac Bank.
BUVUSI	1276	JOHN LOWAN	SEPIK (DECEASED)	NIL
GALAI	31	VARANGA	WNB (VITU)	Transfer to Caretaker
KAVUI	199	GABRIEL GIM	MADANG	NIL
GALAI	5	DAMIEN	SEPIK	NIL
GALAI	1588	JANET TURIA	SEPIK	CARETAKER OUT
GALAI	1625	-	SEPIK	TRANSFER TO SON
KAVUGARA	1868	-	MOROBE	TRANSFER TO SON
SARAKOLOK	923	-	SEPIK	NIL
KAPORE	286	EMANUEL	ENB	LANDS TO DECIDE
SARAKOLOK	982	-	CHIMBU	NIL
TAMBA	521	-	SEPIK	NIL
KAVUI	248	-	MOROBE	NIL
KAVUI	245	KURIA	MOROBE	NIL
SIKI	131	ALOIS TALIA	ENB	NIL
KAPORE	365	DOMINIC TOPIE	ENB	NIL
KALS (SIKI)	758	LOKE DUI	WNB	NIL

Having total of 25 cases to deal and out of this have made decisions for nine (9).

Having increasing number of leases and volume of paper works it really warrents for an Oil Palm "KIAP".

Skam
OTTO PUKAM
RURAL DEVELOPMENT OFFICER

cc Project Co-ordinator
DAL Kimbe

ANNEX 29

Land Board Assessment Form

LAND BOARD ASSESSMENT FORM

4

Oil Palm/Cocoa

Land Board No _____

Application Number _____

Group _____

Village _____

ce _____

Postal Address _____

Medical Fitness

UnfitFit

Reasons Unfit _____

Character

te Must be either descended from or related to the original inhabitants or have lived for at least 10 years in the Province where the blocks are situated. Must not have a violent background or have been in jail for criminal offences.

Unsuitable -Suitable

If unsuitable, reason _____

Other Leases

Does the applicant have other agricultural leases. If so, the applicant is eligible _____

Marital Status

(Circle correct category)

Unmarried
Married with no Children
Married with 4 Children or more
Married with 1-3 Children
Married with two Wives

NIL
20
20
100
OUT

Age

Under 19 over 40
Between 20-25 and 35-39
Between 26-34

NIL
40
100

Communication Skills

Ability to read and write pigin

Husband 20
Wife 20

7. Land Availability

Assessed by Land Board on lack of agricultural opportunity and on personal drive to improve himself

Landless with problems housing/feeding family	100-150
Subsistence farmer with insufficient land to feed family	50-100
Subsistence farmer with sufficient land for food crops only	20-50
Subsistence farmer with limited cash crop potential	0-20

8. Provincial Land Policy

Preference is given to people of ethnic background in the province with highest points going to traditional landowners.

Descended from traditional landowners of the subdivided land	300-350
Descended from neighbouring villages of the above original landowners	200-250
Ethnic background from Province where subdivision is situated	150-200
Born in Province but not of its ethnic background	100-150
Not of Provinces ethnic background but has lived there for 10+ years	0-100

9. Community Vocational Experience

Leadership/Supervisory/Community/Management experience	0-100
Cash cropping/Commercial/Industrial experience	0- 60
Personal experience with cash crop to be planted	0-100

10. Family Particulars

Also refer to Community Government Questionnaire

Spouses Name _____

Children's Names and Ages _____

11. Other Comments _____

Applicant's Name _____ No. _____
 Ethnic Group _____ Place of Residence _____
 Years Resided in Province _____

Trade Experience

School standard achieved _____ grade/form _____
 What work does he do? _____
 Wage received per fortnight K _____
 Will applicant continue that work if given a block _____ Yes/No
 What other work has applicant done? _____

Residential Details

How much land is owned (Mark Scale)
 Ha 0.5 - 1 - 2 - 5 - 10 - 20 - 50 -
 Where is the land? _____
 Is land (circle) traditional/purchased/leasehold
 Is land under dispute? (circle) Yes/No
 Is land in volcanic risk area (circle) Yes/No
 If Yes Where _____
 How many in applicant's family Wife _____ Children _____ Others _____
 If others who are they? _____

Business Experience

Does applicant own a vehicle (circle) _____ Yes/No
 Does applicant have a business (circle) _____ Yes/No
 What is it? _____

 Is the business successful? _____
 If no business now - previous business _____
 or intention of starting one _____

