

Handbook

SMART SURVEY

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Foundation Connect International

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Welcome to SMART Survey

This manual is produced by Foundation Connect International (CI) for people who are involved in the registration, analysis and use of survey data and who wish to use our Excel version of **SMART Survey®** to store, analyze and use these data. SMART Survey is made for household survey data but can be adjusted for use of data from other survey types as well.

Main users of this manual include:

- Staff involved in data entry.
- Staff involved in use of standard survey reports at the field level.
- Staff and managers involved in use of SMART Survey reports at higher levels.
- Surveyors
- Trainers of surveyors and other staff involved in SMART Survey

SMART Survey automatically produces standard reports for different kinds of users enabling these users to analyse survey data and follow up on them. Other unique features are:

- Questions can be changed while the results of the surveys can still be compared to results of similar surveys but that used different questions.
- The survey is normative which means that it is build on questions that provide a norm for the answer provided ranging from bad (score 1) to good (score 4).
- They survey works with questions to which pre-determined possible answers are attached. The surveyor selects the best possible fit between the possible standard answers and the actual answer by the respondent.

This manual also provides information on how survey data should be collected.

Data entry is in a SMART Survey Excel file that uses the data to automatically produce a restricted number of standard reports. Organisations that wish to produce more sophisticated reports are advised to work with SMART Survey SPSS software. This manual also provides information on how this can be done and what reports can be generated with the SPSS part of SMART Survey.

1 Introduction

1.1 *For which type of surveys SMART Survey can be used*

SMART Survey is a tool for the development of *normative surveys*, the storage of data from such surveys and for reporting. With *normative surveys* we mean surveys that investigate how good or bad the situation is regarding subjects covered by the survey questions and what we consider is good and bad with regard to those subjects.

Example:

If a question in a normative survey is *'How much time does your household spend daily for the collection of water?'* we may define the following norms: 2 hours or more per day = very bad, 1 to 2 hours per day = bad, 30 minutes to 1 hour per day = reasonable and less than 30 minutes per day is good. The surveyor chooses the norm fitting best to the answer of the interviewee. This in contrast to informative surveys that focus on gathering information to which no norms are attached. Example: *'What sport do you practice most?'* with possible answers like *'football', 'hockey', 'volleyball', 'horse riding'* etc.

The aim of normative surveys is to signal how good or bad the situation is or develops over time regarding covered subjects, not to obtain detailed information about the causes of the situation or reasons for improvements or deteriorations found. Such information may need to be obtained later through other investigations.

Organizations should only choose to work with SMART Survey if they wish to develop a normative survey.

In SMART Survey there are some standard informative issues covered though, mainly regarding the basic situation of the interviewee, including: district where the interviewee lives, name of community or group of communities where the interviewee lives, tribe, religion, sex (male or female), age, household size, household composition, education level of interviewee, education level of most educated person in the household of the interviewee. These informative issues are used to be able to report on normative issues regarding households fitting in specific basic situations, for instance how bad (or good) the drinking water situation is for households composed of one parent with several children.

1.2 How SMART Survey functions

SMART Survey can be used to generate baseline information for planning and prioritization of required activities, to assess impact and to execute research.

The entry of data in SMART Survey is done in an Excel file. This file (*SURVEY.xls*) contains the household survey questions grouped under standard topics. Per topic a maximum of 5 questions can be included. SMART Survey can be ordered with Connect International¹.

Organizations that choose to work with all or part of the standard topics can adjust the survey questions to their preferences while still being able to compare the results with those of surveys conducted in areas with other questions.

Organizations that want to change also the topics in SMART Survey lose the above advantage but still benefit from the advantage that SMART Survey can easily be adjusted without the need for statistical or specific survey expertise while obtaining sophisticated and in the same time very user friendly survey reports for different user groups.

SMART Survey has been developed to get a better insight in the living conditions (physical and mental health, economic circumstances, water, sanitation and hygiene) of households involved in community development projects. The idea is that the surveys are executed before, during and after the start of a community development project. In this context SMART Survey is used:

1. by involved communities - to identify and prioritize household level problems, develop activities to solve these and evaluate progress made with regard to the problems,
2. by implementing organizations - to identify a program baseline and assess program achievements and required adjustments, and
3. by other stakeholders such as donors and researchers - to identify the level of success of the program and execute research.

At present SMART Survey includes 192 questions related mainly to health and hygiene. The questions are divided over 36 standard topics and 4 custom topics. Examples of standard topics: *Toilet Facilities, Drinking Water Sources – Rainy Season, Personal Hygiene, Malaria, Nutrition, HIV/AIDS Awareness*. The scale of measurement is ordinal: Per topic up to five questions can be formulated with each question having five standard answers that always go from very poor (score 1) to good (score 4), and score 5 for 'no answer'. The turning point from bad to good is between the scores 2 and 3. Figure 1 on the next page presents one such topic with questions and possible answers.

