(Version 1.1)

Users' Manual for Handling Resampled Micro Data of Sri Lanka Household Income and Expenditure Survey HIES 2012/13

2018
The Institute of Statistical Mathematics (ISM)
and
Statistical Information Institute for Consulting and Analysis (SINFONICA)

History of revision of the manual

- Version 1.1 in March 2018

  - Revised based on the discussion during the Tenth International Workshop on Analysis of Micro Data of Official Statistics in November 2017.

- First draft version 1.0 in November 2017
  for the discussion at the Workshop.

CONTENTS

HIES 2012/13

1. About this Manual

1. This manual was prepared for users to use the next 80% resampled micro data sets of Sri Lanka Household Income and Expenditure Survey 2012/13.

Survey year	Data files	Contents
HIES 2012/13	25 files	R01 to R24: HIES 2012/13 Questionnaire R25: Summary file
	CSV files	
	"R01_80.csv" "R02_80.csv" "R03_80.csv" "R04_80.csv" "R05_80.csv" "R06_80.csv" "R07_80.csv" "R08_80.csv" "R09_80.csv" "R10_80.csv" "R11_80.csv" "R12_80.csv" "R13_80.csv" "R14_80.csv" "R15_80.csv" "R16_80.csv" "R17_80.csv" "R18_80.csv" "R19_80.csv" "R20_80.csv" "R21_80.csv" "R22_80.csv" "R23_80.csv" "R24_80.csv" "R25_80.csv"	
	R data frames	
	"R01.80" "R02.80" "R03.80" "R04.80" "R05.80" "R06.80" "R07.80" "R08.80" "R09.80" "R10.80" "R11.80" "R12.80" "R13.80" "R14.80" "R15.80" "R16.80" "R17.80" "R18.80" "R19.80" "R20.80" "R21.80" "R22.80" "R23.80" "R24.80" "R25.80"	

2. The original micro data sets composed of all the samples were provided by DCS, Sri Lanka based on the Charter for Experimental Laboratory for Research Purpose Statistical Use of Micro Data, and resampled at the rate of 80% by Sinfonica.

3. The above resampled data sets are available through the Institute of Statistical Mathematics (ISM) both in R and CSV format.

4. This manual was first compiled in November 2017 by;

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Visiting Senior Research Fellow, Sinfonica

2. Outline of HIES 2012/13

Objective	To provide information on household income and expenditure in order to measure the levels and changes in the living condition of the people, and compute various other indicators such as poverty etc.
Frequency	HIES had been conducted since 1990 as a separate survey once in every five years until HIES 2006/07. Thereafter, as rapidly changing economic conditions demanded for frequent monitoring of income and expenditure patterns in the country, the DCS decided to conduct the HIES once in every three years.
Topics covered	In general, the survey gathers information on the next three main topics; ● Demographic characteristics ● Household expenditure ● Household income After HIES 2006/07, the following six topics have been introduced; Education, Health, Durable goods and debts, Access to facilities, Housing, Agriculture holdings and livestock.
Data collection	Direct personal interview. The data collection in the field is done in twelve monthly rounds from July 2012 to June 2013.
Reference period	Twelve months to capture the seasonal variation of income and expenditure patterns of households. Reference period of income and expenditure depends on item; a week, a month, 6 months or 12 months.
Coverage and scope	HIES 2012/13 can be considered as very important milestone as it covered all 25 districts in the country since its inception. Private households, excluding collective (institutional) households. A household may be a one-person household or a multi person household. A one-person household is a unit where a person lives by himself and makes separate provision for his food, either cooking himself or purchasing. A multi person household is a group of two or more persons who lives together and has a common arrangement for cooking and partaking food. Boarders and servants who share the meals and housing facilities with other members of the household are also considered as members of the household.
Sample frame	List of census blocks prepared for Census of Population and Housing (CPH) 2011 List of housing units prepared for CPH 2011 HIES 2012/13 was the first HIES sampled from this sampling frame.

Sample design	Two stage stratified random sample design Strata: district (25) and sector (3) PSU: census blocks. 2,500 psu were selected. List of housing units in each selected psu was updated about one month prior to the scheduled interviewing. SSU: housing units. For each psu, 10 housing units were selected for the survey. Note: Sample households of different year surveys are completely independent.
Sample size and sample allocation	Total sample size is 25,000 housing units. Neymann (optimal) method was employed for allocation of psu for districts and sectors. The district sample was equally distributed among the 12 monthly rounds. In total, 20,540 households responded to the survey.
Data processing	According to the delegates from Sri Lanka for the International Workshop in 2014, "Data cleaning is done in districts and head office concurrently with the field work using an online and interactive computer data editing and cleaning program, which reports errors in the data as identified according to the conditions pre-prepared and the corrections are made referring to the hard questionnaire or to the enumerator or the respondent household."
Preliminary report	Based on only the first 3 monthly rounds of the survey to fulfil urgent data needs of the country.
Final results	Based on the 100% data, published in August 2014.

3. Data and metadata provided by NSO

The following micro data and metadata were downloaded with permission of DCS, Sri Lanka.

Type	Filename	Description	Included in this manual
Data			
	Sri Lanka HIES-2012-13-Data_CSV Format	The next 25 data files in CSV format including weight data	
	[1] "HIES-2012-13-100%-Data-SEC_1_DEMOGRAPHIC.CSV" [2] "HIES-2012-13-100%-Data-SEC_2_SCHOOL_EDUCATION.CSV" [3] "HIES-2012-13-100%-Data-SEC_3_HEALTH.CSV" [4] "HIES-2012-13-100%-Data-SEC_4_1_FOOD_EXP.CSV" [5] "HIES-2012-13-100%-Data-SEC_4_2_NONFOOD.CSV" [6] "HIES-2012-13-100%-Data-SEC_4_3_BOARDERS.CSV" [7] "HIES-2012-13-100%-Data-SEC_4_3_IS_BOADERS.CSV" [8] "HIES-2012-13-100%-Data-SEC_5_1_EMP_INCOME.CSV" [9] "HIES-2012-13-100%-Data-SEC_5_1_IS_EMP_INCOME.CSV" [10] "HIES-2012-13-100%-Data-SEC_5_2_AGRI_INCOME.CSV" [11] "HIES-2012-13-100%-Data-SEC_5_2_IS_AGRI_INCOME.CSV" [12] "HIES-2012-13-100%-Data-SEC_5_3_IS_OTHER_AGRI_INCOME.CSV" [13] "HIES-2012-13-100%-Data-SEC_5_3_OTHER_AGRI_INCOME.CSV" [14] "HIES-2012-13-100%-Data-SEC_5_4_IS_NON_AGRI_INCOME.CSV" [15] "HIES-2012-13-100%-Data-SEC_5_4_NON_AGRI_INCOME.CSV" [16] "HIES-2012-13-100%-Data-SEC_5_5_1_IS_OTHER_INCOME.CSV" [17] "HIES-2012-13-100%-Data-SEC_5_5_1_OTHER_INCOME.CSV" [18] "HIES-2012-13-100%-Data-SEC_5_5_2_IS_WINDFALL_INCOME.CSV" [19] "HIES-2012-13-100%-Data-SEC_5_5_2_WINDFALL_INCOME.CSV" [20] "HIES-2012-13-100%-Data-SEC_6_B_DEBTNESS.CSV" [21] "HIES-2012-13-100%-Data-SEC_6A_DURABLE_GOODS.CSV" [22] "HIES-2012-13-100%-Data-SEC_7_BASIC_FACILITIES.CSV" [23] "HIES-2012-13-100%-Data-SEC_8_HOUSING.CSV" [24] "HIES-2012-13-100%-Data-SEC_9_LAND_ANIMAL.CSV" [25] "HIES-2012-13-100%-Data-WEIGHT_INCOME_EXPENDITURE.CSV"		Yes

Metadata	HIES-2012_13-Schedule English new.pdf	35 pages	Yes
	HIES-2012-13-Data Layout_Complete.pdf	39 pages	Yes
	HIES2012_13_Study document.pdf		
	HIES2012PrelimineryReport.pdf	Results from the first three months survey	
	HIES200213FinalBuletin4.pdf	Final results, August 2014, 8 pages	Yes
	HIES2012_13FinalReport.pdf	Final report, , 173 pages	

☐ Changes from the previous HIES 2009/10

1. The questionnaire of HIES 2012/13 was almost the same as HIES 2009/10.

2. The frequency of the HIES survey has changed from once in five years to once in three years.

3. Geographically, all districts were covered after 26 years.

4. Sample design was based on the census blocks prepared for CPH2011.

5. The household-level variables of total income and total expenditure except disaggregation were provided in the micro dataset.

Other sources

- **Homepage of DCS**

  http://www.statistics.gov.lk/page.asp?page=Income%20and%20Expenditure

  (Accessed on 29 May 2017)

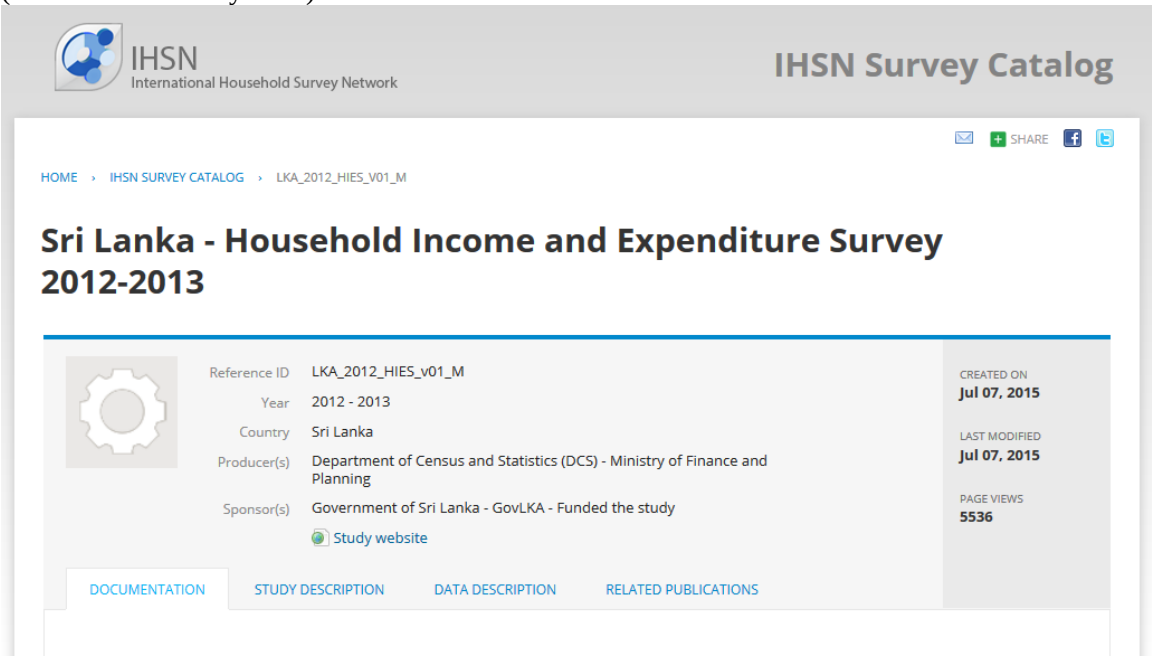
It provides the preliminary report and the final report of HIES 2012/13.

- **IHSN Survey Catalog:**

Sri Lanka - Household Income and Expenditure Survey 2012-2013

http://catalog.ihsn.org/index.php/catalog/6086

(Accessed on 29 May 2017)



The study description and data description are available on the web.

4. Data Import

Strategy to import micro data into R

The provided data set consisted of 25 CSV data files with header labels.

Weight data was included in one of the above files.

1) To import CSV data files into R, making use of the variable names prepared by NSO.

2) To combine three variables; A0, SNUMBER and HHNO of each data file and generate the variable ID, household identifier.

3) To generate the variable of PID (person id) as a combination of ID and person number for data files at individual level.

4) To append weight data to all data files.

****

Import CSV files to R

```
# CSV files to be imported
> csv.names
 [1] "HIES-2012-13-100%-Data-SEC_1_DEMOGRAPHIC.CSV"
 [2] "HIES-2012-13-100%-Data-SEC_2_SCHOOL_EDUCATION.CSV"
 [3] "HIES-2012-13-100%-Data-SEC_3_HEALTH.CSV"
 [4] "HIES-2012-13-100%-Data-SEC_4_1_FOOD_EXP.CSV"
 [5] "HIES-2012-13-100%-Data-SEC_4_2_NONFOOD.CSV"
 [6] "HIES-2012-13-100%-Data-SEC_4_3_BOARDERS.CSV"
 [7] "HIES-2012-13-100%-Data-SEC_4_3_IS_BOADERS.CSV"
 [8] "HIES-2012-13-100%-Data-SEC_5_1_EMP_INCOME.CSV"
 [9] "HIES-2012-13-100%-Data-SEC_5_1_IS_EMP_INCOME.CSV"
[10] "HIES-2012-13-100%-Data-SEC_5_2_AGRI_INCOME.CSV"
[11] "HIES-2012-13-100%-Data-SEC_5_2_IS_AGRI_INCOME.CSV"
[12] "HIES-2012-13-100%-Data-SEC_5_3_IS_OTHER_AGRI_INCOME.CSV"
[13] "HIES-2012-13-100%-Data-SEC_5_3_OTHER_AGRI_INCOME.CSV"
[14] "HIES-2012-13-100%-Data-SEC_5_4_IS_NON_AGRI_INCOME.CSV"
[15] "HIES-2012-13-100%-Data-SEC_5_4_NON_AGRI_INCOME.CSV"
[16] "HIES-2012-13-100%-Data-SEC_5_5_1_IS_OTHER_INCOME.CSV"
[17] "HIES-2012-13-100%-Data-SEC_5_5_1_OTHER_INCOME.CSV"
[18] "HIES-2012-13-100%-Data-SEC_5_5_2_IS_WINDFALL_INCOME.CSV"
[19] "HIES-2012-13-100%-Data-SEC_5_5_2_WINDFALL_INCOME.CSV"
[20] "HIES-2012-13-100%-Data-SEC_6_B_DEBTNESS.CSV"
[21] "HIES-2012-13-100%-Data-SEC_6A_DURABLE_GOODS.CSV"
```

```
[22] "HIES-2012-13-100%-Data-SEC_7_BASIC_FACILITIES.CSV"
[23] "HIES-2012-13-100%-Data-SEC_8_HOUSING.CSV"
[24] "HIES-2012-13-100%-Data-SEC_9_LAND_ANIMAL.CSV"
[25] "HIES-2012-13-100%-Data-WEIGHT_INCOME_EXPENDITURE.CSV"

# Names of data frames in R
# using the sequential number in alphabetical order of CSV file names
> (Rnames<-paste("R",formatC(1:25,width=2,flag="0"),sep=""))
 [1] "R01" "R02" "R03" "R04" "R05" "R06" "R07" "R08" "R09" "R10" "R11" "R12" "R13"
[14] "R14" "R15" "R16" "R17" "R18" "R19" "R20" "R21" "R22" "R23" "R24" "R25"
```

Imported 25 CSV files to R and stored R data frames in the list outfiles.

Note: In read.csv command, the parameter of stringsAsFactor=F should be set.

```
> outfiles<-list()
+ for(j in 1:25){
+ outfiles[[j]]<-read.csv(csv.names[j], header=T, stringsAsFactor=F )
+ }
> length(outfiles)
[1] 25

# List of the number of rows and columns of the created data frames
> filenames<-sub("HIES-2012-13-100%-Data-","",csv.names)
> filenames<-sub(".CSV","",filenames)
> filenames
 [1] "SEC_1_DEMOGRAPHIC"            "SEC_2_SCHOOL_EDUCATION"
 [3] "SEC_3_HEALTH"                 "SEC_4_1_FOOD_EXP"
 [5] "SEC_4_2_NONFOOD"              "SEC_4_3_BOARDERS"
 [7] "SEC_4_3_IS_BOADERS"           "SEC_5_1_EMP_INCOME"
 [9] "SEC_5_1_IS_EMP_INCOME"        "SEC_5_2_AGRI_INCOME"
[11] "SEC_5_2_IS_AGRI_INCOME"       "SEC_5_3_IS_OTHER_AGRI_INCOME"
[13] "SEC_5_3_OTHER_AGRI_INCOME"    "SEC_5_4_IS_NON_AGRI_INCOME"
[15] "SEC_5_4_NON_AGRI_INCOME"      "SEC_5_5_1_IS_OTHER_INCOME"
[17] "SEC_5_5_1_OTHER_INCOME"       "SEC_5_5_2_IS_WINDFALL_INCOME"
[19] "SEC_5_5_2_WINDFALL_INCOME"    "SEC_6_B_DEBTNESS"
[21] "SEC_6A_DURABLE_GOODS"         "SEC_7_BASIC_FACILITIES"
[23] "SEC_8_HOUSING"                "SEC_9_LAND_ANIMAL"
```

```
[25] "WEIGHT_INCOME_EXPENDITURE"
```

```
> for(j in 1:25){
+ cat(Rnames[j],": ",format(filenames[j],width=30),": ",
+ format(nrow(outfiles[[j]]),width=6),",",
+ format(ncol(outfiles[[j]]),width=4),"¥n")
+ }
R01 :  SEC_1_DEMOGRAPHIC              :   89742 ,   27
R02 :  SEC_2_SCHOOL_EDUCATION         :   22029 ,   22
R03 :  SEC_3_HEALTH                   :   80534 ,   27
R04 :  SEC_4_1_FOOD_EXP               :  815186 ,   15
R05 :  SEC_4_2_NONFOOD                :  612085 ,   15
R06 :  SEC_4_3_BOARDERS               :     260 ,   25
R07 :  SEC_4_3_IS_BOADERS             :   20540 ,   12
R08 :  SEC_5_1_EMP_INCOME             :   18594 ,   16
R09 :  SEC_5_1_IS_EMP_INCOME          :   20540 ,   12
R10 :  SEC_5_2_AGRI_INCOME            :    4196 ,   24
R11 :  SEC_5_2_IS_AGRI_INCOME         :   20540 ,   12
R12 :  SEC_5_3_IS_OTHER_AGRI_INCOME   :   20540 ,   12
R13 :  SEC_5_3_OTHER_AGRI_INCOME      :    3968 ,   19
R14 :  SEC_5_4_IS_NON_AGRI_INCOME     :   20540 ,   12
R15 :  SEC_5_4_NON_AGRI_INCOME        :    5700 ,   16
R16 :  SEC_5_5_1_IS_OTHER_INCOME      :   20540 ,   12
R17 :  SEC_5_5_1_OTHER_INCOME         :   12602 ,   24
R18 :  SEC_5_5_2_IS_WINDFALL_INCOME   :   20540 ,   12
R19 :  SEC_5_5_2_WINDFALL_INCOME      :    8575 ,   22
R20 :  SEC_6_B_DEBTNESS               :   20540 ,   29
R21 :  SEC_6A_DURABLE_GOODS           :   20540 ,   36
R22 :  SEC_7_BASIC_FACILITIES         :   20540 ,   48
R23 :  SEC_8_HOUSING                  :   20540 ,   38
R24 :  SEC_9_LAND_ANIMAL              :   20540 ,   40
R25 :  WEIGHT_INCOME_EXPENDITURE      :   20540 ,   14
```

 # Structure of each data frame

```
> for(j in 1:25){
+ cat(Rnames[j],": ",format(filenames[j],width=30),":¥n")
+ cat(str(outfiles[[j]]), "¥n¥n")
+ }

R01 :  SEC_1_DEMOGRAPHIC              :
'data.frame':   89742 obs. of  27 variables:
 $ REC_TYPE         : int  1 1 1 1 1 1 1 1 1 1 ...
 $ DISTRICT         : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR           : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS               : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH            : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU              : int  39 39 39 39 39 39 39 39 39 39 ...
 $ AO               : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96375 ...
 $ SNUMBER          : int  1 1 2 2 2 2 3 3 3 3 ...
 $ HHNO             : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH              : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT           : int  1 1 1 1 1 1 1 1 1 1 ...
 $ PERSON_SERIAL_NO : int  1 2 1 2 3 41 1 2 3 4 ...
 $ RELATIONSHIP     : int  1 4 1 2 3 3 1 3 3 5 ...
 $ SEX              : int  2 2 1 2 1 2 2 2 2 1 ...
 $ BIRTH_YEAR       : int  71 42 46 50 77 NA 61 92 89 83 ...
 $ BIRTH_MONTH      : int  2 7 11 7 3 NA 7 11 4 7 ...
 $ AGE              : int  41 70 66 62 35 NA 51 20 23 29 ...
 $ ETHNICITY        : int  4 4 4 4 4 NA 4 4 4 4 ...
 $ RELIGION         : int  3 3 3 3 3 NA 3 3 3 3 ...
 $ MARITAL_STATUS   : int  3 5 2 2 1 NA 2 1 2 2 ...
 $ CURR_EDUC        : int  9 9 9 9 9 NA 9 4 9 9 ...
 $ EDUCATION        : int  5 4 6 4 12 NA 6 10 10 10 ...
 $ IS_ACTIVE        : int  2 2 2 2 1 NA 1 2 2 1 ...
 $ MAIN_ACTIVITY    : int  3 3 4 4 NA NA NA 3 3 NA ...
 $ MAIN_OCCUPATION  : int  NA NA NA NA 7422 NA 7512 NA NA 7512 ...
 $ INDUSTRY         : int  NA NA NA NA 33140 NA 10712 NA NA 10629 ...
 $ EMPLOYMENT_STATUS: int  NA NA NA NA 3 NA 5 NA NA 5 ...
```

```
R02 :  SEC_2_SCHOOL_EDUCATION          :
'data.frame':   22029 obs. of  22 variables:
 $ REC_TYPE           : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DISTRICT           : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR             : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                 : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH              : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                : int  39 39 39 39 39 39 39 39 39 39 ...
 $ AO                 : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96375 ...
 $ SNUMBER            : int  3 4 4 6 7 7 7 7 9 9 ...
 $ HHNO               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT             : int  1 1 1 1 1 1 1 1 1 1 ...
 $ R2_PERSON_SERIAL   : int  2 4 5 3 3 4 5 6 3 4 ...
 $ R2_SCHOOL_EDUCATION: int  3 3 1 1 1 1 1 1 3 1 ...
 $ TYPE_OF_SCHOOL     : int  NA NA 1 1 1 1 1 1 NA 1 ...
 $ GRADE_THIS_YEAR    : int  NA NA 8 12 10 9 5 1 NA 11 ...
 $ GRADE_LAST_YEAR    : int  NA NA 7 11 9 8 4 19 NA 10 ...
 $ DISTANCE           : int  NA NA 10 0 4 4 4 4 NA 0 ...
 $ TRANSPORT_MEDIUM   : int  NA NA 1 1 5 5 5 5 NA 1 ...
 $ TIME_TO_SCHOOL     : int  NA NA 5 5 15 15 15 15 NA 5 ...
 $ NOSCHOOLING_REASON : int  NA NA NA NA NA NA NA NA NA NA ...
 $ REASON_NOT_GOING   : int  3 6 NA NA NA NA NA NA 9 NA ...
 $ WHEN_STOP_SCHOOLING: int  2009 2011 NA NA NA NA NA NA 2010 NA ...


R03 :  SEC_3_HEALTH                    :
'data.frame':   80534 obs. of  27 variables:
 $ REC_TYPE               : int  3 3 3 3 3 3 3 3 3 3 ...
 $ DISTRICT               : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR                 : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                     : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH                  : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                    : int  39 39 39 39 39 39 39 39 39 39 ...
 $ AO                     : int  96375 96375 96375 96375 96375 96375 96375 96375 96375
96375 ...
 $ SNUMBER                : int  1 1 2 2 2 3 3 3 3 3 ...
 $ HHNO                   : int  1 1 1 1 1 1 1 1 1 1 ...
```

```
 $ NHH                    : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT                 : int  1 1 1 1 1 1 1 1 1 1 ...
 $ R3_PERSON_SERIAL2      : int  1 2 1 2 3 1 2 3 4 5 ...
 $ ATTEND_GOVT_HOSPITAL3  : int  2 2 2 2 2 1 2 2 2 2 ...
 $ REASON_HOSPITAL4       : int  NA NA NA NA NA 1 NA NA NA NA ...
 $ ATTEND_PRIVATE_HOSPITAL5: int  2 2 2 1 2 2 2 2 2 2 ...
 $ REASON_FOR_WHAT6       : int  NA NA NA 1 NA NA NA NA NA NA ...
 $ IS_STAY_GOVHOSPITAL7   : int  2 2 2 2 2 2 2 2 2 2 ...
 $ REASON_STAY8           : int  NA NA NA NA NA NA NA NA NA NA ...
 $ STAY_IN_PRIVTE_HOSPITAL9: int  2 2 2 2 2 2 2 2 2 2 ...
 $ REASON_FOR_STAY10      : int  NA NA NA NA NA NA NA NA NA NA ...
 $ IS_ILL_DISABLE11       : int  2 2 1 1 2 1 2 2 2 2 ...
 $ WHAT_ILL_DISABLE12     : int  NA NA 1 4 NA 10 NA NA NA NA ...
 $ IS_EMPL_REASON13       : int  NA NA 2 2 NA 2 NA NA NA NA ...
 $ DURATION_YEARS14       : int  NA NA 8 3 NA 2 NA NA NA NA ...
 $ DURATION_MONTHS14      : int  NA NA 4 6 NA 3 NA NA NA NA ...
 $ IS_ABSENT_ACT15        : int  NA NA 2 2 NA 2 NA NA NA NA ...
 $ DAYS_ABSENT16          : int  NA NA NA NA NA NA NA NA NA NA ...


R04 :  SEC_4_1_FOOD_EXP              :
'data.frame':   815186 obs. of  15 variables:
 $ REC_TYPE    : int  4 4 4 4 4 4 4 4 4 4 ...
 $ DISTRICT    : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR      : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS          : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH       : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU         : int  39 39 39 39 39 39 39 39 39 39 ...
 $ AO          : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96375 ...
 $ SNUMBER     : int  1 1 1 1 1 1 1 1 1 1 ...
 $ HHNO        : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH         : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT      : int  1 1 1 1 1 1 1 1 1 1 ...
 $ CODE        : int  101 105 111 201 206 302 309 401 402 410 ...
 $ QUANTITY    : chr  "000250" "003500" "000500" "000900" ...
 $ VALUE       : chr  "0000016" "0000259" "0000050" "0000110" ...
 $ INKIND_VALUE: chr  "0000016" "0000259" "0000050" "0000110" ...
```

```
R05 :  SEC_4_2_NONFOOD                :
'data.frame':   612085 obs. of  15 variables:
 $ REC_TYPE       : int  5 5 5 5 5 5 5 5 5 5 ...
 $ DISTRICT       : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR         : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS             : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH          : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU            : int  39 39 39 39 39 39 39 39 39 39 ...
 $ AO             : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96375 ...
 $ SNUMBER        : int  1 1 1 1 1 1 1 1 1 1 ...
 $ HHNO           : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH            : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT         : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NF_CODE        : int  2001 2002 2003 2101 2104 2107 2109 2201 2202 2306 ...
 $ NF_QUANTITY    : chr  "      " "      " "      " "      " "      " ...
 $ NF_VALUE       : chr  "0000400" "0000048" "0000087" "0000350" ...
 $ NF_INKIND_VALUE: int  400 NA 87 350 NA 75 18 120 70 250 ...


R06 :  SEC_4_3_BOARDERS               :
'data.frame':   260 obs. of  25 variables:
 $ REC_TYPE: int  7 7 7 7 7 7 7 7 7 7 ...
 $ DISTRICT: int  92 92 92 92 92 92 91 91 91 82 ...
 $ SECTOR  : int  2 2 3 2 1 2 2 2 2 2 ...
 $ DS      : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH   : int  7 7 7 3 2 2 10 7 1 2 ...
 $ PSU     : int  5 5 8 64 56 60 27 2 56 50 ...
 $ AO      : int  97449 97449 98645 97416 96890 98409 91403 91706 92146 89731 ...
 $ SNUMBER : int  4 4 8 7 6 7 5 2 3 4 ...
 $ HHNO    : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH     : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ COL_2   : int  2 3 1 8 6 8 5 2 6 4 ...
 $ COL_3   : int  1500 200 NA NA NA NA NA NA NA NA ...
 $ COL_4   : int  2300 NA NA NA NA NA NA NA NA NA ...
 $ COL_5   : int  NA NA NA NA NA NA NA NA NA NA ...
 $ COL_6   : int  NA NA NA NA NA NA NA NA NA NA ...
```

```
 $ COL_7   : int  NA NA 500 NA NA NA 2500 NA NA NA ...
 $ COL_8   : int  1000 1200 NA NA NA NA 2000 60 300 NA ...
 $ COL_9   : int  NA NA NA NA NA NA NA NA NA NA ...
 $ COL_10  : int  3000 3000 NA NA NA NA 5500 NA NA NA ...
 $ COL_11  : int  5000 NA 14000 NA 6000 NA 5000 NA 1500 3000 ...
 $ COL_12  : int  12200 NA 140 NA NA NA 3750 NA NA NA ...
 $ COL_13  : int  1000 NA NA NA NA NA 3000 NA 150 NA ...
 $ COL_14  : int  4000 1500 NA NA NA NA 5000 NA NA 1000 ...
 $ COL_15  : int  NA NA 750 NA NA NA NA NA NA NA ...
```

```
R07 :  SEC_4_3_IS_BOADERS            :
'data.frame':   20540 obs. of  12 variables:
 $ REC_TYPE            : int  6 6 6 6 6 6 6 6 6 6 ...
 $ DISTRICT            : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR              : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                  : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH               : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                 : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO                  : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96732 ...
 $ SNUMBER             : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO                : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                 : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT              : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_BOARDERS_SERVENTS: int  2 2 2 2 2 2 2 2 2 2 ...
```

```
R08 :  SEC_5_1_EMP_INCOME            :
'data.frame':   18594 obs. of  16 variables:
 $ REC_TYPE       : int  9 9 9 9 9 9 9 9 9 9 ...
 $ DISTRICT       : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR         : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS             : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH          : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU            : int  39 39 40 40 40 40 41 41 41 41 ...
 $ AO             : int  96375 96375 96732 96732 96732 96732 96872 96872 96872 96872 ...
 $ SNUMBER        : int  2 10 1 3 5 5 7 7 8 10 ...
 $ HHNO           : int  1 1 1 1 1 1 1 1 1 1 ...
```

```
 $ NHH            : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT         : int  1 1 1 1 1 1 1 1 1 1 ...
 $ SERIAL_NO_SEC_1: int  3 2 3 1 1 7 1 2 1 1 ...
 $ PRI_SEC        : int  1 1 1 1 1 1 1 1 1 1 ...
 $ WAGES_SALARIES : int  2500 35000 12500 120000 12500 15000 18000 19520 22600 14000 ...
 $ ALLOWENCES     : int  500 NA NA NA NA NA NA NA NA NA ...
 $ BONUS          : int  NA NA NA NA NA NA NA NA NA NA ...


R09 :  SEC_5_1_IS_EMP_INCOME          :
'data.frame':   20540 obs. of  12 variables:
 $ REC_TYPE            : int  8 8 8 8 8 8 8 8 8 8 ...
 $ DISTRICT            : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR              : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                  : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH               : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                 : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO                  : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96732 ...
 $ SNUMBER             : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO                : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                 : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT              : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_EMPLOYMENT_INCOME: int  2 1 2 2 2 2 2 2 1 1 ...


R10 :  SEC_5_2_AGRI_INCOME            :
'data.frame':   4196 obs. of  24 variables:
 $ REC_TYPE: int  11 11 11 11 11 11 11 11 11 11 ...
 $ DISTRICT: int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR  : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS      : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH   : int  12 12 12 12 10 10 9 8 8 8 ...
 $ PSU     : int  41 41 42 42 25 28 18 10 10 10 ...
 $ AO      : int  96872 96872 97152 97152 96779 97521 96612 96053 96053 96053 ...
 $ SNUMBER : int  10 10 2 3 5 4 7 1 1 2 ...
 $ HHNO    : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH     : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT  : int  1 1 1 1 1 1 1 1 1 1 ...
```

```
 $ COL_2X  : int  1 1 1 1 1 1 2 1 1 1 ...
 $ COL_4X  : int  1 4 4 4 4 1 1 1 4 4 ...
 $ COL_5X  : int  NA NA NA NA NA NA NA 1 NA NA ...
 $ COL_6X  : int  1 NA NA NA NA 1 1 2 NA NA ...
 $ COL_7X  : int  NA NA NA NA 30 10 NA 0 NA NA ...
 $ COL_8X  : int  350 20 NA NA 45 200 300 1300 NA 40 ...
 $ COL_8X1 : int  8750 850 NA NA 1800 5000 7000 40000 1000 1500 ...
 $ COL_9X  : int  5600 150 NA NA 300 4340 4500 21750 NA 500 ...
 $ COL_10X : int  200 NA NA NA NA 200 300 13000 NA NA ...
 $ COL_10X1: chr  "000005000" "         " "         " "         " ...
 $ COL_11X : int  150 NA NA NA NA NA NA 120 NA NA ...
 $ COL_12X : int  NA NA NA NA NA NA NA NA NA NA ...
 $ COL_13X : int  1800 NA NA NA NA 340 1200 1500 NA NA ...


R11 :  SEC_5_2_IS_AGRI_INCOME         :
'data.frame':   20540 obs. of  12 variables:
 $ REC_TYPE              : int  10 10 10 10 10 10 10 10 10 10 ...
 $ DISTRICT              : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR                : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                    : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH                 : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                   : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO                    : int  96375 96375 96375 96375 96375 96375 96375 96375 96375
96732 ...
 $ SNUMBER               : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO                  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                   : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT                : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_AGRICULTURAL_INCOME: int  2 2 2 2 2 2 2 2 2 2 ...


R12 :  SEC_5_3_IS_OTHER_AGRI_INCOME   :
'data.frame':   20540 obs. of  12 variables:
 $ REC_TYPE             : int  12 12 12 12 12 12 12 12 12 12 ...
 $ DISTRICT             : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR               : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                   : int  10 10 10 10 10 10 10 10 10 10 ...
```

```
 $ MONTH                : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                  : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO                   : int  96375 96375 96375 96375 96375 96375 96375 96375 96375
96732 ...
 $ SNUMBER              : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO                 : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_OTHER_AGRRI_INCOME: int  2 2 2 2 2 1 1 1 2 2 ...


R13 :  SEC_5_3_OTHER_AGRI_INCOME      :
'data.frame':   3968 obs. of  19 variables:
 $ REC_TYPE      : int  13 13 13 13 13 13 13 13 13 13 ...
 $ DISTRICT      : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR        : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS            : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH         : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU           : int  39 39 39 39 41 41 41 41 43 43 ...
 $ AO            : int  96375 96375 96375 96375 96872 96872 96872 96872 97612 97612 ...
 $ SNUMBER       : int  6 7 9 9 1 8 10 10 1 2 ...
 $ HHNO          : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH           : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT        : int  1 1 1 1 1 1 1 1 1 1 ...
 $ SER_NO_SEC_5_3: int  2 1 1 1 1 1 1 1 1 1 ...
 $ SEASONAL_CROP : int  7 5 5 7 2 4 2 4 1 2 ...
 $ ACRES_5_3     : int  NA NA NA NA NA NA NA NA NA 1 ...
 $ ROOTS_5_3     : int  NA NA NA NA NA NA NA NA 2 2 ...
 $ PERCHS_5_3    : int  NA NA NA NA NA NA NA NA NA NA ...
 $ OUTPUT_5_3    : int  NA NA 10000 1800 800 480 1600 1800 4000 1120 ...
 $ INPUT_5_3     : int  600 2000 2000 800 NA NA NA NA 2000 NA ...
 $ FERTILIZES    : int  NA NA NA NA NA NA NA NA NA NA ...


R14 :  SEC_5_4_IS_NON_AGRI_INCOME     :
'data.frame':   20540 obs. of  12 variables:
 $ REC_TYPE          : int  14 14 14 14 14 14 14 14 14 14 ...
 $ DISTRICT          : int  92 92 92 92 92 92 92 92 92 92 ...
```

```
 $ SECTOR            : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH             : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU               : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO                : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96732 ...
 $ SNUMBER           : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO              : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT            : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_NON_AGRI_INCOME: int  2 2 1 1 1 1 1 1 2 1 ...


R15 :  SEC_5_4_NON_AGRI_INCOME        :
'data.frame':   5700 obs. of  16 variables:
 $ REC_TYPE  : int  15 15 15 15 15 15 15 15 15 15 ...
 $ DISTRICT  : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR    : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS        : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH     : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU       : int  39 39 39 39 39 39 39 39 40 40 ...
 $ AO        : int  96375 96375 96375 96375 96375 96375 96375 96375 96732 96732 ...
 $ SNUMBER   : int  3 3 4 4 5 6 7 9 1 10 ...
 $ HHNO      : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH       : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT    : int  1 1 1 1 1 1 1 1 1 1 ...
 $ SERIAL_5_4: int  1 4 1 3 3 1 1 1 1 1 ...
 $ NON_AGRI  : int  2 2 4 4 4 4 4 4 9 4 ...
 $ OUTPUT_5_4: chr  "000045000" "000054000" "000036000" "000048000" ...
 $ INPUT_5_4 : chr  "000035000" "000030000" "000024000" "000035000" ...
 $ SUBSIDIES : int  NA NA NA NA NA NA NA NA NA NA ...


R16 :  SEC_5_5_1_IS_OTHER_INCOME      :
'data.frame':   20540 obs. of  12 variables:
 $ REC_TYPE       : int  16 16 16 16 16 16 16 16 16 16 ...
 $ DISTRICT       : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR         : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS             : int  10 10 10 10 10 10 10 10 10 10 ...
```

```
 $ MONTH          : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU            : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO             : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96732 ...
 $ SNUMBER        : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO           : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH            : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT         : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_OTHER_INCOME: int  1 1 1 1 1 2 2 1 1 1 ...


R17 :  SEC_5_5_1_OTHER_INCOME         :
'data.frame':   12602 obs. of  24 variables:
 $ REC_TYPE             : int  17 17 17 17 17 17 17 17 17 17 ...
 $ DISTRICT             : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR               : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                   : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH                : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                  : int  39 39 39 39 39 39 39 40 40 40 ...
 $ AO                   : int  96375 96375 96375 96375 96375 96375 96375 96732 96732
96732 ...
 $ SNUMBER              : int  1 2 3 4 5 9 10 1 1 5 ...
 $ HHNO                 : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ SERIAL_5_5_1         : int  1 1 1 2 2 1 1 1 2 6 ...
 $ PENSION              : int  NA NA NA NA NA NA 20800 NA NA NA ...
 $ DISABILITY_AND_RELIEF: int  NA NA NA NA NA NA NA NA NA NA ...
 $ PROPERTY_RENTS       : int  NA NA NA NA NA NA NA NA NA NA ...
 $ SAMURDHI             : int  NA NA 300 NA NA 900 NA 550 NA NA ...
 $ DIVIDENDS            : int  NA NA NA NA NA NA NA NA NA NA ...
 $ ELDER                : int  NA NA NA NA NA NA NA NA NA NA ...
 $ SCHOLAR              : int  NA NA NA NA NA NA NA NA NA NA ...
 $ SC_LUNCH             : int  NA NA NA NA NA NA NA NA NA NA ...
 $ THREEPOSHA           : int  NA NA NA NA NA NA NA NA NA NA ...
 $ OTHER_INCOME         : int  NA NA NA NA NA NA NA NA NA NA ...
 $ INCOME_FORIGN        : int  NA NA NA NA NA NA NA NA NA 22000 ...
 $ INCOME_LOCAL         : int  20000 300000 NA 24000 18000 NA NA NA 36000 NA ...
```

```
R18 :  SEC_5_5_2_IS_WINDFALL_INCOME   :
'data.frame':   20540 obs. of  12 variables:
 $ REC_TYPE          : int  18 18 18 18 18 18 18 18 18 18 ...
 $ DISTRICT          : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR            : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH             : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU               : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO                : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96732 ...
 $ SNUMBER           : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO              : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT            : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_WINDFALL_INCOME: int  2 2 2 2 2 2 1 1 2 2 ...


R19 :  SEC_5_5_2_WINDFALL_INCOME      :
'data.frame':   8575 obs. of  22 variables:
 $ REC_TYPE             : int  19 19 19 19 19 19 19 19 19 19 ...
 $ DISTRICT             : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR               : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                   : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH                : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                  : int  39 39 42 42 42 42 42 42 43 43 ...
 $ AO                   : int  96375 96375 97152 97152 97152 97152 97152 97152 97612
97612 ...
 $ SNUMBER              : int  7 9 2 4 5 7 8 9 1 4 ...
 $ HHNO                 : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ PERSON_5_5_2         : int  1 1 3 1 1 2 1 1 2 1 ...
 $ LOANS                : int  NA NA NA NA NA 100000 NA 250000 NA NA ...
 $ PAWNING_SELLING      : int  60000 12000 50000 50000 25000 57000 NA 125000 70000 NA ...
 $ DEPOSITS_PENSIONS_EPF: int  NA NA NA NA NA NA NA NA NA NA ...
 $ WELFARE_SOCITY       : int  NA NA NA NA NA NA NA NA NA NA ...
 $ SEETTU_DEBITS        : int  NA NA 24000 NA 60000 NA 100000 NA NA 20000 ...
 $ MEDICAL              : int  NA NA NA NA NA NA NA NA NA NA ...
```

```
 $ INSUARANCE           : int  NA NA NA NA NA NA NA NA NA NA ...
 $ LOTTERY              : int  NA NA NA NA NA NA NA NA NA NA ...
 $ FOODALLOWENCE        : int  NA NA NA NA NA NA NA NA NA NA ...
 $ DIASTER              : int  NA NA NA NA NA NA NA NA NA NA ...


R20 :  SEC_6_B_DEBTNESS               :
'data.frame':   20540 obs. of  29 variables:
 $ REC_TYPE           : int  21 21 21 21 21 21 21 21 21 21 ...
 $ DISTRICT           : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR             : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                 : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH              : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO                 : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96732 ...
 $ SNUMBER            : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT             : int  1 1 1 1 1 1 1 1 1 1 ...
 $ BANKS              : int  2 2 2 2 2 2 2 2 2 2 ...
 $ BANK_AMOUNT        : int  NA NA NA NA NA NA NA NA NA NA ...
 $ FINANCE            : int  2 2 2 2 2 2 2 2 2 2 ...
 $ FINANCE_AMOUNT     : int  NA NA NA NA NA NA NA NA NA NA ...
 $ EMPLOYER           : int  2 2 2 2 2 2 2 2 2 2 ...
 $ EMPLOYER_AMOUNT    : int  NA NA NA NA NA NA NA NA NA NA ...
 $ LENDER             : int  1 2 1 2 2 2 2 2 2 2 ...
 $ LENDER_AMOUNT      : int  2450 NA 150000 NA NA NA NA NA NA NA ...
 $ CREDIT_CARDS       : int  2 2 2 2 2 2 2 2 2 2 ...
 $ CREDIT_CARDS_AMOUNT: int  NA NA NA NA NA NA NA NA NA NA ...
 $ RETAIL_SHOPS       : int  2 2 1 2 2 2 2 2 2 2 ...
 $ RETAIL_SHOP_AMOUNT : int  NA NA 3000 NA NA NA NA NA NA NA ...
 $ PAWNING            : int  2 2 2 2 2 2 1 1 2 2 ...
 $ PAWNING_AMOUNT     : int  NA NA NA NA NA NA 200000 12000 NA NA ...
 $ INSTALMENT_GOODS   : int  2 2 2 2 2 2 2 2 2 2 ...
 $ INSTALEMENT_AMOUNT : int  NA NA NA NA NA NA NA NA NA NA ...
 $ OTHER_DEBTS        : int  2 2 2 2 2 2 2 2 2 2 ...
 $ OTHER_AMOUNT       : int  NA NA NA NA NA NA NA NA NA NA ...
```

```
R21 :  SEC_6A_DURABLE_GOODS           :
'data.frame':   20540 obs. of  36 variables:
 $ REC_TYPE        : int  20 20 20 20 20 20 20 20 20 20 ...
 $ DISTRICT        : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR          : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS              : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH           : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU             : int  39 39 39 39 39 39 39 39 40 ...
 $ AO              : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96732 ...
 $ SNUMBER         : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO            : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH             : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT          : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RADIO           : int  1 1 2 1 1 1 1 1 1 1 ...
 $ TV              : int  2 1 1 1 1 1 2 1 1 1 ...
 $ VCD             : int  2 2 1 1 2 1 2 2 2 2 ...
 $ SEWING_MECHINE  : int  2 1 1 1 1 2 1 1 1 2 ...
 $ WASHING_MECHINE : int  2 1 2 1 2 2 1 2 1 2 ...
 $ FRIDGE          : int  2 1 1 1 1 1 1 1 1 2 ...
 $ COOKERT         : int  2 2 1 1 1 1 1 1 1 2 ...
 $ ELECTRIC_FANS   : int  2 2 1 1 1 1 2 2 1 2 ...
 $ TELEPHONE       : int  2 1 2 2 2 1 2 2 2 2 ...
 $ TELEPHONE_MOBILE: int  1 2 1 1 1 1 1 1 1 2 ...
 $ COMPUTERS       : int  2 2 2 2 2 2 2 1 1 2 ...
 $ CAMERA          : int  2 2 2 2 2 2 2 2 2 2 ...
 $ BICYCLE         : int  2 1 2 2 2 2 1 1 2 2 ...
 $ MOTOR_BICYCLE   : int  2 2 2 2 2 2 2 1 2 2 ...
 $ THREE_WHEELER   : int  2 2 2 2 2 2 2 2 2 2 ...
 $ MOTOR_CAR_VAN   : int  2 2 2 2 2 2 2 2 2 2 ...
 $ BUS_LORRY       : int  2 2 2 2 2 2 2 2 2 2 ...
 $ TRACTOR_2_WHEEL : int  2 2 2 2 2 2 2 2 2 2 ...
 $ TRACTOR_4_WHEEL : int  2 2 2 2 2 2 2 2 2 2 ...
 $ PESTICIDER      : int  2 2 2 2 2 2 2 2 2 2 ...
 $ THRESHERS       : int  2 2 2 2 2 2 2 2 2 2 ...
 $ WATERPUMPS      : int  2 2 2 2 2 2 2 2 2 2 ...
 $ MECHINE         : int  2 2 2 2 2 2 2 2 2 2 ...
 $ BOATS           : int  2 2 2 2 2 2 2 2 2 2 ...
```

```
 $ FISHING_NETS     : int  2 2 2 2 2 2 2 2 2 ...


R22 :  SEC_7_BASIC_FACILITIES         :
'data.frame':   20540 obs. of  48 variables:
 $ REC_TYPE               : int  22 22 22 22 22 22 22 22 22 ...
 $ DISTRICT               : int  92 92 92 92 92 92 92 92 92 ...
 $ SECTOR                 : int  2 2 2 2 2 2 2 2 2 ...
 $ DS                     : int  10 10 10 10 10 10 10 10 10 ...
 $ MONTH                  : int  12 12 12 12 12 12 12 12 12 ...
 $ PSU                    : int  39 39 39 39 39 39 39 39 40 ...
 $ AO                     : int  96375 96375 96375 96375 96375 96375 96375 96375 96375
96732 ...
 $ SNUMBER                : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO                   : int  1 1 1 1 1 1 1 1 1 ...
 $ NHH                    : int  1 1 1 1 1 1 1 1 1 ...
 $ RESULT                 : int  1 1 1 1 1 1 1 1 1 ...
 $ BUS_HALT               : int  0 0 0 0 0 0 0 0 0 ...
 $ BUS_HALT_TIME          : int  5 5 5 5 5 5 1 5 5 ...
 $ PRE_SCHOOL             : int  0 0 0 0 0 0 0 0 0 ...
 $ PRE_SCHOOL_TIME        : int  5 5 5 5 5 5 5 5 5 ...
 $ PRIMERY_SCHOOL         : int  0 0 0 0 0 0 0 0 0 ...
 $ PRIMERY_SCHOOL_TIME    : int  5 5 5 5 5 5 5 5 5 ...
 $ SECONDERY_SCHOOL       : int  0 0 0 0 0 0 0 0 0 ...
 $ SEC_SCHOOL_TIME        : int  5 5 5 5 5 5 5 5 10 ...
 $ HOSPITAL               : int  4 4 4 4 4 4 4 4 0 ...
 $ HOSPITAL_TIME          : int  15 15 15 15 15 15 15 15 10 ...
 $ MATRENITY_HOME         : int  4 4 4 4 4 4 4 4 0 ...
 $ MATERNITY_HOME_TIME    : int  15 15 15 15 15 15 15 15 10 ...
 $ GOV_DISPENSARZ         : int  4 4 4 4 4 4 4 4 0 ...
 $ GOV_DISPENSARY_TIME    : int  15 15 15 15 15 15 15 15 10 ...
 $ PRIVATE_DISPENSARY     : int  0 0 0 0 0 0 0 0 0 ...
 $ PRIVATE_DISPENSARY_TIME: int  10 10 10 10 15 10 10 10 10 ...
 $ MATERNITY_CLINIC       : int  0 0 0 0 0 0 0 0 0 ...
 $ MATERNITY_CLINIC_TIME  : int  10 10 10 10 10 10 10 10 10 ...
 $ DMO                    : int  4 4 4 4 4 4 4 4 0 ...
 $ DMO_TIME               : int  15 15 15 15 15 15 15 15 10 ...
 $ MCUCPC                 : int  3 3 3 3 3 3 3 3 0 ...
```

```
 $ MCUCPC_TIME            : int  15 15 15 15 15 15 15 15 15 10 ...
 $ DS_OFFICE              : int  4 4 4 4 4 4 4 4 4 0 ...
 $ DS_OFFICE_TIME         : int  20 20 20 20 20 20 20 20 20 10 ...
 $ GN_OFFICE              : int  1 1 1 1 1 1 1 1 1 0 ...
 $ GN_OFFICE_TIME         : int  10 10 10 10 10 10 10 10 10 3 ...
 $ POST_OFFICE            : int  0 0 0 0 0 0 0 0 0 0 ...
 $ POST_OFFICE_TIME       : int  5 5 5 5 5 5 5 5 5 10 ...
 $ BANK                   : int  4 4 4 4 4 4 4 4 0 4 0 ...
 $ BANK_TIME              : int  15 15 15 15 15 15 15 15 15 5 ...
 $ AGRI_OFFICE            : int  8 8 8 8 8 8 8 8 8 1 ...
 $ AGRI_OFFICE_TIME       : int  40 40 40 40 40 40 40 40 40 15 ...
 $ IS_POWER_LINES_NEAR    : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_TEL_LINES_NEAR      : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_WATER_SERVICE_NEAR  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ ATM_CARD               : int  2 2 2 2 2 2 1 1 1 2 ...
 $ ATMCARDAMOUNT          : int  NA NA NA NA NA NA 15000 10000 40000 NA ...


R23 :  SEC_8_HOUSING                 :
'data.frame':   20540 obs. of  38 variables:
 $ REC_TYPE             : int  23 23 23 23 23 23 23 23 23 23 ...
 $ DISTRICT             : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR               : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS                   : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH                : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU                  : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO                   : int  96375 96375 96375 96375 96375 96375 96375 96375 96375
96732 ...
 $ SNUMBER              : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO                 : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH                  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT               : int  1 1 1 1 1 1 1 1 1 1 ...
 $ STRUCTURE            : int  1 2 1 1 1 1 1 1 2 9 ...
 $ BED_ROOMS            : int  2 3 1 5 3 2 2 2 5 1 ...
 $ AREA                 : int  4 6 3 6 4 5 6 5 7 2 ...
 $ WALLS                : int  1 1 3 1 1 1 1 5 1 6 ...
 $ FLOOR                : int  1 1 1 1 1 6 6 1 1 3 ...
 $ ROOF                 : int  1 2 2 2 2 3 3 1 2 5 ...
```

```
 $ OWNERSHIP             : int  1 1 1 1 1 1 1 2 1 1 ...
 $ DRINKING_WATER        : int  4 4 4 4 4 4 4 1 1 6 ...
 $ OWN_WATER             : int  1 1 1 1 1 1 1 1 1 2 ...
 $ WATER_DISTANCE        : chr  ″    ″ ″    ″ ″    ″ ″    ″ ...
 $ WATER_SUFFICENCY      : int  1 1 1 1 1 1 1 1 1 1 ...
 $ OTHER_WATER_SUFFICENCY: int  1 1 1 1 1 1 1 1 1 1 ...
 $ TIOILET_USE           : int  1 1 3 1 3 1 1 3 1 1 ...
 $ TOILET_TYPE           : int  1 1 1 1 1 1 1 1 1 1 ...
 $ GARBAGE_DUMPING       : int  1 1 1 1 1 1 3 1 2 2 ...
 $ LITE_SOURCE           : int  2 2 2 2 2 2 2 2 2 2 ...
 $ COOKING_FUEL          : int  1 1 1 2 1 1 1 1 2 1 ...
 $ IS_COLLECT_FIREWOOD   : int  2 2 1 2 1 2 1 1 2 2 ...
 $ FIRE_WOOD_OWN         : int  NA NA 3 NA 3 NA 1 1 NA NA ...
 $ OTHER_DISTANCE        : int  NA NA 500 NA 200 NA NA NA NA NA ...
 $ NATURAL_CALAMITY      : int  2 2 2 2 2 2 2 2 2 2 ...
 $ FLOODING              : int  NA NA NA NA NA NA NA NA NA NA ...
 $ DROUGHT               : int  NA NA NA NA NA NA NA NA NA NA ...
 $ LAND_SLIDES           : int  NA NA NA NA NA NA NA NA NA NA ...
 $ WILDANIMALS           : int  NA NA NA NA NA NA NA NA NA NA ...
 $ WINDS                 : int  NA NA NA NA NA NA NA NA NA NA ...
 $ OTHER_CALAMITY        : int  NA NA NA NA NA NA NA NA NA NA ...


R24 :  SEC_9_LAND_ANIMAL              :
'data.frame':   20540 obs. of  40 variables:
 $ REC_TYPE         : int  24 24 24 24 24 24 24 24 24 24 ...
 $ DISTRICT         : int  92 92 92 92 92 92 92 92 92 92 ...
 $ SECTOR           : int  2 2 2 2 2 2 2 2 2 2 ...
 $ DS               : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH            : int  12 12 12 12 12 12 12 12 12 12 ...
 $ PSU              : int  39 39 39 39 39 39 39 39 39 40 ...
 $ AO               : int  96375 96375 96375 96375 96375 96375 96375 96375 96375 96732 ...
 $ SNUMBER          : int  1 2 3 4 5 6 7 9 10 1 ...
 $ HHNO             : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH              : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT           : int  1 1 1 1 1 1 1 1 1 1 ...
 $ IS_AGRILAND_OWNER: int  1 1 1 1 1 1 1 1 1 2 ...
 $ PADDY_OWN_ACR    : int  NA NA NA NA NA NA NA NA NA NA ...
```

```
 $ PADDY_OWN_RT      : int  NA NA NA NA NA NA NA NA NA ...
 $ PADDY_OWN_PERCH   : int  NA NA NA NA NA NA NA NA NA ...
 $ PADDY_OTHER_ACR   : int  NA NA NA NA NA NA NA NA NA ...
 $ PADDY_OTHER_RT    : int  NA NA NA NA NA NA NA NA NA ...
 $ PADDY_OTHER_PERCH: int  NA NA NA NA NA NA NA NA NA ...
 $ LAND_OWN_ACR      : int  NA NA NA NA NA NA NA NA NA ...
 $ LAND_OWN_RT       : int  NA NA NA NA NA NA NA NA NA ...
 $ LAND_OWN_PERCH    : int  NA 9 5 NA NA NA 25 NA 13 NA ...
 $ LAND_OTHER_ACR    : int  NA NA NA NA NA NA NA NA NA ...
 $ LAND_OTHER_RT     : int  NA NA NA NA NA NA NA NA NA ...
 $ LAND_OTHER_PERCH : int  NA NA NA NA NA NA NA NA NA ...
 $ HOME_OWN_ACR      : int  NA NA NA NA NA NA NA NA NA ...
 $ HOME_OWN_RT       : int  NA NA NA NA NA NA NA NA NA ...
 $ HOME_OWN_PERCH    : int  10 9 5 10 10 5 15 4 10 NA ...
 $ HOME_OTHER_ACR    : int  NA NA NA NA NA NA NA NA NA ...
 $ HOME_OTHER_RT     : int  NA NA NA NA NA NA NA NA NA ...
 $ HOME_OTHER_PERCH : int  NA NA NA NA NA NA NA NA NA ...
 $ COWS_BUFFALOWS    : int  2 2 2 2 2 2 2 2 2 ...
 $ COWS_COUNT        : int  NA NA NA NA NA NA NA NA NA ...
 $ GOATS_SHEEPS      : int  2 2 2 2 2 2 1 1 2 2 ...
 $ GOAT_COUNT        : int  NA NA NA NA NA NA 2 2 NA NA ...
 $ PIGS              : int  2 2 2 2 2 2 2 2 2 ...
 $ PIGS_COUNT        : int  NA NA NA NA NA NA NA NA NA ...
 $ CHICKENS          : int  2 2 2 2 2 1 2 1 2 2 ...
 $ CHICKEN_COUNT     : int  NA NA NA NA NA 1 NA 3 NA NA ...
 $ OTHER_ANIMALS     : int  2 2 2 2 2 2 2 2 2 ...
 $ OTHER_COUNT       : int  NA NA NA NA NA NA NA NA NA ...


R25 :  WEIGHT_INCOME_EXPENDITURE      :
'data.frame':   20540 obs. of  14 variables:
 $ REC_TYPE: int  25 25 25 25 25 25 25 25 25 25 ...
 $ DISTRICT: int  11 11 11 11 11 11 11 11 11 11 ...
 $ SECTOR  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ DS      : int  10 10 10 10 10 10 10 10 10 10 ...
 $ MONTH   : int  7 7 7 7 7 7 7 7 7 7 ...
 $ PSU     : int  1 1 1 1 1 1 1 1 1 2 ...
 $ AO      : int  10002 10002 10002 10002 10002 10002 10002 10002 10002 10615 ...
```

```
 $ SNUMBER : int  1 3 4 5 6 7 8 9 10 2 ...
 $ HHNO    : int  1 1 1 1 1 1 1 1 1 1 ...
 $ NHH     : int  1 1 1 1 1 1 1 1 1 1 ...
 $ RESULT  : int  1 1 1 1 1 1 1 1 1 1 ...
 $ HExpPM  : num  27597 13131 40234 51286 26063 ...
 $ HIncPM  : num  28900 19893 16192 63047 32233 ...
 $ Weight  : num  256 256 256 256 256 ...
```

- Some variables, such as QUANTITY, VALUE, are treated as character, however, they should be converted to numeric.

```
> RO4<-outfiles[[O4]]
> RO4$QUANTITY<-as.integer(RO4$QUANTITY)
> RO4$VALUE<-as.integer(RO4$VALUE)
> RO4$INKIND_VALUE<-as.integer(RO4$INKIND_VALUE)
> outfiles[[O4]]<-RO4

> RO5<-outfiles[[O5]]
> RO5$NF_QUANTITY<-as.integer(RO5$NF_QUANTITY)
> RO5$NF_VALUE<-as.integer(RO5$NF_VALUE)
> outfiles[[O5]]<-RO5

> R10<-outfiles[[10]]
> R10$COL_10X1<-as.integer(R10$COL_10X1)
> outfiles[[10]]<-R10

> R15<-outfiles[[15]]
> R15$OUTPUT_5_4<-as.integer(R15$OUTPUT_5_4)
> R15$INPUT_5_4<-as.integer(R15$INPUT_5_4)
> outfiles[[15]]<-R15

> R23<-outfiles[[23]]
> R23$WATER_DISTANCE<-as.integer(R23$WATER_DISTANCE)
> outfiles[[23]]<-R23
```

ID: Household identifier

The combination of A0, SNUMBER and HHNO becomes a unique household identifier.

```
> d<-outfiles[[25]]
> dim(d)
[1] 20540    14
> head(d)
  REC_TYPE DISTRICT SECTOR DS MONTH PSU    A0 SNUMBER HHNO NHH RESULT    HExpPM
1       25       11      1 10     7   1 10002       1    1   1      1  27597.48
2       25       11      1 10     7   1 10002       3    1   1      1  13130.57
3       25       11      1 10     7   1 10002       4    1   1      1  40234.20
4       25       11      1 10     7   1 10002       5    1   1      1  51285.67
5       25       11      1 10     7   1 10002       6    1   1      1  26063.48
6       25       11      1 10     7   1 10002       7    1   1      1 126262.00
    HIncPM  Weight
1 28900.00 256.313
2 19892.86 256.313
3 16191.67 256.313
4 63046.66 256.313
5 32233.33 256.313
6 13400.00 256.313
> d$ID<-d$A0*1000+d$SNUMBER*10+d$HHNO
> length(unique(d$ID))
[1] 20540
```

Generated the variable of ID consisted of the next three items for all data files;
A0 (Block identification No.)

