

# Healthy Village Facilitator's Guide

## Water Supply, Sanitation and Hygiene (WASH)



**Ministry of Health and Medical Services, Solomon Islands**

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# 1. Introduction

## 1.1 Background

All people have the right to safe water and sanitation. In the urban areas in the Solomon Islands, access to improved water and sanitation was reported among 73% and 81% of the households, respectively (WASH 2015). But it is still a major challenge in rural communities where about 80% of the population live. Indeed, 54% of rural households had access to improved water source and only 13% of households had access to proper sanitation (WASH 2015). Open defecation is common. Hand-washing with soap after defecation or before eating or handling food, was only practised by 16% of the population (WASH 2015). Inadequate water, sanitation and hygiene contribute to the prevalence of infectious diseases such as diarrhoea, skin diseases and respiratory diseases. In 2018, poor access to water supply, sanitation and hygiene (WASH) was the 7th highest cause of death in the Solomon Islands – this means that every week 4 - 5 people died from it.

The aim of this guide is to equip healthy village facilitators with basic knowledge on WASH, enable them to collaborate with village leaders and provincial health programs to promote the use of safe water supply, build and use proper sanitation facilities and practice good basic hygiene to improve their health, dignity and wellbeing. Continuous improvement in WASH will not only reduce the impact of poor health and poverty but also promote economic and social development in the nation in a long run.

## 1.2 What is WASH?

- WASH stands for Water, Sanitation and Hygiene.
- They are often mentioned together, as they are closely related: **access to water will help sanitation** and especially **good hygiene** practices.
- Unsafe water, poor sanitation and unhealthy hygiene practices put your health at risk.
- But good access to water, sanitation and basic hygiene practices will **reduce illnesses and death**. It will also **help** families to **reduce poverty** and **improve** their **socio-economic development**.

=> WASH is a priority area, which should be improved in all settings (villages, schools, workplaces, markets and towns)!

## 2. Water

### 2.1 Water in our life



Water is life

- Water is transparent with no colour and smell and it is found all over Earth. Water flows as liquid in rivers, streams, in the ground and in oceans.
- People's accessibility to clean water is recognised as a human right.
- About 60% of a human's body is made of water – it is therefore important to drink plenty of water to stay healthy.
- Water is used to maintain body temperature, transport nutrients and get rid of toxins (body poisons).

### 2.2 Water sources

People collect water from different types of water sources.



#### (1) Rainwater collection system from the roof to tank (tank water)

- In rain water collection, the rainwater is drawn from the roof of a house/building into a tank.
- It is important to put a water screen and cover the mouth of the tank to keep dirt and mosquitoes away.

- Always drain or empty water in your tank every 3 months to remove sediments or dirt at the bottom of the tank and have fresh rain water stored.



## (2) Ground Water (borehole, well, spring)

- A borehole is drilled by machine and is quite small in diameter (width). They are often fitted with hand pumps as one in this photo:



- A well is usually dug by hand and is quite large in diameter.
- All village bore holes and wells must be dug more than 50 meters away from any toilet facility.



- A spring is the result of an aquifer (underground layer holding much water) being filled to the point that the water overflows onto the land surface.



### (3) Surface water (river, stream)

- Surface water is water on the surface of land such as in a river, lake or wetland (swampy area).



## 2.3 Importance of clean water

- Safe and readily available water is important for public health:
  - **Poor quality** water can make you sick.
  - **Poor quantity** (amount) of water will not clean your surroundings and your body, so hygiene suffers.
- Improved water supply and sanitation and good management of water resources contribute to better standard of living in the village, as:
  - Less time and energy are wasted for collecting water from far away.
  - Good access to water can be used for other purposes, for example small businesses or tourism, caring for the sick and elderly.



Fresh water

## 2.4 Causes of water contamination

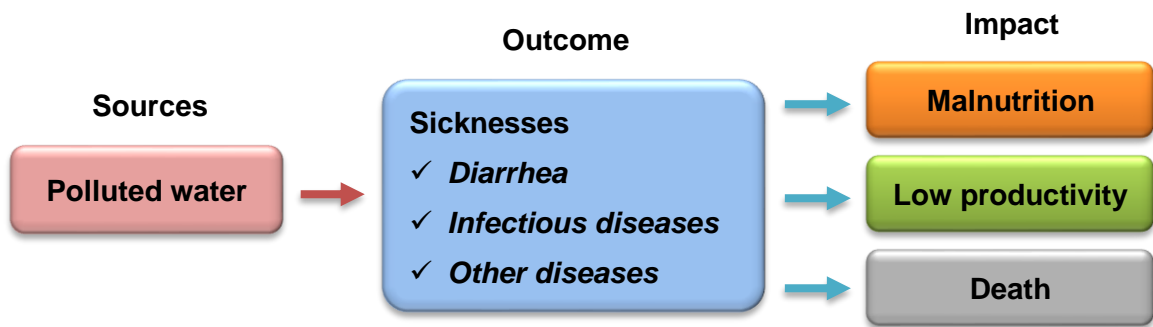
- Water in the community can be contaminated (get dirty) in many ways, especially by the people themselves and their animals.



