

DfID KaR Fuel Substitution Project: Short Questionnaire Survey Results

Stephen N. Mutimba

Energy Alternatives AFRICA

Purpose of Surveys

The Survey's aim was to give a short qualitative view of suppliers involved in the traditional fuel business, paying particular attention to poverty indicators, in order to:

- characterise the sector of carriers involved in the supply and distribution of traditional fuels (charcoal & fuel-wood) within urban areas, in terms of number, gender, and means of transport;

Purpose of Surveys Cont'd

- characterise the sector of vendors involved in the sale of traditional fuels;
- characterise the nature of the traditional fuels business;
- assess the poverty/livelihood impacts on traditional fuel suppliers of fuel substitution and improved stoves.

Questionnaires: 4 types administered

1. Vendors short questionnaire: - Targeting charcoal retailers and depot owners, etc.
2. Lorry questionnaire: - Targeting charcoal/wood motorized transporters
3. Non-vehicle questionnaire: - Targeting non-motorized transporters of charcoal/wood
4. Tally Questionnaire: Used to take count of vehicles bringing in charcoal/wood

Methodology

- City divided into 13 sections representing lower, middle and upper income classes.
- For lorry questionnaire, 6 entry points into the city were identified: Mombasa, Thika, Naivasha, Ngong and Ongata Rongai, Kiambu, Gigiri and Kangundo Road.
- Enumerators were familiarized with the questionnaires through a pre-test run and sent out according to the parts of the city they were familiar with

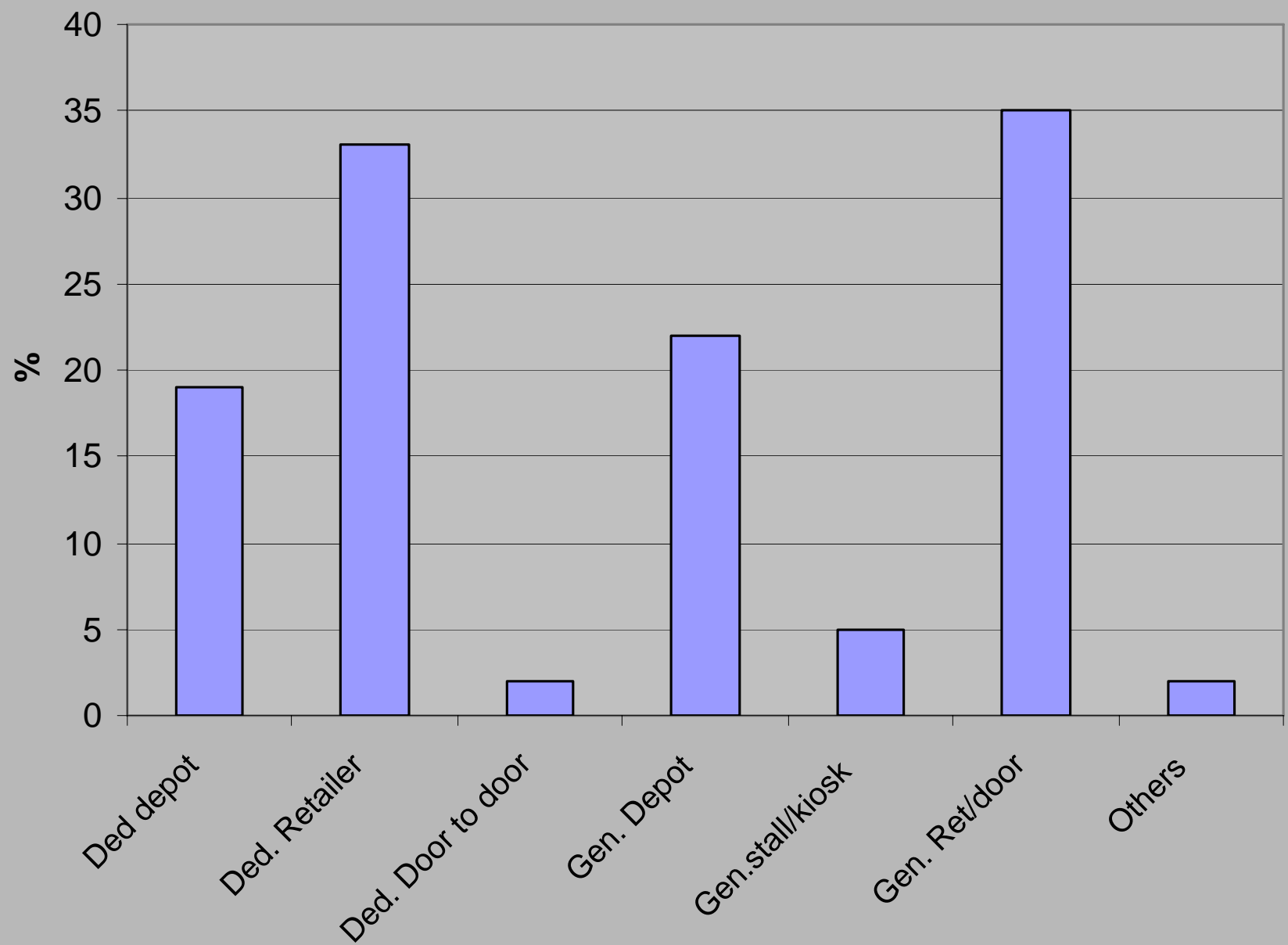
Methodology Cont'd

- Enumerators administering lorry questionnaire liaised with depot owners who introduced them to lorry/truck drivers
- Involved working early and late hours to catch elusive lorry drivers
- Vendor and non-motorized questionnaire was easier to administer

