The original survey instrument is partially available. The remaining questions are derived from the variable labels from the data dictionary and later survey instruments. Variable names correspond to later surveys so that it will be easier to match up questions across years, if the question was asked in the later surveys.

**NOTE:** not all questions in the survey are specific to the 90/91 cropping season. Some ask about information starting 1st October 1991.

Files created for this questionnaire:

<table>
<thead>
<tr>
<th>File name</th>
<th>Level of Data</th>
<th>Page</th>
</tr>
</thead>
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<td>household</td>
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<tr>
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<td>household</td>
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<td>fruit.sav</td>
<td>household, crop</td>
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<tr>
<td>veg.sav</td>
<td>household, crop</td>
<td>10</td>
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<td>livestock.sav</td>
<td>household, animal</td>
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<td>seedtype.sav</td>
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<tr>
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<td>1</td>
<td>Demography questions at member level</td>
</tr>
<tr>
<td>2</td>
<td>Crops planted, harvested, marketed</td>
</tr>
<tr>
<td>3</td>
<td>Number of tree fruits and area of orchard</td>
</tr>
<tr>
<td>4</td>
<td>Sales of vegetables</td>
</tr>
<tr>
<td>5</td>
<td>Livestock production and marketing</td>
</tr>
<tr>
<td>6</td>
<td>Seed type used for specific crops</td>
</tr>
</tbody>
</table>
ZAMBIA POST-HARVEST SURVEY (1990/91)
FOR SMALL AND MEDIUM-SIZED HOLDINGS

“Identifying variables” File: id.sav

PROV _____ Province (see code list)
OLDDIST _____ Old District
CSA _____ CSA (Census Supervisory Area) number
SEA _____ SEA (Standard Enumeration Area) number
HH _____ Household serial number
ZONE _____ Zone 1 – Dry (< 700mm/year) 2 – Less dry (>750 - < 950mm/year)
3 – More wet (>750 and <950mm/year) 4 – Wet (>1000mm/year)
WGT _____ Revised Household weight factor
OLDWGT _____ Original weight factor
ID1A _____ Sex of head of household: 1 Male 2 Female
ID3 _____ Category (see code list)

Household population:
ID4A _____ Number of males in household
ID4B _____ Number of females in household
ID4C _____ Total number of household members

Household agricultural activity:
ID5A _____ Crop growing 1 Yes 2 No
ID5B _____ Livestock raising 1 Yes 2 No
ID5C _____ Poultry raising 1 Yes 2 No
ID5D _____ Fish farming 1 Yes 2 No

ENUM _____ Enumerator code
SECTION 1 - Table 1 – Demography – household information

What type of agricultural activities is the household engaged in?

CROP _____ Crop growing? 1 Yes
LIVESTOCK _____ Livestock raising? 1 Yes
POULTRY _____ Poultry raising? 1 Yes
FISHFARM _____ Fish farming? 1 Yes

CROPHH _____ Is this a crop growing household?
1 Yes 2 No (-> Go to Section 4)

TENURE _____ Is this holding leased in, rented in or in owner-like possession or some other type of possession?
1 Leased in 2 Rented in 3 Owner-like possession 4 Other-specify

CROP9192 _____ Have any crops been grown on this holding this 1991/92 season? (include any perennial crops planted in previous seasons)
1 Yes 2 No (-> Go to HLAND2C)

HLAND2c _____ What was the total area under crops during the 1990/91 season (hectares)? (Include all fields)

HLAND2d _____ What was the total area planted during the 1990/91 agricultural season (hectares)?

HLAND5a _____ How many parcels were operated by the members of the household during the 1991/92 agricultural season?

HLAND5b _____ How many fields were in the parcels reported to have been operated during the 1991/92 agricultural season?

HLAND5b _____ What was the total area under crops during the 1991/92 agricultural season (hectares)? (Include all fields)

HLAND5c _____ What was the total area planted during the 1991/92 agricultural season (hectares)?

SECTION 3 – Table 2 – Crop production and sales 1990/91

SECTION 4 – Table 3 – Fruits

SECTION 5 – Table 4 – Vegetables

SECTION 6 – SECTION 7 - Table 5 – Livestock and poultry

SECTION 8 – Fish Farming

HFISH1 _____ Did the household carry out any fish farming during the 1990/91 agricultural season?
1 Yes 2 No (-> Go to Section 9)

HFISH2 _____ How many ponds did you operate during the reference period?