¹ Send an e-mail with a request for the file to info@connectinternational.nl.

Figure 1. Topic 27. ‘Knowledge regarding Malaria and Diarrhoea’.

27	Knowledge regarding malaria and diarrhoea	Score 1 - very poor	Score 2 - poor	Score 3 - reasonable	Score 4 - good	Score 5 - No answer
27.1	How can one prevent malaria?	Does not know or answers referring to local beliefs, witchery etc. that are harmful	Answer refers to beliefs, witchery practises etc. that are in itself not harmful but don't help to prevent malaria	Mentions one or two effective methods, e.g. use bed nets, spray the walls, cover the body with long sleeves by nightfall, take preventive drugs, drain water pools.	Mentions three or more effective methods from the list.	No answer
27.2	How can one treat malaria?	Does not know or answers referring to local beliefs, witchery etc. that are harmful	Answer refers to beliefs, witchery practises etc. that are in itself not harmful but don't help to treat malaria	Some proper answers like go to health centre-clinic, give malaria drugs.	All or most proper answers, incl. go to health centre-clinic, give malaria drugs, get rest.	No answer
27.3	How can one prevent diarrhoea?	Does not know or answers referring to local beliefs, witchery etc. that are harmful	Answer refers to beliefs, witchery practises etc. that are in itself not harmful but don't help to prevent diarrhoea	Some proper answers like wash hands, drink clean water, etc.	All or most proper answers, e.g. wash hands, drink clean water, eat well prepared food, use a proper and clean toilet, etc.	No answer
27.4	How can one treat diarrhoea?	Does not know or answers referring to local beliefs, witchery etc. that are harmful	Answer refers to beliefs, witchery practises etc. that are in itself not harmful but don't help to treat diarrhoea	Some proper answers like go to health centre-clinic, give ORS (solution of salt in water), get medicine from the clinic, etc.	All or most proper answers incl. go to health centre-clinic, give ORS (solution of salt in water), get medicine from the clinic, etc.	No answer

One of the most important features in SMART Survey is the use of topic scores. SMART Survey provides a report with for each topic:

- an **average**, representing the average score of the answers of all households to all the questions under the topic,
- a **<=2 percentage**, representing the number of answers by households to all questions under a topic with score 1 and 2, compared to the total number of answers under that subject, and
- a **no answers percentage**, representing the number of ‘no answers’ compared to the total number of answers to all questions by all involved households under a topic.

(With the calculation of the averages and the percentages smaller or equal to 2 the responses with score 5 are not included).

These scores provide a quick, easy and still thorough way for field staff, project managers and other interested parties, to identify the current status of a project without having to assess the answers to all the questions in detail. One can find quick answers to questions such as ‘Which topics need attention?’, ‘Which topics show a positive progression?’, and ‘For which topics has there been no change or has there even been a deterioration over time?’. SMART Survey stores data of surveys executed at the start, during and at the end of program activities and reports these data separately as well as trends (the trend from start to during, from during to end and from start to end) per topic. See the example of a topics scores report on the next page (generated with SMART Survey Excel).

During household surveys also other information is collected, like the household size, the educational level of the most educated person in the household, etc. This makes it possible to report on all kinds of cross relations (e.g. the percentage of households with less than 5 persons with a poor situation regarding malaria). These reports are not standard included in the mentioned SMART Survey Excel file. The Excel data can however, be entered automatically in a SMART Survey SPSS file that can generate such reports.