SNUMBER (Sample No.)

HHNO (Household serial No.)

```
> outfiles.old<-outfiles
> for(j in 1:25){
+ d<-outfiles[[j]]
+ d$ID<- d$A0*1000+d$SNUMBER*10+d$HHNO
+ outfiles[[j]]<-d
+ }
```

```
> d<-outfiles[[25]]
> dim(d)
[1] 20540    15
> colnames(d)
 [1] "REC_TYPE" "DISTRICT" "SECTOR"   "DS"       "MONTH"    "PSU"
 [7] "AO"       "SNUMBER"  "HHNO"     "NHH"      "RESULT"   "HExpPM"
[13] "HIncPM"   "Weight"   "ID"
> d<-d[,c(15,1:14)]
> d<-d[order(d$ID),]
> head(d)
        ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH
1 10002011       25       11      1 10     7   1 10002       1    1   1
2 10002031       25       11      1 10     7   1 10002       3    1   1
3 10002041       25       11      1 10     7   1 10002       4    1   1
4 10002051       25       11      1 10     7   1 10002       5    1   1
5 10002061       25       11      1 10     7   1 10002       6    1   1
6 10002071       25       11      1 10     7   1 10002       7    1   1
  RESULT    HExpPM   HIncPM  Weight
1      1  27597.48 28900.00 256.313
2      1  13130.57 19892.86 256.313
3      1  40234.20 16191.67 256.313
4      1  51285.67 63046.66 256.313
5      1  26063.48 32233.33 256.313
6      1 126262.00 13400.00 256.313
> outfiles[[25]]<-d
```

PID: Individual identifier

Generated the variable of individual identifier PID consisted of **ID and person number** for R01, R02, R03, R06, R08, R10, R13, R15, R17 and R19.

The person serial number in the above data files is the 12-th variable for each data frame despite the various variable names.

```
> for(j in 1:25){
+ if(j==1) cat("The 12-th variable name in each data file¥n")
+ cat(Rnames[j],": ",format(colnames(outfiles[[j]])[12],width=25),": ",filenames[j],"¥n")
+ }
```

The 12-th variable name in each data file

R01 :	**PERSON_SERIAL_NO**	:	SEC_1_DEMOGRAPHIC
R02 :	**R2_PERSON_SERIAL**	:	SEC_2_SCHOOL_EDUCATION
R03 :	**R3_PERSON_SERIAL2**	:	SEC_3_HEALTH
R04 :	CODE	:	SEC_4_1_FOOD_EXP
R05 :	NF_CODE	:	SEC_4_2_NONFOOD
R06 :	**COL_2**	:	SEC_4_3_BOARDERS
R07 :	IS_BOARDERS_SERVENTS	:	SEC_4_3_IS_BOADERS
R08 :	**SERIAL_NO_SEC_1**	:	SEC_5_1_EMP_INCOME
R09 :	IS_EMPLOYMENT_INCOME	:	SEC_5_1_IS_EMP_INCOME
R10 :	**COL_2X**	:	SEC_5_2_AGRI_INCOME
R11 :	IS_AGRICULTURAL_INCOME	:	SEC_5_2_IS_AGRI_INCOME
R12 :	IS_OTHER_AGRRI_INCOME	:	SEC_5_3_IS_OTHER_AGRI_INCOME
R13 :	**SER_NO_SEC_5_3**	:	SEC_5_3_OTHER_AGRI_INCOME
R14 :	IS_NON_AGRI_INCOME	:	SEC_5_4_IS_NON_AGRI_INCOME
R15 :	**SERIAL_5_4**	:	SEC_5_4_NON_AGRI_INCOME
R16 :	IS_OTHER_INCOME	:	SEC_5_5_1_IS_OTHER_INCOME
R17 :	**SERIAL_5_5_1**	:	SEC_5_5_1_OTHER_INCOME
R18 :	IS_WINDFALL_INCOME	:	SEC_5_5_2_IS_WINDFALL_INCOME
R19 :	**PERSON_5_5_2**	:	SEC_5_5_2_WINDFALL_INCOME
R20 :	BANKS	:	SEC_6_B_DEBTNESS
R21 :	RADIO	:	SEC_6A_DURABLE_GOODS
R22 :	BUS_HALT	:	SEC_7_BASIC_FACILITIES
R23 :	STRUCTURE	:	SEC_8_HOUSING
R24 :	IS_AGRILAND_OWNER	:	SEC_9_LAND_ANIMAL
R25 :	HExpPM	:	WEIGHT_INCOME_EXPENDITURE

```
> ind.files<-c(1,2,3,6,8,10,13,15,17,19)
> for(j in ind.files){
+ d<-outfiles[[j]]
+ d["PID"]<-paste(d$ID,formatC(d[,12],width=2,flag="0"),sep="")
+ outfiles[[j]]<-d
+ }
```

Appended weight in R25 to all data files

```
> R25<-outfiles[[25]]
> for(j in 1:24){
+ d<-outfiles[[j]]
+ d<-merge(d,R25[,c("Weight","ID")],by="ID",all.x=T)
+ outfiles[[j]]<-d
+ }

# Number of rows and columns of each data file
> for(j in 1:25){
+ cat(Rnames[j],": ",format(filenames[j],width=30),": ",
+ format(nrow(outfiles[[j]]),width=6),",",
+ format(ncol(outfiles[[j]]),width=4),"¥n")
+ }
R01 :  SEC_1_DEMOGRAPHIC              :   89742 ,   30
R02 :  SEC_2_SCHOOL_EDUCATION         :   22029 ,   25
R03 :  SEC_3_HEALTH                   :   80534 ,   30
R04 :  SEC_4_1_FOOD_EXP               :  815186 ,   17
R05 :  SEC_4_2_NONFOOD                :  612085 ,   17
R06 :  SEC_4_3_BOARDERS               :     260 ,   28
R07 :  SEC_4_3_IS_BOADERS             :   20540 ,   14
R08 :  SEC_5_1_EMP_INCOME             :   18594 ,   19
R09 :  SEC_5_1_IS_EMP_INCOME          :   20540 ,   14
R10 :  SEC_5_2_AGRI_INCOME            :    4196 ,   27
R11 :  SEC_5_2_IS_AGRI_INCOME         :   20540 ,   14
R12 :  SEC_5_3_IS_OTHER_AGRI_INCOME   :   20540 ,   14
R13 :  SEC_5_3_OTHER_AGRI_INCOME      :    3968 ,   22
R14 :  SEC_5_4_IS_NON_AGRI_INCOME     :   20540 ,   14
R15 :  SEC_5_4_NON_AGRI_INCOME        :    5700 ,   19
R16 :  SEC_5_5_1_IS_OTHER_INCOME      :   20540 ,   14
R17 :  SEC_5_5_1_OTHER_INCOME         :   12602 ,   27
R18 :  SEC_5_5_2_IS_WINDFALL_INCOME   :   20540 ,   14
R19 :  SEC_5_5_2_WINDFALL_INCOME      :    8575 ,   25
R20 :  SEC_6_B_DEBTNESS               :   20540 ,   31
R21 :  SEC_6A_DURABLE_GOODS           :   20540 ,   38
R22 :  SEC_7_BASIC_FACILITIES         :   20540 ,   50
```

```
R23 :  SEC_8_HOUSING                  :   20540 ,   40
R24 :  SEC_9_LAND_ANIMAL              :   20540 ,   42
R25 :  WEIGHT_INCOME_EXPENDITURE      :   20540 ,   15

> ls()
[1] "csv.names" "filenames" "outfiles"  "Rnames"

> save.image("G:¥¥SriLanka2012¥¥Working¥¥Sri Lanka HIES 2012 outfiles_20170825.RData")
```

5. Data Check

5.1 Summary of each variable

SUMMARY OF EACH DATA FRAME

```
> for(j in 1:25){
+ cat("#### ",Rnames[j]," ##################################################¥n")
+ print(summary(outfiles[[j]]))
+ cat("¥n¥n")
+ }

####  R01  ##############################################
       ID              REC_TYPE    DISTRICT         SECTOR           DS
 Min.   :10002011   Min.   :1   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25633081   1st Qu.:1   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :44433051   Median :1   Median :32.00   Median :2.000   Median :10
 Mean   :49443204   Mean   :1   Mean   :40.32   Mean   :1.837   Mean   :10
 3rd Qu.:72464051   3rd Qu.:1   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :1   Max.   :92.00   Max.   :3.000   Max.   :10
 NA's   :898
     MONTH            PSU               AO          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :0.000
 1st Qu.: 4.000   1st Qu.: 26.00   1st Qu.:25544   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 54.00   Median :44356   Median : 5.000   Median :1.000
 Mean   : 6.669   Mean   : 68.75   Mean   :49396   Mean   : 5.482   Mean   :1.006
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72497   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :9.000
                                                                   NA's   :898
      NHH            RESULT      PERSON_SERIAL_NO  RELATIONSHIP        SEX
 Min.   :1.000   Min.   :1.000   Min.   : 0.000   Min.   :1.000   Min.   :1.000
 1st Qu.:1.000   1st Qu.:1.000   1st Qu.: 1.000   1st Qu.:2.000   1st Qu.:1.000
 Median :1.000   Median :1.000   Median : 3.000   Median :3.000   Median :2.000
 Mean   :1.012   Mean   :1.194   Mean   : 4.604   Mean   :2.643   Mean   :1.518
 3rd Qu.:1.000   3rd Qu.:1.000   3rd Qu.: 4.000   3rd Qu.:3.000   3rd Qu.:2.000
 Max.   :4.000   Max.   :6.000   Max.   :47.000   Max.   :9.000   Max.   :2.000
 NA's   :1284                                     NA's   :4624    NA's   :4625
   BIRTH_YEAR    BIRTH_MONTH          AGE          ETHNICITY        RELIGION
 Min.   : 0.0   Min.   : 0.000   Min.   : 0.00   Min.   :1.000   Min.   :1.000
 1st Qu.:34.0   1st Qu.: 3.000   1st Qu.:14.00   1st Qu.:1.000   1st Qu.:1.000
 Median :64.0   Median : 6.000   Median :31.00   Median :1.000   Median :1.000
 Mean   :56.3   Mean   : 6.444   Mean   :32.56   Mean   :1.646   Mean   :1.681
 3rd Qu.:82.0   3rd Qu.: 9.000   3rd Qu.:49.00   3rd Qu.:2.000   3rd Qu.:2.000
 Max.   :99.0   Max.   :99.000   Max.   :99.00   Max.   :9.000   Max.   :9.000
 NA's   :9184   NA's   :9243     NA's   :9174    NA's   :9164    NA's   :9164
 MARITAL_STATUS    CURR_EDUC       EDUCATION        IS_ACTIVE     MAIN_ACTIVITY
 Min.   :1.000   Min.   :1.000   Min.   : 0.000   Min.   :1.000   Min.   :1.00
 1st Qu.:1.000   1st Qu.:2.000   1st Qu.: 5.000   1st Qu.:1.000   1st Qu.:2.00
 Median :2.000   Median :9.000   Median :10.000   Median :2.000   Median :3.00
 Mean   :1.657   Mean   :7.024   Mean   : 8.673   Mean   :1.522   Mean   :3.03
 3rd Qu.:2.000   3rd Qu.:9.000   3rd Qu.:11.000   3rd Qu.:2.000   3rd Qu.:3.00
 Max.   :5.000   Max.   :9.000   Max.   :19.000   Max.   :2.000   Max.   :9.00
 NA's   :9195    NA's   :13142   NA's   :16077    NA's   :30452   NA's   :58529
 MAIN_OCCUPATION    INDUSTRY     EMPLOYMENT_STATUS     PID                Weight
 Min.   : 110    Min.   :    3   Min.   :1.00      Length:89742       Min.   :  3.423
 1st Qu.:5112    1st Qu.: 1500   1st Qu.:3.00      Class :character   1st Qu.:141.821
```

```
 Median :6440    Median :41003   Median :3.00      Mode  :character   Median :240.742
 Mean   :6347    Mean   :38203   Mean   :3.46                         Mean   :246.669
 3rd Qu.:9111    3rd Qu.:64191   3rd Qu.:5.00                         3rd Qu.:332.646
 Max.   :9999    Max.   :99999   Max.   :6.00                         Max.   :752.308
 NA's   :61414   NA's   :61412   NA's   :61387                        NA's   :4662
```

Remarks:
The records without RESULT=1 should be dropped.

```
> d<-outfiles[[1]]
> d<-subset(d,RESULT==1)
> dim(d)
[1] 85080    30
> sum(is.na(d$ID))
[1] 0
> sum(is.na(d$Weight))
[1] 0
> outfiles.old<-outfiles
> outfiles[[1]]<-d
> save.image("G:¥¥SriLanka2012¥¥Working¥¥Sri Lanka HIES 2012 outfiles_20170825.RData")
```

```
####  R02  ##############################################
       ID              REC_TYPE    DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :2   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:27660021   1st Qu.:2   1st Qu.:21.00   1st Qu.:1.000   1st Qu.:10
 Median :46296051   Median :2   Median :33.00   Median :2.000   Median :10
 Mean   :50358939   Mean   :2   Mean   :41.15   Mean   :1.848   Mean   :10
 3rd Qu.:72309091   3rd Qu.:2   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :2   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH            PSU               AO          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:27660   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 52.00   Median :46296   Median : 6.000   Median :1.000
 Mean   : 6.691   Mean   : 66.52   Mean   :50359   Mean   : 5.501   Mean   :1.005
 3rd Qu.:10.000   3rd Qu.: 86.00   3rd Qu.:72309   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :3.000

      NHH            RESULT  R2_PERSON_SERIAL R2_SCHOOL_EDUCATION TYPE_OF_SCHOOL
 Min.   :1.000   Min.   :1   Min.   : 1.000   Min.   :1.000       Min.   :1.000
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 3.000   1st Qu.:1.000       1st Qu.:1.000
 Median :1.000   Median :1   Median : 4.000   Median :1.000       Median :1.000
 Mean   :1.011   Mean   :1   Mean   : 3.819   Mean   :1.341       Mean   :1.054
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 4.000   3rd Qu.:1.000       3rd Qu.:1.000
 Max.   :4.000   Max.   :1   Max.   :16.000   Max.   :3.000       Max.   :3.000
                                              NA's   :7           NA's   :4156
 GRADE_THIS_YEAR  GRADE_LAST_YEAR     DISTANCE      TRANSPORT_MEDIUM TIME_TO_SCHOOL
 Min.   : 1.000   Min.   : 0.000   Min.   : 0.000   Min.   :1.000    Min.   :  0.00
 1st Qu.: 3.000   1st Qu.: 3.000   1st Qu.: 0.000   1st Qu.:1.000    1st Qu.: 10.00
 Median : 6.000   Median : 6.000   Median : 2.000   Median :2.000    Median : 15.00
 Mean   : 6.661   Mean   : 6.974   Mean   : 3.363   Mean   :2.592    Mean   : 20.93
 3rd Qu.:10.000   3rd Qu.:10.000   3rd Qu.: 4.000   3rd Qu.:4.000    3rd Qu.: 30.00
 Max.   :19.000   Max.   :19.000   Max.   :80.000   Max.   :9.000    Max.   :205.00
 NA's   :4157     NA's   :4158     NA's   :4177     NA's   :4180     NA's   :4197
```

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 NOSCHOOLING_REASON REASON_NOT_GOING WHEN_STOP_SCHOOLING     PID
 Min.    :1.000     Min.    :1.000   Min.    :  98        Length:22029
 1st Qu.:7.000     1st Qu.:3.000   1st Qu.:2009        Class :character
 Median :7.000     Median :5.000   Median :2010        Mode  :character
 Mean   :6.701     Mean   :5.521   Mean   :2009
 3rd Qu.:7.000     3rd Qu.:7.000   3rd Qu.:2011
 Max.   :9.000     Max.   :9.000   Max.   :2013
 NA's   :21241     NA's   :18785   NA's   :19113
     Weight
 Min.    :  3.423
 1st Qu.:139.511
 Median :229.890
 Mean   :241.851
 3rd Qu.:329.545
 Max.   :752.308


####  R03  ##############################################
       ID              REC_TYPE    DISTRICT        SECTOR           DS
 Min.    :10002011   Min.    :3   Min.    :11.0   Min.    :1.000   Min.    :10
 1st Qu.:25507031   1st Qu.:3   1st Qu.:13.0   1st Qu.:1.000   1st Qu.:10
 Median :44615071   Median :3   Median :32.0   Median :2.000   Median :10
 Mean   :49472703   Mean   :3   Mean   :40.4   Mean   :1.834   Mean   :10
 3rd Qu.:72464018   3rd Qu.:3   3rd Qu.:61.0   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :3   Max.   :92.0   Max.   :3.000   Max.   :10

     MONTH             PSU               AO           SNUMBER            HHNO
 Min.    : 1.000   Min.    :  1.00   Min.    :10002   Min.    : 1.000   Min.    :1.000
 1st Qu.: 4.000   1st Qu.: 26.00   1st Qu.:25507   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 54.00   Median :44615   Median : 5.000   Median :1.000
 Mean   : 6.672   Mean   : 68.43   Mean   :49473   Mean   : 5.478   Mean   :1.006
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72464   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000

      NHH            RESULT  R3_PERSON_SERIAL2 ATTEND_GOVT_HOSPITAL3 REASON_HOSPITAL4
 Min.    :1.000   Min.    :1   Min.    : 1.000    Min.    :1.000         Min.    :1.00
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 1.000    1st Qu.:2.000         1st Qu.:1.00
 Median :1.000   Median :1   Median : 3.000    Median :2.000         Median :1.00
 Mean   :1.013   Mean   :1   Mean   : 2.801    Mean   :1.831         Mean   :1.42
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 4.000    3rd Qu.:2.000         3rd Qu.:1.00
 Max.   :4.000   Max.   :1   Max.   :16.000    Max.   :2.000         Max.   :9.00
                                               NA's   :7             NA's   :66908
 ATTEND_PRIVATE_HOSPITAL5 REASON_FOR_WHAT6 IS_STAY_GOVHOSPITAL7  REASON_STAY8
 Min.    :1.000           Min.    :1.0     Min.    :1.000        Min.    :1.00
 1st Qu.:2.000           1st Qu.:1.0     1st Qu.:2.000        1st Qu.:1.00
 Median :2.000           Median :1.0     Median :2.000        Median :1.00
 Mean   :1.856           Mean   :1.3     Mean   :1.916        Mean   :2.29
 3rd Qu.:2.000           3rd Qu.:1.0     3rd Qu.:2.000        3rd Qu.:3.00
 Max.   :2.000           Max.   :9.0     Max.   :2.000        Max.   :9.00
 NA's   :10              NA's   :68972   NA's   :7            NA's   :73771
 STAY_IN_PRIVTE_HOSPITAL9 REASON_FOR_STAY10 IS_ILL_DISABLE11 WHAT_ILL_DISABLE12
 Min.    :1.000           Min.    :1.00     Min.    :1.000   Min.    : 0.0
 1st Qu.:2.000           1st Qu.:1.00     1st Qu.:2.000   1st Qu.: 2.0
 Median :2.000           Median :1.00     Median :2.000   Median : 3.0
 Mean   :1.992           Mean   :2.21     Mean   :1.861   Mean   :16.5
```

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 3rd Qu.:2.000            3rd Qu.:3.00      3rd Qu.:2.000    3rd Qu.:10.0
 Max.   :2.000            Max.   :9.00      Max.   :2.000    Max.   :99.0
 NA's   :10               NA's   :79902     NA's   :15       NA's   :69341
 IS_EMPL_REASON13 DURATION_YEARS14 DURATION_MONTHS14 IS_ABSENT_ACT15 DAYS_ABSENT16
 Min.   :0.00     Min.   : 0.0     Min.   : 0.00     Min.   :0.00    Min.   : 0.00
 1st Qu.:2.00     1st Qu.: 3.0     1st Qu.: 0.00     1st Qu.:2.00    1st Qu.:10.00
 Median :2.00     Median : 5.0     Median : 0.00     Median :2.00    Median :30.00
 Mean   :1.92     Mean   : 7.9     Mean   : 1.81     Mean   :1.84    Mean   :20.83
 3rd Qu.:2.00     3rd Qu.:10.0     3rd Qu.: 3.00     3rd Qu.:2.00    3rd Qu.:30.00
 Max.   :4.00     Max.   :82.0     Max.   :14.00     Max.   :4.00    Max.   :99.00
 NA's   :69385    NA's   :69428    NA's   :69766     NA's   :69413   NA's   :78792
     PID                Weight
 Length:80534       Min.   :  3.423
 Class :character   1st Qu.:141.821
 Mode  :character   Median :240.742
                    Mean   :246.853
                    3rd Qu.:332.646
                    Max.   :752.308


####  R04  ############################################
       ID              REC_TYPE    DISTRICT         SECTOR           DS
 Min.   :10002011   Min.   :4   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:24888041   1st Qu.:4   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :44071041   Median :4   Median :32.00   Median :2.000   Median :10
 Mean   :48821202   Mean   :4   Mean   :39.78   Mean   :1.817   Mean   :10
 3rd Qu.:72497071   3rd Qu.:4   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :4   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               A0          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 26.00   1st Qu.:24888   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 54.00   Median :44071   Median : 5.000   Median :1.000
 Mean   : 6.684   Mean   : 69.76   Mean   :48821   Mean   : 5.465   Mean   :1.006
 3rd Qu.:10.000   3rd Qu.: 92.00   3rd Qu.:72497   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000

      NHH            RESULT       CODE           QUANTITY          VALUE
 Min.   :1.000   Min.   :1   Min.   : 101.0          :148635   0000020: 67157
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 416.0   000250 : 80367   0000030: 59499
 Median :1.000   Median :1   Median :1102.0   000500 : 80331   0000010: 54538
 Mean   :1.014   Mean   :1   Mean   : 894.9   000100 : 64082   0000040: 52986
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:1120.0   000050 : 42681   0000060: 39574
 Max.   :4.000   Max.   :1   Max.   :1924.0   001000 : 33521   0000050: 34717
                             NA's   :1        (Other):365569   (Other):506715
  INKIND_VALUE        Weight
        :740568   Min.   :  3.423
 0000020: 10700   1st Qu.:156.054
 0000010:  8661   Median :242.991
 0000030:  6281   Mean   :251.404
 0000040:  5350   3rd Qu.:352.161
 0000060:  3559   Max.   :752.308
 (Other): 40067
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####  R05  ##############################################
       ID              REC_TYPE    DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :5   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:24953051   1st Qu.:5   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :44146071   Median :5   Median :32.00   Median :2.000   Median :10
 Mean   :48800454   Mean   :5   Mean   :39.71   Mean   :1.814   Mean   :10
 3rd Qu.:72464011   3rd Qu.:5   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :5   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               AO           SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:24953   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 54.00   Median :44146   Median : 5.000   Median :1.000
 Mean   : 6.659   Mean   : 69.18   Mean   :48800   Mean   : 5.449   Mean   :1.006
 3rd Qu.:10.000   3rd Qu.: 92.00   3rd Qu.:72464   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000

      NHH            RESULT      NF_CODE       NF_QUANTITY        NF_VALUE
 Min.   :1.000   Min.   :1   Min.   :2001          :386468   0000200: 31627
 1st Qu.:1.000   1st Qu.:1   1st Qu.:2204   000001 : 88297   0000100: 31267
 Median :1.000   Median :1   Median :2602   000002 : 60983   0000500: 24609
 Mean   :1.013   Mean   :1   Mean   :2647   000003 : 19022   0000300: 23487
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:3016   000004 : 15721   0001000: 20563
 Max.   :4.000   Max.   :1   Max.   :3509   000005 :  7720   0000150: 18101
                                           (Other): 33874   (Other):462431
 NF_INKIND_VALUE       Weight
 Min.   :       0   Min.   :  3.423
 1st Qu.:     350   1st Qu.:153.131
 Median :     800   Median :242.792
 Mean   :    3118   Mean   :249.779
 3rd Qu.:    2500   3rd Qu.:352.161
 Max.   :8000000   Max.   :752.308
 NA's   :563125


####  R06  ##############################################
       ID              REC_TYPE    DISTRICT         SECTOR            DS
 Min.   :11149011   Min.   :7   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:19571094   1st Qu.:7   1st Qu.:12.00   1st Qu.:1.000   1st Qu.:10
 Median :33055081   Median :7   Median :22.00   Median :1.000   Median :10
 Mean   :42254578   Mean   :7   Mean   :33.59   Mean   :1.335   Mean   :10
 3rd Qu.:72463044   3rd Qu.:7   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98645081   Max.   :7   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               AO           SNUMBER           HHNO
 Min.   : 1.000   Min.   :  2.00   Min.   :11149   Min.   : 1.000   Min.   :1
 1st Qu.: 3.000   1st Qu.: 26.75   1st Qu.:19571   1st Qu.: 2.750   1st Qu.:1
 Median : 6.000   Median : 65.00   Median :33055   Median : 5.000   Median :1
 Mean   : 6.023   Mean   : 79.33   Mean   :42255   Mean   : 4.958   Mean   :1
 3rd Qu.: 9.000   3rd Qu.:105.00   3rd Qu.:72463   3rd Qu.: 7.000   3rd Qu.:1
 Max.   :12.000   Max.   :296.00   Max.   :98645   Max.   :10.000   Max.   :1

      NHH         RESULT       COL_2             COL_3           COL_4
 Min.   :1   Min.   :1   Min.   : 1.000   Min.   :   0   Min.   :   0.0
 1st Qu.:1   1st Qu.:1   1st Qu.: 4.000   1st Qu.: 140   1st Qu.:  80.0
 Median :1   Median :1   Median : 5.000   Median : 300   Median : 150.0
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 Mean   :1   Mean   :1   Mean   : 5.054   Mean   : 647   Mean   : 437.5
 3rd Qu.:1   3rd Qu.:1   3rd Qu.: 6.000   3rd Qu.: 650   3rd Qu.: 350.0
 Max.   :1   Max.   :1   Max.   :14.000   Max.   :6000   Max.   :2300.0
                                          NA's   :179    NA's   :244
     COL_5          COL_6          COL_7           COL_8           COL_9
 Min.   : 100   Min.   : 100   Min.   :  20.0   Min.   :  60.0   Min.   :  100
 1st Qu.: 200   1st Qu.:1188   1st Qu.: 170.2   1st Qu.: 300.0   1st Qu.:  500
 Median : 325   Median :1875   Median : 398.0   Median : 500.0   Median : 1125
 Mean   : 518   Mean   :1975   Mean   : 802.6   Mean   : 947.6   Mean   : 1738
 3rd Qu.: 750   3rd Qu.:2000   3rd Qu.:1000.0   3rd Qu.:1090.0   3rd Qu.: 2375
 Max.   :2500   Max.   :5000   Max.   :5550.0   Max.   :6500.0   Max.   :10000
 NA's   :201    NA's   :254    NA's   :126      NA's   :122      NA's   :210
    COL_10         COL_11          COL_12          COL_13          COL_14
 Min.   :1200   Min.   :  110   Min.   :  140   Min.   :   26   Min.   :  375
 1st Qu.:4000   1st Qu.: 3000   1st Qu.: 1194   1st Qu.:  275   1st Qu.: 1500
 Median :5000   Median : 5000   Median : 3000   Median :  500   Median : 2650
 Mean   :4756   Mean   : 6101   Mean   : 3740   Mean   : 1147   Mean   : 3239
 3rd Qu.:5500   3rd Qu.: 8000   3rd Qu.: 5000   3rd Qu.: 1500   3rd Qu.: 4850
 Max.   :9000   Max.   :37000   Max.   :20000   Max.   :14500   Max.   :25000
 NA's   :140    NA's   :128     NA's   :177     NA's   :169     NA's   :148
    COL_15          PID                Weight
 Min.   :  250   Length:260         Min.   : 15.68
 1st Qu.: 1200   Class :character   1st Qu.: 88.14
 Median : 3400   Mode  :character   Median :165.97
 Mean   : 8357                      Mean   :218.08
 3rd Qu.: 7400                      3rd Qu.:354.24
 Max.   :76000                      Max.   :752.31
 NA's   :241


####  R07  ##############################################
       ID              REC_TYPE    DISTRICT         SECTOR           DS
 Min.   :10002011   Min.   :6   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:6   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :6   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :6   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:6   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :6   Max.   :92.00   Max.   :3.000   Max.   :10
     MONTH             PSU               A0          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000
      NHH             RESULT   IS_BOARDERS_SERVENTS     Weight
 Min.   :1.000   Min.   :1   Min.   :1.000          Min.   :  3.423
 1st Qu.:1.000   1st Qu.:1   1st Qu.:2.000          1st Qu.:152.327
 Median :1.000   Median :1   Median :2.000          Median :242.792
 Mean   :1.014   Mean   :1   Mean   :1.991          Mean   :249.336
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000          3rd Qu.:346.846
 Max.   :4.000   Max.   :1   Max.   :2.000          Max.   :752.308


####  R08  ##############################################
       ID              REC_TYPE    DISTRICT         SECTOR           DS
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Min.   :10002011   Min.   :9   Min.   :11.00   Min.   :1.000   Min.   :10
1st Qu.:23742051   1st Qu.:9   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
Median :42192091   Median :9   Median :32.00   Median :2.000   Median :10
Mean   :47512339   Mean   :9   Mean   :38.68   Mean   :1.895   Mean   :10
3rd Qu.:71292058   3rd Qu.:9   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
Max.   :98655101   Max.   :9   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               AO          SNUMBER           HHNO
Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
1st Qu.: 4.000   1st Qu.: 26.00   1st Qu.:23742   1st Qu.: 3.000   1st Qu.:1.000
Median : 7.000   Median : 57.00   Median :42192   Median : 5.000   Median :1.000
Mean   : 6.736   Mean   : 71.94   Mean   :47512   Mean   : 5.474   Mean   :1.006
3rd Qu.:10.000   3rd Qu.: 96.00   3rd Qu.:71292   3rd Qu.: 8.000   3rd Qu.:1.000
Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000

      NHH            RESULT  SERIAL_NO_SEC_1     PRI_SEC      WAGES_SALARIES
Min.   :1.000   Min.   :1   Min.   : 1.000   Min.   :1.000   Min.   :     0
1st Qu.:1.000   1st Qu.:1   1st Qu.: 1.000   1st Qu.:1.000   1st Qu.:  9500
Median :1.000   Median :1   Median : 2.000   Median :1.000   Median : 15000
Mean   :1.012   Mean   :1   Mean   : 2.044   Mean   :1.012   Mean   : 17104
3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 3.000   3rd Qu.:1.000   3rd Qu.: 20000
Max.   :4.000   Max.   :1   Max.   :15.000   Max.   :2.000   Max.   :900000
                                             NA's   :27      NA's   :174
  ALLOWENCES        BONUS            PID                Weight
Min.   :    0   Min.   :   229   Length:18594       Min.   :  3.423
1st Qu.: 2200   1st Qu.:  4500   Class :character   1st Qu.:138.773
Median : 5000   Median : 10000   Mode  :character   Median :229.890
Mean   : 6849   Mean   : 26272                      Mean   :240.599
3rd Qu.: 8126   3rd Qu.: 25000                      3rd Qu.:329.545
Max.   :80000   Max.   :850000                      Max.   :752.308
NA's   :15928   NA's   :17573


####  R09  ##############################################
      ID              REC_TYPE    DISTRICT         SECTOR            DS
Min.   :10002011   Min.   :8   Min.   :11.00   Min.   :1.000   Min.   :10
1st Qu.:25778068   1st Qu.:8   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
Median :45297056   Median :8   Median :33.00   Median :2.000   Median :10
Mean   :49924702   Mean   :8   Mean   :40.85   Mean   :1.838   Mean   :10
3rd Qu.:72971078   3rd Qu.:8   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
Max.   :98655101   Max.   :8   Max.   :92.00   Max.   :3.000   Max.   :10
     MONTH             PSU               AO          SNUMBER           HHNO
Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000
      NHH            RESULT  IS_EMPLOYMENT_INCOME     Weight
Min.   :1.000   Min.   :1   Min.   :1.000         Min.   :  3.423
1st Qu.:1.000   1st Qu.:1   1st Qu.:1.000         1st Qu.:152.327
Median :1.000   Median :1   Median :1.000         Median :242.792
Mean   :1.014   Mean   :1   Mean   :1.371         Mean   :249.336
3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000         3rd Qu.:346.846
Max.   :4.000   Max.   :1   Max.   :2.000         Max.   :752.308
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####  R10  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR            DS
 Min.   :10935101   Min.   :11   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:43726784   1st Qu.:11   1st Qu.:32.00   1st Qu.:2.000   1st Qu.:10
 Median :69869096   Median :11   Median :61.00   Median :2.000   Median :10
 Mean   :63490838   Mean   :11   Mean   :53.67   Mean   :1.995   Mean   :10
 3rd Qu.:83468026   3rd Qu.:11   3rd Qu.:72.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655091   Max.   :11   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               A0           SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10935   Min.   : 1.000   Min.   :1.000
 1st Qu.: 3.000   1st Qu.: 22.00   1st Qu.:43727   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 43.00   Median :69869   Median : 5.000   Median :1.000
 Mean   : 6.655   Mean   : 49.46   Mean   :63491   Mean   : 5.458   Mean   :1.003
 3rd Qu.:10.000   3rd Qu.: 69.00   3rd Qu.:83468   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :290.00   Max.   :98655   Max.   :10.000   Max.   :2.000

      NHH            RESULT      COL_2X          COL_4X          COL_5X
 Min.   :1.000   Min.   :1   Min.   : 1.000   Min.   :1.000   Min.   : 0.000
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 1.000   1st Qu.:1.000   1st Qu.: 1.000
 Median :1.000   Median :1   Median : 1.000   Median :1.000   Median : 2.000
 Mean   :1.008   Mean   :1   Mean   : 1.291   Mean   :2.199   Mean   : 2.349
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 1.000   3rd Qu.:4.000   3rd Qu.: 3.000
 Max.   :2.000   Max.   :1   Max.   :14.000   Max.   :9.000   Max.   :40.000
                                              NA's   :23      NA's   :1928
     COL_6X          COL_7X          COL_8X           COL_8X1            COL_9X
 Min.   :0.00   Min.   : 0.0   Min.   :      0   Min.   :     0   Min.   :     3
 1st Qu.:1.00   1st Qu.: 8.0   1st Qu.:    557   1st Qu.: 18480   1st Qu.:  8000
 Median :2.00   Median :20.0   Median :   1500   Median : 45000   Median : 20000
 Mean   :1.79   Mean   :15.3   Mean   :  14544   Mean   : 91066   Mean   : 42451
 3rd Qu.:2.00   3rd Qu.:20.0   3rd Qu.:   4000   3rd Qu.:110000   3rd Qu.: 50000
 Max.   :6.00   Max.   :50.0   Max.   :40026000   Max.   :1900000   Max.   :881000
 NA's   :2162   NA's   :3728   NA's   :201        NA's   :164       NA's   :323
    COL_10X             COL_10X1       COL_11X           COL_12X
 Min.   :     1.0            :1269   Min.   :     0.0   Min.   :      0
 1st Qu.:   160.0   000015000:  72   1st Qu.:   150.0   1st Qu.:    800
 Median :   400.0   000012000:  66   Median :   300.0   Median :   2267
 Mean   :   921.6   000010000:  50   Mean   :   766.5   Mean   :   7445
 3rd Qu.:   720.0   000018000:  47   3rd Qu.:   500.0   3rd Qu.:   6350
 Max.   :700000.0   000030000:  45   Max.   :350000.0   Max.   :1400000
 NA's   :1164       (Other)   :2647   NA's   :2247       NA's   :3616
    COL_13X           PID                Weight
 Min.   :    58   Length:4196        Min.   :  3.423
 1st Qu.:  1500   Class :character   1st Qu.:205.950
 Median :  3400   Mode  :character   Median :273.365
 Mean   :  8082                      Mean   :283.235
 3rd Qu.:  8600                      3rd Qu.:359.603
 Max.   :288000                      Max.   :752.308
 NA's   :2125


####  R11  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :10   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:10   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
```

```
 Median :45297056   Median :10   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :10   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:10   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :10   Max.   :92.00   Max.   :3.000   Max.   :10
     MONTH             PSU              AO          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000
      NHH            RESULT   IS_AGRICULTURAL_INCOME     Weight
 Min.   :1.000   Min.   :1   Min.   :0.000           Min.   :  3.423
 1st Qu.:1.000   1st Qu.:1   1st Qu.:2.000           1st Qu.:152.327
 Median :1.000   Median :1   Median :2.000           Median :242.792
 Mean   :1.014   Mean   :1   Mean   :1.829           Mean   :249.336
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000           3rd Qu.:346.846
 Max.   :4.000   Max.   :1   Max.   :2.000           Max.   :752.308


####  R12  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :12   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:12   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :12   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :12   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:12   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :12   Max.   :92.00   Max.   :3.000   Max.   :10
     MONTH             PSU              AO          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000
      NHH            RESULT   IS_OTHER_AGRRI_INCOME     Weight
 Min.   :1.000   Min.   :1   Min.   :1.000          Min.   :  3.423
 1st Qu.:1.000   1st Qu.:1   1st Qu.:2.000          1st Qu.:152.327
 Median :1.000   Median :1   Median :2.000          Median :242.792
 Mean   :1.014   Mean   :1   Mean   :1.836          Mean   :249.336
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000          3rd Qu.:346.846
 Max.   :4.000   Max.   :1   Max.   :2.000          Max.   :752.308


####  R13  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR            DS
 Min.   :10935051   Min.   :13   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:35364048   1st Qu.:13   1st Qu.:23.00   1st Qu.:2.000   1st Qu.:10
 Median :46283556   Median :13   Median :33.00   Median :2.000   Median :10
 Mean   :55206839   Mean   :13   Mean   :45.95   Mean   :1.972   Mean   :10
 3rd Qu.:77322018   3rd Qu.:13   3rd Qu.:62.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :13   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU              AO          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10935   Min.   : 1.00   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 22.00   1st Qu.:35364   1st Qu.: 3.00   1st Qu.:1.000
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 Median : 7.000   Median : 49.00   Median :46284   Median : 5.00   Median :1.000
 Mean   : 6.684   Mean   : 58.50   Mean   :55207   Mean   : 5.46   Mean   :1.002
 3rd Qu.:10.000   3rd Qu.: 83.25   3rd Qu.:77322   3rd Qu.: 8.00   3rd Qu.:1.000
 Max.   :12.000   Max.   :293.00   Max.   :98655   Max.   :10.00   Max.   :2.000

      NHH            RESULT  SER_NO_SEC_5_3  SEASONAL_CROP      ACRES_5_3
 Min.   :1.000   Min.   :1   Min.   :1.000   Min.   : 1.000   Min.   : 0.000
 1st Qu.:1.000   1st Qu.:1   1st Qu.:1.000   1st Qu.: 1.000   1st Qu.: 1.000
 Median :1.000   Median :1   Median :1.000   Median : 2.000   Median : 1.000
 Mean   :1.006   Mean   :1   Mean   :1.327   Mean   : 6.883   Mean   : 2.015
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:1.000   3rd Qu.: 4.000   3rd Qu.: 2.000
 Max.   :2.000   Max.   :1   Max.   :9.000   Max.   :99.000   Max.   :32.000
                                             NA's   :10       NA's   :2897
   ROOTS_5_3       PERCHS_5_3      OUTPUT_5_3        INPUT_5_3         FERTILIZES
 Min.   :0.000   Min.   : 0.00   Min.   :      0   Min.   :      0   Min.   :  100
 1st Qu.:1.000   1st Qu.:10.00   1st Qu.:   2100   1st Qu.:    600   1st Qu.:  600
 Median :2.000   Median :20.00   Median :   7000   Median :   2000   Median : 1500
 Mean   :1.758   Mean   :16.67   Mean   :  29489   Mean   :  14223   Mean   : 3871
 3rd Qu.:2.000   3rd Qu.:20.00   3rd Qu.:  20000   3rd Qu.:   7800   3rd Qu.: 3900
 Max.   :7.000   Max.   :40.00   Max.   :5200000   Max.   :1159000   Max.   :85000
 NA's   :2269    NA's   :3354    NA's   :169       NA's   :1274      NA's   :3714
    PID                Weight
 Length:3968        Min.   :  3.619
 Class :character   1st Qu.:211.994
 Mode  :character   Median :284.643
                    Mean   :290.161
                    3rd Qu.:376.154
                    Max.   :752.308



####  R14  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :14   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:14   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :14   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :14   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:14   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :14   Max.   :92.00   Max.   :3.000   Max.   :10
     MONTH             PSU               A0          SNUMBER            HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000
      NHH            RESULT  IS_NON_AGRI_INCOME     Weight
 Min.   :1.000   Min.   :1   Min.   :1.000       Min.   :  3.423
 1st Qu.:1.000   1st Qu.:1   1st Qu.:2.000       1st Qu.:152.327
 Median :1.000   Median :1   Median :2.000       Median :242.792
 Mean   :1.014   Mean   :1   Mean   :1.753       Mean   :249.336
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000       3rd Qu.:346.846
 Max.   :4.000   Max.   :1   Max.   :2.000       Max.   :752.308



####  R15  ##############################################
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       ID              REC_TYPE      DISTRICT       SECTOR            DS
 Min.   :10002011   Min.   :15   Min.   :11   Min.   :1.000   Min.   :10
 1st Qu.:22065064   1st Qu.:15   1st Qu.:12   1st Qu.:1.000   1st Qu.:10
 Median :42844081   Median :15   Median :32   Median :2.000   Median :10
 Mean   :46751611   Mean   :15   Mean   :38   Mean   :1.702   Mean   :10
 3rd Qu.:71879329   3rd Qu.:15   3rd Qu.:61   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98598101   Max.   :15   Max.   :92   Max.   :3.000   Max.   :10

     MONTH             PSU               AO           SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 3.000   1st Qu.: 27.00   1st Qu.:22065   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 57.00   Median :42844   Median : 5.000   Median :1.000
 Mean   : 6.589   Mean   : 73.96   Mean   :46752   Mean   : 5.425   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.:100.25   3rd Qu.:71879   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98598   Max.   :10.000   Max.   :3.000

      NHH            RESULT     SERIAL_5_4        NON_AGRI         OUTPUT_5_4
 Min.   :1.000   Min.   :1   Min.   : 1.000   Min.   :0.000   000030000: 285
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 1.000   1st Qu.:4.000   000015000: 255
 Median :1.000   Median :1   Median : 1.000   Median :4.000   000020000: 247
 Mean   :1.013   Mean   :1   Mean   : 1.674   Mean   :4.764   000025000: 205
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 2.000   3rd Qu.:5.000   000010000: 204
 Max.   :4.000   Max.   :1   Max.   :14.000   Max.   :9.000   000050000: 166
                                              NA's   :20      (Other)  :4338
     INPUT_5_4       SUBSIDIES          PID                Weight
          : 896   Min.   :    0   Length:5700        Min.   :  3.423
 000010000: 179   1st Qu.:  4000   Class :character   1st Qu.:156.054
 000005000: 166   Median :  9375   Mode  :character   Median :251.816
 000015000: 149   Mean   : 29246                      Mean   :252.800
 000020000: 134   3rd Qu.: 21800                      3rd Qu.:353.722
 000006000: 119   Max.   :216000                      Max.   :752.308
 (Other)  :4057   NA's   :5667


####  R16  ##############################################
       ID              REC_TYPE      DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :16   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:16   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :16   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :16   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:16   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :16   Max.   :92.00   Max.   :3.000   Max.   :10
     MONTH             PSU               AO           SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000
      NHH            RESULT   IS_OTHER_INCOME      Weight
 Min.   :1.000   Min.   :1   Min.   :0.000   Min.   :  3.423
 1st Qu.:1.000   1st Qu.:1   1st Qu.:1.000   1st Qu.:152.327
 Median :1.000   Median :1   Median :1.000   Median :242.792
 Mean   :1.014   Mean   :1   Mean   :1.483   Mean   :249.336
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000   3rd Qu.:346.846
 Max.   :4.000   Max.   :1   Max.   :2.000   Max.   :752.308
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####  R17  ##############################################
       ID              REC_TYPE      DISTRICT         SECTOR           DS
 Min.   :10002051   Min.   :17   Min.   :11.00   Min.   :1.00   Min.   :10
 1st Qu.:31422074   1st Qu.:17   1st Qu.:21.00   1st Qu.:2.00   1st Qu.:10
 Median :49466051   Median :17   Median :41.00   Median :2.00   Median :10
 Mean   :52186970   Mean   :17   Mean   :42.79   Mean   :1.83   Mean   :10
 3rd Qu.:72912034   3rd Qu.:17   3rd Qu.:61.00   3rd Qu.:2.00   3rd Qu.:10
 Max.   :98655101   Max.   :17   Max.   :92.00   Max.   :3.00   Max.   :10

     MONTH             PSU               A0           SNUMBER          HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.00   Min.   :1.000
 1st Qu.: 3.000   1st Qu.: 24.00   1st Qu.:31422   1st Qu.: 3.00   1st Qu.:1.000
 Median : 7.000   Median : 49.00   Median :49466   Median : 5.00   Median :1.000
 Mean   : 6.603   Mean   : 62.57   Mean   :52187   Mean   : 5.44   Mean   :1.004
 3rd Qu.:10.000   3rd Qu.: 82.00   3rd Qu.:72912   3rd Qu.: 8.00   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.00   Max.   :3.000

      NHH            RESULT   SERIAL_5_5_1       PENSION       DISABILITY_AND_RELIEF
 Min.   :1.000   Min.   :1   Min.   : 1.000   Min.   :     1   Min.   :    0
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 1.000   1st Qu.: 12000   1st Qu.:  250
 Median :1.000   Median :1   Median : 1.000   Median : 15000   Median :  500
 Mean   :1.012   Mean   :1   Mean   : 1.855   Mean   : 18647   Mean   : 1564
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 2.000   3rd Qu.: 21498   3rd Qu.: 1038
 Max.   :4.000   Max.   :1   Max.   :41.000   Max.   :550000   Max.   :36000
                                              NA's   :10904    NA's   :12462
 PROPERTY_RENTS      SAMURDHI         DIVIDENDS          ELDER           SCHOLAR
 Min.   :   200   Min.   :   50.0   Min.   :    50   Min.   :  100.0   Min.   :  175
 1st Qu.:  5000   1st Qu.:  360.0   1st Qu.:  2000   1st Qu.:  250.0   1st Qu.:  500
 Median : 10000   Median :  550.0   Median :  7500   Median :  300.0   Median : 1025
 Mean   : 20263   Mean   :  711.9   Mean   : 14539   Mean   :  724.3   Mean   : 2333
 3rd Qu.: 20000   3rd Qu.:  750.0   3rd Qu.: 18000   3rd Qu.: 1000.0   3rd Qu.: 2512
 Max.   :700000   Max.   :30000.0   Max.   :275000   Max.   :12000.0   Max.   :20000
 NA's   :11749    NA's   :8873      NA's   :12311    NA's   :11994     NA's   :12446
    SC_LUNCH        THREEPOSHA      OTHER_INCOME      INCOME_FORIGN
 Min.   :  20.0   Min.   :  41.0   Min.   :      5   Min.   :    450
 1st Qu.: 350.0   1st Qu.: 160.0   1st Qu.:   5000   1st Qu.:  30000
 Median : 400.0   Median : 244.0   Median :  15500   Median :  80000
 Mean   : 673.9   Mean   : 341.2   Mean   :  62520   Mean   : 167367
 3rd Qu.: 700.0   3rd Qu.: 300.0   3rd Qu.:  60000   3rd Qu.: 200000
 Max.   :9140.0   Max.   :4000.0   Max.   :2500000   Max.   :6000000
 NA's   :11213    NA's   :11887    NA's   :11153     NA's   :10957
  INCOME_LOCAL         PID                Weight
 Min.   :    100   Length:12602       Min.   :  3.423
 1st Qu.:  12000   Class :character   1st Qu.:141.329
 Median :  43500   Mode  :character   Median :229.890
 Mean   :  95634                      Mean   :242.829
 3rd Qu.: 120000                      3rd Qu.:329.545
 Max.   :4200000                      Max.   :752.308
 NA's   :10528


####  R18  ##############################################
       ID              REC_TYPE      DISTRICT         SECTOR           DS
 Min.   :10002011   Min.   :18   Min.   :11.00   Min.   :1.000   Min.   :10
```

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 1st Qu.:25778068   1st Qu.:18   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :18   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :18   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:18   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :18   Max.   :92.00   Max.   :3.000   Max.   :10
     MONTH             PSU               AO          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000
      NHH            RESULT   IS_WINDFALL_INCOME     Weight
 Min.   :1.000   Min.   :1   Min.   :1.000       Min.   :  3.423
 1st Qu.:1.000   1st Qu.:1   1st Qu.:1.000       1st Qu.:152.327
 Median :1.000   Median :1   Median :2.000       Median :242.792
 Mean   :1.014   Mean   :1   Mean   :1.611       Mean   :249.336
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000       3rd Qu.:346.846
 Max.   :4.000   Max.   :1   Max.   :2.000       Max.   :752.308


####  R19  ##############################################
       ID              REC_TYPE      DISTRICT         SECTOR            DS
 Min.   :10002041   Min.   :19   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25876076   1st Qu.:19   1st Qu.:13.00   1st Qu.:2.000   1st Qu.:10
 Median :44383061   Median :19   Median :32.00   Median :2.000   Median :10
 Mean   :49761478   Mean   :19   Mean   :40.39   Mean   :1.896   Mean   :10
 3rd Qu.:72585056   3rd Qu.:19   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :19   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               AO          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.00   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25876   1st Qu.: 3.00   1st Qu.:1.000
 Median : 7.000   Median : 52.00   Median :44383   Median : 5.00   Median :1.000
 Mean   : 6.726   Mean   : 66.28   Mean   :49761   Mean   : 5.44   Mean   :1.008
 3rd Qu.:10.000   3rd Qu.: 86.00   3rd Qu.:72585   3rd Qu.: 8.00   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.00   Max.   :3.000

      NHH            RESULT    PERSON_5_5_2        LOANS          PAWNING_SELLING
 Min.   :1.000   Min.   :1   Min.   : 1.000   Min.   :      7   Min.   :     400
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 1.000   1st Qu.:  25000   1st Qu.:   20000
 Median :1.000   Median :1   Median : 1.000   Median :  54000   Median :   50000
 Mean   :1.016   Mean   :1   Mean   : 1.563   Mean   : 168221   Mean   :  108462
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 2.000   3rd Qu.: 150000   3rd Qu.:  120000
 Max.   :3.000   Max.   :1   Max.   :12.000   Max.   :9000000   Max.   :12000000
                                              NA's   :6394      NA's   :2414
 DEPOSITS_PENSIONS_EPF WELFARE_SOCITY   SEETTU_DEBITS        MEDICAL
 Min.   :   1000       Min.   :   600   Min.   :    500   Min.   :   200
 1st Qu.:  15000       1st Qu.: 10000   1st Qu.:  10000   1st Qu.:  4250
 Median :  50000       Median : 20000   Median :  20000   Median : 10000
 Mean   : 171495       Mean   : 35659   Mean   :  48373   Mean   : 30711
 3rd Qu.: 150000       3rd Qu.: 40000   3rd Qu.:  50000   3rd Qu.: 36250
 Max.   :5000000       Max.   :275000   Max.   :9000000   Max.   :300000
 NA's   :7949          NA's   :8420     NA's   :7295      NA's   :8489
   INSUARANCE         LOTTERY       FOODALLOWENCE       DIASTER
 Min.   :    500   Min.   :    20   Min.   :   150   Min.   :   600
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 1st Qu.:   5000   1st Qu.:   500   1st Qu.:  1000   1st Qu.:  2500
 Median :  24000   Median :  1470   Median :  3000   Median : 14400
 Mean   : 131095   Mean   : 11649   Mean   : 15291   Mean   : 39821
 3rd Qu.: 100000   3rd Qu.:  5000   3rd Qu.:  8000   3rd Qu.: 17000
 Max.   :2000000   Max.   :250000   Max.   :606988   Max.   :325000
 NA's   :8490      NA's   :8447     NA's   :8362     NA's   :8542
     PID                Weight
 Length:8575        Min.   :  3.423
 Class :character   1st Qu.:156.120
 Mode  :character   Median :242.792
                    Mean   :247.610
                    3rd Qu.:332.646
                    Max.   :752.308


####  R20  ##############################################
       ID              REC_TYPE      DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :21   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:21   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :21   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :21   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:21   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :21   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               AO           SNUMBER            HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000

      NHH            RESULT       BANKS         BANK_AMOUNT          FINANCE
 Min.   :1.000   Min.   :1   Min.   :1.000   Min.   :       1   Min.   :1.000
 1st Qu.:1.000   1st Qu.:1   1st Qu.:1.000   1st Qu.:   25000   1st Qu.:2.000
 Median :1.000   Median :1   Median :2.000   Median :   65000   Median :2.000
 Mean   :1.014   Mean   :1   Mean   :1.732   Mean   :  236798   Mean   :1.924
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000   3rd Qu.:  200000   3rd Qu.:2.000
 Max.   :4.000   Max.   :1   Max.   :2.000   Max.   :9240000   Max.   :2.000
                                             NA's   :15042
 FINANCE_AMOUNT        EMPLOYER     EMPLOYER_AMOUNT       LENDER      LENDER_AMOUNT
 Min.   :   1500   Min.   :1.000   Min.   :    500   Min.   :1.000   Min.   :    400
 1st Qu.:  60000   1st Qu.:2.000   1st Qu.:  15000   1st Qu.:2.000   1st Qu.:  10000
 Median : 180000   Median :2.000   Median :  60000   Median :2.000   Median :  25000
 Mean   : 362954   Mean   :1.928   Mean   : 168691   Mean   :1.922   Mean   :  91879
 3rd Qu.: 400000   3rd Qu.:2.000   3rd Qu.: 150000   3rd Qu.:2.000   3rd Qu.:  83500
 Max.   :8000000   Max.   :2.000   Max.   :9260000   Max.   :2.000   Max.   :7000000
 NA's   :18972     NA's   :1       NA's   :19071     NA's   :1       NA's   :18928
  CREDIT_CARDS   CREDIT_CARDS_AMOUNT  RETAIL_SHOPS   RETAIL_SHOP_AMOUNT    PAWNING
 Min.   :1.000   Min.   :   1000     Min.   :1.000   Min.   :   100     Min.   :1.000
 1st Qu.:2.000   1st Qu.:  14250     1st Qu.:2.000   1st Qu.:  2000     1st Qu.:1.000
 Median :2.000   Median :  35000     Median :2.000   Median :  4000     Median :2.000
 Mean   :1.986   Mean   :  79835     Mean   :1.841   Mean   :  6408     Mean   :1.606
 3rd Qu.:2.000   3rd Qu.:  77500     3rd Qu.:2.000   3rd Qu.:  8000     3rd Qu.:2.000
 Max.   :2.000   Max.   :3500000     Max.   :2.000   Max.   :500000     Max.   :2.000
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                NA's   :20258       NA's   :1       NA's   :17268      NA's   :1
 PAWNING_AMOUNT    INSTALMENT_GOODS INSTALEMENT_AMOUNT  OTHER_DEBTS
 Min.   :     700   Min.   :1.000    Min.   :   150     Min.   :1.000
 1st Qu.:  30000   1st Qu.:2.000    1st Qu.:  4000     1st Qu.:2.000
 Median :  75000   Median :2.000    Median : 10000     Median :2.000
 Mean   : 137762   Mean   :1.936    Mean   : 22453     Mean   :1.978
 3rd Qu.: 153460   3rd Qu.:2.000    3rd Qu.: 25000     3rd Qu.:2.000
 Max.   :8500000   Max.   :2.000    Max.   :600000     Max.   :2.000
 NA's   :12440     NA's   :1        NA's   :19229      NA's   :6
  OTHER_AMOUNT         Weight
 Min.   :       2   Min.   :  3.423
 1st Qu.:    8750   1st Qu.:152.327
 Median :   20000   Median :242.792
 Mean   :   75194   Mean   :249.336
 3rd Qu.:   50000   3rd Qu.:346.846
 Max.   :3200000    Max.   :752.308
 NA's   :20088


####  R21  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :20   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:20   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :20   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :20   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:20   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :20   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               A0          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000

