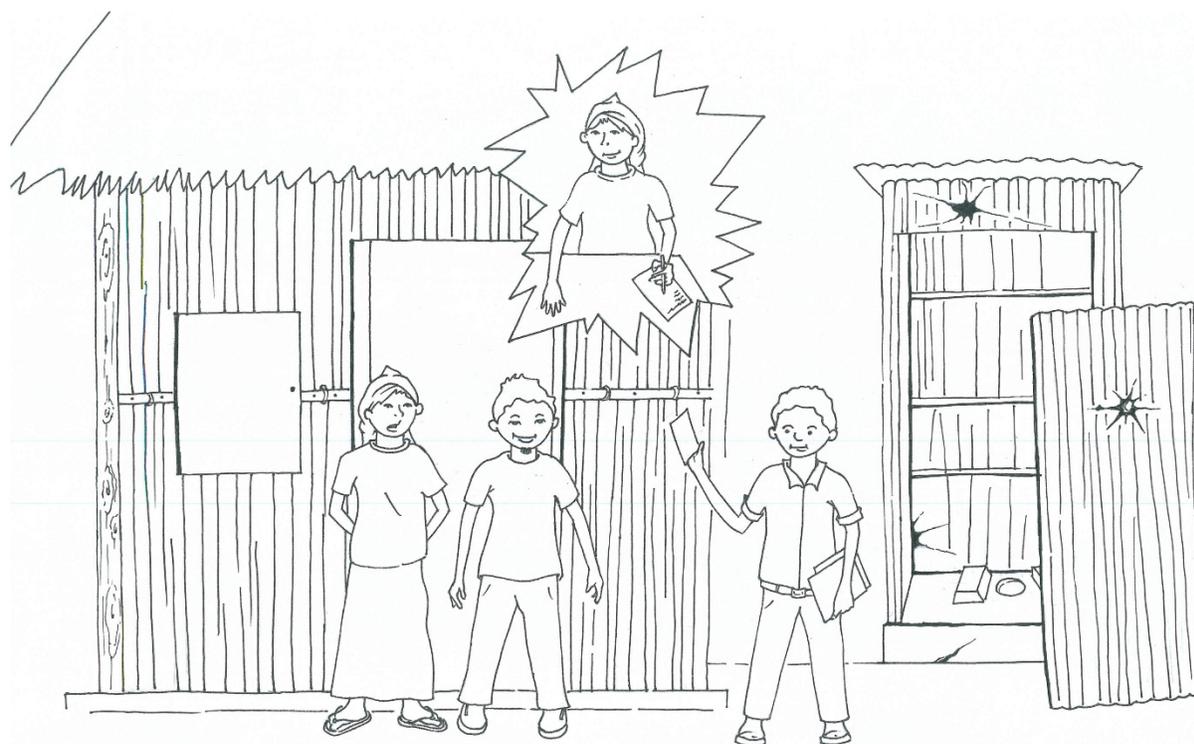


Learning Report

Sanitation Smart Subsidy Trial for Vulnerable Households in Timor-Leste



.a+b



June 2017

Table of Contents

Background	1
Timor-Leste Sanitation Context	1
What is a Smart Subsidy?	2
Pilot approach	2
Identification of Vulnerable Households	3
Background	3
Location/scope	4
Village Level Meeting (2 hours)	4
Household Interviews	5
Community Meeting (2 hours)	6
Developing and applying the criteria for Vulnerable Households	7
Wealth Ranking Results Summary	8
Assessment of Wealth Ranking Methodology	8
Smart Subsidy	9
Voucher Process	9
Voucher Distribution	12
Trial of field assessment and distribution by partner NGOs	13
Redemption	14
Closing the Pilot	15
Results	16
Redemption Rates	16
Validation processes – is the system transparent?	17
Toilet Construction	18
Outstanding Questions for further follow-up	19
Recommendations	20
References	21
Annex 1 – Vulnerable Household Framework	22
Annex 2 – Process for voucher distribution	23
Annex 3 – Framework for Wealth Ranking and identifying vulnerable households	24
Annex 4 – Voucher Process Brochure	25

www.wateraid.org/ppa

Rua de Nu'u Laran No. 7

Bairro dos Grilos

P.O Box 316 Dili – Timor Leste

T: +670 3322 944

Background

Timor-Leste Sanitation Context

As in many developing countries, subsidizing household sanitation can be a sensitive topic in Timor-Leste. After independence in 2002 many NGOs working in sanitation in rural Timor-Leste provided upfront free materials (hardware subsidies) for construction of household sanitation. This has presented many challenges to increasing sanitation coverage in terms of scalability, sustainability and equity. The historically poor results of sanitation programmes in Timor-Leste with regards sustainability and equity are acknowledged by many stakeholders and demonstrated by the limited progress in national rural sanitation coverage (Besik 2009, JMP 2015).

In recent years, up-front subsidies for household sanitation have been out of favour as most NGOs and the government move towards adopting the Community-Led Total Sanitation (CLTS) approach. This shift aligns with Timor-Leste's National Basic Sanitation Policy (G-RDTL 2012) which states that "households shall be responsible for the construction and maintenance of their own sanitation facilities" and that construction of household sanitation shall not be subsidized except in specific situations of disadvantage and extreme poverty, in such cases the policy does recommend the use of incentives including vouchers and rebates to reward communities that eliminate open defecation and to assist households to climb the sanitation ladder.

In a bid to assess the extent to which CLTS programs have generated sustained sanitation and hygiene behaviour change in Timor-Leste, WaterAid participated in a joint Open Defecation Free (ODF) sustainability study in three municipalities (Aileu, Ermera and Liquiça), between December 2015 and April 2016. In the Liquiça section (where a WaterAid programme is running) of the study, it was found that 16% of households in ODF communities had reverted back to Open Defecation and the number major risks for abandoning toilets amongst these households were poor quality of construction and experience and frequency of toilet breakage (Abdi, R. 2016).