Topic no.	Topic	Scores for all households together (TAZAMO Zambia)									Trend Before - During			Trend During - After			Trend Before - After		
		486			301			88			Av.	%<=2	% no answer	Av.	%<=2	% no answer	Av.	%<=2	% no answer
		Before			During			After											
		Av.	%<=2	% no answer	Av.	%<=2	% no answer	Av.	%<=2	% no answer									
1	Toilet facilities	1,7	82,1	29,7	2,2	55,9	12,1	2,8	25,6	9,1	28,9	-32,0	-59,4	29,5	-54,1	-24,7	66,9	-220,4	-24,7
2	Toilet use	2,5	52,7	32,3	2,8	36,6	19,3	3,4	16,7	14,0	13,2	-30,6	-40,4	20,4	-54,3	-27,3	36,3	-215,0	-27,3
3	Drinking water sources - rainy season	2,8	38,5	1,5	2,7	43,3	2,2	3,9	2,3	0,0	-1,7	12,7	52,4	42,8	-94,8	-100,0	40,3	-1592,6	-100,0
4	Drinking water sources – dry season	2,6	46,6	2,0	2,8	37,8	3,3	3,9	1,1	0,0	8,0	-18,9	66,4	36,1	-97,0	-100,0	46,9	-4002,3	-100,0
5	Who does the water collection	2,4	71,3	1,6	2,5	63,4	2,0	2,5	60,0	9,1	5,8	-11,1	21,1	-1,3	-5,3	356,1	4,4	-18,9	356,1
6	Drinking water storage capacity	2,7	46,8	0,6	2,7	42,1	3,0	2,9	30,2	2,3	1,5	-10,0	384,4	7,0	-28,2	-24,0	8,7	-54,8	-24,0
7	Drinking water use	2,6	43,1	8,8	2,8	32,1	7,7	3,6	1,2	3,4	9,9	-25,5	-12,4	29,6	-96,3	-55,7	42,4	-3560,5	-55,7
8	Water point maintenance system and	2,8	29,7	29,3	2,7	35,4	18,3	3,4	1,1	0,0	-2,9	19,0	-37,4	25,8	-96,8	-100,0	22,1	-2514,8	-100,0
9	Waste	2,1	65,5	1,6	2,6	41,8	1,3	3,4	0,0	0,0	25,4	-36,2	-19,3	32,0	-100,0	-100,0	65,5		-100,0
10	Hand wash and personal hygiene	2,6	42,2	11,1	2,8	29,0	5,5	3,5	3,7	0,9	9,0	-31,2	-50,4	23,3	-87,1	-84,4	34,4	-1030,0	-84,4
11	Malaria	2,4	64,3	14,9	2,7	48,7	15,8	3,2	26,2	2,3	10,1	-24,3	5,8	18,6	-46,3	-85,6	30,6	-145,9	-85,6
12	Malaria prevention	2,1	63,7	7,6	2,7	42,5	7,5	3,6	4,2	11,7	23,8	-33,2	-1,9	34,1	-90,1	56,3	66,1	-1419,8	56,3
13	Diarrhoea	3,0	32,0	16,4	3,1	29,0	18,8	3,4	14,7	10,9	4,0	-9,2	14,7	9,5	-49,2	-42,2	13,9	-116,9	-42,2
14	Cough or lung problems	2,5	54,9	13,1	2,8	41,4	16,4	3,8	6,4	2,3	11,2	-24,7	25,9	37,0	-84,5	-86,2	52,4	-758,6	-86,2
15	Other diseases and infections	2,7	42,9	19,8	2,6	50,0	23,8				-5,4	16,7	20,5						
16	Malnutrition in under five children	3,0	33,8	21,0	2,8	44,3	22,1	3,4	6,9	0,6	-7,8	31,3	5,2	22,1	-84,4	-97,4	12,7	-389,6	-97,4
17	Nutrition and diet	2,5	49,1	2,4	2,4	56,7	2,7	3,1	15,7	0,6	-3,4	15,5	13,3	28,7	-72,3	-79,3	24,3	-212,3	-79,3
18	HIV/AIDS and TB awareness	2,4	59,9	9,5	2,7	43,1	3,7	3,1	19,5	0,4	14,4	-28,0	-61,6	13,5	-54,8	-89,6	29,9	-207,6	-89,6
19	HIV/AIDS, other STD's and TB	1,8	73,4	6,8	2,2	57,0	4,8	2,6	49,4	1,1	22,9	-22,4	-29,9	18,1	-13,3	-76,2	45,2	-48,6	-76,2