      NHH            RESULT       RADIO             TV             VCD
 Min.   :1.000   Min.   :1   Min.   :1.000   Min.   :1.000   Min.   :1.000
 1st Qu.:1.000   1st Qu.:1   1st Qu.:1.000   1st Qu.:1.000   1st Qu.:1.000
 Median :1.000   Median :1   Median :1.000   Median :1.000   Median :2.000
 Mean   :1.014   Mean   :1   Mean   :1.307   Mean   :1.194   Mean   :1.577
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:2.000   3rd Qu.:1.000   3rd Qu.:2.000
 Max.   :4.000   Max.   :1   Max.   :2.000   Max.   :2.000   Max.   :2.000
                             NA's   :1       NA's   :2       NA's   :3
 SEWING_MECHINE WASHING_MECHINE     FRIDGE         COOKERT     ELECTRIC_FANS
 Min.   :1.0    Min.   :1.000   Min.   :1.000   Min.   :1.00   Min.   :1.000
 1st Qu.:1.0    1st Qu.:2.000   1st Qu.:1.000   1st Qu.:1.00   1st Qu.:1.000
 Median :2.0    Median :2.000   Median :2.000   Median :2.00   Median :1.000
 Mean   :1.6    Mean   :1.832   Mean   :1.554   Mean   :1.57   Mean   :1.434
 3rd Qu.:2.0    3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:2.00   3rd Qu.:2.000
 Max.   :2.0    Max.   :2.000   Max.   :2.000   Max.   :2.00   Max.   :2.000
 NA's   :2      NA's   :1       NA's   :1       NA's   :1      NA's   :1
   TELEPHONE     TELEPHONE_MOBILE   COMPUTERS         CAMERA         BICYCLE
 Min.   :1.000   Min.   :1.000    Min.   :1.000   Min.   :1.000   Min.   :1.000
 1st Qu.:1.000   1st Qu.:1.000    1st Qu.:2.000   1st Qu.:2.000   1st Qu.:1.000
 Median :2.000   Median :1.000    Median :2.000   Median :2.000   Median :2.000
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 Mean   :1.648   Mean   :1.192    Mean   :1.821   Mean   :1.897   Mean   :1.617
 3rd Qu.:2.000   3rd Qu.:1.000    3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:2.000
 Max.   :2.000   Max.   :2.000    Max.   :2.000   Max.   :2.000   Max.   :2.000
 NA's   :6       NA's   :2        NA's   :4       NA's   :14      NA's   :3
 MOTOR_BICYCLE   THREE_WHEELER MOTOR_CAR_VAN     BUS_LORRY    TRACTOR_2_WHEEL
 Min.   :1.000   Min.   :1.0   Min.   :1.000   Min.   :1.00   Min.   :1.000
 1st Qu.:1.000   1st Qu.:2.0   1st Qu.:2.000   1st Qu.:2.00   1st Qu.:2.000
 Median :2.000   Median :2.0   Median :2.000   Median :2.00   Median :2.000
 Mean   :1.706   Mean   :1.9   Mean   :1.931   Mean   :1.98   Mean   :1.974
 3rd Qu.:2.000   3rd Qu.:2.0   3rd Qu.:2.000   3rd Qu.:2.00   3rd Qu.:2.000
 Max.   :2.000   Max.   :2.0   Max.   :2.000   Max.   :2.00   Max.   :2.000
 NA's   :1       NA's   :1     NA's   :2       NA's   :2      NA's   :3
 TRACTOR_4_WHEEL   PESTICIDER     THRESHERS       WATERPUMPS      MECHINE
 Min.   :1.000   Min.   :1.00   Min.   :1.000   Min.   :1.00   Min.   :1.000
 1st Qu.:2.000   1st Qu.:2.00   1st Qu.:2.000   1st Qu.:2.00   1st Qu.:2.000
 Median :2.000   Median :2.00   Median :2.000   Median :2.00   Median :2.000
 Mean   :1.989   Mean   :1.97   Mean   :1.996   Mean   :1.98   Mean   :1.998
 3rd Qu.:2.000   3rd Qu.:2.00   3rd Qu.:2.000   3rd Qu.:2.00   3rd Qu.:2.000
 Max.   :2.000   Max.   :2.00   Max.   :2.000   Max.   :2.00   Max.   :2.000
 NA's   :3       NA's   :3      NA's   :3       NA's   :3      NA's   :4
     BOATS        FISHING_NETS       Weight
 Min.   :1.000   Min.   :1.000   Min.   :  3.423
 1st Qu.:2.000   1st Qu.:2.000   1st Qu.:152.327
 Median :2.000   Median :2.000   Median :242.792
 Mean   :1.993   Mean   :1.989   Mean   :249.336
 3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:346.846
 Max.   :2.000   Max.   :2.000   Max.   :752.308
 NA's   :3       NA's   :7


####  R22  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR           DS
 Min.   :10002011   Min.   :22   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:22   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :22   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :22   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:22   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :22   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               AO          SNUMBER           HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000

      NHH            RESULT      BUS_HALT        BUS_HALT_TIME       PRE_SCHOOL
 Min.   :1.000   Min.   :1   Min.   : 0.0000   Min.   :  0.00   Min.   : 0.0000
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 0.0000   1st Qu.:  5.00   1st Qu.: 0.0000
 Median :1.000   Median :1   Median : 0.0000   Median : 10.00   Median : 0.0000
 Mean   :1.014   Mean   :1   Mean   : 0.7382   Mean   : 11.37   Mean   : 0.5372
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 1.0000   3rd Qu.: 15.00   3rd Qu.: 1.0000
 Max.   :4.000   Max.   :1   Max.   :30.0000   Max.   :410.00   Max.   :21.0000
                                               NA's   :45       NA's   :50
 PRE_SCHOOL_TIME  PRIMERY_SCHOOL   PRIMERY_SCHOOL_TIME SECONDERY_SCHOOL
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Min.    :  0.00   Min.    : 0.000   Min.    :  0.00      Min.    : 0.000
1st Qu.:  5.00   1st Qu.: 0.000   1st Qu.: 10.00      1st Qu.: 0.000
Median : 10.00   Median : 1.000   Median : 14.00      Median : 2.000
Mean   : 12.11   Mean   : 1.063   Mean   : 15.43      Mean   : 2.468
3rd Qu.: 15.00   3rd Qu.: 2.000   3rd Qu.: 20.00      3rd Qu.: 3.000
Max.    :300.00   Max.    :31.000   Max.    :160.00      Max.    :72.000
NA's    :54       NA's    :298      NA's    :300         NA's    :56
SEC_SCHOOL_TIME     HOSPITAL      HOSPITAL_TIME    MATRENITY_HOME
Min.    :  0.00   Min.    : 0.000   Min.    :  0.00   Min.    : 0.000
1st Qu.: 10.00   1st Qu.: 2.000   1st Qu.: 20.00   1st Qu.: 2.000
Median : 20.00   Median : 5.000   Median : 30.00   Median : 4.000
Mean   : 21.39   Mean   : 6.497   Mean   : 33.69   Mean   : 5.134
3rd Qu.: 30.00   3rd Qu.: 8.000   3rd Qu.: 45.00   3rd Qu.: 7.000
Max.    :210.00   Max.    :56.000   Max.    :210.00   Max.    :65.000
NA's    :61       NA's    :89       NA's    :92       NA's    :1314
MATERNITY_HOME_TIME GOV_DISPENSARZ   GOV_DISPENSARY_TIME PRIVATE_DISPENSARY
Min.    :  0.00      Min.    : 0.000   Min.    :  0.00      Min.    : 0.000
1st Qu.: 15.00      1st Qu.: 1.000   1st Qu.: 15.00      1st Qu.: 0.000
Median : 25.00      Median : 3.000   Median : 20.00      Median : 1.000
Mean   : 29.33      Mean   : 4.073   Mean   : 26.37      Mean   : 2.446
3rd Qu.: 40.00      3rd Qu.: 5.000   3rd Qu.: 30.00      3rd Qu.: 3.000
Max.    :200.00      Max.    :99.000   Max.    :200.00      Max.    :53.000
NA's    :1317        NA's    :1206     NA's    :1207        NA's    :575
PRIVATE_DISPENSARY_TIME MATERNITY_CLINIC MATERNITY_CLINIC_TIME      DMO
Min.    :  0.00          Min.    : 0.000   Min.    :  0.00        Min.    : 0.000
1st Qu.: 10.00          1st Qu.: 0.000   1st Qu.: 10.00        1st Qu.: 2.000
Median : 15.00          Median : 1.000   Median : 15.00        Median : 5.000
Mean   : 19.82          Mean   : 2.528   Mean   : 20.62        Mean   : 6.403
3rd Qu.: 25.00          3rd Qu.: 3.000   3rd Qu.: 25.00        3rd Qu.: 9.000
Max.    :900.00          Max.    :82.000   Max.    :250.00        Max.    :90.000
NA's    :577             NA's    :174      NA's    :177           NA's    :165
   DMO_TIME          MCUCPC        MCUCPC_TIME       DS_OFFICE      DS_OFFICE_TIME
Min.    :  0.00   Min.    : 0.000   Min.    :  0.00   Min.    : 0.000   Min.    :  0.00
1st Qu.: 18.00   1st Qu.: 2.000   1st Qu.: 20.00   1st Qu.: 3.000   1st Qu.: 20.00
Median : 30.00   Median : 5.000   Median : 30.00   Median : 5.000   Median : 30.00
Mean   : 33.55   Mean   : 7.167   Mean   : 35.67   Mean   : 7.577   Mean   : 37.05
3rd Qu.: 45.00   3rd Qu.: 9.000   3rd Qu.: 45.00   3rd Qu.:10.000   3rd Qu.: 45.00
Max.    :290.00   Max.    :70.000   Max.    :290.00   Max.    :70.000   Max.    :290.00
NA's    :169      NA's    :45       NA's    :49       NA's    :43       NA's    :46
  GN_OFFICE       GN_OFFICE_TIME    POST_OFFICE     POST_OFFICE_TIME      BANK
Min.    : 0.0000   Min.    :  0.00   Min.    : 0.000   Min.    :  0.00   Min.    : 0.000
1st Qu.: 0.0000   1st Qu.:  5.00   1st Qu.: 0.000   1st Qu.: 10.00   1st Qu.: 1.000
Median : 0.0000   Median : 10.00   Median : 1.000   Median : 15.00   Median : 2.000
Mean   : 0.8041   Mean   : 13.18   Mean   : 1.721   Mean   : 17.89   Mean   : 3.563
3rd Qu.: 1.0000   3rd Qu.: 15.00   3rd Qu.: 2.000   3rd Qu.: 20.00   3rd Qu.: 5.000
Max.    :60.0000   Max.    :240.00   Max.    :54.000   Max.    :200.00   Max.    :50.000
NA's    :48        NA's    :53       NA's    :45       NA's    :48       NA's    :51
  BANK_TIME       AGRI_OFFICE    AGRI_OFFICE_TIME IS_POWER_LINES_NEAR
Min.    :  0.00   Min.    : 0.00   Min.    :  0.00   Min.    :1.000
1st Qu.: 10.00   1st Qu.: 3.00   1st Qu.: 20.00   1st Qu.:1.000
Median : 20.00   Median : 5.00   Median : 30.00   Median :1.000
Mean   : 24.18   Mean   : 6.53   Mean   : 35.03   Mean   :1.043
3rd Qu.: 30.00   3rd Qu.: 8.00   3rd Qu.: 45.00   3rd Qu.:1.000
Max.    :200.00   Max.    :83.00   Max.    :290.00   Max.    :2.000
NA's    :54       NA's    :158      NA's    :160      NA's    :5
IS_TEL_LINES_NEAR IS_WATER_SERVICE_NEAR    ATM_CARD     ATMCARDAMOUNT
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 Min.    :1.000     Min.    :1.00          Min.    :1.000   Min.    :      0
 1st Qu.:1.000     1st Qu.:1.00          1st Qu.:2.000   1st Qu.:  10000
 Median :1.000     Median :1.00          Median :2.000   Median :  20000
 Mean   :1.212     Mean   :1.37          Mean   :1.815   Mean   :  29333
 3rd Qu.:1.000     3rd Qu.:2.00          3rd Qu.:2.000   3rd Qu.:  30000
 Max.   :2.000     Max.   :2.00          Max.   :2.000   Max.   :9999999
 NA's   :5         NA's   :6             NA's   :16      NA's   :17252
     Weight
 Min.   :  3.423
 1st Qu.:152.327
 Median :242.792
 Mean   :249.336
 3rd Qu.:346.846
 Max.   :752.308


####  R23  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR            DS
 Min.   :10002011   Min.   :23   Min.   :11.00   Min.   :1.000   Min.   :10
 1st Qu.:25778068   1st Qu.:23   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :23   Median :33.00   Median :2.000   Median :10
 Mean   :49924702   Mean   :23   Mean   :40.85   Mean   :1.838   Mean   :10
 3rd Qu.:72971078   3rd Qu.:23   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.   :98655101   Max.   :23   Max.   :92.00   Max.   :3.000   Max.   :10

     MONTH             PSU               AO          SNUMBER            HHNO
 Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000

      NHH            RESULT     STRUCTURE         BED_ROOMS          AREA
 Min.   :1.000   Min.   :1   Min.   : 0.000   Min.   :0.000   Min.   :1.000
 1st Qu.:1.000   1st Qu.:1   1st Qu.: 1.000   1st Qu.:2.000   1st Qu.:3.000
 Median :1.000   Median :1   Median : 1.000   Median :2.000   Median :4.000
 Mean   :1.014   Mean   :1   Mean   : 2.126   Mean   :2.312   Mean   :4.219
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.: 1.000   3rd Qu.:3.000   3rd Qu.:5.000
 Max.   :4.000   Max.   :1   Max.   :99.000   Max.   :9.000   Max.   :9.000
                                              NA's   :54      NA's   :5
     WALLS           FLOOR            ROOF          OWNERSHIP      DRINKING_WATER
 Min.   :1.000   Min.   :1.000   Min.   :1.000   Min.   : 1.000   Min.   : 1.00
 1st Qu.:1.000   1st Qu.:1.000   1st Qu.:1.000   1st Qu.: 1.000   1st Qu.: 1.00
 Median :1.000   Median :1.000   Median :2.000   Median : 1.000   Median : 4.00
 Mean   :2.194   Mean   :1.597   Mean   :2.029   Mean   : 3.837   Mean   : 4.38
 3rd Qu.:3.000   3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.: 2.000   3rd Qu.: 5.00
 Max.   :9.000   Max.   :9.000   Max.   :9.000   Max.   :99.000   Max.   :99.00
 NA's   :5       NA's   :4       NA's   :5       NA's   :5        NA's   :2
   OWN_WATER     WATER_DISTANCE  WATER_SUFFICENCY OTHER_WATER_SUFFICENCY
 Min.   :1.000          :16193   Min.   :1.000     Min.   :1.000
 1st Qu.:1.000   0100   :  898   1st Qu.:1.000     1st Qu.:1.000
 Median :1.000   0050   :  831   Median :1.000     Median :1.000
 Mean   :1.217   0200   :  448   Mean   :1.069     Mean   :1.108
 3rd Qu.:1.000   0010   :  337   3rd Qu.:1.000     3rd Qu.:1.000
```

```
 Max.    :2.000   0500    :  297   Max.    :2.000    Max.    :2.000
 NA's    :28      (Other): 1536   NA's    :18       NA's    :29
  TIOILET_USE     TOILET_TYPE    GARBAGE_DUMPING  LITE_SOURCE     COOKING_FUEL
 Min.    :1.000   Min.    :1.000   Min.    :1.000   Min.    :1.000   Min.    :1.000
 1st Qu.:1.000   1st Qu.:1.000   1st Qu.:2.000   1st Qu.:2.000   1st Qu.:1.000
 Median :3.000   Median :1.000   Median :2.000   Median :2.000   Median :1.000
 Mean    :2.275   Mean    :1.123   Mean    :2.246   Mean    :1.906   Mean    :1.314
 3rd Qu.:3.000   3rd Qu.:1.000   3rd Qu.:3.000   3rd Qu.:2.000   3rd Qu.:1.000
 Max.    :7.000   Max.    :9.000   Max.    :9.000   Max.    :9.000   Max.    :9.000
 NA's    :8       NA's    :246     NA's    :11      NA's    :1       NA's    :18
 IS_COLLECT_FIREWOOD FIRE_WOOD_OWN   OTHER_DISTANCE   NATURAL_CALAMITY    FLOODING
 Min.    :1.000       Min.    :1.000   Min.    :   1.0   Min.    :1.000    Min.    :1.000
 1st Qu.:1.000       1st Qu.:1.000   1st Qu.: 100.0   1st Qu.:2.000    1st Qu.:1.000
 Median :1.000       Median :1.000   Median : 200.0   Median :2.000    Median :2.000
 Mean    :1.322       Mean    :1.607   Mean    : 482.3   Mean    :1.909    Mean    :1.566
 3rd Qu.:2.000       3rd Qu.:2.000   3rd Qu.: 500.0   3rd Qu.:2.000    3rd Qu.:2.000
 Max.    :2.000       Max.    :3.000   Max.    :9000.0   Max.    :2.000    Max.    :2.000
 NA's    :8           NA's    :6729    NA's    :14858    NA's    :7        NA's    :18673
    DROUGHT       LAND_SLIDES     WILDANIMALS        WINDS       OTHER_CALAMITY
 Min.    :1.000   Min.    :1.000   Min.    :1.000   Min.    :1.000   Min.    :1.000
 1st Qu.:1.000   1st Qu.:2.000   1st Qu.:1.000   1st Qu.:2.000   1st Qu.:2.000
 Median :2.000   Median :2.000   Median :2.000   Median :2.000   Median :2.000
 Mean    :1.677   Mean    :1.974   Mean    :1.731   Mean    :1.949   Mean    :1.965
 3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:2.000
 Max.    :2.000   Max.    :2.000   Max.    :2.000   Max.    :2.000   Max.    :2.000
 NA's    :18673   NA's    :18673   NA's    :18673   NA's    :18673   NA's    :18673
     Weight
 Min.    :  3.423
 1st Qu.:152.327
 Median :242.792
 Mean    :249.336
 3rd Qu.:346.846
 Max.    :752.308



####  R24  ##############################################
       ID              REC_TYPE     DISTRICT         SECTOR           DS
 Min.    :10002011   Min.    :24   Min.    :11.00   Min.    :1.000   Min.    :10
 1st Qu.:25778068   1st Qu.:24   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
 Median :45297056   Median :24   Median :33.00   Median :2.000   Median :10
 Mean    :49924702   Mean    :24   Mean    :40.85   Mean    :1.838   Mean    :10
 3rd Qu.:72971078   3rd Qu.:24   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
 Max.    :98655101   Max.    :24   Max.    :92.00   Max.    :3.000   Max.    :10

     MONTH             PSU               A0           SNUMBER            HHNO
 Min.    : 1.000   Min.    :  1.00   Min.    :10002   Min.    : 1.000   Min.    :1.000
 1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
 Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
 Mean    : 6.671   Mean    : 68.16   Mean    :49925   Mean    : 5.466   Mean    :1.007
 3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
 Max.    :12.000   Max.    :300.00   Max.    :98655   Max.    :10.000   Max.    :4.000

      NHH            RESULT   IS_AGRILAND_OWNER PADDY_OWN_ACR      PADDY_OWN_RT
 Min.    :1.000   Min.    :1   Min.    :1.000     Min.    :  0.000   Min.    :0.000
 1st Qu.:1.000   1st Qu.:1   1st Qu.:1.000     1st Qu.:  1.000   1st Qu.:1.000
```

```
 Median :1.000   Median :1   Median :1.000     Median :  2.000   Median :2.000
 Mean   :1.014   Mean   :1   Mean   :1.183     Mean   :  2.528   Mean   :1.843
 3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:1.000     3rd Qu.:  2.000   3rd Qu.:2.000
 Max.   :4.000   Max.   :1   Max.   :3.000     Max.   :312.000   Max.   :6.000
                                               NA's   :18787     NA's   :18980
 PADDY_OWN_PERCH PADDY_OTHER_ACR   PADDY_OTHER_RT  PADDY_OTHER_PERCH  LAND_OWN_ACR
 Min.   : 0.00   Min.   :  0.000   Min.   :0.000   Min.   : 0.00      Min.   :  0.000
 1st Qu.:10.00   1st Qu.:  1.000   1st Qu.:2.000   1st Qu.:10.00      1st Qu.:  1.000
 Median :20.00   Median :  2.000   Median :2.000   Median :20.00      Median :  1.000
 Mean   :16.94   Mean   :  2.808   Mean   :1.868   Mean   :16.25      Mean   :  2.729
 3rd Qu.:20.00   3rd Qu.:  2.000   3rd Qu.:2.000   3rd Qu.:20.00      3rd Qu.:  2.000
 Max.   :80.00   Max.   :485.000   Max.   :6.000   Max.   :32.00      Max.   :505.000
 NA's   :20272   NA's   :19424     NA's   :19618   NA's   :20404      NA's   :19281
  LAND_OWN_RT    LAND_OWN_PERCH  LAND_OTHER_ACR    LAND_OTHER_RT   LAND_OTHER_PERCH
 Min.   :0.000   Min.   : 0.00   Min.   :  0.000   Min.   :0.000   Min.   : 0.00
 1st Qu.:1.000   1st Qu.:10.00   1st Qu.:  1.000   1st Qu.:1.000   1st Qu.: 8.00
 Median :2.000   Median :15.00   Median :  1.000   Median :2.000   Median :15.00
 Mean   :1.769   Mean   :16.37   Mean   :  2.436   Mean   :1.734   Mean   :15.11
 3rd Qu.:2.000   3rd Qu.:20.00   3rd Qu.:  2.000   3rd Qu.:2.000   3rd Qu.:20.00
 Max.   :5.000   Max.   :90.00   Max.   :222.000   Max.   :3.000   Max.   :45.00
 NA's   :19143   NA's   :19651   NA's   :19973     NA's   :19976   NA's   :20331
  HOME_OWN_ACR      HOME_OWN_RT    HOME_OWN_PERCH  HOME_OTHER_ACR    HOME_OTHER_RT
 Min.   :  0.000   Min.   :0.000   Min.   : 0.00   Min.   :  0.000   Min.   :0.000
 1st Qu.:  1.000   1st Qu.:1.000   1st Qu.: 9.00   1st Qu.:  1.000   1st Qu.:1.000
 Median :  1.000   Median :2.000   Median :14.00   Median :  1.000   Median :2.000
 Mean   :  1.584   Mean   :1.598   Mean   :14.91   Mean   :  2.704   Mean   :1.682
 3rd Qu.:  2.000   3rd Qu.:2.000   3rd Qu.:20.00   3rd Qu.:  2.000   3rd Qu.:2.000
 Max.   :150.000   Max.   :4.000   Max.   :80.00   Max.   :503.000   Max.   :3.000
 NA's   :18549     NA's   :15378   NA's   :11202   NA's   :20047     NA's   :19405
 HOME_OTHER_PERCH COWS_BUFFALOWS    COWS_COUNT     GOATS_SHEEPS      GOAT_COUNT
 Min.   : 0.00    Min.   :1.000   Min.   :1.000   Min.   :1.000   Min.   :0.000
 1st Qu.:10.00    1st Qu.:2.000   1st Qu.:1.000   1st Qu.:2.000   1st Qu.:1.000
 Median :15.00    Median :2.000   Median :1.000   Median :2.000   Median :1.000
 Mean   :15.94    Mean   :1.956   Mean   :1.384   Mean   :1.982   Mean   :1.359
 3rd Qu.:20.00    3rd Qu.:2.000   3rd Qu.:1.000   3rd Qu.:2.000   3rd Qu.:2.000
 Max.   :60.00    Max.   :2.000   Max.   :8.000   Max.   :2.000   Max.   :5.000
 NA's   :19664    NA's   :28      NA's   :19624   NA's   :83      NA's   :20167
      PIGS          PIGS_COUNT       CHICKENS     CHICKEN_COUNT   OTHER_ANIMALS
 Min.   :1.000   Min.   :0.000   Min.   :1.000   Min.   :1.00    Min.   :1.000
 1st Qu.:2.000   1st Qu.:1.000   1st Qu.:2.000   1st Qu.:1.00    1st Qu.:2.000
 Median :2.000   Median :1.000   Median :2.000   Median :2.00    Median :2.000
 Mean   :1.998   Mean   :1.456   Mean   :1.926   Mean   :1.77    Mean   :1.998
 3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:2.000   3rd Qu.:2.00    3rd Qu.:2.000
 Max.   :2.000   Max.   :3.000   Max.   :2.000   Max.   :8.00    Max.   :2.000
 NA's   :82      NA's   :20483   NA's   :81      NA's   :19008   NA's   :87
  OTHER_COUNT         Weight
 Min.   :1.000   Min.   :  3.423
 1st Qu.:1.000   1st Qu.:152.327
 Median :1.000   Median :242.792
 Mean   :1.588   Mean   :249.336
 3rd Qu.:2.000   3rd Qu.:346.846
 Max.   :5.000   Max.   :752.308
 NA's   :20489
```

```
####  R25  ##############################################
```

```
      ID              REC_TYPE     DISTRICT         SECTOR           DS
Min.   :10002011   Min.   :25   Min.   :11.00   Min.   :1.000   Min.   :10
1st Qu.:25778068   1st Qu.:25   1st Qu.:13.00   1st Qu.:1.000   1st Qu.:10
Median :45297056   Median :25   Median :33.00   Median :2.000   Median :10
Mean   :49924702   Mean   :25   Mean   :40.85   Mean   :1.838   Mean   :10
3rd Qu.:72971078   3rd Qu.:25   3rd Qu.:61.00   3rd Qu.:2.000   3rd Qu.:10
Max.   :98655101   Max.   :25   Max.   :92.00   Max.   :3.000   Max.   :10
     MONTH             PSU               AO          SNUMBER           HHNO
Min.   : 1.000   Min.   :  1.00   Min.   :10002   Min.   : 1.000   Min.   :1.000
1st Qu.: 4.000   1st Qu.: 25.00   1st Qu.:25778   1st Qu.: 3.000   1st Qu.:1.000
Median : 7.000   Median : 53.00   Median :45297   Median : 5.000   Median :1.000
Mean   : 6.671   Mean   : 68.16   Mean   :49925   Mean   : 5.466   Mean   :1.007
3rd Qu.:10.000   3rd Qu.: 90.00   3rd Qu.:72971   3rd Qu.: 8.000   3rd Qu.:1.000
Max.   :12.000   Max.   :300.00   Max.   :98655   Max.   :10.000   Max.   :4.000
      NHH            RESULT       HExpPM            HIncPM            Weight
Min.   :1.000   Min.   :1   Min.   :   1411   Min.   :    129   Min.   :  3.423
1st Qu.:1.000   1st Qu.:1   1st Qu.:  20370   1st Qu.:  18600   1st Qu.:152.327
Median :1.000   Median :1   Median :  30710   Median :  30337   Median :242.792
Mean   :1.014   Mean   :1   Mean   :  41424   Mean   :  45200   Mean   :249.336
3rd Qu.:1.000   3rd Qu.:1   3rd Qu.:  47532   3rd Qu.:  50000   3rd Qu.:346.846
Max.   :4.000   Max.   :1   Max.   :1175382   Max.   :4983000   Max.   :752.308
     serial
Min.   :    1
1st Qu.: 5136
Median :10270
Mean   :10270
3rd Qu.:15405
Max.   :20540
```

5.2 Frequency table of categorical variables

Data check of categorical variables

```
> for(j in 1:25){
+ cat(c("¥n¥n","#### ", Rnames[j],
+ "################################################"),"¥n¥n")
+ print(colnames(outfiles[[j]]))
+ }


 ####  R01 ################################################

 [1] "ID"                "REC_TYPE"          "DISTRICT"          "SECTOR"
 [5] "DS"                "MONTH"             "PSU"               "AO"
 [9] "SNUMBER"           "HHNO"              "NHH"               "RESULT"
[13] "PERSON_SERIAL_NO"  "RELATIONSHIP"      "SEX"               "BIRTH_YEAR"
[17] "BIRTH_MONTH"       "AGE"               "ETHNICITY"         "RELIGION"
[21] "MARITAL_STATUS"    "CURR_EDUC"         "EDUCATION"         "IS_ACTIVE"
[25] "MAIN_ACTIVITY"     "MAIN_OCCUPATION"   "INDUSTRY"          "EMPLOYMENT_STATUS"
[29] "PID"               "Weight"


 ####  R02 ################################################

 [1] "ID"                  "REC_TYPE"            "DISTRICT"
 [4] "SECTOR"              "DS"                  "MONTH"
 [7] "PSU"                 "AO"                  "SNUMBER"
[10] "HHNO"                "NHH"                 "RESULT"
[13] "R2_PERSON_SERIAL"    "R2_SCHOOL_EDUCATION" "TYPE_OF_SCHOOL"
[16] "GRADE_THIS_YEAR"     "GRADE_LAST_YEAR"     "DISTANCE"
[19] "TRANSPORT_MEDIUM"    "TIME_TO_SCHOOL"      "NOSCHOOLING_REASON"
[22] "REASON_NOT_GOING"    "WHEN_STOP_SCHOOLING" "PID"
[25] "Weight"


 ####  R03 ################################################

 [1] "ID"                       "REC_TYPE"                  "DISTRICT"
 [4] "SECTOR"                   "DS"                        "MONTH"
 [7] "PSU"                      "AO"                        "SNUMBER"
[10] "HHNO"                     "NHH"                       "RESULT"
[13] "R3_PERSON_SERIAL2"        "ATTEND_GOVT_HOSPITAL3"     "REASON_HOSPITAL4"
[16] "ATTEND_PRIVATE_HOSPITAL5" "REASON_FOR_WHAT6"          "IS_STAY_GOVHOSPITAL7"
[19] "REASON_STAY8"             "STAY_IN_PRIVTE_HOSPITAL9"  "REASON_FOR_STAY10"
[22] "IS_ILL_DISABLE11"         "WHAT_ILL_DISABLE12"        "IS_EMPL_REASON13"
[25] "DURATION_YEARS14"         "DURATION_MONTHS14"         "IS_ABSENT_ACT15"
[28] "DAYS_ABSENT16"            "PID"                       "Weight"


 ####  R04 ################################################

 [1] "ID"          "REC_TYPE"    "DISTRICT"    "SECTOR"      "DS"
 [6] "MONTH"       "PSU"         "AO"          "SNUMBER"     "HHNO"
[11] "NHH"         "RESULT"      "CODE"        "QUANTITY"    "VALUE"
```

```
[16] "INKIND_VALUE" "Weight"


 ####  R05 ################################################

 [1] "ID"              "REC_TYPE"        "DISTRICT"        "SECTOR"
 [5] "DS"              "MONTH"           "PSU"             "AO"
 [9] "SNUMBER"         "HHNO"            "NHH"             "RESULT"
[13] "NF_CODE"         "NF_QUANTITY"     "NF_VALUE"        "NF_INKIND_VALUE"
[17] "Weight"


 ####  R06 ################################################

 [1] "ID"       "REC_TYPE" "DISTRICT" "SECTOR"   "DS"       "MONTH"    "PSU"
 [8] "AO"       "SNUMBER"  "HHNO"     "NHH"      "RESULT"   "COL_2"    "COL_3"
[15] "COL_4"    "COL_5"    "COL_6"    "COL_7"    "COL_8"    "COL_9"    "COL_10"
[22] "COL_11"   "COL_12"   "COL_13"   "COL_14"   "COL_15"   "PID"      "Weight"


 ####  R07 ################################################

 [1] "ID"                   "REC_TYPE"             "DISTRICT"
 [4] "SECTOR"               "DS"                   "MONTH"
 [7] "PSU"                  "AO"                   "SNUMBER"
[10] "HHNO"                 "NHH"                  "RESULT"
[13] "IS_BOARDERS_SERVENTS" "Weight"


 ####  R08 ################################################

 [1] "ID"              "REC_TYPE"        "DISTRICT"        "SECTOR"
 [5] "DS"              "MONTH"           "PSU"             "AO"
 [9] "SNUMBER"         "HHNO"            "NHH"             "RESULT"
[13] "SERIAL_NO_SEC_1" "PRI_SEC"         "WAGES_SALARIES"  "ALLOWENCES"
[17] "BONUS"           "PID"             "Weight"


 ####  R09 ################################################

 [1] "ID"                   "REC_TYPE"             "DISTRICT"
 [4] "SECTOR"               "DS"                   "MONTH"
 [7] "PSU"                  "AO"                   "SNUMBER"
[10] "HHNO"                 "NHH"                  "RESULT"
[13] "IS_EMPLOYMENT_INCOME" "Weight"


 ####  R10 ################################################

 [1] "ID"       "REC_TYPE" "DISTRICT" "SECTOR"   "DS"       "MONTH"    "PSU"
 [8] "AO"       "SNUMBER"  "HHNO"     "NHH"      "RESULT"   "COL_2X"   "COL_4X"
[15] "COL_5X"   "COL_6X"   "COL_7X"   "COL_8X"   "COL_8X1"  "COL_9X"   "COL_10X"
[22] "COL_10X1" "COL_11X"  "COL_12X"  "COL_13X"  "PID"      "Weight"


 ####  R11 ################################################
```

```
 [1] "ID"                     "REC_TYPE"              "DISTRICT"
 [4] "SECTOR"                 "DS"                    "MONTH"
 [7] "PSU"                    "AO"                    "SNUMBER"
[10] "HHNO"                   "NHH"                   "RESULT"
[13] "IS_AGRICULTURAL_INCOME" "Weight"


 ####  R12 ################################################

 [1] "ID"                    "REC_TYPE"             "DISTRICT"
 [4] "SECTOR"                "DS"                   "MONTH"
 [7] "PSU"                   "AO"                   "SNUMBER"
[10] "HHNO"                  "NHH"                  "RESULT"
[13] "IS_OTHER_AGRRI_INCOME" "Weight"


 ####  R13 ################################################

 [1] "ID"             "REC_TYPE"       "DISTRICT"       "SECTOR"
 [5] "DS"             "MONTH"          "PSU"            "AO"
 [9] "SNUMBER"        "HHNO"           "NHH"            "RESULT"
[13] "SER_NO_SEC_5_3" "SEASONAL_CROP"  "ACRES_5_3"      "ROOTS_5_3"
[17] "PERCHS_5_3"     "OUTPUT_5_3"     "INPUT_5_3"      "FERTILIZES"
[21] "PID"            "Weight"


 ####  R14 ################################################

 [1] "ID"                 "REC_TYPE"          "DISTRICT"          "SECTOR"
 [5] "DS"                 "MONTH"             "PSU"               "AO"
 [9] "SNUMBER"            "HHNO"              "NHH"               "RESULT"
[13] "IS_NON_AGRI_INCOME" "Weight"


 ####  R15 ################################################

 [1] "ID"         "REC_TYPE"   "DISTRICT"   "SECTOR"     "DS"         "MONTH"
 [7] "PSU"        "AO"         "SNUMBER"    "HHNO"       "NHH"        "RESULT"
[13] "SERIAL_5_4" "NON_AGRI"   "OUTPUT_5_4" "INPUT_5_4"  "SUBSIDIES"  "PID"
[19] "Weight"


 ####  R16 ################################################

 [1] "ID"              "REC_TYPE"        "DISTRICT"        "SECTOR"
 [5] "DS"              "MONTH"           "PSU"             "AO"
 [9] "SNUMBER"         "HHNO"            "NHH"             "RESULT"
[13] "IS_OTHER_INCOME" "Weight"


 ####  R17 ################################################

 [1] "ID"                    "REC_TYPE"             "DISTRICT"
 [4] "SECTOR"                "DS"                   "MONTH"
 [7] "PSU"                   "AO"                   "SNUMBER"
```

```
[10] "HHNO"                  "NHH"                   "RESULT"
[13] "SERIAL_5_5_1"          "PENSION"               "DISABILITY_AND_RELIEF"
[16] "PROPERTY_RENTS"        "SAMURDHI"              "DIVIDENDS"
[19] "ELDER"                 "SCHOLAR"               "SC_LUNCH"
[22] "THREEPOSHA"            "OTHER_INCOME"          "INCOME_FORIGN"
[25] "INCOME_LOCAL"          "PID"                   "Weight"
```

```
 ####  R18 ################################################

 [1] "ID"                 "REC_TYPE"          "DISTRICT"          "SECTOR"
 [5] "DS"                 "MONTH"             "PSU"               "AO"
 [9] "SNUMBER"            "HHNO"              "NHH"               "RESULT"
[13] "IS_WINDFALL_INCOME" "Weight"
```

```
 ####  R19 ################################################

 [1] "ID"                    "REC_TYPE"              "DISTRICT"
 [4] "SECTOR"                "DS"                    "MONTH"
 [7] "PSU"                   "AO"                    "SNUMBER"
[10] "HHNO"                  "NHH"                   "RESULT"
[13] "PERSON_5_5_2"          "LOANS"                 "PAWNING_SELLING"
[16] "DEPOSITS_PENSIONS_EPF" "WELFARE_SOCITY"        "SEETTU_DEBITS"
[19] "MEDICAL"               "INSUARANCE"            "LOTTERY"
[22] "FOODALLOWENCE"         "DIASTER"               "PID"
[25] "Weight"
```

```
 ####  R20 ################################################

 [1] "ID"                   "REC_TYPE"            "DISTRICT"
 [4] "SECTOR"               "DS"                  "MONTH"
 [7] "PSU"                  "AO"                  "SNUMBER"
[10] "HHNO"                 "NHH"                 "RESULT"
[13] "BANKS"                "BANK_AMOUNT"         "FINANCE"
[16] "FINANCE_AMOUNT"       "EMPLOYER"            "EMPLOYER_AMOUNT"
[19] "LENDER"               "LENDER_AMOUNT"       "CREDIT_CARDS"
[22] "CREDIT_CARDS_AMOUNT"  "RETAIL_SHOPS"        "RETAIL_SHOP_AMOUNT"
[25] "PAWNING"              "PAWNING_AMOUNT"      "INSTALMENT_GOODS"
[28] "INSTALEMENT_AMOUNT"   "OTHER_DEBTS"         "OTHER_AMOUNT"
[31] "Weight"
```

```
 ####  R21 ################################################

 [1] "ID"               "REC_TYPE"          "DISTRICT"          "SECTOR"
 [5] "DS"               "MONTH"             "PSU"               "AO"
 [9] "SNUMBER"          "HHNO"              "NHH"               "RESULT"
[13] "RADIO"            "TV"                "VCD"               "SEWING_MECHINE"
[17] "WASHING_MECHINE"  "FRIDGE"            "COOKERT"           "ELECTRIC_FANS"
[21] "TELEPHONE"        "TELEPHONE_MOBILE"  "COMPUTERS"         "CAMERA"
[25] "BICYCLE"          "MOTOR_BICYCLE"     "THREE_WHEELER"     "MOTOR_CAR_VAN"
[29] "BUS_LORRY"        "TRACTOR_2_WHEEL"   "TRACTOR_4_WHEEL"   "PESTICIDER"
[33] "THRESHERS"        "WATERPUMPS"        "MECHINE"           "BOATS"
[37] "FISHING_NETS"     "Weight"
```

```
####  R22 ##############################################

 [1] "ID"                       "REC_TYPE"               "DISTRICT"
 [4] "SECTOR"                   "DS"                     "MONTH"
 [7] "PSU"                      "AO"                     "SNUMBER"
[10] "HHNO"                     "NHH"                    "RESULT"
[13] "BUS_HALT"                 "BUS_HALT_TIME"          "PRE_SCHOOL"
[16] "PRE_SCHOOL_TIME"          "PRIMERY_SCHOOL"         "PRIMERY_SCHOOL_TIME"
[19] "SECONDERY_SCHOOL"         "SEC_SCHOOL_TIME"        "HOSPITAL"
[22] "HOSPITAL_TIME"            "MATRENITY_HOME"         "MATERNITY_HOME_TIME"
[25] "GOV_DISPENSARZ"           "GOV_DISPENSARY_TIME"    "PRIVATE_DISPENSARY"
[28] "PRIVATE_DISPENSARY_TIME" "MATERNITY_CLINIC"       "MATERNITY_CLINIC_TIME"
[31] "DMO"                      "DMO_TIME"               "MCUCPC"
[34] "MCUCPC_TIME"              "DS_OFFICE"              "DS_OFFICE_TIME"
[37] "GN_OFFICE"                "GN_OFFICE_TIME"         "POST_OFFICE"
[40] "POST_OFFICE_TIME"         "BANK"                   "BANK_TIME"
[43] "AGRI_OFFICE"              "AGRI_OFFICE_TIME"       "IS_POWER_LINES_NEAR"
[46] "IS_TEL_LINES_NEAR"        "IS_WATER_SERVICE_NEAR"  "ATM_CARD"
[49] "ATMCARDAMOUNT"            "Weight"

####  R23 ##############################################

 [1] "ID"                    "REC_TYPE"              "DISTRICT"
 [4] "SECTOR"                "DS"                    "MONTH"
 [7] "PSU"                   "AO"                    "SNUMBER"
[10] "HHNO"                  "NHH"                   "RESULT"
[13] "STRUCTURE"             "BED_ROOMS"             "AREA"
[16] "WALLS"                 "FLOOR"                 "ROOF"
[19] "OWNERSHIP"             "DRINKING_WATER"        "OWN_WATER"
[22] "WATER_DISTANCE"        "WATER_SUFFICENCY"      "OTHER_WATER_SUFFICENCY"
[25] "TIOILET_USE"           "TOILET_TYPE"           "GARBAGE_DUMPING"
[28] "LITE_SOURCE"           "COOKING_FUEL"          "IS_COLLECT_FIREWOOD"
[31] "FIRE_WOOD_OWN"         "OTHER_DISTANCE"        "NATURAL_CALAMITY"
[34] "FLOODING"              "DROUGHT"               "LAND_SLIDES"
[37] "WILDANIMALS"           "WINDS"                 "OTHER_CALAMITY"
[40] "Weight"

####  R24 ##############################################

 [1] "ID"                 "REC_TYPE"          "DISTRICT"          "SECTOR"
 [5] "DS"                 "MONTH"             "PSU"               "AO"
 [9] "SNUMBER"            "HHNO"              "NHH"               "RESULT"
[13] "IS_AGRILAND_OWNER" "PADDY_OWN_ACR"     "PADDY_OWN_RT"      "PADDY_OWN_PERCH"
[17] "PADDY_OTHER_ACR"   "PADDY_OTHER_RT"    "PADDY_OTHER_PERCH" "LAND_OWN_ACR"
[21] "LAND_OWN_RT"       "LAND_OWN_PERCH"    "LAND_OTHER_ACR"    "LAND_OTHER_RT"
[25] "LAND_OTHER_PERCH"  "HOME_OWN_ACR"      "HOME_OWN_RT"       "HOME_OWN_PERCH"
[29] "HOME_OTHER_ACR"    "HOME_OTHER_RT"     "HOME_OTHER_PERCH"  "COWS_BUFFALOWS"
[33] "COWS_COUNT"        "GOATS_SHEEPS"      "GOAT_COUNT"        "PIGS"
[37] "PIGS_COUNT"        "CHICKENS"          "CHICKEN_COUNT"     "OTHER_ANIMALS"
[41] "OTHER_COUNT"       "Weight"
```

```
 ####  R25 ################################################

 [1] "ID"       "REC_TYPE" "DISTRICT" "SECTOR"   "DS"       "MONTH"    "PSU"
 [8] "A0"       "SNUMBER"  "HHNO"     "NHH"      "RESULT"   "HExpPM"   "HIncPM"
[15] "Weight"   "serial"
>




> # file.names: Rnames[j]
> # file.list: outfiles[[j]]
> # list of column numbers of categorical variables
> check.list<-list()
> check.list[[1]]<-c(14:15,19:25,28)
> check.list[[2]]<-c(14:17,19,21:22)
> check.list[[3]]<-c(14:24,27)
> check.list[[4]]<-c()
> check.list[[5]]<-c()
> check.list[[6]]<-c()
> check.list[[7]]<-c(13)
> check.list[[8]]<-c(14)
> check.list[[9]]<-c(13)
> check.list[[10]]<-c(14)
> check.list[[11]]<-c(13)
> check.list[[12]]<-c(13)
> check.list[[13]]<-c(14)
> check.list[[14]]<-c(13)
> check.list[[15]]<-c(14)
> check.list[[16]]<-c(13)
> check.list[[17]]<-c()
> check.list[[18]]<-c(13)
> check.list[[19]]<-c()
> check.list[[20]]<-c(seq(13,29,by=2))
> check.list[[21]]<-c(13:37)
> check.list[[22]]<-c(45:48)
> check.list[[23]]<-c(13:21,23:31,33:39)
> check.list[[24]]<-c(13,32:41)
> check.list[[25]]<-c()
> for(j in 1:25){
+ if(length(check.list[[j]])==0){ next }
+ cat(c("¥n¥n","#### FREQUENCY OF VARIABLES IN", Rnames[j],
+ "################################################"),"¥n¥n")
+ for(k in check.list[[j]]){
+ variable.name<-colnames(outfiles[[j]])[k]
+ cat(c("-----",variable.name,"----------------------------------------------------------"))
+ print(table(outfiles[[j]][k],useNA="ifany"))
+ }}


 #### FREQUENCY OF VARIABLES IN R01 ################################################

----- RELATIONSHIP -------------------------------------------------------
    1     2     3     4     5     6     7     9  <NA>
20583 16207 34329  2006 11578   124   135   156  4624
```

```
----- SEX -------------------------------------------------------
    1     2  <NA>
41022 44095  4625
----- ETHNICITY -------------------------------------------------
    1     2     3     4     5     6     9  <NA>
52506 13615  5424  8689   212   121    11  9164
----- RELIGION --------------------------------------------------
    1     2     3     4     9  <NA>
49095 15345  8998  7118    22  9164
----- MARITAL_STATUS --------------------------------------------
    1     2     3     4     5  <NA>
35940 38256  5248   239   864  9195
----- CURR_EDUC -------------------------------------------------
    1     2     3     4     5     6     9  <NA>
 2213 17914   298   634   662   225 54654 13142
----- EDUCATION -------------------------------------------------
    0     1     2     3     4     5     6     7     8     9    10    11    12
 1609  2265  3013  3101  3995  4926  3383  3910  5166  4061 15255  7059  3901
   13    14    15    16    17    18    19  <NA>
 7208   209  1281   256    18    33  3016 16077
----- IS_ACTIVE -------------------------------------------------
    1     2  <NA>
28337 30953 30452
----- MAIN_ACTIVITY ---------------------------------------------
    1     2     3     4     9  <NA>
 2197  5924 15792  6488   812 58529
----- EMPLOYMENT_STATUS -----------------------------------------
    1     2     3     4     5     6  <NA>
 3407  1338 13566   533  7889  1622 61387


 #### FREQUENCY OF VARIABLES IN R02 ##############################################

----- R2_SCHOOL_EDUCATION ---------------------------------------
    1     2     3  <NA>
17875   788  3359     7
----- TYPE_OF_SCHOOL --------------------------------------------
    1     2     3  <NA>
17198   389   286  4156
----- GRADE_THIS_YEAR -------------------------------------------
   1    2    3    4    5    6    7    8    9   10   11   12   13   14   19 <NA>
1367 1592 1535 1486 1481 1504 1432 1321 1358 1353 1467 1040  851   26   59 4157
----- GRADE_LAST_YEAR -------------------------------------------
   0    1    2    3    4    5    6    7    8    9   10   11   12   13   14   19
  65 1670 1542 1488 1487 1490 1427 1326 1351 1353 1449 1065  827   30   10 1291
<NA>
4158
----- TRANSPORT_MEDIUM ------------------------------------------
   1    2    3    4    5    6    9 <NA>
7634 2011 2259 2298 3441  142   64 4180
----- NOSCHOOLING_REASON ----------------------------------------
    1     2     3     4     5     6     7     9  <NA>
    4    21     5    67     2     6   621    62 21241
----- REASON_NOT_GOING ------------------------------------------
    1     2     3     4     5     6     7     9  <NA>
   15   383   431    45   924   369   435   642 18785
```

```
 #### FREQUENCY OF VARIABLES IN R03 ################################################

----- ATTEND_GOVT_HOSPITAL3 ------------------------------------------------------
    1     2  <NA>
13626 66901     7
----- REASON_HOSPITAL4 ----------------------------------------------------------
    1     2     3     4     5     6     9  <NA>
11516   504  1073   176    81     1   275 66908
----- ATTEND_PRIVATE_HOSPITAL5 --------------------------------------------------
    1     2  <NA>
11565 68959    10
----- REASON_FOR_WHAT6 ----------------------------------------------------------
    1     2     3     4     5     9  <NA>
10281   399   581    53    58   190 68972
----- IS_STAY_GOVHOSPITAL7 ------------------------------------------------------
    1     2  <NA>
 6764 73763     7
----- REASON_STAY8 --------------------------------------------------------------
    1     2     3     4     5     6     7     8     9  <NA>
 3976   622   724   771   101   204     1     1   363 73771
----- STAY_IN_PRIVTE_HOSPITAL9 --------------------------------------------------
    1     2  <NA>
  631 79893    10
----- REASON_FOR_STAY10 ---------------------------------------------------------
    1     2     3     4     5     6     7     9  <NA>
  379    55   103    39     9     8     1    38 79902
----- IS_ILL_DISABLE11 ----------------------------------------------------------
    1     2  <NA>
11205 69314    15
----- WHAT_ILL_DISABLE12 --------------------------------------------------------
    0     1     2     3     4     5     6     7     8     9    10    11    12
    1   902  2676  2031  1237   163   172   257   231   151   600   309    86
   13    14    15    16    99  <NA>
  291   151   264   303  1368 69341
----- IS_EMPL_REASON13 ----------------------------------------------------------
    0     1     2     4  <NA>
    8   896 10243     2 69385
----- IS_ABSENT_ACT15 -----------------------------------------------------------
    0     1     2     4  <NA>
   40  1745  9334     2 69413


 #### FREQUENCY OF VARIABLES IN R07 ################################################

----- IS_BOARDERS_SERVENTS ------------------------------------------------------
    1     2
  177 20363


 #### FREQUENCY OF VARIABLES IN R08 ################################################

----- PRI_SEC -------------------------------------------------------------------
    1     2  <NA>
18353   214    27
```

```
 #### FREQUENCY OF VARIABLES IN R09 ##################################################

----- IS_EMPLOYMENT_INCOME -----------------------------------------------------
    1     2
12914  7626


 #### FREQUENCY OF VARIABLES IN R10 ##################################################

----- COL_4X -------------------------------------------------------
   1    2    3    4    5    6    7    9 <NA>
2759   88   82  700  364   67   21   92   23


 #### FREQUENCY OF VARIABLES IN R11 ##################################################

----- IS_AGRICULTURAL_INCOME ---------------------------------------------------
    0     1     2
    4  3496 17040


 #### FREQUENCY OF VARIABLES IN R12 ##################################################

----- IS_OTHER_AGRRI_INCOME ----------------------------------------------------
    1     2
 3362 17178


 #### FREQUENCY OF VARIABLES IN R13 ##################################################

----- SEASONAL_CROP ------------------------------------------------------------
   1    2    3    4    5    6    7    8    9   10   16   19   24   99 <NA>
1119 1006  469  409   54  246  160  280   40   14    1    4    1  155   10


 #### FREQUENCY OF VARIABLES IN R14 ##################################################

----- IS_NON_AGRI_INCOME -------------------------------------------------------
    1     2
 5065 15475


 #### FREQUENCY OF VARIABLES IN R15 ##################################################

----- NON_AGRI -----------------------------------------------------------
   0    1    2    3    4    5    6    7    9 <NA>
   1  162  962  134 2139 1024  122   30 1106   20


 #### FREQUENCY OF VARIABLES IN R16 ##################################################

----- IS_OTHER_INCOME ----------------------------------------------------------
    0     1     2
    1 10623  9916
```

```
 #### FREQUENCY OF VARIABLES IN R18 ################################################

----- IS_WINDFALL_INCOME ---------------------------------------------------
    1     2
 7991 12549


 #### FREQUENCY OF VARIABLES IN R20 ################################################

----- BANKS ----------------------------------------------------------
    1     2
 5498 15042
----- FINANCE --------------------------------------------------------
    1     2
 1569 18971
----- EMPLOYER -------------------------------------------------------
    1     2  <NA>
 1469 19070     1
----- LENDER ---------------------------------------------------------
    1     2  <NA>
 1612 18927     1
----- CREDIT_CARDS ---------------------------------------------------
    1     2
  289 20251
----- RETAIL_SHOPS ---------------------------------------------------
    1     2  <NA>
 3272 17267     1
----- PAWNING --------------------------------------------------------
    1     2  <NA>
 8100 12439     1
----- INSTALMENT_GOODS -----------------------------------------------
    1     2  <NA>
 1311 19228     1
----- OTHER_DEBTS ----------------------------------------------------
    1     2  <NA>
  451 20083     6


 #### FREQUENCY OF VARIABLES IN R21 ################################################

----- RADIO ----------------------------------------------------------
    1     2  <NA>
14226  6313     1
----- TV -------------------------------------------------------------
    1     2  <NA>
16555  3983     2
----- VCD ------------------------------------------------------------
    1     2  <NA>
 8692 11845     3
----- SEWING_MECHINE -------------------------------------------------
    1     2  <NA>
 8219 12319     2
----- WASHING_MECHINE ------------------------------------------------
    1     2  <NA>
```

```
 3445 17094     1
----- FRIDGE ------------------------------------------------------
    1     2  <NA>
 9159 11380     1
----- COOKERT -----------------------------------------------------
    1     2  <NA>
 8827 11712     1
----- ELECTRIC_FANS -----------------------------------------------------
    1     2  <NA>
11634  8905     1
----- TELEPHONE ---------------------------------------------------
    1     2  <NA>
 7238 13296     6
----- TELEPHONE_MOBILE --------------------------------------------------------
    1     2  <NA>
16600  3938     2
----- COMPUTERS ---------------------------------------------------
    1     2  <NA>
 3682 16854     4
----- CAMERA ------------------------------------------------------
    1     2  <NA>
 2116 18410    14
----- BICYCLE -----------------------------------------------------
    1     2  <NA>
 7875 12662     3
----- MOTOR_BICYCLE -----------------------------------------------------
    1     2  <NA>
 6048 14491     1
----- THREE_WHEELER -----------------------------------------------------
    1     2  <NA>
 2046 18493     1
----- MOTOR_CAR_VAN -----------------------------------------------------
    1     2  <NA>
 1408 19130     2
----- BUS_LORRY ---------------------------------------------------
    1     2  <NA>
  404 20134     2
----- TRACTOR_2_WHEEL ---------------------------------------------------
    1     2  <NA>
  529 20008     3
----- TRACTOR_4_WHEEL ---------------------------------------------------
    1     2  <NA>
  219 20318     3
----- PESTICIDER --------------------------------------------------
    1     2  <NA>
  624 19913     3
----- THRESHERS ---------------------------------------------------
    1     2  <NA>
   87 20450     3
----- WATERPUMPS --------------------------------------------------
    1     2  <NA>
  420 20117     3
----- MECHINE -----------------------------------------------------
    1     2  <NA>
   38 20498     4
----- BOATS -------------------------------------------------------
```

```
    1     2  <NA>
  145 20392     3
----- FISHING_NETS ---------------------------------------------------
    1     2  <NA>
  220 20313     7


 #### FREQUENCY OF VARIABLES IN R22 ################################################

----- IS_POWER_LINES_NEAR -------------------------------------------------------
    1     2  <NA>
19648   887     5
----- IS_TEL_LINES_NEAR ---------------------------------------------------------
    1     2  <NA>
16184  4351     5
----- IS_WATER_SERVICE_NEAR -----------------------------------------------------
    1     2  <NA>
12935  7599     6
----- ATM_CARD ------------------------------------------------------------------
    1     2  <NA>
 3800 16724    16


 #### FREQUENCY OF VARIABLES IN R23 ################################################

----- STRUCTURE -----------------------------------------------------------------
    0     1     2     3     4     5     6     7     8     9    99
    1 16833  1342    82   302   103    16   187  1210   387    77
----- BED_ROOMS -----------------------------------------------------------------
   0    1    2    3    4    5    6    7    8    9 <NA>
 483 4280 7385 5785 1994  421  110   19    6    3   54
----- AREA ----------------------------------------------------------------------
   1    2    3    4    5    6    7    9 <NA>
 955 2588 3715 4224 4050 3301 1452  250    5
----- WALLS ---------------------------------------------------------------------
    1     2     3     4     5     6     7     9  <NA>
10377   637  7288   761   764   460   161    87     5
----- FLOOR ---------------------------------------------------------------------
    1     2     3     4     5     6     9  <NA>
15303  2535  1292    16   129  1171    90     4
----- ROOF ----------------------------------------------------------------------
   1    2    3    4    5    6    9 <NA>
9389 7312  768  397 2333  311   25    5
----- OWNERSHIP -----------------------------------------------------------------
    1     2     3     4     5     6     7     8     9    99  <NA>
12485  3399   930   179  1796   243   883    29   215   376     5
----- DRINKING_WATER ------------------------------------------------------------
   1    2    3    4    5    6    7    8    9   10   11   12   99 <NA>
6570 2681  728 4961 1384  483 1267  715  124 1377   17   73  158    2
----- OWN_WATER -----------------------------------------------------------------
    1     2  <NA>
16061  4451    28
----- WATER_SUFFICENCY ----------------------------------------------------------
    1     2  <NA>
19104  1418    18
----- OTHER_WATER_SUFFICENCY ----------------------------------------------------
```

```
    1     2  <NA>
18306  2205    29
----- TIOILET_USE ----------------------------------------------------
   1    2    3    4    5    6    7 <NA>
8931  393 9293 1079  450  144  242    8
----- TOILET_TYPE ----------------------------------------------------
    1     2     3     4     9  <NA>
19017   633   267   336    41   246
----- GARBAGE_DUMPING ------------------------------------------------
   1    2    3    4    5    9 <NA>
5056 8305 5713 1001  199  255   11
----- LITE_SOURCE ----------------------------------------------------
    1     2     3     4     7     9  <NA>
 2177 18184   161     6     1    10     1
----- COOKING_FUEL ---------------------------------------------------
    1     2     3     4     5     9  <NA>
15803  4043   432    53    36   155    18
----- IS_COLLECT_FIREWOOD --------------------------------------------
    1     2  <NA>
13927  6605     8
----- FIRE_WOOD_OWN --------------------------------------------------
   1    2    3 <NA>
8088 3063 2660 6729
----- NATURAL_CALAMITY -----------------------------------------------
    1     2  <NA>
 1867 18666     7
----- FLOODING -------------------------------------------------------
    1     2  <NA>
  810  1057 18673
----- DROUGHT --------------------------------------------------------
    1     2  <NA>
  603  1264 18673
----- LAND_SLIDES ----------------------------------------------------
    1     2  <NA>
   48  1819 18673
----- WILDANIMALS ----------------------------------------------------
    1     2  <NA>
  503  1364 18673
----- WINDS ----------------------------------------------------------
    1     2  <NA>
   95  1772 18673
----- OTHER_CALAMITY -------------------------------------------------
    1     2  <NA>
   65  1802 18673