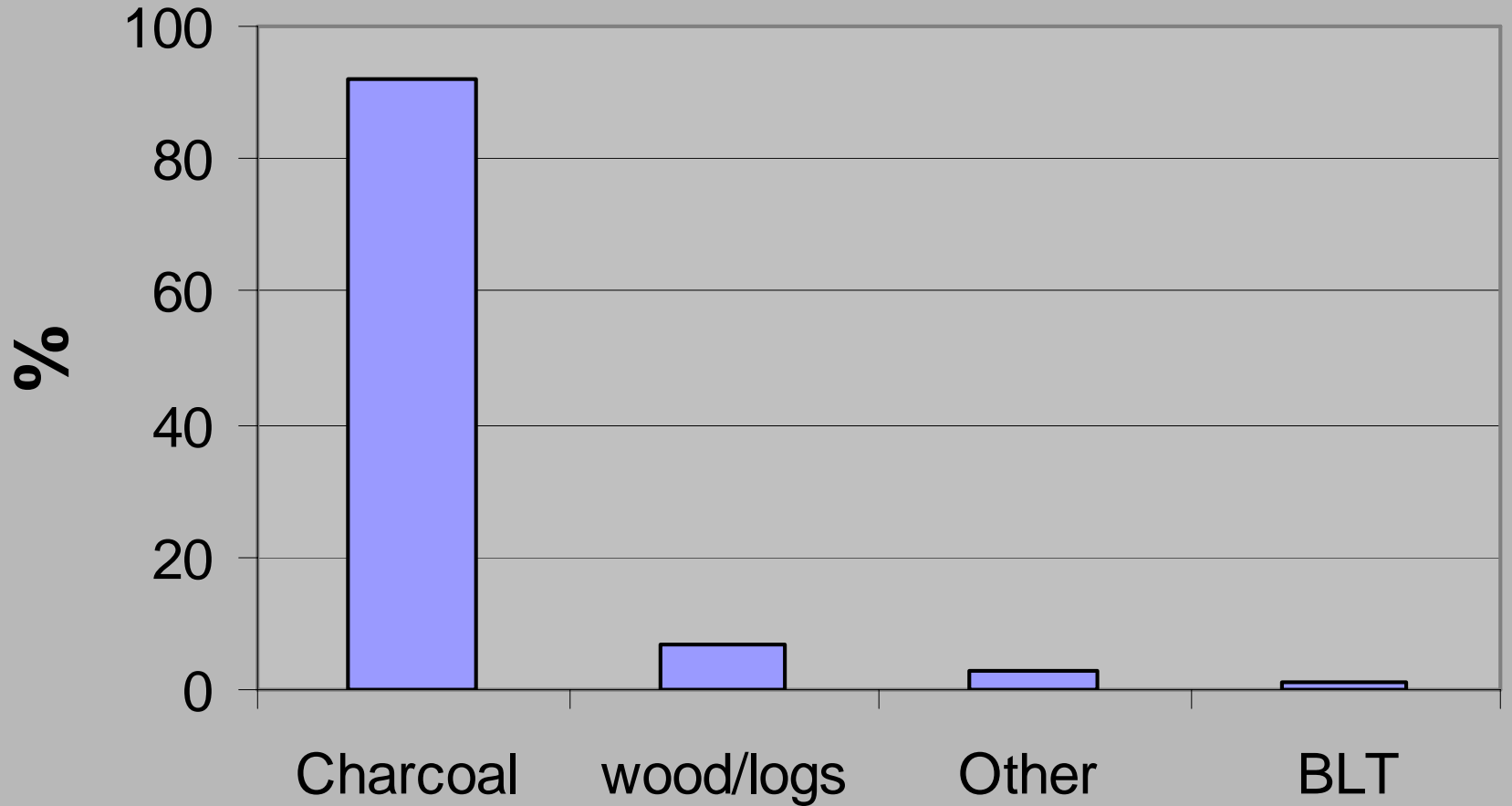
Results: Vendor Questionnaire

- 104 vendors were interviewed, 67% were male and 33% female.
- Majority of vendors, 87% were adult of between 15 and 55 years,
- Children (below 15 years) and people above 55 years made up about 10% of respondents.
- There are two basic category of vendors – dedicated and general – graph below shows