During the past year WaterAid has been working in Liquiça and Manufahi Municipalities to build a stronger supply chain for sanitation products through the import and sale of the SaTo Pan product; a lightweight, cheap and water-efficient toilet model. This sanitation marketing initiative has focused on both supply-side and demand-side activities to provide easy access to affordable sanitation products.

In this context WaterAid piloted the use of 'smart subsidies' in order to learn more about how vulnerable households can be supported to climb the sanitation ladder.



WaterAid Timor-Leste has set up supply chains for the SaTo Pan product as part of its Sanitation Marketing initiative

What is a Smart Subsidy?

The following principles were developed by Willets et al (2013) for their smart subsidy trial in Lao, and explain of what makes a subsidy 'smart'.

1. **Practicable and suitable for the local context** (factors including culture, availability of microfinance, current role of private sector and product availability)
2. **Optimizes use of public funds** (minimum % public funds as a proportion of the cost of sanitation adoption)
3. **Costs are affordable for beneficiaries** (beneficiaries able to cover remaining costs beyond that provided by the subsidy, and sufficient members of the population targeted to ensure the near-poor can also afford toilets)
4. **Ensures effective targeting of the poor** (appropriately targets the poor and is effective in doing so)
5. **Financially sustainable** (government could support the approach in the long-term without external support)
6. **Scalable** (the design and management are possible at much larger scale; the financial approach could be scaled up across the country at a reasonable cost)
7. **Incentivizes desired behaviour change** (supports long-term behavior change outcomes to use and upkeep sanitation facilities)
8. **Aligns with broader project approach** (avoids undermining motivation of non-targeted households, supports and avoids undermining suppliers and market development)
9. **Maintains accountability and decision making at lowest level** (ensures targeting, implementation and monitoring occur at lowest possible level)

Pilot approach

The pilot used an adaptive planning approach and after reflecting on each activity and the opportunities and challenges arising, changes were made for subsequent activities. Key questions which WaterAid hoped to learn more about during this pilot included:

1. How can the most vulnerable households be identified?
2. What challenges arise during the process of subsidy distribution, use and monitoring and how could they be addressed in the future?
3. Are smart subsidies user-friendly and attractive to vulnerable households in rural communities in Timor-Leste?
4. Do smart subsidies support vulnerable households to improve their sanitation facilities?

Funding was available to provide 100 vouchers to vulnerable households during the pilot.

Type of Subsidy

Of the many types of subsidies available, WaterAid decided to trial an output-based subsidy by vouchers. This type of subsidy is able to be targeted to use for sanitation products only (encouraging households to climb the sanitation ladder), while keeping decision-making power with the household. Through encouraging household choice and investment in sanitation it is hoped this will improve sense of ownership and facility sustainability. This type of subsidy was also considered less likely to be associated with the negatively perceived up-front hardware subsidies (i.e. easier for WaterAid to explain to local communities after years of discouraging subsidies).

By stimulating the demand-side of the sanitation market the direct subsidy by voucher also supported the sanitation market that WaterAid has been developing in Timor-Leste.

Identification of Vulnerable Households

Background

Unlike some other countries in the South-East Asia region, Timor-Leste does not have a clearly-defined poverty identification system such as a code on individuals' identity cards.

WaterAid initially planned to obtain household data from the Ministry of Social Solidarity (MSS) and local leaders (xefe suco and xefe aldeia) for vulnerable households and then use wealth ranking processes to validate this data. However, it became apparent through discussions with local leaders that the criteria for receipt of benefits from MSS are relatively limited. From our review of the government process in communities a family is eligible for the *Bolsa da Mae* payment if they have four or more children and no one working as a government employee, and the *Terceira Edade* pension is assessed solely on age. The team involved from WaterAid and NGO partners felt that a more comprehensive assessment would better identify the most vulnerable households in each community and developed a criteria based on a Wealth Ranking method, a tool developed by PROFOR (Shepherd et al 2007).

Location/scope

In line with the National Basic Sanitation Policy, WaterAid decided to run this pilot in communities which had already achieved Open Defecation Free (ODF) status, where a community had already made a commitment to sanitation behavior change. The initial villages (sucos) identified (Lauvou in Liquiça and Daisua in Manufahi) did not provide as many vouchers as hoped and the pilot was then expanded to neighbouring villages.

Village Level Meeting (2 hours)

To identify which communities (bairros) to prioritise within each sub-village (aldeia), meetings were held with community leaders to rank their relative vulnerability. The comparison of bairros within four aldeias by the community leaders considered the following questions:



Comparing the four aldeias with Village chiefs and delegates

- Access to bairro by road (including distance, condition and transport/angguna access)
- Access to schools (distance/time)
- Access to clinics (distance/time)
- Access to markets (distance/time)
- Access to electricity
- Extent of coffee agriculture
- Number of houses made of rendered bricks and mortar (*uma mutin*)

The leaders were asked to describe each bairro in their aldeia in these terms and finally the aldeias ranked against each other from best standard of living to worst standard of living.

The ranking of the bairros in each aldeia from best serviced to least serviced based on the input from the community leaders was as follows:

Liquiça		Manufahi	
Bairro	Aldeia	Bairro	Aldeia
Tutubesi, Lebulautela	Vatumori	Dareba	Riatu
Bairro 2, Bairro 3, Bairro 1	Raenaba	Aitau, Daisua	Daisua
Lauvouk	Lauvouk	Lianai	Searema
Kaipelulara	Vatumori	Aidaludu, Foelora, Maurem	Riatu
Vaurobu, Kleslema	Erito		

Subsequent activities to identify vulnerable households gave priority to those lower down each list.

Household Interviews (1day)

The household Wealth Ranking method used was based on a tool developed by PROFOR (Shepherd et al 2007). This tool was chosen as it had previously been used successfully by WaterAid and partner NGOs in the Timor-Leste context. The indicators included in the interview as follows:

- Area of land owned
- Type of house (walls, roof, floor)
- Type of toilet
- Animals owned (cows, pigs, chickens, goats, horses)
- Income sources
- Receipt of government pensions
- Disability
- Household possessions
- Highest Level of education attained in the household
- Number of times the household cooks per day

Key Learning

Using a standardised survey form in a smartphone survey App (mWater) was a quick and effective way to obtain consistent household data.



