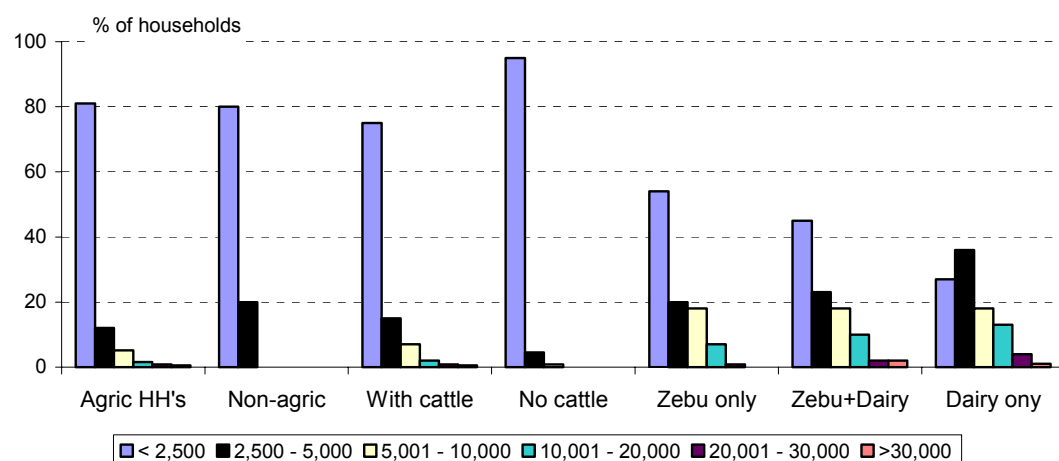


Figure 4.17 Proportions of households by monthly income (KSh) and household categories



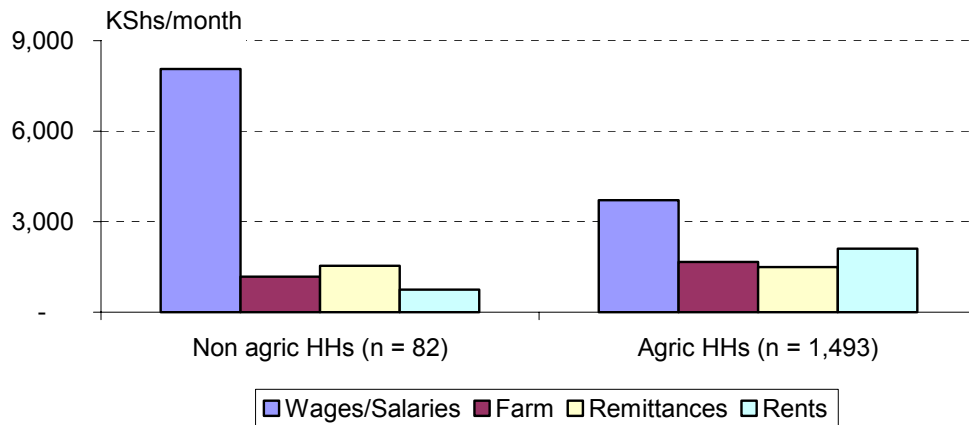
The bulk of income to the households came from outside the farm, mainly by way of salaries and wage earnings from off-farm employment (Table 4.7). Among agricultural activities, the income from dairy farming was higher than that from all the other enterprises except for Nyamira and Rachuonyo districts where cash crops incomes were the highest.

Table 4.7 Household income sources and proportions contributed by source

	Overall	Bungoma	Kakamega	Kisii	Nandi	Nyamira	Rachuonyo	Vihiga
Number of households	1,493	162	279	269	123	250	158	334
% of total income								
Wages/salaries	44.20	52.44	41.10	45.16	57.71	42.72	48.91	40.95
Farm	18.04	16.78	13.35	22.39	19.40	21.30	11.19	20.45
Remittances	16.29	12.90	19.35	18.16	5.03	9.60	24.77	16.14
Rents	21.47	17.88	26.20	14.29	17.85	26.38	15.14	22.46
% Off farm income								
Dairy activities	27.26	50.23	33.46	21.96	44.26	14.60	21.04	31.04
Cash crops	24.12	9.54	25.91	12.96	22.71	46.09	32.13	10.13
Food crops	17.12	31.32	13.77	12.16	26.45	18.29	26.29	30.84
Horticulture	6.86	13.96	5.18	2.97	3.69	10.26	0.00	10.53
Wood/timber	7.37	2.26	4.06	15.62	2.38	5.79	15.38	14.28
Other livestock	17.26	0.00	17.63	34.33	0.52	4.97	5.16	3.19

The bulk of income to the households came from outside the farm, mainly by way of salaries and wage earnings from employment off-farm, especially for non-agricultural households. (Figure 4.18). Among agricultural households, the income from dairy activities was higher than that from all other farm enterprises except for Nyamira where cash crops incomes were the highest (Table 4.12).