 #### FREQUENCY OF VARIABLES IN R24 ##################################################

----- IS_AGRILAND_OWNER ----------------------------------------------
    1     2     3
16772  3767     1
----- COWS_BUFFALOWS -------------------------------------------------
    1     2  <NA>
  908 19604    28
----- COWS_COUNT -----------------------------------------------------
    1     2     3     4     5     8  <NA>
```

```
  693   125    76    19     1     2 19624
----- GOATS_SHEEPS -------------------------------------------------------
    1     2  <NA>
  364 20093    83
----- GOAT_COUNT ---------------------------------------------------------
    0     1     2     3     4     5  <NA>
    1   278    62    24     7     1 20167
----- PIGS ---------------------------------------------------------------
    1     2  <NA>
   47 20411    82
----- PIGS_COUNT ---------------------------------------------------------
    0     1     2     3  <NA>
    1    34    17     5 20483
----- CHICKENS -----------------------------------------------------------
    1     2  <NA>
 1524 18935    81
----- CHICKEN_COUNT ------------------------------------------------------
    1     2     3     4     5     6     7     8  <NA>
  719   547   191    65     2     4     1     3 19008
----- OTHER_ANIMALS ------------------------------------------------------
    1     2  <NA>
   40 20413    87
----- OTHER_COUNT --------------------------------------------------------
    1     2     3     5  <NA>
   30    16     3     2 20489
```

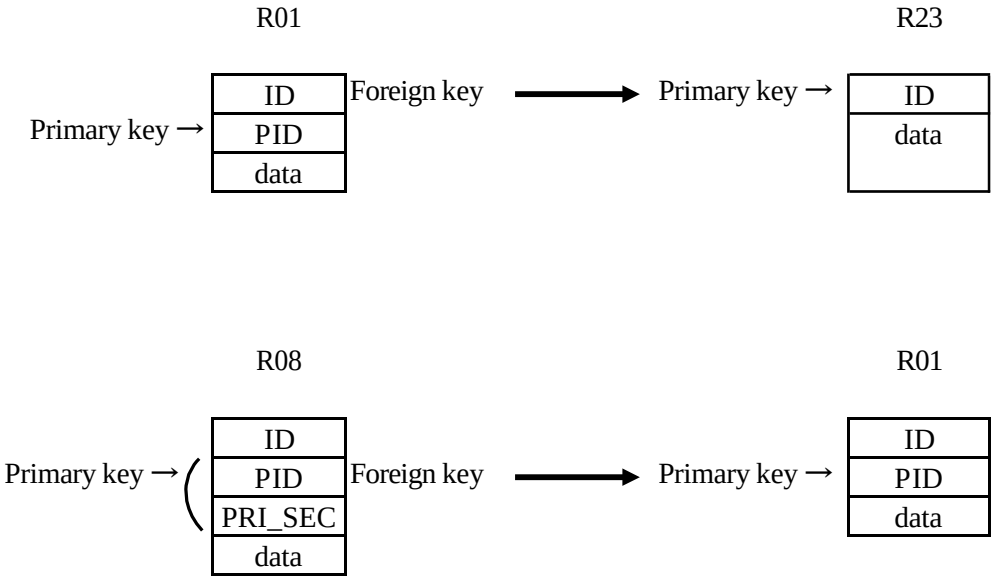
5.3 Primary key and foreign key of each data set

Background: Relationship between data sets

The questionnaire has 9 sections and the micro data is split into 25 data files. Among 25 data sets, R01 and R25 are the most basic. R25 provides the list of all sample households and R01 provides the list of all household members. The next table shows the primary key and the foreign key of each data set.

File	Primary key	No. of missing	No. of duplication	Foreign key	No. of isolation
R01	PID			PID	
R02	PID			PID	
R03	PID			PID	
R04	ID + CODE (101-1924)	1		ID	
R05	ID + NF_CODE (2001-3509)		2	ID	
R06	PID			PID	
R07	ID			ID	
R08	PID + PRI_SEC (1-2)	27		PID	
R09	ID			ID	
R10	PID + COL_4X (1-9)	23		PID	
R11	ID			ID	
R12	ID			ID	
R13	PID + SEASONAL_CROP (1-10, 99)	10	1	PID	
R14	ID			ID	
R15	PID + NON_AGRI (1-6, 9)	20	1	PID	
R16	ID			ID	
R17	PID			PID	
R18	ID			ID	
R19	PID			PID	
R20	ID			ID	
R21	ID			ID	
R22	ID			ID	
R23	ID			ID	
R24	ID			ID	
R25	ID			ID	

Figure: Example of relationship between data sets



☐ **Primary key: Uniqueness**

In case of the primary key = ID

Primary key should be unique. There should be no duplicated key.

✓ **The uniqueness of the primary key was satisfied for all data set.**

```
> file.no<-c(7,9,11,12,14,16,18,20:25)
> for(j in file.no){
+ n<-sum(duplicated(outfiles[[j]]$ID))
+ cat("Number of duplicated IDs in",Rnames[j],"= ",n,"¥n")
+ }
Number of duplicated IDs in R07 =  0
Number of duplicated IDs in R09 =  0
Number of duplicated IDs in R11 =  0
Number of duplicated IDs in R12 =  0
Number of duplicated IDs in R14 =  0
Number of duplicated IDs in R16 =  0
Number of duplicated IDs in R18 =  0
Number of duplicated IDs in R20 =  0
Number of duplicated IDs in R21 =  0
Number of duplicated IDs in R22 =  0
Number of duplicated IDs in R23 =  0
Number of duplicated IDs in R24 =  0
Number of duplicated IDs in R25 =  0
```

In case of the primary key = PID

Primary key should be unique. There should be no duplicated key.

✓ **The uniqueness of the primary key is satisfied for all data sets.**

```
> file.no<-c(1,2,3,6,17,19)
> for(j in file.no){
+ n<-sum(duplicated(outfiles[[j]]$PID))
+ cat("Number of duplicated PIDs of",Rnames[j],"= ",n,"¥n")
+ }
Number of duplicated PIDs of R01 =  0
Number of duplicated PIDs of R02 =  0
Number of duplicated PIDs of R03 =  0
Number of duplicated PIDs of R06 =  0
Number of duplicated PIDs of R17 =  0
Number of duplicated PIDs of R19 =  0
```

In case that the primary key is a combination of variables

✓ Generated the function to verify the uniqueness of the primary key

```
> verify.unique<-function(j,k1,k2){
+ # j: file no.
+ # k1: ID or PID
+ # k2: unit variable (maximun nchar=4)
+ d<-outfiles[[j]]
+ key1<-d[,k1]
+ key2<-d[,k2]
+ d$pkey<-paste(key1,formatC(key2,width=4,flag="0"),sep="")
+ n<-sum(duplicated(d$pkey))
+ cat("Number of duplicated combination",k1,"+",k2," in",Rnames[j],"= ",n,"¥n")
```

```
+ if(n>0){
+ pkey.e<-d$pkey[duplicated(d$pkey)]
+ id.e<-d[duplicated(d$pkey),"ID"]
+ for(k in 1:n){
+ cat("Duplicated primary key:",pkey.e[k],"¥n")
+ cat("Records with the above primary key","¥n")
+ print(d[d$pkey==pkey.e[k],])
+ } # end for
+ } # end if
+ }
```

- ✓ **The results are as follows;**

```
> verify.unique(4,"ID","CODE")
Number of duplicated combination ID + CODE  in R04 =  0

> verify.unique(5,"ID","NF_CODE")
Number of duplicated combination ID + NF_CODE  in R05 =  2
Duplicated primary key: 193170213102
Records with the above primary key
           ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH
96463 19317021        5       12      2 10     3 185 19317       2    1   1
96464 19317021        5       12      2 10     3 185 19317       2    1   1
      RESULT NF_CODE NF_QUANTITY NF_VALUE NF_INKIND_VALUE  Weight
96463      1    3102           5      600              NA 406.632
96464      1    3102           2     1600              NA 406.632
             pkey
96463 193170213102
96464 193170213102

Duplicated primary key: 454451012417
Records with the above primary key
            ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH
320074 45445101        5       33      2 10     8  11 45445      10    1   1
320075 45445101        5       33      2 10     8  11 45445      10    1   1
       RESULT NF_CODE NF_QUANTITY NF_VALUE NF_INKIND_VALUE  Weight
320074      1    2417          NA       65              NA 251.816
320075      1    2417          NA      500              NA 251.816
              pkey
320074 454451012417
320075 454451012417


> verify.unique(8,"PID","PRI_SEC")
Number of duplicated combination PID + PRI_SEC  in R08 =  0

> verify.unique(10,"PID","COL_4X")
Number of duplicated combination PID + COL_4X  in R10 =  0

> verify.unique(13,"PID","SEASONAL_CROP")
Number of duplicated combination PID + SEASONAL_CROP  in R13 =  1
Duplicated primary key: 1278906101  NA
Records with the above primary key
         ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH
65 12789061       13       11      2 10    10  92 12789       6    1   1
66 12789061       13       11      2 10    10  92 12789       6    1   1
   RESULT SER_NO_SEC_5_3 SEASONAL_CROP ACRES_5_3 ROOTS_5_3 PERCHS_5_3
65      1              1           NA         NA         2         NA
66      1              1           NA         NA         2         NA
   OUTPUT_5_3 INPUT_5_3 FERTILIZES        PID  Weight           pkey
65         NA        NA         NA 1278906101 181.709 1278906101  NA
66        450        NA         NA 1278906101 181.709 1278906101  NA
> verify.unique(15,"PID","NON_AGRI")
Number of duplicated combination PID + NON_AGRI  in R15 =  1
Duplicated primary key: 83173071010009
```

```
Records with the above primary key
           ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH
4931 83173071       15       72      2 10     9  14 83173       7    1   1
4932 83173071       15       72      2 10     9  14 83173       7    1   1
     RESULT SERIAL_5_4 NON_AGRI OUTPUT_5_4 INPUT_5_4 SUBSIDIES        PID
4931      1          1        9       5000        NA         NA 8317307101
4932      1          1        9       4500        NA         NA 8317307101
      Weight           pkey
4931 170.145 83173071010009
4932 170.145 83173071010009
```

- Summary

File	Record	To Do;	Remarks
All	Records with missing Key2	Drop	
R05	ID=19317021 and NF_CODE=3102 ID=45445101 and NF_CODE=2417	AS IS	
R13	PID=1278906101 and SEASONAL_CROP=NA	Drop	
R15	PID=8317307101 and NON_AGRI=9	AS IS	

```
# Dropped the records with primary key=NA.
> outfiles.old2<-outfiles
> d<-outfiles[[4]]
> dim(d)
[1] 815186     17
> d<-d[!is.na(d$CODE),]
> dim(d)
[1] 815185     17
> outfiles[[4]]<-d

> d<-outfiles[[8]]
> dim(d)
[1] 18594    19
> d<-d[!is.na(d$PRI_SEC),]
> dim(d)
[1] 18567    19
> outfiles[[8]]<-d

> d<-outfiles[[10]]
> dim(d)
[1] 4196   27
> d<-d[!is.na(d$COL_4X),]
> dim(d)
[1] 4173   27
> outfiles[[10]]<-d

> d<-outfiles[[13]]
> dim(d)
[1] 3968   22
> d<-d[!is.na(d$SEASONAL_CROP),]
> dim(d)
[1] 3958   22
> outfiles[[13]]<-d
```

```
> d<-outfiles[[15]]
> dim(d)
[1] 5700   19
> d<-d[!is.na(d$NON_AGRI),]
> dim(d)
[1] 5680   19
> outfiles[[15]]<-d


# R13: Resolved already.

> nrow(d[d$PID==1278906101,])
[1] 0
```

☐ **Foreign key: Referential integrity**

In case of the foreign key = ID

A corresponding ID should exist in R25.

✓ **The referential integrity was satisfied for all data sets.**

```
> R25<-outfiles[[25]]
> id.all<-R25$ID
> file.no<-c(4,5,7,9,11,12,14,16,18,20:25)
> for(j in file.no){
+ n<-sum(!is.element(outfiles[[j]]$ID,id.all))
+ cat("Number of isolated IDs of",Rnames[j],"= ",n,"¥n")
+ }
Number of isolated IDs of R04 =  0
Number of isolated IDs of R05 =  0
Number of isolated IDs of R07 =  0
Number of isolated IDs of R09 =  0
Number of isolated IDs of R11 =  0
Number of isolated IDs of R12 =  0
Number of isolated IDs of R14 =  0
Number of isolated IDs of R16 =  0
Number of isolated IDs of R18 =  0
Number of isolated IDs of R20 =  0
Number of isolated IDs of R21 =  0
Number of isolated IDs of R22 =  0
Number of isolated IDs of R23 =  0
Number of isolated IDs of R24 =  0
Number of isolated IDs of R25 =  0
```

In case of the foreign key = PID

A corresponding PID should exist in R01.

If not, all records within the household with the isolated foreign key PID as well as all household members within the household should be displayed, in order to make it easy to identify the causes of the errors and revise the errors.

✓ **The referential integrity was satisfied for all, as follows.**

```
> R01<-outfiles[[1]]
> pid.all<-R01$PID
> file.no<-c(1:3,6,8,10,13,15,17,19)
> for(j in file.no){
+ n<-sum(!is.element(outfiles[[j]]$PID,pid.all))
+ cat("Number of isolated PIDs of",Rnames[j],"= ",n,"¥n")
+ if(n>0){
+ d<-outfiles[[j]]
+ pid.e<-d[!is.element(d$PID,pid.all),"PID"]
+ id.e<-substr(pid.e,1,15)
+ for(k in 1:n){
+ cat("Isolated foreign key: PID=",pid.e[k],"¥n")
+ cat("Records of the household with ID=",id.e[k],"¥n")
+ print(d[d$ID==id.e[k],])
+ cat("Records of household members with ID=",id.e[k],"¥n")
+ print(R01[R01$ID==id.e[k],])
+ }
+ }
+ }
Number of isolated PIDs of R01 =  0
Number of isolated PIDs of R02 =  0
Number of isolated PIDs of R03 =  0
Number of isolated PIDs of R06 =  0
Number of isolated PIDs of R08 =  0
Number of isolated PIDs of R10 =  0
Number of isolated PIDs of R13 =  0
Number of isolated PIDs of R15 =  0
Number of isolated PIDs of R17 =  0
Number of isolated PIDs of R19 =  0
```

```
# Number of records and variables of data files

> for(j in 1:25){
+ cat(Rnames[j],":",formatC(nrow(outfiles[[j]]),width=7),",",
+ formatC(ncol(outfiles[[j]]),width=3),":  ",
+ filenames[j],"¥n",sep="")
+ }
R01:  85080, 30:  SEC_1_DEMOGRAPHIC
R02:  22029, 25:  SEC_2_SCHOOL_EDUCATION
R03:  80534, 30:  SEC_3_HEALTH
R04: 815185, 17:  SEC_4_1_FOOD_EXP
R05: 612085, 17:  SEC_4_2_NONFOOD
R06:    260, 28:  SEC_4_3_BOARDERS
R07:  20540, 14:  SEC_4_3_IS_BOADERS
R08:  18567, 19:  SEC_5_1_EMP_INCOME
R09:  20540, 14:  SEC_5_1_IS_EMP_INCOME
R10:   4173, 27:  SEC_5_2_AGRI_INCOME
R11:  20540, 14:  SEC_5_2_IS_AGRI_INCOME
R12:  20540, 14:  SEC_5_3_IS_OTHER_AGRI_INCOME
R13:   3958, 22:  SEC_5_3_OTHER_AGRI_INCOME
R14:  20540, 14:  SEC_5_4_IS_NON_AGRI_INCOME
R15:   5680, 19:  SEC_5_4_NON_AGRI_INCOME
R16:  20540, 14:  SEC_5_5_1_IS_OTHER_INCOME
R17:  12602, 27:  SEC_5_5_1_OTHER_INCOME
R18:  20540, 14:  SEC_5_5_2_IS_WINDFALL_INCOME
R19:   8575, 25:  SEC_5_5_2_WINDFALL_INCOME
R20:  20540, 31:  SEC_6_B_DEBTNESS
R21:  20540, 38:  SEC_6A_DURABLE_GOODS
R22:  20540, 50:  SEC_7_BASIC_FACILITIES
R23:  20540, 40:  SEC_8_HOUSING
R24:  20540, 42:  SEC_9_LAND_ANIMAL
R25:  20540, 15:  WEIGHT_INCOME_EXPENDITURE
```

Relationship between R01 and R02

- The members of R02 belong R01. Therefore, R02 was merged with R01 in order to get demographic information.

```
> d<-merge(outfiles[[01]],outfiles[[02]][,13:24],by="PID",all.y=T)
> dim(d)
[1] 22029    41
> colnames(d)
 [1] "PID"                "ID"                 "REC_TYPE"
 [4] "DISTRICT"           "SECTOR"             "DS"
 [7] "MONTH"              "PSU"                "AO"
[10] "SNUMBER"            "HHNO"               "NHH"
[13] "RESULT"             "PERSON_SERIAL_NO"   "RELATIONSHIP"
[16] "SEX"                "BIRTH_YEAR"         "BIRTH_MONTH"
[19] "AGE"                "ETHNICITY"          "RELIGION"
[22] "MARITAL_STATUS"     "CURR_EDUC"          "EDUCATION"
[25] "IS_ACTIVE"          "MAIN_ACTIVITY"      "MAIN_OCCUPATION"
[28] "INDUSTRY"           "EMPLOYMENT_STATUS"  "Weight"
[31] "R2_PERSON_SERIAL"   "R2_SCHOOL_EDUCATION" "TYPE_OF_SCHOOL"
[34] "GRADE_THIS_YEAR"    "GRADE_LAST_YEAR"    "DISTANCE"
[37] "TRANSPORT_MEDIUM"   "TIME_TO_SCHOOL"     "NOSCHOOLING_REASON"
[40] "REASON_NOT_GOING"   "WHEN_STOP_SCHOOLING"
```

- The target of R02 is persons aged 5-19 years old. The next results are within allowable range.

```
> range(d$AGE)
[1]  4 20
```

5.4 Sample allocation

- Strata of HIES 2012 are district (25) and sector (3).
- PSUs are the census blocks selected for the survey. Here, we assume that the variable of A0 is a block identification number.

```
> R25<-outfiles[[25]]
> R25.old<-R25
> length(unique(R25$A0))
[1] 2507
```

✓ Generated data set PSU at psu level consist of DISTRICT, SECTOR and A0.

```
> PSU<-R25[!duplicated(R25$A0),c("MONTH","DISTRICT","SECTOR","A0")]
> dim(PSU)
[1] 2507    4
> head(PSU)
     MONTH DISTRICT SECTOR    A0
1        7       11      1 10002
1211     1       11      1 10022
581     10       11      1 10041
1739     4       11      1 10061
996     12       11      1 10082
2021     6       11      1 10103
```

- Number of psu selected by district and sector;

```
> dist.name<-c("11 Colombo","12 Gampaha","13 Kalutara","21 Kandy","22 Matale",
+ "23 Nuwara eliya","31 Galle","32 Matara","33 Hambantota","41 Jaffna","42 Mannar",
+ "43 Vavuniya","44 Mullaitivu","45 Kilinochchi","51 Batticaloa","52 Ampara",
+ "53 Trincomalee","61 Kurunegala","62 Puttalama","71 Anuradhapura","72 Polonnaruwa",
+ "81 Badulla","82 Moneragala","91 Ratnapura","92 Kegalle")
> t<-addmargins(table(PSU$DISTRICT,PSU$SECTOR))
> rownames(t)<-c(dist.name,"Sri Lanka")
> colnames(t)<-c("Urban","Rural","Estate","Total")
> t
```

	Urban	Rural	Estate	Total
11 Colombo	183	100	12	295
12 Gampaha	72	169	5	246
13 Kalutara	32	107	21	160
21 Kandy	27	73	22	122
22 Matale	15	41	10	66
23 Nuwara eliya	15	41	42	98
31 Galle	37	98	14	149
32 Matara	32	87	15	134
33 Hambantota	16	71	1	88
41 Jaffna	25	50	0	75
42 Mannar	12	22	0	34
43 Vavuniya	11	21	0	32
44 Mullaitivu	0	32	0	32
45 Kilinochchi	0	40	0	40
51 Batticaloa	32	50	0	82
52 Ampara	31	57	0	88
53 Trincomalee	18	39	0	57
61 Kurunegala	15	112	8	135
62 Puttalama	17	56	3	76
71 Anuradhapura	16	66	3	85
72 Polonnaruwa	0	67	3	70
81 Badulla	15	47	23	85

```
  82 Moneragala        0    63     10    73
  91 Ratnapura        20    60     20   100
  92 Kegalle           8    60     17    85
  Sri Lanka          649  1629    229  2507
>
```

- SSU: 10 housing units were selected for each psu.

✓ Generated ssuid as the combination of AO and SNUMBER

```
> R25$ssuid<-R25$AO*100+R25$SNUMBER
> length(unique(R25$ssuid))
[1] 20413

# Number of SSU within PSU
> addmargins(table(tapply(R25$ssuid,R25$AO,function(x) length(unique(x)))))
   3    4    5    6    7    8    9   10  Sum
   2    4   56  203  525  643  666  408 2507

# Number of household within SSU
> table(tapply(R25$ID,R25$ssuid,length))
    1     2     3     4
20294   112     6     1
```

- According to the final report of the survey, samples were allocated as in the table 1.1 and 1.2.

Table1.1: Sample allocation and completion by district

District	Housing units		Households responded
	Selected	Responded	
Sri Lanka	**25,319**	**20,411**	**20,540**
Colombo	3,000	2,156	2,166
Gampaha	2,498	1,940	1,948
Kalutara	1,598	1,230	1,244
Kandy	1,240	973	983
Matale	660	595	604
Nuwara Eliya	990	785	791
Galle	1,510	1,294	1,299
Matara	1,349	1,141	1,148
Hambantota	890	731	735
Jaffna	750	633	643
Mannar	350	287	290
Vavunia	330	281	282
Mullaitivu	330	263	263
Kilinochchi	400	325	325
Batticaloa	820	697	698
Ampara	887	738	739
Trincomalee	590	501	502
Kurunegala	1,350	1,146	1,157
Puttalam	780	649	654
Anuradhapura	850	743	743
Polonnaruwa	697	524	526
Badulla	850	715	731
Moneragala	750	576	576
Ratnapura	1,000	822	825
Kegalle	850	666	668

Table 1.2: Sample allocation and completion by sector

Sector	Housing units		Households responded
	Selected	Responded	
Sri Lanka	**25,319**	**20,411**	**20,540**
Urban	6,597	5,117	5,172
Rural	16,315	13,456	13,515
Estate	2,293	1,838	1,853

- The numbers of sample collected were as follows;

```
 # The number of samples by district and survey month

> t1<-addmargins(table(R25$DISTRICT,R25$MONTH))
> rownames(t1)<-c(dist.name,"Sri Lanka")
> t1[c(26,1:25),]
```

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
Sri Lanka	1793	1648	1616	1120	1746	1646	1995	1784	1652	1906	1773	1861	20540
11 Colombo	173	163	186	116	160	165	208	196	169	214	185	231	2166
12 Gampaha	163	166	151	115	138	182	185	161	158	193	149	187	1948
13 Kalutara	113	100	91	61	122	100	111	127	92	100	118	109	1244
21 Kandy	69	75	90	49	77	82	104	81	92	90	77	97	983
22 Matale	54	44	45	35	47	46	68	45	45	63	48	64	604
23 Nuwara eliya	54	65	67	31	80	63	66	82	65	63	79	76	791
31 Galle	93	107	102	78	102	104	136	104	105	142	106	120	1299
32 Matara	118	91	99	49	112	93	95	116	93	91	112	79	1148
33 Hambantota	68	61	60	49	58	56	78	54	52	79	55	65	735
41 Jaffna	68	53	48	19	63	61	51	68	51	50	65	46	643
42 Mannar	18	26	27	19	22	19	26	18	25	27	27	36	290
43 Vavuniya	27	18	20	12	37	13	16	27	30	29	27	26	282
44 Mullaitivu	33	20	16	9	24	18	27	25	18	26	26	21	263
45 Kilinochchi	27	23	34	7	40	25	23	36	34	21	32	23	325
51 Batticaloa	73	52	38	50	61	62	67	51	52	73	63	56	698
52 Ampara	66	61	36	74	57	73	76	63	70	54	47	62	739
53 Trincomalee	41	42	45	27	43	45	43	30	34	54	50	48	502
61 Kurunegala	102	92	93	77	85	98	125	85	89	113	89	109	1157
62 Puttalama	33	59	53	38	62	51	63	57	54	65	56	63	654
71 Anuradhapura	89	69	62	27	69	40	88	62	63	50	78	46	743
72 Polonnaruwa	55	34	39	34	36	37	41	66	46	44	49	45	526
81 Badulla	73	65	57	26	79	57	73	62	56	53	67	63	731
82 Moneragala	53	42	39	35	49	36	64	44	46	68	51	49	576
91 Ratnapura	69	65	64	49	62	65	88	71	65	84	65	78	825
92 Kegalle	61	55	54	34	61	55	73	53	48	60	52	62	668

```
 # The number of samples by sector and survey month

> t2<-addmargins(table(R25$SECTOR,R25$MONTH))
> rownames(t2)<-c("Urban","Rural","Estate","Sri Lanka")
> t2[c(4,1:3),]
```

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
Sri Lanka	1793	1648	1616	1120	1746	1646	1995	1784	1652	1906	1773	1861	20540
Urban	477	448	390	284	391	423	515	423	455	495	408	463	5172
Rural	1190	1102	1060	760	1220	1081	1278	1148	1042	1224	1180	1230	13515
Estate	126	98	166	76	135	142	202	213	155	187	185	168	1853

Remarks:

According to the delegates from Sri Lanka for the International Workshop 2014,

"HIES is conducted on a week base questionnaire in 52 weeks grouped in 12 consecutive monthly rounds to capture the seasonal variation of household income, consumption and expenditure and living conditions."

5.5 Population estimates

The estimated number of total households and total household members are as follows;

Un-weighted and weighted number of households and household members

	Un-weighted number	Weighted number
Number of households	20,540	5,121,354
Number of household members	85,080	20,986,629
Household size	4.14	4.10

```
> dim(R25)
[1] 20540    15
> sum(R25$Weight)
[1] 5121354
> dim(R01)
[1] 85080    30
> sum(R01$Weight)
[1] 20986629
> nrow(R01)/nrow(R25)
[1] 4.142162
> sum(R01$Weight)/sum(R25$Weight)
[1] 4.097867
```

6. Household Income

6.1 Definition of household income

- **Household income**

According to the final report of the survey, household income is defined as follows;

"The Household Income and Expenditure Survey (HIES) defines the household income as the total income received by all the members of the household, either in cash (monetary income) or in kind (non- monetary income) from all the sources.

The household income sources are investigated and reported under the following 7 main categories in the survey questionnaire.

1. Wages and salaries

2. Agricultural activities (seasonal crops)

3. Agricultural activities (non-seasonal crops)

4. Non-agricultural activities

5. Other cash receipts such as pensions, dividends, rents, interest amounts received from various types of savings, current remittances and local and foreign transfers

6. Income by chance or adhoc gains such as compensations, lottery wins etc. and sales of goods and savings.

7. Income in-kind

Obtaining income information from individuals and households is a difficult task as many people reluctant to disclose many of them and often under report. Therefore to ease the field work, which is the most challenging activity of the survey, and to gather more accurate and reliable data, income information of the household members were collected individually in all the 6 income sections (income in-kind collects at household level) tactically arranged in the HIES questionnaire.

The income in kind is mostly the estimated values of the household consumed items such as home grown fruits and vegetables, firewood collected etc. and estimated rental values of owner occupied housing units gathered in the consumption expenditure section of the survey questionnaire.

An extra column has been provided at household level in the expenditure section to record estimated values of household consumed goods and services received fully or partially free of charge or purchased on price concessions provided by employers etc. This information of income in-kind along with the monitory income collected in the 6 income sections are aggregated and summarized in order to estimate, average monthly household income (mean household income), median household income, per capita household income, income receivers' household income and various other indexes such as, Gini coefficients, shares of household income etc. at many different geographic and social domain levels."

And the some results of estimated income in the final report are as follows;

Table 2.1: Mean and median monthly household income by sector, province and district – 2012/13

Sector / Province / District	Mean household income (Rs.)	Median household income (Rs.)
Sri Lanka	**45,878**	**30,814**
Sector		
Urban	69,880	42,267
Rural	41,478	29,376
Estate	30,220	24,087

- **Income receivers' income**

Definition of income receiver and income receivers' income;
"In order to obtain the income receivers income, the HIES records the household income, received from all the sources, by source and person. The income receivers income is the sum of the income values recorded in each income section arranged according to the income source in the survey questionnaire.

If a person is less than 10 years old or aggregated total monthly income is less than Rs. 250, then he was not defined as an income receiver by the HIES 2012/13 and such income values were added to the income of the heads of the respective households. It is obvious that the household income is so built on the income of the income receivers in the household and thus the total household income of the country is equal to the sum of the income values recorded by the total income receivers at all of the source sections of the survey questionnaire."

Table 2.5: Mean and median monthly household per capita income by sector, province and district – 2012/13

Sector / Province / District	Mean Per capita income (Rs.)	Median Per capita Income (Rs.)
Sri Lanka	**11,819**	**7,881**
Sector		
Urban	17,262	10,420
Rural	10,843	7,657
Estate	7,100	5,503

Note: It is obvious that non-monetary income is not included in income receiver's income.

The results of income receivers in the final report are as follows;

Table 2.7: Income receivers mean and median monthly income by sector

Sector/Province	Mean income (Rs.)	Median income (Rs.)
Sri Lanka	**25,963**	**16,667**
Sector		
Urban	38,078	21,808
Rural	23,878	16,049
Estate	14,762	11,171

Table 2.8: Average number of income receivers and household size by sector

Sector/Province	No. of income receivers	Household size
Sri Lanka	**1.8**	**3.9**
Sector		
Urban	1.8	4.0
Rural	1.7	3.8
Estate	2.1	4.3

6.2. Process of estimating household income

The data sets R01, R04, R05, R08, R10, R13, R15, R17 and R19 are used for estimating household income.

The data files to be used for estimating household income;

Type of income		Data file	Reference period	Unit of records
Monetary income	Wage	R08	Wages and allowances for one month, Bonus for 12 month	Individual, Occupation (Pri/Sec)
	Agricultural (Seasonal crops)	R10	12 months,	Individual, Seasonal crop code
	Agricultural (Non-seasonal crops)	R13	One month	Individual, Non-seasonal crop code
	Non-agricultural	R15	One month	Individual, Economic activity code
	Other income	R17	6 items for one month, Remittance for 12 months	Individual
	Windfall	R19	12 months	Individual
Non-monetary income	Income in kind	R04 and R05	One week: CODE<2000 6 months: CODE>3000 & CODE<3300 12 months: CODE>3300 & CODE<3400 | CODE>3500 One month: otherwise	Household, Item code

The process of estimating household income is as follows;

Preparing data files:

1. To filter out records without RESULT=1 (Completed).
   (No such record was found in the given data set.)

2. To filter out records with person number >40.
   (Such records were found in R01 and R19.)

3. To eliminate records of R04 and R05with duplicated item codes. Item code is unique within the household due to the structure of the questionnaire.
   (No such record was found in the given data set.)

4. To verify records with NA in the variable of person number and activity code.

Generating the variable of monthly monetary income

5. To calculate monthly income for each record, that is, for each person and for each activity in R08, R10, R13, R15, R17 and R19.
   Note: The variable of output includes the estimated total value of the total output of the product sold or to be sold plus consumed or to be consumed. That is, output means the estimated value in cash and in kind.

6. To replace the income in each record with 0 if it is less than 0. Income by person and by activity should be non-negative as in the HIES 2009/10.

Data file	Variable of monthly income	Definition of monthly monetary income	Remarks
R08	wage.inc	WAGES_SALARIES+ALLOWANCES+ BONUS/12	
R10	crop.inc	(COL_8X1-COL_9X-COL_10X1)/12	Replace crop.inc=0 if crop.inc<0
R13	livestock.inc	OUTPUT_5_3－INPUT_5_3	Replace livestock.inc=0 if

			livestock.inc<0
R15	nonagri.inc	OUTPUT_5_4－INPUT_5_4	Replace nonagri.inc=0 if nonagri.inc<0
R17	other.inc	PENSION+DISABILITY_AND_RELIEF+ PROPERTY_RENTS+SAMURDHI+ DIVIDENTS+ELDER+SCHOLAR+SC_LUNCH+ THREEPOSHA+(OTHER_INCOME+ INCOME_FORING+INCOME_LOCAL)/12	
R19	windfall.inc	(LOANS+PAWNING_SELLING+ DEPOSITS_PENSIONS_EPF+WELFARE_SOCITY+ SEETTU_DEBITS+MEDICAL+INSUARANCE+ LOTTERY+FOODALLOWENCE+DIASTER)/12	

Part I: Income receivers' income

Data files to be used for estimating income receivers' income

Income source	Data file	Variables to be used	Unit of records
Wage	R08	wage.inc	Individual, Occupation (Pri/Sec)
Agricultural (Seasonal crops)	R10	crop.inc	Individual, Seasonal crop code
Agricultural (Non-seasonal crops)	R13	livestock.inc	Individual, Non-seasonal crop code
Non-agricultural	R15	nonagri.inc	Individual, Economic activity code
Other income	R17	other.inc	Individual
Windfall	R19	windfall.inc	Individual
Individual characteristics	R01	AGE, RELATIONSHIP	Individual

If a person is less than 10 years old or his/her aggregated total monthly income is less than Rs. 250, then he/she was not defined as an income receiver by the HIES 2012/13 and such income values were added to the income of the heads of the respective households.

Note: It is obvious that non-monetary income is not included in income receiver's income.

Generating individual-level income data file

7. To collapse income data files R08, R10, R13 and R15 at individual level

8. To merge all individual-level income data files R08, R10, R13, R15, R17 and R19, as well as individual characteristics file R01 by using PID (individual identifier).

9. To generate the variable of monthly total income.

Transferring the income of a person with age less than 10 years or total income less than Rs. 250 to the head of the respective households

10. If a person is less than 10 years old or his/her aggregated total monthly income is less than Rs. 250 and his/her relationship is not a head of household, to add such income values to the income of the heads of the respective households.

Defining the income receivers

11. To select records with age >=10 and total income >=250, or relationship=1. Household heads are qualified as income receivers even if the income of the head is none or less than 250.
    (Justification for including household head with income=0 is needed.)

Remarks: The concept of income receiver is slightly vague in connection with whether a head with income < 250 is regarded as an income receiver, and whether a household with no income receiver is possible.

Part II: Household income in cash and in kind at household level

Creating data file of household monetary income at household level

12. To aggregate the above monthly income by household, and create data file with household-level records from R08, R10, R13, R15, R17 and R19.

13. To merge the above data files using key of household identifier.

14. To generate the variable of the monthly total monetary household income.

Non-monetary income (income in kind)

Consumption of own production will be captured both at consumption side in section 4 of the questionnaire and production side in section 5. The former and the latter should be equivalent on a conceptual basis, while they are not the same in practice. The next is the treatment for rice and the other products taken by DCS in the HIES 2009/10.
(Justification for the different treatment is needed.)

For rice (paddy),
to compare the consumption of own production (INKIND_VALUE) of rice in section 4 with the output of paddy consumed by the household (HH_CONSUMPTION) in section 5 at household level, and take the larger one as in-kind income of rice.

15. To aggregate (INKIND_VALUE*(30/7)) of R04 with CODE=<4 by household.

16. To aggregate (HH_CONSUMPTION/12) of R10 with SEAS_CROPS_CODE=1 by household.

17. To take the larger one out of the above two as monthly monetary income of rice (inkind.rice) at household level.

For other products,
to take the consumption of own production (INKIND_VALUE of R04 and NF_INKIND_VALUE of R05) in section 4 as in-kind income.

18. To convert INKIND_VALUE of R04 and NF_INKIND_VALUE of R05 to monthly variable (inkind04 and inkind05).

19. To aggregate the above by household.

Data file	Variable of monthly income	Definition	Created data file at household level
R04	inkind.rice	max (a, b) where, a) Sum of (INKIND_VALUE*(30/7)) of R04 with CODE=<4 within the household b) Sum of (HH_CONSUMPTION/12) of R10 with SEAS_CROPS_CODE=1 within the household	
R04	inkind04	Sum of INKIND_VALUE*(30/7) (CODE>=5) within the household	

R05	inkind05	Sum of the followings within the household; ● NF_INKIND_VALUE/6 if NF_CODE>3000 & NF_CODE<3300, ● NF_INKIND_VALUE/12 if (NF_CODE>3300 & NF_CODE<3400) or NF_CODE>3500, ● NF_INKIND_VALUE otherwise	

Generating the variables of non-monetary income and total income at household level

20. To merge the above three files using ID (household identifier).

21. To generate the variable of non-monetary income by adding inkind.rice, inkind04 and inkind05.

22. To generate the variable of monthly total income by adding monetary income and non-monetary income.

6.3 Generating the variable of monthly monetary income

```
> R08<- outfiles[[08]]
> R10<- outfiles[[10]]
> R13<- outfiles[[13]]
> R15<- outfiles[[15]]
> R17<- outfiles[[17]]
> R19<- outfiles[[19]]
> R04<- outfiles[[04]]
> R05<- outfiles[[05]]
```

✓ Checked that the following unit variables have no missing value NA.

File	Unit Variable	Item	Errors
R08	PRI_SEC	1 Main occupation	27NAs
		2 Secondary occupation	
R10	COL_4X	1 Paddy	23NAs
		2 Chillies	
		3 Onions	
		4 Vegetables	
		5 Cereals	
		6 Yams	
		7 Tobacco	
		9 Other	
R13	SEASONAL_CROP	1 Tea, Rubber	10NAs and 6 out-of-range
		2 Coconuts	
		3 Coffee, Pepper Betel etc	
		4 Banana / Fruits	
		5 Meat	
		6 Fish	
		7 Eggs	
		8 Milk	
		9 Other food items	
		10 Horticulture	
		99 Other	
R15	NON_AGRI	1 Mining & Quarrying.	20NAs and 31 out-of-range
		2 Manufacturing	
		3Construction	
		4 Trade	
		5 Transport	
		6 Guest house, restaurants, bars/hotels etc	

		9 Other services	
R17	SERIAL_5_5_1	Person number 1-40	one records with person number=41
R19	PERSON_5_5_2	Person number 1-40	None

```
> addmargins(table(R08$PRI_SEC,useNA="ifany"))
    1     2  <NA>   Sum
18353   214    27 18594

> addmargins(table(R10$COL_4X,useNA="ifany"))
   1    2    3    4    5    6    7    9 <NA>  Sum
2759   88   82  700  364   67   21   92   23 4196

> addmargins(table(R13$SEASONAL_CROP,useNA="ifany"))
   1    2    3    4    5    6    7    8    9   10   16   19   24   99 <NA>  Sum
1119 1006  469  409   54  246  160  280   40   14    1    4    1  155   10 3968

> addmargins(table(R15$NON_AGRI,useNA="ifany") )
   0    1    2    3    4    5    6    7    9 <NA>  Sum
   1  162  962  134 2139 1024  122   30 1106   20 5700

> addmargins(table(R17$SERIAL_5_5_1,useNA="ifany"))
   1    2    3    4    5    6    7    8    9   10   11   41   Sum
8160 1612 1009  847  544  272  103   35   12    5    2    1 12602

> addmargins(table(R19$PERSON_5_5_2,useNA="ifany"))
   1    2    3    4    5    6    7    8    9   11   12  Sum
5215 2435  581  222   81   24    9    4    2    1    1 8575
```

 # Removed records with errors by setting drop=1

```
> R08$drop<-ifelse(is.na(R08$PRI_SEC),1,0)
> R10$drop<-ifelse(is.na(R10$COL_4X),1,0)
> R13$drop<-ifelse(is.na(R13$SEASONAL_CROP),1,0)
> R13$drop<-ifelse(R13$SEASONAL_CROP>10&R13$SEASONAL_CROP<99,1,R13$drop)
> R15$drop<-ifelse(is.na(R15$NON_AGRI),1,0)
> R15$drop<-ifelse(R15$NON_AGRI==0| R15$NON_AGRI==7,1,R13$drop)
> R17$drop<-ifelse(R17$SERIAL_5_5_1>40,1,0)
> R19$drop<-ifelse(R19$PERSON_5_5_2>40,1,0)
```

 # Replaced NA of the income variables with 0 in the above data sets

```
> R08[is.na(R08)]<-0
> R10[is.na(R10)]<-0
> R13[is.na(R13)]<-0
> R15[is.na(R15)]<-0
> R17[is.na(R17)]<-0
```

```
> R19[is.na(R19)]<-0
```

✓ **Generated the monthly income variable for each data set.**

```
== R08: Employment income ==
> R08$wage.inc<-R08$WAGES_SALARIES+R08$ALLOWENCES+R08$BONUS/12
> head(R08[c(18,14:17,21)])
        PID PRI_SEC WAGES_SALARIES ALLOWENCES BONUS wage.inc
1 1000201103       1          15000          0     0    15000
2 1000203101       1          16800          0     0    16800
3 1000205104       1          14400          0     0    14400
4 1000206103       1          12000          0     0    12000
5 1000208101       1          14665       5850     0    20515
6 1000209101       1          12000          0     0    12000
```

```
== R10: Agricultural income (Paddy, other seasonal crops) ==
> R10$crop.inc<-(R10$COL_8X1-R10$COL_9X-R10$COL_10X1)/12
> table(R10$crop.inc<0)
FALSE  TRUE
 3183  1013
> R10$crop.inc<-ifelse(R10$crop.inc<0,0,R10$crop.inc)
> head(R10[c(26,14,19,20,22,29)])
        PID COL_4X COL_8X1 COL_9X COL_10X1  crop.inc
1 1093510101      9   28800  13000        0 1316.6667
2 1112701101      4    3200    700        0  208.3333
3 1112701101      6    2400      0        0  200.0000
4 1119010101      1   16380   6300    16380    0.0000
5 1202302103      4   10000   5200        0  400.0000
6 1202303101      4    5000      0        0  416.6667
```

```
== R13: Other agricultural activities/ Livestocks ==
> R13$livestock.inc<-R13$OUTPUT_5_3-R13$INPUT_5_3
> table(R13$livestock.inc<0)
FALSE  TRUE
 3879    89
> R13["livestock.inc"]<-ifelse(R13$livestock.inc<0,0,R13$livestock.inc)
> head(R13[,c(21,14,18,19,24)])
         PID SEASONAL_CROP OUTPUT_5_3 INPUT_5_3 livestock.inc
1 1093505103             8      48000     22000         26000
2 1105802101             7       3600      1200          2400
3 1105802101             4        400         0           400
4 1112701101             2        900       420           480
5 1112701101             4       1200         0          1200
6 1113804101             2       4000         0          4000
```

```
== R15: Non-agricultural activities ==
> R15$nonagri.inc<-R15$OUTPUT_5_4-R15$INPUT_5_4
> table(R15$nonagri.inc<0)
```

```
FALSE  TRUE
 5581   119
> R15$nonagri.inc<-ifelse(R15$nonagri.inc<0,0,R15$nonagri.inc)
> head(R15[c(18,14:16,21)])
         PID NON_AGRI OUTPUT_5_4 INPUT_5_4 nonagri.inc
1 1000201102        2      18000      7500       10500
2 1000204102        4      14000      6500        7500
3 1000205101        4       9600         0        9600
4 1000205102        4       4800         0        4800
5 1000206103        4      10000      4000        6000
6 1000207101        5      22400     14000        8400
```

```
  == R17: Other income ==
> R17$other.inc<-rowSums(R17[,14:22])+rowSums(R17[,23:25])/12
> head(R17[c(26,14:25,29)])
         PID PENSION DISABILITY_AND_RELIEF PROPERTY_RENTS SAMURDHI DIVIDENDS ELDER SCHOLAR
1 1000205102       0                    0              0        0         0     0       0
2 1000206104       0                    0              0        0         0     0       0
3 1000209104       0                    0              0        0         0     0       0
4 1000210103       0                    0              0        0         0     0       0
5 1002201101       0                    0              0        0         0     0       0
6 1002202104       0                    0              0        0         0     0       0
  SC_LUNCH THREEPOSHA OTHER_INCOME INCOME_FORIGN INCOME_LOCAL other.inc
1        0          0            0         30000            0  2500.000
2      600          0            0             0            0   600.000
3      600          0            0             0            0   600.000
4      600          0            0             0            0   600.000
5        0          0         6000             0            0   500.000
6        0          0            0             0        32000  2666.667
```

```
  == R19: Windfall income ==
> R19$windfall.inc<-rowSums(R19[,14:23])/12
> head(R19[c(24,14:23,27)])
         PID  LOANS PAWNING_SELLING DEPOSITS_PENSIONS_EPF WELFARE_SOCITY SEETTU_DEBITS MEDICAL
1 1000204101      0           35000                     0              0          7500       0
2 1000205104 150000               0                     0              0             0       0
3 1000205105      0          200000                     0              0             0       0
4 1000206101      0          100000                     0              0             0       0
5 1000208101 200000               0                     0              0             0       0
6 1000208102      0           14000                     0              0             0       0
  INSUARANCE LOTTERY FOODALLOWENCE DIASTER windfall.inc
1          0       0             0       0     3541.667
2          0       0             0       0    12500.000
3          0       0             0       0    16666.667
4          0     600             0       0     8383.333
5          0       0             0       0    16666.667
6          0       0             0       0     1166.667
```

```
  # Updated outfiles
  > outfiles.old1<-outfiles

  > outfiles[[8]]<-R08

  > outfiles[[10]]<-R10

  > outfiles[[13]]<-R13

  > outfiles[[15]]<-R15
```

```
> outfiles[[17]]<-R17
> outfiles[[19]]<-R19
```

For reference:

Sum of monthly income in each data set.

File	No. of records	Variable of monthly	Sum of the variable	Sum of the variable (weighted)	Weighted average income
R08	18,594	wage.inc	335,408,533	82,612,870,981	16,131.1
R10	4,196	crop.inc	14,162,048	3,709,104,607	724.2
R13	3,968	livestock.inc	76,676,818	21,513,323,868	4,200.7
R15	5,700	nonagri.inc	155,670,335	40,488,764,787	7,905.9
R17	12,602	other.inc	105,050,749	26,759,575,669	5,225.1
R19	8,575	windfall.inc	102,481,079	24,423,182,615	4,768.9
		Total	789,449,561	199,506,822,526	38,955.9

Un-weighted sum of the variables

```
> t<-NULL
> t<-c(t,sum(subset(R08,drop==0)$wage.inc))
> t<-c(t,sum(subset(R10,drop==0)$crop.inc))
> t<-c(t,sum(subset(R13,drop==0)$livestock.inc))
> t<-c(t,sum(subset(R15,drop==0)$nonagri.inc))
> t<-c(t,sum(subset(R17,drop==0)$other.inc))
> t<-c(t,sum(subset(R19,drop==0)$windfall.inc))
> t<-c(t,sum(t))
> names(t)<-c("wage","crop","livestock","nonagri","other","windfall","Total")
> t
     wage      crop livestock   nonagri     other  windfall     Total
335408533  14162048  76676818 155670335 105050749 102481079 789449561
```

Weighted sum of the variables

```
> t<-with(subset(R08,drop==0),sum(wage.inc*Weight))
> t<-c(t,with(subset(R10,drop==0),sum(crop.inc*Weight)))
> t<-c(t,with(subset(R13,drop==0),sum(livestock.inc*Weight)))
> t<-c(t,with(subset(R15,drop==0),sum(nonagri.inc*Weight)))
> t<-c(t,with(subset(R17,drop==0),sum(other.inc*Weight)))
> t<-c(t,with(subset(R19,drop==0),sum(windfall.inc*Weight)))
> t<-c(t,sum(t))
> names(t)<-c("wage","crop","livestock","nonagri","other","windfall","Total")
> t
       wage         crop    livestock      nonagri        other     windfall        Total
 82612870981   3709104607  21513323868  40488764787  26759575669  24423182615 199506822526
```

Weighted average income per household **(monetary income)**

```
> round(t/sum(R25$Weight),1)
     wage      crop livestock   nonagri     other  windfall     Total
  16131.1     724.2    4200.7    7905.9    5225.1    4768.9   38955.9
```

```
**********************************************************************

 # R08: Average monthly income per household from paid employment
> t<-addmargins(with(subset(R08,drop==0),tapply(wage.inc*Weight,PRI_SEC,sum)/sum(R25$Weight)))
> names(t)<-c("Main occupation","Secondary occupation","Total")
> round(t[c(3,1,2)],1)
              Total      Main occupation Secondary occupation
            16131.1              16028.6                102.4



 # R10: Average monthly income per household from agricultural activities
> t<-addmargins(with(subset(R10,drop==0),tapply(crop.inc*Weight,COL_4X,sum)/sum(R25$Weight)))
> names(t)<-c("1 Paddy","2 Chillies","3 Onions","4 Vegetables","5 Cereals",
+ "6 Yams","7 Tobacco","9 Other","Total")
> round(t[c(9,1:8)],1)
       Total      1 Paddy   2 Chillies     3 Onions 4 Vegetables    5 Cereals       6 Yams
       724.2        427.6         15.1         31.7        149.0         68.3         10.0
   7 Tobacco      9 Other
         8.1         14.4



 # R13: Average monthly income per household from other agricultural activities
> t<-addmargins(with(subset(R13,drop==0),tapply(livestock.inc*Weight,
+ SEASONAL_CROP,sum)/sum(R25$Weight)))
> names(t)<-c("1 Tea, Rubber","2 Coconuts","3 Coffee, Pepper Betel etc",
+ "4 Banana / Fruits","5 Meat","6 Fish","7 Eggs","8 Milk","9 Other food items",
+ "10 Horticulture","99 Other","Total")
> df<-data.frame(Code=names(t),Average=round(t,1),row.names=NULL)
> df[c(12,1:11),]
                         Code Average
12                      Total  4200.7
1               1 Tea, Rubber  1371.2
2                  2 Coconuts   747.5
3  3 Coffee, Pepper Betel etc   671.5
4           4 Banana / Fruits   503.7
5                      5 Meat    93.7
6                      6 Fish   198.7
7                      7 Eggs    45.8
8                      8 Milk   293.6
9          9 Other food items    48.4
10            10 Horticulture    12.3
11                  99 Other   214.3



  # R15: Average monthly income per household from non-agricultural activities
> t<-addmargins(with(subset(R15,drop==0),tapply(nonagri.inc*Weight,
+ NON_AGRI,sum)/sum(R25$Weight)))
> names(t)<-c("1 Mining & Quarrying","2 Manufacturing","3 Construction","4 Trade",
+ "5 Transport","6 Guest house, restaurants, bars/hotels etc","9 Other services",
+ "Total")
> df<-data.frame(Code=names(t),Average=round(t,1),row.names=NULL)
> df[c(8,1:7),]
                                      Code Average
8                                    Total  7905.9
1                     1 Mining & Quarrying   228.6
2                         2 Manufacturing  1628.7
3                          3 Construction   322.6
4                                 4 Trade  2976.1
5                               5 Transport  1271.3
6 6 Guest house, restaurants, bars/hotels etc   147.6
7                           9 Other services  1331.0
```

```
# R17: Average monthly income per household from other cash receipt
> r17.inc<-colSums(subset(R17,drop==0)[,14:22]*subset(R17,drop==0)$Weight)/sum(R25$Weight)
> r17.inc<-c(r17.inc,
+ colSums(subset(R17,drop==0)[,23:25]*subset(R17,drop==0)$Weight)/sum(R25$Weight)/12)
> r17.inc<-c(r17.inc,sum(r17.inc))
> names(r17.inc)[13]<-"Total"
> round(r17.inc,1)
              PENSION DISABILITY_AND_RELIEF        PROPERTY_RENTS              SAMURDHI
               1591.1                  12.0                 791.4                 135.9
            DIVIDENDS               ELDER               SCHOLAR             SC_LUNCH
                231.1                  19.7                  19.2                  31.1
          THREEPOSHA         OTHER_INCOME        INCOME_FORIGN        INCOME_LOCAL
                9.8                 356.1                1135.6                 892.2
               Total
              5225.1
```

```
 # R19: Average monthly income per household by chance or ad hoc gains
> r19.inc<-colSums(subset(R19,drop==0)[,14:23]*subset(R19,drop==0)$Weight)/sum(R25$Weight)/12
> r19.inc<-c(r19.inc,sum(r19.inc))
> names(r19.inc)[11]<-"Total"
> round(r19.inc,1)
               LOANS       PAWNING_SELLING DEPOSITS_PENSIONS_EPF        WELFARE_SOCITY
              1429.4                2598.4                 425.6                  25.2
       SEETTU_DEBITS               MEDICAL           INSUARANCE               LOTTERY
               236.9                  11.7                  25.3                   4.4
       FOODALLOWENCE               DIASTER                 Total
                 8.9                   3.2                4768.9
```

6.4 Creating individual-level income data file

Strategy for estimating income receivers' income;

1) To collapse income data files R08, R10, R13 and R15 at individual level
2) To merge all individual-level income data files R08, R10, R13, R15, R17 and R19 by using PID.
3) To generate the variable of monthly total income
4) If a person is less than 10 years old or his/her aggregated total monthly income is less than Rs. 250, to add such income values to the income of the heads of the respective households.

Data files to be used for estimating income receivers' income

Income source	Data file	Variables to be used	Unit of records
Wage	R08	wage.inc	Individual, Occupation (Pri/Sec)
Agricultural (Seasonal crops)	R10	crop.inc	Individual, Seasonal crop code
Agricultural (Non-seasonal crops)	R13	livestock.inc	Individual, Non-seasonal crop code
Non-agricultural	R15	nonagri.inc	Individual, Economic activity code
Other income	R17	other.inc	Individual
Windfall	R19	windfall.inc	Individual
Individual characteristics	R01	AGE, RELATIONSHIP	Individual

✓ Defined function CollapseBy2.

```
> CollapseBy2<-function(df=df,var=var,fac=fac,ID=NULL){
+ # To aggregate variables with the same factors in data frame
+ # df: data frame
+ # var: vector of variables to be aggregated (in position number or variable name)
+ # fac: factor variables (in position number or variable name)
+ # ID: combinations of factor levels to be matched, if specified
+ #
+ if(is.numeric(var)){ var<-colnames(df)[var] } # 変数位置は変数名に変換
+ if(is.numeric(fac)){ fac<-colnames(df)[fac] } # 同上
+ d<-data.frame(df[,fac])  # factor 変数からなるデーターフレーム
+ colnames(d)<-fac
+ if(missing(ID)) { ID<- subset(d,!duplicated(d)) } # ID のデフォルト設定
+ y<-data.frame(ID,row.names=NULL)  # ID からなるデータフレーム
+ colnames(y)<-fac
+ for(j in var){
+ t<-aggregate(df[,j],d,sum,na.rm=T)
+ colnames(t)<-c(fac,j)
+ y<-merge(y,t,by=fac,all.x=T)
+ }
+ y[is.na(y)]<-0
```

```
+ return (y)
+ }
```

✓ **Extracted ID, PID, WT, AGE, MONTH, BIRTH_YEAR, BIRTH_MONTH and RELATIONSHIP from R01, and created data frame pinc.**

```
> R01<-outfiles[[01]]
> pinc<-R01[R01$RESULT==1,c("ID","PID","Weight","AGE","MONTH","BIRTH_YEAR","BIRTH_MONTH",
+ "RELATIONSHIP","MARITAL_STATUS")]
> dim(pinc)
[1] 85080     9
> head(pinc)
        ID        PID  Weight AGE MONTH BIRTH_YEAR BIRTH_MONTH RELATIONSHIP MARITAL_STATUS
1 10002011 1000201106 256.313  10     7          2           7            5              1
2 10002011 1000201104 256.313  21     7         90           9            5              2
3 10002011 1000201102 256.313  58     7         53           8            2              2
4 10002011 1000201103 256.313  24     7         87           8            3              2
5 10002011 1000201105 256.313   2     7         10           3            5              1
6 10002011 1000201107 256.313   7     7          5           6            5              1
> table(is.na(pinc$AGE))
FALSE  TRUE
80525  4555
```

● Compute AGE from birth day if AGE is NA.

```
# Survey period: July 2012 to June 2013
> pinc$s<-ifelse(pinc$MONTH>=7,201200+pinc$MONTH,201300+pinc$MONTH)
# Birth year: 1914 to 2013
> pinc$b<-ifelse(pinc$BIRTH_YEAR<=13,(2000+pinc$BIRTH_YEAR)*100+pinc$BIRTH_MONTH,
+ (1900+pinc$BIRTH_YEAR)*100+pinc$BIRTH_MONTH)
> pinc$age<-floor((pinc$s-pinc$b)/100)
> table(is.na(pinc$AGE),is.na(pinc$age))
       FALSE  TRUE
  FALSE 80456    69
  TRUE      0  4555
```

✓ Replaced AGE with age if age is not NA.

```
> pinc$AGE<-ifelse(is.na(pinc$AGE)&!is.na(pinc$age),pinc$age,pinc$AGE)
> table(is.na(pinc$AGE))
FALSE  TRUE
80525  4555
```

● The variable of AGE is missing in 4,555 records. Here, we assume that their age is less than 10 years old.

```
> pinc.old<-pinc
> pinc<-pinc[,c(1:4,8)]
> head(pinc)
        ID        PID  Weight AGE RELATIONSHIP
1 10002011 1000201106 256.313  10            5
2 10002011 1000201104 256.313  21            5
3 10002011 1000201102 256.313  58            2
4 10002011 1000201103 256.313  24            3
5 10002011 1000201105 256.313   2            5
6 10002011 1000201107 256.313   7            5
> dim(pinc)
[1] 85080     5
```

✓ Merged pinc with individual-level R08 with varables of PID and wage.inc.