Partner NGO staff using mWater to interview the Xefe aldeia Raenaba

A member of each household in the *aldeia* was interviewed about each of the indicators prior to a community meeting. In several communities, it was observed that not all households attended these meetings and follow-up door-to-door visits were required. Households not in attendance were often identified as vulnerable and included elderly/disabled persons, were far away from the meeting venue or households that did not participate in local WaterAid water supply projects (perhaps indicating social isolation/exclusion or poor communication about the purpose of the community meeting).

Recommendation

Door-to-door interviews are recommended prior to the community meeting to capture all households in the community. The community meeting may exclude some of the most vulnerable households.

Based on community discussion, future programs should include additional questions about whether the household uses the land they own (and what for), and the condition of the house. In areas where water supply systems have not been completed questions could be asked about time spent collecting water each day.

Community Meeting (2 hours)

Group discussions were held to interpret the indicators into four categories based on standard of living in that aldeia: 'very good life', 'good life', 'sufficient life' and 'not-so-good life'. Partner NGO staff facilitated the conversation with input coming from the community. Consensus was sought for each category in each indicator before progressing to the next indicator. Men and women participated together in these meetings. Participation of a broad cross-section of the community was sought (diversity of ages, gender).

At the conclusion of the meeting, partner NGO staff encouraged the community to identify which category best-represented the community as a whole – many meeting attendants expressed appreciation at the result of this conversation.



Community wealth ranking meeting in Daisua

Recommendation

Future trials involving a wealth ranking methodology could also consider running separate focus group discussions for men and women and then bringing the groups together for final consensus.

Key Learning

When an odd number of categories was used (e.g. good life, sufficient life, not-so-good life) most households cluster in the middle for each indicator – making identification of vulnerable households difficult. It is best to use an even number of categories.

Key Learning

Some communities categorised the indicators based solely upon the experience of the people in their community. Others considered the categories on a Timor-Leste level, which resulted in a higher proportion of households identified as 'vulnerable'.

Meeting facilitators must clearly explain at the start of the community meeting that the Wealth Ranking is based on each local community's context.

Developing and applying the criteria for Vulnerable Households

Following initial community interviews, the team involved in the pilot (WaterAid and local NGO partners) developed the following criteria to be adopted for this pilot (see also Annex 1):

1. The house already has a toilet in an Open Defecation Free community
2. The house is not in category 'very good' (generally *uma mutin*)
3. The house meets a minimum three of the following seven indicators:
 - a. Land ownership category is 'not good'
 - b. House type category is 'sufficient' or 'not good'
 - c. Animal ownership is 'sufficient' or 'not good'
 - d. Income category is 'not good'
 - e. Someone in the house receives 'bolsa da mae', 'terceira idade' or 'feto faluk' payments
 - f. Cook only once per day
 - g. Someone in the house has a disability

The decision to choose minimum three of seven indicators was made after observing that almost 100% of houses met at least 2 of these criteria (in many communities every household has 'sufficient' or 'not-so-good' animal ownership and house type).

It was noted that in some communities particular indicators were not considered relevant (e.g. meeting participants felt that the use of the land owned, or the nutrition of the food were better indicators of quality of life than the size of the land owned or the number of times food was cooked). In these situations, these indicators didn't contribute to identifying vulnerable households.

Results from the household survey responses were analyzed by each sub-village (aldeia) and each household was assessed for each criterion. If the household met the minimum criteria it was deemed eligible to receive the subsidy.

It was sometimes necessary to apply judgement to categorise households. For example, if the walls and roof of a house align with 'good life' but the floor is from 'sufficient life' a judgement call must be made as to which category the household best fits. In these situations, it is important to be consistent within the community (e.g. round all households up or round all households down).

In the first communities visited some of the indicators had not yet been included when interviews were conducted and the eligibility for vouchers was adjusted accordingly (e.g. meet 3 of 6 indicators, or 2 of 5).

Wealth Ranking Results Summary

Based on the wealth ranking activities, the number of households identified as vulnerable in each community are as follows:

Wealth Ranking Results Summary					
Municipality	Bairo	Aldeia	Households interviewed	Households identified as vulnerable	Percentage of HH identified as vulnerable
Liquiça	Vatumori	Vatumori	6	2	33%
Liquiça	Tutubesi	Vatumori	4	3	75%
Liquiça	Lebulautela	Vatumori	1	0	0%
Liquiça	Bairo 2	Raenaba	8	6	75%
Liquiça	Bairo 3 (Kleslema)	Raenaba	6	5	83%
Liquiça	Bairo 1	Raenaba	29	18	62%
Liquiça	Lauvouk	Lauvouk	22	22	100%
Liquiça	Kaipelulara	Vatumori	15	7	47%
Liquiça	Vaurobo	Erito	11	7	64%
Liquiça	Erito (Kleslema)	Erito	6	5	83%
Liquiça	Samarapo	Erito	4	2	50%
Manufahi	Daisua	Maurem	25	21	84%
Manufahi	Daisua	Daisua	10	10	100%
Manufahi	Daisua	Aitau	11	4	36%
		Total	158	112	71%

Assessment of Wealth Ranking Methodology

Some WaterAid and partner NGO staff felt uncomfortable with the criteria for vulnerable households. Some felt that most or all of the households interviewed were vulnerable, especially compared to many other rural and peri-urban communities in Manufahi and Liquiça.

There was also concern raised about introducing division within the community, especially as in most of the communities the distinction between vulnerable and non-vulnerable was based on very slight variation in house type or animal ownership. While the wealth ranking methodology used provided a satisfactory basis for this pilot, further discussion is needed about eligibility criteria prior to future smart subsidy initiatives.