20	Vaccinations in the youngest child	3,5	9,2	19,5	3,5	11,1	21,9	3,8	1,1	0,0	-2,1	20,2	12,2	9,2	-89,7	-100,0	6,9	-710,2	-100,0
21	Mortality in <5 children	3,8	8,4	35,6	3,7	11,9	23,0	3,9	3,7	8,0	-2,9	41,9	-35,3	5,8	-68,9	-65,5	2,7	-126,8	-65,5
22	Gender Mainstreaming	2,9	28,6	6,9	2,9	34,9	5,0	3,7	1,7	0,6	-2,6	22,1	-27,9	27,5	-95,1	-88,6	24,2	-1567,6	-88,6
23	Delivery	2,9	36,1	18,1	2,7	39,8	21,8	3,6	0,0	12,6	-6,5	10,3	20,4	35,4	-100,0	-42,0	26,6		-42,0
24	Use of health facilities	3,0	15,4	1,0	3,0	21,3	1,7	3,4	0,0	1,1	0,0	38,3	61,5	14,7	-100,0	-31,6	14,7		-31,6
25	Knowledge regarding malaria and	3,1	9,4	1,8	3,2	6,2	3,7	3,5	0,3	2,6	5,1	-34,2	113,5	7,6	-95,3	-31,6	13,1	-3135,8	-31,6
26	Social health	3,2	21,4	3,0	3,2	19,8	4,4	3,7	8,0	3,0	0,4	-7,6	43,9	16,5	-59,5	-32,2	16,9	-167,4	-32,2
27	Gardening	2,3	62,1	19,0	2,4	52,2	13,8	2,3	53,6	5,7	5,4	-15,9	-27,1	-1,4	2,6	-58,9	3,9	-15,9	-58,9
28	Conservation farming methods	2,4	59,5	7,9	2,6	47,6	8,6	3,2	18,9	1,9	8,1	-19,9	9,4	22,5	-60,3	-78,1	32,4	-214,3	-78,1
29	Conserving natural resources	2,2	63,8	5,0	2,5	50,5	4,6	2,8	32,8	4,2	16,0	-20,9	-9,1	11,9	-35,0	-8,4	29,8	-94,6	-8,4
30	Belongings (assets)	1,6	80,3	6,2	1,3	89,6	4,1	1,1	94,9	0,0	-17,2	11,5	-33,9	-14,6	5,9	-100,0	-29,3	15,3	-100,0
31	Family income	1,8	76,0	12,8	1,7	75,4	8,9	2,0	54,0	1,1	-3,6	-0,8	-30,1	16,6	-28,4	-87,3	12,4	-40,7	-87,3
32	The house	2,4	50,0	4,7	2,4	48,1	5,9	3,1	5,3	0,9	2,8	-3,8	25,3	26,4	-89,0	-84,6	30,0	-846,5	-84,6
33	Kitchen	2,3	59,1	13,6	2,5	43,3	9,4	3,1	5,6	3,2	10,7	-26,6	-30,6	23,6	-87,0	-66,2	36,8	-948,6	-66,2
34	Hygiene of the house and surroundings	2,5	47,7	4,3	2,7	36,1	7,0	3,2	2,4	6,4	8,7	-24,4	64,2	17,8	-93,3	-8,0	28,0	-1863,7	-8,0
35	Involvement in community activities	2,2	58,3	3,6	2,5	50,0	3,1	3,2	16,3	2,3	11,0	-14,3	-13,8	29,6	-67,4	-27,3	43,9	-258,4	-27,3
36	Mortality causes	3,9	3,3	6,9	3,9	5,2	9,8	4,0	0,4	14,8	-1,0	55,4	40,6	2,9	-91,4	51,4	1,9	-647,2	51,4
100	Child education and development	2,4	47,4	41,8	2,6	44,4	31,0	3,2	17,1	13,0	4,5	-6,2	-25,8	24,0	-61,5	-58,1	29,6	-177,1	-58,1
101	Livestock Management	2,1	61,5	22,4	2,1	62,9	15,3	2,5	39,2	0,0	1,9	2,3	-31,8	16,1	-37,7	-100,0	18,3	-56,9	-100,0
102	Food and crops	2,2	62,6	5,5	2,3	58,3	4,8	3,3	10,8	0,3	2,0	-6,9	-13,8	45,1	-81,4	-94,0	48,0	-478,7	-94,0
103	Knowledge of first aid and prevention of	2,4	56,3	5,9	2,7	43,4	7,3	2,9	34,3	0,0	10,3	-23,0	24,5	10,1	-20,9	-100,0	21,5	-64,3	-100,0
	Totals	2,6	47,7	11,9	2,7	42,1	10,1	3,2	17,1	3,9	4,6	-11,9	-14,8	19,9	-59,2	-61,0	25,5	-178,4	-61,0

