WaSH FIELD GUIDE

A GOVERNANCE APPROACH TO THE DELIVERY OF WATER, SANITATION AND HYGIENE SERVICES

Technical Team

Writer
Monique T. Villanueva

Technical Advisors
Kevin Lee
Mags Z. Maglana
Noraida S. Chio
Cecille Isubal

Editorial and Creative Direction
Myn Garcia

Technical Review Team
Myn Garcia
Mags Z. Maglana
Sef Carandang

Technical Coordination
Maya Vandenbroeck

Photography
Bobby Timonera

Cover Design and Layout
Mertz Certifico

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WaSH Field Guide: A Governance Approach to the Delivery of Water, Sanitation and Hygiene Services

ISBN 978-971-94572-1-3

Printed and bound in Davao City, Philippines

Published by:

Local Governance Support Program in ARMM (LGSPA)
Unit 72 Landco Corporate Centre
J.P. Laurel Avenue, Bajada
8000 Davao City, Philippines
Tel. No. 63 2 227 7980-81
www.lgspa.org.ph

This project was undertaken with the financial support of the Government of Canada provided through the Canadian International Development Agency (CIDA).

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FOREWORD

Assalamo Alaikum Warahmatullahi Wabarakatuho!

The Department of the Interior and Local Government (DILG)- ARMM is pleased to acknowledge the *WaSH Field Guide: A Governance Approach to the Delivery of Water, Sanitation and Hygiene Services*, a welcome addition to the growing collection of knowledge products in local governance and public administration.

Coming out of the experience of the Local Governance Support Program in ARMM (LGSPA), the Field Guide responds to common problems in the delivery of WaSH: initiatives that are one-off, do not involve communities, are not responsive, and hence not sustainable. The poor delivery by government of WaSH services can partly be ascribed to fragmentation in the understanding and approach, as well as policy confusion -- thus the tendency for public sector projects to concentrate only on water projects, which are often infrastructure-oriented, to the exclusion of sanitation and hygiene.

The Field Guide challenges and enables local governments and government agencies to work with other stakeholders in a more coordinated manner so that water, sanitation and hygiene are delivered as an entire package that ensures the general health condition of communities. In the process, the way governments, civil society and citizens interact changes, fostering more transparent, accountable and responsive relationships.

We in DILG-ARMM look forward to sharing the WaSH Field Guide through our Local Governance Resource Center (LGRC) and applying the Governance Approach to other service areas as we continue the work on localizing the Millennium Development Goals (MDGs) and contribute to the improvement of the human development profile of the Autonomous Region.

Hon. Ansaruddin Alonto Adiong
Regional Vice Governor, Autonomous Region in Muslim Mindanao (ARMM)
Regional Secretary, Department of the Interior and Local Government in ARMM (DILG-ARMM)

ACKNOWLEDGEMENTS

The Local Governance Support Program in ARMM (LGSPA) thanks:

Members of the Municipal Water, Sanitation and Hygiene Task Forces (MWTFs) and Water and Sanitation Associations (WSAs) of 31 municipalities coming from local governments, agencies, civil society organizations and citizens whose work and whose desire to help more communities gain access to WASH services inspired this publication.

The WaSH teams of the A Single Drop for Safe Water, Inc. (ASDSW), Bansag Babai, Kadtabanga Foundation for Peace and Development Advocates, Inc., Maranao People Development Center, Inc. (MARADECA), Muslim-Christian Agency for Advocacy, Relief and Development (MuCAARD), Muslim Women Peace Advocates (MWPA), Sulu Tanjuh Organization, and United Youth for Peace and Development (UNYPAD) for championing the Governance Approach and designing the processes and tools that introduced and popularized it.

LGSPA Program Officers Fatima Yusah, Rachel Jungco, Wing Morallas and Jaime Dumarpa and Assistant Manager Cecille Isubal for the technical assistance they extended to the WASH initiatives of local stakeholders.

The technical team composed of Monique T. Villanueva, Kevin Lee, Noraida S. Chio, Myn Garcia, Mags Z. Maglana, Cecille Isubal, Maya Vandenbroeck, Sef Carandang and Mertz Certifico for executing the vision that guided the production of this Field Guide.

LGSPA managers and staff who contributed in many ways to promoting WaSH and the Governance Approach, and to producing this knowledge product.

The Peace and Equity Foundation (PEF) for agreeing to include the *Water Works! Resource Kit*, a knowledge package on the implementation of potable water projects, in the companion CD of the WaSH Field Guide. ■

PREFACE

The Local Governance Support Program in ARMM (LGSPA) counts *WaSH Field Guide: A Governance Approach to the Delivery of Water, Sanitation and Hygiene Services* among the knowledge products that truly represent a governance perspective – one where, using mechanisms, processes and institutions "citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences." (UNDP)

Coming out of learnings from five years of programming, this Field Guide recommends an approach to service delivery that speaks to realities in the Autonomous Region, which also apply to many other resource-poor and governance-challenged areas in the country. It builds on knowledge products from other programs, in particular the *Service Delivery with Impact: Resource Books for Local Government* from the second phase of the Philippines-Canada Local Government Support Program (LGSP II) and the *Water Works! Resource Kit* of the Peace and Equity Foundation (PEF), electronic copies of which are contained in the companion compact disk of this publication.

The Field Guide fills a vacuum through its recommended steps and tools for vital processes that promote access to clean and safe water, adequate sanitation facilities and overall hygiene, such as participatory resource inventory, responsive planning, and behavior change-oriented information, education and communication campaign.

This resource book is a handy and comprehensive reference for local governments, and support institutions such as civil society, government agencies and development assistance organizations.

Through stories such as those of the Kabuntalan and Datu Abdullah Sangki partners, LGSPA offers proof that providing support to stakeholders that are prepared to go through the capacity development process can lead to results that benefit communities. Finally, with *WaSH Field Guide* LGSPA contributes to the advancement of service delivery in a manner that also transforms the governance terrain.

Local Governance Support Program in ARMM (LGSPA)

ACRONYMS

AIP	Annual Investment Plan
ARMM	Autonomous Region in Muslim Mindanao
ASDSW	A Single Drop for Safe Water, Inc.
ASF	Average Source Flow
BCC	Behavior Change Communication
BDC	Barangay Development Council
BDP	Barangay Development Plan
BLGU	Barangay Local Government Unit
BSF	Bio-sand Filter
CBD	Central Business District
CDP	Comprehensive Development Plan
CSO	Civil Society Organization
DepEd	Department of Education
DOH	Department of Health
DOST	Department of Science and Technology
ELA	Executive and Legislative Agenda
EO	Executive Order
FCT	Ferro-cement Tank
FGD	Focus Group Discussion
HH	Household/s
IEC	Information, Education and Communication
IGP	Income-Generating Project
KFPDAI	Kadtabanga Foundation for Peace and Development Advocates, Inc.
KPI	Key Performance Indicator
LGSP	Philippines-Canada Local Government Support Program
LGSPA	Philippines-Canada Local Governance Support Program in ARMM
LGU	Local Government Unit
LDIP	Local Development Investment Plan
M & E	Monitoring and Evaluation
MA	Municipal Agriculturist

MAO	Municipal Agricultural Office/Officer
MBO	Municipal Budget Office/Officer
MCSO	Managing Civil Society Organization
MDC	Municipal Development Council
ME	Municipal Engineer
MEO	Municipal Engineer's Office
MHO	Municipal Health Office/Officer
MIO	Municipal Information Officer
MLGOO	Municipal Local Government Operations Office/Officer
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPDC	Municipal Planning and Development Coordinator
MSWDO	Municipal Social Welfare and Development Office/Officer
MT	Municipal Treasurer
MTO	Municipal Treasurer's Office
MWTF	Municipal WaSH Task Force
NSCB	National Statistics Coordination Board
ODA	Official Development Assistance
PCIA	Peace and Conflict Impact Assessment
PEF	Peace and Equity Foundation
PERT-CPM	Program Review and Evaluation Technique – Critical Path Method
POW	Program of Work
RWSA	Rural Water and Sanitation Association
SB	Sangguniang Bayan
SK	Sangguniang Kabataan
SMART	Specific, Measurable, Attainable, Realistic, Time-bound
UNDP	United Nations Development Programme
VIP	Ventilated Improved Privy
WaSH	Water, Sanitation and Hygiene
WFP	Work and Financial Plan
WSA	Water and Sanitation Association

“Noong una, parang imposibleng magkaroon ng malinaw at ligtas na tubig ang lugar namin.”

Councilor Donny

Well Number 4. It is a hot day in July 2009 and Councilor Donny is about to call it a day as he wraps up his chlorination work on a dug well in Sitio Tuka, Barangay Ganta, one of 17 barangays in the Municipality of Kabuntalan in Maguindanao. This is not the first time that Councilor Donny has done this kind of work for Barangay Ganta. This is dug well improvement number 4 for his barangay, and he cannot help but smile for another 20 households that will soon be fetching clean and safe water from this fourth well.

It wasn't always like this for Barangay Ganta. Just last year, residents would get their drinking water from dug wells all throughout the barangay. Unfortunately, flooding is a perennial problem in the whole municipality. The three rivers running through Kabuntalan – the Rio Grande de Mindanao, Tamontaka River and Matampay River – would overflow and knee-high flood waters would submerge Barangay Ganta and flow into the barangay's main source of drinking water. Water from these rivers is already contaminated by human activities such as laundry, bathing, defecating and, yes, drinking. These same waters submerge the dug wells of Barangay Ganta, but because there were no apparent alternatives, the residents had no other option but to drink the murky water from these wells. The only “water treatment” they would use was to allow the water to stand, and then discard the portion where the sediments had settled.

A New Hope. The year 2008 brought new hope to Barangay Ganta when the Local Governance Support Program in ARMM (LGSPA), together with A Single Drop for Safe Water, Inc. (ASDSW) as technical adviser, brought with them a new way of delivering water, sanitation and hygiene services to a community. A way they would call the Governance Approach to WaSH.

Working in partnership with the Kadtabanga Foundation for Peace and Development Advocates, Inc. (KFPDAI), the municipality and barangay created their Municipal WaSH Task Force (MWTF) and Water and Sanitation Association (WSA). These two groups would take the lead in mobilizing the community and its resources for the operationalization of the Governance Approach. Soon after they were organized, the MWTF and WSA, together with the residents of Barangay Ganta, conducted an inventory of WaSH resources, which then formed the basis of their Municipal WaSH Plan. The plan identified dug well improvement as the most feasible way of delivering clean and safe water to the residents.