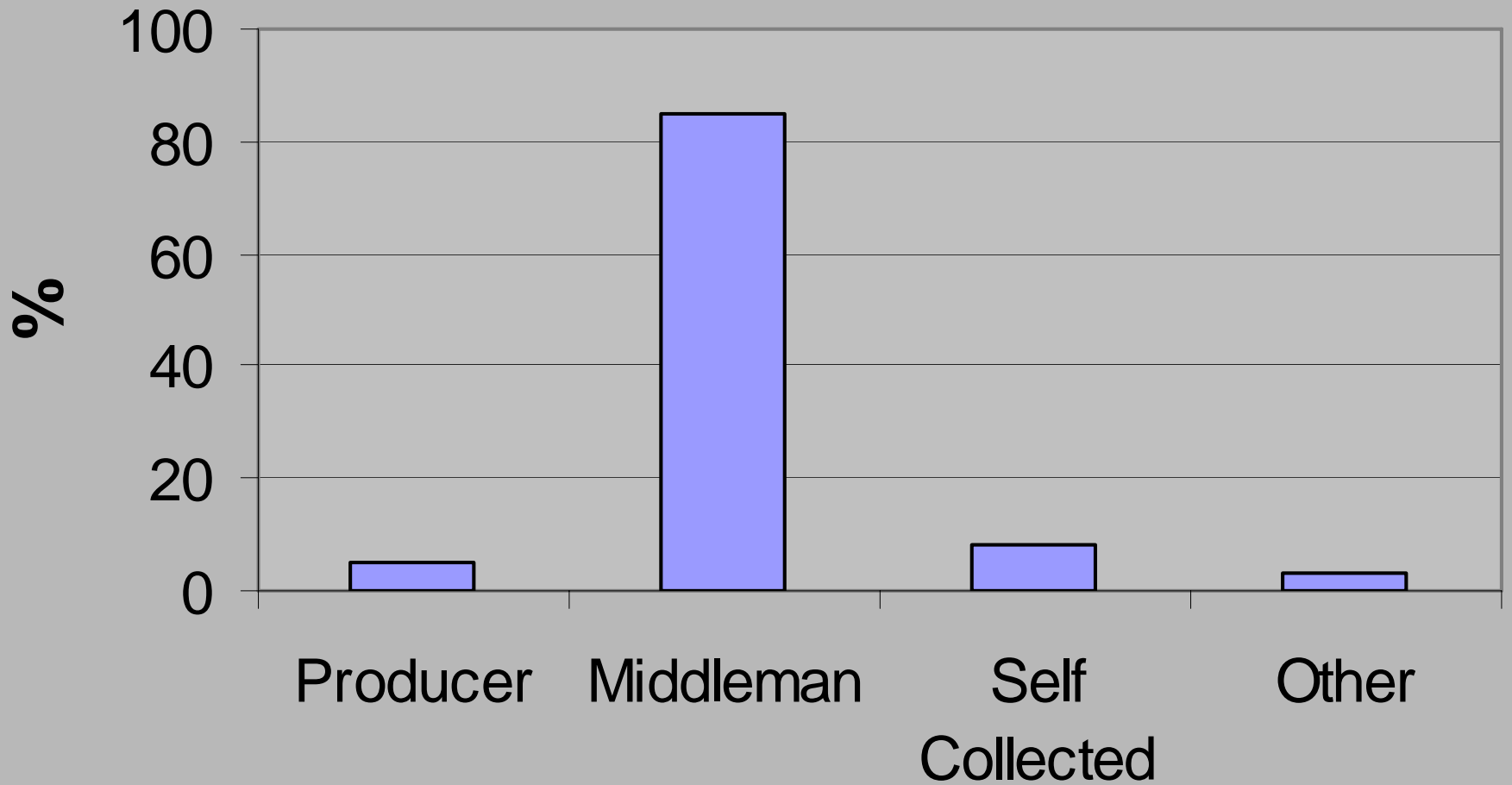
Graph shows vendor category



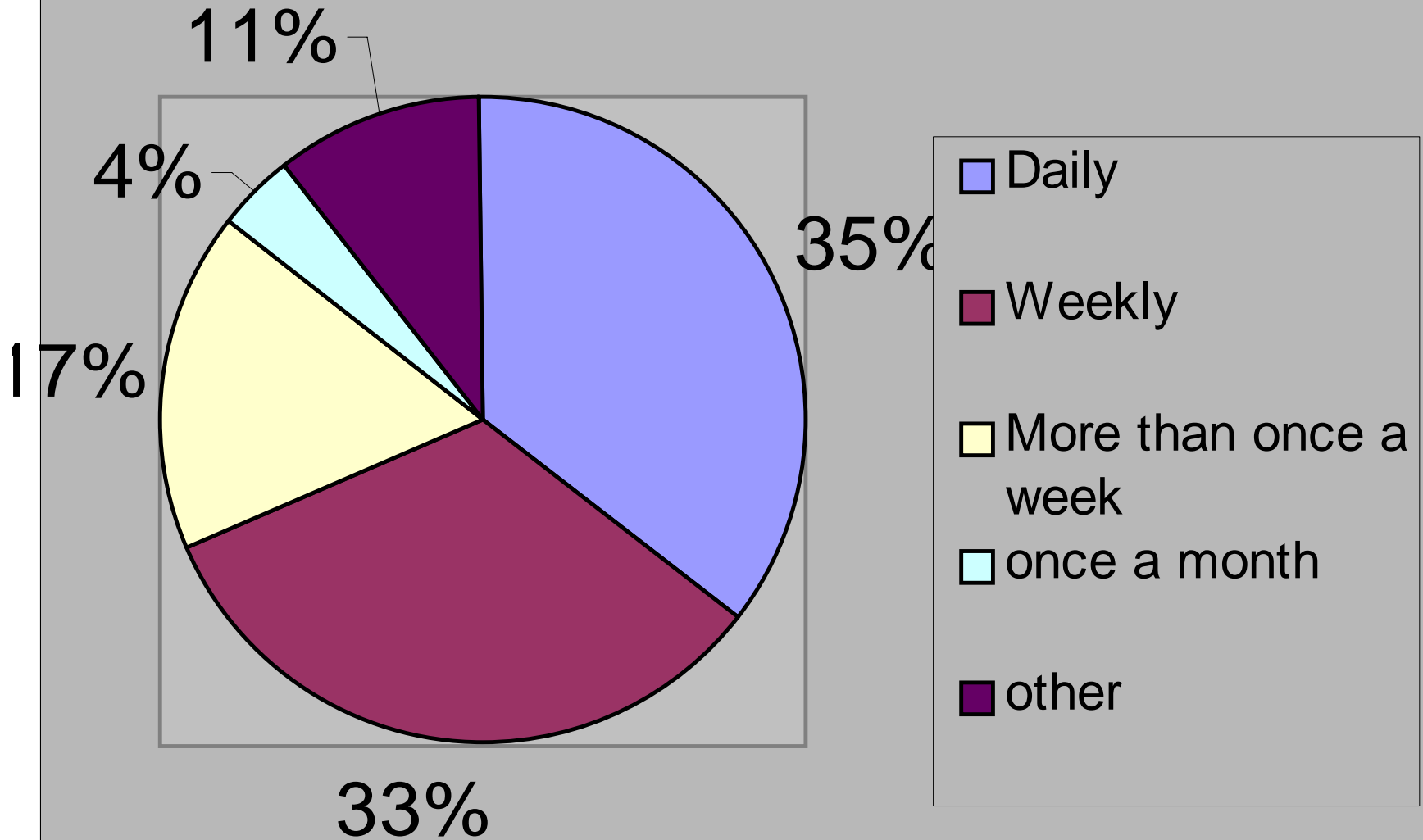
Fuel Type Sold by Vendors



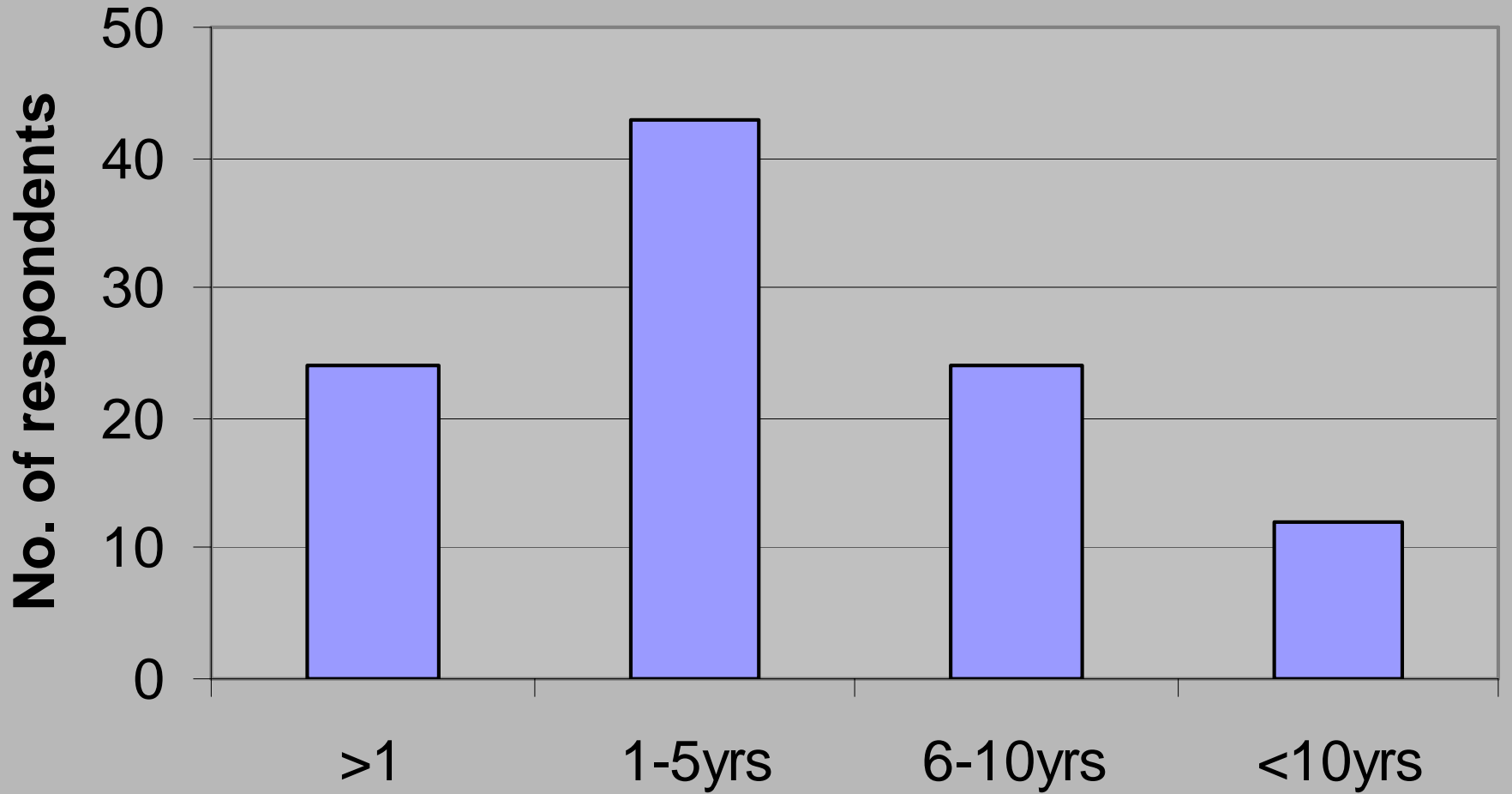
Graph shows Source of Fuels



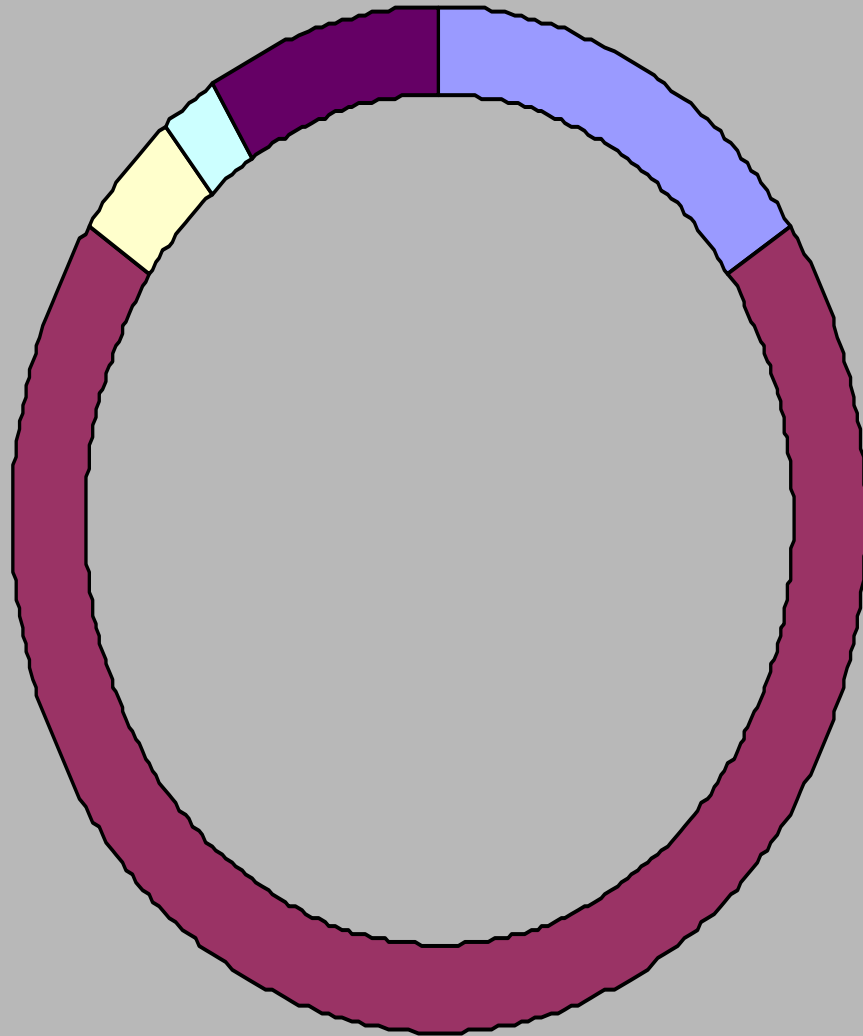
FREQUENCY OF SUPPLY



Period in Business

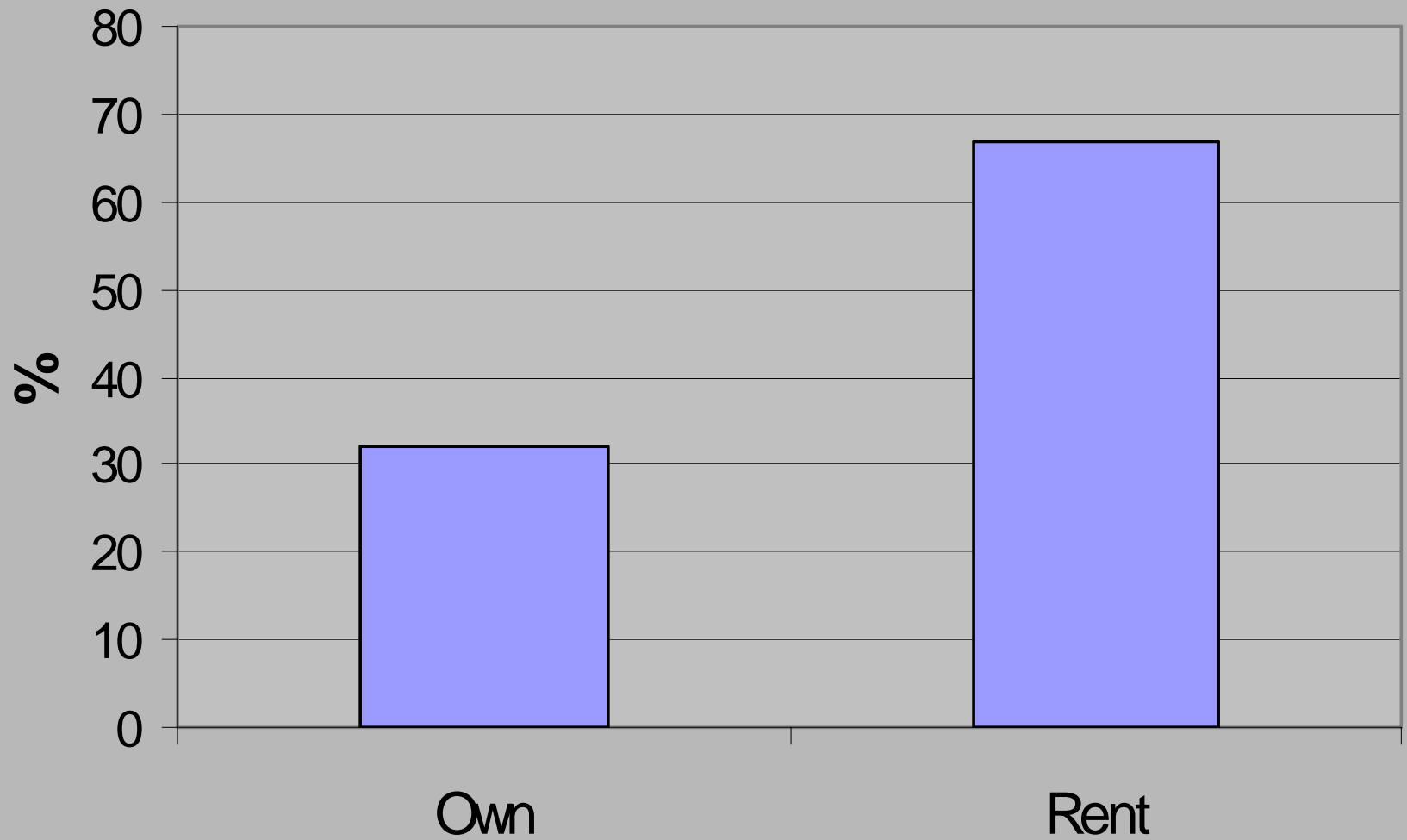


Reasons for Engaging in Trad.Fuel Business



- No alternative
- Earn a living
- additional income
- Family problems
- Others

Ownership of Space/Facility where fuel is Sold



Pressing Problems encountered

- Sack filled with un-burnt wood instead of charcoal
- low quality charcoal
- lack of capital to expand or stock
- shortage of charcoal during rainy season
- harassment by police and city council askaris
- bad economy

Problems encountered cont'd

- inadequate market
- no credit services
- suppliers are not reliable
- harassment by environmentalist and/or conservationist
- competition
- price fluctuation
- low consumption during dry season

Problems cont'd

- no official space
- inadequate storage facilities
- rent is high
- shortage of timber
- they are forced to bribe to stay in business
- No permits and licenses
- logging is against the law
- transport

