Sanitation, Hygiene And Water (SHAW) Programme for East Indonesia

IRC Mission Report

April 2011

IRC International Water and Sanitation Centre

Prepared for

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YAYASAN DIAN DESA

CD BETHESDA

Yayasan Rumsram Biak - Papua

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The findings, interpretations, comments and conclusions contained in this report are those of the author and may not necessarily reflect the views of either Simavi or the partner NGOs.

Baetings, E. (April 2011) IRC Mission Report, Sanitation, Hygiene And Water (SHAW) Programme for East Indonesia; IRC International Water and Sanitation Centre, The Hague, the Netherlands.

Websites of participating partner NGOs

http://diandesa.org/Home.html

http://www.rumsram.org

http://cdbethesda.org/index.php

http://plan-international.org/where-we-work/asia/indonesia

http://www.simavi.nl

Materials and documents on the SHAW Programme can be found on

http://www.irc.nl/page/53746

Contents

1. Introduction

1.1 Background and context

In the first quarter of 2010, Simavi successfully submitted a funding proposal for a Sanitation, Hygiene and Water (SHAW) programme to the Embassy of the Kingdom of the Netherlands (EKN) in Jakarta. On the 9th of April 2010 the EKN agreed to co-finance the programme. The five-year SHAW programme will be implemented in nine districts in Eastern Indonesia by four Indonesian SIMAVI partner NGOs (Yayasan Dian Desa (YDD), PLAN Indonesia, Community Development Bethesda (CD Bethesda) and Yayasan Rumsram) and coordinated by Simavi. Other partners including UNICEF, IRC, WASTE and ZZL will support the implementation of the programme in their specific areas of expertise.

The overall goal of the programme is to reduce poverty by improving the health status of rural communities in Indonesia and by doing so enhance sustainable and equitable rural development. This is to be achieved by providing support to communities and (sub) districts in their effort to establish and implement effective, sustained services for improved sanitation, water use and hygiene on a (sub) district-wide level. The programme will be implemented in accordance with the STBM (Sanitasi Total Berbasis Masyarakat) approach which was adopted by the Ministry of Health as the national sanitation strategy in 2008. Although a number of isolated pilots took place, the SHAW programme is the first attempt to implement the STBM approach at scale. The programme is ambitious and innovative in nature and because of limited experience in implementing the new concepts a number of international organisations, such as IRC, have been invited to support the SHAW programme.

1.2 Terms of Reference and objectives of this mission

In the beginning of 2010, IRC was involved in the proposal formulation phase and in a limited number of support activities which focused primarily on conducting a workshop on monitoring in May 2010 and developing a district level monitoring toolkit during July and August 2010. During October and November 2010 extensive communication between Simavi Nederland and IRC were initiated to help clarify expectations concerning IRC's support and contributions. This was followed by a short mission to Indonesia during December 2010 during which three of the four partner NGOs were visited. A mission report was written which included a number of recommendations or areas requiring immediate attention.

It was decided that the first mission should focus on supporting the partner NGOs in improving and/or completing their monitoring systems and tools. The mission was to be conducted urgently as the partner NGOs had started the implementation phase in which baseline surveys are to be conducted and regular progress and result monitoring practices need to be put in place so that the effectiveness of the programme interventions can be measured.

Prior to the mission a Terms of Reference (TOR) was developed and the following objectives were elaborated in the TOR:

1. Finalise the partner NGOs' individually developed monitoring system and tools.
2. Develop monitoring protocols that will ensure sound and reliable collection and interpretation of baseline and regular monitoring data.
3. Respond to partner NGOs' specific requests.

Different from the December 2010 mission, this mission was meant to provide active hands-on support to all four partner NGOs: a working visit instead of a talking shop. This post mission report will summarise the findings as well as the activities that took place during the mission.

2. Debriefing on the mission

2.1 Activities

Excluding travelling time from the Netherlands to Indonesia and back, the official mission took place from Sunday 3 April to Monday 18 April 2011. During that period the following activities were executed:

1. Meetings, work sessions and a number of field trips with all four local partner NGOs namely: Yayasan Dian Desa and CD Bethesda in Yogyakarta; Plan Indonesia in Kefa, West Timor; and Yayasan Rumsram in Kota Biak, Papua.
2. Meetings with Martin Keijzer, Simavi SHAW Programme Coordinator on Sunday 3 and Monday 4 April in Yogyakarta and on Sunday 17 and with Martin Keijzer and Pam Minnigh on Monday 18 April in Jakarta.
3. Meetings on Monday 18 April in Jakarta with officials of the Royal Netherlands Embassy and of the National Pokja AMPL at the National Development Planning Agency (BAPPENAS) of the Republic of Indonesia accompanied by Martin Keijzer and Pam Minnigh.

Details of the mission are provided in the following table.

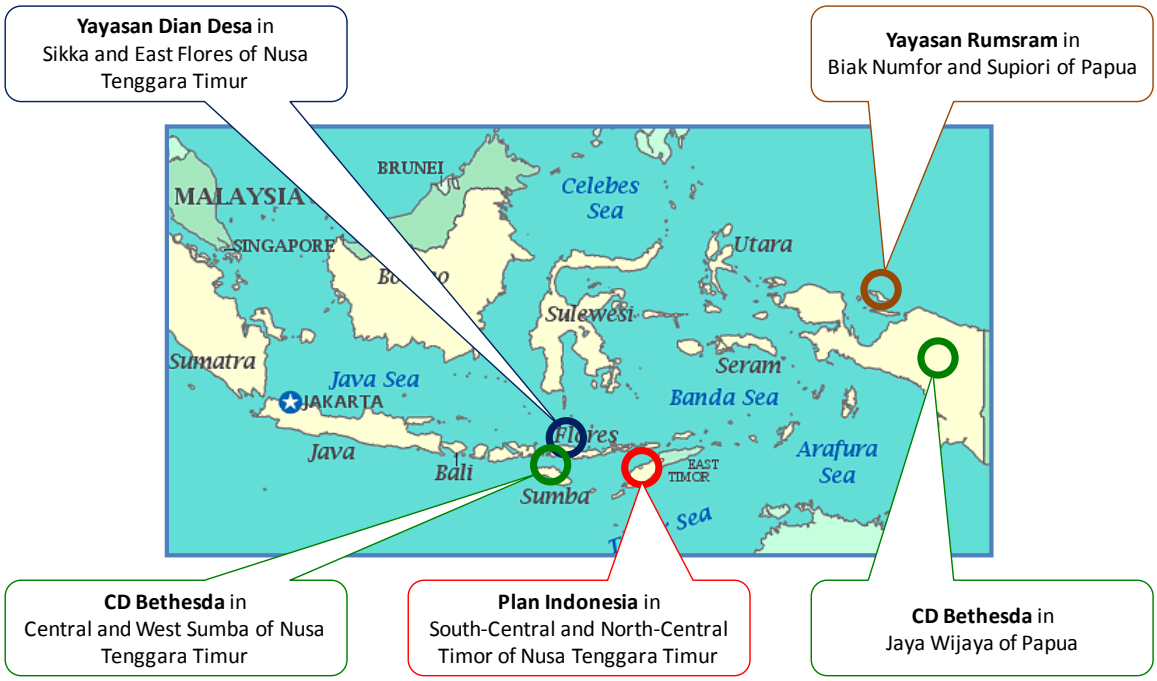
When and where	Where	Who	What
3 April	Yogyakarta	Martin Keijzer, Simavi	Meeting (update)
4 April (morning)	Yogyakarta	Martin Keijzer, Simavi	Meeting
4 April (afternoon)	Yogyakarta	Yayasan Dian Desa	Meeting (update)
5 and 6 April	Yogyakarta	Yayasan Dian Desa	Working on monitoring system and tools
7 and 8 April	Yogyakarta	CD Bethesda	Working on monitoring system and tools
11 and 12 April	Kefa, West Timor	Plan Indonesia	Working on monitoring system and tools including a field trip
14 April (afternoon)	Biak, Papua	Yayasan Rumsram	Intake meeting
15 and 16 April	Biak, Papua	Yayasan Rumsram	Working on monitoring systems and tools including a field trip
17 April (afternoon)	Jakarta	Martin Keijzer, Simavi	Debriefing meeting
18 April	Jakarta	Royal Netherlands Embassy	Debriefing meeting
18 April	Jakarta	Martin Keijzer and Pam Minnigh	Preparation meeting for June review workshop
18 April	Jakarta	National Pokja AMPL at Bappenas	Meeting to discuss monitoring systems

A complete list of organisations and individuals met during the mission is provided in Annex 1.

2.2 Update of state of affairs regarding programme implementation

The following section will give brief summaries per partner NGO of how they are doing with respect of implementing the SHAW programme. This section is based on meetings conducted with all four partner NGOs at the start of the mission. Additional details are provided in Annex 2.1 through 2.4.

The intervention areas of the four partner NGOs are shown in the following figure.



Yayasan Dian Desa (YDD) is currently operating in one of two districts: Sikka of Nusa Tenggara Timur. In Flores Timor start up activities have been delayed due to political instability. YDD believes it can start in Flores Timor later this year after the successful completion of local elections. STBM interventions will be implemented simultaneously throughout the districts and not in distinct batches. This means that preparatory work is ongoing in all sub-districts, villages and sub-villages simultaneously. YDD believes that they have sufficient capacity to implement the programme at scale and that working in batches would take too much time.

YDD is in the process of finalising the preparation phase. Road shows have been completed in all but one sub-district of Sikka district. One-day STBM team trainings for village cadres started on 7 March 2011 and the training programme covering all 471 sub-villages is expected to be completed by 2 May 2011. Following the training, trained village cadre started to develop village sanitation maps and collect baseline data. A CLTS facilitators training for YDD field staff is expected to start in June 2011. The training will be conducted in two phases with the first phase focusing on in-house training and field practice for triggering. The second phase, to be conducted two weeks or one month later, will focus on post triggering follow up support. Demand triggering at sub-village level is expected to start in May or June 2011. Triggering will be done in collaboration with the sanitarian and health promoters from the respective Puskesmas.

YDD is also carrying out preparatory activities for their component B 'development and promoting of sanitation systems'. Presently they are completing the report on last year's study on "Family Sanitation: Willingness and Ability to Invest". The report provides important insight (e.g. the consequences of the findings on the socio-economic status of families without sanitation facilities and their ability to invest) when developing a specific sanitation marketing strategy for Sikka. The findings indicate that there are roughly three distinct groups or consumer segments: 39% of families would be able to afford a toilet in the range from 1 to 2 million rupiahs; 48% of families would be able to afford a toilet in the range from 2 to 4 million rupiahs; and the remaining 13% of families would be able to afford a toilet costing more than 4 million rupiahs.

Furthermore, YDD has completed the research and development phase of a prefabricated ready-to-use toilet consisting of a portable septic tank and a superstructure made of an aluminium frame with a plastic floor and walls and corrugated aluminium roofing sheets. The YDD toilet is expected to cost around 3 to 3.5 million rupiahs (somewhere in the range from US$ 350 to US$ 410).

CD Bethesda (CDB) is presently working in two out of three districts: Sumba Tengah of Nusa Tenggara Timur and Jaya Wijaya in Papua. Sumba Barat district in Nusa Tenggara Timur is expected to follow later. STBM interventions will be carried out in batches. Preparatory activities were ongoing at the time of the mission. A number of training activities have taken place in the first months of 2011. A ten-day capacity building training on STBM was conducted for CD Bethesda staff in January 2011, followed immediately by a 3-day monitoring workshop for CD Bethesda. In March 2011 a five-day STBM training was conducted for sub-district level sanitarians as well as for village chiefs and village cadres in Sumba. CLTS triggering is expected to start in the middle of April in 20 villages of Sumba Tengah. Triggering will be done by a team consisting of one CDB community organiser, one sanitarian and one village cadre.

Starting up the programme in Papua is taking more time as the situation there is very different and more difficult in general. A training for village cadres will be conducted towards the end of April 2011. This is a more general health related training than the STBM training to introduce the concepts of health, sanitation and hygiene and it will cover a larger range of tropical diseases. The first STBM training for sub-district level sanitarians and village cadres is tentatively scheduled for June 2011.

Plan Indonesia has started work in two districts: North-Central Timor and South-Central Timor of Nusa Tenggara Timur. STBM interventions are carried out in distinct batches, starting with a pilot phase. Preparatory activities were completed by the end of February 2011, including a monitoring and evaluation training for the pilot sub-district STBM teams in December 2010 and STBM road shows on sub-district level in February 2011. In February 2011, CLTS training was organised for sub-district STBM teams and village volunteers of the pilot villages. As part of the training, CLTS triggering was practiced in a number of sub-villages. Training on STBM pillars 2 through 5 for Plan staff and sub-district STBM teams was conducted in March 2011.

Triggering in the 26 pilot villages in South-Central Timor (Kefa) commenced on 15 March and lasted till 5 April 2011. Actual triggering was carried out by the trained village volunteers with support and guidance from Plan field staff. During the same period, triggering activities were also carried out in North-Central Timor (Soe). Post-triggering follow up and monitoring activities has commenced with promising early results.

Yayasan Rumsram is presently operating in one of two districts: Biak Numfor of Papua. Supiori district of Papua is expected to follow later. STBM interventions are carried out in distinct batches, initially starting on a relative small scale. Preparatory activities have now been completed. A number of training activities were organised. In November 2010, a four-day STBM related appropriate technologies training was conducted for Rumsram staff, sanitarians and local artisans. In December 2010, a five-day sanitation marketing training was conducted for Rumsram staff.

In January 2011, a seven-day STBM training was conducted for Rumsram staff, sanitarians, RESPEK staff, Pokja AMPL functionaries, sub-district office staff and village chiefs. During this training CLTS triggering took place in the first batch of seven sub-villages. Following the training, the training approach was adjusted as village response to triggering was disappointing. Training is now conducted in the villages and in addition to the head of the village more village cadres are invited to participate in the training and triggering activities. This example shows that working in initially small batches has its advantages.

In March 2011, a four-day STBM training was conducted for the second batch of villages. During the training triggering was carried out in a total of seven sub-villages in three villages. To date a total of 14 sub-villages in five villages of Warsa sub-district have been triggered. The third batch of village level STBM training and triggering is planned for April or May 2011.

On the following page a brief summary is given of the progress made by the four partner NGOs at the time of the mission in implementing the SHAW programme.

Progress to date: comparison between the four partner NGOs

Topic	Yayasan Dian Desa	CD Bethesda	Plan Indonesia	Yayasan Rumsram	Totals
Province	Nusa Tenggara Timur	Nusa Tenggara Timur & Papua	Nusa Tenggara Timur	Papua	2
Districts	Sikka & Flores Timor	Sumba Tengah + Sumba Barat in NTT & Jaya Wijaya in Papua	North-Central Timor & South-Central Timor	Biak Numfor & Supiori	9
# of target sub-districts	21 + 19	4 + 3 + 5	24 + 21	7 + 2	106
# of target villages[1]	160 + 225	37 + 30 + 54	175 + 240	42	963
Planned # of HH with improved sanitation	77,890	35,171	48,218	5,000	166,279
HH with improved sanitation in % of total	47%	21%	29%	3%	100%
Work started in	Sikka	Sumba Tengah (ST) & Jaya Wijaya (JW)	North-Central Timor & South-Central Timor	Biak Numfor	6
STBM focus	Pillars 1 to 5	Pillars 1 to 3	Pillars 1 to 5	Pillar 1 and two from the remaining four pillars	
Implementation strategy	Simultaneously in all villages	In batches	In batches	In batches	
CLTS/STBM training	Planned for June 2011	ST: CDB staff in Jan 2011 & village cadres and sanitarians in Mar 2011 JW: planned for June 2011	For sub-district STBM teams and village cadres in February 2011	1st in Jan 2011 & 2nd in March 2011 3rd training planned for May 2011	
Triggering activities	Not yet started	Not yet started	1st batch in March-April 2011	1st batch in January 2011 2nd batch in March 2011	
Post-triggering follow up & monitoring	N/A	N/A	Ongoing	Ongoing	

[1] Number of target villages and subsequent corresponding number of households appear to be changing constantly. Except for the modified figures for CD Bethesda and Yayasan Rumsram, all other figures presented here were obtained from Annex 4 'Baseline data of the geographical areas of intervention' of the October 2010 SHAW Inception Report.

2.3 Work carried out on the monitoring systems and tools

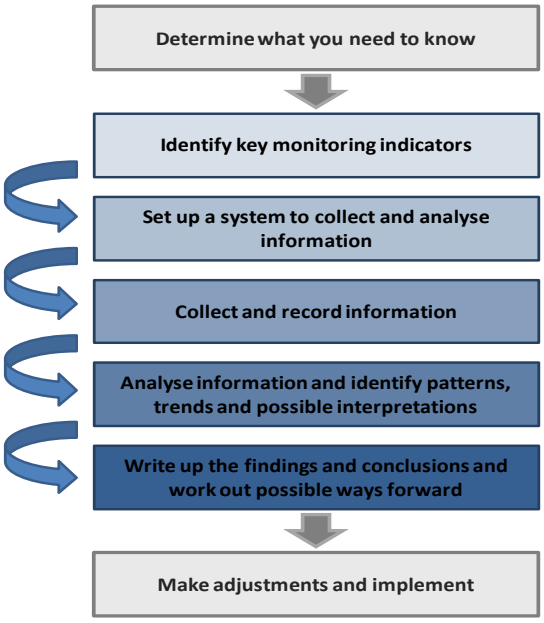
The following section will give brief summaries per partner NGO of how they have developed the SHAW programme monitoring framework including monitoring systems and tools. This section is based on the meetings and work carried out with all four partner NGOs during the mission. Details are provided in Annex 3.1 through 3.4.

Monitoring is the systematic collection and analysis of information. It is aimed at improving the efficiency and effectiveness of a project or organisation. It is based on targets set and activities planned during the planning phase. It helps to keep the work on track, and can inform management when things are going wrong. It enables you to determine whether the resources you have available are sufficient and are being well used, whether the capacity you have is sufficient and appropriate, and whether you are doing what you planned to do. Monitoring is geared towards learning from what you are doing and how you are doing it, by focusing on: efficiency[2]; effectiveness[3]; and impact[4]. Through monitoring you can:

- Review progress;
- Identify problems in planning and/or implementation;
- Make adjustments so that you are more likely to "make a difference".