```
> nrow(subset(R08,drop==0))
[1] 18567
> t<-CollapseBy2(subset(R08,drop==0),var="wage.inc",fac="PID")
> dim(t)
[1] 18354     2
> head(t)
         PID wage.inc
1 1000201103    15000
2 1000203101    16800
3 1000205104    14400
4 1000206103    12000
5 1000208101    20515
6 1000209101    12000
> pinc<-merge(pinc,t,by="PID",all.x=T)
> head(pinc)
         PID       ID  Weight AGE RELATIONSHIP wage.inc
1 1000201101 10002011 256.313  61            1       NA
2 1000201102 10002011 256.313  58            2       NA
3 1000201103 10002011 256.313  24            3    15000
4 1000201104 10002011 256.313  21            5       NA
5 1000201105 10002011 256.313   2            5       NA
6 1000201106 10002011 256.313  10            5       NA

> nrow(subset(R10,drop==0))
[1] 4173
> pinc<-merge(pinc, CollapseBy2(subset(R10,drop==0),var="crop.inc",fac="PID"), by="PID",all.x=T)

> head(pinc[!is.na(pinc$crop.inc)&pinc$crop.inc > 0,])
            PID       ID  Weight AGE RELATIONSHIP wage.inc  crop.inc
1126 1093510101 10935101 211.994  54            1       NA 1316.6667
1700 1112701101 11127011 211.994  71            1       NA  408.3333
2945 1202302103 12023021 158.995  41            3       NA  400.0000
2950 1202303101 12023031 158.995  61            1       NA  416.6667
3033 1205501101 12055011 158.995  75            1       NA 3000.0000
3206 1211203101 12112031 181.709  57            1       NA  665.8333
> table(pinc$crop.inc>0,useNA="ifany")
FALSE  TRUE  <NA>
 1013  2621 81446

> pinc<-merge(pinc, CollapseBy2(subset(R13,drop==0),var="livestock.inc",fac="PID"),
+ by="PID",all.x=T)
> pinc<-merge(pinc, CollapseBy2(subset(R15,drop==0),var="nonagri.inc",fac="PID"),
+ by="PID",all.x=T)
> pinc<-merge(pinc, CollapseBy2(subset(R17,drop==0),var="other.inc",fac="PID"),
```

```
+ by="PID",all.x=T)
> pinc<-merge(pinc, CollapseBy2(subset(R19,drop==0),var="windfall.inc",fac="PID"),
+ by="PID",all.x=T)
> dim(pinc)
[1] 85080    11
> head(pinc)
         PID       ID  Weight AGE RELATIONSHIP wage.inc crop.inc livestock.inc
1 1000201101 10002011 256.313  61            1       NA       NA            NA
2 1000201102 10002011 256.313  58            2       NA       NA            NA
3 1000201103 10002011 256.313  24            3    15000       NA            NA
4 1000201104 10002011 256.313  21            5       NA       NA            NA
5 1000201105 10002011 256.313   2            5       NA       NA            NA
6 1000201106 10002011 256.313  10            5       NA       NA            NA
  nonagri.inc other.inc windfall.inc
1          NA        NA           NA
2       10500        NA           NA
3          NA        NA           NA
4          NA        NA           NA
5          NA        NA           NA
6          NA        NA           NA
```

✓ Replaced NA in income variables with 0

```
> df<-pinc[,6:11]
> df[is.na(df)]<-0
> pinc<-cbind(pinc[,1:5],df)
> colnames(pinc)[4:11]<-c("age","relation","wage","crop","livestock","nonagri",
+ "other","windfall")
```

✓ Generated the variable ttinc, total monthly income.

```
> pinc["ttinc"]<-rowSums(pinc[,6:11])
> head(pinc)
         PID       ID  Weight age relation  wage crop livestock nonagri other
1 1000201101 10002011 256.313  61        1     0    0         0       0     0
2 1000201102 10002011 256.313  58        2     0    0         0   10500     0
3 1000201103 10002011 256.313  24        3 15000    0         0       0     0
4 1000201104 10002011 256.313  21        5     0    0         0       0     0
5 1000201105 10002011 256.313   2        5     0    0         0       0     0
6 1000201106 10002011 256.313  10        5     0    0         0       0     0
  windfall ttinc
1        0     0
2        0 10500
3        0 15000
4        0     0
5        0     0
6        0     0
```

- Remarks:

Out of 20,540 household heads, the number of those having less than 250 income is 1,996.

```
> dim(pinc)
[1] 85080    12
> nrow(subset(pinc,relation==1))
[1] 20540
> addmargins(table(subset(pinc,relation==1)$ttinc<250,useNA="ifany"))
FALSE  TRUE   Sum
18544  1996 20540


 # For reference:
> colSums(pinc[,6:12],na.rm=T)
     wage      crop livestock   nonagri     other  windfall     ttinc
335408533  14162048  76676818 155670335 105050749 102481079 789449561

> pinc.old<-pinc
```

6.5 Income receivers' income

- **Grouped household members considering income receivers as follows;**

flag	Conditions	
1	Household head	Income receiver
	ttinc>=250 & age>=10	
2	ttinc=0	
3	0<ttinc<250	To transfer his/her ttinc to household head
4	ttinc>=250 & age<10	

```
> pinc$flag<-0
> pinc$flag<-ifelse(pinc$relation==1,1,pinc$flag)
> pinc$flag<-ifelse(pinc$ttinc>=250&pinc$age>=10&pinc$flag!=1,1,pinc$flag)
> pinc$flag<-ifelse(pinc$ttinc==0&pinc$flag==0,2,pinc$flag)
> pinc$flag<-ifelse(pinc$ttinc>0&pinc$ttinc<250&pinc$flag==0,3,pinc$flag)
> pinc$flag<-ifelse(pinc$ttinc>=250&pinc$age<10&pinc$flag==0,4,pinc$flag)
> addmargins(table(pinc$flag,useNA="ifan"))
    1     2     3     4  <NA>   Sum
36515 46969   746   841     9 85080

> addmargins(table(pinc$ttinc>0,is.na(pinc$flag),useNA="ifany"))
       FALSE  TRUE   Sum
  FALSE 48840     8 48848
  TRUE  36231     1 36232
  Sum   85071     9 85080
```

✓ Out of 9 persons with flag=NA, 8 persons should be regarded as flag=2 because their ttinc are not positive.

```
> pinc$flag<-ifelse(is.na(pinc$flag)&pinc$ttinc==0,2,pinc$flag)
> addmargins(table(pinc$ttinc>0,is.na(pinc$flag),useNA="ifany"))
       FALSE  TRUE   Sum
  FALSE 48848     0 48848
  TRUE  36231     1 36232
  Sum   85079     1 85080
> addmargins(table(pinc$flag,useNA="ifan"))
    1     2     3     4  <NA>   Sum
36515 46977   746   841     1 85080
```

✓ The person with flag=NA should be regarded as flag=1 because she is spouse and her ttinc>250.

```
> pinc[is.na(pinc$flag),]
            PID       ID  Weight age relation  wage crop livestock nonagri
56916 6444301102 64443011 237.743  NA        2 40000    0         0       0
      other windfall ttinc flag
56916     0        0 40000   NA
> head(R01[R01$ID==64443011,c(1,29,14:15,18,21)])
            ID        PID RELATIONSHIP SEX AGE MARITAL_STATUS
59558 64443011 6444301103            3   2  12              1
59559 64443011 6444301104            3   2   9              1
59560 64443011 6444301102            2   2  NA              2
59561 64443011 6444301105            4   1  84              2
59562 64443011 6444301106            4   2  90              2
59563 64443011 6444301101            1   1  NA              2

> addmargins(table(pinc$flag,useNA="ifan"))
```

```
    1     2     3     4   Sum
36516 46977   746   841 85080
```

- Transferred the income of persons with flag=3 or 4 to that of the respective household heads.

```
# list of PID with flag=3 or 4
> pida<-subset(pinc,flag>=3)$PID
> length(pida)
[1] 1587
> head(pida)
[1] "1000209104" "1018406105" "1044802104" "1091604104" "1092607102"
[6] "1148606105"

> table(substr(pida,9,10))
 02  03  04  05  06  07  08  09  10  11
196 408 487 273 133  58  19   7   5   1


# list of PID of the respective household heads
> pidb<-paste(substr(pida,1,nchar(pida)-2),"01",sep="")
> head(pidb)
[1] "1000209101" "1018406101" "1044802101" "1091604101" "1092607101"
[6] "1148606101"
> pinc["ttinc.before"]<-pinc$ttinc
```

> pinc.old2<-pinc

```
# Transfer of income ---- Took time to conduct this scripts!!
> for(j in 1:length(pida)){
+ a<-pida[j]
+ b<-pidb[j]
+ pinc[pinc$PID==b,"ttinc"]<-pinc[pinc$PID==b,"ttinc"]+pinc[pinc$PID==a,"ttinc"]
+ pinc[pinc$PID==a,"ttinc"]<-0
+ }

> sum(pinc$ttinc)
[1] 789449561
> sum(pinc$ttinc.before)
[1] 789449561

# Example of transfer

> head(pinc[pinc$flag==3,c(1:5,12:14)])
           PID       ID  Weight age relation ttinc flag ttinc.before
742  1044802104 10448021 329.545  27        3     0    3    244.00000
1087 1092607102 10926071 211.994  35        2     0    3     83.33333
2173 1148606105 11486061 288.352   7        5     0    3     80.00000
2852 1195308103 11953081 329.545   0        3     0    3    240.00000
3061 1205509102 12055091 158.995  20        3     0    3     83.33333
3875 1235510102 12355101 211.994  20        2     0    3    244.00000


> head(pinc[pinc$ID==10448021,c(1:5,12:14)])
```

```
          PID       ID  Weight age relation ttinc flag ttinc.before
739 1044802101 10448021 329.545  63        1  4744    1         4500
740 1044802102 10448021 329.545  61        2     0    2            0
741 1044802103 10448021 329.545  35        3 20000    1        20000
742 1044802104 10448021 329.545  27        3     0    3          244
743 1044802105 10448021 329.545  28        5     0    2            0
744 1044802106 10448021 329.545  34        5     0    2            0

> head(pinc[pinc$flag==4,c(1:5,12:14)])
           PID       ID  Weight age relation ttinc flag ttinc.before
41    1000209104 10002091 256.313   5        5     0    4     600.0000
326   1018406105 10184061 329.545   1        5     0    4    8583.3333
1045  1091604104 10916041 256.313   8        3     0    4     800.0000
2177  1148608103 11486081 288.352   6        3     0    4     500.0000
4487  1262602105 12626021  17.421   3        5     0    4     416.6667
4488  1262602106 12626021  17.421   1        5     0    4     416.6667

> head(pinc[pinc$ID==10002091,c(1:5,12:14)])
          PID       ID  Weight age relation ttinc flag ttinc.before
38 1000209101 10002091 256.313  20        1 12600    1        12000
39 1000209102 10002091 256.313  43        5  5000    1         5000
40 1000209103 10002091 256.313  49        5 10000    1        10000
41 1000209104 10002091 256.313   5        5     0    4          600
42 1000209105 10002091 256.313   2        5     0    2            0
NA       <NA>       NA      NA  NA       NA    NA   NA           NA
```

✓ **Created data set of income receivers consisted of persons with flag=1.**

```
> receivers<-subset(pinc,flag==1)
> dim(receivers)
[1] 36516    14
```

```
 # Estimated number of income receivers
 > sum(receivers$Weight)
 [1] 9038718
```

```
 # Average number of income receivers per household
 > nrow(receivers)/nrow(R25)
 [1] 1.777799
 > sum(receivers$Weight)/sum(R25$Weight)
 [1] 1.764908
```

```
 # Average monthly income of income receivers
> sum(receivers$ttinc*receivers$ Weight)/sum(receivers$ Weight)
[1] 22072.47
```

```
 # Total amount of monthly income
 > sum(receivers$ttinc)
```

```
[1] 789449561
```

```
> sum(receivers$ttinc*receivers$ Weight)
[1] 199506822526
```

- Summary;

	Un-weighted estimates	Weighted estimates	Final report
Household size	4.14	4.10	3.9
Average number of income receivers per household	1.78	1.76	1.8
Total number of income receivers	36,516	9,038,718	
Income receivers' mean monthly income		22,072.47	25,963
Total amount of monthly income	789,449561	199,506,822,526	
Number of persons whose income were transferred to the household head	1,587		
Number of income receivers with ttinc<250	1,935		

```
> nrow(subset(receivers,ttinc<250))
[1] 1935
```

Saved outfiles, receivers and pinc

> **outfiles.old<-outfiles**

> **receivers.old<-receivers**

> **pinc.old<-pinc**

✓ Sum of ttinc and ttinc.brfore in pinc are the same.

```
> colSums(pinc[,c(6:12,14)])
      wage       crop  livestock    nonagri      other  windfall
 335408533   14162048   76676818  155670335  105050749  102481079
     ttinc ttinc.before
 789449561  789449561
```

✓ Sum of ttinc in receivers is the same as that of pinc.
Remarks: For instance, not all values of crop are not transferred to that of data frame receivers.

```
> colSums(receivers[,c(6:12,14)])
      wage       crop  livestock    nonagri      other   windfall
 335408533   14158791   76576668  155643331  104036801  102368982
     ttinc ttinc.before
 789449561  788193106
```

6.6 Creating data set of household monetary income at household level

- Source of income

According to the final report, household income is estimated in two ways;

"Income is received in two main ways, either in cash or in kind. The first is identified as monetary and the second is identified as non-monetary. Income from wages and salaries, agricultural activities (seasonal and non-seasonal crops), non-agricultural activities, and other cash income (which includes pension payments, disability payments, Samurdi, local and foreign transfers, windfall income such as lottery wins, compensations etc.) are identified as monetary income. The non-monetary income is the estimated value of goods and services received in kind and consumed within the survey reference period. This value is formed by home grown fruits and vegetables, firewood, home consumed quantities of the product of agricultural activities, and other goods or concession values received from employer or other parties. Estimated rental value of owner occupied housing units or freely occupied housing units are also included under non-monetary income."

Table 2.12: Average monthly household income by main source of income – 2012/13

Source of income	2012/13		2009/10	
	Mean (Rs.)	Share of income (%)	Mean (Rs.)	Share of income (%)
Sri Lanka	**45,878**	**100.0**	**36,451**	**100.0**
Monetary Income	**39,300**	**85.7**	**31,209**	**85.6**
Wages/Salaries	16,134	35.2	12,434	34.1
Agricultural activities	5,213	11.4	5,238	14.4
Nonagricultural activities	7,990	17.4	6,477	17.8
Other cash income	5,230	11.4	4,252	11.7
Income by chance/adhoc gains	4,733	10.3	2,808	7.7
Non-monetary Income	**6,578**	**14.3**	**5,242**	**14.4**
Income in kind	2,381	5.2	2,054	5.6
Estimated rent value of own occupied housing unit	4,197	9.1	3,188	8.7

Strategy to estimate monetary income:

To collapse individual-level data file pinc at household level, and create data frame hhinc with variables of monthly household income by income source.

```
> CollapseBy2<-function(df=df,var=var,fac=fac,ID=NULL){
+ # To aggregate variables with the same factors in data frame
+ # df: data frame
+ # var: vector of variables to be aggregated (in position number or variable name)
+ # fac: factor variables (in position number or variable name)
+ # ID: combinations of factor levels to be matched, if specified
+ #
+ if(is.numeric(var)){ var<-colnames(df)[var] } # 変数位置は変数名に変換
+ if(is.numeric(fac)){ fac<-colnames(df)[fac] } # 同上
+ d<-data.frame(df[,fac])  # factor 変数からなるデーターフレーム
+ colnames(d)<-fac
+ if(missing(ID)) { ID<- subset(d,!duplicated(d)) } # ID のデフォルト設定
+ y<-data.frame(ID,row.names=NULL)  # ID からなるデータフレーム
+ colnames(y)<-fac
+ for(j in var){
+ t<-aggregate(df[,j],d,sum,na.rm=T)
+ colnames(t)<-c(fac,j)
+ y<-merge(y,t,by=fac,all.x=T)
+ }
```

```
+ y[is.na(y)]<-0
+ return (y)
+ }


>                                                                                hhinc<-
CollapseBy2(pinc,var=c("wage","crop","livestock","nonagri","other","windfall","ttinc")
,fac="ID")
> dim(hhinc)
[1] 20540     8
> head(hhinc)
        ID  wage crop livestock nonagri other  windfall    ttinc
1 10002011 15000    0         0   10500     0     0.000 25500.00
2 10002031 16800    0         0       0     0     0.000 16800.00
3 10002041     0    0         0    7500     0  3541.667 11041.67
4 10002051 14400    0         0   14400  2500 29166.667 60466.67
5 10002061 12000    0         0    6000   600  8383.333 26983.33
6 10002071     0    0         0    8400     0     0.000  8400.00


# Total amount of monthly monetary household income by income source
> colSums(hhinc[,2:8])
     wage      crop livestock   nonagri     other  windfall     ttinc
335408533  14162048  76676818 155670335 105050749 102481079 789449561



# Example
== Individual-level data set ==
> pinc[pinc$ID==10002011,c(1:2,6:12)]
         PID       ID  wage crop livestock nonagri other windfall ttinc
1 1000201101 10002011     0    0         0       0     0        0     0
2 1000201102 10002011     0    0         0   10500     0        0 10500
3 1000201103 10002011 15000    0         0       0     0        0 15000
4 1000201104 10002011     0    0         0       0     0        0     0
5 1000201105 10002011     0    0         0       0     0        0     0
6 1000201106 10002011     0    0         0       0     0        0     0
7 1000201107 10002011     0    0         0       0     0        0     0

== Collapsed to household-level data set ==
> hhinc[hhinc$ID==10002011,]
        ID  wage crop livestock nonagri other windfall ttinc
1 10002011 15000    0         0   10500     0        0 25500



# Saved hhinc
```

> hhinc.old<-hhinc

6.7 Non-monetary income (income in-kind) at household-level

The variables of monthly in-kind income to be generated;

Data file	Variable of monthly income	Definition	Remarks
R04	inkind.rice	max (rice.a, rice.b) where, rice.a: Sum of (INKIND_VALUE*(30/7)) of R04 with CODE=<109 within the household	Followed 2009 procedure
R04	inkind04	INKIND_VALUE*(30/7) (CODE>=110)	
R05	inkind05	NF_INKIND_VALUE/6 if NF_CODE>3000 & NF_CODE<3300, NF_INKIND_VALUE/12 if (NF_CODE>3300 & NF_CODE<3400) or	
R05	imputed.rent	NF_INKIND_VALUE & NF_CODE=2001	

```
> dim(R04)
[1] 815184     19
> dim(R05)
[1] 612085     19
```

✓ Generated variable rice.a from R04

```
> head(R04[!is.na(R04$INKIND_VALUE)&R04$CODE<110,c(1,13:18)])
            ID CODE QUANTITY VALUE INKIND_VALUE  Weight m.value
3009  10184051  101     2000   140          105 329.545   600.0
3746  10225071  105     3000   215           70 288.352   921.4
6612  10472011  105     7000   525          525 288.352  2250.0
```

```
 6802  10472061  102      7000    490            70 288.352  2100.0
 11344 11002071  103       100     16            16 181.709    68.6
 22271 11612011  101      2000    120           120 329.545   514.3

 > d<-subset(R04, !is.na(R04$INKIND_VALUE)& CODE<110)
 > dim(d)
 [1] 2927   19
 > t<-tapply(d$INKIND_VALUE*(30/7),d$ID,sum,na.rm=T)
> rice1<-data.frame(ID=names(t),rice.a=as.vector(t))
> dim(rice1)
[1] 2491    2
> table(rice1$rice.a>0)

TRUE
2491
> head(rice1)
        ID     rice.a
1 10184051  450.00000
2 10225071  300.00000
3 10472011 2250.00000
4 10472061  300.00000
5 11002071   68.57143
6 11612011  514.28571
```

- ✓ Generated variable rice.b from R10

```
> head(R10[R10$COL_4X==1,c(1,14,18:22,26,28)])
         ID COL_4X COL_8X COL_8X1 COL_9X COL_10X COL_10X1        PID drop
4  11190101      1    468   16380   6300     468    16380 1119010101    0
8  12055101      1   1040   30160   8000    1040    30160 1205510102    0
10 12186031      1    300   15000  10000     100     5000 1218603101    0
```

```
11 12206061       1    1760    44000   23290         0          0 1220606101     0
12 12217051       1     200    15000   13350       200      15000 1221705103     0
13 12217091       1     200    10000    3850       200          0 1221709101     0

> t2<-tapply(d2$COL_10X1/12,d2$ID,sum,na.rm=T)
> rice2<-data.frame(ID=names(t2),rice.b=as.vector(t2))
> dim(rice2)
[1] 2733    2
> head(rice2)
        ID    rice.b
1 11190101 1365.0000
2 12055101 2513.3333
3 12186031  416.6667
4 12206061    0.0000
5 12217051 1250.0000
6 12217091    0.0000
```

✓ Generated the variable of inkind.rice after comparing rice.a and rice.b

```
> inkind<-R25[c("ID","Weight")]
> dim(inkind)
[1] 20540     2
> inkind<-merge(inkind,rice1,all=T)
> inkind<-merge(inkind,rice2,all=T)
> dim(inkind)
[1] 20540     4
> inkind[is.na(inkind)]<-0
> inkind["inkind.rice"]<-pmax(inkind$rice.a,inkind$rice.b)
> head(inkind[inkind$rice.a>0&inkind$rice.b>0,])
           ID  Weight    rice.a   rice.b inkind.rice
877  12411011 158.995  514.2857 1375.000    1375.000
```

```
 887  12423031 141.329  257.1429 5546.667     5546.667
 929  12476031 181.709 1285.7143 1305.000     1305.000
 932  12476061 181.709 3321.4286 2600.000     3321.429
1022  12666041 181.709 2357.1429 1265.000     2357.143
1095  12764051 141.329 2700.0000 1260.417     2700.000
```

Remarks:

There are 3,294 sample households with rice.a>0 and/or ric.b>0. The value of rice.a is bigger than that of rice.b in 2,135 households.

```
> d<-subset(inkind,rice.a>0|rice.b>0)
> dim(d)
[1] 3294    5
> addmargins(table(d$rice.a>d$rice.b,useNA="ifany"))
FALSE  TRUE   Sum
 1159  2135  3294
```

✓ Generated the variable inkind04 and inkind05

```
== R04 ==
> d<-subset(R04, !is.na(R04$INKIND_VALUE)& CODE>=110)
> dim(d)
[1] 71690    19
> t<-tapply(d$INKIND_VALUE*(30/7),d$ID,sum,na.rm=T)
> inkind04<-data.frame(ID=names(t),inkind04=as.vector(t))
> dim(inkind04)
[1] 15901     2
> head(inkind04)
```

```
        ID    inkind04
1 10002031    42.85714
2 10082021    85.71429
3 10082061 9000.00000
4 10103051   642.85714
5 10103061 3000.00000
6 10103091   900.00000
> table(inkind04$inkind04>0)
 TRUE
15901
```

```
 == R05 ==
 > d<-subset(R05,!is.na(NF_INKIND_VALUE))
 > dim(d)
 [1] 48960    19

 > d["inkind05"]<-ifelse(d$NF_CODE!=2001,d$NF_INKIND_VALUE,0)
 > d["inkind05"]<-ifelse(d$NF_CODE>3000&d$NF_CODE<3300,
 + d$inkind05/6,d$inkind05)
 > d["inkind05"]<-ifelse(d$NF_CODE>3300&d$NF_CODE<3400|d$NF_CODE>3500,
 + d$inkind05/12,d$inkind05)

 > d$imputed.rent<-ifelse(d$NF_CODE==2001,d$NF_INKIND_VALUE,0)
 > dim(d)
 [1] 48960    21
 > head(d[,c(1,13,15:16,20:21)])
          ID NF_CODE NF_VALUE NF_INKIND_VALUE inkind05 imputed.rent
 1  10002011    2001     2500            2500        0         2500
 5  10002011    2105      250             250      250            0
 17 10002011    3005      300             300       50            0
 18 10002011    3062      600             600      100            0
 19 10002011    3101     3000            3000      500            0
 21 10002031    2001     2500            2500        0         2500

 > inkind05<-CollapseBy2(d,var=c("inkind05","imputed.rent"),fac="ID")
```

```
> head(inkind05)
        ID inkind05 imputed.rent
1 10002011      900         2500
2 10002031      550         2500
3 10002041     2650         2500
4 10002051       80         2500
5 10002061      250         5000
6 10002071        0         5000
```

✓ Merged inkind, inkind04 and inkind05.

```
> inkind<-merge(inkind,inkind04,all=T)
> inkind<-merge(inkind,inkind05,all=T)
> dim(inkind)
[1] 20540     8
> head(inkind)
        ID  Weight rice.a rice.b inkind.rice inkind04 inkind05 imputed.rent
1 10002011 256.313      0      0           0       NA      900         2500
2 10002031 256.313      0      0           0 42.85714      550         2500
3 10002041 256.313      0      0           0       NA     2650         2500
4 10002051 256.313      0      0           0       NA       80         2500
5 10002061 256.313      0      0           0       NA      250         5000
6 10002071 256.313      0      0           0       NA        0         5000
```

✓ Generated the variable of inkind (total in-kind income) and nonmonetary (total nonmonetary income)

```
> inkind[is.na(inkind)]<-0
> inkind["inkind"]<-rowSums(inkind[,5:7])
> inkind["nonmonetary"]<-rowSums(inkind[,5:8])

> head(inkind[inkind$inkind.rice>0,])
          ID  Weight     rice.a rice.b inkind.rice   inkind04 inkind05
70  10184051 329.545  450.00000      0   450.00000 1157.14286 650.0000
88  10225071 288.352  300.00000      0   300.00000 4114.28571   0.0000
```

```
164 10472011 288.352 2250.00000       0  2250.00000     0.00000    0.0000
169 10472061 288.352  300.00000       0   300.00000     0.00000    0.0000
269 11002071 181.709   68.57143       0    68.57143    77.14286  333.3333
389 11190101 158.995    0.00000    1365  1365.00000  1928.57143    0.0000
    imputed.rent     inkind nonmonetary
70          8000 2257.1429    10257.143
88         30000 4414.2857    34414.286
164         7000 2250.0000     9250.000
169         7000  300.0000     7300.000
269         6000  479.0476     6479.048
389         8000 3293.5714    11293.571
```

✓ Merged hhinc and inkind, and generated the variable of total income.

```
> hhinc.old<-hhinc
> inkind.old<-inkind
> colnames(hhinc)[8]<-"monetary"
> hhinc<-merge(hhinc,inkind)
> hhinc["ttinc"]<-hhinc$monetary+hhinc$nonmonetary
> head(hhinc[hhinc$inkind.rice>0,])
          ID  wage crop livestock nonagri other windfall monetary    ttinc
70  10184051     0    0         0       0 25000        0    25000 35257.14
88  10225071     0    0         0       0     0        0        0 34414.29
164 10472011     0    0         0   35000     0        0    35000 44250.00
169 10472061     0    0         0    2000  1000        0     3000 10300.00
269 11002071 30000    0         0   45280     0        0    75280 81759.05
389 11190101 20360    0     26000       0     0        0    46360 57653.57
     Weight     rice.a rice.b inkind.rice   inkind04 inkind05 imputed.rent
70  329.545  450.00000      0  450.00000 1157.14286 650.0000         8000
88  288.352  300.00000      0  300.00000 4114.28571   0.0000        30000
164 288.352 2250.00000      0 2250.00000    0.00000   0.0000         7000
169 288.352  300.00000      0  300.00000    0.00000   0.0000         7000
269 181.709   68.57143      0   68.57143   77.14286 333.3333         6000
389 158.995    0.00000   1365 1365.00000 1928.57143   0.0000         8000
```

```
       inkind nonmonetary
70  2257.1429    10257.143
88  4414.2857    34414.286
164 2250.0000     9250.000
169  300.0000     7300.000
269  479.0476     6479.048
389 3293.5714    11293.571
```

```
# Average monthly household income per household by income source
> t<-round(colSums(hhinc[,c(2:9,11:18)]*hhinc[,"Weight"])/sum(hhinc$Weight))
> t[c(1:7,9:16,8)]
        wage         crop    livestock      nonagri        other     windfall
       16131          724         4201         7906         5225         4769
    monetary       rice.a       rice.b  inkind.rice     inkind04     inkind05
       38956          302          205          383         1395          825
imputed.rent       inkind  nonmonetary        ttinc
        4197         2603         6800        45756
```

```
# Saved hhinc
```

```
> outfiles.old<-outfiles
> hhinc.old<-hhinc
```

✓ **Summary:**

Average monthly household income per household by income source is as the next;

	My estimates	Final report of the survey (Table 2.12)	GAP
Total income	45,756	45,878	-122
Monetary income	38,956	39,300	-344
Wages/Salaries	16,131	16,134	-3
Agricultural activities	4,925	5,213	-288
Non-agricultural activities	7,906	7,990	-84
Other income	5,225	5,230	-5
Windfall income	4,769	4,733	+36
Non-monetary income	6,800	6,578	+222
In-kind income	2,603	2,381	+222
Imputed rent	4,197	4,197	0

For reference:

	Un-weighted estimates	Weighted estimates	
Total number of households	20,540	5,121,354	
Total amount of monthly monetary income	789,449,561	199,506,822,526	
Average monthly monetary income per household	38,435	38,956	
Total amount of monthly non-monetary income	135,910,441	34,825,712,390	
Average monthly non-monetary income per household	6,617	6,800	

```
> nrow(R25)
[1] 20540
> sum(R25$Weight)
```

```
[1] 5121354
> sum(hhinc$monetary)
[1] 789449561
> sum(hhinc$monetary*hhinc$Weight)
[1] 199506822526
> sum(hhinc$monetary)/nrow(R25)
[1] 38434.74
> sum(hhinc$monetary*hhinc$Weight)/sum(R25$Weight)
[1] 38955.88

> sum(hhinc$nonmonetary)
[1] 135910441
> sum(hhinc$nonmonetary*hhinc$Weight)
[1] 34825712390
> sum(hhinc$nonmonetary)/nrow(R25)
[1] 6616.867
> sum(hhinc$nonmonetary*hhinc$Weight)/sum(R25$Weight)
[1] 6800.099
```

6.7 The variable of HIncPM in R25

- The variable of monthly household income at household level is available in the data set R25, and it is compatible with the survey report.

```
> weighted.mean(R25$HIncPM,R25$Weight)
[1] 45878.08
```

- The differences between HIncPM and the sum from income sources.

7. Household Expenditure

7.1 Definition of household expenditure

According to the final report of the survey, the definition of household expenditure is as follows;

"Household expenditure data were collected in three major sections of the survey questionnaire.
1. Expenditure on food.
2. Expenditure on non-food.
3. Expenditure incurred by boarders and domestic servants.

Under food expenditure, all the food items consumed by the household during the reference period (one week) were collected. For non-food expenditure, all non-food items and services purchased by the household during the given reference period were collected. Personal expenditure of boarders and domestic servants who live in the household is reported according to the related expenditure group in a separate section of the schedule.

To obtain more accurate data, the expenditure sections of the schedule were divided in to 35 sub-groups. Of that total 19 sub-groups are included under the section of expenditure on food such as cereals , prepared food, vegetables , fish , meat etc. and the rest of 16 sub-groups are included under the section of non-food expenditure. i.e. housing, fuel and light, health, durable goods etc.

To gather more reliable information on expenditure, food expenditure was collected for 7 consecutive days from each household selected in the sample. But non-food expenditure was collected for different reference periods varying from one month to twelve months."

Remarks: Expenditure on food and non-food

In the survey report, expenditure items are divided into food and non-food as follows;

Food: sum of sub group 01 to 18

Non-food: sum of sub group 19 to 35

Sub group 19 (Liquor, drugs and tobacco) is included in non-food, regardless of the structure of the questionnaire.

The food ratio is also calculated based on the above classification.

The next table of the final report shows the result of average monthly household expenditure;

Table 3.1: Mean and median monthly household expenditure by sector, province and district - 2012/13

Sector /Province /District	Mean household expenditure (Rs.)	Median household expenditure (Rs.)
Sri Lanka	**41,444**	**30,701**
Sector		
Urban	58,930	43,825
Rural	38,274	29,010
Estate	29,379	25,580

Remarks:

Reasons why boarders' expenditures are captured in the separate questionnaire

According to the delegates from Sri Lanka for the International Workshop 2014,

"If boarders partake food with the household, he is treated as a household member. As he is not a blood relative or dependent, his outside expenditure is not known to the survey respondent who is a permanent member. Therefore, in order to avert an underestimation of the true household expenditure, he is given a separate section in the HIES questionnaire to report his personal expenditure made in addition to the facilities he enjoys in the household he actually being a member."

Remarks: Process of estimating household expenditure

According to the delegates from Sri Lanka for the International Workshop,

"Household expenditure is calculated for a month at Item level using the following,

Item expenditure per month = Item expenditure x 30 / Reference period in days

And the Item expenditure are summed up to household expenditure."

7.2 Process of estimating household expenditure

Three data sets R04, R05 and R06 are used for estimating household expenditure.

The data files to be used for estimating household expenditure;

Data file	Description	Sub group	Reference period	Remarks
R04	Expenditure on food	01 to 19	7 days	
R05	Expenditure on non food	20 to 29 and 34	1 month	
		30 to 32	6 months	
		33 and 35	12 months	
R06	Expenditure incurred by boarders			4-digit code*
col.3	Food purchased outside	02	7 days	0220
col.4	Fuel	21	1 month	2112
col.5	Non-durable goods	32	1 month**	3220
col.6	Household services	29	1 month	2910
col.7	Personal care	22	1 month	2221
col.8	Transport & communication	25	1 month	2510
col.9	Recreation	27	1 month	2720
col.10	Boarding fees paid	20	1 month	2004
col.11	Sent to family	35	1 month	3510
col.12	Savings provident funds	34	1 month	3411
col.13	Miscellaneous	34	1 month	3412
col.14	Clothing	30	6 months	3050
col.15	Durable goods	33	12 months**	3340

Note *: The 4-digit codes of col. 3 to col. 15 are set so as not to overlap the codes of R04 and R05, and used for estimating the mean household expenditure by item.

**: The reference period of “32 Durable household goods” of R05 is 6 months.

The process of estimating household expenditure is as follows;

Preparing data files: R04, R05 and R06

1. To filter out records without RESULT=1 (Completed).
(No such record was found in the given data set.)

```
> R04<-outfiles[[04]]
> R05<-outfiles[[05]]
> R06<-outfiles[[06]]
> sum(R04$RESULT!=1)
[1] 0
> sum(R05$RESULT!=1)
[1] 0
> sum(R06$RESULT!=1)
[1] 0
```

2. R04 and R05 have no duplicated item code within the household.
(No such record was found in the given data set.)

```
> sum(duplicated(R04$ID*10000+R04$CODE))
[1] 0
> sum(duplicated(R05$ID*10000+R05$CODE))
[1] 0
```

3. Col. 3 to col. 15 of R06 correspond to the 4-digit item codes in the above table.

Converting to monthly expenditure

4. To convert VALUE of R04, NF_VALUE of R05 and COL_3 to COL_15 of R06 to monthly expenditure taking into consideration of the reference period.
5. To use the multiplier 30/7 when converting weekly to monthly.
6. To generate the variable of subgroups of expenditure items.

Estimating household expenditure by 4-digit item

7. To generate the average monthly household expenditure by item from R04 and R05.
8. To generate the average monthly household expenditure of COL_3 to COL_15 in R06.
9. To add the summaries of R06 to the results of 6 under the codes given in 3.

Creating data on household expenditure at household level

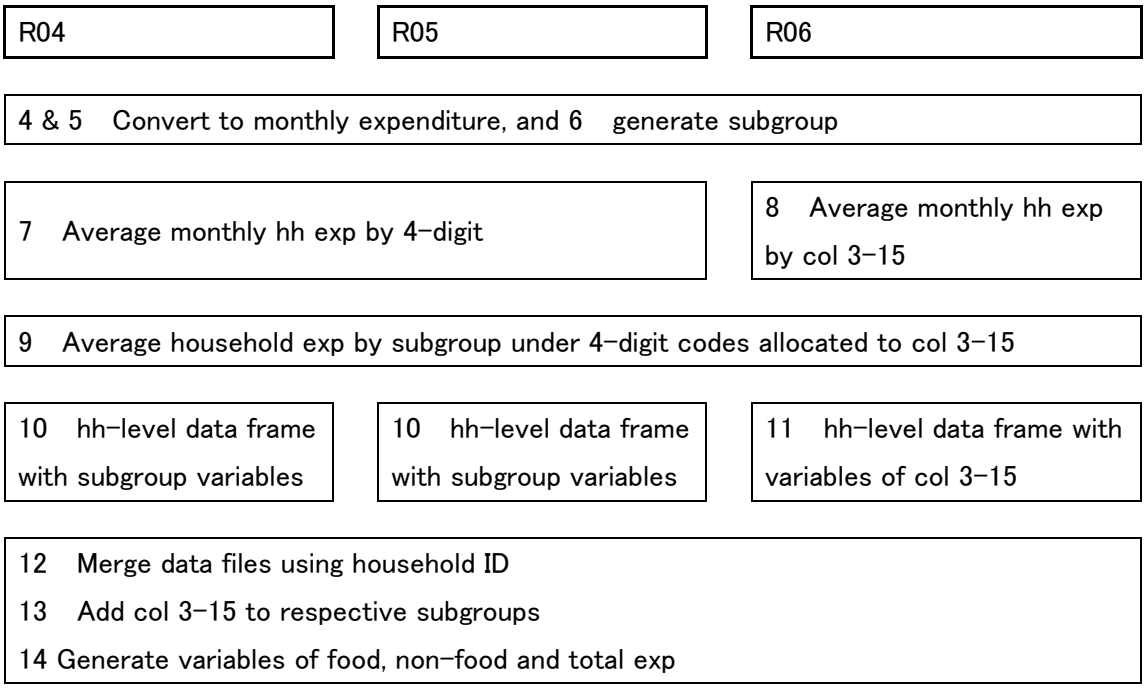
10. To aggregate VALUE of R04 and NF_VALUE of R05 by household and by item subgroup, and create data file with records of household and variables of subgroup.

11. To aggregate COL_3 to COL_15 of R06 by household, and create data file with records of household.

12. To merge the above data files using household identifier.

13. To add COL_3 to COL_15 to the respective subgroups.

14. To generate the variables of total household expenditure, expenditure on food and non-food.



7.3. Converting to monthly expenditure

R04: FOOD_EXP

✓ The variable VALUE and INKIND_VALUE;

VALUE: goods and services consumed in cash and in kind, that is, both bought from the market and homegrown/ freely received.

INKIND_VALUE: a part of VALUE.

Therefore, used only the variable VALUE for estimation of household expenditure.

✓ Generated the variable of monthly expenditure, m.value.

```
> R04$m.value<-round(R04$VALUE*30/7,1)
> head(R04[,c(1,13:18)])
        ID CODE QUANTITY VALUE INKIND_VALUE  Weight m.value
1 10002011  105     6000   420           NA 256.313  1800.0
2 10002011  207       45   600           NA 256.313  2571.4
3 10002011  209        9    90           NA 256.313   385.7
4 10002011  211        2   100           NA 256.313   428.6
5 10002011  302      500    90           NA 256.313   385.7
6 10002011  425      250    30           NA 256.313   128.6
```

✓ Generated the variable sg of subgroups of 4-digit expenditure item (CODE). Subgroup code is the top-2-digit of 4-digit expenditure item code.

```
> R04$sg<-floor(R04$CODE/100)
> head(R04[,c(1,13:19)])
        ID CODE QUANTITY VALUE INKIND_VALUE  Weight m.value sg
1 10002011  105     6000   420           NA 256.313  1800.0  1
2 10002011  207       45   600           NA 256.313  2571.4  2
3 10002011  209        9    90           NA 256.313   385.7  2
4 10002011  211        2   100           NA 256.313   428.6  2
5 10002011  302      500    90           NA 256.313   385.7  3
6 10002011  425      250    30           NA 256.313   128.6  4
# Number of records in R04 by subgroup

> addmargins(table(R04$sg,useNA="ifany"))
    1     2     3     4     5     6     7     8     9    10
```

```
 52594  38467  31621 147534  27357   9230  30188  26564   9854  19348
    11     12     13     14     15     16     17     18     19   <NA>
253338   2358  23681  19579  20845  27751  25208  28104  21564      1
   Sum
815186
```

- Remarks

The record with empty CODE, QUANTY and VALUE should be dropped.

```
> R04[is.na(R04$sg),]
            ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO
505060 58103021        4       45      2 10    10  12 58103       2    1
       NHH RESULT CODE QUANTITY VALUE INKIND_VALUE Weight m.value sg
505060   1      1   NA       NA    NA           NA 84.667      NA NA
> R04<-R04[!is.na(R04$sg),]
> dim(R04)
[1] 815185     19
> R04<-R04[!is.na(R04$sg),]

> dim(R04)
[1] 815185     19
> outfiles[[04]]<-R04
```

R05: NONFOOD

✓ The variable NF_VALUE and NF_INKIND_VALUE;

NF_VALUE: goods and services consumed in cash and in kind, that is, both bought from the market and freely received/received as a gift.

NF_INKIND_VALUE: a part of NF_VALUE.

Therefore, used only the variable NF_VALUE for estimation of household expenditure.

✓ Generated the variable of sg, subgroup of expenditure item

```
> R05["sg"]<-floor(R05$NF_CODE/100)
> head(R05[,c(1,13:18)])
        ID NF_CODE NF_QUANTITY NF_VALUE NF_INKIND_VALUE  Weight sg
1 10002011    2001          NA     2500            2500 256.313 20
2 10002011    2003          NA      350              NA 256.313 20
3 10002011    2101          NA      600              NA 256.313 21
4 10002011    2103        2250      300              NA 256.313 21
```

```
5 10002011     2105           NA       250              250 256.313 21
6 10002011     2109            8        40               NA 256.313 21

# Number of records in R05 by subgroup
> addmargins(table(R05$sg,useNA="ifany"))
    20     21     22     23     24     25     26     27     28     29     30     31
 31965  76116  96170  17251  49700  24773  24442  16107  37629   3949 115882  27600
    32     33     34     35    Sum
 33421   7986  24881  24213 612085
```

✓ Generated the variable of m.value, monthly expenditure.

```
> R05["m.value"]<-R05$NF_VALUE
> R05["m.value"]<-ifelse(R05$sg>=30&R05$sg<=32,round(R05$m.value/6,1),R05$m.value)
> R05["m.value"]<-ifelse(R05$sg==33|R05$sg==35,round(R05$m.value/12,1),R05$m.value)
> head(R05[,c(1,13:19)])
        ID NF_CODE NF_QUANTITY NF_VALUE NF_INKIND_VALUE  Weight sg m.value
1 10002011     2001           NA     2500            2500 256.313 20    2500
2 10002011     2003           NA      350              NA 256.313 20     350
3 10002011     2101           NA      600              NA 256.313 21     600
4 10002011     2103         2250      300              NA 256.313 21     300
5 10002011     2105           NA      250             250 256.313 21     250
6 10002011     2109            8       40              NA 256.313 21      40

> outfiles[[05]]<-R05
> dim(R05)
[1] 612085     19
```

R06: BOARDERS

✓ Converted to the monthly expenditure, and generated data frame of boarder.

```
> dim(R06)
[1] 260  28
> boarder<-R06
```

```
> boarder[is.na(boarder)]<-0
> boarder$COL_3<-round(boarder$COL_3*30/7,1)
> boarder$COL_14<-round(boarder$COL_14/6,1)
> boarder$COL_15<-round(boarder$COL_15/12,1)
> head(boarder)
        ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH RESULT COL_2
1 11149011        7       11      2 10     7   4 11149       1    1   1      1     4
2 11672041        7       11      1 10     5 257 11672       4    1   1      1     2
3 11799021        7       11      1 10    12 140 11799       2    1   1      1     6
4 12303031        7       11      2 10    10  89 12303       3    1   1      1     3
5 12705061        7       11      2 10     9  66 12705       6    1   1      1     5
6 12705081        7       11      2 10     9  66 12705       8    1   1      1     3
   COL_3 COL_4 COL_5 COL_6 COL_7 COL_8 COL_9 COL_10 COL_11 COL_12 COL_13 COL_14
1 3673.5     0     0     0     0   600     0   3000      0      0      0   80.8
2    0.0     0     0     0   500     0     0      0   4000      0      0    0.0
3    0.0     0     0     0     0     0     0      0   5000   5000      0    0.0
4    0.0     0     0     0     0     0     0      0   5000      0      0    0.0
5    0.0     0     0     0     0     0     0      0      0      0      0  194.4
6 1836.7     0     0     0   200   500     0      0      0      0      0  111.1
  COL_15        PID  Weight
1    9.7 1114901104 254.392
2    0.0 1167204102 461.363
3    0.0 1179902106 329.545
4    0.0 1230303103 158.995
5    0.0 1270506105 141.329
6    0.0 1270508103 141.329

> n.boarder<-rep(0,13) # Number of records with expenditure >0
> av.boarder<-rep(0,13) # Monthly expenditure per household
> (NHH<-sum(outfiles[[25]]$Weight))
[1] 5121354
> for(j in 1:13){
+ n.boarder[j]<-nrow(subset(boarder,boarder[,j+13]>0))
+ av.boarder[j]<-sum(boarder[,j+13]*boarder$Weight)/NHH
+ }
> n.boarder
```

```
 [1]  77  15  59   6 134 138  50 120 132  83  91 112  19
> round(av.boarder,2)
 [1] 47.66  0.32  1.23  0.34  3.54  4.78  1.81 17.73 35.70 13.66  3.91  0.38  0.05

> for(j in 1:13){
+ if(j==1) cat("Variable:  hhexp , No. of records ¥n")
+ cat(colnames(boarder)[j+13],":",format(round(av.boarder[j],2),width=8),
+ ", ",format(n.boarder[j],width=5),"¥n")
+ }
Variable:  hhexp , No. of records
COL_3 :    47.66 ,     77
COL_4 :     0.32 ,     15
COL_5 :     1.23 ,     59
COL_6 :     0.34 ,      6
COL_7 :     3.54 ,    134
COL_8 :     4.78 ,    138
COL_9 :     1.81 ,     50
COL_10 :   17.73 ,    120
COL_11 :    35.7 ,    132
COL_12 :   13.66 ,     83
COL_13 :    3.91 ,     91
COL_14 :    0.38 ,    112
COL_15 :    0.05 ,     19
```

7.4. Estimating household expenditure by 4-digit item

✓ **Created data frame with variables of 4-digit item code and average monthly expenditure per household.**

✓ **Generated monthly household expenditure on food by item from R04**

(Correspond to Table 5.2 of the final report)

```
> (NHH<-sum(outfiles[[25]]$Weight))
[1] 5121354
> food.item<-by(R04,R04$CODE,function(df) round(sum(df$m.value*df$Weight)/NHH,2))
> length(food.item)
[1] 280
> food.byitem<-data.frame(code=as.integer(names(food.item)),
+ m.value=as.vector(food.item))
> head(food.byitem)
  code m.value
1  101  405.89
2  102   59.75
3  103  413.01
4  104   24.88
5  105  405.39
6  106   91.38
```

✓ **Generated monthly household expenditure on non-food by item from R5**

(Correspond to Table 5.4 of the final report)

```
> nfood.byitem<-data.frame(code=as.integer(names(nfood.item)),
+ m.value=as.vector(nfood.item))
> head(nfood.byitem)
  code m.value
1 2001 4491.60
2 2002   24.70
3 2003  150.70
4 2101  759.46
5 2102    3.65
```

```
6 2103   93.16
```

✓ **Binded two data frames of food.byitem and nfood.byitem together, and generated hhexp.byitem.**

```
> hhexp.byitem<-rbind(food.byitem,nfood.byitem)
> dim(hhexp.byitem)
[1] 490   2
```

Remarks: Checked out-of-range codes in hhexp.byitem

```
> hhexp.byitem$code
  [1]  101  102  103  104  105  106  107  108  109  110  111  112  113  114
 [15]  115  116  117  118  119  120  121  122  129  140  201  202  203  204
 [29]  205  206  207  208  209  210  211  212  213  214  215  216  219  301
 [43]  302  303  304  305  306  307  308  309  319  401  402  403  404  405
 [57]  406  407  408  409  410  411  412  413  414  415  416  417  418  419
 [71]  420  421  422  423  424  425  426  427  428  429  430  431  432  433
 [85]  434  439  441  442  443  444  445  446  447  448  449  450  459  501
 [99]  502  503  504  505  506  507  508  509  601  602  603  604  605  609
[113]  701  702  703  704  705  706  707  708  709  710  711  712  713  714
[127]  715  716  717  718  719  720  721  722  723  801  802  803  804  805
[141]  806  807  808  809  810  811  812  813  814  815  816  817  819  901
[155]  902  909 1001 1002 1003 1101 1102 1103 1104 1105 1106 1107 1108 1109
[169] 1110 1111 1112 1113 1114 1115 1116 1117 1118 1119 1120 1121 1122 1123
[183] 1129 1201 1202 1203 1204 1205 1206 1209 1301 1302 1303 1304 1305 1306
[197] 1307 1308 1309 1310 1311 1312 1319 1401 1402 1403 1404 1409 1501 1502
[211] 1503 1504 1509 1601 1602 1603 1604 1605 1606 1607 1608 1609 1610 1611
[225] 1612 1613 1614 1615 1616 1619 1651 1652 1653 1654 1659 1701 1702 1703
[239] 1704 1705 1706 1707 1708 1709 1710 1711 1712 1713 1719 1801 1802 1803
[253] 1804 1805 1806 1807 1808 1809 1810 1811 1812 1819 1901 1902 1903 1904
[267] 1905 1906 1907 1908 1909 1910 1911 1912 1919 1920 1921 1922 1923 1924
[281] 2001 2002 2003 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111
[295] 2119 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213
[309] 2214 2219 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2319 2401
[323] 2402 2403 2404 2405 2406 2407 2409 2411 2412 2413 2414 2415 2416 2417
[337] 2418 2419 2501 2502 2503 2504 2505 2509 2601 2602 2603 2604 2605 2606
[351] 2607 2608 2609 2610 2611 2612 2619 2701 2702 2703 2704 2705 2706 2707
[365] 2708 2709 2710 2711 2712 2719 2801 2802 2803 2804 2805 2809 2901 2902
[379] 2903 2904 2905 2906 2909 3001 3002 3003 3004 3005 3006 3007 3008 3009
[393] 3010 3011 3012 3013 3014 3015 3016 3017 3018 3019 3020 3021 3022 3023
[407] 3024 3029 3041 3042 3043 3049 3061 3062 3101 3102 3103 3104 3105 3106
[421] 3107 3109 3201 3202 3203 3204 3205 3206 3207 3208 3209 3210 3211 3212
[435] 3213 3214 3219 3301 3302 3303 3304 3305 3306 3307 3308 3309 3310 3311
[449] 3312 3313 3314 3315 3316 3317 3318 3319 3320 3321 3322 3323 3324 3325
[463] 3326 3327 3328 3329 3330 3331 3332 3333 3334 3335 3339 3401 3402 3403
[477] 3404 3405 3406 3407 3408 3419 3501 3502 3503 3504 3505 3506 3507 3509
```

>

The code=140 in hhexp.byitem are out of range, as compared with the codes on the questionnaire;

✓

✓ Omitted the records with the above code of 140 in hhexp.byitem and R04.