Explanations:

- The colours indicate whether we feel the situation is bad (red), somewhat reasonable (orange) or good (green).
- A division is made between surveys executed at the beginning of the program activities (indicated with 'Before'), during the program ('During') and at the end of the program ('End'). Above these indications are numbers that represent the number of household surveys executed.
- Trends are included for the 'before to during' period, the 'during to end' period and the 'before to end' period. Example: with the 'Trend Before – During' the trend between the Before and de During measurements is calculated as follows: $100 * (\text{value of the During measurement} - \text{value of the Before measurement}) / \text{value of the Before measurement}$.
- The norms we have determined are as follows:

Situation judgement	Before, during and after surveys			Trends before-during and during-after			Trend before-after		
	Average	%<=2	% no answer	Average	%<=2	% no answer	Average	%<=2	% no answer
Bad	0 – 2,3	25 - 100	12,5 – 100	< 2%	> -2%	> -2%	< 4%	> -4%	> -4%
Reasonable	2,3 – 3,2	12,5 - 25	5 – 12,5	2% - 6%	-2% - -6%	-2% - -6%	4% - 25%	-4% - 25%	-4% - 25%
Good	3,2 – 4,0	0 – 12,5	0 - 5	> 6%	< -6%	< -6%	> 25%	< -25%	< -25%

- Exceptions to the above norms are the norms for topics regarding mortality (topics 21 and 36) and the norms for diseases and under five malnutrition (topics 11, 13, 14, 15, 16 and 19).
- For the topics regarding mortality we use the following norms (norms for the trends are the same as above):

Situation judgement	Before, during and after surveys		
	Average	%<=2	% no answer
Bad	0 – 3,1	7,5 - 100	12,5 – 100
Reasonable	3,1 – 3,8	4,5 – 7,5	5 – 12,5
Good	3,8 – 4,0	0 – 4,5	0 - 5

- For the topics regarding diseases and under five malnutrition we use the following norms (norms for the trends are the same as above):

Situation judgement	Before, during and after surveys		
	Average	%<=2	% no answer
Bad	0 – 2,8	15 - 100	12,5 – 100
Reasonable	2,8 – 3,6	6 – 15	5 – 12,5
Good	3,6 – 4,0	0 – 6	0 - 5

The fact that there are differences in the colouring of the cells depending on the topics, means that **one should not so much look at the figures in the Reports sheet but more to the colours.** The colours give a reasonable indication whether the situation is good or not. Of course one should look both at the scores Table and at the Trends tables to get an impression.

For the topics identified to (potentially) have a problem (the ones coloured red) one can assess the situation in more detail using one or more of the other standard reports produced in SMART Survey (Report-before, Report-during and Report-after).

Because the above summary report works with scores and not with the actual questions one can put survey data together from different areas where different questions have been used under the topics and obtain a combined topic scores report without having a problem with the fact that different questions have been used. This can only be successfully done though if involved organizations formulate the questions and standard answers in a proper way². There is also flexibility in the sense that each organization can choose to add new topics to the list or leave out topics it doesn't want to include in the survey.

Also topics scores reports can be provided for a number of specific subjects. There are for instance topic scores reports for the different household types distinguished, for the distinguished levels of education of the interviewee or for the most educated person in the household, for the different distinguished tribes, for the different religions, etc. However these reports can only be generated in the SPSS version of SMART Survey.

Another important feature is that SMART Survey SPSS can provide its reports for any group of households desired. One can obtain for instance reports with the figures of one community, of a group of communities, of all communities in a district, all the communities in a country and even reports with the figures of all the communities in which surveys were executed in several countries together as long as the data are entered in the same SMART Survey administration (in the SPSS version of SMART Survey the possibilities in this regard are even larger). In the SMART Survey Excel one can easily divide between areas by saving the SURVEY.xls file under different names and entering the data from the different areas in separate files. If you then also want to have an overview with reports covering all data together you can copy all data from all files into one overall file (see also the explanations regarding this topic further on).

² Each question should be highly relevant for the topic, each question should have approximately the same 'weight' compared to the other questions under the topic, and the standard answers for each question should follow the sequence of score 1 meaning a very bad situation to score 4 meaning a good situation with the change from not a good situation to a just acceptable situation between score 2 and 3 and with a score 5 for 'no answer'. For further information regarding the proper formulation of questions and their standard answers see Chapter 3 of this manual.

2 Develop your SMART Survey Excel system

In this chapter we explain how you can develop your own SMART Survey system with the standard file *SURVEY.xls* that you will get from Connect International.

2.1 ***Install the standard SMART Survey Excel file on your computer***

From Connect International you will probably receive the SMART Survey standard file (the Excel file *SURVEY.xls*). Install this file in a general folder somewhere on your computer where you can easily find it. In this file you will find standard sheets that you can customize to your needs. How to do this is explained in the rest of this chapter.

2.2 ***Develop the sheet Q&A***

- Study the topics in the sheet *Q&A* in the file *SURVEY.xls*. If you are happy with them you can use them. The advantage of using the same topics as already in this sheet without changing their following order is that you can later compare the results of the surveys with those of other organizations that have worked with the same list of topics.
- For each topic you can formulate a maximum of 5 questions. You can use the standard questions and answers and adapt these to your circumstances. The questions should be relevant for the topic and the standard answers should range from a bad answer (score 1) to a good answer (score 4). Important hereby is that the change from not good enough to just good enough is always between score 2 and score 3. We recommend that for any changes you would like to make you first communicate these with Connect International and ask them to advice you (we have seen that despite the fact that the rules are simple organizations often make errors resulting in survey reports that do not make full sense anymore).
- **IMPORTANT:** the maximum number of characters for a question (including spaces) is **235!**
- You can determine 4 topics (nrs. 100, 101, 102 and 103) yourself and of course the questions and the standard answers for each of these topics (don't forget that the change

from not good enough to just good enough in the standard answers should always be between score 2 and score 3). This enables you to enter topics you feel are also important on top of the 36 standard topics. The results of these 4 topics cannot be compared with the results of other organizations if other organizations have used different 'free' topics while the standard topics can (which is the reason why we have standardized them).