Often monitoring is seen as a donor requirement rather than a management tool. Donors are certainly entitled to know whether their money is being spent well. But the most important use of monitoring should be for the project or organisation itself to see how it is doing against objectives, whether it is having an impact, whether it is working efficiently, and to learn how to do it better. Monitoring involves:

- Establishing indicators;
- Setting up systems to collect information related to these indicators;
- Collecting and recording the information;
- Analysing the information;
- Using the information to inform day-to-day management.



2 **Efficiency** tells you that the input (money, time, staff, equipment, etc.) is appropriate in terms of the output (results). It is important to get the efficiency element right when you are going to scale with your project.

3 **Effectiveness** is a measure of the extent to which a project or programme achieves the specific objectives it set. If, for example, you set out to create open defecation free villages, did you succeed?

4 **Impact** tells you whether or not what you did made a difference to the problem situation you were trying to address. Before you decide to replicate the project, you need to be sure that what you are doing makes sense.

To ensure the systematic collection and discussion of monitoring related information and the consistent and coherent reporting across the four partner NGOs, the concept of the monitoring protocol was used as the study framework. The detailed reports on monitoring, presented in Annex 3.1 through 3.4, are structured in line with a standard monitoring protocol.

A **monitoring protocol** is a detailed study plan that explains how data are to be collected, managed, analysed, interpreted and reported. Monitoring protocols are a key component to assure quality of monitoring and they are necessary to ensure that changes detected by monitoring are actually occurring and not simply a result of measurements taken by different people or in slightly different ways. The basic purposes are to:

- Identify what kind of information would be required to assess the progress, performance and effectiveness of the programme;
- Specify the procedure and the process that would be followed to gather this information;
- Define the method as to how this information would be stored, analysed and managed.

A good monitoring protocol will include a process for extensive testing and evaluation of the effectiveness of the procedures before they are accepted for long-term monitoring.

The monitoring protocol outlines the rationale, sampling design and methods for monitoring the achievements of the SHAW programme and provides information on the following:

1. Background and objectives
2. Sampling design
3. Survey methodology
4. Data handling, analysis, and reporting
5. Personnel requirements and preparations

A monitoring and evaluation framework has been developed for the programme (see SHAW programme proposal) consisting of the following elements:

- Baseline surveys: partner NGOs will conduct participatory and gender segregated baseline surveys in a selected number of villages in the programme districts at the start of the programme to provide a baseline against which the progress of the programme is monitored
- Regular or ongoing progress monitoring: partner NGOs will conduct community-based monitoring exercises on a regular basis for programme steering and reporting
- Annual stakeholder coordination: meetings will be organised to review and interpret the monitoring data and to draw lessons for possible programme modifications
- Mid-term review
- Final evaluation and impact analysis

The monitoring related work carried out during the mission focused primarily on the regular or ongoing progress monitoring element but included the baseline survey element as the existence of baseline data is an important prerequisite for progress monitoring.

Baseline data is the information you need to have about the situation before you do anything. It is very difficult to measure the impact of your programme if you do not know what the situation was when you began. You need baseline data – relevant to the indicators you have developed – to be able to measure the progress and end results of your work.

A baseline simply defines the pre-programme conditions for the set of indicators that will be used to assess achievement of the outcomes and impact expressed in the programme's logical framework. When compared with the condition of the same indicators at some point during implementation (regular or ongoing monitoring) and post-operation implementation (final evaluation), the baseline study forms the basis for a 'before and after' assessment or a 'change over time' assessment. Without baseline data to establish pre-programme conditions for outcome and impact indicators it is difficult to establish whether change at the outcome level has in fact occurred.

Remember that it will be very difficult to go back and get this kind of baseline information after you have started implementing the programme and the situation has already changed. What if you didn't collect this information at the beginning of the process? There are ways of doing some sort of damage control by working "backwards", for example by obtaining anecdotal information from those who were involved at the beginning or by asking participants if they remember what the situation was when the programme began. But like the initial baselines drawn up last year on the basis of secondary data records, this is unlikely to result in a complete and reliable set of baseline data.

On paper **Yayasan Dian Desa** has the most robust monitoring system among the four partner NGOs, however, their start was maybe somewhat ambitious. In line with YDD's implementation strategy, the monitoring system was designed to monitor progress and programme outcomes or results on all five STBM pillars. A detailed household level monitoring questionnaire had been designed and tested in the field. A first batch of village cadres had been trained to develop village social maps and to carry out monitoring tasks. YDD is so far the only organisation that developed a household card (poster) for self-monitoring purposes by the households. To date regular programme monitoring activities have not yet started, this for the simple reason that sub-village level sanitation demand creation (CLTS triggering) activities are yet to commence.

Household monitoring card developed by YDD

YDD is the only organisation that had started collecting pre-triggering baseline data on all monitoring indicators in the target villages. For this purpose the regular programme monitoring household level data collection questionnaires are used. Although they had started to collect baseline data on the basis of a 100% sample, the amount of questionnaires so collected and the enormous task ahead of entering all data in a database made them reconsider this initial ambition. Although they were considering reducing the sample size, the exact size and the sampling criteria had not yet been defined. On the basis of simple calculations of the consequences of different sample sizes, it was decided to reduce the sample size to 25% with a maximum of 100 households per sub-village.

Some of the work carried out during and immediately after the mission:

- ✓ The household questionnaire was discussed in detail and where necessary modified. The final version was completed on 28 April 2011.
- ✓ A realistic sample size of 25% of all households was determined on the basis of discussions and some simple calculations.
- ✓ A sampling methodology and in particular the method to select sampling units was worked out to ensure representative sampling. The stratified sampling method[5] will be used as this method allows monitoring to focus on particular population segments that share at least one common characteristic: in this case the socio-economic status of individual households).
- ✓ A draft monitoring protocol was put on paper (see annex 3.1).
- ✓ The Microsoft Access database was examined and discussed, but as the database was far from complete at the time of the mission it will first of all require additional input by YDD.

CD Bethesda is yet to start applying the monitoring system and tools. To date efforts have gone into designing the household level monitoring questionnaire and in training CD Bethesda staff to use the monitoring tools. The household questionnaire is designed to monitor progress and results on the first three STBM pillars, because their programme implementation strategy focuses initially only on the first three pillars. CD Bethesda had not yet developed a (simple) system that allows for self-monitoring by the households. However, CD Bethesda is so far the only organisation that designed a programme monitoring card for the WASH in schools component. Both detailed baseline data collection and regular programme monitoring activities have yet to start. Baseline data must be collected before demand creation activities begin. Similar to YDD, sanitation demand creation (CLTS triggering) activities have not yet started.

The collection of regular monitoring data conform the monitoring framework will be carried out immediately after the demand creation activities. At the time of the mission it was not yet clear how many households were to be included in the sample size. Given the limited resources it was obvious that it would be impossible to carry out data collection for the entire target population. Although the area manager of Sumba was considering a sample size of 25% of the total number of households, the exact size and the sampling criteria had not yet been defined. After some careful considerations it was decided to adjust the sample size to 25% of all households.

Some of the work carried out during the mission:

- ✓ The household questionnaire was discussed in detail and modifications to the contents as well as the layout were made immediately. Similarly the WASH in schools questionnaire was discussed and modified. Both questionnaires can now be used for baseline data collection as well as for regular programme monitoring data collection.
- ✓ A realistic sample size of 25% of all households was determined on the basis of discussions and some simple calculations.

[5] **Stratified sampling** is used when monitoring is to focus on particular population segments ('strata'). A stratum is a subset of the population that share at least one common characteristic, for example males and females, or different socio-economic, social, ethnic or religious groups. Each stratum is then sampled as an independent sub-population, out of which individual elements can be randomly selected. It is a technique used when comparisons are needed between different groups, as well as requiring estimates about the total population.

- ✓ A sampling methodology and in particular the method to select sampling units was worked out to ensure representative sampling. The stratified sampling method will be used as this method allows monitoring to focus on particular population segments that share at least one common characteristic: in this case the socio-economic status of individual households).
- ✓ A draft monitoring protocol was put on paper (see annex 3.2) and shared with CD Bethesda for comments and input.
- ✓ The IBM SPSS (Statistical Package for the Social Sciences) database was briefly examined and discussed, but as the database was far from complete at the time of the mission it will require substantial more input by CD Bethesda.

Plan Indonesia has been able to come up with the most basic and simplest monitoring system among the four partner NGOs. The monitoring tools were originally developed by Plan for the AusAID funded CLTS in Grobogan, Central Java. Although the monitoring system is not yet perfect, the setup is simple and straightforward and can therefore be used for STBM programmes that are to be implemented at scale (full district coverage). Furthermore, the participating villages are responsible for primary data collection and processing. This makes them responsible for village level programme activities and puts them in the driver seat. Combined with the fact that triggering is also done by village volunteers, villages are encouraged to take control of their own development.

The simple household card or questionnaire was designed to monitor progress and results on all five STBM pillars, in line with their programme implementation strategy that addresses all STBM pillars. Plan will be the only organisation to use a sample size of 100%. This large sample is easily manageable as the number of data entries is kept to a bare minimum. Plan had not yet developed a (simple) system that allows for self-monitoring by the households. However, they are considering using coloured stickers to show achievements at individual households. So far baseline data has only been collected for pillar 1! Regular programme monitoring activities have already started at sub-village and village level, as this logically follows CLTS triggering activities at sub-village level.

To date no automated database has been developed. Plan intends to limit data entries by using village totals at sub-district level. As a result data entry is limited to the bare minimum. However, to allow for monitoring at sub-village level, the data captured in the village monitoring forms should be entered in the database. If this is done STBM achievements per sub-village (e.g. ODF status of individual dusuns) can be monitored relatively easy with the use of the database.

Some of the work carried out during the mission:

- ✓ The household questionnaire (card) was discussed in detail and detailed advice to improve the contents as well as the layout was provided. After the mission, the modified household card of Yayasan Rumsram was shared with Plan Indonesia.
- ✓ A draft monitoring protocol was put on paper (see annex 3.3) and shared with Plan Indonesia for comments and input.
- ✓ A triggered village was visited during a one-day field trip to further examine and discuss a number of monitoring related issues.

Yayasan Rumsram had decided to adopt the monitoring tools developed by Plan Indonesia. However, at the time of the mission these tools had not yet been put to use and Rumsram was still considering how to organise the monitoring component. Instead of using the Plan household cards Rumsram was using an even simpler form for monitoring progress. The monitoring form in use was updated directly by Rumsram staff instead of making use of the village cadres as originally foreseen. The mission turned out to be a mix of discussions, hands-on work and 'mini lectures' on the topic of monitoring, because all SHAW programme staff – some who had no prior experience in monitoring – participated in the discussions.

The basic household card or questionnaire designed by Plan Indonesia was to be used to monitor progress and results on all five STBM pillars. In deviation from Plan's intentions to enter aggregated village level data in a database, Rumsram decided after a long discussion to go for household level data entries.

Subsequently it was decided to reduce the sampling size to a more realistic 25% of all households. Rumsram was using a very simple but apparently effective system for self-monitoring by households consisting of simple green stickers to show STBM achievements at individual households. So far only very limited baseline data has been collected for pillar 1!

Simple household stickers applied by Yayasan Rumsram in a STBM village

Some of the work carried out during the mission:

- ✓ The household questionnaire (card) was discussed in detail and modifications to the contents as well as the layout were made immediately. Similarly the dusun level monitoring form and the kampong level monitoring form were adjusted in line with the modifications made in the household questionnaire.
- ✓ A realistic sample size of 25% of all households was determined on the basis of discussions, some simple calculations and pro and con comparisons of different alternatives.
- ✓ A sampling methodology and in particular the method to select sampling units was worked out to ensure representative sampling. The stratified sampling method will be used as this method allows monitoring to focus on particular population segments that share at least one common characteristic: in this case the socio-economic status of individual households).
- ✓ A draft monitoring protocol was put on paper (see annex 3.4) and shared with Yayasan Rumsram for comments and input.
- ✓ A total of three villages were visited during a one-day field trip to further examine and discuss a number of monitoring related issues.
- ✓ Considering the limited time available it was decided that Erick Baetings would start work on developing a simple database during the month of May 2011.

On the following two pages a summary is given of the monitoring frameworks developed by the four partner NGOs.

Monitoring frameworks: comparison between the four partner NGOs

Topic	Yayasan Dian Desa	CD Bethesda	Plan Indonesia	Yayasan Rumsram
Scale of operations				
# of districts	2	3	2	2
# of target sub-districts	40	12	45	9
# of target villages	385	121	415	42
Baseline data collection				
Initial baseline (2010)	Secondary quantitative data (incomplete and not fully reliable)	Secondary quantitative data (incomplete and not fully reliable)	Secondary quantitative data (incomplete and not fully reliable)	Secondary quantitative data (incomplete and not fully reliable)
Detailed baseline for progress monitoring	Detailed baseline data is being collected prior to triggering	No provision for detailed baseline data collection in place	Only baseline data on pillar 1 is being collected	Limited baseline data is being collected
STBM focus and indicators				
STBM pillars	Pillars 1 to 5	Pillars 1 to 3	Pillars 1 to 5	Pillar 1 and two from the remaining four pillars
Monitoring indicators / questions (final version)	17	23	11	12
Sampling design				
Basic sampling unit	"Family"	"House"	"House/Household"	"House"
Sampling methodology	Representative sample on basis of socio-economic status of HH	Representative sample on basis of socio-economic status of HH	N/A	Representative sample on basis of socio-economic status of HH
Sample size	25% of HH with a maximum of 100 HH per village	25% of HH	100% of HH	25% of HH
Survey clusters	All targeted sub-villages	All targeted sub-villages	All targeted sub-villages	All targeted sub-villages
Interviewee	Not yet specifically defined	Not yet specifically defined	Not yet specifically defined	Not yet specifically defined
Survey methodology				
Data sources	Primary data collected at HH level	Primary data collected at HH level	Primary data collected at HH level	Primary data collected at HH level
Frequency	3 monthly	3 monthly	Monthly	Monthly

Topic	Yayasan Dian Desa	CD Bethesda	Plan Indonesia	Yayasan Rumsram
Data collection techniques				
Village maps	Are being drawn up prior to triggering	To be used during triggering	Being used during triggering and for post-triggering monitoring	Being used during triggering but not used for post-triggering monitoring
HH questionnaires	Detailed HH questionnaire	Detailed HH questionnaire	Basic HH questionnaire (card)	Basic HH questionnaire (card)
HH self-monitoring cards	Posters developed for monitoring at HH level	Considering to use coloured household stickers	Considering to use coloured household stickers	Using simple green stickers to indicate progress at each house
Monitoring tools				
Household level	Detailed HH questionnaire	Detailed HH questionnaire	Basic HH questionnaire (card)	Basic HH questionnaire (card)
Dusun level	Database reports	Database reports	Manual dusun monitoring forms	Manual dusun monitoring forms & Database reports
Desa level	Database reports	Database reports	Manual desa monitoring forms	Manual kampong monitoring forms & Database reports
Sub-district level	Database reports	Database reports	Manual kecamatan monitoring forms	Database reports
District level	Database reports	Database reports	Manual kabupatan monitoring forms & database reports	Database reports
Data collection roles				
HH data collection	Trained dusun cadres	Trained dusun cadres	Trained dusun and desa cadres	Trained dusun and desa cadres
Checking for completeness and correctness	YDD field staff & sub-district STBM teams	CDB field staff	Plan field staff & sub-district sanitarian	Rumsram staff & sub-district STBM team
Database				
Software and progress	Being developed in MS Access	Being developed in SPSS	Not yet developed but considering using MS Excel	Not yet developed but considering using MS Excel
Database entries	HH level	HH level	Sub-district monitoring forms (?)	HH level
Progress to date				
Started?	Pre-triggering detailed baseline data is collected in 42 dusuns	Not yet	Progress monitoring data is collected in triggered dusuns	Basic monitoring data is collected by Rumsram staff in triggered dusuns

2.4 Other monitoring related issues

A number of monitoring related 'cross cutting' issues came up during the mission. To avoid duplication the most important issues will be addressed in this section in more detail.

1. Baseline data: in the previous section the importance of baseline data – necessary to be able to measure the outcomes and impact of the SHAW programme – has been highlighted. It will be difficult if not impossible to assess the SHAW programme achievements without a complete and reliable baseline.

   > A good example is pillar 3 'Household water treatment and safe storage'. In discussions with Plan Indonesia staff it became apparent that 90 to 100% of households in (some) target villages already boil their drinking water prior to programme interventions. If this information is not captured in the baseline, than one might give the impression that a similar figure at the end of the programme can be attributed to programme interventions and seen as a SHAW programme achievement.

   To date only Yayasan Dian Desa is systematically collecting detailed baseline data for all their programme monitoring indicators. During the mission, modifications were made to the household cards and questionnaires so that they can also be used for baseline data collection.

   - ➔ CD Bethesda, Plan Indonesia and Yayasan Rumsram have agreed to ensure the collection of detailed baseline data in sub-villages by trained village cadres before CLTS triggering takes place.
   - ➔ The household cards and/or household questionnaires developed for regular or ongoing progress monitoring are to be used for baseline data collection. Baseline data is to be collected prior to the start of programme interventions (before or during CLTS triggering).

2. Indicators for hygiene behaviour: in an email of 9 May 2011, Erwan Kow of Yayasan Dian Desa explained the difficulties of obtaining reliable data on handwashing practices. Changes in sanitation and hygiene behaviours are difficult to measure through household questionnaires. Self-reported data can be extremely unreliable as people typically provide socially desirable responses or simply do not know or have the information about all the household members. It would require structured observations of a particular hygiene practice over a prolonged period of time which would be difficult and expensive to organise[6]. In response to the difficulties of directly measuring behaviour change, an alternative method is to use proxy indicators for measuring change in hygiene behaviour.