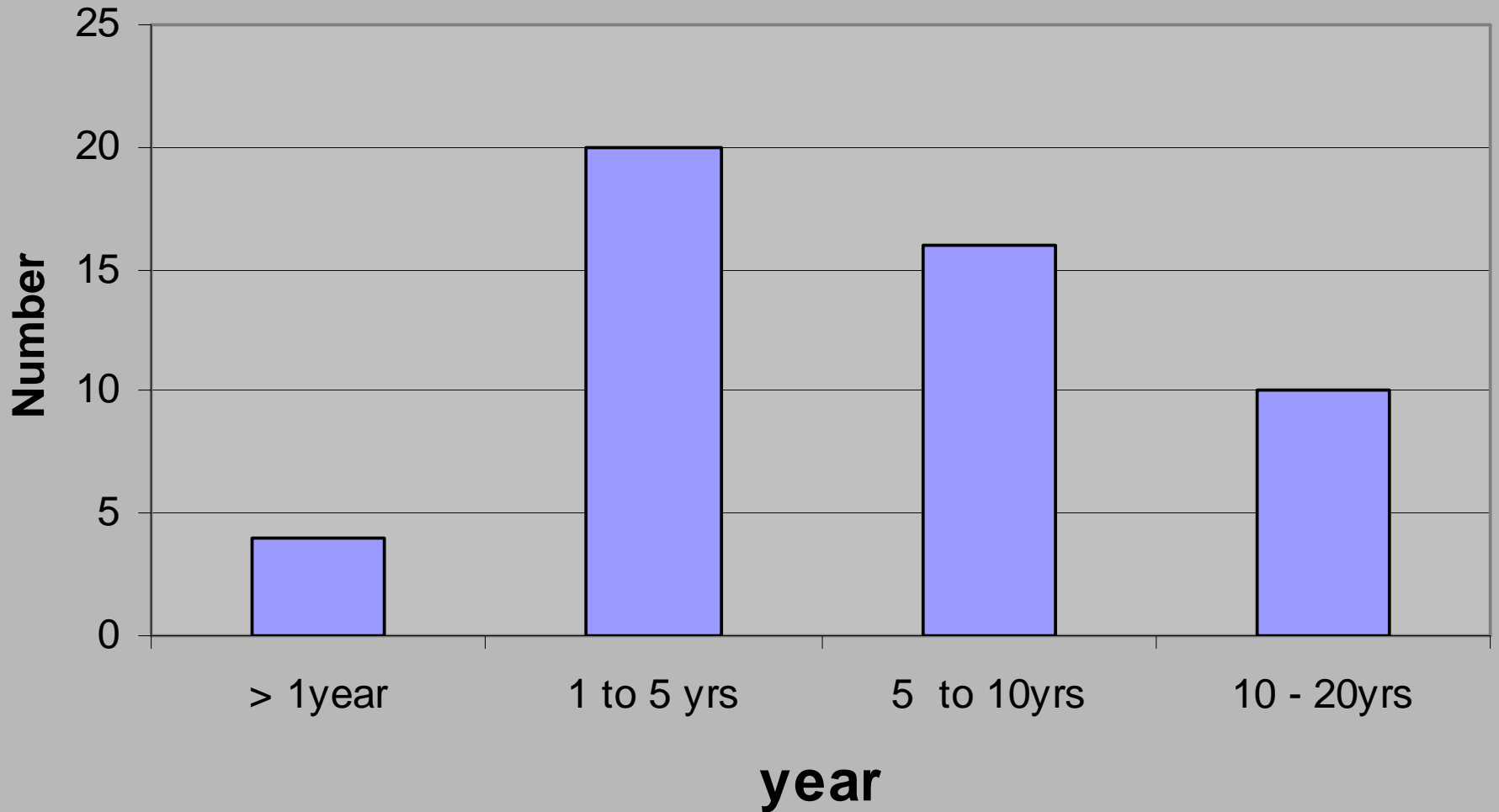
Lorry questionnaire

- 49 lorry drivers were interviewed
- Their mean age was 35 years and they were all male.
- 47 of the lorries were transporting charcoal and 2 wood/logs
- 34% drivers said they owned the vehicles,
- Whilst 66% said that vehicles were hired from other charcoal dealers; belonged to friends or relatives or their employers and/or business partners.

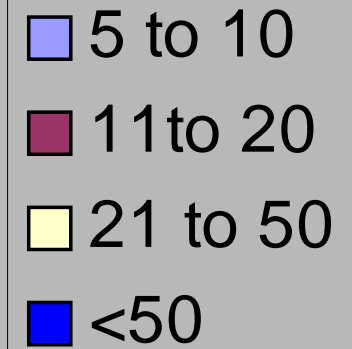
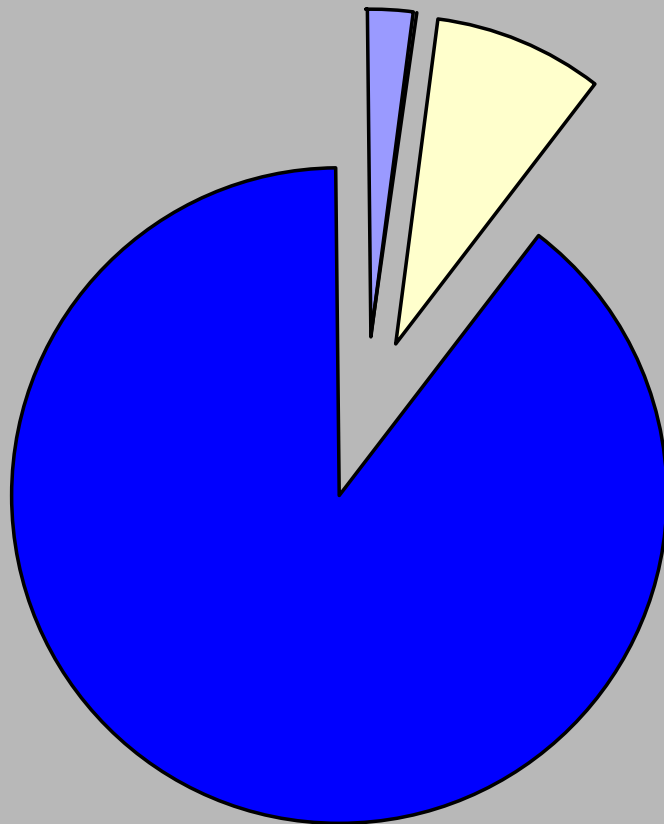
Lorry questionnaire cont'd

- 69 % of the lorry drivers said that transporting charcoal was their main activity, whilst 31% engaged in charcoal transportation when their other main activities had slowed down.
- 20% of the drivers owned the charcoal, whilst 80% had been hired to transport the charcoal
- The charcoal either belonged to the employer, a charcoal dealer or a passenger within the vehicle