Community Government Name _____

Interviewing Officer _____

Date of Interview _____

ANNEX 30

Notes on the Preparation of Survey Data Entry and Processing and Survey Forms

NOTES ON THE PREPARATION OF SURVEY DATA ENTRY AND PROCESSING

1. The enumerators record sheet consists of two sets of observations.
2. The first set deals with all activities by the people on the block at the time of the visit.
3. It includes one pair of observations concerning oil palm activities.
4. Further oil palm observations are given on the reverse of the form.
5. If no oil palm activities are under way on the block at the time of the visit the second set of observations are not made.
6. If there are any oil palm activities going on the second set of observations are recorded.
7. All observations on the first side relate to individual persons on the block and to the individual activities.
8. The observations are coded so that they can be sorted by the computer.
9. On the record sheet the code number is 4 digits long (a fifth code letter is added in the computer database).
10. On the record sheet the first digit refers to the group of activities:
 - 1... oil palm
 - 2... subsistence
 - 3... other economic
 - 4... household
 - 5... leisure
 - 6... activities
 - 7... traditional
11. The second digit refers to a particular activity within a group:
 - 11.. oil palm activity on the block
 - 12.. oil palm activity on another block
 - 21.. gardening on the block
 - 22.. gardening off the block
 - 23.. hunting
 - 24.. fishing
 - 31.. wage earning off the block
 - 32.. wage earning on the block
 - 33.. self employed off the block
 - 34.. self employed on the block

35.. selling at the market

41.. buying at the store or market

42.. doing housework

43.. child minding

44.. transacting business at the bank

51.. sleeping or doing nothing on the block

52.. going walk-about

53.. doing or watching sport

54.. making a social call

61.. doing an educational activity

62.. doing a church related activity

63.. attending a (non-religious) meeting

64.. sick or in hospital

65.. giving or gone to a party

66.. any other (non-traditional) activity

71.. pasin tambuna

12. The last two digits of the code number refer to particular individuals on the block, their age and their sex.

13. The third digit indicates age (except for head of household) and the fourth digit indicates sex (odd numbers 1,3,5,7,9 for males; even numbers 2,4,6,8 & 0 for females).

14. The names, ages and sex of each block member was recorded in advance and the code number assigned on the following basis:

..11 The male head of household

..12 his wife (or a female head of household)

..21, ..23, ..25, ..27, ..29 males over 60 years old

..22, ..24, ..26, ..28, ..20 females over 60 years old

..31, ..33, ..35, ..37, ..39 males between 41 and 60

..32, ..34, ..36, ..38, ..30 females between 41 and 60

..41, ..43, ..45, ..47, ..49 males between 26 and 40

..42, ..44, ..46, ..48, ..40 females between 26 and 40

..51, ..53, ..55, ..57, ..59 males between 18 and 25

..52, ..54, ..56, ..58, ..50 females between 18 and 25

..61, ..63, ..65, ..67, ..69 males between 14 and 17

..62, ..64, ..66, ..68, w60 females between 14 and 17

..71, ..73, ..75, ..77, ..79 males between 7 and 13

..72, ..74, ..76, ..78, ..70 females between 13

..81, ..83, ..85, ..87, ..89 males under 7

..82, ..84, ..86, ..88, ..80 females under 7

15. Not every combination of numbers will occur on any one block.

Examples:

1111 the head of the household is reaping oil palm

4112 the wife is at the market buying food

4361 a girl between 14 and 17 is child minding

6171 a boy between 7 and 13 is at school

16. The enumerators do not have to know the meaning of the code number.

17. They simply circle the appropriate number linking the name of the person to the job or activity.

18. The number codes can be entered into a computer more quickly than alphabet codes (such as "y" for yes or "n" for no).

19. The computer will be able to group people by age, sex, oil palm and non-oil palm activities within and between blocks.

20. On the oil palm side of the form only the first set of observations relate to people and the work they are doing.

21. The second set on this side are concerned with other aspects such as the kind and amount of fertilizer, the age of the palms, the state of the equipment, etc.

22. These answers use similar number codes to those on the first side of the sheet but a different digit is added to the computer database to distinguish the answers from the different sides of the sheet.