By February 2009, the community began an on-the-job training on dug well improvement and pump repair. An actual dug well, which was frequently submerged during the rainy season, was used for the training. Water quality testing had confirmed that water from this well was highly contaminated with E. coli and environmental coliforms that render it unsafe for drinking. The training coincided with a heavy flood that affected the entire Kabuntalan. But this did not stop the

community from the task at hand. Both women and men shared the different tasks: from cutting bars to sieving sand and gravel, from mixing cement to fixing snacks. The whole barangay was alive, motivated by the active involvement of its Barangay Chairperson Hadja Rahma Sangki.

Clear at last. Then came the last day of training. Everyone waited in anticipation as the first burst of water was about to be pumped out of the well. The people of Barangay Ganta watched in awe as clean and clear water flowed from their well, no longer the turbid and foul-smelling water that they had lived with all their lives.

"We can't stop here." Immediately upon seeing the results, the community began planning for the improvement of the other existing wells in the barangay. With minimal financial assistance from LGSPA, the WSA mobilized the community for the expansion. Inspired by what they had seen, residents offered to contribute culverts and labor. Dug well improvement became the talk of the town. Not long after, the municipal government of Kabuntalan, under the leadership of Hon. Mayor Salaban Diocolano, provided the cement and pumps for the improvement of other dug wells in the barangay.

Championing the Governance Approach. Today, there are a total of four improved dug wells in Barangay Ganta, whose potability has been affirmed by the petrifilm and collilert tube water quality tests. Councilor Donny, who heads the WSA in the barangay, has already been invited by other barangays to share the technology, so that all other dug wells in the municipality could be improved. Councilor Donny is more than happy to champion the Governance Approach to WaSH, which has changed the lives of the people of Barangay Ganta. ■

INTRODUCTION

WHY A FIELD GUIDE ON WaSH?

The Philippines-Canada Local Governance Support Program in ARMM (LGSPA) formulated this user-friendly Field Guide on WaSH as a tool for the replication of its Governance Approach to the delivery of services in water, sanitation and hygiene.

LGSPA recognizes that there are many communities throughout the country where the delivery of WaSH services remains a challenge for any or some of the following reasons:

- **Mechanisms, institutions and processes for good governance are absent or are not yet fully developed**. This Field Guide advocates that the effective delivery of WaSH services is the result of a dynamic collaboration between local governments and the public they serve. In some communities, such a partnership is either not yet in place or is still in its formative stages
- **Natural or geographic limitations**. Some communities are situated in areas where natural factors – terrain, elevation, inadequate or unsuitable water sources and the like – make it difficult to deliver WaSH services; and
- **Resource constraints**. For some areas that do have the natural endowments for safe and adequate water supply, the local government and the community do not have sufficient funds to build complex or extensive water distribution systems, sanitation and hygiene facilities

This Field Guide seeks to help communities confronted by these difficulties, by offering simple and straightforward information, instructions and guidelines on how they can have access to clean and safe water, adequate sanitation facilities and overall hygiene, using an approach that is anchored on good governance; one that works with the natural environment; and requires minimal investments

to install, operate and maintain a WaSH system.

This Field Guide acknowledges other helpful resource books and manuals that have been written on water, sanitation and hygiene within the Philippine setting. These materials, the electronic copies of which are contained in a compact disk that accompanies the Field Guide, complement this Field Guide by providing in-depth knowledge on other aspects of WaSH service delivery. In particular:

- ***Water and Sanitation Services for All*** **(WATSAN)** written by the Philippines-Canada Local Government Support Program (LGSP) as part of a series entitled *Service Delivery with Impact: Resource Books for Local Government*. This book introduces essential concepts and issues on WaSH; discusses in detail the national and local policies governing WaSH in the Philippines; defines the role of the local government unit in delivering this service to the community; and gives examples of best practices in the provision of water and sanitation. This resource book complements the Field Guide by situating communities within the country's overall policy environment on WaSH.

- ***Water Works! Resource Kit*** of the Peace and Equity Foundation (PEF), is a package that consists of two kits and a field manual on the implementation of potable water projects. The first kit is entitled *The ABCs of Potable Water Projects*, which as its title implies, presents basic information on the design, construction and operation of potable water projects. The second kit, *Working Together for Potable Water Projects*, introduces the PEF framework for implementing potable water systems. Finally, the *Field Manual* is a companion to the two kits, complete with all the supporting documents, forms and training modules. The kit is a supplemental read to the Field Guide, particularly on the project development aspect for water.

This Field Guide hopes to enrich the existing library of knowledge products on WaSH, by introducing the Governance Approach as a viable alternative for the delivery of water, sanitation and hygiene services to communities where this need has not yet been adequately met.

WHO ARE THE INTENDED READERS OF THIS FIELD GUIDE ON WaSH?

This Field Guide on WaSH is written for institutions and organizations that have either the mandate, expertise, thrust or interest to provide communities with access to sustainable WaSH services. More specifically, this Field Guide is written for:

Local Government Units. Whether at the provincial, municipal or barangay level, local governments could use this Field Guide to complement or support their existing development plans and programs on WaSH. The local government units targeted by this Field Guide are those whose constituents still derive their water supply mainly from level I systems (point source, such as a protected well, developed spring or surface water sources, with an outlet but no distribution system); level II systems (a water source with a piped distribution network and communal faucets or tap stands); and undeveloped sources (undeveloped spring or natural bodies of water such as lakes, rivers or creeks).

Within the local government unit, the target readers of this Field Guide are the office/s that currently handle WaSH concerns, e.g. Municipal Planning and Development Office (MPDO), Municipal Engineer's Office (MEO), Municipal Health Office (MHO) or Municipal Social Welfare and Development Office (MSWDO), to name a few. The designated office is largely dependent on how the local government views WaSH, i.e. an infrastructure project; a social service; a health facility, etc. and, thus, varies from one local government unit to another.

Development Assistance Institutions. Official development assistance (ODA) programs, or national and international funding organizations that help communities address their WaSH-related needs can use this Field Guide as a reference document on how to channel or allocate resources within their assisted areas

Civil Society Organizations. Community-based non-government organizations and people's organizations could use this Field Guide as an instructional manual for facilitating the development of basic WaSH services – from social preparation, all the way to system installation, operation and maintenance; and

Any individual or organization; government, non-government or private; that is looking for participatory and low-investment alternatives to delivering WaSH services in a community.

WHAT ARE THE SPECIFIC OBJECTIVES OF THIS FIELD GUIDE ON WaSH?

The ultimate goal of this Field Guide is to successfully replicate the Governance Approach to the delivery of WaSH service in areas of the country where this basic service remains unavailable. Towards the attainment of this goal, the specific objectives of this Field Guide are:

1) **To change mindsets on WaSH**. By clearly presenting the Governance Approach as a doable alternative to the delivery of WaSH, the Field Guide hopes to help its readers develop a mindset wherein WaSH is: demand-driven (rather than supply-driven); a continuing delivery of a basic service (rather than a stand-alone infrastructure project); and a result of a vibrant cooperative effort between the local government and its constituents (rather than the work of a single individual, group or institution)
2) **To provide simple, step-by-step instructions on how to implement the Governance Approach**. The Field Guide is written to help communities either replicate the approach in its entirety, or integrate selected processes of the approach into their existing or on-going mechanisms for service delivery; and
3) **To encourage expansion and replication of the approach**. The Field Guide hopes to develop local expertise in using the Governance Approach for service delivery, wherein communities are encouraged by their initial successes to expand the use of the approach to other areas or for securing basic services other than WaSH.

WHAT ARE THE CHAPTERS OF THIS FIELD GUIDE ON WaSH?

CHAPTER 1: The Governance Approach to WaSH. This chapter gives a basic definition of Water, Sanitation and Hygiene and a general description of the Governance Approach.

CHAPTER 2: Building the Mechanisms that Make WaSH Work. The first step in the Governance

Approach to WaSH, this chapter enumerates the mechanisms that are created and/or mobilized to implement the different steps and processes. The chapter narrates how the Municipal WaSH Task Force and Water and Sanitation Association are organized, and what their respective roles are. The chapter also identifies other individuals and institutions that could be mobilized for WaSH.

CHAPTER 3: Conducting an Inventory of WaSH Resources. After the different mechanisms have been activated, the next step in the process is the collection, consolidation and analysis of both primary and secondary data on WaSH. The chapter enumerates the different types of data-gathering activities and explains how the raw data is processed to come up with a general picture of the WaSH situation in the community.

CHAPTER 4: Planning for WaSH. The interpreted results from the inventory are then used to formulate a WaSH Plan. The chapter provides the steps on how to write the plan (offering a recommended outline of its contents), how to conduct a community validation and how to work for the plan's official adoption by the municipality, for eventual inclusion in other development plans of the local government unit, e.g. Comprehensive Development Plan (CDP), Executive and Legislative Agenda (ELA), and Barangay Development Plan (BDP).

CHAPTER 5: WaSH Initiatives Planning and Implementation. The strategies and approaches outlined in the WaSH Plan are fleshed out and broken down into a step-by-step sequence of actions and tasks called the WaSH Work Plan. This plan serves as the community's instructional manual on the implementation of its WaSH strategies. From the WaSH Work Plan, the chapter proceeds to actual implementation of the plan, with an annex that presents illustrated instructions on how to install different types of low-cost WaSH systems.

CHAPTER 6: Planning and Implementing an I.E.C. Campaign for WaSH. The Governance Approach is unlike earlier and more “traditional” ways of viewing and handling water, sanitation and hygiene concerns within a community. Thus, this innovation requires the introduction of new knowledge, and some change in the existing belief system and resulting behaviors on WaSH. This is achieved through an organized and focused information, education and communication (IEC) campaign that

cuts across all of the processes in the Governance Approach. This chapter talks about how to develop a simple yet effective communication plan, in order to achieve the knowledge transfer and behavioral changes that are critical to the success of any WaSH system. ■

CHAPTER 1

THE GOVERNANCE APPROACH TO WaSH

CHAPTER 1

INTRODUCTION TO THE CHAPTER

This chapter introduces WaSH as a basic service to the community and the Governance Approach to its delivery. The chapter gives a comprehensive definition of the Governance Approach, in contrast to some of the existing paradigms on WaSH that have been unsuccessful in delivering this basic service. A clear understanding of the Governance Approach is the foundation for appreciating the different processes undertaken (Chapters 2 to 6) to deliver WaSH services that are appropriate and responsive to the community's needs.