In a future trial, it would be useful to include communities which are not only in remote and isolated areas. In order to better understand the spread of wealth and what it means to be 'vulnerable' in Timor it would be helpful to compare these results to those of a community with better access to roads, markets, education and income sources.

Recommendation

As per the Timor-Leste National Basic Sanitation Policy, a 'clear and objective national criteria for subsidy eligibility' needs to be developed. This should involve national leaders and sanitation (and social support) sector stakeholders.

Smart Subsidy

Voucher Process

The smart subsidies used in this pilot consisted of a voucher distributed to the households identified as vulnerable. Upon presentation of the voucher at a designated local shop, and purchase of sanitation products by the household worth at least \$6, the voucher-holder would be eligible to receive bonus building materials (one sack of cement and one bar of reinforcing iron, average value \$9.50) which could be used to improve their existing toilet.

The requirement for households to spend \$6 in order to receive the bonus material was based on the following factors:

- Increase ownership of the toilet by households by investing their own money
- Reduce risk that community perceive the smart subsidies as a 'handout'
- The price was set based on the cost of SaTo Pan products at participating shops.

The sanitation products specified on the voucher included not only toilet pan models (both ceramic and the plastic SaTo Pan) but also soap, scrubbing brushes and scoops. These items were included to avoid penalizing vulnerable households who were early adopters and had already installed a pour flush toilet.

Each voucher was printed on thick card and included a unique and randomized code in order to reduce the risk of households reproducing the voucher. The code also enabled

the vouchers to be tracked with minimal administrative burden on shop owners and partner NGO staff (voucher distributors). An example voucher is shown below.



The full process for the voucher distribution and redemption is outlined in Annex 2.

Key monitoring documents used to track the vouchers and recipient households throughout the process included:

- mWater form for partner staff to identify vulnerable households through interview
- List of identified vulnerable households to receive vouchers (partners to complete voucher code, date and signature at time of distribution)
- List of people redeeming vouchers (shop owner to complete code, name, purchase details, date)
- Voucher itself (stub kept by household as receipt, main voucher kept by shop for verification of lists by WaterAid at time of payment)

Engagement with Partner NGOs

Feedback from partner NGO staff stressed the importance of explaining the purpose of the smart subsidies and the process of the wealth ranking and vouchers clearly at the beginning of training and prior to wealth ranking meetings. The graphical process included in Annex 2 can be used to explain this better.

Engagement with Community Leaders and Authorities

Engagement with and careful explanation of the smart subsidies to local leaders and municipal and national government staff (Ministry of Health) is essential. This was especially relevant due to the commencement of the Liquiça ODF program (using a CLTS approach) at the same time as the smart subsidy trial. The day after distribution of vouchers in Gugleur, WaterAid staff attended a meeting of *Postu Administrativu* leaders in Gugleur in which the vouchers were a key point of discussion. WaterAid clearly explained the pilot with the following points:

Key Learning

Clear communication with local leaders, municipal and national Health Ministry staff is essential to explain the relationship between smart subsidies and the National Basic Sanitation Policy

- The vouchers aim to support vulnerable households to improve their toilets
- This is a trial only and depending on the results there may or may not be further smart subsidy schemes in the future
- The vouchers are only for households with toilets and in communities which currently have ODF status
- A clear process was followed based on Wealth Ranking which involved community consensus in order to identify the recipient households.

Explanation was also provided to Ministry of Health at a municipal and national level as well as Liquiça ODF secretariat.

Recommendation

To help clearly communicate to government and local leaders about how smart subsidies fit within the National Basic Sanitation Policy and relate to ODF, clear ICC materials should be prepared including a short presentation and a brochure

Engagement with Shop Owners

Three shop owners were approached to participate, two of whom were already involved in the SaTo Pan sanitation marketing supply chain and one who at the time had no sanitation products for sale, but was keen to engage and sited in a strategic location.

A short agreement was prepared in consultation with each shop outlining the roles and responsibilities of each party (as per following table), the dates for the pilot, and the terms of payment for materials.

Roles and Responsibilities of WaterAid and shop owners	
Shop owner	WaterAid/Partner NGO
Procurement all hardware materials	Identify vulnerable households
Prepare packages of bonus materials (cement and iron)	Distribute vouchers
Receive vouchers and provide bonus materials to voucher recipients	Payment to shop owner for bonus materials (at market rate)
Keep records of people redeeming vouchers	Follow up houses post pilot

The first shop owner requested a management fee of \$20 for the additional administration work required to fill out paperwork and prepare the bonus materials. This management fee was then proposed to and accepted by the other two shop owners.

The shop owners completed their roles to a satisfactory level. Two of the shops asked for an interim payment when sales reached 50% but only one alerted WaterAid when this happened. There was some confusion at the time of final payment about the final amount to be paid for materials; the agreement stated that final payment would be based on the number of packages of bonus material provided to voucher recipients but some shop owners and partner staff requested for the deadline to be extended in the belief that 100% of vouchers should be redeemed and paid for.

Recommendation

All shop-owners, WaterAid staff and partner staff, as well as recipients need to understand that there will rarely be a 100% redemption rate and that the limited redemption deadline exists for this reason.

Voucher Distribution

An artist was engaged to prepare a graphical representations of the voucher process to share with community members and shop owners. This was considered useful especially in areas where literacy rates may be low. An A4 copy of the process (refer to Annex 3) was included with all vouchers distributed in Manufahi.