23. The walk number (one of seven alternative routes), the time of day, the date and day of week are also recorded.

24. Hand-written comments are made on a separate sheet.

INSTRUCTIONS FOR KEYBOARD OPERATOR

1. Record sheets should be kept in separate piles for each recorder/subdivision.
2. Each day's work (11 record sheets per recorder/subdivision) should be paper-clipped together with side one uppermost,
3. It is not necessary to sort the sheets into numerical order of the block number - the computer will accept them as they come.
4. If one or more sheets are missing do not start that set of records until they are located or otherwise accounted for.
5. Care should be taken when turning from side one to side two that the question asked by the computer ("Which side number 1 or 2 ?") is correctly answered.
6. To help remember this and to avoid accidental duplication of data entry the keyboard operator should initial the bottom right hand corner of each side when the last record on that particular side has been entered.
7. The data entry is designed to be self-checking as it is entered but this cannot prevent wrong data being entered accidentally or carelessly.
8. The data will be printed out as it is entered (or immediately afterwards) so that it can be checked for accuracy against the field record sheet.
9. The field record, initialed on both sides, is clipped to the print out and checked (preferably by a separate person) before filing.
10. Summarised data will also be printed out at predetermined intervals (each day, each week, each fortnight, each month, or between any chosen dates).
11. The data summaries will use the code numbers to sort data by age, sex, activity, date and time of day.
12. Statistical analysis will be carried out as and when appropriate.
13. Hand-written remarks and comments by the field enumerators will be entered separately from data but can be linked by the block number, walk number, time of day, date and code number to the related observation.

Definition and explanation of terms

Household:- defined as the family or families who live and sleep regularly on the block and contribute to, or depend on, the block economy. Regularly is defined as 1 month. Outsiders casually visiting for very short periods of time e.g. a few days only, are not included in the survey.

i Head of Household means block owner/caretaker/son or daughter of owner/resident waiting on transfer of block - whoever is declared residential head of household on the block by the block community.

ii Oil Palm as all blocks surveyed will be in production, the broad areas of;

a) Harvesting - cutting fruit, picking up loose fruit and carrying fruit to roadside, helping scaling it onto trucks is defined as harvesting.

b) Maintenance is pruning, weeding of the block, ring weeding palms and any knapsack treatment.

c) If working on another block, mark in comments sheet which block.

iii Subsistence is defined as;

- a) Clearing land for gardens on or off block.
- b) Planting food crops on or off block.
- c) Garden weeding and maintenance on or off block.
- d) Harvesting of food crops on/off block.
- e) Hunting
- f) Fishing

iv Other Economic

a) Wage earning off block means e.g. employment by NBPOD, work as a carpenter or tradesman, a P.M.V. driver for someone else. Particular note should be made of employment connected with oil palm.

b) Wage earning on block means someone employed elsewhere doing work for that employer on the block eg dressmaking for someone in town.

c) Self employed off the block i.e. driving his own P.M.V or own truck, running his own trade store and any other business activities of his own that take him away from the block, but he/she is a regular resident of the block. Particular note should be made of employment connected with oil palm.

d) Self employed on the block means attending to a business on the block. Details should be specified

e.g. poultry project.

e) Marketing Food Crops means selling food crop produce, be it in the community centre, Kimbe, Mosa, Kapore, Buluma, Talasea, Hoskins or on the block roadside. The site should be specified.

v Household, concerns what is going on to maintain the functioning of the households on the block. These have been divided as follows;

a) Store/Market Visit, store/market visit to buy items for the household e.g. kerosene, food items, even tools and equipment for oil palm production, clothing purchases.

b) Housework, brooming, cooking, food preparation, repairs and maintenance of houses and cleaning around, and inside, houses; washing clothes and dishes.

c) Banking means cashing of FFB cheques or any other financial reasons to go to the bank.'

d) Child Care holding or carrying a child, feeding a child, washing a child, etc.

vi Leisure

a) Sleep/Stay, sitting down, sleeping, telling stories, gossiping - not working. A careful distinction must be made here and the circumstances observed carefully e.g. a man or woman may have just sat down for a brief break just after a period of harvesting or gardening - some judgement is required to distinguish true leisure.

b) Walkabout - gone for a walk somewhere with no known (or specific) purpose.

c) Sport gone either to participate or observe sport being played.

d) Social call - gone from the block elsewhere with the express purpose of visiting friends/relatives.

vii Activities

a) Education - children may be off the block at Community School or at High School. In some cases people may be doing correspondence courses.

b) Church - members of block residents attending formal church gatherings or any form of church related activities and meetings.

c) Meetings - covers all formal meetings e.g. political gatherings, agricultural field days, C.A.C.

meetings, youth group meetings, social meetings.
The type of meeting should be specified.