HFISH6 _____ What was the number of fish harvested?

HFISH7 _____ What were the kilograms of fish harvested?

HFISH3a _____ Do you have fish ponds now?

HFISH3 _____ How many ponds did you operate at the end of the season?

SECTION 9 – Crop Husbandry

ANYCROPS _____ Does the household grow any crops?
Do you practice any of the following types of cultivation on your holding?

- **hcrop2a**: Chitemene - Yes
- **hcrop2b**: Shifting - Yes
- **hcrop2c**: Rotation - Yes
- **hcrop2d**: Intercropping - Yes
- **hcrop2e**: (Other) Specify - Yes

What type of equipment do you use most for ..... (NOTE: This question was not analyzed by CSO. CSO did not add value labels to identify the equipment.)

- **hcrop3a**: Opening up new land?
- **hcrop3b**: Ploughing / ridging?
- **hcrop3c**: Preparing seed beds?
- **hcrop3d**: Planting?
- **hcrop3e**: Weeding?
- **hcrop3f**: Crop protection?
- **hcrop3g**: Harvesting?

What method do you use most for soil conservation?

- **hsoil2a**: Mulching - Yes
- **hsoil2b**: Contour ridging - Yes
- **hsoil2c**: Fallowing - Yes
- **hsoil2d**: Terracing - Yes
- **hsoil2e**: Bunding - Yes
- **hsoil2f**: Other-specify - Yes

What method of sowing do you usually use?

- **hcrop4a**: Hand - Yes
- **hcrop4b**: Sowing behind plough - Yes
- **hcrop4c**: Other-specify - Yes

**Table 6 – Types of Seed used for maize, sorghum, groundnuts, soyabeans, sunflower and seed cotton**

HINPUT7  Did you apply any basal dressing fertilizer during the 1990/91 season?

1 Yes  2 No  (-> Go to HINPUT8)

HINPUT7a  At what stage of crop growth did you apply basal dressing fertilizer?

1 At planting  2 Soon after germination  3 Long after germination

HINPUT8  Do you usually use compost / animal manure?

1 Yes  2 No

HCROP5  Did you experience crop disease on your crop during 1990/91 season?

1 Yes  2 No  (-> Go to HCROP6)

HCROP6  Did you experience pest damage on your crop during 1990/91 season?

1 Yes  2 No  (-> Go to SECTION 10)

HINPUT3  Did you apply any pesticides to control pests on your crop?

1 Yes  2 No

Specify type of pesticide (NOTE: these variables were not completed and not analyzed. Value labels were not added by CSO).

- **hinput3a**
- **hinput3b**
- **hinput3c**
SECTION 10 – Animal Husbandry

HCATTL1  _____ Does the holder raise cattle?
   1    Yes   2    No  (→ Go to HPIG1)

HCATTL2  _____ Do you keep cattle on behalf of someone else?
   1    Yes   2    No  (→ Go to HPIG1)

The cattle you keep belong to:

hcattl2a  _____ Friends  1 Yes
hcattl2b  _____ Relatives  1 Yes
hcattl2c  _____ Other-specify  1 Yes

HCATTL3  _____ Are you paid for keeping the cattle?
   1    Yes   2    No  (→ Go to HPIG1)

HCATTL3a  _____ What is the mode of payment?
   1    Cash  2    Kind  3    Cash and kind

Where do you graze your cattle?

hcattl4a  _____ Own land  1 Yes
hcattl4b  _____ Communal land  1 Yes
hcattl4c  _____ Rented land  1 Yes
hcattl4d  _____ Other-specify  1 Yes

HSICK2  _____ Do you vaccinate or get the cattle vaccinated regularly?
   1    Yes   2    No  (→ Go to HSICK10a)

Do you vaccinate for?

hsick2a  _____ black quarter  1 Yes
hsick2b  _____ hemorrhagic septicemia  1 Yes
hsick2c  _____ contagious abortion  1 Yes
hsick2d  _____ anthrax  1 Yes
hsick2e  _____ corridor  1 Yes
hsick2f  _____ other-specify  1 Yes

Who provides you with vaccines?

hsick11a  _____ Veterinary department  1 Yes
hsick11b  _____ Purchase  1 Yes
hsick11c  _____ Other-specify  1 Yes