During distribution partner NGO staff distributed the vouchers to identified vulnerable households. They explained the voucher, the process for redemption and obtained a signature as confirmation of receipt (noting names of people other than the head of household who received the voucher). Several issues were observed:

- Some households received the voucher on behalf of a neighbor who was not present at time of distribution
- Following the above point, some households accepted multiple vouchers

- Some households didn't exist (e.g. some of those interviewed at community meeting in Lauvou were visiting the weekly market from other communities). At least two of these households were later interviewed in their home community.
- Some households which already had pour flush toilets requested to transfer their voucher to neighbours who had pit latrines.
- Vouchers were mistakenly distributed to the non-ODF community of Aitau in Manufahi despite more than 50% of the community practicing open defecation (vouchers were provided only to households with toilets). This indicated that not all staff involved in the initiative clearly understood the eligibility criteria.
- 4 vouchers which were prepared for households in Erito aldeia to redeem in Maubaralisa were distributed in Vatumori and redeemed at the Caicasa shop. A further 6 vouchers for distribution to Erito were not distributed. The total Maubaralisa shop vouchers distributed within the Maubaralisa shop catchment was therefore reduced to 11.
- In Daisua and Maurem the head of the water user groups (xefe GMF) accompanied WaterAid staff during distribution and was responsible for explaining the process to households. It was felt that this would increase community understanding and confidence in the initiative.

Key Learning

All staff involved in the distribution of targeted subsidies need to understand the eligibility criteria.

Recommendation

If multiple shops in an area are participating, the vouchers should list all or none of the shops in order to increase the choices of the recipient and reduce the administrative burden.

A total of 119 vouchers were distributed and 7 vouchers were printed but not distributed.

Trial of field assessment and distribution by partner NGOs

As fewer vulnerable households were identified than anticipated, partner NGO staff were asked to conduct additional household interviews in poorly-serviced communities which had already been visited for wealth ranking activities. Due to time constraints partners were provided with the relevant wealth ranking frameworks and criteria list and instructed to provide vouchers to eligible households following the interview. This was done prior to WaterAid's review of the mWater survey results. Through this process 42 households were interviewed and 38 vouchers were distributed in bairros on the boundary between Raenaba and Erito aldeias and in Kaipelulara (Vatumori). In subsequent review of the mWater survey results, 14 of these 38 recipient households (37%) were found to not meet the eligibility criteria for vulnerable households in their communities. Additionally, one household identified as vulnerable based on interview

responses was not given a voucher. Based on this result, rapid field identification by partner NGO staff is not recommended.

It should be noted that the wealth ranking frameworks for Raenaba and Erito with respect to land and animal ownership differ significantly. Of the 7 households incorrectly given vouchers in this area, 5 were assessed for eligibility under the Raenaba framework but would have been identified as vulnerable had they been assessed under the Erito framework.

Distribution to households not meeting the criteria

Vouchers were distributed to 8 households which had been identified as ineligible to receive a voucher based on the defined criteria. One of these was in Maurem (Daisua) and had been disqualified after analysis of mWater survey results, as per the criteria. Upon visiting his house the WaterAid staff decided that the house and toilet were poor enough standard to warrant receipt of a voucher. This voucher was not redeemed.

The remaining 7 instances occurred as part of the trial of partner rapid identification in the field in Kleslema/Bairo 1 as outlined above.

Redemption

The redemption period in all locations was short – mostly closing 1-2 weeks after voucher distribution. During the redemption period the following challenges were encountered:

- The Caicasa shop was closed on the last two days of the redemption period when voucher recipients went to redeem their voucher. To minimize the impact of this it is recommended to close the redemption period on a market day/day which the shop is always open
- Timor-Leste's Prime Minister visited Daisua community in Manufahi during the redemption period. Community preparations associated with this reduced the time available for the community to redeem vouchers.
- In two locations WaterAid staff/Partner staff/shop-owners tried to extend dates with the aim of achieving 100% redemption rates. In Daisua this was permitted due to the Prime Minister's visit and in Raenaba and Vatumori due to late distribution of vouchers to households (some households did not receive their voucher until after the expiration date printed on it).
- Every house (100%) who redeemed a voucher purchased the SaTo Pan product which had been introduced through WaterAid's sanitation marketing initiative:
 - Two of the three shops (Maubaralisa, Caicasa) ran out of SaTo Pan stock during the pilot (one of them twice) due to fast redemption rates.

- Two of the three shops (Same, Caicasa) had not bought SaTo Pan stock in Dili independently of WaterAid prior to the smart subsidy trial. Delays in re-stocking occurred due to difficulty locating the wholesaler.
- One shop (Maubaralisa) who had not sold the SaTo Pan product prior to involvement in the voucher trial mistakenly thought that they could only sell the SaTo Pan to community members who presented vouchers and thus turned away potential buyers.

Recommendation

Time pressure was the main factor resulting in the challenges encountered during the distribution and redemption period. This time pressure came from the pilot being implemented too close to the end of WaterAid's financial year (one month was allowed between voucher distribution and end of budget). When planning the scheme and printing the vouchers, allow plenty of time between the completion of the wealth ranking process and the redemption deadline printed on the voucher.

Closing the Pilot

At the completion of the pilot all shop-owners were told that the deadline had passed and to stop accepting vouchers and giving out bonus materials. They could of course continue to sell the sanitation products.

According to the agreement the shop-owners were then paid according to the number of vouchers redeemed at the store. However, at two of the three stores misunderstandings on the part of staff involved in the pilot resulted in overpayment. In Maubaralisa the shop owner was paid for three additional packages of bonus materials which were not provided or recorded on his paperwork. In Same the shop-owner was paid for 100% of the bonus packages in the mistaken belief (by both WaterAid staff and shop-owner) that the deadline would continue be extended until all vouchers were redeemed.

Key Learning

Relevant staff and shop owners need to clearly understand the remuneration plan for the shopowners from the beginning of the pilot.

Results

Redemption Rates

In Liquiça 71 households from the 87 who received a voucher redeemed it (82%), while in Same 19 households from the 32 recipient households redeemed it (60%).