Undrained water filled with rubbish

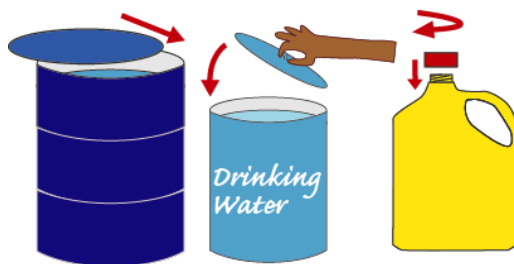
- Water can become contaminated (get dirty) by the following:
  - Defecating (shiti olobaot) in the river
  - Dirty and contaminated water seeping into broken and leaking pipes in the distribution system
  - Using unhealthy ways to handle and store household water (i.e. water containers without a lid)
  - Animals roaming and defecating (shiti olobaot) in the river
  - Throwing household rubbish into the river
  - Washing dirty utensils, dirty clothing and swimming up stream
  - Sanitary facilities (toilets) built near or over the river
  - Solid waste like old cars, bicycles and batteries disposed in the river
  - Fuel (petrol, oil, diesel) leakage into the river
  - Chemicals used by farmers, mines and industry flowing into the river

- Effect of contaminated water on human life:



- Contaminated or polluted water can cause illnesses like diarrhea, dysentery, red eye and skin diseases.

## 2.5 How to keep water clean



- Always use a clean container to keep all household water - clean water containers properly with (hot) water and soap.
- Fill water containers straight from the tap.
- Use a proper lid to cover containers to stop mosquitos breeding and dirt from entering.
- Keep water container at appropriate (cool, dry) place to avoid contamination by dust, animals and children.
- Do not keep stored water for a long time in the house.

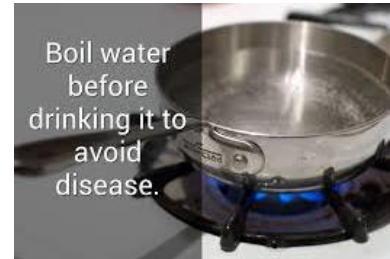


## 2.6 How to treat drinking water

Always make sure that your water is safe for drinking. You can make your water safe by doing the following:

### (1) Boiling of water

- Boiling is the simple and best way to make water safe to drink.
- Water must be boiled for 5-10 minutes in order to kill most or all germs living in the water.



### (2) Filtering of water

The clear water on top passes through filters composed of sand, gravel and charcoal to remove dissolved particles such as dust, parasites, bacteria, viruses and chemicals.



### (3) Solar treatment (cleansing) of water

Solar or sun water treatment (cleaning) is also one of the effective means for purifying (cleaning) water before drinking.

- Fill water into transparent plastic or glass containers and then put it directly to the sunlight for six (6) hours.



## 2.7 Using water wisely in different situations

- It is important to make sure that each household has enough clean water at all times.
- When there is adequate or enough supply of water, use a good amount of water to clean the body, surroundings, facilities and houses, but do save enough for emergencies and the following days.
- When there is shortage or not enough water, use only a minimum amount of water, but do make sure to maintain good personal and environmental hygiene.

## 2.8 Water resource management

Water resource management is very important for agriculture, care for water at home and the community to minimise risks of water shortages. We must together look after and protect our water bodies for future (rivers or lakes) from pollution and misuse.



River is an important water body

It is very important that:

- Water resources are kept away from sanitation systems, domestic animals, rubbish dump sites and burial sites in order to be free from contamination.
- Water resource facilities such as tanks, water pipes, gutters etc. are checked regularly and maintained properly.
- Water source catchment areas are well protected.
- Community is organised and participate in river clean up.
- Community plant vegetation along river banks.
- People do not pour petrol, diesel or oil into the river.
- People do not to throw any rubbish into the river.