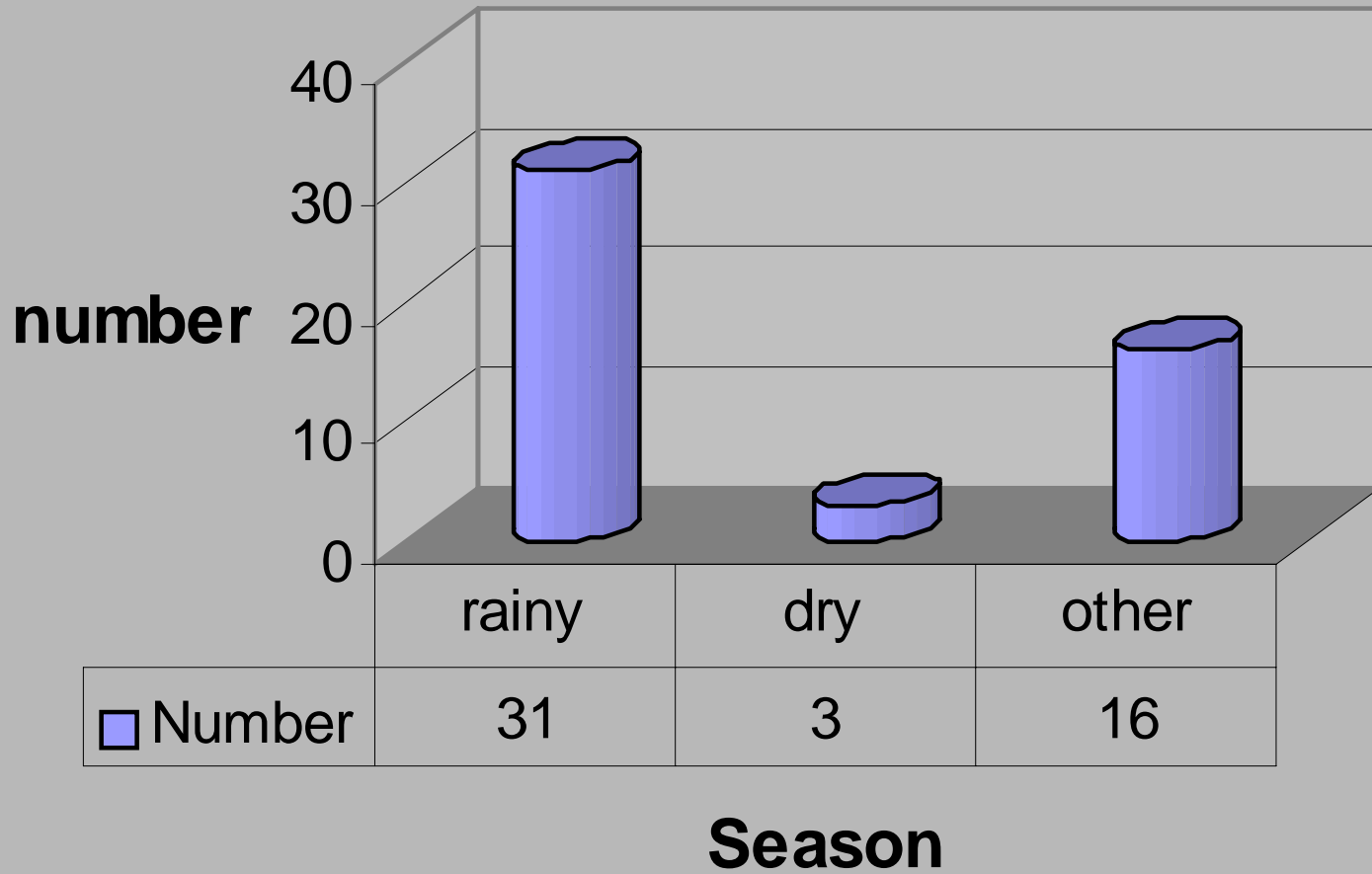
Length of Period in Business



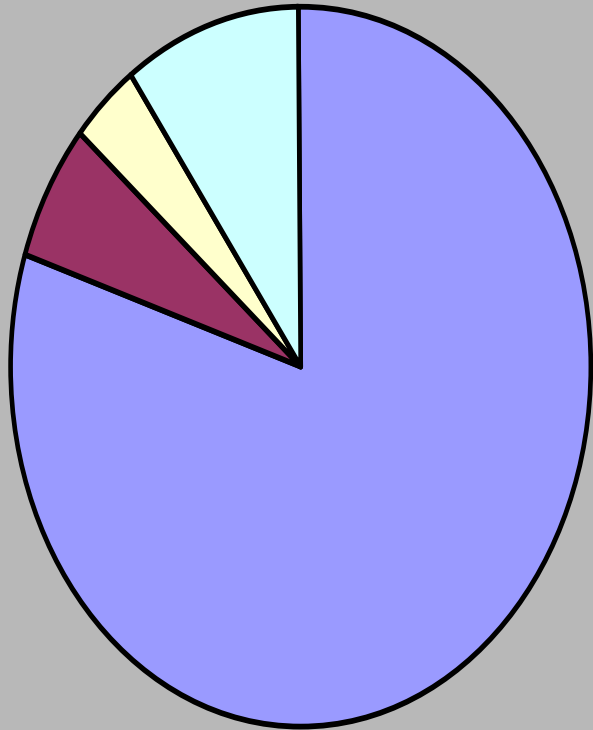
Number of bags of charcoal carried per trip



Season most charcoal transported



Source of fuel



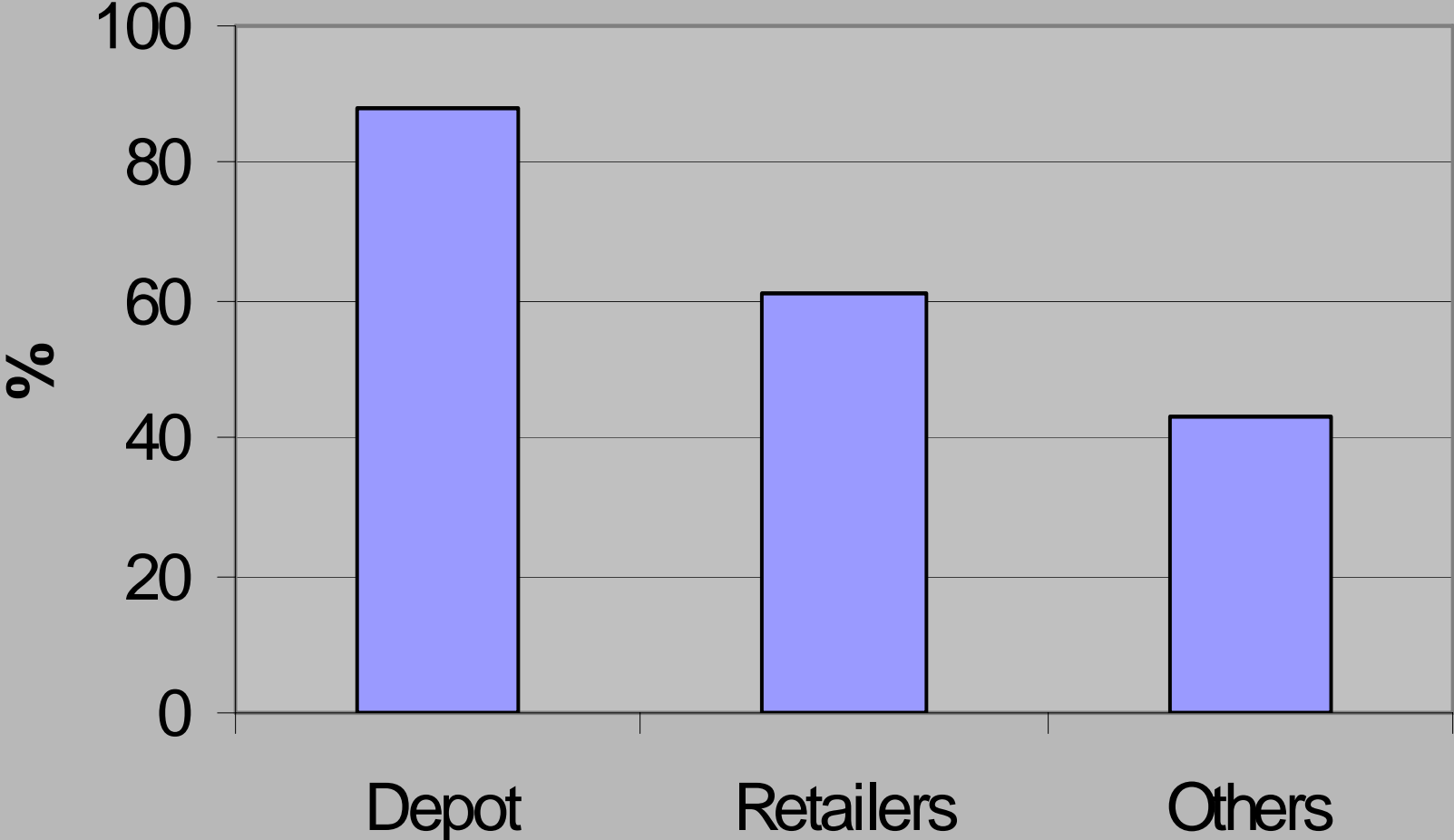
Producer

Middleman

other

more than
one source

Delivery Points for Lorry drivers



Problems encountered by lorry drivers

- harassment by police, forest guards, local authorities-chiefs and NCC
- harassment by fellow suppliers
- shortage of charcoal during rainy season
- bad roads
- not transport permits
- permits are expensive, yet transporters are harassed even when they have them.