   > **Proxy indicators** are an indirect measure or sign that approximates or represents a phenomenon in the absence of a direct measure or sign. Proxy indicators (also called indirect indicators) are used when data for direct indicators are not available or not feasible to collect at regular intervals. For example: the number of new tin roofs (or televisions) as a proxy measure of increased household income.
   >
   > Remember direct indicators are not always practical as data collection may be too difficult or too expensive. Proxy indicators are less precise, but more efficient and may be just as effective in distinguishing trends.

   Both Plan Indonesia and Yayasan Rumsram are using proxy indicators for measuring programme achievements with regards to pillar 2 'handwashing with soap'. Examples of proxy indicators are the availability of water and soap or ash for handwashing, and the presence of handwashing facilities at the right places (e.g. in or near a kitchen and in or near a toilet). These indicators should be monitored by the village cadres through simple observations.

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6 Structured observations for measuring hand washing practices have shown to generate respondent bias. People who are observed might wash their hands more frequently because they are being observed. (USAID, 2010)

3. Basic sampling unit: at present different sampling units are used by different partner NGOs and even where the same term is used (e.g. household) definitions or interpretations may differ. It is essential that the same sampling unit with the same definition is used by all partner NGOs. This to make sure that programme achievements are reported in the same manner and to allow comparisons among the four partner NGOs.

   ➔ The Government of Indonesia basic sampling unit (household) is to be used by all four partner NGOs to ensure consistency with government data records as well as among the partner NGOs.

Government of Indonesia definition of household and household member

The GoI[7] has classified **household** into two types, namely:

1. **Ordinary Household** (Rumah Tangga Biasa) is a person or a group of people living in a physical/census building or part thereof who make common provision for food and other essentials of living. There are various forms of ordinary households, among them:
   - a person who lives with his wife and children;
   - a person who rents a room or part of a census building and arranges his own food;
   - a family living separately in two census buildings, but eating from one kitchen, provided the two census buildings in question are still in the same location;
   - a household which provides lodgings with food (rented room and board) where the boarders are less than ten (10) people;
   - a manager of a dormitory or hostel, orphanage, correctional institution or the like, who lives alone or with his wife, children or other members of his household, and who all eat from the one kitchen which is separated from the institution which he manages;
   - each person who is part of a group, which together rents a room or part of a census building, but which arranges its food individually.
2. **Special Household** (Rumah Tangga Khusus) is a group of people living in a dormitory, military barrack, orphanage, prison, detention centre, where food provision is made by the institution organisation, and other groups of people living in a boarding house and numbering ten (10) or more and not covered by the national census.

The GoI[8] has defined **household member** as follows: household members are those who usually live in a particular household regardless of their location at the time of enumeration. A person is no longer regarded as a member of his former household if he has been absent from home for six months or longer, or he has left home for the purpose of moving away even when the six-month limit has not been reached. On the other hand, a guest who has stayed for six months or more, or even for less than six months but intended to move in, is recorded as a household member.

4. Sampling size and sampling methodology: except for Plan Indonesia, all other partner NGOs have decided to include only a certain percentage of all the households in a sub-village in the sample as a sample that includes the total population would be impossible to execute at regular intervals. The sample needs to be representative of the target population so that the information derived from the sample is expected to be the same had a complete census of the target population been carried out.

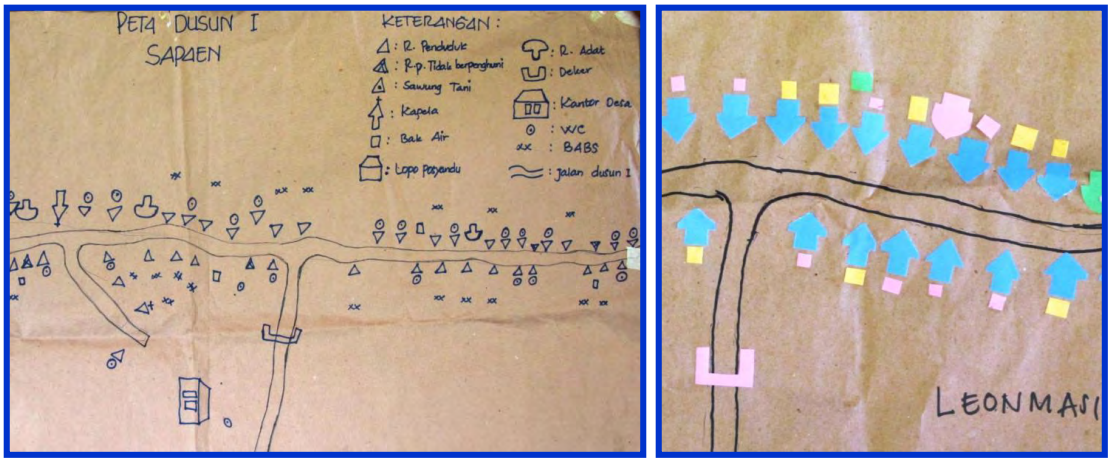
   When considering the different characteristics of the target villages (etc. socio-economic status, religion, occupation, access to safe drinking water and basic sanitation) it was concluded that except for the socio-economic status the villages are expected to be rather homogenous. Hence, the socio-economic status of the households will be used by classifying the population of the sub-villages into distinct economic categories, using culturally appropriate terms for better-off, poor and in-between. Details and guidelines per partner NGO are provided in Annex 3.1 through 3.4.

[7] http://dds.bps.go.id/eng/aboutus.php?glos=1&ist=1&var=H&cari=&kl=2

[8] http://dds.bps.go.id/eng/aboutus.php?glos=1&ist=1&var=H&cari=&kl=1

In short the following should be considered by all partner NGOs except for Plan Indonesia:

- Develop village sanitation maps that include additional information on socio-economic status of households and other relevant characteristics (e.g. household size and household composition, access to drinking water, access to sanitation, etc.).



Village maps in use in a Plan Indonesia STBM village

- Calculate the number of households that are to be included in the sample (examples are given in Annex 3.1 through 3.4).
- Determine the actual households to be included in the sample in consultation with the trained village cadres and village authorities.
- Monitor the programme achievements by using the same households included in the initial sample over a longer period. To ensure that representative samples are maintained and to keep things simple for the village cadres it is wise not to use different households each time.

5. Representatives of sampling size: in most cases a sample size of 25% of the total number of houses in a sub-village has been taken as a larger sample will not be possible to execute at regular intervals. Confidence intervals[9], shown in the table below, were calculated for CD Bethesda using Sumba Tengah district as an example.

Confidence intervals for selected sample size	Calculated confidence intervals
▪ Average sized sub-village or dusun	15.3
▪ Average sized village or desa	8.8
▪ Average sized sub-district or kecamatan	4.7

The calculated confidence intervals for Sumba Tengah show a rather large margin of error where it concerns data collected at sub-village level (+/- 15.3). A major factor determining the confidence interval is the size of the sample used in the estimation procedure, in the above case the number of households included in the monitoring sample. Hence, the calculated confidence interval for sub-villages is high because of the relative small number of households that make up a sub-village. Does this make the data collected at sub-village level unrepresentative or unreliable? That depends for what purpose data is collected. Monitoring is primarily used to measure trends over time as to answer whether the programme is heading in the right direction towards achieving its goal, objectives and intended results. For example in relation to STBM pillar 1 whether we are moving towards open defecation free communities?

[9] In statistics, a **confidence interval** is used to indicate the reliability of an estimate. The confidence interval (also called margin of error) is the plus-or-minus figure usually reported in newspaper or television opinion poll results. For example, if you use a confidence interval of 4, and 47% of your sample picks an answer, you can be "sure" that if you had asked the question of the entire relevant population between 43% (47-4) and 51% (47+4) would have picked that answer.

Data collected with a confidence interval of plus or minus 15 will not be reliable enough to ascertain whether an individual community has reached ODF status. But considering that the monitoring systems are community-based where the communities are responsible for data collection, even a 100% sample is unlikely to be 100% reliable. Therefore, there are other mechanisms necessary to verify whether communities have achieved all five STBM pillars. For example ODF verification and certification by a group of (independent) outsiders is therefore an important mechanism that needs to be put in place to measure whether communities have reached 100% ODF status. In smaller communities it may also be necessary to determine a minimum sampling size to ensure an acceptable confidence interval.

6. Training and coaching of village cadres: all four partner NGOs are training village cadres to collect monitoring data. As real learning takes place when carrying out the work the initial formal training needs to be augmented with on-the-job training and coaching to enhance the completeness and reliability of the data collected by the village cadres.

   ➔ NGO field staff together with the sub-district STBM teams need to provide intensive on-the-job training and coaching to village cadres during pre-triggering baseline data collection and the first few times that data is collected for regular monitoring purposes.

Discussions with village cadres in Plan Indonesia STBM village

7. Completeness and reliability of data: more is to be done to ensure that data collected by trained village cadres meet acceptable standards of quality. It is the responsibility of the NGO field staff together with the sub-district STBM teams to check the quality of data collected by focusing on completeness and reliability.

   - Completeness is rather easy to assess by checking whether all the indicators or questions included in household cards or questionnaires have been completed.
   - Reliability or correctness of data is more difficult to assess. The best way to assess this is by carrying out a small number of spot checks (e.g. 10% sample) together with the responsible village cadre. You may want to adjust the quality control assurances depending on the quality of data collection. For example if the spot checks indicate that a good job is being done, than you may want to consider reducing the number of spot checks during the next visit. However, if you are not happy with the quality of data collection, than you want to increase the number of spot checks and at the same time continue or increase your coaching and training efforts.

   More effort might be necessary to properly train, guide and coach the NGO field staff and STBM teams at the different levels to take up their respective roles and responsibilities in post-triggering follow up and monitoring.

8. Computerised databases: at the time of the mission no functioning database was in place with any of the four partner NGOs. Yayasan Dian Desa and CD Bethesda had started to develop data entry tables or formats in respectively Microsoft Access and the statistic software package SPSS. Plan Indonesia and Yayasan Rumsram had not yet made a start but were considering making use of Microsoft Excel.

As all partner NGOs, except for CD Bethesda, have started the process of collecting data it is crucial that functioning databases are developed and tested as soon as possible.

Some relevant issues:

- Limit or reduce the amount of incorrect data entries by perfecting the database entry tables. For example the system should alert for combinations of incorrect entries and/or make it impossible to make entries where certain questions are to be skipped.
- Data cleaning is to be performed to check for missing values and outliers. For this purpose a general random test on data entry quality is to be performed. In a reaction to the draft report Erwan Kow reacted that the cleaning up of databases is a rather easy job by using the filtering function. For example filtering criteria are set, to cross check answers of related questions, to check for their consistencies and eliminate data or data sets that are inconsistent.
- Assign some sort of coding system to the sampling units to allow for analysis and reporting at different levels. The system should be able to generate reports that provide easy-to-use overviews per sub-village, per village, per sub-district and per district so that the monitoring data can be used to monitor and discuss progress at these different levels.

➔ A uniform coding system needs to be applied and as far as possible this system should be based on the coding system used by the Government of Indonesia. The example shown below shows that the GoI uses a unique coding system for their population and housing census. It is expected that the district Department of Planning uses the same or a similar coding system for their data records.

REPUBLIK INDONESIA

2000 POPULATION CENSUS

BUILDING AND HOUSEHOLD LISTING

SP2000-L1

BPS

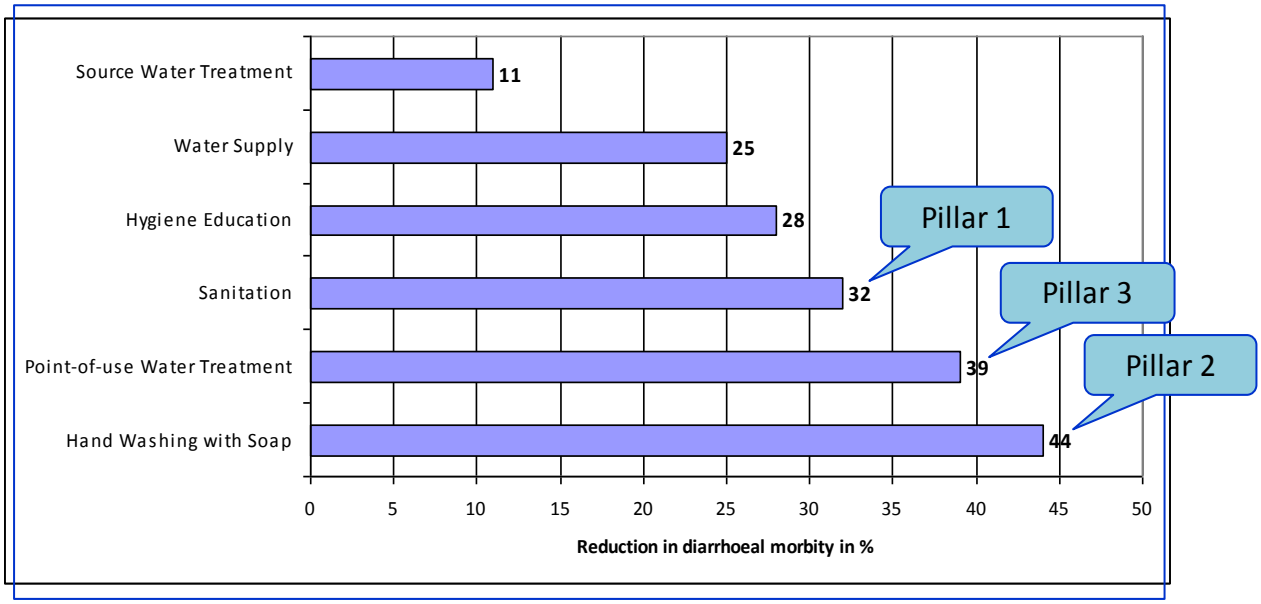
Confidential

I. LOCATION IDENTIFICATION						
101. Province (.....)	102. Regency/ municipality*) (.....)	103. Sub district (.....)	104. Village (.....)	105. Urban-rural classification *Urban -1 Rural -2*	106. Block census Number	107. Local Unit Administration
☐☐	☐☐	☐☐☐	☐☐☐	☐	☐☐☐☐	.....

2.5 Other issues that came up during the mission

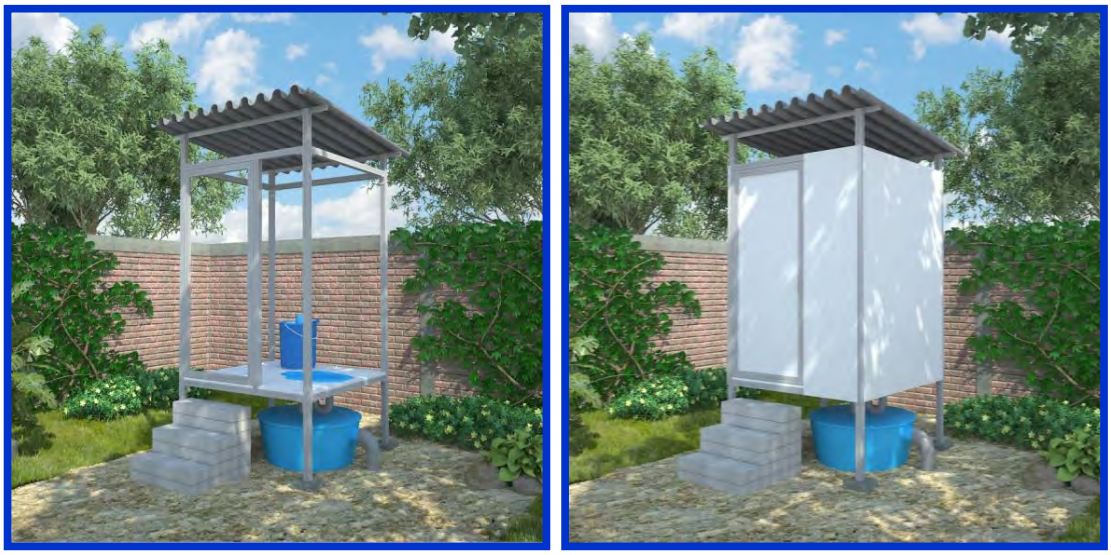
During the mission a number of other issues came up of which the most relevant or most important will be discussed in this section. It should not come as a surprise that other SHAW programme related issues came up during the mission as the monitoring framework is a reflection of the programme's intentions and desired outcomes and results. Hence, while discussing and working on the monitoring system and tools, and in particular the indicators, programme strategies and implementation approaches often come up. Furthermore, a few issues popped up during the field visits in West Timor and Biak Numfor.

The focus here will be on the first three STBM pillars as these are universally recognised as the most important as shown in the following figure.



Reduction in diarrhoeal morbidity in percentage per invention type (Global Handwashing Day, Planners Guide, Second Edition, 2009)

1. Pillar 1: sanitation technologies: so far little progress has been made by the partner NGOs in the area of sanitation marketing or supply chain strengthening. Only Yayasan Dian Desa has made a start by carrying out a study called 'Family Sanitation: Willingness and Ability to Invest', by developing a high-cost toilet and by working on a 'sanitation ladder' whereby sanitation technologies with increasingly higher levels of service options are displayed.



High-cost toilet developed by Yayasan Dian Desa

Given its origin and experience it is not surprising to see that Yayasan Dian Desa is taking an active interest in developing appropriate sanitation technologies as part of their so-called component B. They have developed a sanitation technology option that is sold as a finished ready-to-use product. It consists of a portable septic tank and a superstructure made of an aluminium frame with a plastic floor and walls and corrugated aluminium roofing sheets. The YDD toilet is expected to cost around 3 to 3.5 million rupiahs (somewhere in the range from US$ 350 to US$ 410).

In the absence of a thriving private sector, YDD is making plans to market and put the toilets up for sale by themselves. In itself an interesting proposition but one that could be interpreted wrongly or that could go serious wrong if not introduced carefully and strategically. During the discussions with YDD they explained that they have taken the initiative because at present there is no sanitation supply chain in place that can respond immediately to customer demands, and therefore the need to explore and establish a sanitation market. The easiest option is: “don’t phase in if you want to phase out”. However, if a number of clear marketing principles are adhered to whereby local market mechanisms are not distorted, local private sector supply chain actors are involved right from the beginning, and a time-bound exit strategy is developed, it could be an interesting model to set up a private sector driven local sanitation supply chain. It will all depend on how YDD is going to develop their intervention strategy for this component.