d) Sickness - family or resident members have gone either to the community centre or village aid posts seeking medical assistance. Members of the block residents may even have gone to Kimbe Hospital, Buvussi Hospital Bitokara, Valoka, Gigo Health Clinic etc. At the time of making the initial contact, care should be taken that block members who may already be in hospital are not overlooked. Ask what kind of illness and write answer on other comments sheet.

d) Having a party. (Specify what sort of party).

e) Other activities - anything else not covered in these notes. The activity should be specified on the comment sheet. Beer drinking is included here, as is gamblings e.g. cards, bingo.

viii Traditional

Traditional customs - Pasin Tambuna

Specify if custom involved is todo with bride price, funerals, weddings, births or anything else.

ix General Comments - Anything of interest enumerators may find and think worth including go in this column e.g. name of hospital being attended, specify "other activities", name of market where produce has been taken to be sold, area off the household block where gardening is being carried out, type of wage employment type of self employment. Casual comments each day will build up important information on motivations and incentives of activity.

Cecilie Benjamin
ADB Agrosociologist

OTHER COMMENTS SHEET

DAY 4

RECORDER

DATE / / 90

NAME

SUBDIVISION BUVUSSI

TIME OF VISIT	BLOCK NO	DAY OF WEEK
7 A.M.	B.N.	Vehicle assistance required
8 A.M.	B.N.	
9 A.M.	B.N.	
10 A.M.	B.N.	
11 A.M.	B.N.	
12 A.M.	B.N.	

OTHER COMMENTS

SUBDIVISION BUVUSSI

BLOCK
NO

M B.N.

P.M. B.N.

P.M. B.N.

P.M. B.N.

P.M. B.N.

Vehicle pick up.

P.M. B.N.

6. AVERAGE No. of BLOCKS SURVEYED/DAY

i.e. $\frac{\text{TOTAL No. of BLOCKS SURVEYED}}{\text{No. of DAYS SPENT ACTUALLY SURVEYING}} =$ _____ BLOCKS

7. No. of NIGHT MEETINGS HELD _____ =
WITH GROWERS/TEAM

8. TECHNICAL CONSTRAINTS AND POSITIVE FACTORS EXPERIENCED DURING THE SURVEY

CONSTRAINTS if any	POSITIVE FACTORS if any

9. OBSERVATIONS of the SURVEY TEAM EXPERIENCED of all matters relating to growers during the survey/night meetings/informal contact etc (these points should be recorded as the result of a group discussion with each team).

(a) AGRICULTUREMATTERS INCLUDING MATTERS RELATING TO AGRICULTURAL ECONOMICS.

(b) ALL OTHER AREAS OTHER THAN THOSE OF 9 (a) above.

DATE of VISIT: ... - ... - 90

NO.

ORIGIN — PROVINCE

 — DISTRICT

ORIGIN — PROVINCE
— DISTRICT

ORIGIN — PROVINCE
— DISTRICT

ORIGIN — PROVINCE
— DISTRICT

ORIGIN — PROVINCE
— DISTRICT

ORIGIN — PROVINCE
— DISTRICT

INAL LER	SON/DAUGHTER OF ORIGINAL SETTLER	PURCHASED FROM ORIGINAL SETTLER	OTHER RELATIVE OF ORIGINAL SETTLER	CARETAKER
	2	3	4	5

SEX	AGE GROUPS							HIGHEST EDUCATION GRADE COMPLETED				EMPLOYMENT
	60+	41-50	26-40	18-25	14-17	7-13	-7	CS	HS	TS	VS	
F												
	11	21	131	141	151	161	171					OFF BLOCK Y or N

WIFE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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[illegible]

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[illegible]

OTHER BLOCK RESIDENTS ARRIVED SINCE CHRISTMAS 1989 (WITHIN THE LAST 12 AGE/EDUCATION/EMPLOYMENT

SEX		AGE GROUPS							HIGHEST EDUCATION GRADE COMPLETED				
M	F	60+	41- -60	26- -40	18- -25	14- -17	7- -13	-7	CS	HS	TS	VS	
		[1]	[2]	[3]	[4]	[5]	[6]	[7]					[Y]

RELATIONSHIP OF PRINCIPAL RESIDENTS TO H/H

BRO [1]	SIS [2]	COUS [3]	NEPH [4]	NIE [5]	UNC [6]	AUN [7]	
IN-L [8]	SAME CLAN [9] not related directly				FRI [10]	OT [11]	

HOUSING

BUSH MATERIAL HOUSE ON BLOCK	SETTLER HOUSE ON BLOCK	IMPROVED HOUSE ON BLOCK	NO HOUSE ON BLOCK	SETTLER HO IN VILLAG
[1]	[2]	[3]	[4]	[5]