Problems Cont'd

- a lot of money is spent in transportation from one depot to the next, demand is not constant
- increased competition
- bribe police, forest guards and local authorities
- increased fuel costs lowers percentage of profit
- customers abuse the credit privilege when accorded
- it takes two to three days to be paid
- high operational costs & vehicle

Problems cont'd

- travel long distances to get charcoal
- travel at particular times in order to deliver charcoal (Mostly at night)
- Restriction in cutting trees
- no access roads in some places e.g. slum areas

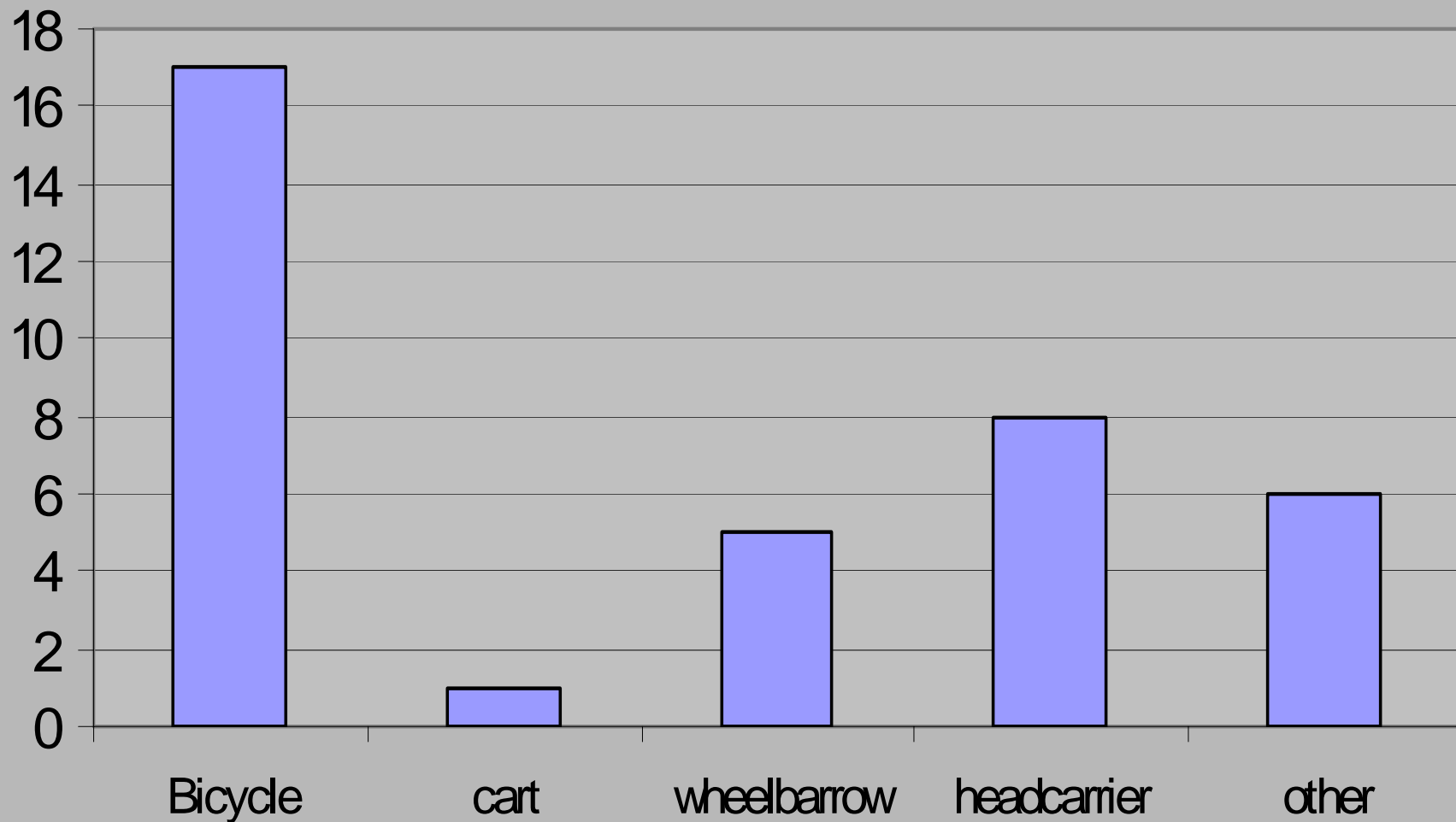
Changes that have occurred in the business

- Decrease in amount of charcoal being produced - more difficult to get charcoal
- many new entrants into the business thus increased competition
- less consumption during school days
- selling firewood is slow
- more controls in charcoal production
- people opting for other alternative sources of fuel-kerosene
- The Economy is doing poorly, people are going back to using basic fuels meaning good business

Non-vehicle questionnaire

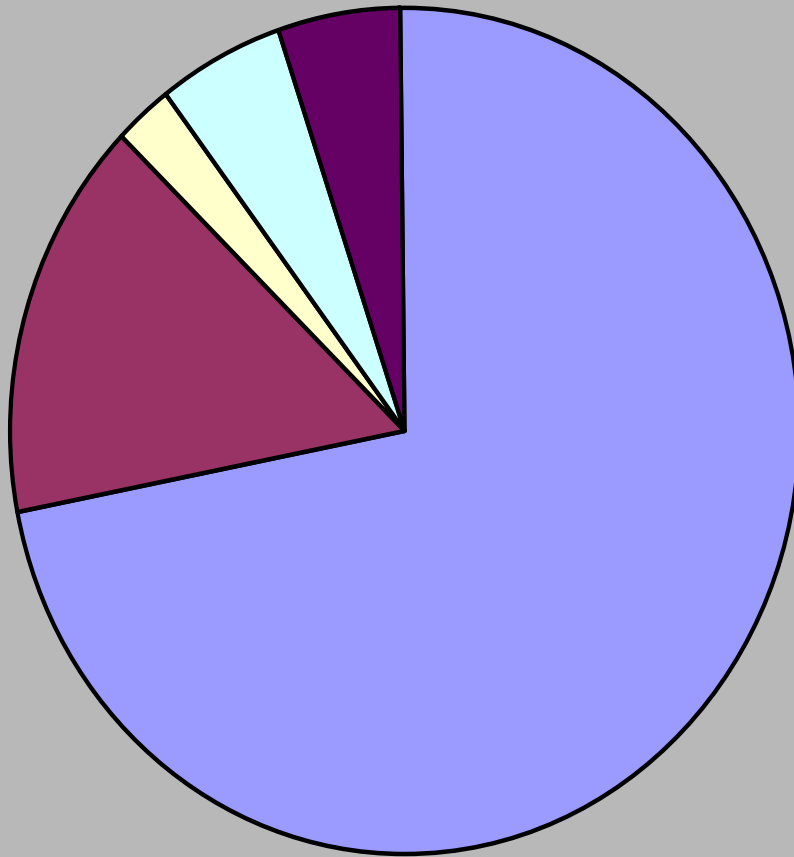
- 38 respondents interviewed
- 29 were male and 9 female
- 76% were adults 15-55; 4% children under 15 years and 5% adults above 55years
- Male used either a bicycle or cart to transport the fuel whereas women mostly head carried the charcoal
- Graph below shows the carrier type