WHAT IS WaSH?

WaSH is an acronym for Water, Sanitation and Hygiene. The acronym is used to refer to the provision of the following basic services:

Water

Access to safe water is defined as the provision of water that is:

Potable	-	clean and suitable for drinking because it contains no harmful elements such as bacteria, chemicals and other contaminants
Affordable	-	reasonably priced and within the users' capacity to pay
Sufficient	-	approximately 20 to 40 liters per person, per day; and
Accessible	-	water source is within a 15-minute walk from the user's residence

Sanitation

Sanitation is defined as the disposal of feces and urine in a manner that prevents the transmission of disease-causing organisms such as bacteria, viruses and parasites to water supply and food sources. Usually, this refers to the provision of appropriate and accessible latrines or sanitary toilets.

Hygiene

Hygiene is the practice of maintaining cleanliness to prevent health problems or illness. Hygiene education is about helping people understand: 1) what causes some of these health problems; and 2) what preventive measures are possible. Within the context of WaSH, this usually focuses on the transmission of feces to the mouth (also known as the *fecal-oral route*) and how this transmission can be blocked.

LGSP's *Water and Sanitation Services for All* and PEF's *Water Works! Resource Kit* provide additional information on water, sanitation and hygiene. The electronic files of these knowledge products can be found in the companion CD found at the end of the Field Guide.

SOME HEALTH STATISTICS:

1) *Worldwide, there are 1.6 million diarrheal deaths per year attributed to lack of safe water, sanitation and hygiene. Most of these deaths are among children below the age of 5 years old;*
2) *Globally, some 6,000 children die every day from diseases associated with lack of access to safe drinking water, inadequate sanitation and poor hygiene – equivalent to 20 jumbo jets crashing every day; and*
3) *In the Philippines, watery diarrhea ranks third among the leading causes of morbidity over the six-year period from 2000 to 2005.*

WHY IS WaSH SO IMPORTANT TO A COMMUNITY?

Water is a Fundamental Requirement for Health

Water is fundamental to the existence of any community. Without water, no life is possible; without safe water, no healthy life is possible. Thus, health begins with access to safe water. The availability of water is a precondition for the provision of adequate sanitation facilities and the practice of good hygiene, which promote good health by preventing the transmission of harmful and disease-causing organisms.

It is imperative that all three basic services – water, sanitation and hygiene – be delivered as an entire package, because of their inter-relationships in ensuring the general health condition of a community. These inter-relationships are illustrated in Figure 1 below:

Figure 1. F-Diagram on Transmission Routes

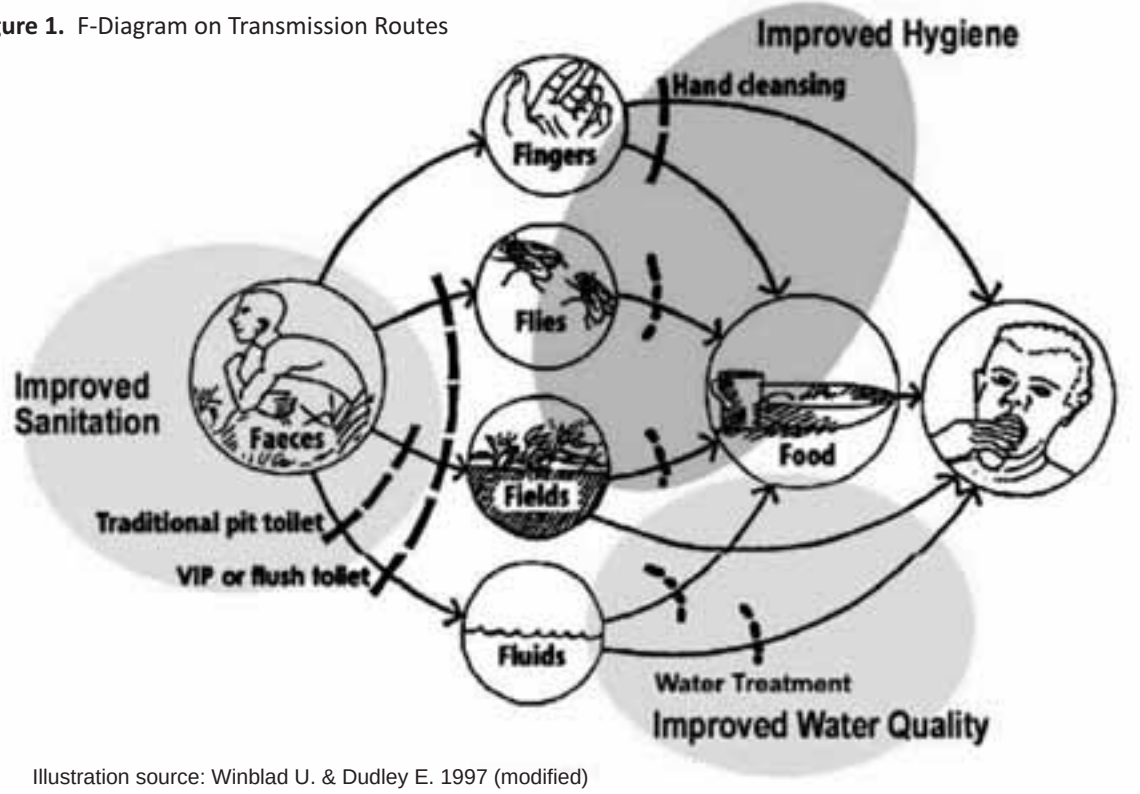


Illustration source: Winblad U. & Dudley E. 1997 (modified)

The importance of delivering all three services is further supported by the following research findings:

1) Improving water quality reduces the incidence of childhood diarrhea by 15 to 20%

2) Safe disposal of children's feces reduces the incidence of this same illness by nearly 40%; and
3) The practice of better hygiene such as proper hand washing and safe food handling reduces childhood diarrhea incidence by 35%

Thus, the combination of safe water, proper sanitation and good hygiene can reduce the incidence of childhood diarrhea in a community by as much as 95%.

A Healthy Community is a Pre-requisite to a Progressive Community

The socio-economic development of a community is primarily dependent on the general well-being of its citizenry. A healthy population has a better chance of becoming productive contributors to peace and development, as compared to a community whose citizens are rendered weak and passive because of their constant exposure and vulnerability to illness. And because water, as well as sanitation and hygiene, are fundamental requirements for health, a community must prioritize the provision of these basic services, before it advances to other types of interventions.

WHAT IS THE GOVERNANCE APPROACH TO WaSH?

The United Nations Development Programme (UNDP) defines governance as "*the exercise of political, economic and administrative authority to manage a nation's affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences*".

By this definition, governance is not a uni-directional or exclusive function of one party, i.e. it is neither about a government imposing its authority and mandate on a silent and impassive citizenry, nor is it about a society taking matters into it own hands without respect for legal institutions. Effective governance is the middle ground, where the government and its citizens engage in a constant and constructive partnership to jointly determine the quality of their life as a community. Aspects of this community life include formulation and enforcement of policies, and management of resources for the greater good.

The Governance Approach to WaSH fine-tunes this definition and focuses on service delivery, which is part of the resource management component of effective governance.

An empowering process of engagement

The Governance Approach brings together local governments, government agencies, civil society organizations, business, citizens and other stakeholders. The approach builds dynamic relationships among these stakeholders, by engaging them in a process where they learn to:

1) Negotiate among themselves the WaSH services that ought to be delivered. In traditional approaches to WaSH, the type of services to be delivered is usually determined solely by the entity that "supplies" the service, e.g. the local government unit (LGU) or other project implementer and the funding agency. Unfortunately, supply-driven WaSH services consider only the available resources and capacity of the "supplier", and not the actual needs of the "client" community. In the Governance Approach, both the supplier and the stakeholders are taught how to jointly identify the most appropriate WaSH services to meet the community's needs

2) Agree on approaches and standards. After identifying the appropriate technology, the stakeholders continue to collaborate in the installation of the WaSH system – from site selection, to provision of resources, actual system installation, deciding on acceptable targets or standards, and social mechanisms to ensure that the system remains operational. This includes operation, maintenance, cost recovery schemes and advocacy efforts; and

3) Exchange feedback and resolve issues. Even after the WaSH system has been installed, all the stakeholders continue to work together for its operation and maintenance, anchored on constant communication and consultation

The GOVERNANCE APPROACH to WaSH Defined

The Governance Approach to WaSH is an empowering process of engagement that would increase the supply and quality of WaSH services by increasing the demand for it, enhancing the abilities of suppliers to provide it and presenting opportunities for both duty holders (government) and claim makers (citizens and communities) to systematically work together, thereby creating, strengthening and transforming governance relationships.

Increase the supply and quality of WaSH services

Traditional approaches view the delivery of WaSH as the building of infrastructure (e.g. water pumps, reservoirs) or the implementation of single or isolated projects. Unfortunately, this approach fails to consider sustainability, because the accountability of the "supplier" ends once the infrastructure or project is installed or delivered. With the Governance Approach, WaSH is viewed as a continuing delivery of a basic service, and the process of installing the system goes all the way from community mobilization, to a resource and needs inventory, planning, system installation and operation and maintenance. Because of the community's participation in this logical sequence of steps, and their ownership of the entire process, the chances of installing responsive WaSH systems and replicating them in other communities is higher than with the infrastructure- or project-oriented approach.

Increasing the demand for WaSH Services

The Governance Approach builds the capacity of local stakeholders to determine and to express their demand for WaSH services. This is done in a systematic process, wherein stakeholders:

1) **Analyze the status of their WaSH resources and identify their corresponding needs** through a process known as a WaSH Inventory (Chapter 3)

2) **Make informed choices on the appropriate WaSH system/s for their community** as embodied in their WaSH Plan (Chapter 4)

3) **Take responsibility for the installation, operation and maintenance of the WaSH system** to ensure the unhampered and effective delivery of WaSH services to the community (Chapter 5); and

4) **Raise the priority of WaSH as a need of the community**. A well thought-out communication plan (Chapter 6) increases community awareness and knowledge on the far-reaching implications of WaSH not only on health, but also on the ability of a population to overcome poverty and their chances of improving their quality of life. This heightened consciousness increases the community's demand for WaSH services, and compels the local government to prioritize WaSH as an urgent need that should be addressed appropriately and immediately.