2.3 *Make the SMART Survey Excel files you need*

We recommend that for each area where surveys are done you make a separate area file and additional to that you make one overall file for all areas together. Example: suppose an organization works in three districts (district A, district B and district C) and wants to have survey reports per district but also survey reports for all 3 districts together, this organization should save the SURVEY.xls file into 3 area files (in this example each covering 1 district) and 1 overall file as follows:

- SURVEY A.xls
- SURVEY B.xls
- SURVEY C.xls
- SURVEY overall.xls

Save the files in a folder that you can for instance give the name 'SMART Survey'. If in each district in the above example there is an office where people can enter the data of the household surveys conducted in that district you can send the SMART Survey Excel file for that district to the district office, so they can enter the data in it. Make an agreement that every quarter they send the data entered during the quarter to the head office, where the data can be added to the district file and to the overall file. Make sure to develop a proper procedure for how to work with the files (especially if branch offices use their own files) so that no errors can be made like for instance forgetting part of the data or entering data twice in a file.

IMPORTANT:

If you wish to adapt the questions and answers in the Q&A sheet, for instance to add some questions to a topic, make sure that this is done in all the SMART Survey Excel files in use, so that each file contains exactly the same Q&A sheet! For any changes you wish to execute ask advice first from Connect International!

2.4 Develop the sheet *General details* in each SMART Survey file

Per area file do as follows:

- Open the file.
- Click on the sheet *General details*.
- You see that you can enter details in the yellow coloured cells.
- In the row called A4 (Districts) enter the name of the district in the first yellow cell. (In case you have one SMART Survey Excel file per Province you can put the name of of the districts in the Province here (using as many yellow cells as required in this row).
- In the row A5 (communities) you should enter all communities in which household surveys are done. You can always add communities later if you start in new communities. In case you would run out of yellow cells to enter communities in (this is unlikely due to the high number of yellow cells in this row).
- In the row called A6 (Surveyors) you enter all the names of involved surveyors. You can always add names later if required.
- If you wish you can enter the tribes and religions in the area in the rows called B2 (Tribes) and B3 (Religions). In case you do not want to ask people about their religion and/or tribe don't fill in anything in these rows.

In the overall SMART Survey Excel file (the file for all areas together) you don't fill in anything in the *General details* sheet.

3 Collection of SMART Survey data

3.1 Who should collect the data?

The surveys executed to provide the data for SMART Survey are to be executed by surveyors who:

- Speak the local language.
- Are likely to be trusted and respected by the persons they interview.
- Have an in-depth understanding of the survey questions, the standard answers per survey question and who are well capable to select the standard answers fitting best to the answers of the person interviewed to the questions posed. For this purpose we feel

that surveyors should be professional persons who execute these surveys at least several times each month.

- Are serious and dedicated to executing the surveys properly.
- Are able to enter the data of the household surveys in SMART Info in a proper way.

We propose that the involved organization erects an independent Monitoring and Evaluation Department with for instance three staff members (one Head of Department and two regular staff members under his./her supervision) and that this team, as part of its duties, executes about 20 to 30 household surveys per month, each month in for instance two or three villages.

3.2 Preparations

- Agree on a date for the household surveys with the community leadership and others involved.
- Make sure that there are sufficient and properly trained surveyors
- Have enough household survey forms for all household surveys.
- Have a notebook and pen for each surveyor and for the supervisor(s).
- Make sure that there is transport to the community for all persons involved who need to be transported.

3.3 Execution of surveys

We here describe how a survey in households can be executed. Below First the tasks of persons executing the surveys and after that the tasks of persons supervising the surveyors.

3.3.1 Tasks of persons executing surveys

- **Select each household at randomly.** This can be done in two ways:
 - ✓ Ask the community authority to provide a list that includes all households in the community (also single parent households, child headed households, etc.). Close your eyes and point a pencil in the list. The household pointed at is one of the households to be surveyed. You can also decide to take from the list for instance each tenth household until you have enough households.
 - ✓ Walk to the part of the community where you want to start. Stop. Rotate a pencil or empty bottle on a flat surface (e.g. a piece of paper or carton). The house standing nearest to where the pencil/bottle point directs, once it has come to a stand still, is the selected house. After the household survey is done in that house repeat the

procedure by walking 100 or 200 m from the house and then spin the pencil again to select the next house.