NUMBER OF OCCUPIED RESIDENTIAL BUILDINGS/BLOCK (L.S.S. ONLY)

0	1	2	3	4	5	6	7	8	9	MORE
---	---	---	---	---	---	---	---	---	---	------

SOURCE OF FINANCE

AGRIC. BANK	COMMERCIAL BANK	OWN FUNDS	OTHER
[1]	[2]	[3]	[4]

OTHER ENTERPRISES

TYPE OF ENTERPRISE	STOCK		SOURCE OF FINANCE			
	NUMBER	VALUE	COMMERCIAL BANK	AGRIC BANK	PERSONAL FUNDS	OTHE
PIG PROJECT	-	-	[1]	[2]	[3]	[4]
POULTRY PROJECT	-	-	-	-	-	-
PMV	-	-	-	-	-	-
TRADE STORE	-	-	-	-	-	-
OTHER (SPECIFY)	-	-	-	-	-	-

If other type of enterprise, specify
If other source of finance, specify

ISION OF VILLAGE
N NUMBER
NUMBER

RECORDER

PLANTING DATES

1ST PLANTING	2ND PLANTINGS	3RD PLANTING DUE
-----------------------	------------------------	---------------------------

TOTAL NUMBER PLANTED

1ST PLANTING	2ND PLANTINGS	TOTAL PALMS/BLOCK
--------------	---------------	-------------------

AREA OF BLOCK PLANTED

1ST PLANTING	2ND PLANTINGS	TOTAL PLANTED AREA
--------------	---------------	--------------------

NO. PALMS DEAD FROM
PEST/DISEASE/OTHER

1ST PLANTING	2ND PLANTINGS	TOTAL NO. DEAD
--------------	---------------	----------------

NO. OF PALMS WHOSE PRODUCTION IS BEING HELD BACK BY
PEST OR DISEASE OTHER THAN SEXAVA ATTACK palms

OTHER TREE CROPS BELONGING TO H/H

	SOLE COCOA	SOLE COCONUTS	COCOA/COCONUTS
	BEARING · NON · BEARING	BEARING · NON · BEARING	BEARING · NON · BEARING
NUMBER (APPROX)	- -	- -	- -
AREA (APPROX)	- -	- -	- -

SUBDIVISION or VILLAGE DATE OF VISIT ... - .
SECTION NUMBER RECORDER'S NAME
BLOCK NUMBER

BLOCK INSPECTION

POINTS SCORE	ACCESS	CIRCLES	GROUND COVER	GENERAL MAINTENANCE	PRUNING	LOOSE FRUIT COLLECTION

TOTAL No. of POINTS =

TERRAIN RESTRICTIONS

1ST PLANTING					2ND PLANTING					FUTURE 3RD	
1	41-	81-	161-		1-	41-	81-	161-			
0 -40	-80	-160	-240	0	-40	-80	-160	-240	0	1/3	
[0]	[1]	[2]	[3]	[4]	[0]	[1]	[2]	[3]	[4]	[0]	[1]

HARVESTING AREA of BLOCK, ABANDONED, SEMI ABANDONED/REGULAR NEGLECT

1ST PLANTING					2ND PLANTING				
1-	41-	81-	161-		1-	41-	81-	161-	
0 -40	-80	-160	-240	0	-40	-80	-160	-240	
[0]	[1]	[2]	[3]	[4]	[0]	[1]	[2]	[3]	[4]

NUTRITIONAL STATUS OF BLOCK

YELLOWING OF PALMS (exciude yellowing on roadsides)
(Moderate -----> Severe)

1ST PLANTING					2ND PLANTING				
1-	41-	81-	161-		1-	41-	81-	161-	
0 -40	-80	-160	-240	0	-40	-80	-160	-240	
[0]	[1]	[2]	[3]	[4]	[0]	[1]	[2]	[3]	[4]

ESTS & DISEASES

SEXAVA	SERIOUS	3
	MODERATE	2
	LIGHT	1
	NOT PRESENT	0

TOOLS FOR HARVESTING

TYPE	NUMBER	CONDITION F NF	LENGTH (metres)	PROBLEMS [Y or N]
MINIUM TESTING POLE			2 3 4 5 6 7 8 9 10	
ON HARVESTING			2 3 4 5 6 7 8 9 10	
EL				
BARROW				

GARDENS (SETTLEMENT ONLY)

Blockholder and family have a food garden YES/NO

If YES, where?