### 3. Sanitation



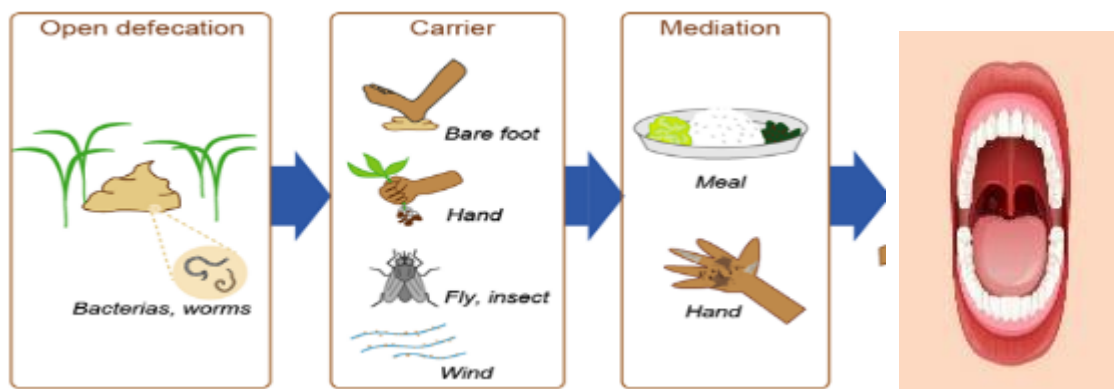
#### 3.1 Sanitation

Sanitation is defined here as promoting good health by **preventing human contact with waste** (RWASH Engineering Manual 2019). In WASH, the waste we mean here are faeces (shit) and urine.

So how does a person get in contact with faeces and urine? When no toilets are used (open defecation), or the toilets are poorly constructed or not cleaned:

1. *Feet* – can step on it
2. *Hands* – can touch it or things that have the waste on it
3. *Flies* and other insects & animals – flies will happily sit on shit but also your food!
4. *Water* – can get contaminated with the waste
5. *Food* – wind may blow the dirt on it but flies can sit on it as well

Pigs may eat human waste (shit) and the worms that may be inside it – these worms can then enter the human body when a person eats the pig!





The beach (or mangrove or bush) toilet is not proper sanitation  
– wind, flies and animals have access to the waste!

### 3.2 Improper Sanitation Practices

- Majority of people in the village do not have proper toilet and therefore practice open defecation.
- Open defecation is the way people practice defecating (shiti olobaot) outside in the open environment rather than into a proper toilet.
- People use the beaches, bushes, mangroves, rivers, and streams for toileting.
- To stop open defecation, the village people must build and use GOOD toilets.
- Proper toilets must be built 50 meters from the nearest water source (well, bore hole, river or spring).
- Toilets must be built on a lower ground from any water source to prevent flow of waste into the water source.

So, what is a good toilet? A good (or proper) toilet is one that **prevents people access to the waste directly (e.g. touching, stepping)** and **indirectly (e.g. by flies, other animals)**.

### 3.3 Community-Led Total Sanitation

- Community-led total sanitation (CLTS) is an approach used mainly in developing countries to improve sanitation and hygiene practices in a community.
- The approach tries to achieve behaviour change in mainly rural people by a process of "triggering", leading to a declaration of an "No Open Defecation (NOD) village".
- The approach has been used in some provinces in the country and has proved to be successful.



### 3.4 Good proper toilet facilities

- (1) One that has no holes on the outside of the toilet or on the floor inside where flies can go through to get to the waste:



- (2) Has a lid to cover the (squat) hole inside so flies cannot go inside:



- (3) Is kept clean – a dirty toilet is just as bad as no toilet:



### 3.5 Health problems related to open defecation:

- Water supply and environmental pollution causes diarrhea and other diseases.



- It is linked to intestinal worms and malnutrition.



- Other infectious diseases relating to poor sanitation and hygiene include trachoma.



### 3.6 Benefits of improved sanitation

- Reducing the risk of diseases such as diarrhea.
- Reducing the spread of intestinal worms, skin diseases, hepatitis and trachoma.
- Reducing the risk of impact by malnutrition.
- Promoting dignity (respect) and boosting safety, particularly among women and girls.
- Promoting girl's school attendance particularly by the providing separate sanitary facilities.