It is important to select the households ad randomly because you may, without knowing it, tend to choose for a certain type of house, for instance the biggest ones or the most shabby ones. This could influence the outcome of the survey (e.g. in big houses probably richer people live with other health habits and problems than the people living in small houses). Each surveyor should work in a separate area of the community.

- **Find the female head of household**, or, if she is not around, find another adult female person belonging to the household who can answer the questions. In case no female can be found you can do the survey with the oldest male you can find. Take courtesy rules into account. If the household consists of children do the survey with the oldest child. If you feel there is no person you can properly interview leave the house and try another ad random selected household.
- **Execute the household survey.** In each household visited:
 - ✓ Ask the questions included in the survey form and do the observations required (observe things really yourself, so that you are sure you get the right information).
 - ✓ Make sure to be accurate and get answers to all questions.
 - ✓ Ensure that each question gets an answer (if there is no answer or the person interviewed does not want to provide an answer or you find a question inappropriate you should fill in the number 5 as answer).
 - ✓ Fill all answers properly in the forms! Make notes on the back of the forms about things you find in the household that are important for health in the household but that are not covered by the form, problems, remarks etc.
 - ✓ Take the interview aspects and courtesy rules into account (see the below Box).
- **Take the filled household survey forms to a supervisor or to the office of your organization.** Discuss the contents of the forms with the responsible person. Discuss problems encountered etc. Leave the filled survey forms with the responsible person at the office.
- **Assist with the structuring of data of the household surveys if asked to do so.**
- **Make sure that you understand the results of the surveys and discuss these with the involved communities.** Use especially the overviews with answers per question.

Important aspects to take into consideration when interviewing people

- Always be courteous, polite, respectful, and non-judgmental.
- Before interviewing a person, introduce yourself and state the name of the organization you are working with and the general purpose of the survey.

- Maintain the confidentiality of the interview. If there are other people around the respondent, ask them politely to leave in an appropriate and polite way. Explain that the person can also decide not to take part in the survey and that the answers will remain confidential. Gain the person's trust and consent before starting with the questions. It is important to respect the decision of the person and avoid telling others details about an interview and/or mentioning the name of the person.
- For structured interviews: ask each question exactly as it is written. When someone does not understand a question you can repeat the question and, if necessary, pose the question in words that you feel are easier for the person to understand. But make sure not to change the question, give hints for answers or give examples or influence the person in any way.
- Be careful that a person does not give answers he/she thinks you, the interviewer, want to hear but which do not present the actual situation or opinion of that person. You should try to avoid this situation and ask the interviewed person to give the real answers as he/she sees it.
- Ask questions in a respectful way. Do not imply that some answers are better than others.
- If an answer seems inconsistent with previous information given by the person, or if there is some reason to disbelieve an answer, try to discover the truth by asking him/her another question or asking a question in a slightly different way. However, do not be overly persistent. A person may change his/her answer just to please you.
- Make sure to pose all questions that need to be posed and obtain and register information as accurately and completely as possible.

3.3.2 Tasks of persons supervising surveyors

- Observe the surveyors. Discuss if errors occur in his/her performance. Pay special attention to the proper filling in of the survey forms.
- Check the quality of the household surveys. Do this for instance while waiting for others to finish. If information is incorrect or insufficient the surveyor should go back to the involved household to obtain more information.
- In the office analyze the outcomes of the surveys and discuss this with all involved staff members, community coaches and surveyors. Do this as soon as possible.
- Enter the numbers of surveys executed in the relevant monitoring form.
- Enter the survey data in the SMART Survey Excel file (see next chapter) or ask the staff person who is trained for this to do so.
- File the survey forms in the community hard-copy filing system.

3.4 Follow up surveys

In order to measure project progress and detect successes and weaknesses, the surveys have to be repeated during the program activities and at the end of the program.

Steps to follow:

- A second survey is carried at least one year after the first round. It is carried out in the same way as the first survey.
- A third survey is carried out after the completion of the program, which is approximately 3 years after the start of the program (NB: the activities are expected to continue after that!). The third round of surveys is carried out in the same way as the first and second survey.
- The results of the second and third round of surveys have to be compared with the results of the first round to see if there are any improvements. The results can be presented and discussed during a bi-annual meeting at ward level

4 Enter data in the SMART Survey Excel file

- Open the SMART Survey Excel file in which you wish to enter the data of a household survey.
- Click on the sheet *DATA ENTRIES*.
- Fill in the data of the household surveys in this sheet. Each row is for one household survey. The questions are presented horizontally following the row to the right. Per household survey fill in the General details (A1 to A9; click on the black arrow at the right of the cell and select the option you need from the appearing list with options). Then fill in the Questions for the standard graph headings (B1 to B7; click on the black arrow at the right of the cell and select the option you need from the appearing list with options). Then enter from the filled household survey forms the scores for each question per topic.
- Save the file regularly.
- Copy new data regularly into the overall SMART Survey Excel file (make a proper procedure for this, like the example in the Box on the next page).