```
> head(R04[R04$CODE==140,])
            ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO
600945 71418021        4       61      2 10     7   5 71418       2    1
       NHH RESULT CODE QUANTITY VALUE INKIND_VALUE  Weight m.value sg
600945   1      1  140    10000   530           NA 617.269  2271.4  1
> head(R04[R04$ID==71418021,])
            ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO
600944 71418021        4       61      2 10     7   5 71418       2    1
600945 71418021        4       61      2 10     7   5 71418       2    1
600946 71418021        4       61      2 10     7   5 71418       2    1
600947 71418021        4       61      2 10     7   5 71418       2    1
600948 71418021        4       61      2 10     7   5 71418       2    1
600949 71418021        4       61      2 10     7   5 71418       2    1
       NHH RESULT CODE QUANTITY VALUE INKIND_VALUE  Weight m.value sg
600944   1      1  107     2000   100           NA 617.269   428.6  1
600945   1      1  140    10000   530           NA 617.269  2271.4  1
600946   1      1  201     1800   270           NA 617.269  1157.1  2
600947   1      1  302      150    25           NA 617.269   107.1  3
600948   1      1  401      500    40           NA 617.269   171.4  4
600949   1      1  402     1000    65           NA 617.269   278.6  4

> hhexp.byitem.old<-hhexp.byitem
> hhexp.byitem<-subset(hhexp.byitem,code!=140)
> dim(hhexp.byitem)
[1] 489   2

> R04.old<-R04
> R04<-subset(R04,CODE!=140)
> dim(R04)
[1] 815184     19
> outfiles[[4]]<-R04
```

✓ **Generated data frame exp.boarder from boarder**

```
> n.boarder<-rep(0,13) # Number of records with expenditure >0
> av.boarder<-rep(0,13) # Monthly expenditure per household
> (NHH<-sum(outfiles[[25]]$Weight))
[1] 5121354
> for(j in 1:13){
+ n.boarder[j]<-nrow(subset(boarder,boarder[,j+13]>0))
+ av.boarder[j]<-sum(boarder[,j+13]*boarder$Weight)/NHH
+ }
> n.boarder
 [1]  77  15  59   6 134 138  50 120 132  83  91 112  19
> round(av.boarder,2)
 [1] 47.66  0.32  1.23  0.34  3.54  4.78  1.81 17.73 35.70 13.66  3.91  0.38  0.05

# Corresponding 4-digit code, which never overlap the codes of R04 and R05
> code.boarder<-c(0220,2112,3220,2910,2221,2510,2720,2004,3510,3411,3412,3050,3340)

> for(j in 1:13){
+ if(j==1) cat("Variable:  hhexp , No. of records , 4-digit code ¥n")
+ cat(colnames(boarder)[j+13],":",format(round(av.boarder[j],2),width=8),
+ ", ",format(n.boarder[j],width=14), ", ",format(code.boarder[j],width=14),"¥n")
+ }
Variable:  hhexp , No. of records , 4-digit code
COL_3 :    47.66 ,              77 ,             220
COL_4 :     0.32 ,              15 ,            2112
COL_5 :     1.23 ,              59 ,            3220
COL_6 :     0.34 ,               6 ,            2910
COL_7 :     3.54 ,             134 ,            2221
COL_8 :     4.78 ,             138 ,            2510
COL_9 :     1.81 ,              50 ,            2720
COL_10 :    17.73 ,             120 ,            2004
COL_11 :     35.7 ,             132 ,            3510
COL_12 :    13.66 ,              83 ,            3411
COL_13 :     3.91 ,              91 ,            3412
COL_14 :     0.38 ,             112 ,            3050
```

COL_15 : 0.05 , 19 , 3340

```
# Generated data frame exp.boarder
> exp.boarder<-data.frame(code=code.boarder,col= colnames(boarder)[14:26],
+ m.value=round(av.boarder,2),nhh=n.boarder)
> exp.boarder
    code      col m.value nhh
1    220   COL_3    47.66  77
2   2112   COL_4     0.32  15
3   3220   COL_5     1.23  59
4   2910   COL_6     0.34   6
5   2221   COL_7     3.54 134
6   2510   COL_8     4.78 138
7   2720   COL_9     1.81  50
8   2004  COL_10    17.73 120
9   3510  COL_11    35.70 132
10 3411  COL_12    13.66  83
11 3412  COL_13     3.91  91
12 3050  COL_14     0.38 112
13 3340  COL_15     0.05  19
```

✓ Binded hhexp.byitem and exp.boarder

```
> df<-rbind(hhexp.byitem,exp.boarder[,c(1,3)])
> hhexp.byitem<-df[order(df$code),]
> dim(hhexp.byitem)
[1] 502   2

# Average monthly expenditure per household
> sum(is.na(hhexp.byitem$m.value))
[1] 6
> hhexp.byitem[is.na(hhexp.byitem)]<-0
> dim(hhexp.byitem)
[1] 502   2
> sum(hhexp.byitem[,"m.value"])
```

```
[1] 40006.01
> sum(hhexp.byitem[hhexp.byitem$code<1900,"m.value"])
[1] 15337.1
> sum(hhexp.byitem[hhexp.byitem$code>=1900,"m.value"])
[1] 24668.91
```

☐ **Made table on average monthly expenditure per household by 4-digit code**

```
> for(j in 1:502){
+ cat(format(hhexp.byitem[j,1],width=4),":", format(hhexp.byitem[j,2],width=8),"¥n")
+ }
```

101 :	405.89	214 :	6.35	422 :	13.5	603 :	13.68
102 :	59.75	215 :	10.72	423 :	12.89	604 :	13.31
103 :	413.01	216 :	9.99	424 :	2.88	605 :	14.11
104 :	24.88	219 :	80.42	425 :	15.5	609 :	6.62
105 :	405.39	220 :	47.66	426 :	5.75	701 :	136.09
106 :	91.38	301 :	10.77	427 :	8.59	702 :	24.67
107 :	697.37	302 :	359.33	428 :	1.64	703 :	12.79
108 :	5.34	303 :	4.54	429 :	15.95	704 :	87.99
109 :	30.43	304 :	31.24	430 :	8.56	705 :	100.46
110 :	71.65	305 :	38.08	431 :	3.15	706 :	160.44
111 :	428.4	306 :	7.2	432 :	8.09	707 :	59.59
112 :	13.44	307 :	9.42	433 :	10.97	708 :	120.41
113 :	6.49	308 :	10.18	434 :	30.5	709 :	20.31
114 :	4.43	309 :	72.97	439 :	11.39	710 :	106.98
115 :	10.32	319 :	8.42	441 :	74.87	711 :	11.29
116 :	2.91	401 :	20.69	442 :	56.1	712 :	30.63
117 :	82.22	402 :	93.29	443 :	21.73	713 :	77.92
118 :	56.36	403 :	44.58	444 :	0	714 :	120.21
119 :	6.17	404 :	34.16	445 :	7.79	715 :	4.94
120 :	0.2	405 :	3.24	446 :	13.87	716 :	103.27
121 :	0.9	406 :	57.97	447 :	2.46	717 :	27.25
122 :	1.26	407 :	22.09	448 :	10.57	718 :	48.4
129 :	10.21	408 :	27.66	449 :	5.99	719 :	7.5
201 :	462.17	409 :	71.51	450 :	6.67	720 :	14.47
202 :	18.55	410 :	158.27	459 :	35.71	721 :	41.23
203 :	13.78	411 :	72.66	501 :	49.73	722 :	0.35
204 :	122.71	412 :	47.26	502 :	26.38	723 :	113.02
205 :	64.81	413 :	59.02	503 :	206.08	801 :	246.94
206 :	147.18	414 :	1.9	504 :	11.57	802 :	51.22
207 :	21.41	415 :	29.4	505 :	33.5	803 :	17.79
208 :	45.5	416 :	40.41	506 :	4.23	804 :	17.89
209 :	27.38	417 :	7.05	507 :	2.12	805 :	15.94
210 :	40.07	418 :	28.36	508 :	0.26	806 :	3.88
211 :	200.49	419 :	20.68	509 :	3.43	807 :	66.46
212 :	336.74	420 :	18.54	601 :	509.71	808 :	1.72
213 :	153.75	421 :	19.05	602 :	111.79	809 :	0.75

810 :	70.12	1122 :	0	1604 :	50.01	1804 :	10.53
811 :	58.3	1123 :	2.06	1605 :	11.59	1805 :	0.74
812 :	3.92	1129 :	2.78	1606 :	20.28	1806 :	49.6
813 :	28.36	1201 :	6.47	1607 :	92.49	1807 :	72.88
814 :	4.8	1202 :	10.23	1608 :	32.31	1808 :	3.16
815 :	0.5	1203 :	8.1	1609 :	31.31	1809 :	0.69
816 :	9.17	1204 :	0.64	1610 :	10.09	1810 :	5.04
817 :	0.45	1205 :	0.6	1611 :	5.16	1811 :	8.81
819 :	57.31	1206 :	0.8	1612 :	14.72	1812 :	5.94
901 :	159.7	1209 :	1.8	1613 :	4.66	1819 :	7.26
902 :	0.46	1301 :	25.55	1614 :	4.77	1901 :	19.37
909 :	0.03	1302 :	1.92	1615 :	12.19	1902 :	263.14
1001 :	962.72	1303 :	2.03	1616 :	6.16	1903 :	28.46
1002 :	2.74	1304 :	41.13	1619 :	15.6	1904 :	25.75
1003 :	0.02	1305 :	83.6	1651 :	10.53	1905 :	5.95
1101 :	53.69	1306 :	8.52	1652 :	3.76	1906 :	0.27
1102 :	183.51	1307 :	1035.77	1653 :	7.32	1907 :	0.82
1103 :	98.65	1308 :	111.9	1654 :	1.65	1908 :	3.18
1104 :	205.39	1309 :	18.73	1659 :	0.37	1909 :	2.99
1105 :	0	1310 :	22.37	1701 :	10.02	1910 :	137.59
1106 :	64.47	1311 :	16.53	1702 :	61.52	1911 :	3.51
1107 :	94.69	1312 :	9.31	1703 :	17.08	1912 :	21.66
1108 :	78.09	1319 :	11.3	1704 :	4.41	1919 :	0.33
1109 :	113.97	1401 :	342.66	1705 :	289.1	1920 :	47.57
1110 :	103.04	1402 :	27.61	1706 :	3.91	1921 :	37.21
1111 :	51.94	1403 :	5.39	1707 :	13.24	1922 :	20.07
1112 :	18.22	1404 :	0.58	1708 :	44.09	1923 :	4.45
1113 :	15.22	1409 :	3.47	1709 :	9.91	1924 :	82.56
1114 :	22.04	1501 :	0	1710 :	3.17	2001 :	4491.6
1115 :	21.82	1502 :	11.86	1711 :	3.57	2002 :	24.7
1116 :	16.76	1503 :	3.9	1712 :	95.03	2003 :	150.7
1117 :	31.93	1504 :	1.1	1713 :	0.76	2004 :	17.73
1118 :	20.7	1509 :	0.21	1719 :	27.21	2101 :	759.46
1119 :	21.12	1601 :	77.82	1801 :	281.92	2102 :	3.65
1120 :	61.46	1602 :	15.5	1802 :	14.33	2103 :	93.16
1121 :	38.97	1603 :	33.02	1803 :	26.21	2104 :	110.49

2105 :	0	2401 :	37.31	2619 :	56.56	3008 :	47.92
2106 :	369.66	2402 :	623.15	2701 :	11.81	3009 :	97.6
2107 :	24.96	2403 :	35.04	2702 :	62.22	3010 :	13.38
2108 :	98.8	2404 :	45.43	2703 :	48.6	3011 :	11.02
2109 :	18.7	2405 :	158.3	2704 :	222.39	3012 :	16.1
2110 :	3.62	2406 :	327.9	2705 :	3.9	3013 :	24.63
2111 :	9.61	2407 :	68.51	2706 :	4.38	3014 :	13.67
2112 :	0.32	2409 :	11.91	2707 :	13.5	3015 :	21.42
2119 :	0.79	2411 :	0	2708 :	27.32	3016 :	8.06
2201 :	172.05	2412 :	246.33	2709 :	14.06	3017 :	2.16
2202 :	71.08	2413 :	24.71	2710 :	56.58	3018 :	4.23
2203 :	29.48	2414 :	15.97	2711 :	20.16	3019 :	70.74
2204 :	19.79	2415 :	179.47	2712 :	17.09	3020 :	25.67
2205 :	34.95	2416 :	356.81	2719 :	11.71	3021 :	12.39
2206 :	48.13	2417 :	74.38	2720 :	1.81	3022 :	17.02
2207 :	19.44	2418 :	245.84	2801 :	182.14	3023 :	5.83
2208 :	4	2419 :	40.06	2802 :	102.54	3024 :	14.21
2209 :	42.12	2501 :	3.12	2803 :	12.09	3029 :	11.31
2210 :	6.26	2502 :	260.94	2804 :	16.23	3041 :	20.21
2211 :	45.14	2503 :	567.45	2805 :	3.77	3042 :	12.94
2212 :	2.88	2504 :	17.19	2809 :	1.61	3043 :	11.98
2213 :	98.52	2505 :	40.35	2901 :	5.89	3049 :	1.67
2214 :	19.45	2509 :	2.52	2902 :	16.98	3050 :	0.38
2219 :	3.72	2510 :	4.78	2903 :	108.42	3061 :	4.11
2221 :	3.54	2601 :	236.06	2904 :	38.57	3062 :	5.33
2301 :	594.36	2602 :	24.13	2905 :	2.1	3101 :	98.61
2302 :	25.45	2603 :	20.44	2906 :	0.8	3102 :	58.01
2303 :	78.56	2604 :	39.37	2909 :	17.22	3103 :	14.27
2304 :	118.91	2605 :	41.21	2910 :	0.34	3104 :	28.02
2305 :	325.21	2606 :	76.9	3001 :	138.02	3105 :	4.45
2306 :	357.15	2607 :	646.88	3002 :	29.3	3106 :	3.14
2307 :	15.23	2608 :	21.81	3003 :	106.14	3107 :	4.08
2308 :	5.07	2609 :	130.01	3004 :	79.1	3109 :	1.87
2309 :	17.06	2610 :	74.08	3005 :	66.26	3201 :	11.83
2310 :	4.15	2611 :	57.35	3006 :	32.13	3202 :	18.76
2319 :	24.75	2612 :	22.93	3007 :	51.26	3203 :	17.23

3204 :	10.15	3324 :	2.01
3205 :	1.43	3325 :	75.15
3206 :	3.52	3326 :	108.35
3207 :	2.12	3327 :	269.93
3208 :	22.3	3328 :	0.44
3209 :	4.25	3329 :	3.16
3210 :	6.32	3330 :	1.41
3211 :	33.31	3331 :	25.79
3212 :	2.44	3332 :	59.82
3213 :	9.02	3333 :	10.68
3214 :	2.35	3334 :	6.95
3219 :	7.93	3335 :	82.73
3220 :	1.23	3339 :	14.08
3301 :	14.15	3340 :	0.05
3302 :	10	3401 :	439.55
3303 :	0.54	3402 :	72.4
3304 :	8.26	3403 :	209.08
3305 :	22.52	3404 :	643.6
3306 :	20.64	3405 :	2650.15
3307 :	10.88	3406 :	190.39
3308 :	15.82	3407 :	58.45
3309 :	11.36	3408 :	38.48
3310 :	1.65	3411 :	13.66
3311 :	0.17	3412 :	3.91
3312 :	4.43	3419 :	155.23
3313 :	2.98	3501 :	577.28
3314 :	2.37	3502 :	198
3315 :	1.83	3503 :	15.98
3316 :	23.35	3504 :	131.58
3317 :	1.83	3505 :	806.93
3318 :	7.07	3506 :	356.94
3319 :	5.9	3507 :	810.56
3320 :	3.88	3509 :	114.55
3321 :	4.6	3510 :	35.7
3322 :	30.98		
3323 :	9.19		

7.5. Household expenditure by subgroup

R04: hhexp1

- ✓ Aggregated the variable of m.value, monthly household expenditure by ID (household) and sg, and created household-level data frame hhexp with variables of total monthly expenditure by subgroup.

```
> t<-tapply(R04$m.value,list(R04$ID,R04$sg),sum,na.rm=T)
> dim(t)
[1] 20540    19
> head(t)
              1       2      3       4      5       6       7       8     9    10
10002011 1800.0 3385.7 385.7  385.8 428.6      NA 3364.3      NA    NA 1050
10002031      NA 7585.7    NA      NA    NA      NA      NA      NA    NA   NA
10002041 1191.5 6600.0 792.9 1075.7 338.6 2057.1 3450.0  857.2    NA 1050
10002051 2764.3 2031.5 407.2 1157.1    NA 1071.4 2250.1      NA    NA 1200
10002061 1950.0  497.1 385.7  600.0 278.6      NA 1714.3 1178.5 235.7 1050
10002071 3085.7 3021.4 222.9  964.2 235.7 4285.7 1821.4      NA    NA 1500
             11 12      13     14     15      16      17      18      19
10002011 1731.7 NA      NA 385.7 450.0      NA  342.9 3471.4 1285.7
10002031      NA NA      NA     NA     NA    42.9      NA      NA      NA
10002041 1654.6 NA 2040.0 385.7 792.9      NA      NA    85.7      NA
10002051 1581.7 NA  385.7 385.7 677.1      NA  150.0      NA  587.1
10002061 1508.8 NA      NA  94.3 450.0      NA  274.3      NA      NA
10002071 1581.7 NA 3857.1 364.3 900.0 1050.0 3857.2 1157.1      NA

> t[is.na(t)]<-0
> colnames(t)<-paste("g",1:19,sep="")
> hhexp<-data.frame(ID=rownames(t),t)
> head(hhexp)
               ID      g1      g2     g3      g4     g5      g6      g7      g8     g9   g10
10002011 10002011 1800.0 3385.7 385.7  385.8 428.6     0.0 3364.3     0.0    0.0 1050
10002031 10002031     0.0 7585.7   0.0    0.0   0.0     0.0    0.0     0.0    0.0    0
10002041 10002041 1191.5 6600.0 792.9 1075.7 338.6 2057.1 3450.0  857.2    0.0 1050
10002051 10002051 2764.3 2031.5 407.2 1157.1   0.0 1071.4 2250.1     0.0    0.0 1200
10002061 10002061 1950.0  497.1 385.7  600.0 278.6     0.0 1714.3 1178.5 235.7 1050
```

```
10002071 10002071 3085.7 3021.4 222.9  964.2 235.7 4285.7 1821.4    0.0    0.0 1500
            g11 g12    g13   g14   g15    g16    g17    g18    g19
10002011 1731.7   0    0.0 385.7 450.0    0.0  342.9 3471.4 1285.7
10002031    0.0   0    0.0   0.0   0.0   42.9    0.0    0.0    0.0
10002041 1654.6   0 2040.0 385.7 792.9    0.0    0.0   85.7    0.0
10002051 1581.7   0  385.7 385.7 677.1    0.0  150.0    0.0  587.1
10002061 1508.8   0    0.0  94.3 450.0    0.0  274.3    0.0    0.0
10002071 1581.7   0 3857.1 364.3 900.0 1050.0 3857.2 1157.1    0.0
```

```
> hhexp1<-hhexp
```

R05: hhexp2

- ✓ Aggregated the variable of m.value, monthly household expenditure by ID (household) and sg, and created household-level data frame hhexp2 with variables of total monthly expenditure by subgroup.

```
> t<-tapply(R05$m.value,list(R05$ID,R05$sg),sum,na.rm=T)
> dim(t)
[1] 20540    16
> head(t)
           20   21   22   23    24   25   26 27   28 29     30    31   32      33
10002011 2850 1190  272   20   200 2800  160 NA  945 NA  150.0 500.0 43.3      NA
10002031 2650  420  602  430    NA 1400   NA NA   NA NA     NA    NA   NA      NA
10002041 3500 2850  668   NA  2650 1500 2200 NA 1045 NA  908.4 125.0   NA   625.0
10002051 2950 3420 1116 8000   960 3200 1000 NA 1300 NA  916.7 233.4   NA    41.7
10002061 5150 2850  353  350  3000   NA 1356 NA 1024 NA   41.7 141.7   NA      NA
10002071 5150 2370  907 3750 49820  800 1060 NA 1340 NA 1083.4 250.0 66.7 31583.4
           34 35
10002011   NA NA
10002031   NA NA
10002041 1800 NA
10002051 13500 NA
10002061 1580 NA
10002071  610 NA
```

```
> t[is.na(t)]<-0
> colnames(t)<-paste("g",20:35,sep="")
> hhexp2<-data.frame(ID=rownames(t),t)
> head(hhexp2)
               ID  g20  g21  g22  g23   g24  g25  g26 g27  g28 g29    g30   g31  g32
10002011 10002011 2850 1190  272   20   200 2800  160   0  945   0  150.0 500.0 43.3
10002031 10002031 2650  420  602  430     0 1400    0   0    0   0    0.0   0.0  0.0
10002041 10002041 3500 2850  668    0  2650 1500 2200   0 1045   0  908.4 125.0  0.0
10002051 10002051 2950 3420 1116 8000   960 3200 1000   0 1300   0  916.7 233.4  0.0
10002061 10002061 5150 2850  353  350  3000    0 1356   0 1024   0   41.7 141.7  0.0
10002071 10002071 5150 2370  907 3750 49820  800 1060   0 1340   0 1083.4 250.0 66.7
             g33   g34 g35
10002011     0.0     0   0
10002031     0.0     0   0
10002041   625.0  1800   0
10002051    41.7 13500   0
10002061     0.0  1580   0
10002071 31583.4   610   0
```

R06: hhexp3

✓ Collapsed to household level and created data frame hhexp3.

```
> CollapseBy2<-function(df=df,var=var,fac=fac,ID=NULL){
+ # To aggregate variables with the same factors in data frame
+ # df: data frame
+ # var: vector of variables to be aggregated (in position number or variable name)
+ # fac: factor variables (in position number or variable name)
+ # ID: combinations of factor levels to be matched, if specified
+ #
+ if(is.numeric(var)){ var<-colnames(df)[var] }
+ if(is.numeric(fac)){ fac<-colnames(df)[fac] }
+ d<-data.frame(df[,fac])
+ colnames(d)<-fac
+ if(missing(ID)) { ID<- subset(d,!duplicated(d)) }
+ y<-data.frame(ID,row.names=NULL)
```

```
+ colnames(y)<-fac
+ for(j in var){
+ t<-aggregate(df[,j],d,sum,na.rm=T)
+ colnames(t)<-c(fac,j)
+ y<-merge(y,t,by=fac,all.x=T)
+ }
+ y[is.na(y)]<-0
+ return (y)
+ }
```

```
> bd.ID<-unique(boarder$ID)
> length(bd.ID)
[1] 178
> hhexp3<-CollapseBy2(boarder,var=c(14:26),fac="ID",ID=bd.ID)
> dim(hhexp3)
[1] 178  14
> head(hhexp3)
        ID  COL_3 COL_4 COL_5 COL_6 COL_7 COL_8 COL_9 COL_10 COL_11 COL_12 COL_13
1 11149011 3673.5     0     0     0     0   600     0   3000      0      0      0
2 11672041    0.0     0     0     0   500     0     0      0   4000      0      0
3 11799021    0.0     0     0     0     0     0     0      0   5000   5000      0
4 12303031    0.0     0     0     0     0     0     0      0   5000      0      0
5 12705061    0.0     0     0     0     0     0     0      0      0      0      0
6 12705081 1836.7     0     0     0   200   500     0      0      0      0      0
  COL_14 COL_15
1   80.8    9.7
2    0.0    0.0
3    0.0    0.0
4    0.0    0.0
5  194.4    0.0
6  111.1    0.0
```

Merged R04, R05 and R06

✓ Merged R04, R05 and R06 by using ID

```
> hhexp<-merge(hhexp1,hhexp2)
> dim(hhexp)
[1] 20540    36
> hhexp<-merge(hhexp,hhexp3,all.x=TRUE)
> dim(hhexp)
[1] 20540    49
```

✓ Replaced NA with 0

```
> hhexp[is.na(hhexp)]<-0
```

✓ Appended weight

```
> R25<-outfiles[[25]]
> hhexp<-merge(hhexp,R25[c("ID","Weight")])
> colnames(hhexp)
 [1] "ID"     "g1"     "g2"     "g3"     "g4"     "g5"     "g6"     "g7"
 [9] "g8"     "g9"     "g10"    "g11"    "g12"    "g13"    "g14"    "g15"
[17] "g16"    "g17"    "g18"    "g19"    "g20"    "g21"    "g22"    "g23"
[25] "g24"    "g25"    "g26"    "g27"    "g28"    "g29"    "g30"    "g31"
[33] "g32"    "g33"    "g34"    "g35"    "COL_3"  "COL_4"  "COL_5"  "COL_6"
[41] "COL_7"  "COL_8"  "COL_9"  "COL_10" "COL_11" "COL_12" "COL_13" "COL_14"
[49] "COL_15" "Weight"
```

✓ Added COL_3 to COL_15 to the respective subgroups.

```
> hhexp$g2<-hhexp$g2+hhexp$COL_3
> hhexp$g21<-hhexp$g21+hhexp$COL_4
> hhexp$g32<-hhexp$g32+hhexp$COL_5
> hhexp$g29<-hhexp$g29+hhexp$COL_6
> hhexp$g22<-hhexp$g22+hhexp$COL_7
> hhexp$g25<-hhexp$g25+hhexp$COL_8
> hhexp$g27<-hhexp$g27+hhexp$COL_9
> hhexp$g20<-hhexp$g20+hhexp$COL_10
> hhexp$g35<-hhexp$g35+hhexp$COL_11
> hhexp$g34<-hhexp$g34+hhexp$COL_12
> hhexp$g34<-hhexp$g34+hhexp$COL_13
```

```
> hhexp$g30<-hhexp$g30+hhexp$COL_14
> hhexp$g33<-hhexp$g33+hhexp$COL_15
```

✓ Generated the variable of monthly total expenditure

```
> hhexp["ttexp"]<-rowSums(hhexp[,2:36])
> hhexp["food"]<-rowSums(hhexp[,c(2:19)])
> hhexp["nfood"]<-rowSums(hhexp[,c(20:36)])
```

```
# Average monthly household expenditure
> sum(hhexp$ttexp*hhexp$Weight)/sum(hhexp$Weight)
[1] 41765.19
> sum(hhexp$food*hhexp$Weight)/sum(hhexp$Weight)
[1] 15907.8
> sum(hhexp$nfood*hhexp$Weight)/sum(hhexp$Weight)
[1] 25857.39
```

Summary:

	My estimates	Final report of the survey	GAP
Total monthly household expenditure	41,765	41,444	+321 (0.8%)
Food	15,908	15,651	+257 (1.6%)
Non-food	25,857	25,793	+64 (0.2%)

Household expenditure on food by subgroup

```
> df<-hhexp
> av.food<-rep(0,19)
> for(j in 1:18){
+ av.food[j+1]<-sum(df[,j+1]*df$Weight)/sum(hhexp$Weight)
+ }
> av.food[1]<-sum(av.food[2:19])
> names(av.food)<-c("All food items","Cereals","Prepared food","Pulses","Vegitables",
+ "Yams and other","Meat","Fish","Dried fish","Eggs","Coconuts","Condiments",
+ "Other foods","Milk and milk foods","Fats and oils","Sugar, juggery & treacle",
+ "Fruits","Confectionery & short eats","Beverages")
> for(j in 1:19){
+ cat(format(names(av.food)[j],width=28),format(round(av.food[j]),width=6),"¥n")
+ }
All food items               15908
Cereals                       2829
Prepared food                 1810
Pulses                         552
Vegitables                    1279
Yams and other                 337
Meat                           669
Fish                          1430
Dried fish                     656
Eggs                           160
Coconuts                       965
Condiments                    1416
Other foods                     29
Milk and milk foods           1389
Fats and oils                  380
Sugar, juggery & treacle       476
Fruits                         461
Confectionery & short eats     583
Beverages                      487
```

Household expenditure on non-food by subgroup

```
> df<-hhexp
> av.nfood<-rep(0,18)
> for(j in 1:17){
+ av.nfood[j+1]<-sum(df[,j+19]*df$Weight)/sum(hhexp$Weight)
+ }
> av.nfood[1]<-sum(av.nfood[2:18])
> names(av.nfood)<-c("Total non-food","Liquor,Drugs & Tabacco","Housing",
+ "Fuel & Light","Personal care","Health","Transport","Communication","Education",
+ "Cultural activities & Entertainment","Non-durable household goods",
+ "Household services","Clothing & Textile","Footwear","Durable household goods",
+ "Long durable household goods","Other expenses","Other adhoc expenses")
> for(j in 1:18){
+ cat(format(names(av.nfood)[j],width=35),format(round(av.nfood[j]),width=6),"¥n")
+ }
Total non-food                      25857
Liquor,Drugs & Tabacco                705
Housing                              4685
Fuel & Light                         1754
Personal care                         621
Health                               1566
Transport                            3419
Communication                         896
Education                            1448
Cultural activities & Entertainment   516
Non-durable household goods           318
Household services                    190
Clothing & Textile                    976
Footwear                              212
Durable household goods               154
Long durable household goods          875
Other expenses                       4475
Other adhoc expenses                 3048
```

CAUSE OF ERRORS

- **Comparison with the total household expenditure in R25, household summary file**

```
> R25<-outfiles[[25]]
> dim(R25)
[1] 20540    15
> head(R25)
        ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH
1 10002011       25       11      1 10     7   1 10002       1    1   1
2 10002031       25       11      1 10     7   1 10002       3    1   1
3 10002041       25       11      1 10     7   1 10002       4    1   1
4 10002051       25       11      1 10     7   1 10002       5    1   1
5 10002061       25       11      1 10     7   1 10002       6    1   1
6 10002071       25       11      1 10     7   1 10002       7    1   1
  RESULT    HExpPM   HIncPM  Weight
1      1  27597.48 28900.00 256.313
2      1  13130.57 19892.86 256.313
3      1  40234.20 16191.67 256.313
4      1  51285.67 63046.66 256.313
5      1  26063.48 32233.33 256.313
6      1 126262.00 13400.00 256.313
> weighted.mean(R25$HExpPM,R25$Weight)
[1] 41444.11
```

- R25 has the household-level variable of total household expenditure, HExpPM, and its weighted mean is the same as the survey report.
- Compared my estimates of hhexp with HExpPM at household level.

```
> table(hhexp$ID==R25$ID)
 TRUE
20540
> addmargins(table(abs(hhexp$ttexp-R25$HExpPM)<1))
FALSE  TRUE   Sum
13891  6649 20540
```

- Generated the variable of differences between hhexp and HExpPM.

```
> hhexp$ttR25<-R25$HExpPM
> hhexp$diff<-hhexp$ttexp-hhexp$ttR25
```

- Example of the differences

```
> range(hhexp$diff)
[1]   -8572 4381080

> hhexp[hhexp$diff>4000000,]
           ID      g1     g2     g3     g4     g5     g6   g7    g8    g9
17257 83130011 4383900 1028.6 827.1 2207.1 642.9 1071.4 1650 771.4 347.1
        g10  g11 g12 g13   g14   g15   g16    g17   g18 g19  g20  g21
17257 1028.6 1586   0   0 471.4 707.1 214.3 1114.3 257.1   0 3160 3595
       g22  g23 g24  g25  g26 g27 g28 g29    g30   g31 g32 g33  g34   g35
17257 2175 1000 500 1700 6580 450 200   0 1550.1 766.7 370   0 8960 583.3
      COL_3 COL_4 COL_5 COL_6 COL_7 COL_8 COL_9 COL_10 COL_11 COL_12
17257     0     0     0     0     0     0     0      0      0      0
      COL_13 COL_14 COL_15  Weight   ttexp    food   nfood    ttR25
17257      0      0      0 255.218 4429415 4397824 31590.1 48334.87
        diff
17257 4381080

> d<-subset(R04,ID==83130011)
> dim(d)
[1] 44 19
> head(d)
            ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO
693405 83130011        4       72      2 10    11  27 83130       1    1
693406 83130011        4       72      2 10    11  27 83130       1    1
693407 83130011        4       72      2 10    11  27 83130       1    1
693408 83130011        4       72      2 10    11  27 83130       1    1
693409 83130011        4       72      2 10    11  27 83130       1    1
693410 83130011        4       72      2 10    11  27 83130       1    1
       NHH RESULT CODE QUANTITY   VALUE INKIND_VALUE  Weight   m.value sg
```

693405	1	1	107	10500	630	630	255.218	2700.0	1
693406	1	1	**111**	**NA**	**1022250**	NA	255.218	**4381071.4**	1
693407	1	1	118	100	30	NA	255.218	128.6	1
693408	1	1	201	900	140	NA	255.218	600.0	2
693409	1	1	205	10	100	NA	255.218	428.6	2
693410	1	1	302	1100	168	NA	255.218	720.0	3

Remarks: The value of 1,022,250 in code=111 (Wheat flour) seems to be an outlier, and the variable QUANTITY is NA.

- The number of records with VALUE=NA is 4, while that with QUANTITY=NA is 148, 638.
-

```
> sum(is.na(R04$VALUE))
[1] 4
> R04[is.na(R04$VALUE),]
            ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO
22133  11586081        4       11      1 10     6 282 11586       8    1
82930  15802031        4       11      1 10    12 159 15802       3    1
320947 37178051        4       23      3 10    10  35 37178       5    1
812760 98450051        4       92      2 10    11  38 98450       5    1
       NHH RESULT CODE QUANTITY VALUE INKIND_VALUE  Weight m.value sg
22133    1      1  444        2    NA           50 256.313      NA  4
82930    1      1 1105      100    NA           NA 288.352      NA 11
320947   1      1 1501     1000    NA           NA 289.311      NA 15
812760   1      1 1122       NA    NA           10 366.407      NA 11

> sum(is.na(R04$QUANTITY))
[1] 148638


# Examples of the differences
> hhexp[hhexp$diff< -8000,]
            ID    g1     g2     g3     g4    g5     g6      g7 g8    g9
12620 58309071 11250 3428.6 1898.6 1842.8 385.7 8571.4 17142.8  0 822.9
       g10    g11 g12     g13    g14    g15 g16    g17    g18 g19   g20
```

```
12620 3000 3235.8    0 20678.6 3085.7 1714.3    0 1307.1 1885.7    0 10000
       g21   g22 g23   g24 g25    g26 g27   g28 g29     g30 g31   g32 g33    g34
12620 5525 2180    0 1820 400 10570    0 2085 200 2051.6    0 66.7    0 21100
        g35 COL_3 COL_4 COL_5 COL_6 COL_7 COL_8 COL_9 COL_10 COL_11 COL_12
12620 166.7     0     0     0     0     0     0     0      0      0      0
      COL_13 COL_14 COL_15 Weight  ttexp  food nfood  ttR25  diff
12620      0      0      0 84.667 136415 80250 56165 144987 -8572

# Sum of food expenditure
> d1<-R04[R04$ID==58309071,]
> range(d1$CODE)
[1]  106 1809
> sum(d1$VALUE)*30/7
[1] 80250

# Sum of non-food expenditure
> d2<-R05[R05$ID==58309071,]
> dim(d2)
[1] 33 19
> sum(d2$m.value)
[1] 56165

> d2[,c(1,13:15,17:19)]
            ID NF_CODE NF_QUANTITY NF_VALUE Weight sg m.value
384829 58309071    2001          NA    10000 84.667 20 10000.0 # House rent
384830 58309071    2103       15000     1500 84.667 21  1500.0
384831 58309071    2104          80     4000 84.667 21  4000.0
384832 58309071    2109           5       25 84.667 21    25.0
384833 58309071    2201          NA      200 84.667 22   200.0
384834 58309071    2202          NA      320 84.667 22   320.0
384835 58309071    2203          NA      340 84.667 22   340.0
384836 58309071    2206          NA      550 84.667 22   550.0
384837 58309071    2209          NA       70 84.667 22    70.0
384838 58309071    2212          NA      500 84.667 22   500.0
384839 58309071    2213          NA      200 84.667 22   200.0
384840 58309071    2411          NA     1820 84.667 24  1820.0
```

```
384841 58309071     2503          NA       400 84.667 25   400.0
384842 58309071     2601          NA       620 84.667 26   620.0
384843 58309071     2603          NA       450 84.667 26   450.0
384844 58309071     2607          NA      9500 84.667 26  9500.0 # Tuition fees
384845 58309071     2801          NA      1920 84.667 28  1920.0
384846 58309071     2802          NA       165 84.667 28   165.0
384847 58309071     2902          NA       200 84.667 29   200.0
384848 58309071     3001           2      2400 84.667 30   400.0
384849 58309071     3003           2      2400 84.667 30   400.0
384850 58309071     3007           2      2000 84.667 30   333.3
384851 58309071     3009           4      2600 84.667 30   433.3
384852 58309071     3013          10       600 84.667 30   100.0
384853 58309071     3015           2       640 84.667 30   106.7
384854 58309071     3016           4       200 84.667 30    33.3
384855 58309071     3018           4       120 84.667 30    20.0
384856 58309071     3042        7500       900 84.667 30   150.0
384857 58309071     3061          NA       450 84.667 30    75.0
384858 58309071     3208           4       400 84.667 32    66.7
384859 58309071     3403          NA      3500 84.667 34  3500.0
384860 58309071     3405          NA     17600 84.667 34 17600.0 # Payment for debits
384861 58309071     3504          NA      2000 84.667 35   166.7
```

Summary

- **The variable of HExpPM in R25 is compatible with the final report.**
- **There are inconsistencies between HExpPM and the sum of R04 and R05 at household level.**

```
> save.image("G:¥¥SriLanka2012¥¥Working¥¥hhexp_20170826.RData")
>
```

8. Resampling method

Strategies for 80% resampling

1) **To order R25 by the variables of DISTRICT, SECTOR, PSU and HIncPM, and append the variable sn, the serial number of records to R25.**
2) **To select 80% of R25, by dropping 20% households using systematic selection with the interval=5 and a random start number, and to create the vector ID.res, a set of ID selected for resampled data set.**
3) **For each data set, to select records with ID.res.**
4) **To append the adjust the weight WT as the next;**

   Adjusted weight = original weight / 0.8
5) **For each data set, to rename R data frame "xxx" as "xxx.80".**
6) **Export R data frames to CSV files with the name "xxx_80.csv".**

```
##############################################################################
##
# Number of records and variables of each data frame
> for(j in 1:25){
+ cat(Rnames[j],":",nrow(outfiles[[j]]),":",ncol(outfiles[[j]]),"¥n")
+ }
R01 : 85080 : 30
R02 : 22029 : 25
R03 : 80534 : 30
R04 : 815185 : 17
R05 : 612085 : 17
R06 : 260 : 28
R07 : 20540 : 14
R08 : 18567 : 19
R09 : 20540 : 14
R10 : 4173 : 27
R11 : 20540 : 14
```

```
R12 : 20540 : 14
R13 : 3958 : 22
R14 : 20540 : 14
R15 : 5680 : 19
R16 : 20540 : 14
R17 : 12602 : 27
R18 : 20540 : 14
R19 : 8575 : 25
R20 : 20540 : 31
R21 : 20540 : 38
R22 : 20540 : 50
R23 : 20540 : 40
R24 : 20540 : 42
R25 : 20540 : 15

# Variables of R25
> colnames(R25)
 [1] "ID"       "REC_TYPE" "DISTRICT" "SECTOR"   "DS"       "MONTH"
 [7] "PSU"      "AO"       "SNUMBER"  "HHNO"     "NHH"      "RESULT"
[13] "HExpPM"   "HIncPM"   "Weight"
```

✓ Ordered R25 by the variables of DISTRICT, SECTOR, PSU and HIncPM, and append the variable sn, the serial number of records to R25.

```
> d<-outfiles[[25]]
> d<-d[order(d$DISTRICT,d$SECTOR,d$PSU,d$HIncPM),]
> d$sn<-seq(1,nrow(d))
```

✓ Selected 80% of hhinc, by dropping 20% households using systematic selection with the interval=5 and a random start number.

```
> int<-5
> (st<-
```

```
sample(1:5,1)) [1]
1
> d$flag<-ifelse(d$sn%%int==(st-1),0,1)
> head(d)
        ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH RESULT
6 10002071       25       11      1 10     7   1 10002       7    1   1      1
3 10002041       25       11      1 10     7   1 10002       4    1   1      1
2 10002031       25       11      1 10     7   1 10002       3    1   1      1
1 10002011       25       11      1 10     7   1 10002       1    1   1      1
8 10002091       25       11      1 10     7   1 10002       9    1   1      1
5 10002061       25       11      1 10     7   1 10002       6    1   1      1
     HExpPM   HIncPM  Weight sn flag
6 126262.00 13400.00 256.313  1    1
3  40234.20 16191.67 256.313  2    1
2  13130.57 19892.86 256.313  3    1
1  27597.48 28900.00 256.313  4    1
8  23754.48 30100.00 256.313  5    0
5  26063.48 32233.33 256.313  6    1
> table(d$flag)
    0     1
 4108 16432
> nrow(subset(d,flag==1))/nrow(d)
[1] 0.8

> ID.res<-subset(d,flag==1)$ID
> length(ID.res)
[1] 16432
> head(ID.res)
[1] 10002071 10002041 10002031 10002011 10002061 10002081
```

✓ The number of resampled households is 16,432.

✓ For each data set, select records with ID.res and confirmed the resampling rate.

```
> outfiles.res<-outfiles
> for(j in 1:25){
+ d<-outfiles[[j]]
+ d<-subset(d,is.element(d$ID,ID.res))
+ outfiles.res[[j]]<-d
+ }
```

```
# Resampled rates
> for(j in 1:25) cat(Rnames[j],round(nrow(outfiles.res[[j]])/nrow(outfiles[[j]])*100,1),"¥n")
R01 80.1
R02 79.8
R03 80.1
R04 80
R05 79.9
R06 76.5
R07 80
R08 80.7
R09 80
R10 79
R11 80
R12 80
R13 79.9
R14 80
R15 80.2
R16 80
R17 79.9
R18 80
R19 79.1
R20 80
R21 80
R22 80
R23 80
R24 80
R25 80
```

✓ Appended the adjusted weight WT, and renamed R data frame “xxx” as “xxx.80”.

```
> outfiles.resold<-outfiles.res
> for(j in 1:25){
+ d<-outfiles.res[[j]]
+ d$WT<-d$Weight/0.8
+ outfiles.res[[j]]<-d
```

```
+ }

> head(outfiles.res[[25]])
        ID REC_TYPE DISTRICT SECTOR DS MONTH PSU    AO SNUMBER HHNO NHH RESULT
1 10002011       25       11      1 10     7   1 10002       1    1   1      1
2 10002031       25       11      1 10     7   1 10002       3    1   1      1
3 10002041       25       11      1 10     7   1 10002       4    1   1      1
4 10002051       25       11      1 10     7   1 10002       5    1   1      1
5 10002061       25       11      1 10     7   1 10002       6    1   1      1
6 10002071       25       11      1 10     7   1 10002       7    1   1      1
     HExpPM   HIncPM  Weight       WT
1  27597.48 28900.00 256.313 320.3912
2  13130.57 19892.86 256.313 320.3912
3  40234.20 16191.67 256.313 320.3912
4  51285.67 63046.66 256.313 320.3912
5  26063.48 32233.33 256.313 320.3912
6 126262.00 13400.00 256.313 320.3912

> Rnames.res<-paste(Rnames,".80",sep="")
> Rnames.res
 [1] "R01.80" "R02.80" "R03.80" "R04.80" "R05.80" "R06.80" "R07.80" "R08.80"
 [9] "R09.80" "R10.80" "R11.80" "R12.80" "R13.80" "R14.80" "R15.80" "R16.80"
[17] "R17.80" "R18.80" "R19.80" "R20.80" "R21.80" "R22.80" "R23.80" "R24.80"
[25] "R25.80"
```

✓ Exported the resampled R data frames to CSV files with the name “xxx_80.txt”.

```
> CSVnames.res<-paste(Rnames,"_80.csv",sep="")
> head(CSVnames.res)
[1] "R01_80.csv" "R02_80.csv" "R03_80.csv" "R04_80.csv" "R05_80.csv"
[6] "R06_80.csv"

> for(j in 1:25){
+ cmd<-paste("write.csv(outfiles.res[[",j,"]],'",CSVnames.res[j],"',
+ row.names=F)",sep="")
+ eval(parse(text=cmd))
```

```
+ }
> list.files()
 [1] "R01_80.csv" "R02_80.csv" "R03_80.csv" "R04_80.csv" "R05_80.csv"
 [6] "R06_80.csv" "R07_80.csv" "R08_80.csv" "R09_80.csv" "R10_80.csv"
[11] "R11_80.csv" "R12_80.csv" "R13_80.csv" "R14_80.csv" "R15_80.csv"
[16] "R16_80.csv" "R17_80.csv" "R18_80.csv" "R19_80.csv" "R20_80.csv"
[21] "R21_80.csv" "R22_80.csv" "R23_80.csv" "R24_80.csv" "R25_80.csv"