YDD should test the toilet they have developed as there are some concerns regarding the size of the septic tank. However, this was not independently ascertained during the mission. Considering the investment costs, only proven technologies should be marketed. Furthermore, alternative technology options will need to be developed to target the 40% of households that will not be able to afford the current 3 to 3.5 million rupiahs YDD toilet.

Although Plan Indonesia and Yayasan Rumsram have started sanitation demand creation activities (CLTS triggering) during the first quarter of 2011, little or no attention has been paid so far to inform communities and individual households about different sanitation technologies. This often results in individual households copying or replicating the toilet built by their neighbours or peers with potentially disastrous or at least unfortunate consequences. Some examples:

- Plan Indonesia: in the office in Kefa (West Timor) quite a number of photos portrayed very basic dry pit latrines that raised serious questions about privacy, comfort, durability and sustainability. Are these the type of toilets that will impact on health and that people desire?
- Plan Indonesia: in Sapaen village (Biboki Utara sub-district of Timor Tengah Utara district in West Timor) a household was building a new pour-flush toilet. Encouraging to see that people are willing to invest in improved technologies but questions could be raised about the design features and in particular the volume of the single off-set pit. Are (limited) household funds being invested wisely?

Pour-flush toilet under construction in Plan Indonesia STBM village (Sapaen village)

- Yayasan Rumsram: in Yaruboi village (Warsa sub-district of Biak Numfor district) a number of new toilets had been constructed using the RESPEK design. As these toilets are rather expensive – it is claimed that when RESPEK provided these toilets free of cost in the past they had spent up to 6 million rupiahs per toilet – households that wanted to build a similar toilet had to obtain support from either RESPEK or the Pokja AMPL. Will they be able to provide this kind of support at scale?

It is clear that sanitation demand creation needs to be followed with the provision of information on different sanitation technology options. Depending on the situation this can be done during CLTS triggering or immediately after triggering during the first post-triggering follow up visit. Technology options should be presented during a process of community dialogue which will facilitate discussion and enables individual households to make an informed and well-considered selection (informed choice) of the best technical solution to meet their own requirements, resources and local conditions. At the same time minimum hygiene standards should be developed and agreed upon.

Newly constructed pour-flush toilet in Yayasan Rumsram STBM village

2. Pillar 2: handwashing with soap: handwashing, safe disposal of human faeces, and household water treatment and safe storage are generally recognised as the three key hygiene behaviours than can reduce diarrhoeal disease.

> **Handwashing with soap** is among the most effective and inexpensive ways to prevent diarrhoeal diseases and pneumonia, which together are responsible for the majority of child deaths. Every year, more than 3.5 million children do not live to celebrate their fifth birthday because of diarrhoea and pneumonia. Yet, despite its lifesaving potential, handwashing with soap is seldom practiced and not always easy to promote.
>
> Source: http://www.globalhandwashingday.org/Global_Handwashing_Day_2nd_Edition.pdf

Most of the partner NGOs have not yet developed intervention strategies for promoting handwashing with soap. During the discussions two key issues came up, namely:

- **Availability of soap**: apparently the Ministry of Health is promoting the use of antiseptic soap for handwashing purposes. This type of soap is not always readily available and is more expensive than other soap. Evidence suggests that soap – any soap – and water adequately remove microbe-containing dirt from hands. Antibacterial soap or other hand-sanitising technologies have no additional advantage (source: The Handwashing Handbook[10] published by The World Bank Group). Hence, the programme should promote the use of any kind of soap that is readily available and affordable such as ordinary soap used for bathing or washing clothes. Remember: in most cases some sort of soap is available in most households in the world, and cost is not the main barrier to handwashing with soap!
- **Critical handwashing moments**: there appears to be some confusion on what messages to convey or what should be promoted. Two key principles that were applied throughout the mission were: LESS is MORE and KEEP it SIMPLE! These principles should also be applied when designing hygiene promotion message. Simple, clear, and sparse information can stick; when

[10] Available at: http://siteresources.worldbank.org/INTWSS/Publications/20389151/HandwashingHandbook.pdf

presented with too many details, people lose the essence of the message being conveyed. Hence, it will not be effective to promote all the different moments when people should ideally wash their hands. The messages should focus on the critical moments shown below.

The critical moments for handwashing with soap are:

1. **After using the toilet**
2. **After cleaning a child's bottom (or any other contact with human faeces)**
3. **Before handling food (preparing, eating and feeding)**

Handwashing stations in Plan Indonesia STBM village (tippy taps)

During the field visits in West Timor and Biak Numfor it was great to see a number of different locally made handwashing devices or handwashing facilities. These simple but effective devices were part of the promotional activities of Plan Indonesia and Yayasan Rumsram and this reflects that it is important to ensure that people have a way to wash their hands at critical moments. Simple, low-cost solutions like Tippy Taps are within the financial and technological reach of even the poorest communities.

Handwashing stations in Yayasan Rumsram STBM village (bamboo devices)

3. Pillar 3: household water treatment and SAFE storage: when discussing the indicators used in the household monitoring cards and questionnaires for pillar 3 it was noticed that the focus was primarily on the proper treatment of drinking water and less on save storage devices. It is well recognised that recontamination of treated drinking water arises from a lack of safe storage and handling practices. Safe household water storage is a critical component of the Household Water Treatment and Safe Storage (HWTS) system being promoted by the World Health Organization (WHO) and other organisations worldwide.

Regardless of whether or not collected household water is initially of acceptable microbiological quality, it often becomes contaminated with pathogens of faecal origin during transport and storage due to unhygienic storage and handling practices. It is therefore essential that safe storage and handling practices are incorporated in the hygiene promotion messages.

Household water treatment and safe storage (HWTS) interventions can lead to dramatic improvements in drinking water quality and reductions in diarrhoeal disease and thereby making an immediate difference to the lives of those who rely on water from polluted rivers, lakes and, in some cases, unsafe wells or piped water supplies.

Studies show that the use of containers with narrow openings for filling, and dispensing devices such as spouts or taps/spigots protect the collected water during storage and household use. Improved containers protect stored household water from the introduction of microbial contaminants via contact with hands, utensils, dippers, other vehicles contaminated with faecal matter or the intrusion of vectors.

Source: http://www.who.int/household_water/en/

Fancy safe drinking water storage container with tap in Yayasan Rumsram STBM village

3. Concluding words

Programme implementation has started, albeit somewhat slowly. Yayasan Rumsram and Plan Indonesia have started demand creation activities and the first successes have been achieved in the form of increased sanitation uptake and the creation of the first ODF (sub) villages. Yayasan Dian Desa has started the collection of detailed baseline data in the first batch of target villages. CD Bethesda has completed the final preparations and they are expected to start demand creation activities soon in one of their three districts.

At the time of the mission the monitoring systems were in different stages of development. Plan Indonesia have started using the household cards to collect regular progress monitoring data and Yayasan Dian Desa are using their household questionnaires to collect baseline data. Yayasan Rumsram, although collecting some data in triggered villages, has not yet started to use their household cards. CD Bethesda had not yet started data collection activities.

Three out of four partner NGOs have developed their monitoring system and tools from scratch and Yayasan Rumsram had opted to adopt the monitoring tools developed by Plan Indonesia. The mission was used to improve the indicators and monitoring tools (household cards and questionnaires) and to draft monitoring protocols. Although improvements were made to the monitoring system and tools, none of them can be described as perfect at this moment. However, the tools in place are good enough to start data collection activities and should provide the information required for programme management steering purposes and for donor reporting.

The mission has been very helpful in creating additional insight on how a more generic monitoring system could look like. It has become obvious that the development of a generic monitoring system and its application by all will be much more efficient and effective. Now relatively too much time is being spent by each partner to develop the necessary monitoring systems, tools and databases. Although the current situation is not ideal it makes sense to continue for the time being. An advantage is the learning opportunities that exist with so many different systems in place. The coming months should therefore be used to apply and test the different systems and tools after which modifications might have to be made if deemed necessary. The lessons learned will also be extremely useful when developing the generic monitoring system.

Annex 1: People met during the mission

Date	Organisation	Person	Contact details
3-4 April & 17-18 April	Simavi Indonesia	Mr Martin Keijzer SHAW Programme Coordinator	O: +62-274 883789 M: +62-811 250-71 40 Martin.Keijzer@Simavi.nl
5-7 April	Yayasan Dian Desa	Mr Anton Soedjarwo Director	Jl. Kaliurang Km. 7 Jurug Sari IV/19 PO Box 19 Bulaksumur Yogyakarta, Indonesia O: +62-274 885423-885247 Soedjarwo@gmail.com as6079@hotmail.com
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		Mr Erwan Kow SHAW Programme Coordinator	erwankow@gmail.com O: +62-38221430 M: +62-85228067220
		Mr Edo Soedjarwo Programme Coordinator component B	
8-9 April	CD Bethesda	Ms Paula Tyas Director	Klitren Lor GK III/374 Yogyakarta 55222, Indonesia O: +62-274 514100-548694 phtys@yahoo.com www.cdbethesda.org
		Ms Christa Dewi M&E Officer	M: +62-811 292699 Christa_dw@yahoo.com
14-16 April In Biak	CD Bethesda	Ms Dewi Utari SHAW Project Manager	M: +62-811 267605 Utari_dewi2004@yahoo.com
11-12 April	Plan Indonesia	Mr Sabaruddin SHAW Project Manager	Sabaruddin.Sabaruddin@plan-international.org M: +62-81339597675 Skype: sabaruddin_bima
		Mr Simon Heintje Tulado SHAW M&E Officer	Simon.HeintjeTulado@plan-international.org M: +62-85253037534
		Field staff: Franciscus Bou, Team Leader Mexy Nenobais, Team Leader Franciskus Oematan, Sub-district Coordinator Alex Sadipun, Interpreter	
14-16 April	Yayasan Rumsram	Mr Ishak Matarihi, Director Rumsram and SHAW Programme Manager	kasumasa_biak@yahoo.com
		Mr Wirya Supriyadi, SHAW Programme Coordinator	wira@rumsram.org +62-85244920789
		Esra Mandosir, Field Officer and responsible for M&E	esra.mandosir@rumsram.org +62-82198480430
		Field staff: Timothius Rumansara, STBM Team Leader	

Date	Organisation	Person	Contact details
		Yan F. Senga, Handwashing / Water Specialist Nasaruddin, Field Officer Yuyun Warbal, Hygiene Officer	
18 April	Simavi	Ms Pam Minnigh	minnigh@cbn.net.id
Others			
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Annex 2.1: Update of state of affairs – Yayasan Dian Desa

Meeting on Monday afternoon 04 April 2011

Attending: Anton Soedjarwo, Programme Manager, Christina Aristanti, Programme Coordinator, Erwan Kow, Programme Coordinator and Edo Soedjarwo, Programme Coordinator component B

Macro picture as seen by Anton Soedjarwo

- Struggle and reshuffle from financial point of view: during the course of 2010 YDD discovered that there was a need to align the different fiscal years. Initially YDD used the start date of the SHAW programme as the start of the programme's fiscal year, however, Simavi follows the January-December fiscal year. As a consequence financial audits had to be carried out for the period up to the end of December 2010 instead of only after the first year of operations.
- Juggling to finalise all the approaches, systems and tools: YDD feels that enough needs to be in place so that work can commence, albeit maybe at this time not yet 100% perfect. There is an urgency to start the field work even if that means that further development and refinement needs to take place at a later stage. Right now enough material has been produced (printed) to implement the programme in Sikka district.
- Serial versus parallel implementation: YDD plans to implement the programme throughout the districts simultaneously and not in distinct batches. This means that preparatory work is ongoing in all sub-districts, villages and sub-villages simultaneously. They believe that they have sufficient capacity to implement the programme at scale. They are worried that implementing in batches would take too much time. The advantage of working in batches is that after the completion of a particular activity in a particular batch, the work can be evaluated and where necessary improvements made before work commences in the next batch. Furthermore, working in batches would make human resources available for post-triggering monitoring and follow up.
  - ➔ YDD needs to think how they are going to incorporate learning in improving their ongoing work.
  - ➔ YDD needs to ensure that sufficient human resources are available for post-triggering monitoring and follow up.
- Anton stressed the need to get going by saying "we need to start". Detailed preparations will continue simultaneously with programme implementation on the ground (e.g. triggering in villages).
- The YDD draft report on last year's study on Family Sanitation: Willingness and Ability to Invest was also discussed and in particular the consequences of the findings on the socio-economic status (income poverty) of families without sanitation facilities and their ability to invest. The findings indicate that there are roughly three distinct groups or segments of consumers: 39% of families would be able to afford a toilet in the range from 1 to 2 million rupiahs; 48% of families would be able to afford a toilet in the range from 2 to 4 million rupiahs; and the remaining 13% of families would be able to afford a toilet above 4 million rupiahs. At present YDD has developed a toilet that costs something in the range of 3 to 3.5 million rupiahs.
  - ➔ YDD should make the report available to a wider public as it provides some important insight when developing sanitation marketing strategies.
  - ➔ YDD may want to test the toilet they have developed as there are some concerns regarding the size of the septic tank. Considering the investment costs, only proven technologies should be marketed.
  - ➔ YDD needs to develop alternative technology options to target the 40% of households that will not be able to afford the current 3-3.5 million rupiahs YDD toilet.

YDD takes the lead in sanitation marketing
Given its origin and experience it is not surprising to see that YDD is taking an active interest in developing appropriate sanitation technologies as part of their so-called component B. On the basis of some research, they have developed a sanitation technology option that is sold as a finished ready-to-use product. It consists of a portable septic tank and a superstructure made of aluminium frame with a plastic floor and walls and corrugated aluminium roofing sheets. The YDD toilet is expected to cost around 3 to 3.5 million rupiahs (somewhere in the range from US$ 350 to US$ 410). In the absence of a thriving private sector, YDD is making plans to market and put the toilets up for sale by themselves. In itself an interesting proposition but one that could be interpreted wrongly or that could go serious wrong if not introduced carefully and strategically. During the discussions with YDD they explained that they have taken the initiative because at present there is no sanitation supply chain in place that can respond immediately to

customers' demands. Hence there is a need to explore and establish a sanitation market. To realise the establishment of a viable sanitation market or industry YDD is planning to undertake the following:

- Pilot a sanitation market approach that delivers ready-made sanitation technologies and that basically functions as a one-stop shop that combines the marketing of sanitation products with financing or credit options somewhat similar to what is current practice for example in the case of marketing motorbikes
- Take and absorb risks related to setting up a new supply chain
- Show that there is a viable market for sanitation products and services and convince private sector actors to get involved
- Build capacity and handover to local service providers or other private sector actors

The easiest option is: "don't phase in if you want to phase out". However, if a number of clear marketing principles are adhered to whereby local market mechanisms are not distorted, local private sector supply chain actors are involved right from the beginning, and a time-bound exit strategy is developed, it could be an interesting model to set up a private sector driven local sanitation supply chain. It will all depend on how YDD is going to develop their intervention strategy for this component.

Progress to date – some of the most noticeable activities

- At this time programme implementation is still focusing only on Sikka district of Nusa Tenggara Timur province as a consequence of unstable political conditions in Flores Timur district. Local elections in Flores Timur are expected to take place sometime later this year (April).
- Road shows have been completed in all but one sub-district of Sikka district. The remaining sub-district is located on an isolated island which is difficult to assess during the rainy season.
- Village STBM team training for village cadres (3 trainees per sub-village) started on March 7th and have been completed in 12 sub-districts, 84 villages, 274 sub-villages (29 March). The training programme covering all 471 sub-villages is expected to finish by May 2nd.
- Following the training, trained village cadre are requested to develop village sanitation maps and to collect baseline data.
- CLTS facilitators training for YDD field staff (16 + coordinators) is tentatively scheduled for May or June 2011 depending availability of trainers from the TSSM programme. The ten-day training will comprise of in-house training, field practice for triggering and post-triggering follow up and will be conducted in two stages with the post triggering follow up part to be conducted two weeks or one month later.
- Triggering will be done in collaboration with the sanitarian and health promoters from the respective Puskesmas. Prior to the CLTS facilitators training, triggering will be facilitated by trained sanitarians and or health promoters. Once YDD staff have received training, CLTS triggering will be conducted by either YDD field staff or the sanitarian/health promoter, or together as one team.

Annex 2.2: Update of state of affairs – CD Bethesda

Meeting on Thursday morning 07 April 2011

Attending: Paula Tyas, Director CD Bethesda and Christa Dewi, M&E Officer

Progress to date – some of the most noticeable activities

- A ten-day capacity building training on STBM was conducted for CD Bethesda staff from 5 to 14 January 2011 in Yogyakarta. A total of some 25 staff participated in the training of which 5 field staff from Sumba and 5 field staff from Papua. The training was conducted by a total of six trainers from the Ministry of Health. The training included a one-day CLTS triggering exercise in the field.
- A 3-day monitoring workshop was organised for CD Bethesda field staff of Sumba and Papua from 25 to 27 January 2011.
- A five-day STBM training was conducted for sub-district level sanitarians as well as for village chiefs and village cadres from 29 March to 2 April 2011 in Sumba. A total of some 60 participants attended the training. Due to the large number of trainees, the training was conducted in two separate groups by trainers from the Ministry of Health.

Activities planned for coming period

Sumba Tengah district in Nusa Tenggara Timur

- STBM interventions will be carried out in batches and will commence in Sumba Tengah district. Sumba Barat is expected to follow later.
- CLTS triggering is expected to start in the middle of April in two sub-districts of Sumba Tengah. The first batch consists of 20 villages and some 60 sub-villages. Triggering will be done by a team consisting of one CDB community organiser, one sanitarian and one village cadre.
- CDB has recently recruited three sanitarians to complement the Sumba team as a consequence of the limited number of sanitarians available in the districts. The CDB team in Sumba now consists of one area manager, one finance officer, one newly recruited communication and information officer, three community organisers and three sanitarians. The new sanitarians did not participate in the STMB trainings and will therefore have to learn on the job under the guidance of the community organisers.
- Sumba Tengah is a relatively new district, established only some three years ago, and does not have a Pokja in place.