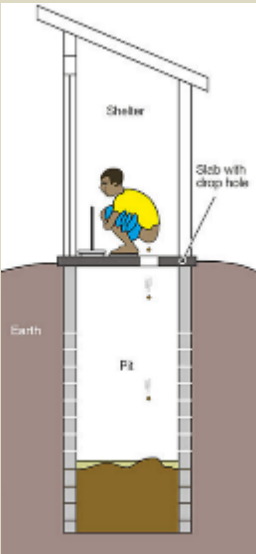



Healthy happy family

### 3.7 Types of improved toilet system

- Sanitation systems aim to protect people's health by providing a clean environment that stop the spread of diseases.
- Proper sanitation facilities (for example, toilets and latrines) promote health because they allow people to dispose of their waste properly. Below are types of toilet systems used in the communities.



sato pan toilet

<p>Long drop</p>		<p>Pour flush</p>	
<p>Pit Latrine</p> <p>Picture source: WEDC. Latrine slabs: an engineer's guide, WEDC Guide 005</p>			
<p>Ventilated Improved Pit Latrine (VIP)</p>		<p>Septic System</p>	

Preventing human contact with faeces (shiti) is part of sanitation as is hand-washing with soap.



## 4. Hand-washing



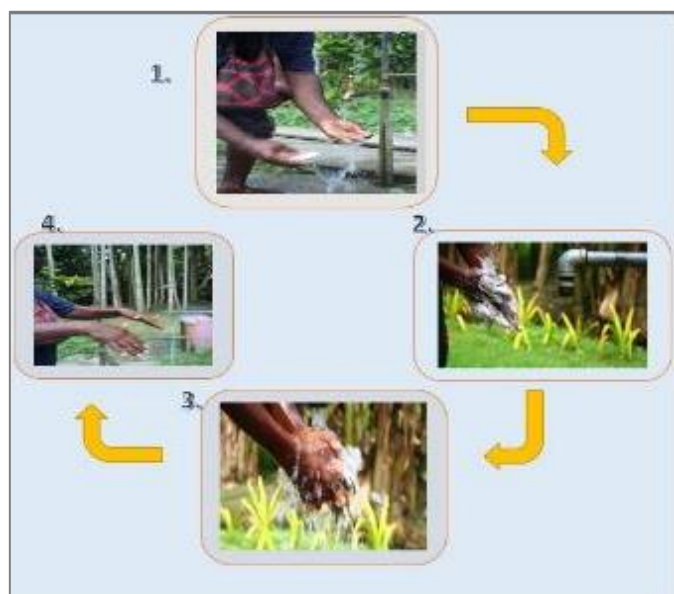
### 4.1 What is Hand-washing?

- Hand-washing is one of the most important things one should do to avoid getting sick and spreading germs to others.
- Proper hand-washing requires running water AND soap. You can dry your hand with a piece of cloth, but if the cloth is dirty, just air-dry your hands.
- Washing of hands with water and soap removes germs from the hands.
- People touch their eyes, nose, and mouth without even knowing it – hundreds of times per day!
- Germs can get into the body through the eyes, nose and mouth and make us sick.

### 4.2 Method for hand-washing

Every villager should learn the correct method of hand-washing and practice it:

- (1) Wet your hands with water
- (2) Rub your hands thoroughly with soap
- (3) Rinse your hands well
- (4) Air-dry your hands or use a clean cloth



### 4.3 Critical times for hand-washing

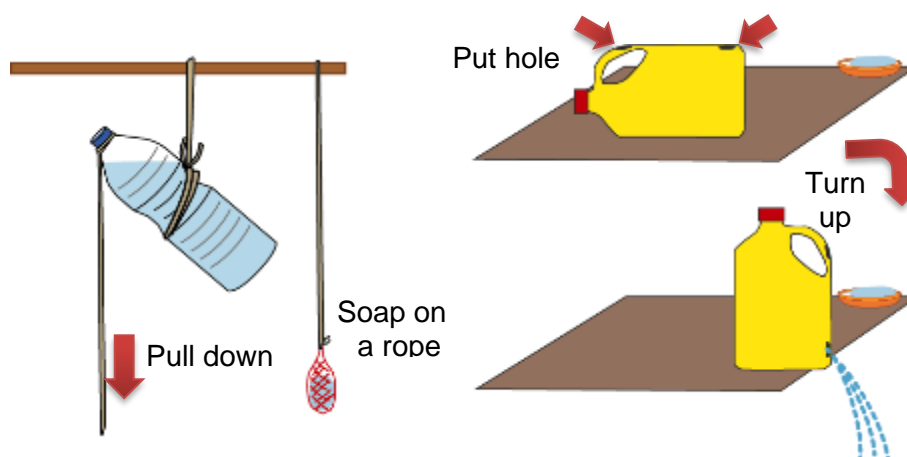
One almost cannot wash one's hands often enough, but here are the critical times:

- After using toilet.
- After cleaning a baby or an adult's bottom.
- Before cooking and preparing food.
- Before and after eating.
- After sneezing or coughing.
- After playing with pet (dogs, cats).
- After cleaning the baby's toilet potty.
- After working or playing outside.
- After taking care of a sick person.
- When the hands are visibly (seen) dirty.