A numerical summary of results is provided below:

Voucher Redemption Summary						
Municipality	Bairro	Aldeia	Households identified as vulnerable	Number of vouchers distributed	Number of vouchers redeemed	Percentage of vouchers redeemed
Liquiça	Vatumori	Vatumori	2	2	2	100%
Liquiça	Tutubesi	Vatumori	3	3	3	100%
Liquiça	Lebulautela	Vatumori	0	0	0	n/a
Liquiça	Bairro 2	Raenaba	6	7	6	86%
Liquiça	Bairro 3 (Kleslema)	Raenaba	5	6	4	67%
Liquiça	Bairro 1	Raenaba	18	22	18	82%
Liquiça	Lauvouk	Lauvouk	22	20	15	75%
Liquiça	Kaipelulara	Vatumori	7	12	12	100%
Liquiça	Vaurobo	Erito	7	7	5	71%
Liquiça	Erito (Kleslema)	Erito	5	5	3	60%
Liquiça	Samarapo	Erito	2	3	3	100%
Manufahi	Daisua	Maurem	21	20	16	80%
Manufahi	Daisua	Daisua	10	8	2	25%
Manufahi	Daisua	Aitau	4	4	1	25%
		Total	112	119	90	76%

Redemption by households not meeting the criteria

Of the 14 households who received the voucher despite not meeting the eligibility criteria, 9 redeemed their voucher.

Voucher Transference

Of the 90 Vouchers redeemed 67 of those were redeemed by the person listed either as head of the household or the recipient at the time of distribution. A further 9 were redeemed by a recipient identified at the time of distribution but from a different household (mostly due to neighbours receiving the vouchers for multiple households and then passing a different voucher to each neighbour). In addition, 8 vouchers were

redeemed by someone with the same family name as either the head of the household or the recipient at the time of distribution. The total vouchers likely to have been redeemed by the intended recipient household is therefore estimated at 84 (94%).

Of the remaining 6 vouchers, 2 were poorly documented by the partner NGO staff or shop-owner and the remaining 4 were redeemed by people not otherwise identified in the pilot. These may represent other members of the household or transference to non-intended households.

Redemption by households where the voucher was signed for by their neighbour

There were 13 instances where a neighbour or other community member signed to receive a voucher because the recipient was not present at the time of distribution. Of these 10 redeemed their vouchers (77%), and all but one by the intended recipient. This is a comparable redemption rate to the pilot overall and therefore the practice of neighbours signing on behalf of the recipient does not seem to represent a significant risk to the integrity of the initiative.

Redemption by households with pour flush toilets

Of the 8 vulnerable households with pour flush toilets identified in the Wealth Ranking activity, 4 purchased Sato Pans and redeemed the voucher. The other 4 did not redeem their voucher.

Redemption by gender

Of the 119 vouchers distributed, 37 were received by women and 81 were received by men. The recipient of one voucher was undocumented. 29 of the vouchers received by women were redeemed (78%) compared to 81 of the vouchers received by men (74%). In this pilot, the gender of the recipient does not appear to have impacted the redemption results.

Of the 90 people redeeming the vouchers in the shop, 19 of those were women (21%), while 70 were men (78%). One person's identity was not recorded by the shop-owner.

Vouchers not redeemed

From a sample of those households that did not use their vouchers, households reported that they didn't have the time to make the trip to the shop or save-up the US\$6 to make the initial purchase during the validity period of only 2 weeks.

Validation processes – is the system transparent?

It was relatively time consuming for WaterAid staff to track/analyze, but less burdensome on partner NGO staff to complete the lists in the field and shop-owners to complete after each purchase (though on busy market days the shop-owners did not

dedicate time to complete details in full). In 88 of 90 cases of redemption the information collected at each step was sufficient to verify the redemption results as provided above.

By comparing the codes of vouchers distributed to each household with the codes of vouchers received at the shops WaterAid could track the movement of each voucher (especially those received by neighbours), identify any transference or production of counterfeit vouchers.

There was only one instance of the shop-owner recording a voucher with a code that did not exist (255). Rather than being an example of a household producing extra vouchers this was an example of the voucher documentation process highlighting when due process is not being followed:

- When partner NGO staff distributed the 12 vouchers to Kaipelulara they incorrectly wrote the code for one voucher (255).
- These 12 vouchers were redeemed at the Caicassa shop as a group, with assistance from WaterAid's local partner staff. However, because no SaTo Pans were available the shop-owner copied the list written by the partner staff, which included the incorrect number.
- As the shop had not restocked the SaTo Pans or delivered the order to the community he did not keep the vouchers as evidence.
- WaterAid staff paid the shop based on the written lists (including the extra 12) at the end of the pilot and took the vouchers as documentation (minus the 12). The shop-owner has since filled the Kaipelulara order and collected the vouchers however in future due process should be followed of only remunerating the shop-owner based on the vouchers physically validated in the store.

Key Learning

The voucher process followed by WaterAid provides transparent documentation processes which highlight potential inconsistencies

Toilet Construction

It was found during follow-up visits with 33 households in April and May 2017 that 94% of Households had started installation of the Sato Pan and of these 50% had completed construction and started using the toilet. 6% of households had not yet started toilet construction or installing the Sato Pan.

Of the households that had started or completed construction it took an average of 44 days between the date of purchase of the Sato Pan and starting construction. Construction time for new toilets had taken between 10 and 22 days. The reasons for

delays or not yet starting construction were given as being too busy with farming or other community activities, waiting to gather tools and further construction materials.

All the toilets that were built were new toilets, no households had added a slab and Sato Pan to an existing simple pit toilet. Many households reported that the smell and unpleasantness of constructing over an existing partially full toilet pit was the main barrier. Households had dug a new pit and transferred the superstructure across from the old toilet. Of the toilets that were built with the Sato Pan three were built as direct pit toilets and 28 were off-set pit toilets.

Outstanding Questions for further follow-up

Due to the short timeframe of the pilot, some questions have not yet been answered but will require follow-up in the medium to long term.