HSICK10a  _____ Do you spend money on vaccines/drugs/other?
   1    Yes   2    No  (→ Go to HSICK3)

hsick10b  _____ Kwacha spent on vaccines
hsick10c  _____ Kwacha spent on drugs
hsick10d  _____ Kwacha spent on other requisites

HSICK3  _____ Do you practice tick control?
   1    Yes   2    No  (→ Go to HPIG1)

HSICK5  _____ What type of tick control do you usually practice?
   1    Dipping
   2    Spraying  (→ Go to HSICK5c)
   3    Other-specify  (→ Go to HPIG1)

HSICK5a  _____ Who owns the dip tank that you usually use?
   1    Self
   2    Government
   3    Communal
   4    Other-specify
HSICK5b  ____  How far is the dip tank referred to above in question HSICK5a?
1  Less than 0.5 km
2  0.5 km – 1.0 km
3  1.1 km – 5 km
4  More than 5 km

HSICK5c  ____  How often do you spray/dip the cattle?
1  5 day interval
2  7 day interval
3  14 day interval
4  Occasionally

HSICK5d  ____  Who usually takes the cattle for dipping or who does the spraying?
1  Self and other adult household members
2  Children only
3  Other-specify

HPIG1  ____  Do you raise pigs?
1  Yes  2  No  (-> Go to SECTION 11)

HPIG2  ____  How do you keep the pigs?
1  Free range  2  Kept in sty  3  Other-specify

The type of breeds you have on the holding are:
hpig3a  ____  Exotic/pure breed  1  Yes
hpig3b  ____  Local breed  1  Yes
hpig3c  ____  Cross breed  1  Yes
hpig3d  ____  Other-specify  1  Yes

SECTION 11 – Permanent Employees

HEMP1  ____  Did you have any permanent employees during the period 1st October, 1991 to date? (exclude household members and house servants)
1  Yes  2  No

How many permanent employees did you have during the reference period?

<table>
<thead>
<tr>
<th>hemp2a</th>
<th>males</th>
</tr>
</thead>
<tbody>
<tr>
<td>hemp2b</td>
<td>females</td>
</tr>
<tr>
<td>hemp2c</td>
<td>Total employees</td>
</tr>
</tbody>
</table>

How many permanent employees did you use for land clearing?

<table>
<thead>
<tr>
<th>lan7a</th>
<th>males</th>
</tr>
</thead>
<tbody>
<tr>
<td>lan7b</td>
<td>females</td>
</tr>
<tr>
<td>lan7c</td>
<td>Total employees</td>
</tr>
</tbody>
</table>

How many permanent employees did you use for planting/sowing?

<table>
<thead>
<tr>
<th>pla3a</th>
<th>males</th>
</tr>
</thead>
<tbody>
<tr>
<td>pla3b</td>
<td>females</td>
</tr>
<tr>
<td>pla3c</td>
<td>Total employees</td>
</tr>
</tbody>
</table>

How many permanent employees did you use for other - specify?

<table>
<thead>
<tr>
<th>act1a</th>
<th>males</th>
</tr>
</thead>
<tbody>
<tr>
<td>act1b</td>
<td>females</td>
</tr>
<tr>
<td>act1c</td>
<td>Total employees</td>
</tr>
</tbody>
</table>

HEMP5A  ____  Did you make cash payments to the permanent employees?
1  Yes  2  No  (-> Go to HEMP6)

How much did you pay to the permanent employees during the 1990/91 agricultural season:

| HEMP5  | in cash (Kwacha) |
HEMP6  _____ Did you make any payments in kind to permanent employees?
   1    Yes   2    No  (-> Go to HEMP7)

What was the value of these payments made in kind?

HEMP6A  _____ in-kind (Kwacha)

HEMP7  _____ Did you engage any wage/piece workers during the period October 1, 1991 to date?
   1    Yes   2    No  (-> Go to Section 12)

HEMP7AA  _____ Did you make any cash payments to the wage/piece-rated workers?
   1    Yes   2    No  (-> Go to HEMP8)

How much did you pay to the wage/piece workers?

HEMP7A  _____ in-cash (Kwacha)

HEMP8  _____ Did you make any payments in kind to wage/piece workers?
   1    Yes   2    No  (-> Go to Section 12)

What was the value of these payments made in kind?