By building these local capacities, stakeholders are able to relate with the suppliers of WaSH services, not as passive recipients, but as relevant partners.

Enhancing the abilities of suppliers to provide WaSH services

In the Philippines, the most common providers or suppliers of WaSH services are:

1) Government. National and regional (in the case of ARMM) agencies such as the Department of Public Works and Highways (DPWH), Department of Social Welfare and Development (DSWD), Department of Health (DOH), to name a few
2) Official development assistance (ODA)
3) Civil society organizations (CSOs)
4) Local government units (LGUs) at the provincial, city, municipal and barangay levels;
5) Private business entities; and
6) Community members through rural water and sanitation associations (RWSA) and water cooperatives.

The Governance Approach accomplishes two things in the area of developing WaSH service suppliers within a community:

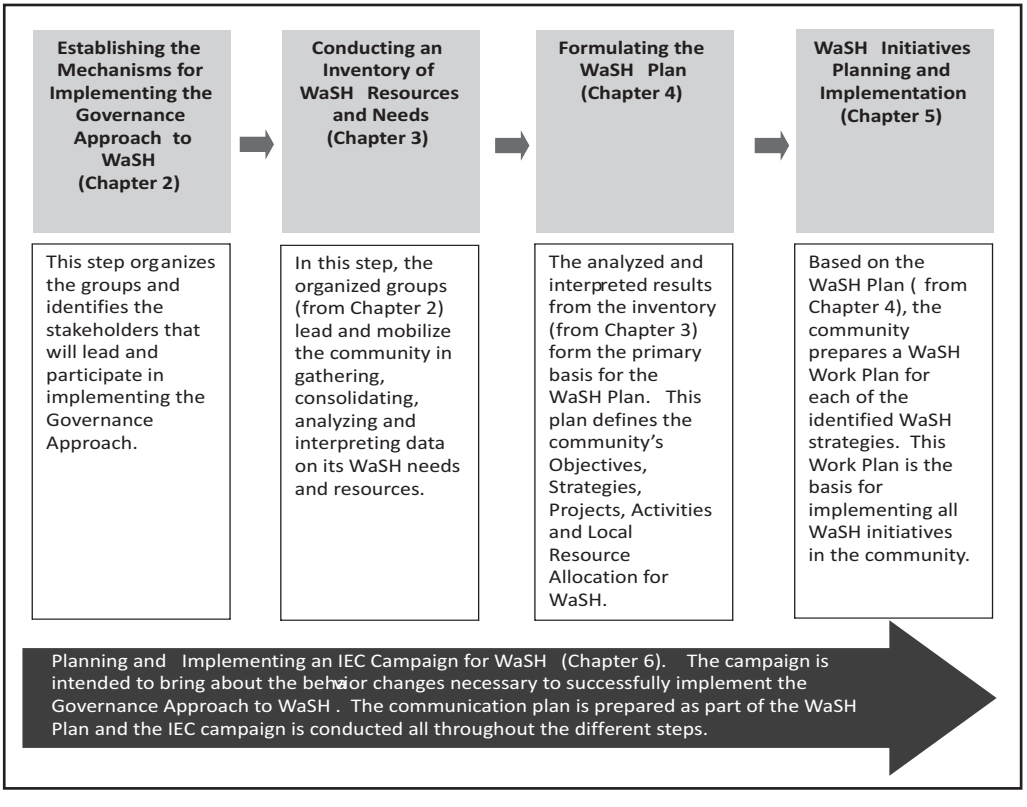
1) **Increases capacities of existing suppliers** whether the supplier is the local government, a CSO or RWSA, the steps and processes in the Governance Approach to WaSH build their capacity to provide more responsive and better quality systems, and to manage them more effectively; and
2) **Develops new suppliers**. Open participation in the Governance Approach creates opportunities for stakeholders to get into the supply of WaSH services, either as a commercial endeavor or as an effective and sustainable social service.

In either scenario, the Governance Approach develops better quality and more responsive and accountable WaSH service suppliers.

Presenting Opportunities for both Duty Holders and Claim Makers to Systematically Work Together

The steps and methodologies used in the Governance Approach to WaSH were designed to bring together local governments and their citizenry, and immerse them in a systematic process, as illustrated in Figure 2 below.

Figure 2. Overview of the Governance Approach to WaSH



This process is linked to key government functions (scoping, planning, programming, budgeting, implementation, monitoring and evaluation) and enables citizens to participate in governance on a continuing basis.

Through this process, the Governance Approach hopes to bring about a change in how communities view and deal with their concerns on water, sanitation and hygiene.

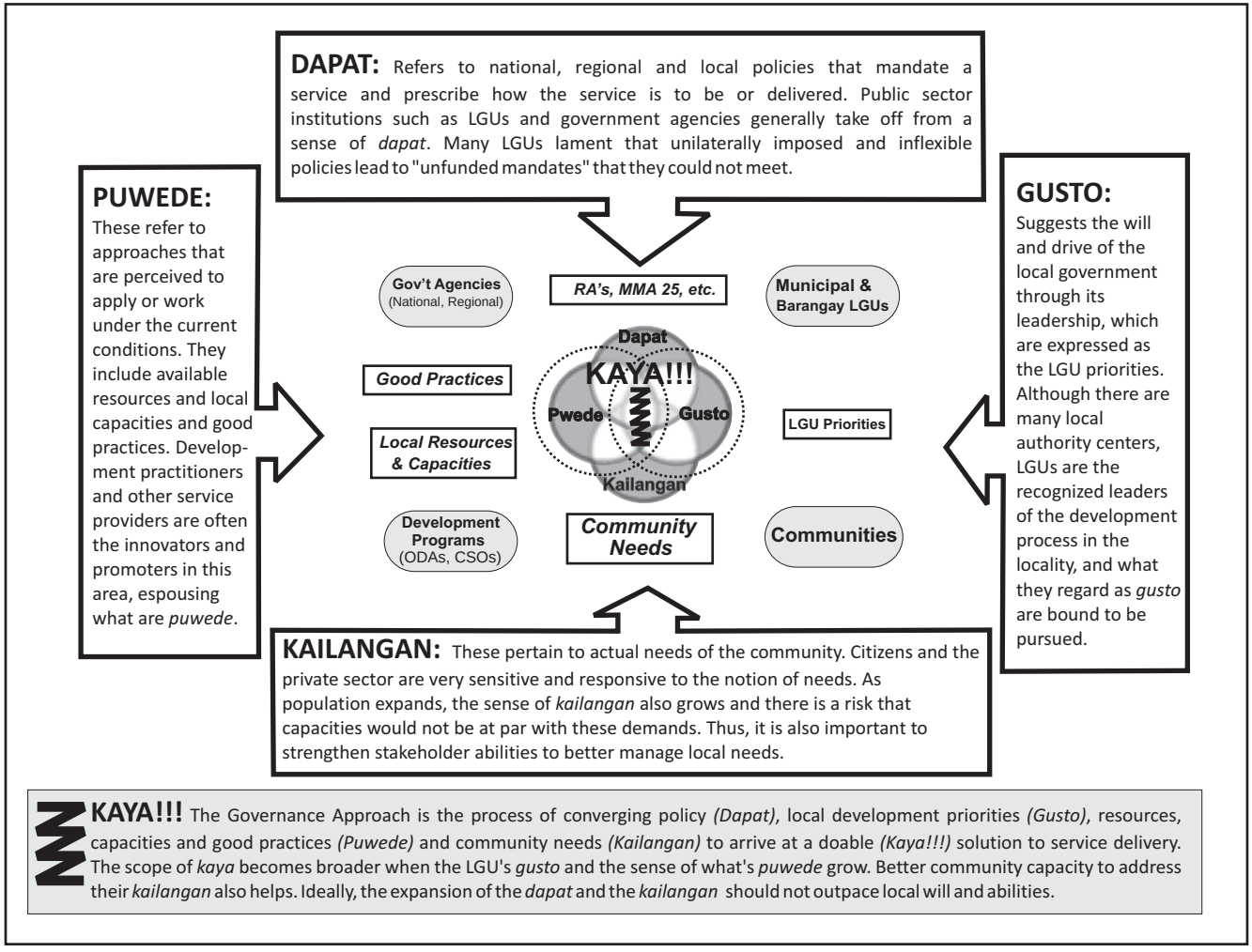
Creating, Strengthening and Transforming Governance Relationships

At the heart of the Governance Approach is a transformative process involving all the players involved in, and affected by, the delivery of WaSH services. The approach recognizes that these players are coming from different mindsets and play different roles. By going through the process, they are able to harmonize their differences and develop and nurture a governance relationship that makes them collectively responsible for the service delivery of WaSH. This transformative process is illustrated in Figure 3.

The Governance Approach brings together these players (and their mindsets – ***Dapat, Kailangan, Puwede and Gusto***), and takes them on a transformative journey towards convergence (or ***Kaya!!!***):

> ***Dapat***. WASH service providers from the public sector such as LGUs and government agencies often take off from policy – what is mandated by law. While this ensures alignment with policy directions and consistency with standards, an inflexible mindset can lead to disregard for local realities such as capacities of implementers and even, to disrespect for local needs and preferences. Many local governments today lament that their responsibilities are being ballooned by national policy issuances that do not take into due consideration the capacities of the local implementers. These "unfunded mandates", although supported by law, often fall by the wayside, competing as they are with many other priorities and requirements.

Figure 3. The Transformative Process of the Governance Approach to WaSH



Through the Governance Approach the process begins with an awareness of the policy environment that currently governs WaSH, but does not end there. This awareness should be followed through by a pro-active effort to:

1) Strengthen enforcement of favorable policies
2) Amend disadvantageous policies; and
3) Formulate new policies that would promote the effective and sustainable delivery of WaSH services

Informed by the Rights-Based Approach to peace and development, the Governance Approach upholds the responsibility of duty-holders – primarily government – to create the conditions that would ensure that human rights are fully promoted, protected, and fulfilled. It further acknowledges that good governance is also premised on active citizenship, that through the exercise of both rights and responsibilities (through economic participation, public service, and volunteer work, among others) citizens can help work towards the betterment of community life.