Jaya Wijaya district in Papua

- Starting up the programme in Papua is taking more time as the situation there is very different and more difficult in general and there is almost no experience with implementing sanitation programmes.
- A district Pokja in place but it is not functioning well at present. CDB is lobbying with District authorities to reactive the Pokja.
- In the third week of April a training on sanitation will be conducted for village cadres. This is a more general type of training than the STBM training. The purpose of the training is to introduce the concepts of sanitation, hygiene and health and will therefore cover a larger range of tropical diseases.
- The first STBM training for sub-district level sanitarians as well as for village chiefs and village cadres is tentatively scheduled for June 2011.
- The CDB team in Jaya Wijaya consists of one area manager, one finance officer, one information and communication officer, three community organisers and one sanitarian. CDB is considering recruiting three additional sanitarians of which one will be responsible for drinking water interventions.

Annex 2.3: Update of state of affairs – Plan Indonesia

Monday 11 and Tuesday 12 April 2011

Met with: Sabaruddin, SHAW Project Manager for Soe and Kefa districts (only on Tuesday 12 April as he was attending a training in Soe on Monday 11 April) and Simon Heintje Tulado, M&E Officer for Soe and Kefa districts. Furthermore, the following field staff of Kefa district: Franciscus Bou, Team Leader, Mexy Nenobais, Team Leader, Franciskus Oematan, Sub-district Coordinator, and Alex Sadipun, Interpreter

Activities undertaken to date as provided by Simon Heintje Tulado

- District level Pokja AMPL teams were set up in Kefa and Soe in January 2010.
- Baseline data was collected during September and October 2010.
- Memorandum of Understanding was signed with the district authorities on 13 October 2010.
- STBM road show was conducted in Kupang on 19 October
- Field visit for Pokja AMPL teams to Plan Indonesia CLTS programme in Flores in October 2010
- STBM sub-district teams were established in October 2010
- STBM roadmaps at district level were held in November 2010

Scope of overall SHAW programme activities:

- Timor Tengah Utara (Kefa): 24 sub-districts; 124 villages. A national programme, focusing on STBM pillar 1 and 3, is being implemented in 51 villages.
- Timor Tengah Selatan (Soe): 32 sub-districts; 186 villages. ACF is implementing a water and sanitation programme in 6 villages.

The STBM approach is being piloted in a limited number of villages at present. Scaling up of programme activities is expected to start as early as the end of May 2011. Scope of the pilot activities:

- Timor Tengah Utara (Kefa): 4 sub-districts; 26 villages; 59 sub-villages.
- Timor Tengah Selatan (Soe): 3 sub-districts; 20 villages; and unknown number of sub-villages.

Activities in Timor Tengah Utara (North-Central Timor)

- Monitoring and evaluation training was organised for the four pilot sub-district STBM teams[11] of Kefa district in December 2010
- STBM road show on sub-district level was organised in February 2011
- Village volunteers were selected in February 2011
- CLTS training for sub-district STBM teams and village volunteers of 26 pilot villages was conducted by Ministry of Health (MoH) trainers in February 2011. As part of the training, triggering was practiced in three sub-villages.
- Triggering in the 26 pilot villages in Kefa district commenced on 15 March and lasted till 5 April 2011. Actual triggering was carried out by the trained village volunteers with support and guidance from Plan field staff (sub-district coordinators).
- Training on STBM pillars 2 through 5 for Plan staff and sub-district STBM teams was conducted by MoH trainers in March 2011.
- Monitoring of triggered villages has commenced with promising early results.

[11] Sub-district STBM teams consist of the Head of the Department of Health, one sanitarian, one representative of the Department of Education, and representatives of the District Office.

Obstacles to speedy programme implementation as observed by Plan programme staff:

- Topography: some villages are difficult to reach due to difficult terrain compounded by the ongoing rainy season.
- Resources: limited number of field staff to work in large areas requires more coordination and cooperation with other actors. Plan's SHAW programme staffing overview is provided in the table below.
- Behaviour change: changing behaviour and unhealthy practices is difficult and will take time.
- Sanitation uptake: there is little interest to invest in sanitation facilities. It has a hard time competing with other priorities (mobile telephones, television sets, motorbikes, graves, etc.).

Plan Indonesia SHAW Programme staff (34 pax)			
Programme Manager (Eka			
Project Manager (Sabaruddin)			
M&E Officer (Simon Heintje Tulado)			
Kefa district		**Soe district**	
Admin & Finance staff (2)		Admin & Finance staff (2)	
Team Leader (2)	Hygiene specialist (1)	Team Leader (2)	Hygiene specialist (1)
Sub-district coordinator (6)	Hygiene officer (4)	Sub-district coordinator (7)	Hygiene officer (4)

Annex 2.4: Update of state of affairs – Yayasan Rumsram

Thursday 14 to Saturday 16 April 2011

Met with: Ishak Matarihi, Director Rumsram and SHAW Programme Manager, Wirya Supriyadi, SHAW Programme Coordinator, Timothius Rumansara, STBM Team Leader, Yan F. Senga, Handwashing/Water Specialist, Nasaruddin, Field Officer, Esra Mandosir, Field Officer, and Yuyun Warbal, Hygiene Officer

General information about Rumsram

- Yayasan Rumsram was established in 1993 and they operate on a number of islands: Pulau Biak, Pulau Numfor and Pulau Aimando in Biak Numfor district and Pulau Supiori in Supiori district.
- The name Rumsram comes from the local word for traditional house. These Rumsram houses were places of traditional learning for adolescents by local elders.
- Rumsram's current vision "the realisation of institutionalised village communities with capable and autonomous human resources to manage their natural resources for eternity to achieve and sustain prosperity through partnership programme in 2012". A new strategy development process will start this year to come up with a new vision, mission and strategy for the coming years.
- Rumsram mission is to: 1) improve institutional capability and autonomy of both Rumsram and the communities; 2) manage potential natural resources; 3) perform studies and advocacy in natural resource management and village development policies: 4) cooperate with stakeholders; and 5) carry out fund raising activities.
- Rumsram's programme interventions focus on: 1) education and training; 2) community mobilisation and organisation; 3) study and advocacy; 4) networking, cooperation and information dissemination; and 5) fund raising.
- Rumsram receives funding from and cooperates with a wide range of development partners including ICCO, Simavi and Kerk in Actie from the Netherlands. Rumsram has been cooperating with Simavi since 2007. In the period 2008-2010, Rumsram, with Simavi funding, implemented a number of WATSAN activities in three villages focusing primarily on the provision of clean water facilities.

Introduction to SHAW programme as implemented by Rumsram

Facts and figures (obtained from SHAW Programme Inception Report of October 2010 and adjusted on the basis of discussions during the April 2011 mission)

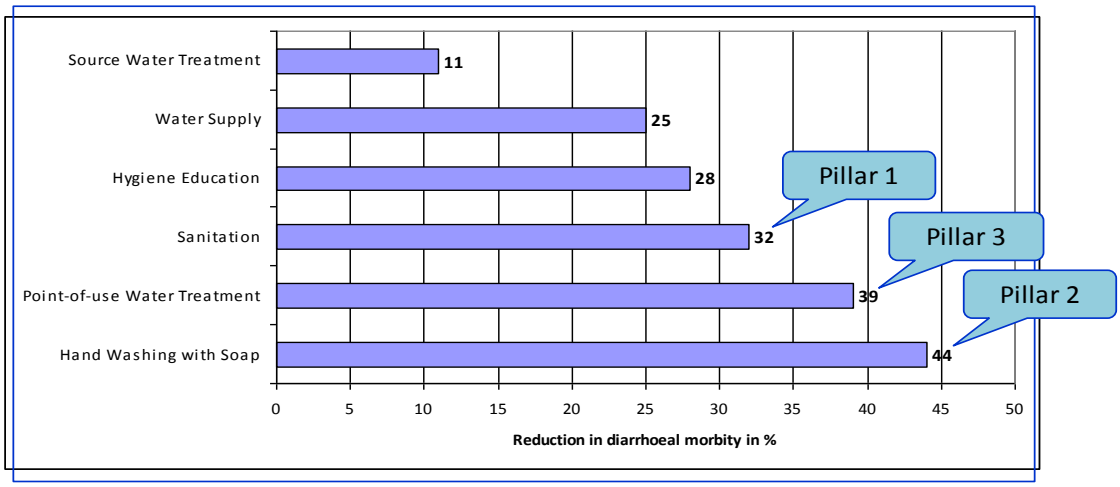
SHAW Programme intervention areas			**Totals**
▪ Province	Papua		
▪ Districts	Biak Numfor	Priori	**2**
▪ Total # of sub-districts	7	2	**9**
▪ Total # of villages	36	6	**42**
Current levels of latrine coverage	43%	?	
Planned # of HH with improved sanitation	4,286	714	**5,000**
Planned # of HH as % of total # of HH			**16%**
Planned # of HH with access to safe drinking water			**4,455**

- Initially Rumsram developed a project proposal to provide clean water facilities to a total of 13 villages as a continuation of the 2008-2010 WATSAN programme. This proposal was later adjusted to form part of the STBM oriented SHAW programme proposal. In its original form, Rumsram was expected to work in 24 villages but during 2010 this was revised to cover a total of 42 villages. This is equal to some 18% of the total number of villages in the two districts.
- SHAW programme target villages are spread out over 9 sub-districts on three islands. Strategic considerations like the creation of ODF sub-districts or ease of work (efficient programme operations by minimising travelling and optimising post-triggering follow up and monitoring visits) have not been used while selecting the villages. Rumsram selected the villages on the basis of discussions with the Pokja AMPL and made an attempt to synchronise the SHAW programme with other Rumsram activities supported by ICCO as well as with the UNICEF implemented STBM programme. In practice this means that villages were selected that did not receive support

from either the ICCO funded or UNICEF implemented programmes. After explaining the concept and benefits from creating ODF villages, ODF sub-districts and thereafter ODF districts, Rumsram explained that it is their intention to reach all villages in the targeted sub-districts.

- Rumsram targets it programme interventions on achieving STBM pillar 1 (stop OD) and additionally two out of the remaining four pillars. It is not clear how this will work in practice and in particular how the two additional pillars will be identified or selected. A quick presentation and discussion followed on the most relevant interventions to reduce the prevalence of diarrhoeal diseases. As the figure below shows, the three most relevant interventions relate to STBM pillars 1 through 3.

Figure: Reduction in diarrhoeal morbidity in percentage per invention type



Source: Global Handwashing Day, Planners Guide, Second Edition, 2009

- Rumsram's programme strategy focuses on: 1) introducing appropriate technologies; 2) training of community cadres; 3) training of school teachers; 4) involving other stakeholders (e.g. Pokja AMPL, private sector and local college).
- To implement the SHAW programme Rumsram will work on:
  1) Creating an enabling environment: road shows, advocacy, field visits, roadmaps and district planning
  2) Creating demand: triggering, hygiene promotion, school sanitation, ODF celebration and competition
  3) Strengthening supply: training on appropriate technologies for 5 pillars and training on sanitation marketing
  4) Knowledge management: best practices, documentation, archiving, sharing, exposure visits/studies
  5) Monitoring and evaluation: community evaluation, coordination, monitoring, recording and reporting
- The SHAW programme will be implemented in different stages. The first batch consists of 10 villages in Warsa sub-district and four villages in Biak Timor sub-district. Both sub-districts are located on the island of Biak. Work has commenced in eight villages in Warsa who expressed their interest to get involved in the SHAW programme. Rumsram is considering expanding the programme to include all the remaining villages of Warsa sub-district later this year.
- Programme targets include: 5000 households and 10 schools in 9 sub-districts (7 in Biak Numfor and 2 in Supiori) and 42 villages (36 in Biak Numfor and 6 in Supiori).

District	Sub-district	Total no of villages	SHAW target villages
Biak Numfor district	• Warsa	14	10
	• Bondifuar	4	3
	• Yawosi	6	4
	• Biak Timur	17	4
	• Swandiwe	12	6
	• Buyadori	6	6
	• Aimondo	11	3
Supiori district	• Supiori Timur	10	3
	• Aruri	10	3
SHAW interventions	*9 sub-districts*	*90 villages*	*42 villages*
Totals for both districts	24 sub-districts	228 villages	
SHAW areas as % of total	*38%*		*18%*

- The following figures shows which parties are involved in the implementation of the SHAW programme.

Source: Rumsram PPT on MONEV

Activities undertaken to date

- Recruitment and orientation of new programme staff: out of nine newly recruited staff four have already left for 'greener pastures'. A total of eight staff are involved in the SHAW programme.
- Training on STBM related appropriate technology for Rumsram staff, sanitarians and local artisans in November 2010. The four-day training was organized by Rumsram and UNICEF.
- Training on sanitation marketing for Rumsram staff in December 2010. The five-day training was organized by trainers from the East Java TSSM programme and UNICEF Papua.
- Field visits to Warsa sub-district in January 2011
- STBM training at district level for Rumsram staff, sanitarians, RESPEK staff, Pokja AMPL, sub-district office staff and village chiefs in January 2011. The seven-7 day training was conducted by trainers from the Ministry of Health. During this training a total of seven sub-villages in 2 villages (kampong) in Warsa sub-district were triggered: three sub-villages in Saway village and four sub-villages in Aman village.

  Village response to triggering was disappointing and as a consequence the training approach was adjusted: training is now conducted in the villages and in addition to the head of the village more village cadres are invited to participate in the training and triggering activities.

  The training costs have increased noticeably as a consequence of enlarging the group of participants. In January only the village chief and sub-village chiefs were invited (4 persons x 7 days x 50,000 rupiah = 1.4 million rupiah per village) whereas in March up to 12 participants per village were invited (12 x 4 days x 50,000 rupiah = 2.4 million rupiah per village). When evaluating the success factors to effective triggering the following was brought up by the Rumsram staff:
  - Number of village cadre participating in the training and triggering activities
  - Effective use of village leaders (political leaders, indigenous leaders, religious leaders, etc.)
  - Absence of internal conflicts
  - Homogeneity of community
  - Active role of women
- STBM road shows to Warsa Sub-district in Biak Numfor district in February 2011.
- STBM road shows at village level to raise awareness and interest to participate. Interested villages are expected to sign a Letter of Interest after which village level STBM trainings are conducted.
- STBM training for second batch of villages in March 2011. The four-day training was attended by village cadres of three villages. During the last day triggering was carried out in a total of seven sub-villages in three villages in Warsa sub-district: three sub-villages in Amoi village; 2 sub-villages in Komboi village; and two sub-villages in Yeruboi village.
- Till date a total of 14 sub-villages in five villages of Warsa sub-district have been triggered.
- The third batch of village level STBM training and triggering is planned for April or May 2011.

Annex 3.1: Update on monitoring framework – Yayasan Dian Desa

Work on monitoring system and tools with Christina Aristanti, Programme Coordinator and Erwan Kow, Programme Coordinator based in Maumere, Flores on Tuesday 05 and Wednesday 06 April 2011

Introduction

- YDD staff established a rough initial baseline during the inception phase by collecting secondary quantitative data at (sub) district level. The secondary data was enriched during stakeholder workshops where sub-district Department of Health staff and other partners verified and where necessary corrected and/or augmented the data.
- Primary baseline data – conform the monitoring framework – is being collected by trained village cadre at dusun or sub-village level. A household questionnaire has been developed for this purpose which will also be used for regular programme monitoring activities. Up to the end of March baseline data had been collected in some 42 sub-villages.
- At the time of my visit YDD was discussing how many households to include in the sample size. Although they had started to collect baseline data on the basis of a 100% sample, the amount of questionnaires so collected and the enormous task ahead of entering all this data in a database made them reconsider this initial ambition. They were considering reducing the sample size to 50% of all households with a maximum of 100 households per dusun. However, the exact size and the sampling criteria had not yet been defined.
- Given the limited human resources (see calculation in box below) it will be impossible to carry out data collection for the entire target population. Hence, a realistic sample size had to be determined where a part of the population is selected for data collection and analysis.

Consequences of 100% sampling size	
Interventions will eventually target a total of 471 sub-villages of Sikka and Flores Timor districts ■ Village cadres are responsible for household level data collection	
■ YDD field staff are responsible for collecting and checking questionnaires and for discussing progress with village cadres and sub-village and village authorities	
■ YDD field staff are responsible for data entry: • 471 sub-villages x an average of 100 questionnaires = 47100 questionnaires • 47100 questionnaires x 5 minutes per questionnaire = 2355000 minutes = 3925 hours • 3925 hours / 8 hours = 490 days	490 days
■ YDD programme coordinator operating in the districts is responsible for data entry checking, data analysis and reporting	

Outcome of discussions and work

Monitoring indicators

- Indicators are measurable or tangible signs that something has been done or that something has been achieved. Indicators are an essential part of a monitoring and evaluation system because they are what you measure and/or monitor and as such they provide the framework for a monitoring and evaluation system. They tell you what you want to know and the kind of data you will have to collect.
- YDD will focus its programme interventions on all five STBM pillars, namely: 1) stop open defecation; 2) hand washing with soap; 3) household water treatment and safe storage; 4) solid waste management; and 5) wastewater management. Consequently, the identified key monitoring indicators will have to provide information on all five pillars.
- YDD has developed a household questionnaire for programme monitoring as well as a household card for self-monitoring by the household. Both the questionnaire and the card include questions on sanitation and hygiene facilities as well as sanitation and hygiene practices or behaviours. The questionnaire consisting of 19 questions

was examined in detail and a number of modifications were made to ensure that relevant data will be collected to measure progress and results on the five STBM pillars. For example the following questions were added:

- A question that should provide insight who actually constructed the toilet, e.g. owner-built (toilets constructed by population) or private sector built (toilets constructed by private sector) in line with what is asked for in section 1.4 'STBM achievements' of the monthly reporting format.
- A general question about the wealth classification of the household (see also the paragraphs on sampling methodology and selection of sample units below). This information will help to understand the build up of the representative sample and will also allow generating income specific queries. For example is there a (noticeable) difference in sanitation uptake between households with a higher wealth status than those with a lower wealth status or is there a difference in the type of sanitation technology selected between households with different socio-economic characteristics.