Carrier type used in transporting Charcoal

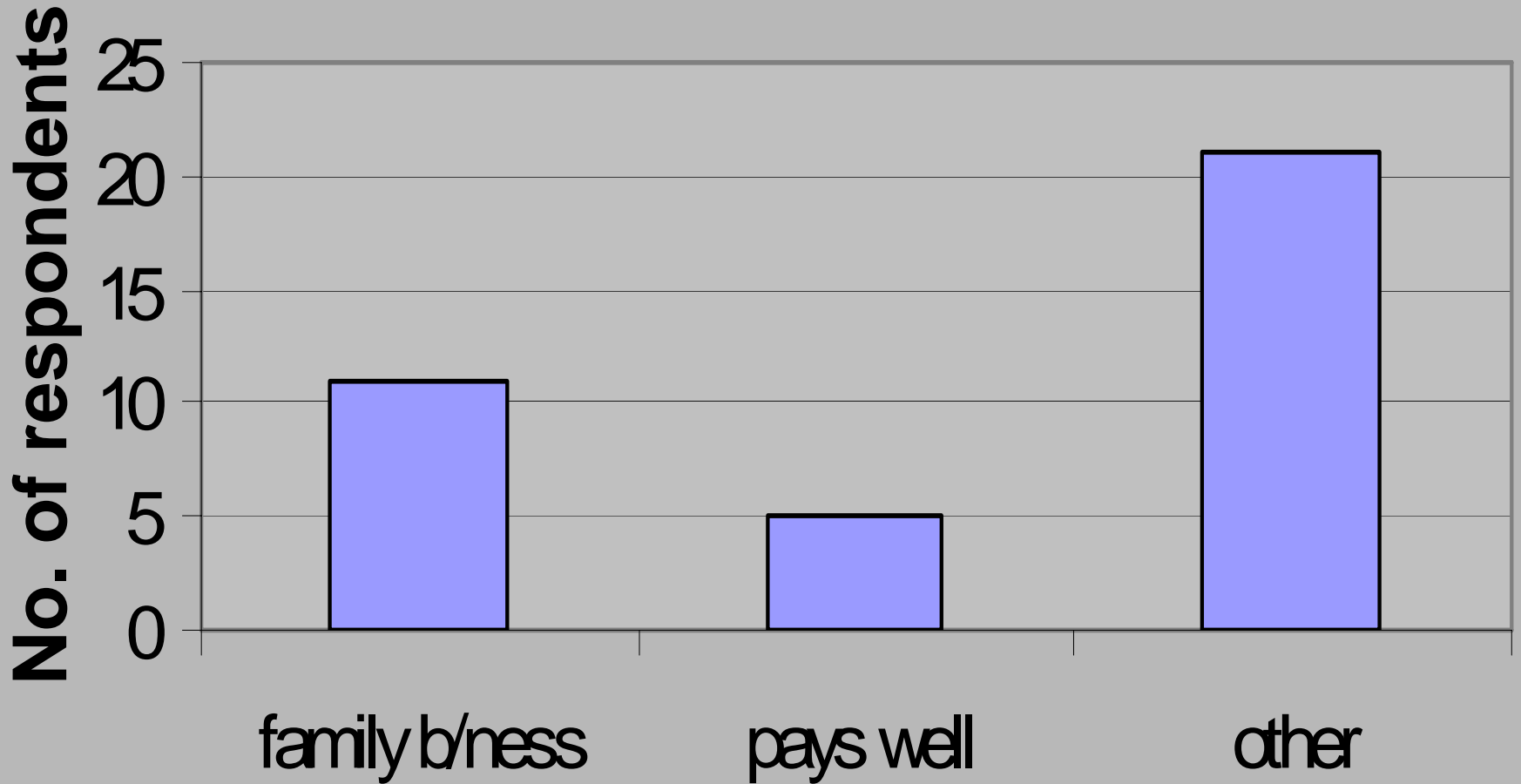


FUEL TYPE CARRIED

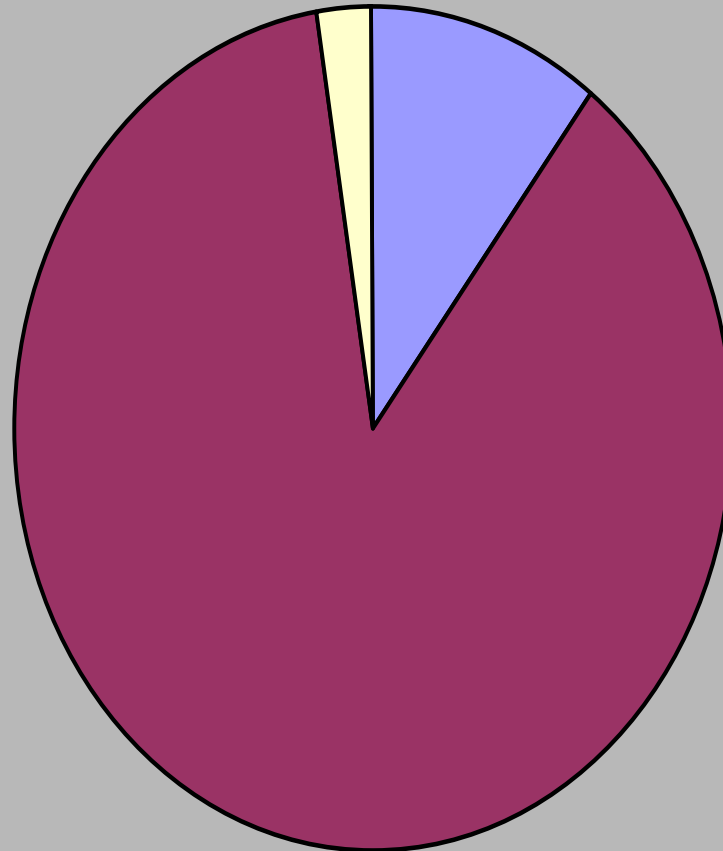
Fuel Type Carried



Reasons for engaging in the business



Source of fuel transported



 GATHERED

 BOUGHT

 not indicated

PRESSING PROBLEMS

- uncredit worth customers
- harassment from police
- shortage in rainy season
- lack of capital
- transport
- questionable quality
- health hazard

Pressing Problems Cont'd

- time consuming
- unhygienic
- exorbitant prices
- cannot plan because they are no guidelines for fuel
- charcoal is bulky and heavy
- bribes
- bending of immature timber
- shortage of timber
- inconsistent customers

Pressing Problems

- security bills
- price fluctuation
- rent bills
- few tenders
- impatient customers
- low carrying capacity of wheel barrow
- fluctuating prices