HEMP8A  _____ in-kind (Kwacha)

SECTION 12 – Extension, Research and Information Services

HEXT1  _____ Did you or any member of this household attend any course at a farmers’ training center or at a farm institute or any other agriculture?
   1    Yes   2    No

HEXT2  _____ Is anybody in this household a member of the rapid farm forum?
   1    Yes   2    No

HEXT3  _____ Do you have access to a radio?
   1    Yes   2    No  (-> Go to

HEXT4  _____ Do you or any other member of this household listen to any agricultural programme on the radio?
   1    Yes   2    No  (-> Go to

To which program do you listen?

hext5a  _____ Radio Forum 1   Yes
hext5b  _____ Rural Notebook 1   Yes
hext5c  _____ Lima programme (on TV) 1   Yes
hext5d  _____ Other-specify 1   Yes

HEXT6  _____ Usually how many times do agricultural extension workers visit to advise?
   1    Never
   2    Once a week
   3    Once a month
   4    2-3 times a month
   5    Once in 3 months
   6    Once a year
   8    Not applicable

HEXT7  _____ Usually how many times do veterinary extension workers visit to advise?
   1    Never
   2    Once a week
   3    Once a month
   4    2-3 times a month
   5    Once in 3 months
   6    Once a year
   8    Not applicable
HEXT8    ____  Are you registered with a primary co-operative society?
           1  Yes    2  No (End Interview)

HEXT9    ____  Why are you not registered?
           1  Does not exist
           2  Non-beneficial
           3  Not aware of it
           4  Other-specify

END INTERVIEW
Table 1. Section 1: Household Information

<table>
<thead>
<tr>
<th>Member Serial number</th>
<th>What is the relationship to the head of household?</th>
<th>Sex</th>
<th>Age on last birthday</th>
<th>Highest level of education</th>
<th>Persons 5 years and above</th>
<th>Complete for persons 12 years and above</th>
<th>What was the main activity?</th>
<th>Industry category</th>
<th>Specific industry</th>
<th>Is person married?</th>
<th>Persons who have management control in household (Holder)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Head</td>
<td>1 Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete for persons 12 years and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 Married</td>
</tr>
<tr>
<td>2 Spouse</td>
<td>2 Female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete for persons 12 years and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 Separated</td>
</tr>
<tr>
<td>3 Own son/daughter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete for persons 12 years and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3 Divorced</td>
</tr>
<tr>
<td>4 Step child</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Complete for persons 12 years and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 Widowed</td>
</tr>
<tr>
<td>5 Other relative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Complete for persons 12 years and above</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5 Never married</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indcat codes:</th>
<th>Industry codes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Not adequately defined</td>
<td>0 Not adequately defined</td>
</tr>
<tr>
<td>1 Agriculture</td>
<td>111 Agriculture</td>
</tr>
<tr>
<td>2 Mining</td>
<td>121 Forestry</td>
</tr>
<tr>
<td>3 Manufacturing</td>
<td>130 Fishing</td>
</tr>
<tr>
<td>4 Electricity and Water Services</td>
<td>210 Mining</td>
</tr>
<tr>
<td>5 Construction</td>
<td>311 Food-beverage-tobacco</td>
</tr>
<tr>
<td>6 Wholesale and Retail</td>
<td>321 Textiles</td>
</tr>
<tr>
<td>7 Transport and Communication</td>
<td>331 Wood-manufacture</td>
</tr>
<tr>
<td>8 Finance and Business Services</td>
<td>341 Paper-print-publishing</td>
</tr>
<tr>
<td>9 Other</td>
<td>351 Chemical manufacturing</td>
</tr>
<tr>
<td>10 Not Stated</td>
<td>361 Pottery-glass</td>
</tr>
</tbody>
</table>
Table 2 (1 of 1) – Crop production: For each crop grown, ask the following questions (harvesting / marketing):  File: crops.sav

<table>
<thead>
<tr>
<th>Crop</th>
<th>Total hectares planted under this crop</th>
<th>Number of bags harvested</th>
<th>Unit of bag</th>
<th>Number of kgs harvested</th>
<th>Total kgs harvested</th>
<th>Number of bags sold</th>
<th>Total kgs sold</th>
<th>Did you apply any chemical fertilizers 1 – Yes 2 - No</th>
<th>Fertilizer type 1</th>
<th>Number of kgs of fert type 1</th>
<th>Fertilizer type 2</th>
<th>Number of kgs of fert type 2</th>
<th>Old crop codes</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

The 1990/91 data were recoded to match 1997 crop codes.