Figure 4.18 Household income sources

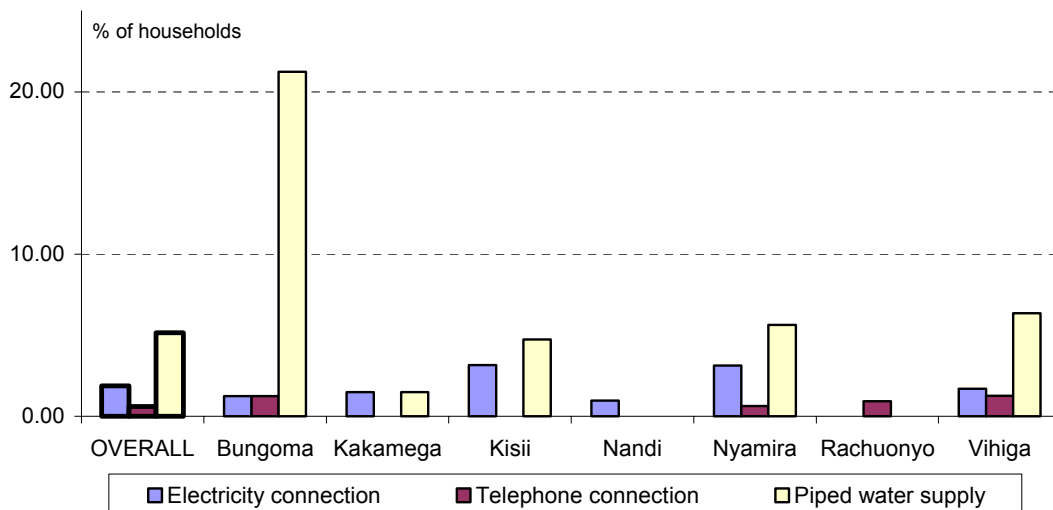


4.6 Farm infrastructure and transport

Only 5% of all households surveyed had piped public water supply, 2% had electricity, and less than 11% had a telephone connection (Figure 4.19). Bungoma had the highest proportion of households with water supply (21%). There was none in Nandi and Rachuonyo. Three percent of the households in each of Kisii and Nyamira had electricity connection.

The distance from households to a road open to vehicles all year round ranged from 0 to 30 Km, with a mean of 3.2 Km (median of 2 Km) (Figure 4.20). The distance of households to a road passable only during the dry season ranged from 0 to 5 Km, with a mean of 300 metres (median of 0 Km). The distance from households to the closest market or trading centre ranged from 0 to 13 Km, with an average of 1.8 km (median 1.5). Households in Nandi were found furthest from a road open all year round (8 km) and those in Kakamega were the nearest (2 km).

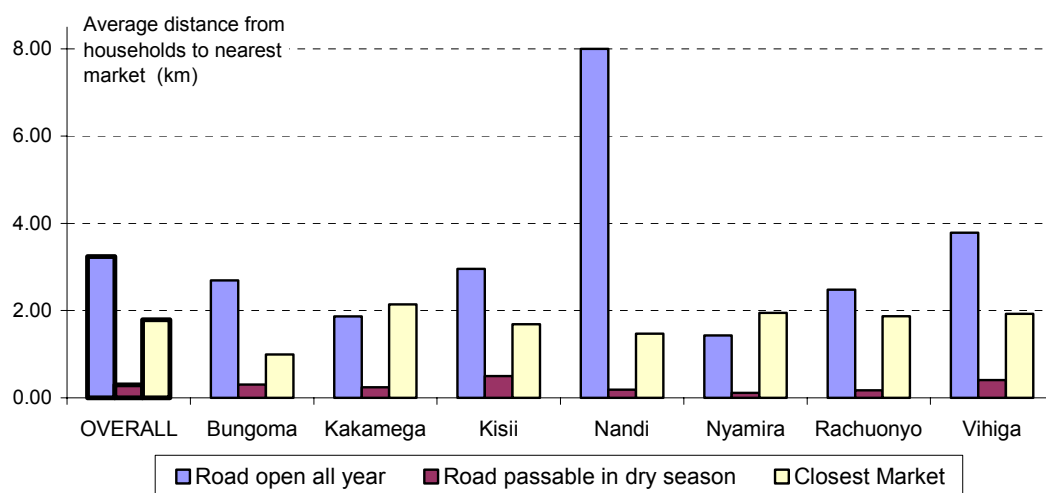
Figure 4.19 Proportion of households with access to public utilities



The distance to a road passable only during the dry seasons was longest in Kisii (500 metres) and shortest in Nyamira (100 metres). Bungoma had households closest to markets or trading centres (100 metres) while Kakamega had the furthest (2 km).