Kailangan. Communities, development programs and private business are attuned to the notion of "needs". A key challenge is to help local actors manage needs so that these do not grow uncontrollably, outpacing capacities to meet them. This suggests a number of things, among them the importance of building community abilities to articulate needs, to demand that these be addressed, and to take responsibility -- individually and collectively -- for agreed on responses to the needs.

Puwede. From experience, development responses are often shaped by available expertise and by practices that are applicable and doable. From perspective of the Governance Approach the selection of WaSH systems can no longer be dictated by what "suppliers" can provide. Communities can learn to recognize their available resources (natural, human, financial, material, etc.) and determine which WaSH systems are most feasible, by striking a balance between what they need and what they can do.

It is also important that the sense of *pwede* can grow so that local capacity is increasing and there are more examples of good practices that can be replicated and foster more innovations.

Gusto. Currently, it is executive will that is seen to drive LGU action – that ultimately, local chief executive preferences clinch the effective delivery of services. The Governance Approach affirms the importance of leadership but points to the need to depersonalize it so that local priorities go beyond the say-so of individuals and are more responsive to actual needs and resources of the community.

KAYA!!! The Governance Approach is the process of converging policy ***(Dapat)***, local development priorities ***(Gusto)***, resources, capacities and good practices ***(Puwede)*** and community needs ***(Kailangan)*** to arrive at a doable ***(Kaya!!!)*** solution to service delivery.

The scope of ***kaya*** becomes broader when the LGU's ***gusto*** and the sense of what's ***puwede*** grow. Better community capacity to address their ***kailangan*** also helps. Ideally, the expansion of the ***dapat*** and the ***kailangan*** should not outpace local will and abilities.

The process results in convergence or ***Kaya!!!*** at two levels:

1) **Doable WaSH solutions** – that take into consideration policy, local development priorities, available resources and actual needs; and
2) **Effective governance relationships** – where each player:
   - Acknowledges and takes responsibility for its specific role
   - Appreciates the role/s of the other players; and
   - Works closely with them in the different aspects of governance, i.e. policy formulation and enforcement, and resource management in effect sharing the responsibility for determining their quality of life as a community.

Communities that have benefited from the Governance Approach to WaSH candidly articulate their transformation upon reaching the convergence point of ***Kaya!!!***:

Table 1. Changing Views on WaSH Service Delivery and Governance[1]

MY PERCEPTION OF WaSH SERVICE DELIVERY	
THEN	**…AND NOW**
"Government-owned project"	*"Involvement of the community in the whole process"*
"WaSH is a sole responsibility of the health sector in the community"	*"Concern of everybody"*
"Big project"	*"WaSH delivery need not be expensive"*
MY VIEWS ON GOVERNANCE…	
THEN	**…AND NOW**
"Good leaders are those with power."	*"Good leaders are those who are able to mobilize people in responding to their needs."*
"It is a system of government"	*"Constituency Building"*
"One man rule"	*"Participative and consultative"*
"Leading through fear"	*"Leader consulting and involving people"*
"Focused on government officials"	*"It is a process involving participation of stakeholders"*

WHAT ADDED VALUE DOES THE GOVERNANCE APPROACH PROVIDE TO THE DELIVERY OF WaSH SERVICES?

1) **Stakeholder involvement and empowerment**. The Governance Approach recognizes that all the local stakeholders are in a prime position to respond to the WaSH challenges in their

[1]Insights from MWTFs, WSAs and CSOs during the Lessons-learning and Field Guide Development Workshop held on July 1 to 3, 2009 at the Grand Regal Hotel in Davao City

community. Thus, the process encourages them to participate in the different processes, and builds their capacities for meaningful participation.

2) **Enhanced ownership, stakeholdership and partnership building.** The Governance Approach unites all of the stakeholders and makes them all accountable for the effective and sustained delivery of WaSH services in the community. By doing so, WaSH service delivery becomes a shared responsibility.

3) **Community-friendly WaSH systems**. The Governance Approach allows local stakeholders to determine which systems to install in their communities, based on their needs and resources, and not on the capacity of the supplier to provide the service. Because of the community's involvement, the process of selecting the appropriate WaSH system/s takes into consideration the effect or impact on the environment, maximum benefit to as many sectors as possible (e.g. women, youth, etc.), and other factors that will affect the life and future of the community.

4) **Negotiated services**. The Governance Approach transforms stakeholders from beneficiaries to clients, who can negotiate with, and demand from, suppliers the type and quality of WaSH services that they need.

5) **Cultural Integrity in WaSH**. The Governance Approach deliberately consider values, beliefs, customs and practices of different cultures in the locality in designing and implementing social service interventions.

WHERE DO WE GO TO FIND TECHNICAL ASSISTANCE ON THE GOVERNANCE APPROACH TO WaSH?

This Field Guide provides a Directory of WaSH Development Facilitators (***Annex A***), composed of institutions, civil society organizations and local governments that are committed to the replication and expansion of the Governance Approach to WaSH in other communities throughout the country. Users of this Field Guide may seek technical advice from these groups. ■

CHAPTER 2

BUILDING THE MECHANISMS THAT MAKE WaSH WORK

CHAPTER 2

INTRODUCTION TO THE CHAPTER

This chapter discusses the first major process in the implementation of the Governance Approach to WaSH – the creation and mobilization of relevant mechanisms. The chapter describes how specific mechanisms are created or mobilized, makes recommendations on their composition, and defines their respective roles. The chapter also identifies other existing groups within the community that could be tapped to help in specific aspects of the WaSH service delivery process.

This chapter establishes that, in the Governance Approach, WaSH is NOT the function of a single entity or institution (e.g. LGU), but requires multi-sectoral participation in order to deliver effective and sustainable services. While the chapter describes in detail how the different mechanisms are formed and mobilized, readers have the option of either creating new groups specific to WaSH, or modifying the composition, roles or relationships of existing groups to address WaSH needs.

WHERE DOES THE PROCESS START?

STEP 1: The Governance Approach to WaSH is introduced and explained to the Municipal Government of the community/ies targeted for assistance.

Why is the Municipal Government the entry point for the Governance Approach to WaSH?

Whether the target community is a sitio or purok, barangay or entire municipality, the ideal point of entry for introducing the Governance Approach to WaSH is the municipal government, for the following reasons:

1) **Mandate**. The municipal government holds the legal authority and responsibility to provide basic social services and facilities to the people within its area of jurisdiction[2]. Thus, any intervention or effort to deliver these services and facilities will have executive and legislative support if they are coursed through the institution that bears this mandate.

2) **Convergence**. The municipal government is responsible for promoting the general welfare of its people[3]. Where resources are limited (as they usually are), coursing any development intervention through the municipal government provides the opportunity to find out current and forthcoming programs and projects – their nature and geographic scope – so as to avoid any inefficient overlaps or inconsistencies. And while the municipal government is principally responsible for providing basic services such as WaSH to its citizens, it can perform this function in partnership with other groups, institutions and the target communities themselves; and

3) **Resources**. The municipal government has the available resources that can be tapped for the delivery of WaSH services.

This Field Guide identifies the *municipal* government as the entry point, because most of the communities that are confronted with WaSH concerns belong to LGUs that fall within the category of *municipality*. LGUs that have been elevated to the higher category of *city*, by virtue of their population and income, are likely to have already addressed the basic water, sanitation and hygiene needs of its constituents.

[2]Book 1, Chapter 2, Section 17, *The Local Government Code of the Philippines*
[3]Book 1, Chapter 2, Section 16

However, there may be cities that still have communities where WaSH services are not available, particularly those located in areas outside of, or far from, the central business district (CBD). For these city LGUs that choose to adopt the Governance Approach for their WaSH-challenged communities, the entry point could be either the city government or the concerned barangay government. But for the purpose of this Field Guide, the municipal government will be used as the point of reference.

This audience with the municipal government can then be followed by similar orientations on the Governance Approach to WaSH with the barangay local government and with the specific community/ies targeted for assistance.

While the agenda of the orientation may vary from one audience to another, the following items must be included in the discussion:

1) **The Governance Approach**. The orientation should describe the approach, distinguish it from other approaches, and explain how its implementation results in more effective, responsive and sustainable WaSH services; and

2) **WaSH vis-à-vis development priorities of the LGU** – Preparation for the orientation should include going over and making a link to the Comprehensive Development Plan, Executive and Legislative Agenda, Barangay Development Plan and other local development plans of the LGU. Situating WaSH within these plans affirms the importance of a planned approach to comprehensive development; it also enhances the chances for WaSH initiatives to be supported.

Which offices or officers should be invited or involved in the initial orientation at the Municipal Government?

While the initial meeting with the Municipal Government is a prescribed step, the specific audience will vary, primarily according to who is the institution or office that is campaigning for the Governance Approach on WaSH. For example:

Table 2. Suggested Offices and Officers for Municipal Orientation on WaSH

IF THE INSTITUTION CAMPAIGNING FOR THE GOVERNANCE APPROACH IS…	…THEN…
An ODA program/institution, civil society organization or business group that is national, regional or provincial in scope…	The institution may meet directly with the municipal Mayor, and recommend other heads of office to join the orientation.
The provincial government…	The initial audience will depend on the proponent at the provincial level: 1) If it is the provincial Governor himself, an audience with the municipal Mayor would be considered appropriate. 2) If it is a provincial office or line agency (e.g. Provincial Planning and Development Office), the initial audience would best be its municipal counterpart (Municipal Planning and Development Office). Eventually, the municipal office can seek an audience with the municipal Mayor.
An office within the municipal government…	The head of office could first meet with other concerned heads of offices, before conducting a group orientation with the municipal Mayor.
A local civil society organization or business group…	The group could first meet with a particular head of office who it believes is currently in the best position to understand and receive new approaches in WaSH service delivery. This officer can then help the group explain the approach to the municipal Mayor.
The local chief executive…	He or she could select the heads of LGU offices, other agencies and sectors that should be mobilized to implement the Governance Approach.

Eventually, all roads lead to the local chief executive – But regardless of the organization or entity that is proposing the Governance Approach to WaSH, it must eventually meet with the municipal Mayor who represents the municipal government's mandate.