### 4.4 Hand-washing facilities

- Make sure the hand-washing facilities are conveniently located, clean and properly working.
- Hand-washing is only hygienic if water outlet is not contaminated. Hanging up the container instead of putting it on the floor effectively avoids contamination of the outlet.
- Carefully respect the habits of users when installing hand-washing facilities.
- Every toilet must have hand-washing facilities with water and soap. Here are some simple facilities that could be set up in homes / community.





- Always use running water from a tap or bottles instead of a dish full of water for hand-washing.
- Make sure that the water used during hand-washing can safely drain away so the area stays clean and free from mosquito breeding.

## 4.5 Water collection for hand-washing

- Hand-washing can be very difficult where there is no water around in the village.
- Water for hand-washing can be collected from pipe water, well, river and the rain.
- Containers used for water collection for hand-washing can be drums, tanks, jerricans and buckets.
- Collecting rain water from the roof into a drum or a tank is common where water access is limited.



*The Solomon Islands Rural WASH Program of the Environmental Health Division /MHMS can provide more information about construction of sanitation facilities and hand-washing facilities.*

## 5. Hygiene



### 5.1 What is Hygiene?

- Hygiene is the practice of keeping oneself and one's surroundings clean to prevent illnesses and the spread of diseases.
- Hygiene includes cleanliness of our homes, schools, communities and the people. Good hygiene is a barrier to infectious diseases including diarrhea and skin diseases.

### 5.2 Personal hygiene

- Personal hygiene involves practices performed by an individual to care and maintain cleanliness of one's body and clothing to preserve overall health and wellbeing.



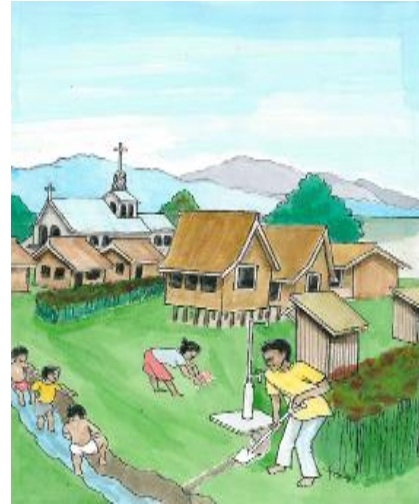
Tooth brushing



Cloth washing

### 5.3 General environment

- Community cleaning up their surroundings to promote health.
- Better drainage to prevent vector borne diseases (mosquito breeding).
- Cleaning of bushes and proper disposal of rubbish to prevent rats and cockroaches.
- Community landscaping and beautification of the village



### 5.4 Rubbish disposal

- Villages with rubbish thrown everywhere look dirty. It is an unhealthy environment.
- When rubbish/waste is not disposed properly, it provides breeding sites for insects and animals, such as flies, mosquitoes, cockroaches and rodents.
- Some insects and animals can be harmful and contribute to the spread of diseases and sickness in our communities.
- It is important to practice the 3 Rs:
  - **Reduce** (*cut down size*)
  - **Reuse** (*use again*)
  - **Recycle** (*use for another purpose*)



- **Tins, Cans** – *Bury or Recycle*
- **Papers, Grasses, Plastics** – *Burn*
- **Food waste** – *Feed animals or make compost*

## 5.5 Fencing domestic animals

- Free roaming domestic animals in the village include pigs, dogs, chickens and cats.
- Faeces from these animals may cause diarrhea and pollute the environment.
- Domestic animals can destroy supsup garden beds, vegetables and fruits.
- Water sources near the village can be polluted by pigs and other animals.
- It is very important to fence pigs, chicken and control the number of dogs.
- Domestic animals can cause family and community arguments and disputes.
- It is recommendable to build animal fences more than 50 meters outside of the village boundary for environmental hygiene.