# Number of records and variables in resampled data files
> for(j in 1:25){
+ cat(format(Rnames.res[j],width=10),":",format(CSVnames.res[j],width=13),":",
+ format(nrow(outfiles.res[[j]]),width=6),":",
+ format(ncol(outfiles.res[[j]]),width=3),"¥n")
+ }
R01.80     : R01_80.csv    :  68152 :  31
R02.80     : R02_80.csv    :  17579 :  26
R03.80     : R03_80.csv    :  64520 :  31
R04.80     : R04_80.csv    : 652437 :  18
R05.80     : R05_80.csv    : 489125 :  18
R06.80     : R06_80.csv    :    199 :  29
R07.80     : R07_80.csv    :  16432 :  15
R08.80     : R08_80.csv    :  14978 :  20
R09.80     : R09_80.csv    :  16432 :  15
R10.80     : R10_80.csv    :   3296 :  28
R11.80     : R11_80.csv    :  16432 :  15
R12.80     : R12_80.csv    :  16432 :  15
R13.80     : R13_80.csv    :   3164 :  23
R14.80     : R14_80.csv    :  16432 :  15
R15.80     : R15_80.csv    :   4557 :  20
R16.80     : R16_80.csv    :  16432 :  15
R17.80     : R17_80.csv    :  10068 :  28
R18.80     : R18_80.csv    :  16432 :  15
R19.80     : R19_80.csv    :   6779 :  26
R20.80     : R20_80.csv    :  16432 :  32
```

R21.80 : R21_80.csv : 16432 : 39
R22.80 : R22_80.csv : 16432 : 51
R23.80 : R23_80.csv : 16432 : 41
R24.80 : R24_80.csv : 16432 : 43
R25.80 : R25_80.csv : 16432 : 16

Attachments

1. HIES 2012/13 Questionnaire
2. HIES 2012/13 Data Dictionary
3. HIES 2012/13 Final Buletin
4. Excerpt of Introduction from HIES 2012/13 Final Report

CONFIDENTIAL
The information collected in the survey will be strictly confidential accordiing to the survey ordinance & individual level information will not be divulged to any person or agency

(For office use)

Month		Sector	District		DS Division	

MRCB No. (A0)					
PSU Number					
SSU Number					
Household Number					

HOUSEHOLD INCOME AND EXPENDITURE SURVEY- 2012/13

NATIONAL HOUSEHOLD SAMPLE SURVEY PROGRAMME

SURVEY SCHEDULE

Department of Census & Statisics

Ministry of Finance and Planning

Sri Lanka

IDENTIFICATION INFORMATIONS

1. Address (Location):- .....

.....

2. Province :- .....

3. District :- .....

4. DS Division :- .....

5. Name of MC/UC :-. .....

(if urban sector only) Ward No

6. GN Division :- Number :- ..... Name:- .....

7. Name of Village :- .....

(If rural sector only)

8. Name of Estate :- .....

(lf estate sector only)

9 C. B. No :- .....

*** Result Code**

Completed	1
Deferred	2
Not competent respondent at home	3
Refused	4
Household is temporarily closed	5
Household is demolished/Vacant	6
Other (Specify)	9

10.

Survey Month		Sector	District		DS Division	

11.

PSU Number			SSU Number		Household Number	

12. MRCB No: (AO) | | | | | |

13. Number of Households in this unit : |

14. Result:- * |

15. Name of the Head of the Household

.....

16. Interviewers Name :-

.....

Signature :- ..... Date:- .....

17. Supervising Officers Name :-

.....

Signature:- ..... Date :- .....

Codes for Section l

Col. 3 Relationship to head of the household

Head of the household	1
Wife/Husband	2
Son/Daughter	3
Parents	4
Other Relative	5
Domestic Servants	6
Boarder	7
Other	9

Col. 4 - Sex

Male	1
Female	2

Col. 7 - Ethnicity

Sinhala	1
Sri Lanka Tamil	2
Indian Tamil	3
Sri Lanka Moors	4
Malay	5
Burgher	6
Other	9

Col. 8 - Religion

Buddhist	1
Hindu	2
Islam	3
Roman Catholic / Other Christian	4
Other	9

Col. 10 - Attendance at School or Other Educational Institution

Pre school	1
School	2
University	3
Other educational institution	4
Vocational/Technical institution	5
Pending results G.C.E.(O.L/A.L)	6
Does not attend	9

Col. 11 - Level of Education

Studding in Grade 1	00
Passed Grade 1	01
Passed Grade 2	02
Passed Grade 3	03
Passed Grade 4	04
Passed Grade 5	05
Passed Grade 6	06
Passed Grade 7	07
Passed Grade 8	08
Passed Grade 9	09
Passed Grade 10	10
Passed G.C.E.(O/L) or equivalent	11
Passed Grade 12	12
Passed G.C.E.(A / L) or equivalent	13
Passed GAQ / GSQ	14
Passed Degree	15
Passed post Graduate / Diploma	16
PHD	17
Special Education unit	18
No Schooling	19

Col. 09 - Marital Status

Never Married	1
Married	2
Widowed	3
Divorced	4
Separated	5

Col. 13 - Current Activity

Looking for a job	1
Student	2
Household work	3
Unable/Too old to work	4
Other	9

Col. 16 - Employment status

Government employee	1
Semi government employee	2
Private sector employee	3
Employee	4
Own account worker	5
Contributing family worker	6

Section 1 - Demographic Characteristics

Serial Number	Name of all persons who usually live in this household	Relation ship to head of the household	sex	Date of Birth (year and month)		Age as at last birthday (years)	Ethnicity	Religion	Marital Status	Attendance at school or other Educationl institution (3 years and over)	Level of Education (5 years and over)	For Persons 15 years and over				
				year	month							Did you invalive in an economic activity during last week Yes - 1 ---> Goto Col. 14 , No - 2	Main activity involved at present only for the persons , who were marked Code 2 in Col. 12	For employed persons only (Column 12 Code =1)		
														Main Occupation *	Main Industry **	Employment Status at the main occupation
1	2	3	4	5		6	7	8	9	10	11	12	13	14	15	16
01																
02																
03																
04																
05																
06																
07																
08																
09																
10																
11																
12																
13																
14																
15																

	Name the person who are member of this household and usually live else where in the country or abroad		Usual residence Inthecountry -1 Abroad - 2
41			
42			
43			
44			
45			

Serial Number	* Main Occupation (Describe)	* * Main Industry (Describe)

Codes for Section 2

For Column 5 and 6

Grade 1	01
Grade 2	02
Grade 3	03
Grade 4	04
Grade 5	05
Grade 6	06
Grade 7	07
Grade 8	08
Grade 9	09
Grade 10	10
Grade 11	11
Grade 12	12
Grade 13	13
Special Education Unite	14
Not relevant	19

8 Column

Walk	1
Bicycle	2
Motor bicycle / Three Wheel / car	3
School hiring Van / Bus	4
By Bus	5
By Train	6
Other Specify)	9

Column 10

School is too far away	1
Financial problems	2
Had to help house keeping activities / Family business	3
Disability / Illness	4
Civil disturbances	5
Not willing to attend /poor academic progress	6
Incompletion of 5 years at the beginning of the school year	7
Other (specify)	9

Column 11

Further schooling not available or too far away	1
Financial problems	2
Had to help house keeping activities / Family business	3
Disability / Illness	4
Civil disturbance	5
Not willing to attend / poor academic progress	6
Pending results (G.C.E.(O/L) / G.C.E.(A/L))	7
Completed G.C.E.(A/L) / Grade 13	8
Other (specify)	9

Section 2 - School Education (for persons aged 5 - 20 years)

* Currently attending school	1	→	Go to Col. 4
Never attended school	2	→	Go to Col. 10
Attend school in the past	3	→	Go to Col. 11

Name of persons (age 5-15 years) who usually live in this household (as given in col. 2 of sec. 1)	Serial number as given in column 1 of section 1	* School Education (Code)	Type of school 1- Government 2 - Private 3- International	For Person = Code 1 in Col. 3					Person = Code 3 in Col. 2	Person = Code 3 in Col.3	
				Grade (current year)	Grade (previous year)	Distance from home to school (km) if less than 1km Mark "0"	Mode of travel to school (Main Code)	Time taken to school for traveling (Minutes)	Why did you never attend school (Give Code)	Why did you leave school (Give Code)	Which year did you leave school (Not suitable to persons given Code 7 in Col. 11)
1	2	3	4	5	6	7	8	9	10	11	12
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											

Codes for Section 3

Column 4 & 6

Treatment for illness	1
Treatment for injury	2
Medical checkup / Consultation	3
Immunization	4
Treatment for infectious diseases (injections etc.)	5
Other (Specify)	9

Column 8 & 10

Treatment for illness	1
Treatment for injury	2
Operation / Surgery	3
Child delivery	4
Treatment for infectious diseases	5
An accident	6
Other (Specify)	9

Column 12

Heart Conditions / Diseases	01
Blood pressure	02
Diabetics	03
Asthma	04
Epilepsy	05
Cancer	06
Stomach diseases / Gastritis	07
Diseases related to Eyes	08
Diseases related to Ear (Auditory problem)	09
Arthritis	10
Mental retardation	11
Hemorrhoids	12
Catarrh	13
Severer headache	14
Naturally Disabled	15
Disabled by an accident	16
Other (Specify)	99

Section 3 - Health

Name of all persons who usually live in this household (as given in Col. 2 of Sec. 1)	Serial number as given in column 1 of section 1	During last month for **out** patient treatment				During the last 12 months **in** patient treatment				Do you suffer from Chronic illness / Disability Yes - 1, No - 2---> Go to Sec. 04	What chronic illness / Disability do you suffer from (write the relevant code)	Have your job effected / caused for your illness / Disability Yes - 1, No - 2	How long have you been suffering from your illness / Disability		Did you have to stop doing your usual activities because of this illness /Disability Yes -1, No -2 --> Goto Sec. 04	If so haw many days did you stop your usual activities during last month
		Did you visit Government hospital or Medical / Health Center Yes - 1, No-2 ---> Go to Col. 5	For what kind of treatment (write the relevant code)	Did you visit Private hospital or Medical / Health Centre, Yes -1, No -2 ---,> Go to Col. 9	For what kind of treatment (write the relevant code)	Did you stay at a Government hospital as an in patient? Yes - 1 No - 2 ----> Go to Col. 9	Reason for staying (write the relevant code)	Did you stay at a Private hospital as an in patient Yes-1, No, 2 ---> Go to Col. 11	Reason for staying (write the relevant code)				year	Month		
1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16
01.																
02.																
03.																
04.																
05.																
06.																
07.																
08.																
09.																
10.																
11.																
12.																
13.																
14.																
15.																
16.																

Section 4 - Expenditure

4.1 Weekly Consumptions on Food & Drink

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	*Home grown / Freely received (Rs.)
1		2	3	4	5	6
1. Cereals	**01**					
1.	Rice - (white Kekulu - normal)	0101	grams			
2.	Rice - (white Kekulu Samba)	0102	grams			
3.	Rice - (Red Kekulu - normal)	0103	grams			
4.	Rice - (Red Kekulu Samba)	0104	grams			
5.	Rice -Samba	0105	grams			
6.	Rice - Nadu Red	0106	grams			
7.	Rice - Nadu White	0107	grams			
8.	Rice - Basmathi	0108	grams			
9.	Rice - Other	0109	grams			
10.	Rice flour	0110	grams			
11.	Wheat flour	0111	grams			
12.	Kurakkan flour	0112	grams			
13.	Ulundu flour	0113	grams			
14.	Maize	0114	grams			
15.	Samaposha	0115	grams			
16.	Triposha	0116	grams			
17.	Noodles / Pasta	0117	grams			
18.	Papadum	0118	grams			
19.	Infant Cerial food / Malt etc.	0119	grams			
20.	Barly	0120	grams			
21.	Sago	0121	grams			
22.	Corn flakes	0122	grams			
23.	Other (specify)	0129	grams			
2. Prepared food	**02**					
1.	Bread - Normal	0201	grams			
2.	Bread - Specify	0202				
3.	Roespaan	0203	grams			

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	* Home grown/ Freely received (Rs.)
1		2	3	4	5	6
4.	Buns / Spanch cake	0204	number			
5.	Hoppers	0205	number			
6.	String Hoppers	0206	number			
7.	Pittu	0207	number			
8.	Roti / Parata / kotthu	0208	number			
9.	Thosa / Itly	0209	number			
10.	Kottu	0210	number			
11.	Rice (Meat & Vegetables)	0211	number			
12.	Rice (Fish / Egg / Vegetables)	0212	number			
13.	Rice (Vegetables)	0213	number			
14.	Meat Curry	0214				
15.	Fish Curry	0215				
16.	Vegetable Curry	0216				
17	Other	0219				
3. Pulses	**03**					
1.	Grame	0301	grams			
2.	Masoor Dhal	0302	grams			
3.	Watana Dhal	0303	grams			
4.	Green gram	0304	grams			
5.	Gram	0305	grams			
6.	Red Kawpi	0306	grams			
7.	White Kawpi	0307	grams			
8.	Soya	0308	grams			
9.	Soya meet	0309	grams			
10.	Other	0319	grams			
4. Vegetable	**04**					
1.	Ash Plantain	0401	grams			
2.	Brinjal	0402	grams			

**The estimated value of item which are consumed from home grown / freely received should be included in col.6*

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	* Home grown / Freely received (Rs.)
1		2	3	4	5	6
3.	Ladies fingers	0403	grams			
4.	Better gold	0404	grams			
5.	Thuba karivila	0405	grams			
6.	Long beans	0406	grams			
7.	Sanke gourd	0407	grams			
8.	Watakolu	0408	grams			
9.	Cucumber	0409	grams			
10.	Beans	0410	grams			
11.	Carrot	0411	grams			
12.	Beetroot	0412	grams			
13.	Cabbage	0413	grams			
14.	Cauliflower	0414	grams			
15.	Tomatoes	0415	grams			
16.	Leeks	0416	grams			
17.	Knolkhol	0417	grams			
18.	Malu miris	0418	grams			
19.	Dambala	0419	grams			
20.	Raddish	0420	grams			
21.	Drumstick	0421	grams			
22.	Cucumber	0422	grams			
24.	Kekiri	0423	grams			
25.	Ash pumpkin	0424	grams			
26.	Thalana batu	0425	grams			
27.	Thobbatu	0426	grams			
28.	Kohila yams	0427	grams			
29.	Nelum Ala / lotus roots	0428	grams			
30.	Kehel muwa	0429	grams			
31.	Abarailla	0430	grams			
32.	Mango	0431	grams			
33.	Casue	0432	grams			

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	* Home grown / Freely received (Rs.)
1		2	3	4	5	6
34.	Mushroom	0433	grams			
35.	Jack immatured (polos)	0434				
36.	Other (Vegetable)	0439				
Leafy Vegetables						
1.	Mukunuwanna	0441	bundles			
2.	Gotukola	0442	bundles			
3.	Kankun	0443	bundles			
4.	Kathurumurunga	0444	bundles			
5.	Nivithi	0445	bundles			
6.	Thampala	0446	bundles			
7.	Sarana	0447	bundles			
8	Kohola leaves	0448	bundles			
9.	Onion leaves	0449	grams			
10.	Cabbage leaves	0450	grams			
11.	Other leaves	0459				
5. Yam & Other 05						
1.	Jack & Jack seed	0501				
2.	Bread fruit	0502	number			
3.	Potatoes	0503	grams			
4.	Sweet potato	0504	grams			
5.	Mannioc	0505	grams			
6.	Kiriala	0506	grams			
7.	Innala	0507	grams			
8.	Potato chips &	0508	grams			
9.	Other Yams	0509	grams			

** The estimated value of item which are consumed from home grown / freely received should be included in col.6*

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	* Home grown / Freely received (Rs.)
1		2	3	4	5	6
6. Meat		**06**				
1.	Chicken	0601	grams			
2.	Beef	0602	grams			
3.	Mutton	0603	grams			
4.	Pork	0604	grams			
5.	Sausages / Meat balls	0605	grams			
6.	Other	0609	grams			
7. Fish		**07**				
1.	Balaya	0701	grams			
2.	Seer	0702	grams			
3.	Shark	0703	grams			
4.	Paraw	0704	grams			
5.	Thalapath	0705	grams			
6.	Kelawalla	0706	grams			
7.	Mullet	0707	grams			
8.	Other large fish	0708	grams			
9.	Sprats	0709	grams			
10.	Hurulla	0710	grams			
11.	Karalla / Katuwalla	0711	grams			
12.	Kumbala / Angila	0712	grams			
13.	Salaya / Sudaya	0713	grams			
14.	Other small fish	0714	grams			
15.	Lula	0715	grams			
16.	Theppli / Telapiya / Korali	0716	grams			
17.	Other fresh water fish	0717	grams			
18.	Prawns	0718	grams			
19.	Crabs	0719	grams			
20.	Cuttle fish	0720	grams			
21.	Linna	0721	grams			
22.	Coppara	0722	grams			
23.	Saman tin	0723	grams			
8. Dried Fish		**08**				
1.	Sprats	0801	grams			
2.	Keeramin	0802	grams			
3.	Salaya	0803	grams			
4.	Hurlla	0804	grams			
5.	Thalapath	0805	grams			
6.	Seer	0806	grams			
7.	Katta	0807	grams			
8.	Koduwa	0808	grams			
9.	Anjila	0809	grams			
10.	Balaya	0810	grams			
11.	Shark / Keelan	0811	grams			
12.	Paraw	0812	grams			
13.	Anguluwa	0813	grams			
14.	Prawns	0814	grams			
15.	Cuttle fish	0815	grams			
16.	Fresh water fish	0816	grams			
17.	jadi	0817	grams			
18.	Other	0819	grams			
9. Eggs		**09**				
1.	Hen eggs	0901	number			
2.	Quail eggs	0902	number			
3.	Other eggs	0909	number			

* *The estimated value of item which are consumed from home grown / freely received should be included in col.6*

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	*Home grown / Freely received (Rs.)
1		2	3	4	5	6
10. Coconuts	**10**					
1.	Nuts	1001	number			
2.	Coconuts milk powder	1002	grams			
3.	Coconuts milk tin / bottle	1003	m.l			
11. Condiments	**11**					
1.	Dried chillie	1101	grams			
2.	Chilly powder	1102	grams			
3.	Red onions	1103	grams			
4.	Bombe onions	1104	grams			
5.	Garlic	1105	grams			
6.	Moldive fish	1106	grams			
7.	Pepper	1107	grams			
8.	Turmeric / Turmeric powder	1108	grams			
9.	Curry powder (sarakku)	1109	grams			
10.	Green chillies	1110	grams			
11.	Lime	1111	grams			
12.	Cumin seeds	1112				
13.	Fennel seeds	1113				
14.	Coriander	1114				
15.	Mathe seeds	1115				
16.	Mustard	1116				
17.	Goraka	1117				
18.	Tamarind	1118				
19.	Cinnamon	1119				
20.	Salt	1120				
21.	Rampe / curry leaves	1121				
22.	Ginger	1122				
23.	Vinegar	1123				
24.	Other	1129				

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	*Home grown / Freely received (Rs.)
1		2	3	4	5	6
12. Other food	**12**					
1.	Sauce	1201				
2.	Marmite / Vegimite	1202				
3.	Soup cubes /pack	1203				
4.	Lime pickle	1204				
5.	Chutney	1205				
6.	Canned fruit	1206				
7.	Others	1209				
13. Milk and Milk foods	**13**		**(1 bottle = 750 ml)**			
1.	Cow milk	1301	ml			
2.	Goat milk	1302	ml			
3.	Sterilized milk	1303	ml			
4.	Curd	1304				
5.	Yoghurt / Moru	1305				
6.	Condensed milk	1306	ml			
7.	Milk powder	1307	ml			
8.	Infant milk powder	1308	ml			
9.	Butter	1309	ml			
10.	Margarine	1310	ml			
11.	Cheese	1311	ml			
12.	Milk packets (liquid)	1312	ml			
13.	Other	1319				
14. Fats and Oils	**14**	**(1 bottle = 750 ml)**				
1.	Coconuts oil	1401	ml			
2.	Vegetable oil	1402	ml			

** The estimated value of item which are consumed from home grown / freely received should be included in col.6*

Item			Code	Unit	Consumed		
					Qty.	Value (Rs.)	* Home grown / Freely received (Rs.)
1			2	3	4	5	6
3.	Sesame oil		1403	ml			
4.	Vegetable oil		1404	ml			
5.	Other		1409	ml			
15. Sugar , Juggery & Treacle 15							
1.	Sugar		1501	grams			
2.	Juggery		1502	grams			
3.	Treacle		1503	ml			
4.	Honey		1504				
5.	Other		1509				
16. Fruit 16							
1.	**Banana**	Embul	1601	number			
2.		Anamaalu	1602	number			
3.		Koli kuttu	1603	number			
4.		Seeni kesal	1604	number			
5.		Other	1605	number			
6.	Pineapple		1606	number			
7.	Papaya		1607	number			
8.	Mangoes		1608	number			
9.	Apple		1609	number			
10.	avacardo		1610	number			
11.	Wood apple		1611	number			
12.	Orange		1612	number			
13.	King coconut / Kurumba		1613	number			
14.	Guwawa		1614	grams			
15.	Grapes		1615	grams			
16.	Melan		1616	grams			
17.	Others		1619				

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	*Home grown / Freely received (Rs.)
1		2	3	4	5	6
Dried Fruits						
1.	Dates	1651	grams			
2.	cause nuts	1652	grams			
3.	Ground nuts	1653	grams			
4.	Plums	1654	grams			
5.	Other	1659	grams			
17. Confectionery & short eats 17						
1.	Jam	1701	grams			
2.	Ice -Cream	1702				
3.	Chocolates	1703	grams			
4.	Toffees	1704	number			
5.	Biscuits	1705	grams			
6.	Jelly packets	1706				
7.	Snacks	1707	grams			
8.	Cake	1708	grams			
9.	Kawum / Kokis etc.	1709	number			
10.	Maskette / Kaiu dodoil etc.	1710	grams			
11.	Thala bola / Rulan etc.	1711	number			
12.	Cutlets / Patis / Wade / pastry etc.	1712	number			
13.	Palmyrah Products	1713	number			
14.	Others	1719				

** The estimated value of item which are consumed from home grown / freely received should be included in col.6*

Item		Code	Unit	Consumed		
				Qty.	Value (Rs.)	*Home grown / Freely received (Rs.)
1		2	3	4	5	6
18. Beverages (non alcoholic) 18						
1.	Tea dust / Leaves	1801	grams			
2.	Coffee powder / seeds	1802	grams			
3.	Soft drink	1803				
4.	Fruit drinks / Cordial	1804				
5.	Saruwath	1805	number			
6.	Milk tea / Nest cafe	1806	number			
7.	Plant tea	1807	number			
8.	Milk coffee	1808	number			
9.	Coffee	1809	number			
10.	Ice packets /	1810	number			
11.	Gruel	1811	number			
12.	Water bottle	1812	number			
13.	Others	1819				
19. Liquor , Drugs &Tobacco 19						
1.	Toddy	1901				
2.	Arrack	1902				
3.	Kasippu	1903				
4.	Beer / Stout	1904				
5.	Whisky / Brandy	1905				
6.	Gin	1906				
7.	Wine	1907				
8.	Other Liquor	1908				
9.	Drugs (Ganja , Heroin)	1909				
10.	Cigarettes	1910	number			
11.	Cigars	1911	number			
12.	Beedi	1912	number			
13.	Pipe tobacco	1919				
14.	Betel leaves	1920	number			
15.	Arecanuts	1921	number			
16.	Tobacco chewing	1922				
17.	Chnuam	1923				
18.	Bulath vita / Saravita	1924	number			

** The estimated value of item which are consumed from home grown / freely received should be included in col.6*

4. 2 Household expenditure on Housing , Fuel & Light, Non- durable goods , Services & Consumer durable for main Household .

Item	Code	Unit	* Main household		
			Qty.	Value (Rs.)	** Freely received / Received as a gift (Rs.)
1	2	3	4	5	6
1. Housing (Average per month) 20					
Rent (Estimated rent of owner occupied house should be included in col. 5 & col. 6	2001				
Taxes	2002				
Water bills	2003				
2. Fuel & Light (Average per month) 21					
Electricity	2101				
Solar power	2102				
Kerosene oil	2103	ml			
Fire wood (purchased)	2104	kg			
Fire wood (free)	2105				
L..P. Gas	2106	grams			
2.2 Fuel & Light (last month)					
Normal bulbs	2107	number			
Energy saving bulbs	2108	number			
Matches	2109	number			
Candles	2110	number			
Batteries (used for lighting purposes)	2111	number			
Others	2119				

Item	Code	Unit	* Main household		
			Qty.	Value (Rs.)	** Freely received / Received as a gift (Rs.)
1	2	3	4	5	6
3. Personal care expense (last month) 22					
Toilet Soap / shampoo packet/ shampoo bottle / liquid soap	2201				
Tooth past	2202				
Tooth brush	2203				
Cosmetics powder	2204				
perfumes	2205				
Face cream / Lotions	2206				
Hair oil , Cream and hair dye	2207				
Lipstick / Nail polish	2208				
Shaving equipments	2209				
Artificial jewel	2210				
Sanitary towel	2211				
Sesum oil (Body apply)	2212				
Beauty culture service	2213				
Hair cut / Hair dressing & Shaving charges	2214				
Other	2219				
4. Health Expenses (last month) 23					
Fees to private medical practitioners (Included cost of medicine)	2301				
Ayurvedic consultation fees (Included cost of medicine)	2302				

Main household - including all members who usually live in this household and exclude servants and boarders

*** The estimated value of items which are received freely / fringe benefit / relief payment / donation/ as a gift should be included in col. 6*

Item	Code	Unit	*Main household		
			Qty.	Value (Rs.)	**Freely received/ Received as a gift (Rs.)
1	2	3	4	5	6
Consultation fees to specialist	2303				
Payments to medical laboratories for test analysis. etc.	2304				
Payment to private hospitals and Nursing home	2305				
Purchased of medical and pharmaceutical products	2306				
Spectacles	2307				
Hearing aids	2308				
Scan / C.T. , Ultra sounds	2309				
X-Ray	2310				
Others	2319				
5. Transport (last month) Transport fees 24					
Train (other than Schooling)	2401				
Bus (other than Schooling)	2402				
Van (other than Schooling)	2403				
Taxi car (other than Schooling)	2404				
Three wheeler (other than Schooling)	2405				
Chargers for Schooling & pre Schooling child	2406				
Ships air lines	2407				
Others	2409				
Maintenance of private Vehicle					
Petrol	2411				

Item	Code	Unit	*Main household		
			Qty.	Value (Rs.)	** Freely received/ Received as a gift (Rs.)
1	2	3	4	5	6
Deesal	2412				
Oil	2413				
Other fuel	2414				
Tyre /Tube & Other	2415				
Service charges of spare parts accessories	2416				
Lision	2417				
Insuwarance	2418				
Other	2419				
6. Communication (last month) 25					
Postal & Telegraph charges	2501				
Telephone charges (Domestic) (Average per month)	2502				
Telephone charges (Mobil)	2503				
Telephone charges (Taken from out side)	2504				
E-mail / Internet charge	2505				
Other	2509				
7. Education (Last month) 26					
Exercise books /Stationeries	2601				
News papers / Magazines	2602				
School text books	2603				

**Main household - including all members who usually live in this household and exclude servants and boarders*

*** The estimated value of items which are received freely / fringe benefit / relief payment / donation/ as a gift should be included in col. 6*

Item	Code	Unit	*Main household		
			Qty.	Value (Rs.)	**Freely received/ Received as a gift (Rs.)
1	2	3	4	5	6
School facility fees (Government)	2604				
School fees (Privet)	2605				
School fees (International)	2606				
Tuition fees	2607				
Boarding fees	2608				
Fees for higher education (External degree / post graduate degree, Diploma etc.	2609				
Vocational Training	2610				
Fees for pre school	2611				
Fees for examination	2612				
Others	2619				
8. Recreation , entertainment & Cultural activities (Last month) 27					
Cinema , Drama , Video films CD/ DVD/VCD	2701				
Books / News papers / Magazines	2702				
Lotteries / Bettings	2703				
Excursion / pligrimayes	2704				
Arts /Music / Dancing	2705				
Sports	2706				
Pets / Aquarium	2707				
Toys	2708				
Maintenance of Radio recovers, Television & Video deck	2709				
Sacred goods	2710				

Item	Code	Unit	*Main household		
			Qty.	Value (Rs.)	**Freely received/ Received as a gift (Rs.)
1	2	3	4	5	6
Cable / Satellite / T.V. payments	2711				
Astrology /	2712				
Other	2719				
9. Non-durable Household goods (Last month) 28					
Washing Soap	2801				
Washing powder	2802				
Mosquito coils	2803				
Detergents	2804				
Insecticide's (for home use)	2805				
Other	2809				
10. Household Services (last month) 29					
Laundry Charges	2901				
Grinding Charges	2902				
Wagers to Servants /Chauffeurs	2903				
Charges for Drivers	2904				
Charges for Day care Centers	2905				
Charges for elders home	2906				
Payments for other household services	2909				

**Main household - including all members who usually live in this household and exclude servants and boarders*

*** The estimated value of items which are received freely / fringe benefit / relief payment / donation/ as a gift should be included in col. 6*

Item	Code	Unit	*Main household		
			Qty.	Value (Rs.)	**Freely received/ Received as a gift (Rs.)
1	2	3	4	5	6
11. Clothing & Textiles (Last 6 month) 30					
Trousers (gents)	3001	number			
Trousers (Ladies)	3002	number			
Shirts	3003	number			
Sari	3004	number			
T-Shirts (gents)	3005	number			
T-Shirts (Ladies)	3006	number			
Sarongs / Vetties	3007	number			
Frocks	3008	number			
Skirts / Blouses	3009	number			
Salwars	3010	number			
Banians	3011	number			
Men 's Under wears	3012	number			
Women 's Under wears / petticoats / Underskirt	3013	number			
Housecoat / Kimonas / Night dresses	3014	number			
Brassieres	3015	number			
Socks / Stockings	3016	number			
Ties	3017	number			
Handkerchiefs	3018	number			
Children 's dresses	3019	number			
School uniform	3020	number			
Towels	3021	number			
Bed sheet	3022	number			
Pillow case	3023	number			
Mosquito nets	3024	number			
Other	3029	number			

Item	Code	Unit	*Main household		
			Qty.	Value (Rs.)	**Freely received/ Received as a gift (Rs.)
1	2	3	4	5	6
Materials purchased in meters (last 6 months)	**(1 m = 100 cm)**				
For clothing	3041	number			
For school uniform	3042	number			
For cuttens	3043	number			
Other	3049	number			
Tailoring charges (Last 6 month)					
For clothing	3061				
For School uniform	3062				
12. Foot wear & Other Personal effect (Last 6 month) 31					
Shoes	3101	number			
Sandals / Slippers	3102	number			
Umbrellas	3103	number			
Hand bags / Traveling bags	3104	number			
Hats / Helmets	3105	number			
Rain coats	3106	number			
Repair charges for shoes , Bag 's , umbrellas etc.	3107	number			
Others	3109	number			
13. Durable household Goods (Last 6 month) 32					
Glass ware	3201	number			
Plastic ware	3202	number			
Aluminium ware	3203	number			
Clay ware / pots	3204	number			

**Main household - including all members who usually live in this household and exclude servants and boarders*

*** The estimated value of items which are received freely / fringe benefit / relief payment / donation/ as a gift should be included in col. 6*

Item	Code	Unit	*Main household		
			Qty.	Value (Rs.)	**Freely received / Received as a gift (Rs.)
1	2	3	4	5	6
Cane ware	3205	number			
Cutlery	3206	number			
Lamp / Lamp shade	3207	number			
Brooms / Brushes / ekels	3208	number			
Mats / pillows	3209	number			
Rugs / Carpets	3210	number			
Mettress	3211	number			
Torches	3312	number			
Thermos flasks	3213	number			
Twines / Rope	3214	number			
Other	3219	number			
14. Durable household goods (Last 12 month) 33					
Chairs - Plastic	3301	number			
Chairs - wood	3302	number			
Chairs - steel	3303	number			
Tables	3304	number			
Settees	3305	number			
Almyrahs - wood	3306	number			
Almyrahs - steel	3307	number			
Beds	3308	number			
Other furniture	3309	number			
Clocks/ wrist watches	3310	number			
Cookers (Kerosene)	3311	number			
Cookers (Electric)	3312	number			
Cookers (Gas)	3313	number			
Mixing machines , Grinders, Beaters	3314	number			
Irons	3315	number			
Refrigerators	3316	number			
Oven (Gas / Electric)	3317	number			

Item	Code	Unit	*Main household		
			Qty.	Value (R.s)	**Freely received / Received as a gift (Rs.)
1	2	3	4	5	6
Fans	3318	number			
Sewing machines	3319	number			
Radio / CD,DVD,	3320	number			
Record players & Tape recorders	3321	number			
Television / Video decks	3322	number			
Washing machines	3323	number			
Musical Instruments	3324	number			
Mo. cycles , Bicycles, scooter	3325	number			
Three wheeler	3326				
Motor cars/ Vans	3327	number			
Prams/ Go carts / Tricycles	3328	number			
Gardening tools & equipments	3329	number			
Cameras & Projectors	3330	number			
Computers	3331	number			
Jewelleries	3332	number			
Telephones / Cellular phones	3333	number			
Cookers , Toasters , Hot plates / Heaters etc.	3334	number			
Durable goods purchased in installments	3335				
other	3339	number			
15. Other expenses (last month) 34					
Provident fund / W. & O. P. fund	3401				
Contribution to trade unions, Thriff Societies / Eldrly Societies etc.	3402				

**Main household - including all members who usually live in this household and exclude servants and boarders*

*** The estimated value of items which are received freely / fringe benefit / relief payment / donation/ as a gift should be included in col. 6*

Item	Code	Unit	*Main household		
			Qty.	Value (Rs.)	**Freely received / Received as a gift (Rs.)
1	2	3	4	5	6
Insurance / Agrahara	3403				
Other savings (including seettu)	3404				
Payment for debits	3405				
Money lending	3406				
Income tax	3407				
Other	3409				
16. Other adhoc (rarely) expenses (last 12 month) 35					
Expenditure on weddings /funerals for family members	3501				
Social activities / Ceremonies	3502				
Litigation	3503				
Gift, Donation, Similar transfers	3504				
Maintenance & Repairing (Houses)	3505				
Purchased properties House	3506				
Build a new building	3507				
Other	3509				

.**Main household - including all members who usually live in this household and exclude servants and boarders*

*** The estimated value of items which are received freely / fringe benefit / relief payment / donation/ as a gift should be included in col. 6*

4.3 Expenditure on Housing, Fuel & Light, Non-durable goods, Services & Consuer durables for boarders & domestic servants.

Are there Boarders & / or Domestic Servants in this house hold? **Yes** 1 **No** 2 → Go to Section 5

		Last week	(Last month)										Last month	
Name of boarders & domestic servants who has spent money on any of the following columns 3 - 15	Serial number as given in Column 1 of section 1	Food purchased outside the household (Last month)	Fuel & Light	Non durable household goods	Household services	Personal care & Health expenses	Transport & Communicaton	Recreation, Entertainments, Education & Cultural activites etc.	Boarding fees paid	Amount sent tofamily / parents	Amount transfered as savings, provident funds, W & O P, taxes, insurance etc.	Miscellaneous	Last **6** month Clothing & Textiles	Last **12** month Durable household goods
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
1.														
2.														
3.														
4.														
5.														
6.														
7.														

If any boarder or domestic servant given in column 1 of section 1, not spent any of the above Please note down here.

Section 5 - Income

5.1 Income from paid employments / During last 4 weeks / Last calender month

Did any of the household members (usually live) engage as an employee during last 4 weeks / last calender month?

Yes 1 **No** 2 → Go to Section 5.2

List all hosuehold members (usually live in this household) including boarders & domestic servants who were paid employees during last four weeks / last calendar month	Serial number as given in Column 1 of section 1	Principal / Secondary occupation Main 1 Secondary 2		Last calendar month		Last calendar 12 months
				Wages / Salaries Rs.	Tips, Commissions, Overtime pay etc. Rs.	Bonus, Arrears Payment Rs.
1	**2**	**3**		**4**	**5**	**6**
1.		1				
		2				
2.		1				
		2				
3.		1				
		2				
4.		1				
		2				
5.		1				
		2				
6.		1				
		2				
7.		1				
		2				
8.		1				
		2				

5.2 Income from agricultural activities - (Paddy, Other seasonal crops)

Did any of the household members cultivate paddy, other seasonal crops as an employer or own account worker for sale and / or household consumption during last cultivation year?

Yes 1 **No** 2 → Go to Section 5.3

List all household members (usually live) including boarders & domestic servants who have engaged Non- agricultural activities as employers or own account works.	Serial number as given in column 1 of section 1	Paddy / Other seasonal crops (Describe)	+ Code	Cultivated Area (Suitable to area cultivated to small cultivation like home garden cultivation)			** Last cultivation year					Only for paddy currently available		Fertilizer Other subsides for last cultivation year
							Value of output (Rs.)		*Cost of input	Consumption quantity of this household from production (out put)		F or Consumption	For Sale	
				A	R	P	Quantity (Kg)	Value (Rs.)	(Rs.)	Quantity (Kg)	Value (Rs.)	Quantity (Kg)	Quantity (Kg)	Value (Rs.)
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**		**9**	**10**		**11**	**12**	**13**
1.														
2.														
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														

+ Code for column 3

Paddy	1
Chillies	2
Onions	3
Vegetables	4
Cereals	5
Yams	6
Tobacco	7
Other	9

**** Last Cultivation year**

Last two cultivation seasons (Yala / Maha or Maha / Yala)

*

Iinput \ Column no				
Hired Labor				
Seeds				
Fertilizer				
Chemicals				
Transport / Tractor				
Total				

5.3 Income from other agricultural activities

Did any of the household members engage in other agricultural activities / Livestock as an employer or own account worker for sale during last calendar 12 months?

Yes 1 **No** 2 → Go to Section 5.4

List all household members (usually live) including boarders & domestic servants who have engaged Non- agricultural activities as employers or own account works.	Serial number as given in column1 of section 1	Agricultural product (Describe)	+ Code	Last calendar month / Average per month					
				Cultivated area (Suitable to area cultivated to small cultivation like home garden cultivation)			Value of output	* Cost of input	Fertilizer & Other subsidies
				A	R	P	(Rs.)	(Rs.)	(Rs.)
1	2	3	4	5	6	7	8	9	10
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

+ Codes for column

Tea, Rubber	01	Fish	06
Coconuts	02	Eggs	07
Coffee, Pepper Betel etc	03	Milk	08
Banana / Fruits	04	Other food items	09
Meat	05	Horticulture	10
		Other	99

Not necessary for cultivated area under the codes from 05 - 10 in column 4.

*

Input \ Column no				
Hired labor				
Seeds				
Fertilizer				
Chemicals				
Transport / Tractor charges				
Other				
Total				

5. 4 Income Form Non - Agricultural activities

Did any of the household members engage in any non - agricultural as an employer or own account worker for sale during last calendar month?

Yes 1 **No** 2 → Go to Section 5.5.1

List all household members (usually live) including boarders & domestic servants who have engaged Non - agricultral activities as employers or own account workers.	Serial number as given in column 1 of section 1	Economic activity (Describe)	+ Code	Last calendar month		
				Value of output (Rs.)	Value of input (Rs.)	Subsidies (Rs.)
1	**2**	**3**	**4**	**5**	**6**	**7**
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

+ Codes for col. no 3

Mining & Quarrying	1
Manufacturing	2
Construction	3
Trade	4
Transport	5
Guest house, restaurants, bars, hotels etc	6
Other sercices	9

*****

Input \ Column no				
Inputs				
Fuel & Light				
Transport				
Hired labor				
Other services				
Total				

5.5.1 Income from other cash receipt during last calendar month / last calendar 12 months

Yes 1 **No** 2 → Go to Section 5.5.2

List all household members (usually live) including boards & servabts who have received any other cash receipt.	Income from last calendar month										Last calendar 12 month		
	Serial number as given in column 1	Pension Payment	Disability / reglief payments	Rent from properties / boarding fees etc.	Samurdhi	Dividends / Interests	Elderly payment	Educational & Scholarships	School food program	Triposha food program	Other Income	Current remittance & transfers	
												Outside the country	Within the country
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.													
2.													
3.													
4.													
5.													
6.													
7.													

5.5.2 Income by chance or adhoc gains during last calendar 12 months

Yes 1 **No** 2 → Go to Section 6

List all household members (usually live) excluding boarders & servants who have received income by chance or rarely.	Serial number as given in column 1	Loans taken from banks / money lenders, etc (*including credit cards).	Sale of assests (Land, house, jewellary)	Withdrawals from savings, bank deposits, Gravity, Provident fund	Income receives from births, deaths, marriages / welfare society, etc	Seettu / Repayments of loans given	Health medical aids	Compensation Insurance etc	Other lottery & other adhoc gains	Foods and other cominadations	Disaster relif Assistona
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	2	3	4	5	6	7	8	9	10	11	12
1.											
2.											
3.											
4.											
5.											
6.											
7.											

* If you purchase goods / Items using credts card , plase report the list

Section 6A - Inventory of durable goods

Items	Code	Have - 1 Have not - 2
Household Equipments		
Radio / Cassette player	5001	
Television	5002	
V.C.D. / D.V.D.	5003	
Sewing machines	5004	
Washing machines	5005	
Refrigerators	5006	
Cookers (Gas, Kerosene, Electric)	5007	
Electric fans	5008	
Telephone (Domestic)	5009	
Telephone (Mobile)	5010	
Personal Computers	5011	
Camera / Video camera	5012	
For Transport purpose		
Bicycles	5013	
Motor cycles / Scooters	5014	
Three wheelers	5015	
Motor cars / Vans	5016	
Bus / Lorry / Tipper	5017	
Agricultural Equipments		
Tractors (Two wheel)	5018	
Tractors (Four wheel)	5019	
Sprayers	5020	
Threshers	5021	
Water pumps (Only for agricultural purpose)	5022	
	5023	
Fishing Equipments		
Boats	5024	
Fishing nets	5025	

Section 6 B - Debts (Excluding boarders & servants)

Debited to	Have any of the household members debited to the followings Yes - 1 → Go to Col. 3 No - 2	Amount to pay (Rs.)
1	**2**	**3**
1. Banks (Government / Private)		
2. Finance Companies / Leasing Companies		
3. Own place of work (Departments, Boards, Private Companies etc)		
4. Money Lenders		
5. Prepayment for credit cards		
6. Retail outlets		
7. Sales of assets (Land, houses, jewelries etc.)		
8. Durable goods purchased in installments		
9. Other (Specify)		

Section 7 - Access to Primary facilities

Section 7.1

Serial No.	Place of facilities	Distance from your house to this closest facility (Km)	Time taken from your house to this closest facility (Minutes)
01	Bus Halt (nearest)		
02	Pre school / Montessori		
03	Primary School		
04	Maha Vidyalaya / M.M.V. / National school		
05	Base Hospital / Teaching Hospital / District Hospital		
06	Maternity Home		
07	Government Dispensary		
08	Private Dispensary		

Serial No.	Place of facilities	Distance from your house to this closest facility (Km)	Time taken from your house to this closest facility (Minutes)
09	Clinic (Maternity / Infancy)		
10	M. O. H. Office		
11	M.C. / U. C. / P. S.		
12	Divisional Secretariat office		
13	G. N. Office		
14	Post office / Sub post office		
15	Bank (Govt. / Private)		
16	Agrarian Service Center		

Section 7. 2

		Yes	No
1.	Do you have electricity supply (main line) nearby your area		
2.	Do you have telephone facilities in your area		
3.	Do you have pipe borne line (main line) nearby your area		

Section 7. 3

1. **(a)** Did you use ATM Cards for cash transactions?

Yes	1
No	2

→ Go to **(b)**

(b) How much money did you withdrow via ATM Card? | | | | | | |

Section 8 Housing Information

1. Type of Structure

Single House - Single storeyed	1
Single House - Double storeyed	2
Single House - More than two storeys	3
Attached house / Annex	4
Flat	5
Condominium/ Luxury apartments	6
Twin house	7
Line room / Row house	8
Slum / Shanty	9
Other (Specify)	99

2. Number of bed rooms [ ]

3. Total floor area (Sq. feet)

Less than 100	1
100 - less than 250	2
250 - less than 500	3
500 - less than 750	4
750 - less than 1000	5
1000 - less than 1500	6
1500 - less than 3000	7
3000 & more	9

4. Principal materials of Construction

(A) Wall

Brick	1
Cabook	2
Cement block	3
Pressed soil block	4
Mud	5
Plank / Metal sheet	6
Cadjan / Palmyrah	7
Other (Specify)	9

(B) Floor

Cement	1
Teraso / Tile	2
Mud	3
Wood	4
Sand	5
Concrete	6
Other (Specify)	9

(C) Roof

Tile	1
Asbestos	2
Concrete	3
Metal sheet	4
Taka ram	5
Cadjan / Palmyrah / Straw	6
Other (Specify)	9

5. Tenure

Constructed / Purchased by an occupant	1
In herited	2
Freely received / Received as a gift	3
Compensated	4
Rent free (Employer / Other)	5
Relief payment (Employer / Other)	6
Rent	7
Lease	8
Encroached	9
Other (Specify)	99

6. A. Main source of drinking water

Well

Protected well within premises	1
Protected well outside premises	2
Unprotected well	3

Main tap line

Tap in side home	4
Tap with in unite / premises (main line)	5
Tap out side premises (main line)	6

Other

Project in village	7
Tube well	8
Bowser	9
River/ Tank / Streams	10
Rainey water	11
Bottled water	12
Other (Specify)	99

B. Distance to take source of drinking water

		Meters
Within premises	1	
Outside premises	2	

C. was there enough water to drink, bath & wash during last year

	Yes	No
1. Drink	1	2
2. Bath / wash	1	2

7.A Availability of toilet

Within unit

Exclusive for the household	1
Sharing with another household	2

Outside unit

Exclusive for the household	3
Sharing with another household	4

Other

No toilet to Housing unit but sharing with another unit	5
Public toilet	6
Not using toilets	7

B. Type of Toilet

Connected with water seal	1
Not Connected with water seal	2
Pour Flash	3
Pit	4
Other (Specify)	9

8. Disposal of Garbage

Collected by garbage truck	1
Burned	2
Dumped within premises	3
Process for fertilizer	4
Dumped / Throw away out side premises	5
Other (Specify)	9

9. Principal Type of Lighting

Kerosene	1
Electricity	2
Solar energy	3
Generator / Battery	4
Gas	5
Other (Specify)	9

10. Principal Type of cooking fuel

Fire wood	1
Gas	2
Kerosene	3
Electricity	4
Saw dust / Paddy husk	5
Other (Specify)	9

11. (A) Did any of the household member collect fire wood during last month?

Yes	1	
No	2	→ Go to Q. 12

(B). Distance & place of collecting firewood

		Meter
Own land	1	
Forest	2	
Other land	3	

12. (A) Was this housing unit effected by any natural disaster during last year?

Yes	1	
No	2	→ Go to Section 9

(B) Nature of disaster

	Yes	No
1. Flood	1	2
2. Drought	1	2
3. Earth slip	1	2
4. Attacked by wild animals	1	2
5. storm	1	2
6. Other (specify)	1	2

Section 9 - Agricultural Holdings & Livestock

1. Does any member's of your household own any agricultural land / lands?

Yes [1] No [2] → Go to Question 3

2. Land area

	Owned			Cultivated (Rent, lease, joined own, and etc.)		
	1			2		
	A	**R**	**P**	**A**	**R**	**P**
1. Paddy land						
2. High land						
3. Land area with occupied housing units						

40 Purches =1 Rude

04 Rudes = 1 A.

3. Livestock (Owned)

Category	Yes - 1 No - 2	***Number of livestock (code)
	1	2
1. Cattle / Buffaloes		
2. Goats / Sheep		
3. Swine (Pigs)		
4. Poultry		
9. Other		

*

(1) 5 or less than 5

(2) 6 to 10

(3) 11 to 50

(4) More than 50

Administration Data

Interviewers Name	First	Second	Third	Forth
1. Date				
2. Questions completed section				
3. Time taken to fill the section	Minutes	Minutes	Minutes	Minutes
4. Problem, Ideas and Suggestion				

HIES2012-13
HIES2012_DICT200

G:\04072015from pen\HIES2012_13 - to be uploaded - Copy\HIES-2012_13DD_With_Exp_Inc_Wgt.dcf
Last Modified: 7/07/2015 1:56:04 PM

Level Label / Record Label	Level Name / Record Name	Type Value	Req	Max	Rec Len
HIES2012_13 Questionnaire	HIES2012_QUEST				
Section - 1 - Demography	SEC_1_DEMOGRAPHIC	01	No	40	50
Section - 2 - School Education	SEC_2_SCHOOL_EDUCATION	02	No	40	42
Section - 3 - Health	SEC_3_HEALTH	03	No	40	43
Section - 4.1 - Food expenditure	SEC_4_1_FOOD_EXP	04	No	240	46
Section - 4.2 - Non food	SEC_4_2_NONFOOD	05	No	175	46
Section - 4.3 - Is Boaders Servent	SEC_4_3_IS_BOADERS	06	No	1	23
Section - 4.3 - Boaders Servent	SEC_4_3_BOARDERS	07	No	40	102
Section - 5.1 - Is employment Income	SEC_5_1_IS_EMP_INCOME	08	No	1	23
Section - 5.1 - Employment Income	SEC_5_1_EMP_INCOME	09	No	40	45
Section - 5.2 - Is aggricultural Income	SEC_5_2_IS_AGRI_INCOME	10	No	1	23
Section - 5.2 - Aggricultural Income	SEC_5_2_AGRI_INCOME	11	No	40	99
Section - 5.3 - Is other aggricultural income	SEC_5_3_IS_OTHER_AGRI_INCOME	12	No	1	23
Section - 5.3 - Other aggricultural income	SEC_5_3_OTHER_AGRI_INCOME	13	No	40	59
Section - 5.4 - Is non_agri income	SEC_5_4_IS_NON_AGRI_INCOME	14	No	1	23
Section - 5.4 - Non agri income	SEC_5_4_NON_AGRI_INCOME	15	No	40	52
section - 5.5.1 - Is other income	SEC_5_5_1_IS_OTHER_INCOME	16	No	1	23
Section - 5.5.1 - Other income	SEC_5_5_1_OTHER_INCOME	17	No	40	97
Section - 5.5.2 - Is windfall income	SEC_5_5_2_IS_WINDFALL_INCOME	18	No	1	23
Section - 5.5.2 - Windfall income	SEC_5_5_2_WINDFALL_INCOME	19	No	40	104
Section - 6A - Durable goods	SEC_6A_DURABLE_GOODS	20	No	1	47
Section - 6B - Debtness	SEC_6_B_DEBTNESS	21	No	1	94
Section - 7 - Basic facilities	SEC_7_BASIC_FACILITIES	22	No	1	113
Section - 8 - Housing	SEC_8_HOUSING	23	No	1	58
Section - 9 - Land and animal	SEC_9_LAND_ANIMAL	24	No	1	69
Household Income and Expenditure	HOUSEHOLD_INC_AND_EXPEN	25	No	1	47

Level: HIES2012_13 Questionnaire Record: Section - 1 - Demography

201

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S1-1Person		PERSON_SERIAL_NO	23	2	N	I	1	0	No	Yes
1:45										
(na)										
S1-3Relationship		RELATIONSHIP	25	1	N	I	1	0	No	Yes
1 Head										
2 Spouse										
3 Son/Daughter										
4 Parents										
5 Other Ralative										
6 Domestic Servent										
7 Boarders										
9 Other										
(m)										
S1-4Sex		SEX	26	1	N	I	1	0	No	Yes
1 Male										
2 Female										
(na)										
S1-5Birth Year		BIRTH_YEAR	27	2	N	I	1	0	No	Yes
0:99										
(na)										
S1-5Birth Month		BIRTH_MONTH	29	2	N	I	1	0	No	Yes
1:12										
(na)										
S1-6Age		AGE	31	2	N	I	1	0	No	Yes
0:99										
(na)										
S1-7Race		ETHNICITY	33	1	N	I	1	0	No	Yes
1 Sinhala										
2 Sri Lanka Tamil										
3 Indian Tamil										
4 Sri Lanka Moors										
5 Malay										
6 Burger										
9 Other										
(na)										
S1-8Religion		RELIGION	34	1	N	I	1	0	No	Yes
1 Buddhist										

```
        2  Hindu
        3  Islam                                    202
        4  Roman Ctholic/Christian
        9  Other
   (na)
S1-9Marital                          MARITAL_STATUS      35    1    N    I    1    0    No   Yes
        1  Never Married
        2  Married
        3  Widowed
        4  Divorced
        5  Separated
   (na)
S1-10Current Education               CURR_EDUC           36    1    N    I    1    0    No   Yes
        1  Pre school
        2  School
        3  University
        4  Other educational institution
        5  Vocational/ Technical institution
        6  Pending results G.C.E. (O.L/A.L)
        9  Does not attend
   (na)
S1-11education                       EDUCATION           37    2    N    I    1    0    No   Yes
        0   Studingin Grade 1
        1   Passed Grade 1
        2   Passeed Grade2
        3   Passed Grade 3
        4   Passed Grade 4
        5   Passed Grade 5
        6   Passed Grade 6
        7   Passed Grade 7
        8   Passed Grade 8
        9   Passed Grade 9
        10  Passed Grade 10
        11  Passe G.C .E (O/L) or Equivalent
        12  Passed Grade 12
        13  Passed G.C.E.(A/L) or Equivalent
        14  Passed GAQ/GSQ
        15  Passed Degree
        16  Passed Post Graduate Dgree/Diploma
        17  Doctorate
        18  Special Education
        19  No Schooling
   (na)
S1-12Is Active                       IS_ACTIVE           39    1    N    I    1    0    No   Yes
        1:2
   (na)
S1-13Main Activity                   MAIN_ACTIVITY       40    1    N    I    1    0    No   Yes
        1  Seeking Job
        2  Student
        3  Household work
        4  Unable
        9  Other
   (na)
S1-14Main occupation                 MAIN_OCCUPATION     41    4    N    I    1    0    No   Yes
        0:9999
    (m)
   (na)
S1-15Industry                        INDUSTRY            45    5    N    I    1    0    No   Yes
        0:9999
    (m)
   (na)
S1-16Emp status                      EMPLOYMENT_STATUS   50    1    N    I    1    0    No   Yes
        1  Government employee
        2  Semi government employee
        3  Private sector employee
        4  Employer
        5  Own account worker
        6  Unpaid family worker
    (m)
```

Level: HIES2012_13 Questionnaire Record: Section - 2 - School Education

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S2-2 Sr. No		R2_PERSON_SERIAL	23	2	N	I	1	0	No	Yes
1:40										
(na)										
S2-3 School Education		R2_SCHOOL_EDUCATION	25	1	N	I	1	0	No	Yes
1 Currently attending school										
2 Never attend school										
3 Attend school in the past										
(na)										
S2-4Type of School		TYPE_OF_SCHOOL	26	1	N	I	1	0	No	Yes
1 Government										
2 Private										
3 International										
(na)										
S2-5CurrentGrade		GRADE_THIS_YEAR	27	2	N	I	1	0	No	Yes
1 Grade 1										
2 Grade 2										
3 Grade 3										
4 Grade 4										
5 Grade 5										
6 Grade 6										
7 Grade 7										
8 Grade 8										
9 Grade 9										
10 Grade 10										
11 Grade 11										
12 Grade 12										
13 Grade 13										
14 Special Education										
19 Not relevant										
(na)										
S2-6GradePreviouse		GRADE_LAST_YEAR	29	2	N	I	1	0	No	Yes
1 Grade 1										
2 Grade 2										
3 Grade 3										
4 Grade 4										
5 Grade 5										
6 Grade 6										

```
        7   Grade 7
        8   Grade 8
        9   Grade 9
        10  Grade 10
        11  Grade 11
        12  Grade 12
        13  Grade 13
        14  Special Education
        19  Not relevant
   (na)
S2-7 DistanceToSchool                   DISTANCE                31    2    N    I    1    0    No  Yes
        0:99   DistanceToSchool
   (na)
S2-8Transport                           TRANSPORT_MEDIUM        33    1    N    I    1    0    No  Yes
        1  Walk
        2  Bicycle
        3  Motor bicycle / Three-wheeler/Car
        4  School hiring Van/ Bus
        5  By Bus
        6  By Train
        9  Other (Specify)
   (na)
S2-9TimeTo School                       TIME_TO_SCHOOL          34    3    N    I    1    0    No  Yes
        0:120  TimeTo School
   (na)
S2-10WhyNeverSchooling                  NOSCHOOLING_REASON      37    1    N    I    1    0    No  Yes
        1  School too far away
        2  Financial problems
        3  Had to help house keeping activities /Family Business
        4  Disability / Illness
        5  Civil disturbance
        6  Not willing to attend / Poor academic progress
        7  Not Completed Age
        9  Other (specify)
   (na)
S2-11 ReasonsNotGoingSchool             REASON_NOT_GOING        38    1    N    I    1    0    No  Yes
        1  Further schooling not available or too far away
        2  Finalcial Problems
        3  Had to help house keeping activities / Family business
        4  Disability / Illness
        5  Not willing to attend / Poor academic progress
        6  Pending results ( G.C.E. (O/L) / G.C.E. (A/L)
        7  Complete G.C.E.(A/L)
        9  Other (Specify)
   (na)
S2-12WhenStopSchool                     WHEN_STOP_SCHOOLING     39    4    N    I    1    0    No  Yes
        0:9999  WhenStopSchool
   (na)
```

Level: HIES2012_13 Questionnaire Record: Section - 3 - Health

205

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S3-2 Person Sr.		R3_PERSON_SERIAL2	23	2	N	I	1	0	No	Yes
1:40										
(na)										
S3-3 Attend Govt.hospital		ATTEND_GOVT_HOSPITAL3	25	1	N	I	1	0	No	Yes
1:2 Did attend hospital										
(na)										
S3-4 Reason for attending		REASON_HOSPITAL4	26	1	N	I	1	0	No	Yes
1 Treatment for illness										
2 Treatment for injury										
3 Medical checkup/ Consultation										
4 Immunization										
5 Treatment for infectious diseases(Injection etc)										
9 Other (specify)										
(na)										
S3-5 Attend Private Hospital		ATTEND_PRIVATE_HOSPITAL	27	1	N	I	1	0	No	Yes
1:2										
(na)										
S3-6 Reason for what		REASON_FOR_WHAT6	28	1	N	I	1	0	No	Yes
1 Treatment for illness										
2 Treatment for injury										
3 Medical checkup/ Consultation										
4 Immunization										
5 Treatment for infectious diseases(Injection etc)										
9 Other (specify)										
(na)										
S3-7 Stay in Govt. hospital		IS_STAY_GOVHOSPITAL7	29	1	N	I	1	0	No	Yes
1:2										
(na)										
S3-8 Reason for hospitalise		REASON_STAY8	30	1	N	I	1	0	No	Yes
1 Treatment for illness										
2 Treatment for injury										
3 Operation / Surgey										
4 Child delivery										
5 Treatment for infectious diseases										
6 An accident										
9 Other (specify)										
(na)										

S3-9 Stay in Privte Hospital STAY_IN_PRIVTE_HOSPITAL 31 1 N I 1 0 No Yes
1:2
206
(na)
S3-10 Reason for Stay REASON_FOR_STAY10 32 1 N I 1 0 No Yes
1 Treatment for illness
2 Treatment for injury
3 Operation / Surgey
4 Child delivery
5 Treatment for infectious diseases
6 An accident
9 Other (specify)
(na)
S3-11 Is ill or dissable IS_ILL_DISABLE11 33 1 N I 1 0 No Yes
1:2
(na)
S3-12 Illnee or dissability WHAT_ILL_DISABLE12 34 2 N I 1 0 No Yes
1 Heart Conditions /Diseases
2 Blood pressure
3 Diabetics
4 Asthma
5 Epilepsy
6 Cancer
7 Stomach diseases / Gastritis
8 Diseases related to Eyes
9 Diseases related to ear
10 Arthritis
11 Mental retardation
12 Haemorrhoids
13 Catarrh
14 Severe headache
15 Naturally Disabled
16 Disabled by an accident
99 Other
(na)
S3-13 Is employmet caused IS_EMPL_REASON13 36 1 N I 1 0 No Yes
1:2
(na)
S3-14 Duration of illness disa DURATION_YEARS14 37 2 N I 1 0 No Yes
0:99 Duration of illness disa
(na)
S3-14 Months duration DURATION_MONTHS14 39 2 N I 1 0 No Yes
0:12 Months duration
(na)
S3-15 Did absent for normal IS_ABSENT_ACT15 41 1 N I 1 0 No Yes
1:2
(na)
S3-16 Duration absent days DAYS_ABSENT16 42 2 N I 1 0 No Yes
0:99 Duration absent days
(na)

Level: HIES2012_13 Questionnaire Record: Section - 4.1 - Food expenditure

207

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S41-2. Code		CODE	23	4	N	I	1	0	No	Yes
101:1924										
S41-4. Quantity		QUANTITY	27	6	N	I	1	0	No	Yes
0:999999										
(na)										
S41-5. Value		VALUE	33	7	N	I	1	0	No	Yes
0:9999999										
(na)										
S41-6. Inkind value		INKIND_VALUE	40	7	N	I	1	0	No	Yes
0:9999999										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 4.2 - Non food

208

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S42-2. Code		NF_CODE	23	4	N	I	1	0	No	Yes
2001:3509										
(na)										
S42-4. Quantity		NF_QUANTITY	27	6	N	I	1	0	No	Yes
0:999999										
(na)										
S42-5. Value		NF_VALUE	33	7	N	I	1	0	No	Yes
0:9999999										
(na)										
S42-6. Inkind value		NF_INKIND_VALUE	40	7	N	I	1	0	No	Yes
0:9999999										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 4.3 - Is Boaders Servent

209

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S43-Is Boarders and Domestic Servents		IS_BOARDERS_SERVENTS	23	1	N	I	1	0	No	Yes
1 Yes										
2 No										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 4.3 - Boaders Servent

210

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S43-2 Person		COL_2	23	2	N	I	1	0	No	Yes
1:40 SerNo										
(na)										
S43-3 Food		COL_3	25	6	N	I	1	0	No	Yes
2:70000										
(na)										
S43-4 Fuel and lite		COL_4	31	6	N	I	1	0	No	Yes
2:999999										
(na)										
S43-5 Non durable goods		COL_5	37	6	N	I	1	0	No	Yes
10:999999										
(na)										
S43-6 HH services		COL_6	43	6	N	I	1	0	No	Yes
10:999999										
(na)										
S43-7 Personal effects		COL_7	49	6	N	I	1	0	No	Yes
10:999999										
(na)										
S43-8 Transport		COL_8	55	6	N	I	1	0	No	Yes
10:999999										
(na)										
S43-9 Ent., Edu and cult		COL_9	61	6	N	I	1	0	No	Yes
10:999999										
(na)										
S43-10 Bording fees		COL_10	67	6	N	I	1	0	No	Yes
10:999999										
(na)										
S43-11 Send to family		COL_11	73	6	N	I	1	0	No	Yes
100:999999										
(na)										
S43-12 Savings etc		COL_12	79	6	N	I	1	0	No	Yes
50:999999										
(na)										
S43-13 Other Expensus		COL_13	85	6	N	I	1	0	No	Yes
10:999999										
(na)										
S43-14 Clothing		COL_14	91	6	N	I	1	0	No	Yes

```
        10:999999
   (na)
S43-15 Durable goods                            COL_15                    97     6     N     I     1     0    No  Yes
        10:999999
   (na)
```

Level: HIES2012_13 Questionnaire Record: Section - 5.1 - Is employment Income

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S51-Is employment income		IS_EMPLOYMENT_INCOME	23	1	N	I	1	0	No	Yes
1 Yes										
2 No										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 5.1 - Employment Income

213

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S51-2Scr.No		SERIAL_NO_SEC_1	23	2	N	I	1	0	No	Yes
1:40										
(na)										
S51-3Principal/Second		PRI_SEC	25	1	N	I	1	0	No	Yes
1 Main										
2 Secondary										
1:2										
(na)										
S51-4 WagesSalary		WAGES_SALARIES	26	6	N	I	1	0	No	Yes
50:300000										
(na)										
S51-5 Allowences		ALLOWENCES	32	7	N	I	1	0	No	Yes
100:100000										
(na)										
S51-6 Bonus		BONUS	39	7	N	I	1	0	No	Yes
10:250000										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 5.2 - Is aggricultural Income

214

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S52-Is agricultural income		IS_AGRICULTURAL_INCOME	23	1	N	I	1	0	No	Yes
1 Yes										
2 No										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 5.2 - Aggricultural Income

215

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S52-2Person		COL_2X	23	2	N	I	1	0	No	Yes
1:40										
(na)										
S52-4Code		COL_4X	25	1	N	I	1	0	No	Yes
1 Paddy										
2 Chillies										
3 Onions										
4 Vegetables										
5 Cereals										
6 Yams										
7 Tobacco										
9 Other										
(na)										
S52-5Acres		COL_5X	26	3	N	I	1	0	No	Yes
0:25										
(na)										
S52-6Roots		COL_6X	29	1	N	I	1	0	No	Yes
0:3										
(na)										
S52-7Perchs		COL_7X	30	2	N	I	1	0	No	Yes
0:39										
(na)										
S52-8Quantity		COL_8X	32	8	N	I	1	0	No	Yes
0:99999999										
(na)										
S52-8Output value		COL_8X1	40	9	N	I	1	0	No	Yes
50:1000000										
(na)										
S52-9Expenses		COL_9X	49	9	N	I	1	0	No	Yes
0:999999999										
(na)										
S52-10Consumtion_quantity		COL_10X	58	8	N	I	1	0	No	Yes
0:99999999										
(na)										
S52-10Consumtion_Value		COL_10X1	66	9	N	I	1	0	No	Yes
0:999999999										
(na)										

S52-11Eating 0:99999999 (na)	COL_11X	75	8	N	I	1	0	No	Yes
S52-12To sell 0:99999999 (na)	COL_12X	83	8	N	I	1	0	No	Yes
S52-13Fertilizer 0:999999999 (na)	COL_13X	91	9	N	I	1	0	No	Yes

Level: HIES2012_13 Questionnaire Record: Section - 5.3 - Is other aggricultural income

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S53-Is other agrri income		IS_OTHER_AGRRI_INCOME	23	1	N	I	1	0	No	Yes
1 Yes										
2 No										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 5.3 - Other aggricultural income

218

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S53-2Person		SER_NO_SEC_5_3	23	2	N	I	1	0	No	Yes
1:40										
(na)										
S53-4Other crop code		SEASONAL_CROP	25	2	N	I	1	0	No	Yes
1 Tea , Rubber										
2 Coconuts										
3 Coffee, Pepper Betel etc										
4 Banana / Fruits										
5 Meat										
6 Fish										
7 Eggs										
8 Milk										
9 Other food items										
10 Horticulture										
99 Other										
(na)										
S53-5Acrs		ACRES_5_3	27	3	N	I	1	0	No	Yes
0:25										
(na)										
S53-6Roots		ROOTS_5_3	30	1	N	I	1	0	No	Yes
0:3										
(na)										
S53-7Perchs		PERCHS_5_3	31	2	N	I	1	0	No	Yes
0:39										
(na)										
S53-8Output value		OUTPUT_5_3	33	9	N	I	1	0	No	Yes
50:1000000										
(na)										
S53-9Input value		INPUT_5_3	42	9	N	I	1	0	No	Yes
50:1000000										
(na)										
S53-10Fertilizer		FERTILIZES	51	9	N	I	1	0	No	Yes
50:1000000										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 5.4 - Is non_agri income

219

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S54-Is non agri income		IS_NON_AGRI_INCOME	23	1	N	I	1	0	No	Yes
1 Yes										
2 No										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 5.4 - Non agri income

220

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S54-2 Person		SERIAL_5_4	23	2	N	I	1	0	No	Yes
1:40										
(na)										
S54-4 Non agri code		NON_AGRI	25	1	N	I	1	0	No	Yes
1 Mining & Quarrying.										
2 Manufacturing										
3 Construction										
4 Trade										
5 Transport										
6 Guest house, restaurants, bars/hotels etc										
9 Other services										
(na)										
S54-5 Output value		OUTPUT_5_4	26	9	N	I	1	0	No	Yes
50:500000										
(na)										
S54-6 Input value		INPUT_5_4	35	9	N	I	1	0	No	Yes
50:500000										
(na)										
S54-7subsidies		SUBSIDIES	44	9	N	I	1	0	No	Yes
0:999999999										
(na)										

Level: HIES2012_13 Questionnaire Record: section - 5.5.1 - Is other income

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S551-Is Other Income		IS_OTHER_INCOME	23	1	N	I	1	0	No	Yes
1 Yes										
2 No										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 5.5.1 - Other income

222

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western 21:23 Central 31:33 Southern 41:45 Northern 51:53 Eastern 61:62 North-western 71:72 North-central 81:82 Uva 91:92 Sabaragamuwa (m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3 (na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99 (na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12 (na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300 (na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999 (na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10 (na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9 (na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9 (na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed 2 Deferred 3 Not competent respondant at home 4 Refused 5 Household is temporarily closed 6 Household is demolished / Vacant 7 Rejected 9 Other (Specify) (na)										
S551-2Person		SERIAL_5_5_1	23	2	N	I	1	0	No	Yes
1:40 (na)										
S551-3Pention		PENSION	25	6	N	I	1	0	No	Yes
100:60000 (na)										
S551-4Disability		DISABILITY_AND_RELIEF	31	5	N	I	1	0	No	Yes
50:7000 (na)										
S551-5Rent		PROPERTY_RENTS	36	7	N	I	1	0	No	Yes
50:250000 (na)										
S551-6Samurdhi		SAMURDHI	43	5	N	I	1	0	No	Yes
50:99999 (na)										
S551-7Profits		DIVIDENDS	48	7	N	I	1	0	No	Yes
10:50000 (na)										
S551-8Elder Salary		ELDER	55	5	N	I	1	0	No	Yes
10:50000 (na)										
S551-9Sch.ship		SCHOLAR	60	7	N	I	1	0	No	Yes
100:700000 (na)										
S551-10School Lunch		SC_LUNCH	67	5	N	I	1	0	No	Yes
50:99999 (na)										
S551-11Threeposha		THREEPOSHA	72	5	N	I	1	0	No	Yes
0:99999 (na)										
S551-12Other Income		OTHER_INCOME	77	7	N	I	1	0	No	Yes
0:9999999 (na)										
S551-13Income_forign		INCOME_FORIGN	84	7	N	I	1	0	No	Yes
0:9999999 (na)										
S551-14Income_Local		INCOME_LOCAL	91	7	N	I	1	0	No	Yes

```
      0:9999999
(na)                                  223
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Level: HIES2012_13 Questionnaire Record: Section - 5.5.2 - Is windfall income

224

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S552-Is windfall income		IS_WINDFALL_INCOME	23	1	N	I	1	0	No	Yes
1 Yes										
2 No										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 5.5.2 - Windfall income

225

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S552-2Person		PERSON_5_5_2	23	2	N	I	1	0	No	Yes
1:40										
(na)										
S552-3Loans/Credit Cards		LOANS	25	8	N	I	1	0	No	Yes
100:1000000										
(na)										
S552-4Selling pawning		PAWNING_SELLING	33	8	N	I	1	0	No	Yes
500:500000										
(na)										
S552-5Deposits		DEPOSITS_PENSIONS_EPF	41	8	N	I	1	0	No	Yes
100:600000										
(na)										
S552-6WelfareSocity		WELFARE_SOCITY	49	8	N	I	1	0	No	Yes
0:99999999										
(na)										
S552-7Seettu		SEETTU_DEBITS	57	8	N	I	1	0	No	Yes
0:99999999										
(na)										
S552-8Medical		MEDICAL	65	8	N	I	1	0	No	Yes
0:99999999										
(na)										
S552-9Insuarance		INSUARANCE	73	8	N	I	1	0	No	Yes
0:99999999										
(na)										
S552-10Lottery		LOTTERY	81	8	N	I	1	0	No	Yes
0:99999999										
(na)										
S552-11FoodAllowence		FOODALLOWENCE	89	8	N	I	1	0	No	Yes
0:99999999										
(na)										
S552-12Diaster		DIASTER	97	8	N	I	1	0	No	Yes
0:99999999										
(na)										

Level: HIES2012_13 Questionnaire Record: Section - 6A - Durable goods

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S6A-Radio		RADIO	23	1	N	I	1	0	No	Yes
1:2 Radio / Cassette player										
(na)										
S6A-TV		TV	24	1	N	I	1	0	No	Yes
1:2 Television										
(na)										
S6A-VCD		VCD	25	1	N	I	1	0	No	Yes
1:2 V.C.D. / D.V.D.										
(na)										
S6A-Sewing Mechine		SEWING_MECHINE	26	1	N	I	1	0	No	Yes
1:2 Sewing machines										
(na)										
S6A-Washing mechine		WASHING_MECHINE	27	1	N	I	1	0	No	Yes
1:2 Washing machines										
(na)										
S6A-Fridge		FRIDGE	28	1	N	I	1	0	No	Yes
1:2 Refrigerators										
(na)										
S6A-Cookers		COOKERT	29	1	N	I	1	0	No	Yes
1:2 Cookers (Gas, Kerosene, Electric)										
(na)										
S6A-Electric Fans		ELECTRIC_FANS	30	1	N	I	1	0	No	Yes
1:2 Electric fans										
(na)										
S6A-Telephone		TELEPHONE	31	1	N	I	1	0	No	Yes
1:2 Telephone (Domestic)										
(na)										
S6A-Telephone Mobile		TELEPHONE_MOBILE	32	1	N	I	1	0	No	Yes
1:2 Telephone (mobile)										
(na)										
S6A-Computers		COMPUTERS	33	1	N	I	1	0	No	Yes
1:2 Personal Computers										
(na)										
S6A-Camera		CAMERA	34	1	N	I	1	0	No	Yes
1:2 Camera										
(na)										
S6A-Bicycle		BICYCLE	35	1	N	I	1	0	No	Yes

1:2 Bicycles
(na)

227

S6A-Motor Bicycle	MOTOR_BICYCLE	36	1	N	I	1	0	No Yes
1:2 Motor cycles / Scooters								
(na)								
S6A-Three wheeler	THREE_WHEELER	37	1	N	I	1	0	No Yes
1:2 Three wheelers								
(na)								
S6A-Motor car van	MOTOR_CAR_VAN	38	1	N	I	1	0	No Yes
1:2 Motor cars / Vans								
(na)								
S6A-Bus lorry	BUS_LORRY	39	1	N	I	1	0	No Yes
1:2 Bus / Lorry								
(na)								
S6A-Tractor 2 wheel	TRACTOR_2_WHEEL	40	1	N	I	1	0	No Yes
1:2 Tractors (Two wheel)								
(na)								
S6A-Tractor 4 wheel	TRACTOR_4_WHEEL	41	1	N	I	1	0	No Yes
1:2 Tractors (Four wheel)								
(na)								
S6A-Pesticider	PESTICIDER	42	1	N	I	1	0	No Yes
1:2 Sprayers								
(na)								
S6A-Threshers	THRESHERS	43	1	N	I	1	0	No Yes
1:2 Threshers								
(na)								
S6A-Water Pumps	WATERPUMPS	44	1	N	I	1	0	No Yes
1:2 Water pumps								
(na)								
S6A-Mechine	MECHINE	45	1	N	I	1	0	No Yes
1:2								
(na)								
S6A-Boats	BOATS	46	1	N	I	1	0	No Yes
1:2 Boats								
(na)								
S6A-Fishing nets	FISHING_NETS	47	1	N	I	1	0	No Yes
1:2 Fishing nets								
(na)								

Level: HIES2012_13 Questionnaire Record: Section - 6B - Debtness

228

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western 21:23 Central 31:33 Southern 41:45 Northern 51:53 Eastern 61:62 North-western 71:72 North-central 81:82 Uva 91:92 Sabaragamuwa (m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3 (na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99 (na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12 (na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300 (na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999 (na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10 (na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9 (na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9 (na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed 2 Deferred 3 Not competent respondant at home 4 Refused 5 Household is temporarily closed 6 Household is demolished / Vacant 7 Rejected 9 Other (Specify) (na)										
S6B-Banks		BANKS	23	1	N	I	1	0	No	Yes
1:2 Banks (na)										
S6B-Bank amount		BANK_AMOUNT	24	7	N	I	1	0	No	Yes
100:1000000 Bank Amount (na)										
S6B-Finance		FINANCE	31	1	N	I	1	0	No	Yes
1:2 Finance (na)										
S6B-Finance amount		FINANCE_AMOUNT	32	7	N	I	1	0	No	Yes
100:1000000 Finance Amount (na)										
S6B-Employer		EMPLOYER	39	1	N	I	1	0	No	Yes
1:2 Own Place of work (na)										
S6B-Employer amount		EMPLOYER_AMOUNT	40	7	N	I	1	0	No	Yes
100:300000 Employer amount (na)										
S6B-Lender		LENDER	47	1	N	I	1	0	No	Yes
1:2 Money Lenders (na)										
S6B-Lender amount		LENDER_AMOUNT	48	7	N	I	1	0	No	Yes
100:100000 Money Lenders Amount (na)										
S6B-Credit Cards		CREDIT_CARDS	55	1	N	I	1	0	No	Yes
1:2 (na)										
S6B-Credit Cards Amount		CREDIT_CARDS_AMOUNT	56	7	N	I	1	0	No	Yes
100:1000000 (na)										
S6B-Retail shops		RETAIL_SHOPS	63	1	N	I	1	0	No	Yes
1:2 Retail outlets (na)										
S6B-Retail shop amount		RETAIL_SHOP_AMOUNT	64	7	N	I	1	0	No	Yes
100:9999999 Retail outlets Amount (na)										
S6B-Pawning		PAWNING	71	1	N	I	1	0	No	Yes

```
       1:2  Pawning
   (na)                                                 229
S6B-Pawning amount                  PAWNING_AMOUNT      72    7    N    I    1    0    No  Yes
       100:100000  Pawning Amount
   (na)
S6B-Instalment goods                INSTALMENT_GOODS    79    1    N    I    1    0    No  Yes
       1:2  Durable goods purchased in instalments
   (na)
S6B-Instalement amount              INSTALEMENT_AMOUNT  80    7    N    I    1    0    No  Yes
       100:100000  Instalement amount
   (na)
S6B-Other                           OTHER_DEBTS         87    1    N    I    1    0    No  Yes
       1:2  Other
   (na)
S6B-other amount                    OTHER_AMOUNT        88    7    N    I    1    0    No  Yes
       100:100000  Other mount
   (na)
```

Level: HIES2012_13 Questionnaire Record: Section - 7 - Basic facilities

230

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S7-Bus halt		BUS_HALT	23	2	N	I	1	0	No	Yes
0:99 Bus Halt										
(na)										
S7-Bus halt time		BUS_HALT_TIME	25	3	N	I	1	0	No	Yes
1:120 BHTime										
(na)										
S7-Pre school		PRE_SCHOOL	28	2	N	I	1	0	No	Yes
0:99 Pre School										
(na)										
S7-Pre school time		PRE_SCHOOL_TIME	30	3	N	I	1	0	No	Yes
1:120 Pre SchTime										
(na)										
S7-Primery school		PRIMERY_SCHOOL	33	2	N	I	1	0	No	Yes
0:99 Primary School										
(na)										
S7-Primery school time		PRIMERY_SCHOOL_TIME	35	3	N	I	1	0	No	Yes
1:120 Primary SchoolTime										
(na)										
S7-Secondery school		SECONDERY_SCHOOL	38	2	N	I	1	0	No	Yes
0:99 Secondery School										
(na)										
S7-Sec school time		SEC_SCHOOL_TIME	40	3	N	I	1	0	No	Yes
1:120 SeconderySchoolTime										
(na)										
S7-Hospital		HOSPITAL	43	2	N	I	1	0	No	Yes
0:99 Base Hospital										
(na)										
S7-Hospital time		HOSPITAL_TIME	45	3	N	I	1	0	No	Yes
1:120 Base Hospital Time										
(na)										
S7-Matrenity home		MATRENITY_HOME	48	2	N	I	1	0	No	Yes
0:99 Maternity Home										
(na)										
S7-Maternity home time		MATERNITY_HOME_TIME	50	3	N	I	1	0	No	Yes
1:120 Maternity HomeTime										
(na)										
S7-Gov dispensary		GOV_DISPENSARZ	53	2	N	I	1	0	No	Yes