WHAT MECHANISMS ARE ORGANIZED TO OPERATIONALIZE THE GOVERNANCE APPROACH TO WaSH?

STEP 2: A Municipal WaSH Task Force is created .

What is the MWTF?

The MWTF or Municipal WaSH Task Force is an LGU-based structure that is tasked to oversee and coordinate all WaSH-related concerns of the municipality. At present, there is no single LGU office or government agency whose sole focus is water, sanitation and hygiene; these concerns are usually distributed among several offices or agencies. The MWTF brings all these government players together in order to streamline all interventions on WaSH.

What is the legal basis for the creation of the MWTF?

The MWTF is created either through:

Table 3. Legal Bases for the Creation of the MWTF

Executive Order	An executive order (EO) issued by the Municipal Mayor officially creates the MWTF, designates its members and defines its roles. While the EO grants the MWTF official recognition as a local special

	body of the municipal government, it does not allocate funding for its operations and activities. The executive order is usually the initial legal basis for the creation of the MWTF during the start-up period of the Governance Approach.
Sangguniang Bayan Resolution or Ordinance	As the Governance Approach progresses and WaSH programs, projects and activities are identified, it becomes necessary to appropriate funds to implement them. The adoption of the WaSH Plan and the appropriation of funds for its implementation should be embodied in a resolution or ordinance to be passed by the Sangguniang Bayan (SB). This legal basis endows the MWTF with a more comprehensive description of its work and provides the resources necessary to perform it.

Who are the recommended members of the MWTF?

Core Members. The municipal government has the leeway to designate the members of its MWTF. However, the following core members are recommended:

Figure 4. Recommended Core Membership of the MWTF

Within the core membership, the MWTF identifies an anchor person (distinct from the chairperson), who initiates and directs the activities of the task force. Some of the recommended anchor persons are the MPDC, ME, MSWDO and Sanitary Inspector. But whoever is selected by the MWTF as its anchor person, he or she should have the following minimum qualifications:

1) Technical competence on WaSH
2) Experience in WaSH projects in his/her current line of work
3) Ability to mobilize LGU, other government agencies, civil society and other sectors of the community for WaSH
4) Availability and commitment

A lean yet strong core membership is easier to convene and mobilize. The MWTF is not expected to have ALL of the competencies necessary to implement the different steps in the Governance Approach. The task force can activate other offices, agencies and sectors on an *ad hoc*, interim or on-call basis, particularly those that have the competency to better perform certain steps. Even as non-members, their selective or periodic participation already supports the MWTF core membership in its overall and coordinative role for WaSH.

However, for LGUs where the recommended MWTF core membership (Figure 4) is not ideal for its current WaSH situation, additional members may be recruited to expand the task force, as described below.

Table 4. Examples of Expanded Membership in the MWTF

ADDITIONAL MEMBER	POSSIBLE CONDITIONS FOR INCLUSION OF MEMBER
Municipal Budget Officer (MBO)	• MWTF prefers to have direct and immediate access to information on the inclusion of the WaSH Plan in the municipal budget

ADDITIONAL MEMBER	POSSIBLE CONDITIONS FOR INCLUSION OF MEMBER
Municipal Treasurer (MT)	• MWTF prefers to have direct and immediate access to information on the disposition of funds for the implementation of the WaSH Plan • The WaSH system/s is/are to be implemented as an income generating project of the municipality and the MWTF would want to directly monitor collection of fees or revenues
Municipal Information Officer (MIO)	• Information, education and communication are considered vital to the success of the WaSH service delivery and requires a specific point person
Municipal Agriculturist (MA)	• Irrigation is a concern in the community
Sangguniang Kabataan (SK) Federation President	• The youth have a critical role in the delivery of the WaSH service

Department of Education (DepEd) and/or private counterpart in the academe	• Schools will be used as a venue for implementing specific components of the WaSH service delivery, such as:
	  • Information, education and communication campaign
	  • Installation of WaSH system/s within, or proximate to, school premises

Department of Public Works and Highways (DPWH)	• The MWTF foresees tapping the resources of this agency particularly in the actual construction of the WaSH system/s • The agency is already involved in the construction of WaSH systems in the municipality and their membership in the MWTF is for the purpose of convergence
Philippine National Police	• Security or peace and order are a pre-requisite or critical factor in implementing the Governance Approach to WaSH

A municipal government could choose to have any of the additional members listed in the table above, or other offices and representations which it deems appropriate for its situation.

What are the roles of the MWTF?

The roles of the MWTF may vary from one municipality to another, but the following are generally common to all:

1) **Securing participation**. After the core membership is established, the MWTF becomes responsible for enjoining, activating and sustaining the participation of the following:

   a) Other sectors directly involved in implementing some form of development intervention within the municipality (Step 2 in this Chapter)
   b) Authority or influence centers that could facilitate parts of or the entire Governance Approach to WaSH service delivery (Step 4 in this Chapter)

   Only the expanded membership actually becomes members of the MWTF. The other sectors, authority and influence centers participate in the process outside of the MWTF.

2) **Mainstreaming WaSH in LGU processes**. The MWTF functions as overall facilitator and coordinator of all programs, projects and activities related to WaSH in their locality. These include but are not limited to:
   a) ***Capacity building of Water and Sanitation Association/s (WSAs)***. In the different processes and steps of the Governance Approach to WaSH, including: conduct of WaSH Inventory to arrive at a WaSH Situationer (Chapter 3), as an input to the Municipal WaSH Plan (Chapter 4); WaSH initiatives planning and installation (Chapter 5); and planning and implementation of an IEC campaign on WaSH (Chapter 6)
   b) ***Supervision of, and provision of technical assistance to, WSAs***. Not only in the implementation of these processes and steps, but also in the formation and growth of the association/s
   c) ***Preparation of Municipal WaSH Plan*** and its subsequent presentation to the SB for adoption and appropriation of funds

d) ***Integration of Municipal WaSH Plan in other local development plans*** such as the CDP, ELA and BDP

e) Policy Formulation and Review. The MWTF seeks legislative support for the Municipal WaSH Plan by:

i. Gathering and reviewing existing local legislation related to WaSH
ii. Identifying legislative gaps or inconsistencies, and making the corresponding policy recommendations to the SB; and
iii. Implementing legislation at the municipal or barangay level to support WSAs and other WaSH service suppliers

f) Resource Mobilization. The MWTF, through the Municipal WaSH Plan, generates both internal and external resources for WaSH projects:

i. Internal Resources. The integration of the Municipal WaSH Plan into the Local Development Investment Plan (LDIP), Annual Investment Plan (AIP) and Annual Budget facilitates the allocation of local resources to fund WaSH projects

ii. External Resources. In terms of generating funds from outside the municipality, the MWTF has two roles:

- **Take the lead in accessing external funding from development institutions that provide assistance on WaSH.** This task includes the preparation of project proposals and follow-through activities with the institution; and
- **Function as a clearing house for WaSH-related external assistance that is being offered to the municipality.** Through the Municipal WaSH Plan, the MWTF can now negotiate with external resource providers on the type of assistance needed, and whether the assistance being offered is acceptable or not

g) Monitoring and Evaluation (M & E). The MWTF works closely with the WSA in keeping track of the implementation of the Municipal WaSH Plan. Its findings determine if corrective measures or amendments to the plan are necessary.

h) Databanking. Like any development plan, the Municipal WaSH Plan has to be updated regularly with more recent data on the available WaSH resources and needs. The MWTF mobilizes and supervises the WSAs in the regular conduct of the WaSH Inventory to keep the databank accurate and up-to-date.

The MWTF should also keep abreast of the latest technologies on WaSH, which could be adopted within the municipality.

i) ***WaSH Advocacy***. As discussed in Chapter 1, the innovative Governance Approach requires the changing of mindsets and the modification of certain behaviors related to WaSH. The MWTF takes the lead in advocating for a new orientation and culture on WaSH, by working with educational institutions, media, as well as authority and influence centers within the municipality.

What is the source of funds for the operationalization of the MWTF?

In the formative stage of the MWTF, funding could come from the Office of the Municipal Mayor, or from the budgets of the offices represented in the task force. After the adoption of the Municipal WaSH Plan and its integration into the resource allocation of the municipality, there should already be a budget for the day-to-day operations of the MWTF.

STEP 3: A Water and Sanitation Association is organized within the community where the WaSH service is to be installed.

What is the WSA?

The WSA or Water and Sanitation Association is a community-based organization, formed primarily to operate, manage and maintain water, sanitation and hygiene services in a particular area. They represent and speak for the WaSH concerns of the community, and elevate these concerns to the local government for appropriate action. In other places they are called Rural or Barangay Water and Sanitation Associations (RWASA or BAWASA).

Who are the members of the WSA and how are they organized?

1) **There is no prescribed number and composition of members for the WSA**. The Governance

Approach is quite flexible as to the number and composition of members of the WSA, provided that it is created from the community, is fully representative of the community-at-large and that the membership has the following combination of competencies and strengths:

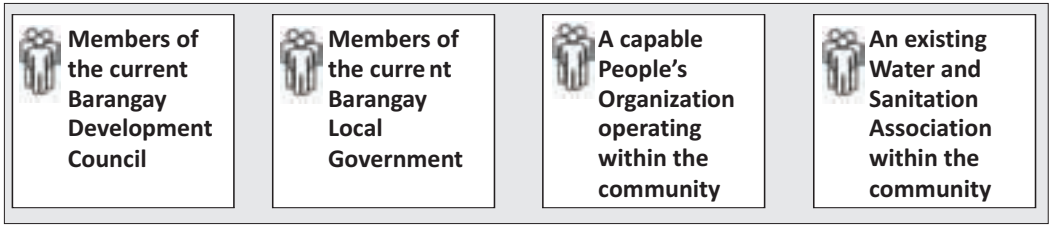
- Knowledge on health and sanitation
- Experience in infrastructure or construction
- Background in organizational management
- Access to resources
- Established residency and credibility within the community
- Willingness and availability to work on WaSH concerns of the community

There should be an equitable representation of women and men in the membership of the WSA.

2) **As flexible as the number and composition of the WSA are the different ways of creating the organization**. The ideal modality is one where the members are selected by the community based on competence and work ethic. But the Governance Approach recognizes that if this type of modality is difficult to achieve especially in the formative stages, then other modalities could be adopted in the interim, to expedite the process. The interim membership could then later on evolve, based on the WaSH profile of the community and the type of organization needed to respond accordingly. Like any organization, the WSA should have built-in policies, systems and procedures that promote transparency and accountability to the community it serves.