Sampling design

- Target population: this is the entire population of all the target villages (dusun and desa) in the 21 sub-districts of Sikka, Nusa Tenggara Timur. To date 453 sub-villages out of a total of 556 sub-villages in Sikka district have expressed their interest to participate in the SHAW programme by signing a Letter of Intent and have been invited to attend the village level STBM training. Some sub-villages however did not attend the training. Sub-villages that did not show interest or that did not attend the first round of village level STBM training will be approached again at a later stage.
- Basic sampling unit: YDD has decided to use the family as the basic sampling unit for data collection for baseline and regular monitoring. There could be more than one family residing in one house. This issue is somewhat confusing as different units could be considered such as house, household or family. The Government of Indonesia is using the household as the basic sampling unit for data collection for the Population and Housing Census[12].

  A commonly used definition of household is: a *household comprises either one person living alone or a group of persons (not necessarily related) living at the same address with common housekeeping – that is, sharing at least one meal a day. People staying temporarily with the household are included.*

  Whereas a commonly used definition of family is: *a fundamental social group in society typically consisting of one or two parents and their children. A family group consisting of a father, mother and their children is called a nuclear family. This term can be contrasted with an extended family.*

  ➔ It is strongly advised to use the same basic sampling unit to ensure consistency with Government of Indonesia data records as well as to ensure consistency among the four partner NGOs.

Government of Indonesia definition of household and household member

The GoI[13] has classified **household** into two types, namely:

3. **Ordinary Household** (Rumah Tangga Biasa) is a person or a group of people living in a physical/census building or part thereof who make common provision for food and other essentials of living. There are various forms of ordinary households, among them:
   - a person who lives with his wife and children;
   - a person who rents a room or part of a census building and arranges his own food;
   - a family living separately in two census buildings, but eating from the one kitchen, provided the two census buildings in question are still in the one segment;
   - a household which provides lodgings with food (rented room and board) where the boarders are less than ten (10) people;
   - a manager of a dormitory or hostel, orphanage, correctional institution or the like, who lives alone or with his wife, children or other members of his household, and who all eat from the one kitchen which is separated from the institution which he manages;
   - each person who is part of a group, which together rents a room or part of a census building, but which arranges its food individually.

[12] The 2000 Population Census was based on Law 16/1997 regarding Statistics, Government Regulation 51/1999 regarding the Implementation of Statistics, and other Ministerial Decrees.

[13] http://dds.bps.go.id/eng/aboutus.php?glos=1&ist=1&var=H&cari=&kl=2

4. **Special Household** (Rumah Tangga Khusus) is a group of people living in a dormitory, military barrack, orphanage, prison, detention centre, where food provision is made by the institution organisation, and other groups of people living in a boarding house and numbering ten (10) or more and not covered by the national census.

The GoI[14] has defined **household member** as follows: household members are those who usually live in a particular household regardless of their location at the time of enumeration. A person is no longer regarded as a member of his former household if he has been absent from home for six months or longer, or he has left home for the purpose of moving away even when the six-month limit has not been reached. On the other hand, a guest who has stayed for six months or more, or even for less than six months but intended to move in, is recorded as a household member.

- Sampling methodology: the sample needs to be representative of the target population so that the information derived from the sample is expected to be the same had a complete census of the target population been carried out. The stratified sampling method will have to be used as this method allows monitoring to focus on particular population segments that share at least one common characteristic. When considering the different characteristics of the target villages (etc. socio-economic status, religion, occupation, access to safe drinking water and basic sanitation) it was concluded that except for the socio-economic status the villages are expected to be rather homogenous.

  Hence, the socio-economic status of the households will be used by classifying the population of the sub-villages into three economic categories, using culturally appropriate terms for better-off, poor and in-between. The resulting classification will be used to monitor access to toilets and sanitation and hygiene behaviour for the three different socio-economic levels. This will allow for comparison between different socio-economic groups (e.g. is sanitation uptake more likely to occur among high income groups than among groups classified as poor), as well as providing insight on behaviours of the total population.

  The stratified sampling method requires insight in the wealth classification of a village. YDD will have to develop this insight as this information is not readily available. The first activity village cadres undertake after attending the one-day training is to develop a village map at dusun level. A village map is a great tool that can be used to classify income levels or wealth labels to the different houses. This wealth classification exercise will have to be carried out prior to the actual baseline survey.

- Sample size: it was decided to take a sample size of 25% of the total number of houses in a sub-village with an absolute maximum of 100 houses per sub-village as a larger sample would be impossible to execute at regular intervals. Insufficient information is available to calculate the confidence intervals.

- Selection of survey clusters: to be able to monitor progress on the STBM pillars, which requires structured observations of sanitation and hygiene practices and behaviour at family or household level, data collection will take place at sub-village level. Data collection for the baseline and regular monitoring will be carried out in all target sub-villages, all target villages, all target sub-districts within the selected intervention district.

- Selection of sampling units: within the target sub-villages individual houses will have to be selected by the YDD field staff in consultation with trained village cadres (and village leaders). This is to be done on the basis of the socio-economic status of the houses as indicated on the village maps. As a consequence no random sampling techniques can be used to identify the houses to be included in the sample.

Example

A certain village consists of a total of 60 houses. The welfare classification exercise reveals that 8 houses are considered to belong to the HIGH welfare group, 12 houses belong to the MEDIUM welfare group, and 40 houses are considered as POOR.

The sample size is determined as 25% of the total number of households. This means that the following number of houses need to be included in the sample:

- High: 8 houses / 4 = 2 houses
- Medium: 12 houses / 4 = 3 houses
- Poor: 40 houses / 4 = 10 houses
- Total number of houses to be included in the sample = 15 (60 houses / 4)

[14] http://dds.bps.go.id/eng/aboutus.php?glos=1&ist=1&var=H&cari=&kl=1

Other characteristics that should be considered when selecting the individual houses that are to be included in the monitoring sample are for example:

- Religion
- Ethnicity (different ethnic groups)
- Household size and household composition
- Access to drinking water
- Access to sanitation

While selecting the individual houses on the basis of the village map try to avoid some kind of bias towards one or another group. The more representative the sample the better. This means that an effort must be made to avoid excluding any relevant characteristics. Some believe that houses that already have a toilet can be excluded from the monitoring sample as the SHAW programme focuses on those that do not have a toilet. However, as the 25% sample needs to be a representative sample of the whole village, houses that do have a toilet should also be included, however, proportionally to the total number of houses with toilets in the village.

- Selection of interviewee within the house: this has not yet been specifically defined but it is expected to be an adult female (e.g. mother, caretaker of infant or small child) as this person is likely to know more about sanitation and hygiene practices and behaviour within the household or family.

Survey methodology

- Data sources: although secondary data has been used during the start-up phase to establish the initial baselines, primary data will be collected for establishing the baseline as well as for regular monitoring. YDD has developed one questionnaire to collect data in the sub-villages.
- Data collection techniques: different collection techniques are expected to be used:
  - Village maps: village social maps or village sanitation maps will be used to establish the total number of households in a sub-village as well as to carry out the welfare classification exercise.
  - Household questionnaires: these will be used to collect data from a selected sample of houses. Baseline data will be collected prior to the demand creation triggering activities. Data collection for regular monitoring purposes will take place on a quarterly basis.
  - Household progress monitoring cards: YDD is so far the only partner NGO who has developed household cards (posters) for self-monitoring. Self-monitoring at household level has proven to be an effective instrument and therefore it will be interesting to observe whether this is the same for the programme in Sikka district.
  - ODF verification: as the monitoring system is based on a 25% sample, ODF verification by an independent team should be used to determine whether ODF status has been achieved at household and community level.
- Monitoring tools: a detailed data collection questionnaire for households has been developed that should facilitate easy, complete and consistent data collection. The questionnaire was discussed in the previous section.
- Roles and responsibilities: the persons directly involved in data collection and processing are given below.

Who	Tasks
Trained village cadre	• Update household cards during regular follow up • Collect data at selected houses on a quarterly basis with the use of questionnaires
YDD field staff and sub-district STBM teams	• Training of village cadres as well as continued guiding and coaching • Collect questionnaires from village cadres • Check all questionnaires for completeness and a number of questionnaires through random sampling for correctness • Check a number of household cards through random sampling for correctness during regular post triggering follow up visits
YDD field staff	• Enter all data in a computerised database • Carry out initial data entry checks

Who	Tasks
YDD Programme Coordinator in Sikka	• Check the data entries • Analyse the data • Report findings

YDD has developed a detailed monitoring guideline – consisting of 20 pages – that is to be used by the village cadre and STBM teams to guarantee consistent application of the methodology and tools. The monitoring guideline explains the questionnaire and provides examples of how the questionnaire is to be completed. It also provides pictorials (e.g. different types of toilets, different household water treatment options) to ensure the correct interpretation of the questions. Finally the guideline explains how the household monitoring card is to be updated.

- Involvement of all relevant stakeholders: at this moment it is not yet clear how the sub-district and district authorities will be involved in programme monitoring. The YDD programme coordinator in Sikka is expected to sort this out. However, considering the roles and responsibilities defined in the table above, one could easily get the impression that their role will be rather limited. This is something that needs to get the attention of the programme management team as there are substantial benefits from genuine and effective stakeholder involvement.

  The availability of sub-district sanitarians and health promoters appears to be limited to a maximum of one day per week. YDD intends to involve them as much as possible in triggering activities. However, they have not yet developed a well defined plan on how to involve them in post triggering support visits. It may be wise to define critical moments when they need to be involved.

  Experience in similar programmes has shown that stakeholder involvement in monitoring programme progress and achievements is the key to achieving enhanced ownership by the relevant local authorities and sustained programme results, for example:
  - Village leaders and village facilitators (cadres): active involvement at village level through community-based monitoring mechanisms (e.g. monitoring of and reporting on household cards);
  - Sub-district health staff: active involvement in organising ongoing monitoring, and for tabulating and analysing field data;
  - Sub-district authorities: responsible for analysing data and upward reporting;
  - District authorities: responsible for analysing data and upward reporting;
  - Programme staff: organising and managing, facilitating, capacity building of sub-district authorities and health staff, overall responsible.

Data handling, analysis and reporting

- YDD is in the process of developing a computerised database for tabulating and analysing the quantitative data collected by the village cadres. A start has been made by developing data entry tables in Microsoft Access. This requires more attention and it was suggested to secure the assistance of an expert database developer. Some of the issues that were covered during the discussions are:
  - Reduce incorrect data entries by perfecting the database entry tables. For example the system should alert for combinations of incorrect entries and/or make it impossible to make entries where certain questions are to be skipped (e.g. question 4 and question 5).
  - Explore the possibilities of merging different data sets as data was entered in four separate Access databases. Reacting on the first draft of this report, Erwan Kow explained that it will be rather easy to merge the different data sets through 'copy and paste' to a master database.
  - Assign some sort of coding system to the sampling units to allow for analysis and reporting at different levels. The system should be able to generate reports that provide easy-to-use overviews per sub-village, per village, per sub-district and per district so that the monitoring data can be used to monitor and discuss progress at these different levels.

  A uniform coding system needs to be developed and as far as possible this system should be based on the coding system used by the Government of Indonesia. However, as this information was not available at the time of the visit this will require immediate follow up by the partner NGOs.

- At the time of the mission YDD had entered baseline data from two sub-villages – out of a total of 42 sub-villages in which baseline data was collected – in the Access database. As a consequence of insufficient computer software skills, data was being exported to Microsoft Excel for sorting and tabulating purposes. The initial data entries should be used to further develop the database (e.g. making queries and generating reports and tables).

  In a reaction to the draft report Erwan Kow provided the following update. *Later I found out that it is more stable and simpler to clean up and sort the data in Microsoft Access. Only use different kinds of filtering functions available. The cleaning up is done as follows:*

  1. *Check of hardcopy questionnaires, using systematic sampling, one for every 5th questionnaire. Look for common patterns of possible mistakes and follow up on systematic errors that occurred through excluding such data sets.*
  2. *Cleaning up is using the filtering function, i.e. filtering criteria are set, to cross check answers of related questions, to check for their consistencies and eliminate data or data sets that are inconsistent, for example:*
     a. *Question #4 on the ownership of toilet as it relate to Question #5 on the type of toilet*
     b. *Q # 3 on number and age groups of household members as it relate to Q # 7 on defecating behaviour of HH members, and Q # 11 which is on the hand washing behaviour of HH members.*

  Sorting is just using the filtering functions of Microsoft Access. I will continue to use Microsoft Excel for the final tabulation and making of graphs.

- Reporting responsibilities: overall responsibility for reporting towards the donor lies with Anton Soedjarwo. Christina Aristanti and Erwan Kow will be responsible for reporting on component A, whereas Anton Soedjarwo and Edo Soedjarwo will be responsible for reporting on component B.

- More to come later....

Annex 3.2: Update on monitoring framework – CD Bethesda

Work on monitoring system and tools with Christa Dewi, M&E Officer on Thursday 07 and Friday 08 April 2011

Introduction

- CDB staff collected basic data in 17 villages during October and November 2010. Data collection focused on the number of households, number of latrines, etc. The data is still to be processes and analysed. The data was not available in Yogyakarta at the time of the mission.
- The collection of baseline data conform the monitoring framework will be carried out immediately after the demand creation triggering activities. A household questionnaire has been developed to be used for collecting baseline data as well as for regular monitoring activities.
- At the time of my visit it was not yet clear how many households were to be included in the sample size. Although the area manager of Sumba was considering a sample size of 25% of the total number of households, the exact size and the sampling criteria had not yet been defined.
- Given the limited human resources (see calculation in box below) it will be impossible to carry out data collection for the entire target population. Hence, a realistic sample will have to be determined where a part of the population is selected for data collection and analysis.

Consequences of 100% sampling size	
Work will initially start in 20 villages (consisting on average of 3 dusuns) of Sumba Tengah district ■ Village cadres are responsible for household level data collection: • 20 villages x 3 sub-villages = 60 dusun • 60 dusun x average of 50 houses = 3000 houses = 3000 questionnaires • 1 village cadre is responsible for one dusun = 50 questionnaires • 1 questionnaire is 18 questions taking roughly 15 minutes per questionnaire • 50 questionnaires x 15 minutes = 750 minutes = 12.5 hours • 2-3 days per dusun x 60 dusun = 120-180 days	120-180 days
■ CDB field staff are responsible for collecting and checking questionnaires and for discussing progress with village cadres and sub-village and village authorities • 1 day per dusun x 60 dusun = 60 days	60 days
■ CDB office staff are responsible for data entry: • 3000 questionnaires x 3 minutes per questionnaire = 9000 minutes = 150 hours • 150 hours / 7 hours = ~20 days	20 days
■ CDB area manager is responsible for data entry checking, data analysis and reporting: • Data entry checking: ~30 entries per questionnaire x 3000 questionnaires = 90,000 entries; even on a sampling base this is likely to take a minimum of 2 days • Data analysis: depending on the quality of the data base this is likely to take a minimum of 2 days • Preparing reports: depending on the number of reports (e.g. individual reports per dusun, desa, sub-district, district) this is likely to take a minimum of 2 days	6 days
Total number of days required each quarter[15]	**206 – 266 days**

[15] This is the total number of days required to monitor progress in the first batch of 20 villages. This will increase more or less proportionally when additional target villages are included over time. The total number of villages in Sumba Tengah is 43, and the total number of villages in Sumba Barat is 45!

Outcome of discussions and work

Monitoring indicators

- Indicators are measurable or tangible signs that something has been done or that something has been achieved. Indicators are an essential part of a monitoring and evaluation system because they are what you measure and/or monitor and as such they provide the framework for a monitoring and evaluation system. They tell you what you want to know and the kind of data you will have to collect.
- CDB will focus its programme interventions on the first three STBM pillars, namely: 1) stop open defecation; 2) handwashing with soap; and 3) household water treatment and safe storage. Consequently, the identified key monitoring indicators will only provide information on these three pillars.
- CDB developed a household monitoring questionnaire as well as a primary school monitoring questionnaire. Both questionnaires include questions on sanitation and hygiene facilities as well as sanitation and hygiene practices or behaviours.
- The two questionnaires were examined in detail and modifications were made to ensure that relevant data will be collected to measure progress and results on the three STBM pillars and to make the task of data entry and data analysis easier. Two examples to illustrate some of the modifications:
  - The original household questionnaire included nine partly open questions that would have made data analysis rather complicated and cumbersome. We decided to simplify the questionnaires. Interviewers are now only allowed to choose among a limited range of predefined options instead of expecting them to write down additional options. This will need to be monitored closely and if it is discovered that the range of options is insufficient than it might be necessary to increase the range.
  - The questionnaires will be used to collect data for both the baseline and for regular monitoring. As the amount of data was too detailed for regular monitoring, the frequency of data collection for a number of questions has been adjusted.
- A summary of the modifications is provided in the following box.

Household data collection questionnaire		School data collection questionnaire	
Original	**Modified**	**Original**	**Modified**
• Total of 18 questions • 9 partly open questions • All 18 Qs are to be completed every time	• Total of 23 questions • No open questions • 10 Qs are to be completed every time, 13 Qs less frequent • Welfare classification included • More practical layout	• Total of 8 questions • No open questions • Except for school name no additional info	• Total of 7 questions • No open questions • Additional info to identify the school • More practical and consistent layout

- CDB will share the two questionnaires with Martin Keijzer, SHAW Programme Coordinator, prior to taking them to the printer and before commencing data collection activities in the field.

Sampling design

- Target population: this is the entire population of all the target villages (dusun and desa) in the selected sub-districts.
- Basic sampling unit: CDB has decided to use the house as the basic sampling unit for data collection for baseline and regular monitoring. There could be more than one family residing in one house. This issue is somewhat confusing as different units could be considered such as house, household or family.
- Sampling methodology: the sample needs to be representative of the target population so that the information derived from the sample is expected to be the same had a complete census of the target population been carried out. The stratified sampling method will have to be used as this method allows monitoring to focus on particular population segments that share at least one common characteristic. When considering the different characteristics of the target villages (etc. socio-economic status, religion, occupation, access to safe drinking water and basic sanitation) it was concluded that except for the socio-economic status the villages are expected to be rather homogenous.