0:99 Government Dispensary									
(na)									
S7-Gov dispensary time	GOV_DISPENSARY_TIME	55	3	N	I	1	0	No	Yes
1:120 Government DispensaryTime									
(na)									
S7-Private dispensary	PRIVATE_DISPENSARY	58	2	N	I	1	0	No	Yes
0:99 Private Dispensary									
(na)									
S7-Private dispensary time	PRIVATE_DISPENSARY_TIME	60	3	N	I	1	0	No	Yes
1:120 Private DispensaryTime									
(na)									
S7-Maternity clinic	MATERNITY_CLINIC	63	2	N	I	1	0	No	Yes
0:99 MatenityClinic									
(na)									
S7-Maternity clinic time	MATERNITY_CLINIC_TIME	65	3	N	I	1	0	No	Yes
1:120 MaternityclinicTime									
(na)									
S7-DMO	DMO	68	2	N	I	1	0	No	Yes
0:99 DMO									
(na)									
S7-DMO time	DMO_TIME	70	3	N	I	1	0	No	Yes
1:120 DMOTime									
(na)									
S7-MCUCPC	MCUCPC	73	2	N	I	1	0	No	Yes
0:99 MCUCPC									
(na)									
S7-MCUCPC time	MCUCPC_TIME	75	3	N	I	1	0	No	Yes
1:120 MCUCPCTime									
(na)									
S7-DS office	DS_OFFICE	78	2	N	I	1	0	No	Yes
0:99 DS Office									
(na)									
S7-DS office time	DS_OFFICE_TIME	80	3	N	I	1	0	No	Yes
1:120 DSOfficeTime									
(na)									
S7-GN office	GN_OFFICE	83	2	N	I	1	0	No	Yes
0:99 GNOffice									
(na)									
S7-GN office time	GN_OFFICE_TIME	85	3	N	I	1	0	No	Yes
1:120 GNOfficeTime									
(na)									
S7-Post office	POST_OFFICE	88	2	N	I	1	0	No	Yes
0:99 Post office									
(na)									
S7-Post office time	POST_OFFICE_TIME	90	3	N	I	1	0	No	Yes
1:120 PostOfficeTime									
(na)									
S7-Bank	BANK	93	2	N	I	1	0	No	Yes
0:99 Bank									
(na)									
S7-Bank time	BANK_TIME	95	3	N	I	1	0	No	Yes
1:120 BankTime									
(na)									
S7-Agri office	AGRI_OFFICE	98	2	N	I	1	0	No	Yes
0:99 AgriOffice									
(na)									
S7-Agri office time	AGRI_OFFICE_TIME	100	3	N	I	1	0	No	Yes
1:120 AgriOfficeTime									
(na)									
S7-Is power lines near	IS_POWER_LINES_NEAR	103	1	N	I	1	0	No	Yes
1 Yes									
2 No									
(na)									
S7-Is tel lines near	IS_TEL_LINES_NEAR	104	1	N	I	1	0	No	Yes
1 Yes									
2 No									
(na)									
S7-Is water service near	IS_WATER_SERVICE_NEAR	105	1	N	I	1	0	No	Yes
1 Yes									
2 No									
(na)									
S7-ATM Card	ATM_CARD	106	1	N	I	1	0	No	Yes
1 Yes									
2 No									
(na)									
S7-ATMCardAmount	ATMCARDAMOUNT	107	7	N	I	1	0	No	Yes
0:9999999									
(na)									

Level: HIES2012_13 Questionnaire Record: Section - 8 - Housing

232

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S8-1 Structure		STRUCTURE	23	2	N	I	1	0	No	Yes
1 Single House - Single storeyed										
2 Single House - Double storeyed										
3 Single House- More than two storeys										
4 Attached house / Annex										
5 Flat										
6 Condominium / Luxury apartments										
7 Twin house										
8 Line room / Row house										
9 Slum / Shanty										
99 Other (Specify)										
(na)										
S8-2 Bed rooms		BED_ROOMS	25	1	N	I	1	0	No	Yes
0:9 Bedroom										
(na)										
S8-3 Area		AREA	26	1	N	I	1	0	No	Yes
1 Less than 100										
2 100 - Less than 250										
3 250 - less than 500										
4 500 - less than 750										
5 750 - less than 1000										
6 1000 - less than 1500										
7 1500 - less than 3000										
9 3000 & more										
(na)										
S8-4 Walls		WALLS	27	1	N	I	1	0	No	Yes
1 Brick										
2 Cabook										
3 Cement block										
4 Pressed soil blocks										
5 Mud										
6 Plank / Metal sheet										
7 Cadjan / Palmyrah										
9 Other (specify)										
(na)										
S8-4 Floor		FLOOR	28	1	N	I	1	0	No	Yes
1 Cement										

2 Teraso / Tile									
3 Mud									
4 Wood									
5 Sand									
6 Concrete									
9 Other (Specify)									
S8-4 Roof	ROOF	29	1	N	I	1	0	No	Yes
1 Tile									
2 Asbestos									
3 Concrete									
4 Metal Sheet									
5 Taka ram									
6 Cadjan / Palmyrah/Straw									
9 Other (Specify)									
(na)									
S8-5 Ownership	OWNERSHIP	30	2	N	I	1	0	No	Yes
1 Constructed/Purchased by occupant									
2 In herited									
3 Freely received/received as gift									
4 Compensated									
5 Rent free (Employer/Other)									
6 Relief payment (Employer/Other)									
7 Rent									
8 Lease									
9 Encroached									
99 Other (specify)									
(na)									
S8-6a Drinking water	DRINKING_WATER	32	2	N	I	1	0	No	Yes
1 Protected well within premises									
2 Protected well outside premises									
3 Unprotected well									
4 Tap in side home									
5 Tap with in unite									
6 Tap outside premises									
7 Project in village									
8 Tube well									
9 Bowser									
10 River/Tank/Streams									
11 Rainey water									
12 Bottled water									
99 Other (Specify)									
(na)									
S8-6b1 Own Other water	OWN_WATER	34	1	N	I	1	0	No	Yes
0:2									
(na)									
S8-6b2 Water distance	WATER_DISTANCE	35	4	N	I	1	0	No	Yes
0:9999									
(m)									
S8-6c1 Water sufficency	WATER_SUFFICENCY	39	1	N	I	1	0	No	Yes
1:2									
(na)									
S8-6c2 Other water sufficency	OTHER_WATER_SUFFICENCY	40	1	N	I	1	0	No	Yes
1:2									
(na)									
S8-7a Tioilet use	TIOILET_USE	41	1	N	I	1	0	No	Yes
1 Exclusive for the household									
2 Sharing with another household									
3 Exclusive for the household									
4 Sharing with another household									
5 No toilet to housing unit but sharing									
6 Public toilet									
7 Not using toilets									
(na)									
S8-7b Toilet type	TOILET_TYPE	42	1	N	I	1	0	No	Yes
1 Connected with water seal									
2 Not connected with water seal									
3 Pour Flash									
4 Pit									
9 Other (Specify)									
(na)									
S8-8 Garbage dumping	GARBAGE_DUMPING	43	1	N	I	1	0	No	Yes
1 Collected by garbage truck									
2 Buried / Burned									
3 Process for fertilizer									
4 Dumped within premises									
5 Dumped / Throw away out side premises.									
9 Other (specify)									
(na)									
S8-9 Lite source	LITE_SOURCE	44	1	N	I	1	0	No	Yes
1 Kerosene									
2 Electricity									
3 Solar energy									
4 Generator/Battery									
5 Gas									
9 Other (Specify)									
(na)									
S8-10 Cooking fuel	COOKING_FUEL	45	1	N	I	1	0	No	Yes
1 Fire wood									

```
        2  Gas
        3  Kerosene                                234
        4  Electricity
        5  Saw dust / Paddy husk
        9  Other (specify)
   (na)
S8-11a Is collect firewood              IS_COLLECT_FIREWOOD      46   1   N   I   1   0   No  Yes
        1  Yes
        2  No
   (na)
S8-11b Fire wood ownForestOther         FIRE_WOOD_OWN            47   1   N   I   1   0   No  Yes
        0:3
   (na)
S8-11b FWD distance                     OTHER_DISTANCE           48   4   N   I   1   0   No  Yes
        0:9999
   (na)
S8-12a Natural calamity                 NATURAL_CALAMITY         52   1   N   I   1   0   No  Yes
        1:2
   (na)
S8-12b1 Flooding                        FLOODING                 53   1   N   I   1   0   No  Yes
        1:2
   (na)
S8-12b2 Drought                         DROUGHT                  54   1   N   I   1   0   No  Yes
        1:2
   (na)
S8-12b3 Land slides                     LAND_SLIDES              55   1   N   I   1   0   No  Yes
        1:2
   (na)
S8-12b4 WildAnimals                     WILDANIMALS              56   1   N   I   1   0   No  Yes
        1:2
   (na)
S8-12b5 Winds                           WINDS                    57   1   N   I   1   0   No  Yes
        1:2
   (na)
S8-12b6 Other calamity                  OTHER_CALAMITY           58   1   N   I   1   0   No  Yes
        1:2
   (na)
```

Level: HIES2012_13 Questionnaire Record: Section - 9 - Land and animal

235

Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
S9-Is agriland owner		IS_AGRILAND_OWNER	23	1	N	I	1	0	No	Yes
1 Yes										
2 No										
(na)										
S9-Paddy own acr		PADDY_OWN_ACR	24	3	N	I	1	0	No	Yes
0:25 Paddy Own Acr										
(na)										
S9-Paddy own rt		PADDY_OWN_RT	27	1	N	I	1	0	No	Yes
0:3 Paddy own rt										
(na)										
S9-Paddy own perch		PADDY_OWN_PERCH	28	2	N	I	1	0	No	Yes
0:39 Paddy own perch										
(na)										
S9-Paddy other acr		PADDY_OTHER_ACR	30	3	N	I	1	0	No	Yes
0:25 Paddy other acr										
(na)										
S9-Paddy other rt		PADDY_OTHER_RT	33	1	N	I	1	0	No	Yes
0:3 PaddyOtherrt										
(na)										
S9-Paddy other perch		PADDY_OTHER_PERCH	34	2	N	I	1	0	No	Yes
0:39 Paddy other perch										
(na)										
S9-Land own acr		LAND_OWN_ACR	36	3	N	I	1	0	No	Yes
0:25 Land own acr										
(na)										
S9-Land own rt		LAND_OWN_RT	39	1	N	I	1	0	No	Yes
0:3 LandOwnrt										
(na)										
S9-Land own perch		LAND_OWN_PERCH	40	2	N	I	1	0	No	Yes
0:39 Land own perch										
(na)										
S9-Land other acr		LAND_OTHER_ACR	42	3	N	I	1	0	No	Yes
0:25 Land other acr										
(na)										
S9-Land other rt		LAND_OTHER_RT	45	1	N	I	1	0	No	Yes
0:3 LandOtherrt										
(na)										

S9-Land other perch	LAND_OTHER_PERCH	46	2	N	I	1	0	No	Yes
0:39 Land other perch	236								
(na)									
S9-Home own acr	HOME_OWN_ACR	48	3	N	I	1	0	No	Yes
0:25 HomeOwnAcr									
(na)									
S9-Home own rt	HOME_OWN_RT	51	1	N	I	1	0	No	Yes
0:3 Home own rt									
(na)									
S9-Home own perch	HOME_OWN_PERCH	52	2	N	I	1	0	No	Yes
0:39 Home own perch									
(na)									
S9-Home other acr	HOME_OTHER_ACR	54	3	N	I	1	0	No	Yes
0:25 Home other acr									
(na)									
S9-Home other rt	HOME_OTHER_RT	57	1	N	I	1	0	No	Yes
0:3 Home other rt									
(na)									
S9-Home other perch	HOME_OTHER_PERCH	58	2	N	I	1	0	No	Yes
0:39 Home other perch									
(na)									
S9-Cows buffalows	COWS_BUFFALOWS	60	1	N	I	1	0	No	Yes
1:2 Cows buffalows									
(na)									
S9-Cows count	COWS_COUNT	61	1	N	I	1	0	No	Yes
1 5 or less than 5									
2 6 to 10									
3 11 to 50									
4 More than 50									
S9-Goats sheeps	GOATS_SHEEPS	62	1	N	I	1	0	No	Yes
1:2 Goats sheeps									
(m)									
S9-Goat count	GOAT_COUNT	63	1	N	I	1	0	No	Yes
1 5 or less than 5									
2 6 to 10									
3 11 to 50									
4 More than 50									
S9-Pigs	PIGS	64	1	N	I	1	0	No	Yes
1:2 Pigs									
(na)									
S9-Pigs count	PIGS_COUNT	65	1	N	I	1	0	No	Yes
1 5 or less than 5									
2 6 to 10									
3 11 to 50									
4 More than 50									
S9-Chickens	CHICKENS	66	1	N	I	1	0	No	Yes
1:2 Chickens									
(na)									
S9-Chicken count	CHICKEN_COUNT	67	1	N	I	1	0	No	Yes
1 5 or less than 5									
2 6 to 10									
3 11 to 50									
4 More than 50									
S9-Other	OTHER_ANIMALS	68	1	N	I	1	0	No	Yes
1:2 OtherAnimal									
(na)									
S9-Other Count	OTHER_COUNT	69	1	N	I	1	0	No	Yes
1 5 or less than 5									
2 6 to 10									
3 11 to 50									
4 More than 50									

Level: HIES2012_13 Questionnaire Record: Household Income and Expenditure

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Item Label		Item Name	Start	Len	Data Type	Item Type	Occ	Dec	Dec Char	Zero Fill
(record type)			1	2	AN	I	1	0	No	No
District	(id)	DISTRICT	3	2	N	I	1	0	No	Yes
11:13 Western										
21:23 Central										
31:33 Southern										
41:45 Northern										
51:53 Eastern										
61:62 North-western										
71:72 North-central										
81:82 Uva										
91:92 Sabaragamuwa										
(m) Blank										
Sector	(id)	SECTOR	5	1	N	I	1	0	No	Yes
1:3										
(na)										
DS division	(id)	DS	6	2	N	I	1	0	No	Yes
3:99										
(na)										
Month	(id)	MONTH	8	2	N	I	1	0	No	Yes
1:12										
(na)										
PSU Number	(id)	PSU	10	3	N	I	1	0	No	Yes
1:300										
(na)										
Block Identification No	(id)	A0	13	5	N	I	1	0	No	Yes
0:99999										
(na)										
Sample No.	(id)	SNUMBER	18	2	N	I	1	0	No	Yes
1:10										
(na)										
Household Serial No.	(id)	HHNO	20	1	N	I	1	0	No	Yes
1:9										
(na)										
Number of households	(id)	NHH	21	1	N	I	1	0	No	Yes
1:9										
(na)										
Result Code	(id)	RESULT	22	1	N	I	1	0	No	Yes
1 Completed										
2 Deferred										
3 Not competent respondant at home										
4 Refused										
5 Household is temporarily closed										
6 Household is demolished / Vacant										
7 Rejected										
9 Other (Specify)										
(na)										
Household total Expenditure		HEXPPM	23	9	N	I	1	3	No	Yes
Household total Income		HINCPM	32	10	N	I	1	4	No	Yes
Weighting Factor		WEIGHT	42	6	N	I	1	3	No	Yes

Relation Name	Primary	Linked by	238	Secondary	Linked by

HOUSEHOLD INCOME AND EXPENDITURE SURVEY - 2012/13
FINAL RESULTS

DEPARTMENT OF CENSUS AND STATISTICS
MINISTRY OF FINANCE AND PLANNING

Volume 11, August 2014 ISSN 2012-760X

Introduction

The Department of Census and Statistics (DCS) conducts the Household Income and Expenditure Survey (HIES) under the National Household Survey Programme. Until 1990 the HIES was conducted combining with labour force survey named as Labour Force and Socio-Economic Survey. In 1990, the DCS for the first time initiated the HIES as a separate survey and continued once in every five years until 2006/07. As rapidly changing economic conditions demanded far more frequent monitoring of the household income and spending patterns in the country, the DCS decided to conduct the HIES once in every three years starting from 2009/10.The latest survey was in 2012/13 and it can be considered as very important milestone as it covered all 25 districts in the country since its inception.

Generally the HIES is conducted over a period of 12 consecutive months to capture seasonal variations of income and expenditure patterns in Sri Lanka and the general sample size is 25,000 housing units which is adequate to provide reliable information down to district level. The HIES 2012/13 is the eighth in the HIES series and the field work of the survey was carried out during the period from July 2012 to June 2013.

The HIES questionnaire was revised in 2006/07 and currently it consists of nine sections to collect household information covering the following areas;

i. Demography
ii. School education
iii. Health
iv. Food and non-food expenditure
v. Income
vi. Inventory of durable goods and debts of the households
vii. Access to facilities in the area
viii. Housing Information
ix. Agriculture holdings and Livestock

Main objectives of the survey

i. To measure levels and observe the changes of living conditions of individuals and households.
ii. To estimate household income and expenditure .
iii. To compute several important poverty indicators.
iv. To provide information to calculate price indices.
v. To analyze the impact of social protection transfers.
vi. To provide information on different living standard measurements.

Special points of interest:

2012/13-HIES

- Average monthly household income by socio economic groups with 95% Confidence Intervals (CI)

Poorest 20% (1st and 2nd decile)	- Rs. 10,245 (95% CI :Rs. 10,173 , Rs.10,318)
Poorest 40% (1st to 4th decile)	- Rs. 15,760 (95% CI: Rs.15,683 , Rs.15,835)
Middle 60% (3rd to 8th decile)	- Rs. 32,595 (95% CI: Rs. 32,499 ,Rs. 32,689)
Richest 20% (9th and 10th decile)	- Rs. 121,368 (95% CI: Rs.118,942 ,Rs.123,794)

(Average household income values are arranged in ascending order and thereafter divided into ten groups with equal frequencies. Such a group is defined as a household income decile)

- Average household size 3.9
- Average Number of income receivers in a household 1.8

Inside

Household Income

Household income refers to income received either in cash (Monetary income) or in-kind (Non-monetary income) by all the residents in a household. This includes not only wages and salaries but also all the other sources such as agricultural and non-agricultural activities, other monitory receipts such as pension, disability and relief payments, regular rental and remittance receipts and returns from businesses or ventures , investments and any other irregular gains such as compensations, lottery wins etc.

Mean (or Average) household income is a point estimate and it is calculated by dividing the estimated total household income in a domain by the estimated number of households in the domain.

Median household income is the amount that divides the household income distribution into two equal groups, half having income above that amount, and other half having income below that amount.

The survey reveals that the average household income per month was Rs. 45,878 in 2012/13 in Sri Lanka. In 2009/10 the average household income was reported as Rs. 36,451. Within the nearly 3 year period, the percentage increase of the household income at current price is nearly 25.9 percent.

The median household income in Sri Lanka has been reported as Rs. 30,814 in 2012/13 showing an increase of about 30 percent from 2009/10.

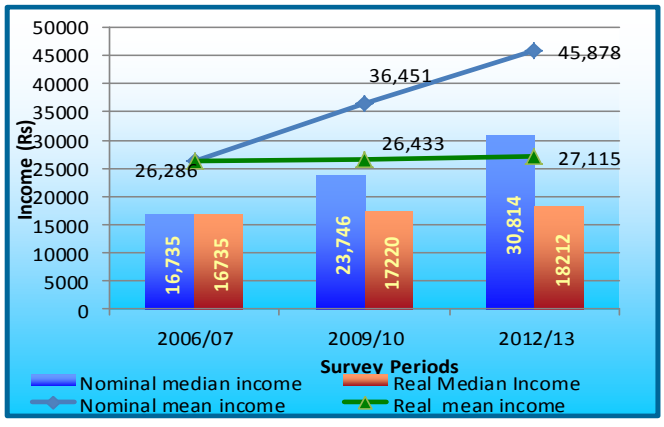


Figure 1: Average monthly real and nominal mean and median household income by survey periods (real values are based on 2006/07 constant prices)

Table 1: Mean and median nominal household income per month by sector, province and district - 2012/13 and 2009/10

Sector/Province /District	Mean		Median	
	(Rs.)	(Rs.)	(Rs.)	(Rs.)
	2012/13	2009/10*	2012/13	2009/10*
Sri Lanka	**45,878**	**36,451**	**30,814**	**23,746**
Urban	69,880	47,783	42,267	31,000
Rural	41,478	35,228	29,376	23,126
Estate	30,220	24,162	24,087	17,366
Western	**64,152**	**47,118**	**42,100**	**30,600**
Colombo	77,723	51,070	50,071	34,186
Gampaha	58,248	48,870	38,807	29,821
Kalutara	50,341	35,780	36,512	27,511
Central	**40,146**	**31,895**	**28,900**	**21,410**
Kandy	43,138	33,063	30,371	22,450
Matale	35,004	30,013	26,441	18,606
Nuwara Eliya	38,013	31,029	28,152	21,431
Southern	**41,834**	**32,514**	**28,921**	**23,253**
Galle	39,746	31,376	28,205	21,886
Matara	41,666	30,980	28,227	23,048
Hambantota	45,850	36,879	32,267	26,406
Northern	**34,286**	**23,712**	**23,571**	**16,710**
Jaffna	34,788	18,917	23,446	14,815
Mannar	28,535	-	24,200	-
Vavuniya	43,965	39,640	30,967	29,370
Mullaitivu	23,687	-	17,714	-
Kilinochchi	30,643	-	20,614	-
Eastern	**30,676**	**23,922**	**22,710**	**18,030**
Batticaloa	25,483	22,844	20,359	16,129
Ampara	32,537	24,721	23,429	19,082
Trincomalee	34,577	24,291	24,436	19,154
North-Western	**42,756**	**35,586**	**29,343**	**20,961**
Kurunegala	43,624	36,922	29,343	20,778
Puttalam	40,935	32,918	29,286	21,593
North-Central	**36,632**	**35,577**	**29,707**	**24,993**
Anuradhapura	35,460	37,586	29,689	25,682
Polonnaruwa	39,197	31,526	30,145	22,634
Uva	**35,638**	**28,717**	**24,228**	**19,761**
Badulla	36,119	32,313	25,067	20,982
Moneragala	34,804	22,161	20,686	17,226
Sabaragamuwa	**40,375**	**36,173**	**27,775**	**21,676**
Ratnapura	42,429	41,312	27,391	22,154
Kegalle	37,655	29,342	28,524	21,122

*excluding Mannar, Kilinochchi and Mullaitivu districts

Source of income

Income is received in two main ways, as in monetary or non monetary. Income from wages and salaries, agricultural activities (seasonal and non seasonal crops), non agricultural activities, and other cash income (which includes pension payments, disability payments, Samurdi, local and foreign transfers), Income by chance/adhoc gain (windfall income) such as lottery wins, compensations etc.) are identified as monetary income.

The non monetary income is the estimated value of goods and services received in kind and consumed within the survey reference period. Estimated rental value of owner occupied housing units or freely occupied housing units are included under non monetary income.

Out of the total household income around 86 percent of the income is received as monetary income in 2012/13 and 2009/10. As usual major part of the monetary income is recorded from wages .

Household Per capita income

Per capita income is a measure of average living standard of a country or an area. Household per capita income is computed dividing the total household income by number of household members.

In 2012/13 the household per capita income in Sri Lanka was Rs. 11,819 per month. In 2009/10 it was Rs. 7,881 and has increased by 50% by 2012/13.

Table 2: Average monthly household income by main source of income -2012/13 and 2009/10

Source of income	2012/13		2009/10	
	Mean (Rs.)	Share of income (%)	Mean (Rs.)	Share of income (%)
Sri Lanka	**45,878**	**100.0**	**36,451**	**100.0**
Monetary Income	**39,300**	**85.7**	**31,209**	**85.6**
Wages/Salaries	16,134	35.2	12,434	34.1
Agricultural activities	5,213	11.4	5,238	14.4
Nonagricultural activities	7,990	17.4	6,477	17.8
Other cash income	5,230	11.4	4,252	11.7
Income by chance/adhoc gains	4,733	10.3	2,808	7.7
Non-monetary Income	**6,578**	**14.3**	**5,242**	**14.4**
Income in kind	2,381	5.2	2,054	5.6
Value of occupied housing unit	4,197	9.1	3,188	8.7

Table 3: Average household per capita income per month by sector and by province – 2012/13

Sector/Province	Mean per capita income (Rs.)	Median per capita income (Rs.)
Sri Lanka	**11,819**	**7,881**
Sector		
Urban	17,262	10,420
Rural	10,843	7,657
Estate	7,100	5,503
Province		
Western	16,124	10,567
Central	10,104	7,150
Southern	10,973	7,624
Northern	8,339	5,540
Eastern	7,622	5,385
North-western	11,596	7,927
North-Central	9,877	7,824
Uva	9,382	6,110
Sabaragamuwa	10,718	7,229

Income receiver's income

In order to obtain the Income receiver's income, the HIES records the household income, received from all the sources at individual level. If a person is less than 10 years old or a person's total monthly income is less than Rs. 250, then that person is not defined as an income receiver in the HIES and such income values are added to income of head of the respective household.

In 2012/13, the average income receiver's income per month for Sri Lanka was Rs. 25,963 and median income receiver's income per month was Rs. 16,667. The average number of income receivers per household was 1.8 in 2012/13. An average household size was 3.9 at national level.

The highest mean and median income receiver's income was reported from Colombo district and the lowest mean reported from Mannar and the lowest median reported from Jaffna.

Table 4: Average monthly income receivers' mean and median income, number of income receivers and household size by district - 2012/13

District	income receivers mean income (Rs.)	income receivers median income (Rs.)	Household size	No.of income receivers in the household
Sri Lanka	**25,963**	**16,667**	**3.9**	**1.8**
Colombo	40,620	24,866	4.0	1.9
Gampaha	31,060	20,000	3.9	1.9
Kalutara	25,471	16,703	4.0	2.0
Kandy	24,392	17,000	4.0	1.8
Matale	20,500	15,000	3.7	1.7
Nuwara Eliya	19,631	13,130	4.2	1.9
Galle	22,590	15,577	3.8	1.8
Matara	23,680	16,000	3.8	1.8
Hambantota	25,294	16,667	3.9	1.8
Jaffna	18,123	11,896	4.2	1.9
Mannar	15,418	13,000	4.2	1.9
Vavuniya	24,405	17,000	3.9	1.8
Mullaitivu	16,951	13,293	3.8	1.4
Kilinochchi	18,871	12,000	4.2	1.6
Batticaloa	15,782	13,000	4.1	1.6
Ampara	21,021	15,000	4.1	1.6
Trincomalee	23,805	17,788	3.9	1.5
Kurunegala	25,728	16,064	3.7	1.7
Puttalam	26,140	17,750	3.7	1.6
Anuradhapura	21,671	16,000	3.7	1.6
Polonnaruwa	22,206	15,737	3.8	1.8
Badulla	21,706	14,000	3.9	1.7
Moneragala	22,285	13,000	3.7	1.6
Rathnapura	24,098	14,672	3.7	1.8
Kegalle	21,830	15,221	3.8	1.7

Income Inequality

Income inequality is used to measure of disparities in the distribution of income in a given society . There are many theories to explain how income inequality is determined. It is defined over the entire population and most of inequality measures do not depend on the mean of the distribution. Most widely used inequality measurements are Gini coefficient, quintile dispersion ratio and share of income.

Gini Coefficient

The range of the Gini coefficient index is between 0 and 1, where 0 indicates perfect equality and 1 indicates maximum inequality. The national value of Gini coefficient for household income was 0.48 in 2012/13 and it was 0.49 in 2009/10.The highest Gini coefficient reported from Moneragala district (0.53) and the lowest reported from Mannar and Anuradhapura(0.37). Figure 2 shows the distribution pattern of Gini coefficient by districts.

Quintile Dispersion Ratio

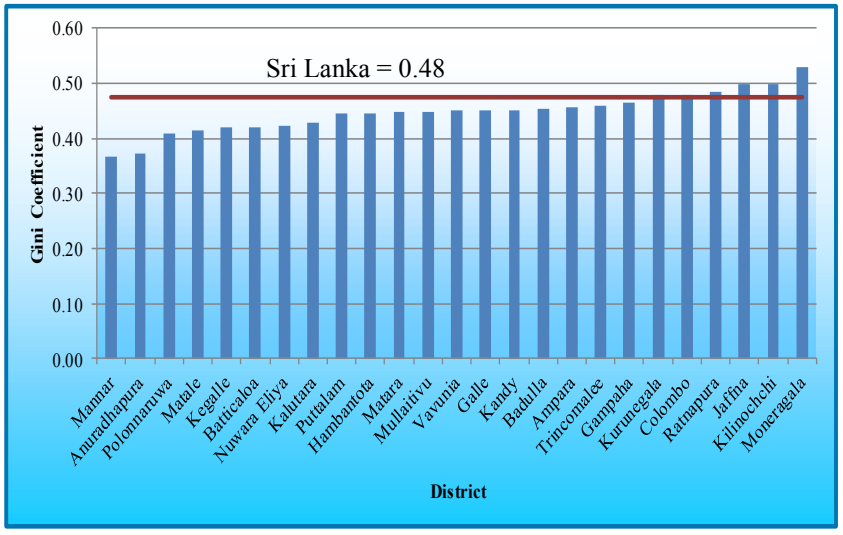
The simplest way to measure inequality of income or expenditure is by dividing the population into five groups (quintiles) from the poorest to the richest, and computing the levels or proportions of income (or expenditure) share by each level.

Quintile :The household income values are arranged in ascending order and thereafter divide into five groups with equal frequencies. Such a group is defined as a income quintile.

Table 5 shows the quintile dispersion of household income based on HIES 2012/13 and 2009/10. A fifth of households included in the survey are allocated to each quintile.

The survey results indicate the slight decrease of inequality of household income from 2009/10 (0.49) to 2012/13(0.48).The share of the poorest second to fourth quintile has slightly increased in 2012/13 compared to 2009/10. The share of fifth (Richest fifth) quintile has decreased from, 54.1% to 52.9% and quintile dispersion ratio has decreased from 12.0 in 2009/10 to 11.8 in 2012/13. These figures are consistent with Gini index .

Figure 2: Gini coefficient of household income by district—2012/13



The quintile dispersion ratio (The mean household income of the richest 20% (5th quintile) divided by the mean household income of the poorest 20% (1st quintile)). of household income has been change by only 0.2% from 2009/10 to 2012/13. In general, around 47% of total household income has allocated among 80% of total household population in the country.

Table 5: Breakdown of household income by quintile - 2012/13 and 2009/10

	Household Income quintile					
2012/13	1st quintile	2nd quintile	3rd quintile	4th quintile	5th quintile	Total
Mean household Income per month (Rs.)	10,245	21,273	30,944	45,569	121,368	45,878
Share of income (%)	4.5	9.3	13.5	19.9	52.9	100.0
Cumulative share of income (%)	4.5	13.7	27.2	47.1	100.0	
Cumulative % of Population	20	40	60	80	100	
	Quintile Dispersion Ratio = 121,368/10,245 = 11.8					
	Lowest	Low-mid	Middle	Mid-upper	Upper	Overall
2009/10						
Mean household Income per month (Rs.)	8,211	16,062	23,880	35,552	98,575	36,451
Share of income (%)	4.5	8.8	13.1	19.5	54.1	100.0
Cumulative share of income (%)	4.5	13.3	26.4	45.9	100.0	
Cumulative % of Population	20	40	60	80	100	
	Quintile Dispersion Ratio = 98,575/8,211= 12.0					

Household Expenditure

Household expenditure was collected under three main sections;

1. Expenditure on food items
2. Expenditure on non- food items and
3. Expenditure incurred by boarders and domestic servants

To improve the quality of the data and data collection, the HIES questionnaire imposes different reference periods for different consumer items. i.e. seven consecutive days for all the food items, one month for housing,fuel and light ,six months for clothing, twelve months for durable goods etc.

Mean (or Average) household expenditure is a point estimate and it is calculated by dividing the estimated total household expenditure in a domain by the estimated number of households in the domain.

Usually, people do not declare income accurately. Hence, household expenditure can be used as a proxy variable to household income .

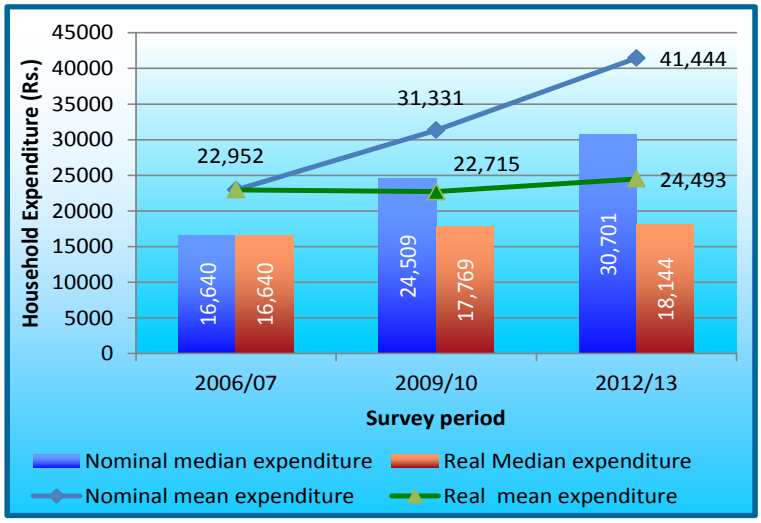


Figure 3: Real (2006/07 constant price) and nominal food and non-food mean Expenditure by survey period

From 2006/07 to 2012/13, the nominal household mean expenditure has steadily increased. However, real mean house hold expenditure slightly decreased from 2006/07 to 2009/10 but show a slight increased from 2009/10 to 2012/13. The survey revealed that the median household expenditure for 2012/13 was Rs.30,701 in nominal value but it was Rs. 18,144 in real term.

Table 6: Mean and median household nominal expenditure per month by sector, province and district - 2012/13 and 2009/10

Sector/Province / District	Mean		Median	
	(Rs.)	(Rs.)	(Rs.)	(Rs.)
	2012/13	**2009/10***	**2012/13**	**2009/10***
Sri Lanka	**41,444**	**31,331**	**30,701**	**24,509**
Urban	58,930	44,928	43,825	34,039
Rural	38,274	29,423	29,010	23,600
Estate	29,379	23,988	25,580	20,490
Western	**58,298**	**42,399**	**44,318**	**32,500**
Colombo	63,030	47,291	49,229	36,597
Gampaha	57,064	41,062	43,057	31,825
Kalutara	51,906	35,549	39,036	28,361
Central	**38,989**	**28,308**	**29,513**	**22,741**
Kandy	41,442	29,767	31,120	23,770
Matale	39,222	26,528	27,342	20,400
Nuwara Eliya	33,882	26,841	28,327	22,245
Southern	**36,430**	**28,809**	**28,243**	**23,137**
Galle	34,879	27,370	27,749	22,675
Matara	37,639	29,408	27,962	23,038
Hambantota	37,573	30,744	30,007	24,122
Northern	**34,562**	**25,656**	**26,414**	**22,171**
Jaffna	35,405	22,725	28,209	21,059
Mannar	27,406	-	22,563	-
Vavuniya	44,486	35,391	33,503	28,757
Mullaitivu	20,581	-	17,352	-
Kilinochchi	32,992	-	24,052	-
Eastern	**30,886**	**25,265**	**25,936**	**22,040**
Batticaloa	29,579	23,508	23,959	20,536
Ampara	31,849	26,699	26,757	22,686
Trincomalee	31,041	25,623	26,777	23,169
North -Western	**37,665**	**25,927**	**28,906**	**21,212**
Kurunegala	36,441	25,201	28,010	20,524
Puttalam	40,232	27,376	30,665	22,996
North -Central	**33,935**	**29,480**	**27,217**	**24,062**
Anuradhapura	31,959	29,065	25,578	23,429
Polonnaruwa	38,257	30,315	30,768	24,817
Uva	**28,867**	**23,547**	**22,953**	**19,548**
Badulla	32,381	24,873	25,568	20,222
Moneragala	22,766	21,131	18,159	18,580
Sabaragamuwa	**32,376**	**25,583**	**25,469**	**21,052**
Ratnapura	29,426	25,477	23,968	20,630
Kegalle	36,284	25,723	27,697	21,593

*excluding Mannar, Kilinochchi and Mullaitivu districts

Household Food Expenditure

The food ratio is computed by dividing total household food expenditure (excluding expenditure on liquor ,narcotic drug and tobacco) by total household expenditure as given below;

$$\text{Food ratio} = \frac{\text{Total household food expenditure}}{\text{Total household expenditure}}$$

The average monthly total household food expenditure was Rs. 15,651 in 2012/13. The Figure 04 shows the distribution pattern of food and non food ratio by survey periods. Food ratio for 2009/10 was 42.3 % and it has declined to 37.8% in 2012/13

The Table 7 shows the average monthly per capita consumption quantities of selected food items by survey period. It reveals that the rice, wheat flour bread (Normal), sugar and dried fish consumption quantities per person per month had declined from 2009/10 to 2012/13.However, Rice flour, Dhal, big onion ,chicken and egg consumption has increased comparatively. There is no change in coconut consumption for three consecutive survey periods.

Figure 4: Distribution of food ratio and non food ratio by survey periods

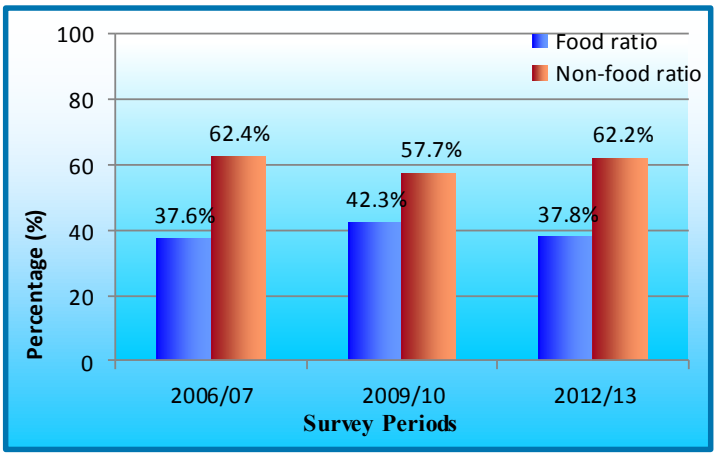
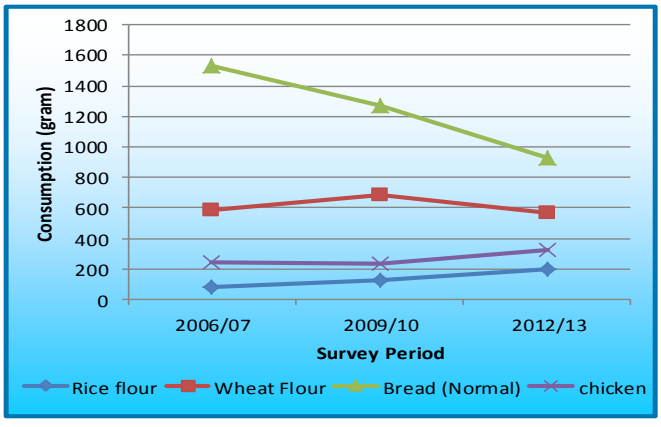


Table 7: Average monthly per capita consumption quantities of selected food items by survey period

Item	Unit	2012/13	2009/10	2006/07
		(Qty)	(Qty)	(Qty)
Rice	gram	8,989	9,062	8,995
Rice flour	gram	194	127	83
Wheat Flour	gram	564	687	584
Bread (Normal)	gram	926	1,266	1,533
Dhal	gram	586	501	566
Big onions	gram	608	582	570
Sugar	gram	1,111	1,212	1,275
Coconut	Number	7	7	7
chicken	gram	320	233	243
Egg	Number	3	2	3
Dried fish	gram	299	313	325

Figure 5: Consumption pattern of selected food items by survey period



When considering the consumption pattern of bread (Normal) a downward trend can be seen from 2006/07 onwards and the wheat flour consumption too has declined from 2009/10 onwards. However, the rice flour consumption is showing an upward trend from 2006/07 onwards. The dried fish consumption has slightly gone down while the egg and chicken consumption have increased . Big onion consumption has also increased in last few years. (Big onions consumption in 2006/07 was 570 grams per person per month and 608 grams in 2012/13)

Household Non - Food Expenditure

Household Income and Expenditure survey reveals the expenditure on housing is the highest single expenditure group among all the non–food expenditure groups in Sri Lanka excluding other non-consumer expenditure group. The estimated rental values of owner occupied housing units and housing units occupied without paying any rental fee etc. are also included in the group of housing expenditure.

The group "Other non consumer expenditure" that has been reported 29.8 % share of total non food expenditure in 2012/13 in Table 8, contains the occasional but bulk expenditure, incurred during the one year (the last year) reference period, on social and cultural activities such as weddings, funerals, religious ceremonies ,payments of debts, constructions and renewals of houses, donations, expenditure on household services like laundry charges, wages to servants, charges for day care centers etc.

Table 8: Average monthly household expenditure by major non-food expenditure group - 2012/13 and 2009/10

Item	2012/13		2009/10	
	Value (Rs.)	(%)	Value (Rs.)	(%)
Total non-food	**25,793**	**100.0**	**18,064**	**100.0**
Housing	4,667	18.1	3,446	19.1
Fuel & Lighting	1,755	6.8	1,278	7.1
Clothing, Textiles & Foot wear	1,194	4.6	903	5.0
Health & Personal care	2,181	8.5	1,429	7.9
Transport & Communication	4,315	16.7	3,072	17.0
Education	1,448	5.6	1,018	5.6
Cultural & entertainment	515	2.0	402	2.2
Non-durable household goods	318	1.2	264	1.5
Durable household goods	1,018	3.9	780	4.3
Other non-consumer expenditure	7,678	29.8	4,807	26.6
Liquor, Narcotic drugs & Tobacco	705	2.7	665	3.7

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1. Introduction

The Household Income and Expenditure Survey (HIES) is conducted by the Department of Census and Statistics (DCS) under the National Household Survey Programme (NHSP) of Sri Lanka. The DCS has completed the most recent HIES in 2012/13 and this publication exposes the final information gathered in this survey. The field work of the survey was carried out during the period from July 2012 to June 2013 covering all 25 districts in the country since its inception. The HIES 2012/13 is the eighth in the HIES series and the information in this report is presented at national, sector, province and district levels along with the previous survey findings where applicable to facilitate effective comparisons overtime.

1.1 History

The HIES was started to conduct as Labour Force and Socio Economic Survey (LFSES) in 1980/81 and it was conducted for the second time in 1985/86. The LFSES, through a single survey, provided comprehensive information on labour force, household income and expenditure and demographic characteristics of the households and household population in Sri Lanka. In 1990 the LFSES was separated into the under mentioned 2 individual surveys as the labour force information of the country was more frequently needed.

1. Labour Force Survey (LFS)
2. Household Income and Expenditure Survey (HIES)

The maiden HIES was conducted in 1990/91 as a separate survey with the view of providing information on household income and consumption expenditure in order to measure the levels and to observe the changes of living conditions in the country. The HIES information is also used to estimate consumption needs of the country and to compute various other important indicators related to poverty and price indices. Generally the HIES surveys a sample of 25,000 housing units throughout the country to facilitate the information be given at district level. Data is collected at the field in twelve consecutive monthly rounds to capture seasonal variations in income, expenditure and consumption of households. The data collection of the survey is done through direct interviews using the survey questionnaire. At the beginning the questionnaire was included the following three main sections.

1. Demographic characteristics
2. Household expenditure (on food and non-food)
3. Household income (monetary and non-monetary)

The HIES gathers information related to demographic characteristics of the members of the surveyed households, expenditure on food and non-food items and income received by each household member from all the different sources in a compulsory manner. Starting from the HIES 2006/07, the survey questionnaire was further expanded beyond the collection of demographic, income and expenditure information. It has been introduced 7 new sections to collect almost all the other household information that helps to understand the correct living standards of the households. Those newly introduced areas covered by the HIES starting from the HIES 2006/07 are as follows.

1. School education
2. Health information
3. Inventory of durable goods
4. Access to infrastructure facilities
5. Household debts and borrowings
6. Housing, sanitary and disasters
7. Land and agriculture holdings

1.2 Field operation and control of errors

The collection of data was done by approximately 330 field officers (Statistical Officers, Statistical Assistants) who belong to the permanent field staffs of Department of Census and Statistics. Each field officers is in-charge of all statistical activities in an geographical units called District Secretariat Divisions (DSD).These officers were given a thorough training before they were entrusted with the survey operations. Each administrative district comprises with such units and there are altogether 331 DS Divisions in Sri Lanka. In each district there is a Deputy Director (DD) /Senior Statistician (SSTN) /Statistician (STN) who in charge of the statistical activities in the district and one of the main functions is to supervise the work of field staff.

The main functions of the field staff for this survey

(a) Update the lists of housing units of the selected blocks (PSUs) and preparation of listing forms (9NHSP) as describe 1.3.1 under survey methodology.
(b) Interviewing the selected households

In addition to this, the following control procedures were adopted to control the non-sampling error and increase to accuracy of the survey estimates.

1. Field supervision of listing forms and updating operation and interviewing the data collection done by field staff by in-charge of district
2. Field activity reviews by Sample Survey Division (SSD) staff
3. Data entry checks, Computer edits and data verification
4. Use several control sheets to do the survey activities on time and increased the accuracy of the data

1.3 Survey methodology

Sample design of the survey is two stage stratified and the Urban, Rural and the Estate sectors in each district of the country are the selection domains thus the district is the main domain used for the stratification. The sampling frame is the list of housing units prepared for the Census of Population and Housing (CPH) 2011.

1.3.1 Selection of Primary Sampling Units

Primary sampling units (PSUs) are the census blocks selected for the survey. The sampling frame, which is the collection of all the census blocks prepared in CPH 2011 in Sri Lanka, is used for the selection of the PSUs at the first stage of the selection.

The PSU selection is done within all the independent-selection domains that are assigned different sample size allocations to total the targeted sample size of 2,500 PSUs. The method of selection of the PSUs at the first stage is systematic with a selection probability given to each census block proportionate to the number of housing units available in the census blocks within the selection domains (PPS).

The selected PSUs are updated to include newly built housing units and to exclude demolished or vacated housing units, which are no longer considered as housing units according to the survey definitions, to capture variation of natural growth and to make necessary adjustments for the same. The PSU updating operation in field is generally done less than one month prior to the survey and it was carried out for the 12 months starting from June 2012 to May 2013 to support the scheduled 12 survey months started from July 2011 to June 2013 for the HIES 2012/13.

1.3.2 Selection of Secondary Sampling Units

Secondary Sampling Units (SSUs) or Final sampling units (FSUs) are the housing units selected at the second stage from the 2,500 PSUs selected at the first stage. From each PSU, 10 SSUs (housing units) are systematically selected giving each housing unit in the PSU an equal probability to be selected for the survey. The total sample of size 25,000 housing units is resulted at the end of the sampling process and this sample represents the whole country in different probabilities depend on the different sample sizes allocated for the selection domains.

1.3.3 Sample allocation

Allocation of the number of PSUs or determining the sample sizes for the districts is made proportionate to the number of housing units and the standard deviations of the mean household expenditure values reported in the respective districts in previous surveys (Neymann Allocation). Sector allocation of the district sample is made proportionate to the square root of the sizes of the respective selection domains (Urban, Rural and Estate sectors in the district). The sample of PSUs within the selection domain is equally distributed among the 12 survey months and the monthly sample too is equally dispersed among all the weeks in the month assigning a specific week for each PSU for the survey activities.

Table1.1: Sample allocation and completion by district

District	Housing units		Households responded
	Selected	Responded	
Sri Lanka	**25,319**	**20,411**	**20,540**
Colombo	3,000	2,156	2,166
Gampaha	2,498	1,940	1,948
Kalutara	1,598	1,230	1,244
Kandy	1,240	973	983
Matale	660	595	604
Nuwara Eliya	990	785	791
Galle	1,510	1,294	1,299
Matara	1,349	1,141	1,148
Hambantota	890	731	735
Jaffna	750	633	643
Mannar	350	287	290
Vavunia	330	281	282
Mullaitivu	330	263	263
Kilinochchi	400	325	325
Batticaloa	820	697	698
Ampara	887	738	739
Trincomalee	590	501	502
Kurunegala	1,350	1,146	1,157
Puttalam	780	649	654
Anuradhapura	850	743	743
Polonnaruwa	697	524	526
Badulla	850	715	731
Moneragala	750	576	576
Ratnapura	1,000	822	825
Kegalle	850	666	668

Table 1.2: Sample allocation and completion by sector

Sector	Housing units		Households responded
	Selected	Responded	
Sri Lanka	**25,319**	**20,411**	**20,540**
Urban	6,597	5,117	5,172
Rural	16,315	13,456	13,515
Estate	2,293	1,838	1,853

1.4 Estimation procedure

Let $\hat{X}_j$ be the estimate of total of any given characteristic for j[th] district and this could be given by,

$$\hat{X}_j = \frac{1}{m_{j(u)}} \sum_{h(u)=1}^{m_{j(u)}} \frac{1}{P_{h(u)}} \frac{N_{h(u)}}{n_{h(u)}} \sum_{i(u)=1}^{n_{h(u)}} X_{hi(u)}$$

$$+ \frac{1}{m_{j(e)}} \sum_{h(e)=1}^{m_{j(e)}} \frac{1}{P_{h(e)}} \frac{N_{h(e)}}{n_{h(e)}} \sum_{i(e)=1}^{n_{h(e)}} X_{hi(e)}$$

$$+ \frac{1}{m_{j(r)}} \sum_{h(r)=1}^{m_{j(r)}} \frac{1}{P_{h(r)}} \frac{N_{h(r)}}{n_{h(r)}} \sum_{i(r)=1}^{n_{h(r)}} X_{hi(r)}$$

Where,

$m_{j(u)}$ = Number of census blocks selected from the urban sector of the j[th] district for the survey

$P_{h(u)}$ = Selection probability of the h[th] census block in the urban sector.

$$P_{h(u)} = \frac{S_{jh(u)}}{\sum_{h=1}^{M_{jh(u)}} S_{jh(u)}}$$

$S_{jh(u)}$ = Measure of size (number of housing units) of the h[th] census block in the urban sector of the j[th] district.

$M_{jh(u)}$ = Total number of census blocks in urban sector of the j[th] district.

$N_{h(u)}$ = Total number of housing units listed in the h[th] census block in the urban sector.

$n_{h(u)}$ = Number of housing units selected from the h[th] census block in the urban sector.

$X_{hi(u)}$ = The observed value for the i[th] sample household in the h[th] census block in the urban sector.

$m_{j(r)}$,$P_{h(r)}$,$S_{jh(r)}$,Mjh(r), $N_{h(r)}$, $n_{h(r)}$, and $X_{hi(r)}$ are corresponding terms for the rural sector and $m_{j(e)}$, $P_{h(e)}$, $S_{jh(e)}$,$M_{jh(e)}$,$N_{h(e)}$,$n_{h(e)}$, and $X_{hi(e)}$are corresponding terms for the estate sector.

The estimate for the total value of the characteristic X for the country (25 districts) could be given by,

$$\hat{X} = \sum_{j=1}^{25} \hat{X}_j$$

Note:
The estimation procedure given above is for the total sample covered in 12 monthly rounds and the estimates given in this publication is based on the sample covered in 25 districts.

1.5 Adjustment for unit non-response

The occurrence of unit non-response was determined by examining the final result code recorded under data control section of the survey schedule. Based on the final result codes the households were grouped into the following categories, which were used as a basis for adjusting for the unit non-response.

Category and description	Result code
1. Schedule completed	1
2. Housing unit demolished or vacant	6
3. Unable to complete schedule, refusal, temporarily away etc.	2,3,4,5,9

Category 1 and 2
These were considered as fully accounted for as a schedule was completed to the extent required by the situation at the time of interview and therefore no adjustment was necessary.

$$\hat{X}_{jk(u)} = \frac{1}{m_{jk(u)}} \sum_{h(u)=1}^{m_{jk(u)}} \frac{1}{P_{h(u)}} \frac{N_{h(u)}}{n_{h(u)}} \sum_{i(u)=1}^{n_{h(u)}} X_{hi(u)}$$

Category 3
This is incomplete therefore a non-response adjustment was made for this category. The assumption made here for the adjustment of non-response was the proportion of households in category 3 is the same as the corresponding proportion for sample households in category 1. This assumption is applied on a block-by-block basis separately for urban, rural and estate sectors.

The block weight before adjusting for unit non-response was

$$W'_h = \frac{1}{m_j} \sum_{h=1}^{m_{jk}} \frac{1}{P_h} \frac{N_h}{n_h}$$

Where

N_h = Total number of housing units listed in block h.

n_h = Number of housing units selected in block h.

The revised weight should take the form

$$W_h = W'_h . \left(\frac{n^1 h - n_{h_2}}{n_{h_1}} \right)$$

Where

n_{h1} = Number of sample households in category 1.

n_{h2} = Number of sample households in category 2.

n^1_h = Total number of households in all the 3 categories (category 1, 2 and 3)

1.6 Definitions and Concepts

Readers should aware about the frequently used definitions of the survey terms prior to interpret or compare the data. The definitions of the terms frequently used in this report are given below.

Household

A household may be a one-person household or a multi person household. A one-person household is a unit where a person lives by himself and makes separate provision for his food, either cooking himself or purchasing. A multi person household is a group of two or more persons who lives together and has a common arrangement for cooking and partaking food. Boarders and servants who share the meals and housing facilities with other members of the household are also considered as members of the household.

Head of the household

Head of a household is a person who usually resides in the household and is acknowledged by the other members of the household as the head of the household.

Residential sector

The residential sector can be either Urban sector, Rural sector or Estate sector.

Urban Sector

Area governed by either Municipal Council (MC) or Urban Council (UC) is considered as Urban Sector.

Estate Sector

Plantation areas, which are more than 20 acres of extent and having not less than 10 residential laborers, are considered as estate sector.

Rural Sector

Residential areas, which do not belong to the Urban sector or Estate sector described above, are considered as Rural sector.

Marital Status

The marital status recorded was the current status at the time of the survey. A person whose marriage was registered is classified as married (registered). If the marriage has not been registered according to the law but the person claimed to be married according to the custom or repute then it is also classified as married (customary).

A person is regarded as divorced only if a divorce has been obtained in a court of law. A person who has obtained a judicial or legal separation in a court of law is classified as separated (legally). On the other hand if a person had been voluntarily separated without obtaining a court order then such persons fall into the same category classified as separated (not legally)

Educational attainment

This refers to the highest academic qualification obtained and the professional and technical qualifications are excluded. In the case of person with no such qualifications the highest grade or class passed in school is considered as the level of education or educational attainment.

Share of income

$$\text{Share of income} = \frac{\text{Total income of the households or persons belong to the group}}{\text{Total income of all households or persons in all groups}}$$

Household size

Number of persons usually living in the household including boarders and servants etc. is defined as the household size.

Household income deciles

Income deciles are income groups whose boundaries are defined as to get 10 percent of the total number of households fallen into each group.

Household expenditure deciles

Expenditure deciles are defined similarly as income deciles, but expenditure values are used instead of income values.

Gini Co-efficient

Gini Co-efficient, which is the most popular indicator used to measure the depth of inequality of a distribution is defined as the ratio of the area between the diagonal and the Lorenz curve to the triangular region underneath the diagonal.

Income receiver

A person who is 10 or more years old and his or her calculated total monthly income received from any source is more than or equal to Rs.200 then he or she is defined as an income receiver in this survey.

Food Ratio

$$\text{Food ratio (\%)} = \frac{\text{Household expenditure on food and drink}}{\text{Total household expenditure (food and drink and non-food)}} \times 100$$

Dependency ratio

In this survey, dependency ratio is defined as follows

$$\text{Dependency ratio} = \frac{\text{Persons aged less than 15 years and above 60 years}}{\text{Persons aged 15 – 59 years}}$$

1.7 Reliability of the estimates

The actual sample which is based for this publication is limited to 20,540 households surveyed in total 12 months and the estimations given in HIES are mostly limited to district level to preserve the reliability of them.

Reliability statistics calculated for the district level estimations of mean Household expenditure (Rs. / monthly) are given below to build confidence among advanced data users and to support future sample design activities of similar type of surveys.

Table 1.3: Estimation, Standard error, coefficient of variation and 95% confidence intervals of mean Household expenditure (Rs. /month) by district - 2012/13

District	mean(hhexppm)	Std. Err.	Coefficient of Variation (CV)	[95% Conf.]	
Sri Lanka	**41,444**	**459**	**1.1**	**40,544**	**42,344**
Colombo	63,030	2,119	3.4	58,876	67,185
Gampaha	57,064	1,847	3.2	53,443	60,685
Kalutara	51,906	2,530	4.9	46,944	56,867
Kandy	41,442	1,973	4.8	37,573	45,310
Matale	39,222	3,382	8.6	32,589	45,855
Nuwara Eliya	33,882	1,325	3.9	31,285	36,480
Galle	34,879	1,517	4.4	31,903	37,854
Matara	37,639	1,835	4.9	34,040	41,238
Hambantota	37,573	1,579	4.2	34,476	40,670
Jaffna	35,405	1,566	4.4	32,334	38,475
Mannar	27,406	2,155	7.9	23,180	31,633
Vavunia	44,486	4,128	9.3	36,391	52,581
Mullaitivu	20,581	1,415	6.9	17,807	23,356
Kilinochchi	32,992	5,116	15.5	22,960	43,024
Batticaloa	29,579	1,528	5.2	26,583	32,574
Ampara	31,849	1,161	3.6	29,573	34,125
Trincomalee	31,041	1,936	6.2	27,244	34,837
Kurunegala	36,441	1,443	4.0	33,611	39,271
Puttalam	40,232	2,296	5.7	35,730	44,735
Anuradhapura	31,959	1,360	4.3	29,292	34,626
Polonnaruwa	38,257	2,235	5.8	33,874	42,641
Badulla	32,381	1,460	4.5	29,518	35,244
Moneragala	22,766	1,217	5.3	20,379	25,153
Ratnapura	29,426	1,232	4.2	27,009	31,843
Kegalle	36,284	2,079	5.7	32,206	40,361