Some of the possible modalities for the creation of the WSA are:

Figure 5. Possible Modalities for Creation of WSA



The members of the WSA elect a President, who is the association's representative to the MWTF.

3) **WSA membership could evolve over time to respond to the changing circumstances of the community**. Provided that the WSA continues to be representative of the relevant sectors in the community, its membership could be modified in response to changes in the WaSH situation and other circumstances in the association's coverage area.

What are the roles of the WSA?

The WSA is the front-line implementer of WaSH at the community level. The association provides a voice for the community in working with local governments and government agencies to further improve the supply of WaSH services within the community. Its roles include:

1) **Ensuring the provision of safe water supply, sanitation and hygiene services in the community.** In effect, the WSA is the manager of the WaSH system/s that is/are installed within its community. The scope of its managerial responsibility includes:

   a) ***Conduct of a WaSH Inventory*** to gather data on WaSH resources, needs and practices
   b) ***Processing of the findings from the WaSH Inventory*** to develop a WaSH situationer, and identify the appropriate WaSH system/s and their specific locations
   c) ***Installation, operation, repair and maintenance*** of the WaSH system/s

2) **Effective management of the association**. The WSA should manage the continued existence and growth of its organization. It should be able to put in place internal policies on organizational management such as terms of office, membership recruitment, capacity building. It should also be able to implement cost recovery schemes to sustain both the WaSH service and the association itself.

3) **Partnership Building and Networking**. Similar to the MWTF, the WSA cannot rely on its membership alone to implement the Governance Approach to WaSH. Thus, it should also be able to work with stakeholders or institutions outside of its membership, such as:

a) ***The Barangay Local Government Unit (BLGU)***. At the community level, it is critical that the WSA work closely with the BLGU. The BLGU has both the mandate and resources to deliver basic services, such as water, sanitation and hygiene. At the same time, the BLGU is an ideal partner in the enforcement of WaSH related policies such as watershed protection, payment of fees, and sanctions for illegal tapping, among others.

b) ***Municipal Government***. The MWTF links the WSA to the municipal government. The WSA President represents the community's interests in the MWTF, as one of its core members.

c) ***Authority or Influence Centers***. See Step 4 of this Chapter.

d) ***Other members of the community.*** The WSA could identify other persons or groups within the community that could help perform specific tasks in the Governance Approach to WaSH

4) Resource Mobilization. To supplement any funds that may be provided by the municipal government, the WSA should still be able to generate resources for the installation, operation, repair and maintenance of it WaSH system/s. Some of the possible sources are:

a) ***User's Fees***. Because WaSH is an ongoing service that has to be kept in good running condition to maintain its usefulness, the Governance Approach encourages a system wherein users pay a nominal amount for availing of the WaSH service. Collection of such fees compels the WSA to continuously render good service and to plough back revenues into the upkeep, and maybe even upgrade or expansion, of the WaSH system

b) ***The BLGU*** through its Development Fund or other budget allocations; and

c) ***External Donors***. The WSA could work with the MWTF in developing project proposals, if necessary

5) Advocacy on WaSH in the Community. The WSA complements the advocacy efforts of the MWTF at the community level.

6) Monitoring, Assessment and Reporting. To determine the extent to which the Municipal WaSH Plan has actually been accomplished, the MWTF has to conduct regular monitoring

and assessment. The WSA does the actual on-site monitoring, using tools that are provided by the MWTF.

A dynamic and mutually-beneficial relationship between the MWTF and the WSA/s is the embodiment of the Governance Approach to WaSH, wherein the institution mandated to promote the general welfare successfully collaborates with a citizenry that is informed and empowered to demand good governance and to participate in its delivery.

STEP 4: Authority and influence centers could be mobilized to contribute to the Governance Approach for all or specific aspects of the WaSH process.

An **authority** and/or **influence center** is an individual or group:

1) that does not hold any formal position of leadership in the government bureaucracy
2) and yet is respected, looked up to and considered highly credible by the community, or a large segment of it
3) so much so that he or she has the ability to influence behavior through his/her words and actions

Some of the authority or influence centers that could be tapped to participate in the Governance Approach to WaSH are:

Table 5. Examples of Authority and/or Influence Centers for WaSH

AUTHORITY OR INFLUENCE CENTER	POSSIBLE CONDITIONS FOR INCLUSION OF MEMBER
Religious authorities	Followers of the Christian, Muslim or other faiths look up to their religious leaders as models of truth and proper behavior. Concepts on WaSH could be incorporated into their teachings as a form of advocacy.

AUTHORITY OR INFLUENCE CENTER	POSSIBLE CONDITIONS FOR INCLUSION OF MEMBER
Traditional authorities	Some communities have informal leaders whose authority is by virtue of tribal lineage (e.g. *Datu*, *Sultan*, tribal chief). Their issuance of verbal or written instructions on water, sanitation and hygiene could form part of the advocacy to change mindsets and behaviors on WaSH. Because they heavily influence how their "followers" act or react in specific situations, these traditional authorities represent the "political will" of the community that they "lead".

What is the source of funds for the operationalization of the WSA?

1) **Income from Membership Fees and Other Fundraising Activities of the Association**. The first source of funds for the WSA could be the membership itself. These funds could come in the form of membership fees to be collected from each member, in exchange for simple privileges such as discounted user's fees, snacks during meetings, etc. The members could also brainstorm for creative fundraising activities such as raffles or community games. Proceeds from the activity would form part of the association's general fund.

2) **Income from Operation or Fabrication of certain WaSH systems**. The WSA could generate income from the WaSH systems, through:

   a) Collection of User's Fees. This is a major source of funding that a WSA could generate from the usage of its WaSH system/s. For instance, a WSA that supplies potable water from its water storage or filtration system could charge a fee based on volume. From its user fee collections, a fixed

USER'S FEES – A COMMUNITY'S JOURNEY TO TRANSFORMATION

"Water is free" – this is the prevailing mindset in communities where WaSH services are scarce or absent. Payment of user's fees demonstrates the transformation of a community's outlook on WaSH services, i.e. that they are willing to take control and responsibility for the quality of their water, sanitation and hygiene facilities, and that they are now able to express their demand for these services as paying customers and not mere beneficiaries. This particular journey to transformation is one of the biggest challenges of the Governance Approach to WaSH.

amount or percentage could be allocated for the WSA – its day-to-day operations, regular activities and capacity building; and/or

b) Fabrication and Sale of WaSH systems. A WSA could also offer to supply WaSH systems to neighboring communities at a profit.

Funds collected from these and other income-generating projects on WaSH could be used not only to maintain a community's own WaSH systems, but it could also be used for system improvement and/or expansion, and even for building the association's capacity to fund and sustain additional services for community development such as micro-finance for livelihood; solid waste management, and other similar endeavors.

3) **Local Governments**. The internally-generated funds of the WSA could be supplemented by budget allocations from its local governments – *barangay*, municipal and/or provincial. The adoption of the Municipal WaSH Plan in the local development plans and resource allocation of the local government/s translates into a regular and permanent appropriation that the WSA could use to augment its internal resources.

4) **Other Partners**. Finally, the WSA could also tap external sources, such as:
   a) ODA and other funding institutions whose portfolio for assistance includes WaSH programs and projects
   b) Business sector. Because the availability of adequate WaSH services and facilities promotes economic activity, business establishments within the community could also be invited to give their share in operating, maintaining and even expanding the WaSH system/s. For example, their user fee rates could be higher than that of residential users; they could be asked to provide certain materials or supplies needed for the upkeep of the system/s; among others
   c) Non-government organizations. Assistance from these groups will depend on their development thrusts, which could range from funding grants or soft loans, to infrastructure or capacity building

The *Water Works! Resource Kit* has additional information on Water and Sanitation Associations that can enhance the readers' understanding on the creation, composition and roles of these associations. ■

CHAPTER 3

CONDUCTING AN INVENTORY OF WaSH RESOURCES

CHAPTER 3

INTRODUCTION TO THE CHAPTER

After the mechanisms for WaSH have been organized (Chapter 2), these mechanisms take the lead in conducting an inventory of WaSH resources. This process involves a series of steps to generate information on a community's WaSH assets and requirements, to aid in identifying and prioritizing its WaSH needs. The output of this process is a snapshot of WaSH related resources, needs, belief systems and the resulting behavior and practices. This chapter presents the different types of data gathering instruments and methodologies, and explains how the raw data is processed into helpful input for the succeeding planning process.

The Governance Approach emphasizes that WaSH services should be demand-driven (based on the needs of the users) and not supply-driven (based on capacities or preferences of the supplier). The detailed characteristics of this demand are best determined by gathering and analyzing WaSH-related data on the community. Readers could opt to undertake all or some of the data gathering and analysis methodologies, depending on the data that is already available.

The electronic files of the resource inventory tools are found in the companion CD at the end of the Field Guide.

WHAT ARE THE OBJECTIVE AND EXPECTED OUTPUT OF THE WaSH INVENTORY?

The objectives of the WaSH Inventory are to

1) Accurately assess the array of WaSH resources available and those that could be developed within the target community
2) Create a picture or snapshot of the WaSH-related culture of the community – their beliefs, behavior and practices; and

3) Consolidate and interpret the findings as an input to the Municipal WaSH Plan

The final output of this entire process is a write-up on the interpreted results of the WaSH Inventory.

WHAT IS THE FIRST TYPE OF DATA COLLECTED IN THE WaSH INVENTORY?

STEP 1: Secondary census data on the municipality is collected for the WaSH Inventory.

The first type of data that is collected for the WaSH Inventory is secondary census data – on the municipality, specifically those that relate to WaSH. These data are:

1) Classification of municipality (or barangay) as urban or rural, as well as its income classification (anywhere from first to fifth class, as defined by the National Statistics Coordination Board or NSCB)
2) For municipalities: number of barangays
3) For barangays: number of sitios or puroks
4) Total population (segregated by men, women and children 12 years old and below), by barangay (for municipalities) or sitio/purok (for barangays)
5) Household population, by barangay (for municipalities) or sitio/purok (for barangays)
6) Average household size
7) Indications of average income per household
8) Major source/s of livelihood
9) Prevalent water-borne diseases, particularly:
    a) Type of illness/es
    b) Area/s in the municipality or barangay most affected
    c) Incidence – this data could include number of known cases within a given time

period, times of the year when they usually occur

d) Sector most affected by the illness, i.e. men, women or children

10) Prevalent religion/s in the municipality or barangay
11) Geographic data, namely:

a) Type of geography
b) Type of soil
c) Average rainfall per month over the past five years – in inches or millimeters

12) Health services available, such as:

a) Number and location of health units
b) Number and type of health services offered
c) Number, type and geographic assignment of health workers

*All of these data are collected and documented on a Secondary Data Collection Tool (**Annex B**).*

What are the possible sources of these secondary data?