- What impact does smart subsidy have on sanitation behaviours of the communities involved and neighbouring communities?
 - Does it encourage communities as a whole to climb the sanitation ladder?
 - Do some households delay upgrading their toilets in the hope that they will receive a subsidy in the future?
 - Do non-vulnerable households in these communities capitalize on the improved sanitation supply chain and also improve their sanitation? And if so, do they adopt the same sanitation models as the vulnerable households?
- Is there more sustained use and maintenance of the upgraded toilets (due to the \$6 investment by the household) compared to the previous experiences of hardware subsidies for sanitation in Timor-Leste or compared to households who have never received any subsidies?
- How can this process and learning be fed back into government systems?
- Was the time, effort, resources and data collection worthwhile for the application of a US\$9.50 subsidy for 90 households that made an initial US\$6 purchase, as many Households then invested more than US\$10 in further construction materials, or was it the right level to be replicable and enough to provide a nudge to households to invest in sanitation?



Sato Pan installation in one household, 90% of the pans from a sample of 33 follow-up households had been installed by May 2017.

Recommendations

In summary, the smart subsidy pilot has been successful and WaterAid Timor-Leste and partners have learned a lot through the process. Major recommendations and learnings include:

- Smart subsidies as vouchers for sanitation materials is an effective way of raising interest in hygienic sanitation facilities among rural communities.
- A clear and objective framework for identifying subsidy recipients is needed at a national level, however, the wealth ranking process proved an effective and accepted process for identifying vulnerable households where the system is not yet able to target households effectively. The process could be further refined for the community to adapt and develop their own criteria for targeting those households that cannot build a sustainable or accessible toilet.
- The reporting and monitoring process piloted provides a good framework for documenting the process and identifying inconsistencies.

Key Learning for Sanitation Marketing Approaches

While not exclusively tied to the SaTo Pan product, the smart subsidies had a positive impact on WaterAid's SaTo Pan sanitation marketing supply chain at a critical time in its development:

- Rapidly increased the profile of the SaTo Pan product among communities in target areas
- Anecdotally, during the subsidy period more non-subsidised households inquired about and purchased SaTo Pan products at both the Same shop and the Caicasa shop.
- Instilled confidence in the demand for the product among local business owners involved, and the wholesale supplier in Dili
- Encouraged rural shop owners to establish connections sooner with the wholesaler in Dili

References

Abdi, R. 2016, *Open Defecation Free Sustainability Study in east Timor 2015-2016*. WaterAid, accessed online on 20/5/2017 from:
<http://www.wateraid.org/~media/Publications/East-Timor-Open-Defecation-study.pdf>

BESIK 2009, *Joint Sanitation Evaluation*. Dili, Timor-Leste: BESIK.

G-RDTL 2012, *Timor-Leste National Basic Sanitation Policy*, Journal de Republica, 11/1/2012. Dili, Timor-Leste: G-RDTL.

JMP 2015, Joint Monitoring Programme Report: *Progress on Sanitation and Drinking Water – 2015 Update*. New York: Unicef/WHO.

Shepherd, G. Blockhus J. et al. 2009. *Poverty-Forests Linkages Toolkit*, Prepared by PROFOR (Program on Forests), accessed online on 20/3/2017 from
<http://www.profor.info/content/poverty-forests-linkages-toolkit-0>

Willets, J. 2013, *Supporting the poor to access sanitation in Bokeo Province, Laos*. Prepared by Institute for Sustainable Futures, University of Technology Sydney for Plan Laos and Plan Australia, June 2013. Sydney: ISF, UTS.

Annex 1 – Vulnerable Household Framework

Criteria for Vulnerable Households for Voucher Trial

4. The house already has a toilet
5. The house is not in category 'very good' (generally *uma mutin*)
6. The house meets a minimum three of the following six indicators:
 - a. Land ownership category is 'not good'
 - b. House type category is 'sufficient' or 'not good'
 - c. Animal ownership is 'sufficient' or 'not good'
 - d. Income category is 'not good'
 - e. Someone in the house receives 'bolsa da mae', 'terceira idade' or 'feto faluk' payments
 - f. Cook only once per day
 - g. Someone in the house has a disability

Kriteria ba Uma Vulneravel

1. Uma iha ona sentina (kualker tipu) no mos
2. Tipu uma la to'o 'moris diak los' no mos
3. Uma tama iha tolu ba leten husi indikador iha kraik ne'e:
 - a. Rai husi 'moris ladun diak'
 - b. Tipu uma husi 'moris naton' ou 'moris ladun diak'
 - c. Animal husi 'moris naton' ou 'moris ladun diak'
 - d. Rendimentu husi 'moris ladun diak'
 - e. Ema ida ba leten iha uma simu bolsa da mae, terceira idade ou feto faluk
 - f. Loron ida tein dala ida
 - g. Iha ema ho defisiensia

Annex 2 – Process for voucher distribution

Voucher distribution process - English

1. Partners will receive a list of the *xefe da uma* in each aldeia who are eligible for the voucher (attached form) and a pad of vouchers for distribution
2. When they visit each house they will:
 - a. explain the voucher,
 - b. give the voucher to the household,
 - c. receive a signature from the recipient and write the date on their list as evidence that they then return to WaterAid
3. The voucher recipient will have until 17 March to redeem the voucher for any sanitation product listed
4. The shop owner will have a list of the codes and will record the name and any telephone number of the person redeeming each voucher, along with a note of what items they purchased
5. The shop owner will tear the stub from the voucher along the perforated line and keep the large paper, returning the stub to the voucher recipient to keep as evidence/receipt
6. Partners will do monitoring visits after 17 March to confirm whether materials have been used for toilet construction or other purposes.