  Hence, the socio-economic status of the houses will be used by classifying the population of the sub-villages into three economic categories, using culturally appropriate terms for better-off, poor and in-between. The resulting

classification will be used to monitor access to toilets and sanitation and hygiene behaviour for the three different socio-economic levels. This will allow for comparison between different socio-economic groups (e.g. is sanitation uptake more likely to occur among high income groups than among groups classified as poor), as well as providing insight on behaviours of the total population.

The stratified sampling method requires insight in the wealth classification of a village. CDB will have to develop this insight as this information is not readily available. A village mapping exercise is a useful tool that can be used to classify income levels or wealth labels to the different houses. This will have to be carried out prior to the actual baseline survey.

- Sample size: a sample size of 25% of the total number of houses in a sub-village has been taken as a larger sample will not be possible to execute at regular intervals. The confidence interval calculated for this sample is shown in the box below.

Confidence intervals for selected sample size	Calculated confidence intervals
▪ Average sized sub-village or dusun	15.3
▪ Average sized village or desa	8.8
▪ Average sized sub-district or kecamatan	4.7

The confidence interval (also called margin of error) is the plus or minus figure usually reported in newspaper or television opinion poll results. For example, if you use a confidence interval of 4 and 50% of your sample picks an answer, you can be "sure" that if you had asked the question of the entire relevant population between 46% (50-4) and 54% (50+4) would picked that answer. For the calculation of the above confidence intervals a confidence level of 95% was used. The confidence level tells you how sure you can be. It is expressed as a percentage and represents how often the true percentage of the population, who would pick an answer, lies within the confidence interval. The 95% confidence level means that you can be 95% certain. When you put the confidence level and confidence interval together, you can say that you are 95% sure that the true percentage of the population who picks an answer is between 46% and 54%.

- Selection of survey clusters: to be able to monitor progress on the STBM pillars, which requires structured observations of sanitation and hygiene practices and behaviour at family or household level, data collection will have to take place at sub-village level. Data collection for the baseline and regular monitoring will be carried out in all target sub-villages, all target villages, all target sub-districts within the selected intervention district.
- Selection of sampling units: within the target sub-villages individual houses will have to be selected by the CDB field staff in consultation with trained village cadres (and village leaders). This is to be done on the basis of the socio-economic status of the houses as indicated on the village maps. As a consequence no random sampling techniques can be used to identify the houses to be included in the sample.

Example

A certain village consists of a total of 60 houses. The welfare classification exercise reveals that 8 houses are considered to belong to the HIGH welfare group, 12 houses belong to the MEDIUM welfare group, and 40 houses are considered as POOR.

The sample size is determined as 25% of the total number of households. This means that the following number of houses need to be included in the sample:

- High: 8 houses / 4 = 2 houses
- Medium: 12 houses / 4 = 3 houses
- Poor: 40 houses / 4 = 10 houses
- Total number of houses to be included in the sample = 15 (60 houses / 4)

Other characteristics that should be considered when selecting the individual houses that are to be included in the monitoring sample are for example:

- Religion
- Ethnicity (different ethnic groups)
- Household size and household composition
- Access to drinking water
- Access to sanitation

While selecting the individual houses on the basis of the village map try to avoid some kind of bias towards one or another group. The more representative the sample the better. This means that an effort must be made to avoid excluding any relevant characteristics. Some believe that houses that already have a toilet can be excluded from the monitoring sample as the SHAW programme focuses on those that do not have a toilet. However, as the 25% sample needs to be a representative sample of the whole village, houses that do have a toilet should also be included, however, proportionally to the total number of houses with toilets in the village.

- Selection of interviewee within the house: this has not yet been specifically defined but it is expected to be an adult female (e.g. mother, caretaker of infant or small child) as this person is likely to know more about sanitation and hygiene practices and behaviour within the household or family.

Survey methodology

- Data sources: although secondary data has been used during the start-up phase to establish the initial baselines, primary data will be collected for establishing the baseline as well as for regular monitoring. Two separate questionnaires have been developed to collect data in the communities and at the primary schools.
- Data collection techniques: different collection techniques are expected to be used:
  - Village maps: village social maps or village sanitation maps will be used to establish the total number of households in a sub-village as well as to carry out the welfare classification exercise.
  - Household questionnaires: these will be used to collect data from a selected sample of houses. Baseline data will be collected prior to the demand creation triggering activities. Data collection for regular monitoring purposes will take place on a quarterly basis.
  - Household progress monitoring cards: CDB has not yet decided whether to use household cards for self-monitoring. An alternative that was suggested was to use coloured household stickers instead as this is something Plan is apparently considering. Stickers in different colours could be used to indicate the progress a household or family is making towards achieving the STBM pillars. For example red, yellow and green could be used to indicate different levels of achievement. Self-monitoring at household level is an effective instrument, hence, some sort of household level monitoring system needs to be put in place.
    In an email dated 27 April 2011, Christa Dewi wrote the following: *"Yesterday we had a meeting to discuss about this monitoring tool. About the monitoring at house level, we agreed that we would use sticker just like we discussed last time."*
  - ODF verification: as the monitoring system is based on a 25% sample, ODF verification by an independent team should be used to determine whether ODF status has been achieved at household and community level. This is rather important given the rather high confidence level calculated before which is a direct consequence of the 25% sampling size when applied in small villages.
- Monitoring tools: two different data collection questionnaires – one for households and one for primary schools – have been developed that should facilitate easy, complete and consistent data collection. These questionnaires have been discussed in the previous section.
- Roles and responsibilities: the persons directly involved in data collection and processing are given below.

Who	Tasks
Trained village cadre	• Collect data at selected houses on a quarterly basis with the use of questionnaires
CDB field staff (Community Organisers/Sanitarians)	• Training of village cadres as well as continued guiding and coaching • Collect questionnaires from village cadres • Check all questionnaires for completeness and a number of questionnaires through random sampling for correctness • Return questionnaires to village cadres after data entry
CDB office staff (Information & Communication Officer)	• Enter all data in a computerised database • Carry out initial data entry checks
Area Manager in Sumba	• Check the data entries • Analyse the data • Report findings

Who	Tasks
CDB Monitoring & Evaluation Officer in Yogyakarta	• Evaluate progress towards achieving the programme goals once per year

So far no monitoring guideline, which outlines the survey methodology, has been developed to guarantee consistent application of the methodology and tools. The guideline developed by YDD could be used as an example to develop a similar tool.

- Involvement of all relevant stakeholders: at this moment it is not yet clear how the sub-district and district authorities will be involved in programme monitoring. The CDB Area Manager is expected to sort this out. However, considering the roles and responsibilities defined in the table above, one could easily get the impression that their role will be rather limited. This is something that needs to get the attention of the programme management team as there are substantial benefits from genuine and effective stakeholder involvement.

  Experience in similar programmes has shown that stakeholder involvement in monitoring programme progress and achievements is the key to achieving enhanced ownership by the relevant local authorities and sustained programme results, for example:
  - Village leaders and village facilitators (cadres): active involvement at village level through community-based monitoring mechanisms (e.g. monitoring of and reporting on household cards);
  - Sub-district health staff: active involvement in organising ongoing monitoring, and for tabulating and analysing field data;
  - Sub-district authorities: responsible for analysing data and upward reporting;
  - District authorities: responsible for analysing data and upward reporting;
  - Programme staff: organising and managing, facilitating, capacity building of sub-district authorities and health staff, overall responsible.

Data handling, analysis and reporting

- CDB is in the process of developing a computerised database for tabulating and analysing the quantitative data collected by the village cadres. An initial start has been made by developing simple data entry tables in SPSS. This requires more attention and it was suggested to secure the assistance of an expert database developer. One of the issues that came up was the need to assign some sort of coding system to the sampling units to allow for analysis and reporting at different levels. The system should be able to generate reports that provide easy-to-use overviews per sub-village, per village, per sub-district and per district so that the monitoring data can be used to monitor and discuss progress at these different levels.

  A uniform coding system needs to be developed and as far as possible this system should be based on the coding system used by the Government of Indonesia. However, as this information was not available at the time of the visit this will require immediate follow up by the partner NGOs.

- More to come later....

Annex 3.3: Update on monitoring framework – Plan Indonesia

Work on monitoring system and tools with Simon Heintje Tulado, M&E Officer for Soe and Kefa districts on Monday 11 April. On Tuesday 12 April Sapaen village in Biboki Utara sub-district was visited with Simon Heintje Tulado, Franciscus Bou and Mexy Nenobais, Team Leaders Kefa district, Franciskus Oematan, Sub-district Coordinator and Alex Sadipun, Interpreter

Introduction

- Plan staff, supported by sub-district staff, collected secondary baseline data during September and October 2010. Primary data collection – to establish reliable village-level baselines – has not been carried out in the target villages except for data related to STBM pillar 1.
  - ➔ Plan needs to start collecting primary baseline data covering all five pillars in all the villages that are to be targeted from now onwards. The household card/questionnaire should be used for that purpose and baseline data should be collected prior to CLTS triggering or demand creation activities.
- Regular data conform the monitoring framework is being collected in the villages that were triggered during March 2011. Data will be collected on a monthly basis by trained village volunteers and sub-village cadres. A household card/questionnaire has been developed for collecting monitoring data.
- Data will be collected from all households constituting a sample size of 100%.
- The villages are responsible for primary data collection at household level, the compilation of household cards in sub-village monitoring forms and thereafter the compilation of sub-village monitoring forms in village monitoring forms. These village monitoring forms only provide a summary of aggregated data per sub-village. Data entry in an automated database in the form of village totals is only foreseen at the sub-district level. As a result data entry is limited to the bare minimum.
  - ➔ Plan needs to reconsider their plans with regards to what data is to be entered in an automated database. To allow for monitoring at sub-village level, the minimum level of data entry should be established as the village. By entering the data as captured in the village monitoring forms, STBM achievements per sub-village (e.g. ODF status of individual dusuns) can be monitored relatively easy with the use of the database.
- Although there are a number of problems with the existing monitoring system, which will be discussed in the following section, there are a number of advantages of Plan's monitoring framework, namely:
  - The monitoring framework is simple and straightforward. It can therefore be used for STBM programmes that are to be implemented at scale (full district coverage).
  - The participating villages are responsible for primary data collection and processing. This makes them responsible for village level programme activities and puts them in the driver seat. Combined with the fact that triggering is also done by village volunteers, villages are encouraged to take control of their own development.

Outcome of discussions and work

Monitoring indicators

- Indicators are measurable or tangible signs that something has been done or that something has been achieved. Indicators are an essential part of a monitoring and evaluation system because they are what you measure and/or monitor and as such they provide the framework for a monitoring and evaluation system. They tell you what you want to know and the kind of data you will have to collect.
- Plan will focus its programme interventions on all five STBM pillars, namely: 1) stop open defecation; 2) hand washing with soap; 3) household water treatment and safe storage; 4) solid waste management; and 5) wastewater management. The monitoring indicators should therefore provide information on all pillars.
- Plan has developed a simple household monitoring card/questionnaire that covers all five STBM pillars. The household card includes questions on sanitation and hygiene facilities as well as sanitation and hygiene practices or behaviours. The household card/questionnaire consisting of just ten questions is used to collect primary data at the household level. The card is kept by the village cadre and not by the individual households for self-monitoring purposes!
- The household card was examined in detail and modifications were discussed to ensure that relevant data will be collected to measure progress and results on the five STBM pillars and to make the task of data entry and data analysis easier. Due to time limitations it was decided that Erick Baetings would have another critical look at the

household card/questionnaire and provide detailed suggestions for improvements to Plan Indonesia. An improved version of the household card – in line with similar detailed discussions and work carried out during the visit to Yayasan Rumsram in Biak – will be shared with Plan for consideration. Some suggested modifications:

- Simple modifications to the layout of the household card to facilitate easy and correct recording of household data.
- Simple modification to allow the same household card also to be used for baseline data collection.

Sampling design

- Target population: this is the entire population of all the target villages (dusun and desa) in the selected sub-districts.
- Basic sampling unit: Plan has decided to use the house as the basic sampling unit for data collection for regular monitoring. This issue is somewhat confusing as different units could be considered such as house, household or family. Plan defines a household as a small group of people consisting of a father, mother and a number of children similar to the definition of a nucleus family. However, they foresee circumstances that the household could be expanded with for example a grandfather or grandmother and even married brothers with their families. Therefore there could be more than one family residing in one house, and there could also be more than one toilet at the same house being used by different families. When there is more than one toilet at one and the same house, than household cards will be issued for each toilet. For example one house with two families but only one toilet requires one household card, whereas one house with two families and two toilets requires two household cards.
  - ➔ It is strongly advised to use the same basic sampling unit to ensure consistency with Government of Indonesia data records as well as to ensure consistency among the four partner NGOs.
- Sampling methodology: Plan has decided to include all the households of every sub-village in the sample. This is similar to a complete census where data is collected on the entire target population. In other words, the sample size is equal to the total number of households in the selected villages. As a consequence there is no need to define a sampling methodology.
- Sample size: a sample size of 100% of the total number of houses in a sub-village has been taken. This large sample is easily manageable as the number of data entries is kept to a bare minimum.
- Selection of survey clusters: to be able to monitor progress on the STBM pillars, which requires structured observations of sanitation and hygiene practices and behaviour at family or household level, data collection will have to take place at sub-village level. Data collection for the baseline and regular monitoring will have to be carried out in all target sub-villages, all target villages, all target sub-districts within the selected intervention district.
- Selection of sampling units: within the target sub-villages all households will have to be included in the data collection exercise.
- Selection of interviewee within the house: this has not been specifically defined but it is expected to be an adult female (e.g. mother, caretaker of infant or small child) as this person is likely to know more about sanitation and hygiene practices and behaviour within the household or family.

Survey methodology

- Data sources: although secondary data has been used during the start-up phase to establish the initial baselines, primary data will have to be collected for establishing the baseline as well as for regular monitoring purposes. One household card/questionnaire has been developed to collect data in the communities.
- Data collection techniques: different collection techniques are expected to be used:
  - Village maps: village social maps or village sanitation maps will be drawn up during triggering to establish the total number of households in a sub-village as well as additional information regarding existing sanitation practices.
  - Household questionnaires: these will be used to collect data from all households. Baseline data is to be collected prior to the demand creation triggering activities. Data collection for regular monitoring purposes will take place on a monthly basis.
  - Household progress monitoring cards: Plan has no intention to use household cards for self-monitoring by the individual households. However, Plan is considering using coloured household stickers instead. Stickers in different colours could be used to indicate the progress a household or family is making towards achieving the STBM pillars. For example red, yellow and green could be used to indicate different levels of

achievement. Self-monitoring at household level is an effective instrument, hence, some sort of household level monitoring system needs to be put in place.

- ODF verification: ODF verification by an independent team should be used to determine whether ODF status has been achieved at household and community level. ODF verification is a powerful tool to check completeness and reliability of self-monitoring by the village authorities. Although no specific ODF verification strategy has been devised yet, Plan is considering to establish an 'independent' verification team consisting of the district Pokja members, sub-district STM team members, the village chief and Plan staff (Team leader and M&E Officer).

- Monitoring tools: one household card/questionnaire has been developed that should facilitate easy, complete and consistent data collection. The questionnaire was discussed in the previous section.

- Roles and responsibilities: the persons directly involved in data collection and processing are given below.

Who	Tasks
Trained village cadres and village authorities	• Collect data at all houses on a monthly basis with the use of household cards/questionnaires • Complete the dusun level monitoring forms on the basis of completed household cards once a month • Complete the village level monitoring forms on the basis of completed dusun monitoring forms once a month • Keep household cards/questionnaires
Sub-district sanitarian and Plan's sub-district coordinator (SDC)	• Training of village cadres as well as continued guiding and coaching • Check monitoring data when visiting villages
Sub-district STBM teams	• Complete sub-district monitoring forms on the basis of completed village monitoring forms once a month • Discuss progress during quarterly STBM meetings • Enter all data in a computerised database • Carry out initial data entry checks • Analyse and report findings
District Pokja AMPL together with Plan programme staff	• Complete district monitoring forms on the basis of completed sub-district monitoring forms once a month • Discuss progress during quarterly Pokja AMPL meetings • Enter all data in a computerised database • Carry out initial entry checks • Analyse and report findings
Plan Monitoring & Evaluation Officer in Kefa	• Check data entries • Analyse data • Report findings • Evaluate progress towards achievement of programme goals

- Progress to date: household cards have been completed for the month of March in all sub-villages that were triggered during the month of March 2011. In the same villages dusun monitoring forms and desa monitoring forms were completed by the village authorities. It is foreseen that sub-district level monitoring forms will be completed and discussed sometime in mid April and that district level monitoring forms will be completed and discussed sometime at the end of April.

  So far no monitoring guideline, which outlines the survey methodology, has been developed to guarantee consistent application of the methodology and tools. The guideline developed by YDD could be used as an example to develop a similar tool.

- Involvement of all relevant stakeholders: Plan has made plans to involve all local authorities – from the sub-village up to the district – in regular programme monitoring. This is something that is to be encouraged as there are substantial benefits from genuine and effective stakeholder involvement.

  Experience in similar programmes has shown that stakeholder involvement in monitoring programme progress and achievements is the key to achieving enhanced ownership by the relevant local authorities and sustained programme results, for example:

- Village leaders and village facilitators (cadres): active involvement at village level through community-based monitoring mechanisms (e.g. monitoring of and reporting on household cards);
- Sub-district health staff: active involvement in organising ongoing monitoring, and for tabulating and analysing field data;
- Sub-district authorities: responsible for analysing data and upward reporting;
- District authorities: responsible for analysing data and upward reporting;
- Programme staff: organising and managing, facilitating, capacity building of sub-district authorities and health staff, overall responsible.

Data handling, analysis and reporting

- To date Plan has not yet developed a computerised database for tabulating and analysing the quantitative data collected by the village cadres. As the amount of data entries is relatively small, this should be a rather easy task and even Microsoft Excel could be used for this purpose. The system should be able to generate reports that provide easy-to-use overviews per sub-village, per village, per sub-district and per district so that the monitoring data can be used to monitor and discuss progress at these different levels.