Pigs



Chicken

## Glossary of Words


<b>Borehole</b>	A deep, narrow hole made in the ground, especially to locate and obtain water.
<b>Cholera</b>	It is a bacterial disease usually spread through contaminated water.
<b>Community-led total sanitation (CLTS)</b>	CLTS is an approach used to improve sanitation and hygiene practices in a community, to achieve behaviour change mainly in rural population by a process of "triggering", leading to a declaration of an "No Open Defecation (NOD) village".
<b>Contamination</b>	Making something unsuitable by contact with something unclean, bad, etc.
<b>Dysentery</b>	Infection of the intestines that causes diarrhea containing blood or mucus.
<b>Faeces</b>	Waste matter remaining after food has been digested, discharged from the bowels. Shiti.
<b>Gutter</b>	A narrow trough or duct which collects rainwater from the roof of a building and into a tank.
<b>Hygiene</b>	Conditions and practices that help to maintain health and prevent the spread of diseases.
<b>Malnutrition</b>	A serious condition that happens when your diet does not contain the right type and amount of nutrients.
<b>Squat</b>	Sitting in a low or crouching position with the legs drawn up closely beneath or in front of the body.
<b>Trachoma</b>	An eye sickness affecting both eyes, it is the world's leading cause of preventable blindness.
<b>Vector</b>	A living thing that does not cause disease itself but spreads sickness by carrying germs from one host to another.
<b>Ventilated Improved Pit (VIP)</b>	VIP is a latrine with a ventilation system which allows continuous airflow through a pipe. It vents odours and acts as a trap for flies as they escape towards the light.
<b>Waterborne Diseases</b>	Conditions caused by germs that are transmitted through water. Waterborne diseases can be spread while bathing, washing or drinking water, or by eating food exposed to infected water



## Annexes

The following are samples of two request forms for a water supply system project and a sanitation and hygiene project. Communities can obtain the forms from your nearest Provincial Health Office and apply for the projects.

### Annex 1 Request Form for Water Supply System Project

WATER SUPPLY SYSTEM PROJECT REQUEST FORM	
	<b>RURAL WATER, SANITATION AND HYGIENE (RWASH) DEPARTMENT</b> Environmental Health Division Ministry of Health PO Box 349 HONIARA PHONE: 21805; FAX: 25513
<b>NAME OF THE PROJECT:</b> .....	
<b>Date Form submitted:</b> .....	
<b>Ward No.</b> ..... <b>Ward Name:</b> .....	
<b>Province:</b> .....	
QUESTIONS ABOUT THE WATER SUPPLY	
What kind of water supply will be used?	Spring Creek/Stream/River Groundwater Rainwater
Is the water clean? (Circle correct answer)	
Does the source run dry during the dry season?	
Is the source above or below the village?	
If groundwater	Is there a borehole in the community? If yes, when was it drilled?
	Is there a hand dug well in the community? If yes, when was it dug?
<b>EXISTING WATER SUPPLY</b>	Was there a water supply before? If yes, is it still working? If not working, why not? (Provide us with details so we can assess if your water system needs rehabilitation.)
QUESTIONS ABOUT SANITATION	
Do people in the community use toilets?	
If yes, what are the types of toilets? (Tick off all of the toilet types used in your village)	Simple pit toilet
	Ventilated pit toilet
	Pour-flush toilet
	Cistern flush toilet
	Compost toilet
If no, where do people go to defecate?	
What are the main illnesses in the community?	

## Annex 2 Request Form for Sanitation and Hygiene Project

### SANITATION AND HYGIENE PROJECT REQUEST FORM



RURAL WATER, SANITATION AND HYGIENE DEPARTMENT  
Environmental Health Division  
Ministry of Health  
PO Box 349  
HONIARA  
PHONE: 21805; FAX: 25513

Date form submitted: .....

Province: .....

Constituency: .....

Ward (Name & Number): .....

Community Name: .....

Village Name (if different from community): .....

Population: ..... Number Households: .....

COMMUNITY PRIORITIES:	
What does the community consider to be their main priorities?	1.
List the highest priority at number	2.
	3.

QUESTIONS ABOUT SANITATION:	
Where do people go to defecate? (eg. Bush / beach)	
Does anyone in the community use latrines?	
If yes, what type?	Traditional dry pit
	Ventilated Improved Pit (VIP)
	Pour-flush
	Cistern flush
	Compost
What sources of water does the community have?	
Has the community had a sanitation program before? If so, why did it fail? (Please provide details and year)	
Does the community have environmental challenges for sanitation (eg. Flooding, rocky soil)	



**Health Promoting Village Project**  
**Japan International Cooperation Agency**