Prosesu distribui bilhete - Tetun

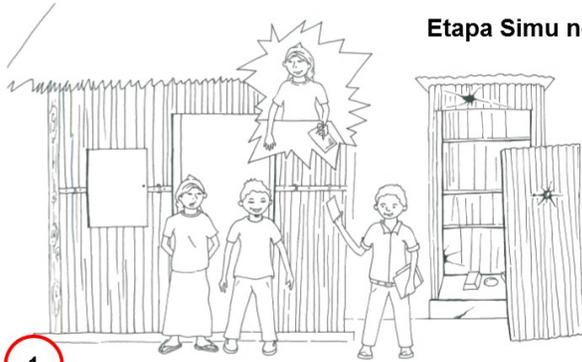
1. Parseiru sira sei simu lista xefe da uma ba uma ne'ebe vulneravel iha kada bairro hamutuk ho bilhete tahan naton
2. Bainhira visita fali ba uma parseiru sira sei:
 - a. Esplika kona ba bilhete, no produktu ne'ebe bele hola
 - b. Fo'ó bilhete ida ba ema iha uma,
 - c. Hetan asinatura ida husu ema ne'ebe simu no hakerek data no numero bilhete iha lista atu fo'ó fali ba WaterAid nudar evidensia.
3. Ema ne'ebe simu bilhete bele lori ba loja to'ó data ne'ebe harekek iha bilhete. Sira hola produktu tuir lista iha bilhete to'ó valor \$6 no fo'ó bilhete hamutuk ho sira nia eleitoral ba loja nain
4. Loja nain sei hakerek kodigu bilhete nian hamutuk ho naran ema ne'ebe lori bilhete, produktu ne'ebe hola, no mos numero telephone se iha
5. Loja nain sei lees bilhete tuir linha. Loja nain rai hela surat tahan bo'ot no uma nain lori fali ba surat tahan kiik nudar nota ka evidensia
6. Parseiru sira sei halo monitorizasaun depois period bilhete atu hare progresu ba sentina no atu hare oinsá mak uma nain uja material.

Annex 3 – Framework for Wealth Ranking and identifying vulnerable households

	Rai nia luan	Tipo Uma	Tipo Sentina	Animal	Rendimentu	Sasan iha uma laran	Edukasaun	Loron ida tein dala hira
	Land area	Type of House	Type of Toilet	Animal ownership	Income	Household belongings	Education	Number of times cooking each day
Moris Diak Los (Very good life)		(exclude)						
Moris Diak (Good life)								
Moris Naton (Sufficient Life)		3b		3c				
Moris Ladun Diak (Not-so-good Life)	3a				3d			
Other			Must have toilet		3e – receive government welfare	3g – person with disability		3f-Cook once per day

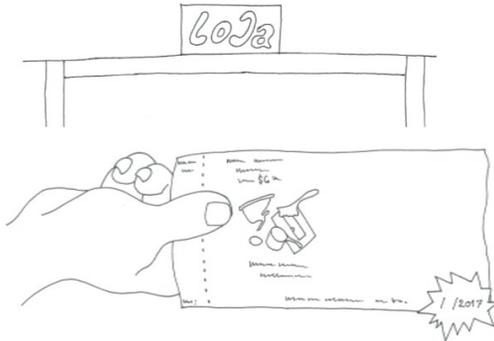
Annex 4 – Voucher Process Brochure

Etapa Simu no Uja Bilhete Saneamentu



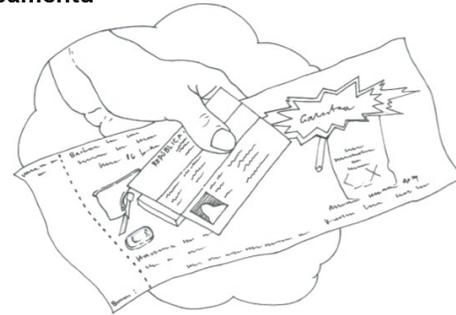
1

Uma vulneravel ne'ebe hili tuir prosesu sei simu bilhete ne'ebe bele uja atu hadiak sira nia sentina. Ema ida sei lori bilhete hodi esplika kona ba bilhete ne'e. Ema ida husi uma laran tenki simu no asina hanesan evidensia katak sira simu ona



2

Bilhete tahan bele uja to'o deit data ne'ebe hakerek iha bilhete



3

Atu uja bilhete, bilhete nain lori bilhete hamutuk ho ninia eleitoral ba loja ne'ebe refere iha bilhete tahan.



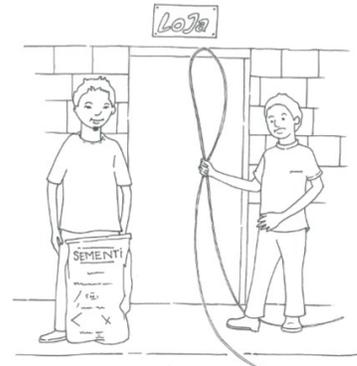
4

Bilhete nain persija gasta osan **total \$6 ba leten** atu hola produktu saneamentu. Produktu saneamentu hanesan kloset, sabaun, eskova sentina ka gayung

Kodigu/Bilhete	Naran	Produkto	Nomor kontak-tu	Data fo'o pakete
123	Afonso	SEMENTI	7753 7579	1/Marsu/2017

5

Loja nain sei prenxe formatu hanesan evidensia katak bilhete ne'e troka ona ho produtu saneamentu



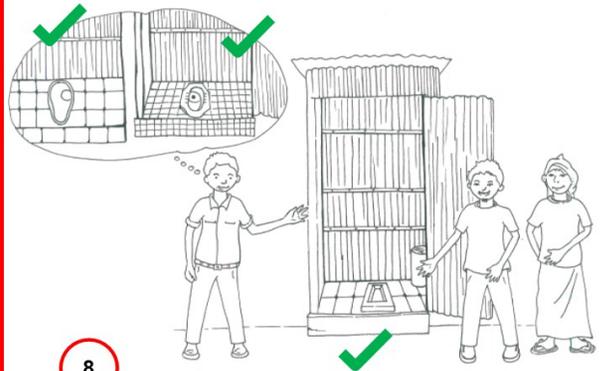
7

Loja nain fo'o gratuita sementi saku ida (40kg) no mos besi beton lolon ida (6mm) ba bilhete nain



6

Loja nain sei lees bilhete tuir linha. Loja nain rai hela surat tahan bo'ot no bilhete nain lori fali surat tahan kiik nudar nota ka evidensia



8

Sentina hadiak tiha mak ema sei mai fali atu hare rezultadu