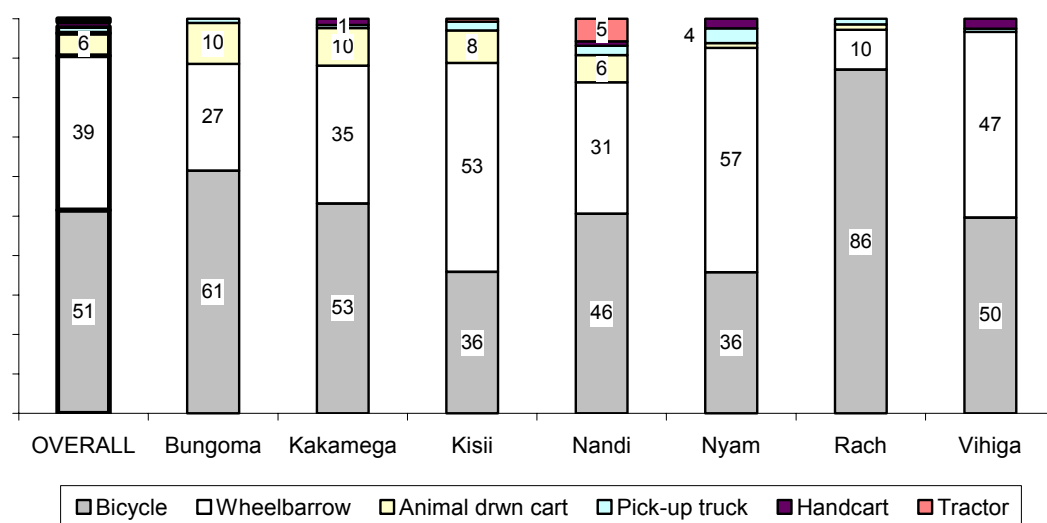
Forty four percent of all the households did not have any mode of transport (Figure 4.21). Among those who had, the bicycle was the most common, cited by 60% of the households as the first or only mode of transport they possessed, and by 72% as the second. Bicycle was less common in Vihiga and Kisii at 50% and 46% respectively. The only other popular means of transport was the wheelbarrow (listed by 33% as first or only item and 12% as second).

Figure 4.20 Proportion of households with access to different types of roads



Animal drawn carts were very rare, and cited by only 2% as the 1st item, and by 4% as the second item. Bungoma and Kakamega had 3% and 6% of the households respectively, with animal drawn carts. Only 1% overall had pickup trucks which were listed by 10% of the households in Kisii. Less than 1% had a car or tractor and only 3% in Nandi had tractors as first while 9% had them as the second item of transport owned.

Figure 4.21 Transport facilities owned by households



4.7 Livestock inventory and herd sizes

4.7.1 Cattle inventory and numbers kept per household

Overall, only 13% of the households with cattle solely kept improved dairy cattle. The others kept either Zebu alone (43%) or a combination of Zebu and improved dairy cattle (43%) (Table 4.8). Bungoma had the highest number of households with the improved dairy cattle alone (23%). The same district had 56% of households with Zebu only. Nandi had the highest number of households with a combination of the improved dairy cattle and the Zebu (80%), with 10% of other households keeping improved dairy cattle alone. Rachuonyo had most households keeping only the Zebu (96%). In general, there was a mean of 2.2 heads of cattle per household. Nandi alone had 4.5 while Rachuonyo had 3.3 (Table 4.8).

It is worth noting that the sub-locations were selected on the basis of factors identified as contributing to the presence of dairying in an area. Since transects were later drawn randomly within the sub-locations, it is highly likely that the samples selected do not reflect the true distributions in a sub-location. Further analysis comparing the numbers derived from the surveys and those given in annual reports show that on average the national figures under report the actual numbers by up to four times.