Example

Procedure of the organization STTO for working with SMART Survey Excel files

1. STTO has branch office in three Provinces.
2. Each branch office has its own SMART Survey Excel file
3. Each branch office executes household surveys in communities and enters the data of these surveys in their SMART Survey Excel file.
4. Once every quarter they save the SMART Survey file as a new file for sending to the head-office, they delete all sheets except the sheet DATA ENTRIES (this to make the file smaller, otherwise it can probably not be sent by e-mail).
5. In the new data file (with only the DATA ENTRIES sheet) they delete all data of household surveys that were already sent to the head office before. So the file remains only with data from household surveys that have never been sent yet to the head office.
6. They send this data file to the head office.
7. The head office copies the data and pastes them into sheet DATA ENTRIES of the overall SMART Survey Excel file. This means that this overall file will contain all data from all household surveys from all Provinces.
8. The head office saves the overall file as a separate file and deletes all sheets except the DATA ENTRIES sheet. It then deletes all data that were already sent before to Connect International so the file remains only with all the household survey data that were not yet sent to Connect International before, and sends this file to Connect International (so Connect International can add these data to its own overall SMART Survey file and enter these data also in SMART Survey SPSS, sending back later several reports made in SPSS about the household surveys).

5 Using standard reports in SMART Survey

1. In each SMART SURVEY DATA Excel file you have the sheets *Report-before*, *Report-during* and *Report-after*. In these sheets you can find the scores per question for respectively all households surveys of which data were entered that were executed at the beginning of the program activities in the concerned communities, all household surveys executed during the program and all household surveys executed at the end of the program.
2. If you want to have the above reports you should look in the overall SMART Survey Excel file (make sure all data from all area SMART Survey Excel files have been copied into this file first).
3. The files also contain summary reports (in the sheet *Reports*) with averages, % of scores of 2 or lower and percentages of score 5 (no answer). These overviews you can use to signal problems or potential problems with regard to the different topics. See the explanations in paragraph 1.2 about this topic.
4. In the summary reports also trends can be seen. For instance a trend from the situation at the start of the program (the 'Before' situation) to the situation during the program (covered by household surveys usually conducted one and half up to two years after the start of the program in a community). The colours indicate whether there is a potential problem or not.

6 Checklist for entering data in SMART Survey Excel files

1. Check if the surveys that you received are all well filled in. If there are surveys that you feel are not properly filled in, please take them out of the pile. Ask the involved surveyor about it and if necessary inform the involved supervisor of the surveyor about it.
2. Number the surveys that were filled in. This makes it easier for you to retrieve the surveys later on, and it makes it properly ordered. A good system for numbering the household survey forms is to use the number you find in the first cell of the row in which you will enter the data in the DATA ENTRIES sheet followed by the name of the area.
3. Enter the data of each survey in the SMART Survey spreadsheet as described in chapter 4. Points of attention for each survey you enter the data of:
 - Make sure that all information for A1 to A8 are filled in. If in a survey form one or more of these are not answered try to check this with the involved surveyor.
 - **Always make sure to have information about question A9 and enter this information!** If the survey form has no information for A9 check with the surveyor or have a look at the community name in which the survey is conducted. This is very important because the Smart Survey Reports are dependent on this variable.
 - At the end of entering the survey data check whether really all the questions were filled. For those questions to which the respondents have given no answer a 'score 5: other/no answer' should be entered (for columns that contain no question you don't enter anything).
4. Save the file regularly.
5. When you are ready with entering the data of a pile of surveys check once again in the spreadsheet whether really all the questions were filled.
6. Cross check the answers of the surveys in Excel and on the surveys. Pick a survey at random and check if the answers on the survey fit the answers with the same survey number in Excel. Do this a couple of times and change the answers if something in Excel is not similar as the answer on the survey. If you find that for one or more surveys the

forms do not correspond with the data entered in the SMART Survey Excel spreadsheet you will need to recheck all surveys to find out what has gone wrong and correct the errors.

7. Save the file.
8. Send the Excel file to the person or department you are supposed to send it to following the agreed procedures.
9. Use the reports in the SMART Survey files as described in chapter 5.