  A uniform coding system needs to be developed and as far as possible this system should be based on the coding system used by the Government of Indonesia. However, as this information was not available at the time of the visit this will require immediate follow up by the partner NGOs.

- More to come later....

Reaction on draft report by Eka Setiawan (email dated 02 May 2011)

In general, we are quite okay with your report. Below is our comment and I am attaching the most recent "monitoring card" of Plan Indonesia.

- *We have piloted the "monitoring systems" since 1.5 months ago. And we have several lesson learned to improve these.*
- *We do not apply subsidy (giving incentive) on this monitoring systems' people*
- *We agree with your input that initial information (or baseline) must be entered in the "monitoring card". This shall apply the information on Pillar 1 (latrine), 2 (handwashing facilities), 3 (water treatment), 4 (solid waste in household), 5 (wastewater).*
- *Change Kartu Keluarga into Kartu Rumah. On the right column of Kartu Rumah, there is a simple guideline on how to do the monitoring of STBM*
- *As agreed this monitoring card will be filled by Relawan Desa & Kepala Dusun & Kepala Desa (chief of STBM Team village), & Puskesmas Sanitarian & Camat officials (chief of STBM Team sub-district),* ***only after they received monitoring training of pillar 1-5.***
- *Once in a month, there is a sub-district coordination meeting. All Relawan Desa is called to discuss about the STBM progress, and to gather these monitoring cards.*
- *Once every 1-3 months, there is a district coordination meeting, calling all sub-district STBM team, and put the monitoring cards into 'computing systems' or Excel worksheet*
- *We agree to add: "family's coding" in the card. By No Fam/RT/Dusun/Desa/Kecamatan, e.g. Duminus Haga: 001/01/D1/SAPAEN. This will be useful for us when we introduce the 'computing systems' or Excel worksheet.*
- *We agree to add one more row, of 'who do the monitoring'. Based on lessoned learned, sometimes the person is delegating the tasks to others.*
- *The SDC (sub district coordinator) or Plan Indonesia staff, has the task to monitor the progress of Relawan Desa together with sub-district STBM team. This method has proven works in Grobogan & Lembata, where the local government themselves (sub-district team, village team) were active managing their own systems and able to declare their 24th ODF village, and Plan Indonesia only act as facilitator. The government sub-district team & village team will make mistake but will learn to improve based on their mistake. Plan & government officials are making a regular coordination meeting with them to give input to improve. This is good for sustainability.*

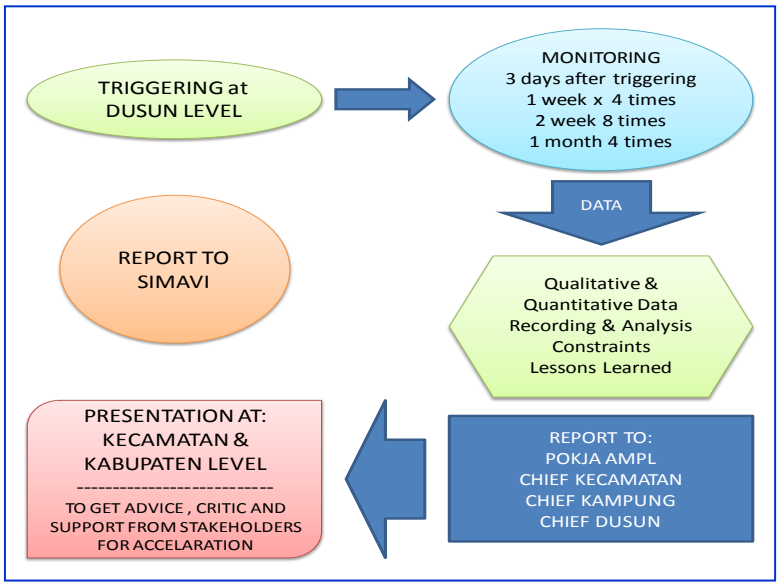
Plan Indonesia will have a lesson learned workshop of our 50 villages STBM pilot project & monitoring systems, at end May/early June 2011.

Annex 3.4: Update on monitoring framework – Yayasan Rumsram

Work on monitoring system and tools with Ishak Matarihi, Director Rumsram and SHAW Programme Manager, Wirya Supriyadi, SHAW Programme Coordinator, Timothius Rumansara, STBM Team Leader, Yan F. Senga, Handwashing/Water Specialist, Nasaruddin, Field Officer, Esra Mandosir, Field Officer, and Yuyun Warbal, Hygiene Officer on Friday 15 and Saturday 16 April 2011

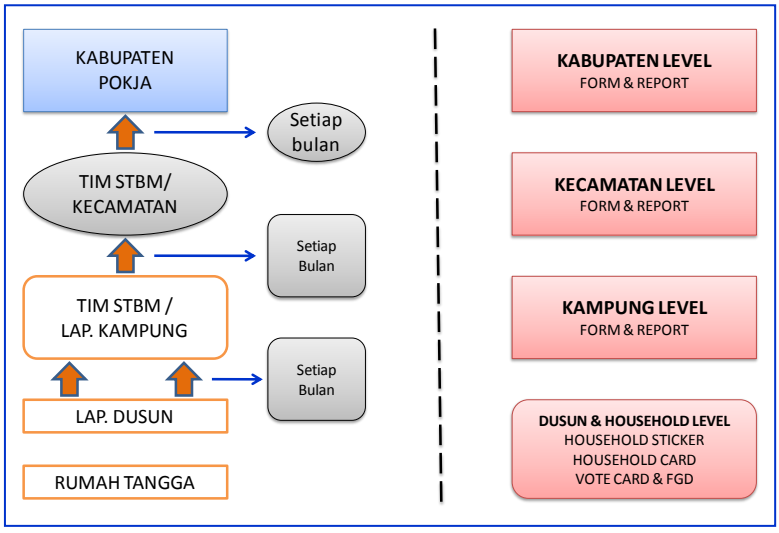
Monitoring

- Rumsram considers monitoring and evaluation relevant for the following reasons:
  - Increasing the efficiency and effectiveness of their work
  - Identifying strength and weakness and to find the root causes of problems
  - Learning together with other stakeholders
  - Evaluating how resources are allocated and used optimally
  - Assessing the impact and (expected as well as not expected) benefits for communities
- The monitoring process as designed by Rumsram is graphically shown in the following picture.



Source: Rumsram PPT on MONEV

- The different data collection tools and reports that will be used by Rumsram are shown in the following figure.



Source: Rumsram PPT on MONEV

- Rumsram staff collected secondary baseline data during the second half of 2010. To date no complete baselines have been established for the targeted villages.
  - ➔ Rumsram needs to start collecting primary baseline data covering all five pillars in all the villages that are to be targeted from now onwards. The modified household card/questionnaire should be used for that purpose and baseline data should be collected prior to CLTS triggering or demand creation activities.
- At the time of the monitoring support visit, Rumsram was still considering how to organise the monitoring component. Although the Plan Indonesia household monitoring card was adopted by Rumsram early this year this has not yet been applied. Instead an alternative basic monitoring sheet has been used for collecting regular monitoring data. This monitoring sheet provides an overview per sub-village of the number of households that have achieved certain STBM pillars. Baseline data is only available for pillar 1.
  - ➔ Rumsram needs to use the monitoring framework and tools – as outlined in the sections below – from now onwards.
- Given the limited human resources it would be inefficient to carry out data collection for the entire target population as data entry alone would take some 25 days each month. Hence, a realistic sample size has to be determined where a part of the population is selected for data collection and analysis.
- Data is to be collected on a monthly basis by trained village volunteers and sub-village cadres. A household card/questionnaire will be used for collecting monitoring data. The villages will be responsible for primary data collection at household level, the compilation of household cards in sub-village monitoring forms and thereafter the compilation of sub-village monitoring forms in village monitoring forms. The village monitoring forms will only provide a summary of aggregated data per sub-village. No decisions had been taken with regard to data entry in an automated database.

Outcome of discussions and work

Monitoring indicators

- Indicators are measurable or tangible signs that something has been done or that something has been achieved. Indicators are an essential part of a monitoring and evaluation system because they are what you measure and/or monitor and as such they provide the framework for a monitoring and evaluation system. They tell you what you want to know and the kind of data you will have to collect.
- As mentioned earlier Rumsram will focus its programme interventions on all STBM pillar 1 and two out of the remaining four pillars!
  - ➔ Clarity needs to be provided on the SHAW programme intervention areas. Is their flexibility or are all partner NGOs expected to work on the five pillars?
- Rumsram decided to adopt the household monitoring cards/questionnaires as developed by Plan Indonesia that cover all five STBM pillars. The household card includes questions on sanitation and hygiene facilities as well as sanitation and hygiene practices or behaviours. The household card/questionnaire consisting of just ten questions is used to collect primary data at the household level. The card is kept by the village cadre and not by the individual households for self-monitoring purposes!
- The household card was examined in detail and modifications were discussed to ensure that relevant data will be collected to measure progress and results on the five STBM pillars and to make the task of data entry and data analysis easier. Modifications were made to the household card so that by the end of the day a revised version was available in soft copy. Some of the modifications that were made:
  - Changes to the layout to facilitate easy and correct recording of household data.
  - Changes to the layout to allow the same household card to be used also for baseline data collection.
  - Pillar 1 now includes a question (1.3) on the safe disposal of children faeces and another question (1.4) was rephrased to obtain a more relevant answer (Is toilet clean instead of how many times do you clean the toilet).
  - Pillar 2 provides a number of proxy indicators on handwashing with soap. Here changes were made to make the question on existence of handwashing facilities more location specific. Every household has water and some sort of soap that can be used for handwashing purposes. The question is whether these are located close to where they are required (e.g. toilet and kitchen).
  - Pillar 3 focuses on household water treatment AND safe storage. The second part of the question was modified to specifically ask and observe whether the drinking water containers are properly covered.

- The dusun monitoring sheets (summary of household cards) and the kampong monitoring sheets (summary of dusun monitoring sheets) were revised on the basis of the modified household card.

Sampling design

- Target population: this is the entire population of all the target villages (dusun and kampung) in the selected sub-districts.
- Basic sampling unit: Rumsram has decided to use the house as the basic sampling unit for data collection for baseline and regular monitoring. There could be more than one family residing in one house. However, Rumsram is convinced that there will never be more than one toilet per house. This is different than what Plan Indonesia is expecting in West Timor. This issue of what basic sampling unit is to be used is somewhat confusing as different units could be considered such as house, household or family.
  - ➔ It is strongly advised to use the same basic sampling unit to ensure consistency with Government of Indonesia data records as well as to ensure consistency among the four partner NGOs.
- Sampling methodology: the sample needs to be representative of the target population so that the information derived from the sample is expected to be the same had a complete census of the target population been carried out. The stratified sampling method will have to be used as this method allows monitoring to focus on particular population segments that share at least one common characteristic. When considering the different characteristics of the target villages (etc. socio-economic status, religion, occupation, access to safe drinking water and basic sanitation) it was concluded that except for the socio-economic status the villages are expected to be rather homogenous.

  Hence, the socio-economic status of the houses will be used by classifying the population of the sub-villages into two economic categories, using culturally appropriate terms for household that have 'more' and households that have 'less'. Those were the classifications that Rumsram staff found most comfortable with. The resulting classification will be used to monitor access to toilets and sanitation and hygiene behaviour for the three different socio-economic levels. This will allow for comparison between different socio-economic groups (e.g. is sanitation uptake more likely to occur among high income groups than among groups classified as poor), as well as providing insight on behaviours of the total population.

  The stratified sampling method requires insight in the wealth classification of a village. Rumsram will have to develop this insight as this information is not readily available. A village mapping exercise is a useful tool that can be used to classify income levels or wealth labels to the different houses. This will have to be carried out prior to the actual baseline survey.
- Sample size: a sample size of 25% of the total number of houses in a sub-village has been taken as a larger sample will result in too much data entry work if this is to be done on a monthly basis. Insufficient information is available to calculate the confidence intervals.
- Selection of survey clusters: to be able to monitor progress on the STBM pillars, which requires structured observations of sanitation and hygiene practices and behaviour at family or household level, data collection will have to take place at sub-village level. Data collection for the baseline and regular monitoring will be carried out in all target sub-villages, all target villages, all target sub-districts within the selected intervention district.
- Selection of sampling units: within the target sub-villages individual houses will have to be selected by the Rumsram field staff in consultation with trained village cadres (and village leaders). This is to be done on the basis of the socio-economic status of the houses as indicated on the village maps. As a consequence no random sampling techniques can be used to identify the houses to be included in the sample.

Example

A certain village consists of a total of 60 houses. The welfare classification exercise reveals that 12 houses are considered to belong to the HAVE MORE welfare group, and the remaining 48 houses are considered to belong to the HAVE LESS welfare group.

The sample size is determined as 25% of the total number of households. This means that the following number of houses need to be included in the sample:

- HAVE MORE: 12 houses / 4 = 3 houses
- HAVE LESS: 48 houses / 4 = 12 houses
- Total number of houses to be included in the sample = 15 (60 houses / 4)

Other characteristics that should be considered when selecting the individual houses that are to be included

in the monitoring sample were determined as:

- Household size and household composition
- Access to drinking water
- Access to sanitation

While selecting the individual houses on the basis of the village map try to avoid some kind of bias towards one or another group. The more representative the sample the better. This means that an effort must be made to avoid excluding any relevant characteristics. Some believe that houses that already have a toilet can be excluded from the monitoring sample as the SHAW programme focuses on those that do not have a toilet. However, as the 25% sample needs to be a representative sample of the whole village, houses that do have a toilet should also be included, however, proportionally to the total number of houses with toilets in the village.

- Selection of interviewee within the house: this has not yet been specifically defined but it is expected to be an adult female (e.g. mother, caretaker of infant or small child) as this person is likely to know more about sanitation and hygiene practices and behaviour within the household or family.

Survey methodology

- Data sources: although secondary data has been used during the start-up phase to establish the initial baselines, primary data will be collected for establishing detailed baselines as well as for regular progress monitoring. Rumsram now has a revised household card/questionnaire to collect data in the communities.
- Data collection techniques: different collection techniques are expected to be used:
  - Village maps: village social maps or village sanitation maps will be used to establish the total number of households in a sub-village as well as to carry out the welfare classification exercise.
  - Household cards/questionnaires: these will be used to collect data from a selected sample of houses. Baseline data will be collected prior to the demand creation triggering activities. Data collection for regular monitoring purposes will take place on a monthly basis.
  - Household progress monitoring cards: Rumsram has tested the use of simple coloured household stickers. Green stickers are provided to households that have made full achievement in certain pillars. As these green stickers cannot be used to show intermediate progress, stickers in different colours could be used to indicate the progress a household or family is making towards achieving the STBM pillars. For example red, yellow and green could be used to indicate different levels of achievement. Self-monitoring at household level is an effective instrument, hence, some sort of household level monitoring system needs to be put in place.
  - ODF verification: as the monitoring system is based on a 25% sample, ODF verification by an independent team should be used to determine whether ODF status has been achieved at household and community level.
- Monitoring tools: a simple household level data collection card/questionnaire has been developed that should facilitate easy, complete and consistent data collection. The questionnaire was discussed in the previous section.
- Roles and responsibilities: the persons directly involved in data collection and processing are given below.

Who	Tasks
Trained village cadres and village authorities	• Collect data at selected houses on a monthly basis with the use of household cards/questionnaires • Complete the dusun level monitoring forms on the basis of completed household cards once a month • Complete the village level monitoring forms on the basis of completed dusun monitoring forms once a month • Keep household cards/questionnaires
Rumsram field staff together with sub-district STBM teams	• Training of village cadres as well as continued guiding and coaching • Collect dusun level monitoring forms from village cadres • Check monitoring forms for completeness and a number of household cards through random sampling for correctness • Enter all data in a computerised database

Who	Tasks
	• Carry out initial data entry checks • Analyse and report findings • Discuss progress during quarterly STBM meetings
District Pokja AMPL together with Rumsram programme staff	• Discuss progress during quarterly Pokja AMPL meetings
Rumsram staff	• Carry out additional data entry checks • Carry out additional data analysis • Report findings

So far no monitoring guideline, which outlines the survey methodology, has been developed to guarantee consistent application of the methodology and tools. The guideline developed by YDD could be used as an example to develop a similar tool.

- Involvement of all relevant stakeholders: at this moment it is not 100% clear how the sub-district and district authorities will be involved in programme monitoring. This is something that needs to get the attention of the programme management team as there are substantial benefits from genuine and effective stakeholder involvement.

  Experience in similar programmes has shown that stakeholder involvement in monitoring programme progress and achievements is the key to achieving enhanced ownership by the relevant local authorities and sustained programme results, for example:
  - Village leaders and village facilitators (cadres): active involvement at village level through community-based monitoring mechanisms (e.g. monitoring of and reporting on household cards);
  - Sub-district health staff: active involvement in organising ongoing monitoring, and for tabulating and analysing field data;
  - Sub-district authorities: responsible for analysing data and upward reporting;
  - District authorities: responsible for analysing data and upward reporting;
  - Programme staff: organising and managing, facilitating, capacity building of sub-district authorities and health staff, overall responsible.

Data handling, analysis and reporting

- To date Rumsram has not yet developed a computerised database for tabulating and analysing the quantitative data that will be collected by the village cadres. As the number of target villages is relatively small, this could be done by using Microsoft Excel for the time being. The system should be able to generate reports that provide easy-to-use overviews per sub-village, per village, per sub-district and per district so that the monitoring data can be used to monitor and discuss progress at these different levels.

  ➔ Considering the lack of experience among the Rumsram staff IRC will support the development of a Microsoft Excel based database.

  A uniform coding system needs to be developed and as far as possible this system should be based on the coding system used by the Government of Indonesia. However, as this information was not available at the time of the visit this will require immediate follow up by the partner NGOs.

- An additional issue brought up by Rumsram relates to the actual use of monitoring information for other purposes than progress reporting. They expressed interest to learn more about using monitoring data and information to draw lessons learned and to back up the knowledge management component (e.g. evidence-based knowledge development).

- More to come later....