Table 4.8 Mean number and types of cows owned per household

District	Overall	Bungoma	Kakamega	Kisii	Nandi	Nyamira	Rachuonyo	Vihiga
Local Zebu	1.1	1.9	1.3	0.5	0.6	0.4	3.2	0.8
Dairy cross	1.0	0.5	0.2	1.1	3.5	1.2	0.0	0.8
High grade	0.1	0.0	0.1	0.1	0.4	0.1	0.0	0.2
Total number	2.2	2.4	1.6	1.7	4.5	1.7	3.3	1.8

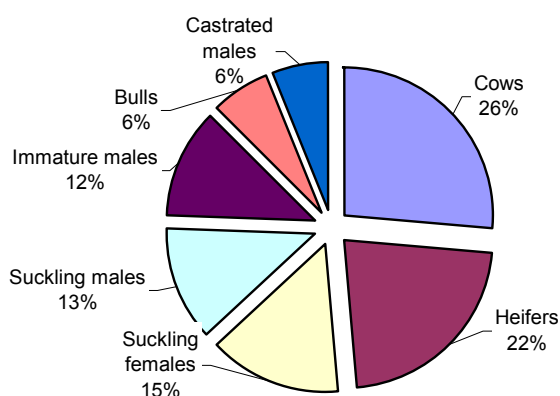
Forty eight percent of the households had on average one Zebu per household and 46% had one dairy cross. This varied across districts. 79% of the households in Nandi had 4 dairy cross and 13% had one

local Zebu per household. Rachuonyo had 99% of households with an average of three Zebus per household. There was less than one high-grade cow per household in all the districts.

4.7.2 Cattle herd distribution

In all the households cattle population, 26% were milking cows, 22% heifers, and only 6% males (bulls and castrates), (Figure 4.22). This varied across districts with Rachuonyo having 25% milking cows, 21% adult bulls and 20% heifers, (Figure 4.23). Bungoma herd composition was 23% heifers, 21% cows and 20% castrated males.

Figure 4.22 Overall herd distribution and composition



4.7.3 Other livestock inventory

Eighty percent of the agricultural households kept local chicken (Table 4.9). The maximum number of birds kept per household was 90, with a mean of 8 per household. Local chicken rearing was most common in Rachuonyo, with 85% of agricultural households and 84% in Nandi, and a mean of 10 per household in the two districts. Bungoma had the lowest with 68% of the households keeping the local birds.

Local (indigenous) goats were the second most common type of non-cattle livestock, kept by 21% of the agricultural households, while sheep were third with 16% of the households rearing them. Goats were most popular in Rachuonyo with 59% of the households and least in Bungoma and Kakamega at 3% (Table 4.10). Sheep were most popular in Nandi, with 47% of the households keeping an average of 4 per household.

Figure 4.23 Herd distribution by district

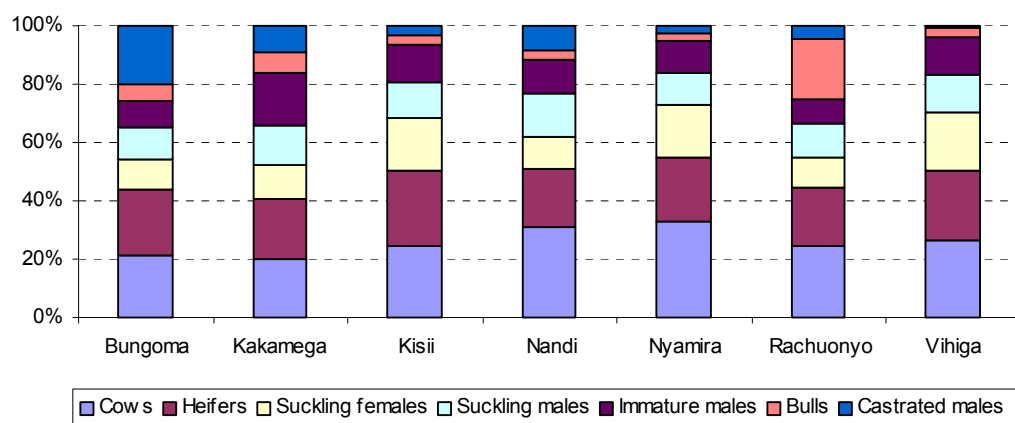


Table 4.9 Overall ownership of livestock other than cattle

type	% of agricultural households owning/keeping	Mean number per household	Maximum number per household
Poultry: local	80.0	8.4	90
Poultry: layers	5.4	12.7	150
Poultry: broilers	0.1	12.0	20
Pigs	1.7	1.7	5
Sheep	16.3	3.2	20
Goats: local	21.0	3.3	24
Goats: dairy	2.2	2.4	10
Donkeys	1.7	1.5	3
Rabbits	2.9	3.9	30
Turkeys	0.3	3.3	5
Beehives: traditional	2.1	2.7	12
Beehives: improved	1.1	3.4	12