ON BACK BLOCK [1]	ON ROADSIDE OF BLOCK [2]	OFF BLOCK [3]
-------------------	--------------------------	---------------

If-block, where? Describe in as much detail as possible (block number, relationship other H/H or village to this block owner).

.....

.....

IRRIGATION SYSTEM USED

.....

CROPS GROWN FOR MARKET yes/no
If yes, what types? (E.g. Beans, peanuts, etc.)

How often do family market food

>1/week	1/week	<1/week	Occasionally
[1]	[2]	[3]	[4]

VILLAGE OR
SUBDIVISION
BLOCK NO.

WALK 1 2 3 4 (5) 6 7 DAY *Thursday*
TIME OF VISIT *11:30 am* DATE OF VISIT *31.1.90*

RECORDER *ally n...*

SKK

JOHN
ROSA
DORVA
SILMAI
PAUL
CLEMENT
LIGAT
PAUL
DISA
HILAKE

OIL PALM										
THIS BLOCK	1111	1112	1141	1143	1151	1153	1162	1171	1173	1181
ANOTHER BLOCK	1211	1212	1241	1243	1251	1253	1262	1271	1273	1281
SUBSISTENCE										
GARDENING										
ON BLOCK	2111	2112	2141	2143	2151	2153	2162	2171	2173	2181
OFF BLOCK	2211	2212	2241	2243	2251	2253	2262	2271	2273	2281
HUNTING	2311	2312	2341	2343	2351	2353	2362	2371	2373	2381
FISHING	2411	2412	2441	2443	2451	2453	2462	2471	2473	2481
OTHER ECONOMIC										
WAGE EARNING										
OFF BLOCK	3111	3112	3141	3143	3151	3153	3162	3171	3173	3181
ON BLOCK	3211	3212	3241	3243	3251	3253	3262	3271	3273	3281
SELF EMPLOYED										
OFF BLOCK	3311	3312	3341	3343	3351	3353	3362	3371	3373	3381
ON BLOCK	3411	3412	3441	3443	3451	3453	3462	3471	3473	3481
MARKET										
[FOOD] SELLING	3511	3512	3541	3543	3551	3553	3562	3571	3573	3581
HOUSEHOLD										
STORE/MARKET										
[FOOD] BUYING	4111	4112	4141	4143	4151	4153	4162	4171	4173	4181
HOUSEWORK	4211	4212	4241	4243	4251	4253	4262	4271	4273	4281
CHILD MINDING	4311	4312	4341	4343	4351	4353	4362	4371	4373	4381
BANKING	4411	4412	4441	4443	4451	4453	4462	4471	4473	4481
LEISURE										
SLEEP/STAY	5111	5112	5141	5143	5151	5153	5162	5171	5173	5181
WALK ABOUT	5211	5212	5241	5243	5251	5253	5262	5271	5273	5281
SPORT	5311	5312	5341	5343	5351	5353	5362	5371	5373	5381
SOCIAL CALL	5411	5412	5441	5443	5451	5453	5462	5471	5473	5481
ACTIVITIES										
EDUCATION	6111	6112	6141	6143	6151	6153	6162	6171	6173	6181
CHURCH	6211	6212	6241	6243	6251	6253	6262	6271	6273	6281
MEETING	6311	6312	6341	6343	6351	6353	6362	6371	6373	6381
SICKNESS	6411	6412	6441	6443	6451	6453	6462	6471	6473	6481
PARTY	6511	6512	6541	6543	6551	6553	6562	6571	6573	6581
OTHER	6611	6612	6641	6643	6651	6653	6662	6671	6673	6681
TRADITIONAL										
PASIN										
TAMBUNA	7111	7112	7141	7143	7151	7153	7162	7171	7173	7181

ANNEX 31

Crop Estimates Table

* CROPS ESTIMATES (tonnes/ha)

PLANTING YEAR	PALM AGE AND YEAR MEAN JUNE	PLANTATION	SMALLHOLDER REPLANTS	SMALLHOLDER NEW PLANTINGS
0	0.5			
1	1.5			
2	2.5			
3	3.5	9	6	8
4		17	14	16
5		21	18	20
6		25	20	22
7		26	22	24
8		26	22	24
9		26	22	24
10		26	22	24
11		25	21	23
12		25	20	23
13		24	19	22
14		24	19	21
15		23	18	20
16		21	18	20
17		21	17	18
18		20	17	18
19		18	16	17
20		18	16	17

* Compiled by Mr. John Leech, Advisor, Harrison Fleming
Advisory Services, London.