Crop code list:
1  Maize
2  Sorghum
3  Rice Paddy
4  Millet
5  Sunflower
6  Groundnuts
7  Soybeans
8  Seed cotton
9  Irish potatoes
10 Virginia tobacco
11 Burley tobacco
12 Mixed beans
13 Ground beans
14 Cowpeas
15 Velvet beans
16 Coffee
Table 3 (1 of 1) - For each tree fruit, ask the following questions:

<table>
<thead>
<tr>
<th>Fruit crop</th>
<th>Number of trees</th>
<th>Total hectares 90/91</th>
<th>Old fruit code</th>
</tr>
</thead>
<tbody>
<tr>
<td>crop</td>
<td>ntrees</td>
<td>lan2a</td>
<td>oldcrop</td>
</tr>
</tbody>
</table>

Crop code list:

23  Oranges
24  Bananas
25  Pineapples
31  Other Fruit
48  Tangerine-Mandarin

The 1990 data were recoded to match the later crop codes.
Table 4 (1 of 1) - Sales of vegetables: For each vegetable crop sold, ask the following questions:

<table>
<thead>
<tr>
<th>Vegetable crop</th>
<th>Was vegetable crop grown for sale?</th>
<th>How much was realized from the sale of this vegetable in the 1990/91 agricultural season?</th>
<th>Old vegetable code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter crop code</td>
<td>1 Yes 2 No (-&gt; Go to next section)</td>
<td>*Note: some vegetables are listed with 0 Kwacha. The assumption is that they were grown but not sold. (Kwacha)</td>
<td></td>
</tr>
</tbody>
</table>

The 1990 data were recoded to match the later crop codes.

Crop code list: (Wild spinach and vegetable leaves were separated out in this survey, see “oldcrop”. They were lumped into “Other vegetables” along with other crop codes that were not identified.

<p>| 14 Cowpeas |
| 29 Watermelon |
| 32 Cabbage |
| 33 Rape |
| 34 Spinach |
| 35 Tomatoes |
| 36 Onions |
| 37 Okra |
| 38 Eggplant |
| 39 Pumpkins |
| 40 Chilies |
| 41 Chomolia |
| 47 Nataca (melon) |
| 47 Potato, pumpkin, cassava leaves |
| 42 Cauliflower |
| 43 Carrots |
| 44 Lettuce |
| 45 Green beans |
| 46 Green maize |
| 47 Other vegetables |
| 71 Round nuts |</p>
<table>
<thead>
<tr>
<th>Animal</th>
<th>Age category (for pigs only)</th>
<th>How many do you have today?</th>
<th>Number of cows and heifers</th>
<th>Number of calves</th>
<th>Number of oxen</th>
<th>Number of tollies</th>
<th>Number of trained oxen/tollies/steers</th>
<th>Number of local chickens</th>
<th>Number of broiler chickens</th>
<th>Number of layer chickens?</th>
</tr>
</thead>
<tbody>
<tr>
<td>animal</td>
<td>agecat</td>
<td>liv3</td>
<td>cows</td>
<td>bulls</td>
<td>calves</td>
<td>oxen</td>
<td>tollies</td>
<td>ox_str</td>
<td>liv4</td>
<td>liv5a</td>
</tr>
</tbody>
</table>

**Animal code list:**
1. Cattle
2. Pigs
3. Goats
4. Sheep
5. Chickens
6. Guinea fowls
7. Ducks & geese
8. Turkeys

File: livestock.sav
Table 6 (1 of 1) – Seed types: What type of seed did you use most during the 1990/91 season?

<table>
<thead>
<tr>
<th>Crop</th>
<th>What type of seed was used?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Maize</td>
<td>1  Improved</td>
</tr>
<tr>
<td>2  Sorghum</td>
<td>2  Recycled</td>
</tr>
<tr>
<td>5  Sunflowers</td>
<td>3  Local</td>
</tr>
<tr>
<td>6  Groundnuts</td>
<td></td>
</tr>
<tr>
<td>7  Soyabeanes</td>
<td></td>
</tr>
<tr>
<td>8  Seed cotton</td>
<td></td>
</tr>
</tbody>
</table>

END OF TABLES