These data are usually available in the following documents and from the following offices:

Table 6. Sources of Secondary Data for WaSH Inventory

DOCUMENT SOURCE	RESPONSIBLE OFFICE
Comprehensive Development Plan (CDP	MPDO
Socio-Economic Profile	MPDO
Barangay Development Plan (BDP) or Barangay Profile	BLGU
Health Profile or Situationer	MHO

HOW IS PRIMARY DATA COLLECTED FOR THE WaSH INVENTORY?

STEP 2: The WSA collects primary data on WaSH using three types of data gathering methodologies: 1) household interview; 2) ocular inspection; and 3) community focus group discussion.

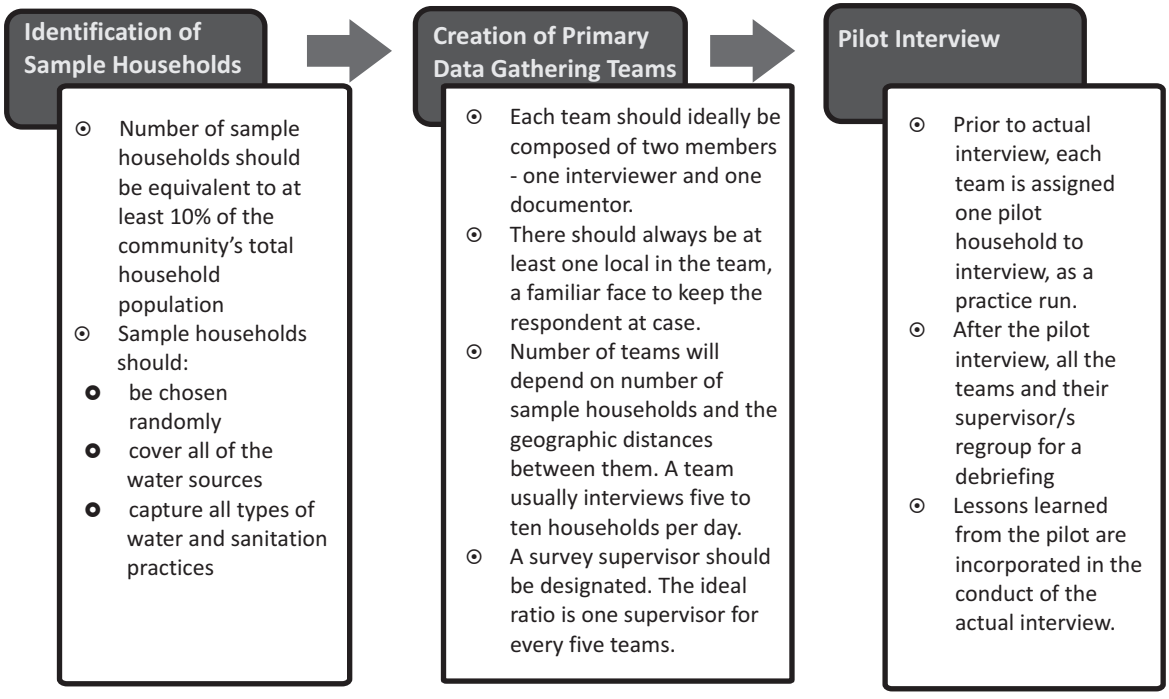
Primary data collection accounts for the bulk of the WaSH Inventory process in terms of resource requirement and level of effort. Before a community embarks on primary data collection, the WSA must first convene to do, or agree on, the following:

1) **Internal scheduling of primary data gathering activities**. The WSA should already calendar its primary data gathering activities, in order to prepare both the data gathering teams and the community members.
2) **Orientation on WaSH terms and technologies.** By educating the WSA on WaSH, the members develop familiarity and ownership of the data gathering tools. As a result, the organization can speak with authority as the local center of expertise on WaSH.
3) **Information dissemination**. The WSA should inform the target community about the WaSH Inventory:
    a. Rationale – why it will be conducted
    b. Schedule – when it will be conducted
    c. Location – where it will be conducted
    d. Process – what activities will comprise the primary data gathering process, including the random sampling of households
    e. Data Gathering Team – who will be conducting the process
4) **Leveling off with WSA members on specifics of primary data gathering process**. Before the WSA is deployed, its members should be primed for the activity. Among the preparations are: schedule of activities; team assignments; data gathering tools and materials; techniques and safeguards, among others.

How is the Household Interview conducted?

This is the first of three primary data gathering methodologies in the WaSH Inventory. Prior to the actual household interview, the WSA undertakes these preliminary activities to prepare the data gathering teams:

Figure 6. Preliminary Activities in the Household Interview Process



After the preliminary activities, the WSA's primary data gathering teams are finally deployed for the household interview. The teams should observe the following steps and guidelines in conducting the interview:

1) Be aware of the cultural norms in the community and conduct the interview accordingly (For example, in rural communities throughout the Philippines, a male interviewer cannot interview a female interviewee who happens to be alone in the house, unless the interview is conducted outside of the house and in plain sight of other residents)
2) Introduce yourselves and reiterate the information that was disseminated earlier to the barangay about the WaSH Inventory. Emphasize the anonymity of their responses.
3) DO NOT MAKE ANY PROMISES OR COMMITMENTS AND BE VERY CLEAR THAT THIS IS ONLY A SURVEY, SO AS NOT TO BUILD ANY EXPECTATIONS.
4) Maintain a non-judgmental tone in conducting the interview, making it very clear that the objective of the activity is to gather truthful information.
5) Start with simple questions, before leading into the more complex ones such as those that deal with behavioral issues, illness, etc.
6) Ask the same questions of all the households to facilitate data consolidation and comparison afterwards.
7) While the interviewer is not prohibited from giving simple advice on water, sanitation and hygiene, this should be kept to a minimum and done only when it is appropriate.
8) After the interview, thank the respondent and inform him or her of the succeeding steps and how the information he or she provided will be of help in that process.

The primary data gathering tool to be used for the household

DATA GATHERING KIT

The primary data gathering teams should have the following in their kit prior to the interview:

- *Adequate blank data gathering tools*
- *Pencil with eraser*
- *Clipboard or similar writing surface*
- *Barangay map*
- *Sufficient food and water*

The teams should be dressed in comfortable work clothes and shoes, appropriate for the cultural norms of the community

interview varies according to each sample household's water source/s, as listed below:

1) For level I water system (well, pump, surface source), level II and level III water system ***Annex C***
2) For level I water system (rainwater) ***Annex D***
3) For undeveloped sources spring and surface sources ***Annex E***
4) For sanitation and hygiene (all household respondents) ***Annex F***

The Survey Supervisor/s should do a quality-check of the accomplished questionnaires, just to make sure that the information is complete and consistent, prior to its consolidation.

How is the Ocular Inspection Conducted?

The ocular inspection is conducted simultaneously with the household interview. The primary data gathering team should politely ask the permission of the sample household before conducting the ocular inspection within and around the residence.

During the ocular inspection, the primary data gathering team should photograph (or draw, if a camera is not available), map and take measurements of the following:

Table 7. Guidelines for Ocular Inspection

FOR LEVEL I WATER SYSTEMS

- Well
- Pumps
- Surface water
- Rainwater

Ask when the well or pump was installed, who uses it, how often it is repaired, any seasonal changes (e.g. drying up during the summer). For surface water sources, measure the flow rates. Smell and examine the water. Write down all observations.

FOR LEVEL II AND III WATER SYSTEMS

- Source of water – look for leaks in the spring box
- Watersheds
- Pumps – look at the condition of the pump and motor, and gather data on the manufacturer and model number
- Piping – if not buried, inspect the pipes, looking for leaks and evidence of illegal tapping
- Tap stands – look for leaks and standing water, measure flow rates during peak flow times and duration for filling up water containers
- Level III faucets – inspect for leaks, ask household about availability of water, i.e. number of hours available, water pressure

FOR UNDEVELOPED WATER SOURCES

- Spring
- Surface water
- Other source

SANITATION, HYGIENE AND OTHERS

- Comfort rooms - Take note of the design and other issues, i.e., located near the dug well. Locate this in the map and put reference in your notes.
- Water storage

The ocular inspection is also an opportunity to test the current quality of the water. This can be done by the primary data gathering team through any of the following methods:

1) **Water testing kits**. If water testing kits are available, the team could gather samples from the major water sources, subject the samples to testing and document the results;
2) **Observation and examination.** If water testing kits are not available, the team could use observation skills in examining various aspects of the water's quality, e.g. clarity, odor, taste; and

3) **Flow rates and available quantities**. Aside from water quality, the primary data gathering team should also look into water volume and measure flow rate and available quantities.

After all of the results of the ocular inspection and water quality testing are documented, these should be validated by the Survey Supervisor prior to consolidation.

How is the Data Gathering and Consolidation Community Focal Group Discussion or FGD Conducted?

This focal group discussion is the third and last data gathering methodology, and is conducted after the household interview and ocular inspection. It is the venue for validating the data gathered and for doing initial data processing prior to the full-blown synthesis and interpretation of data.

The steps in conducting the data gathering and consolidation community focal group discussion are:

1) Convene the MWTF, WSA and community representatives
2) Divide the group according to the sectors represented, for example: men, women, youth, seniors, farmers, business, government representatives, etc.
3) Each group should prepare a community map, community calendar and Venn diagram (see Tables 8, 9 and 10 below).

Table 8. How to Prepare a Community Map

Each group should prepare a spot map showing and locating the following:

- All the water sources that are currently being used by the group members – level I, II and III water systems and undeveloped water sources
- All the water sources that are not being used, i.e. pumps, undeveloped springs, etc. – note down why the source is not being used
- Sanitation facilities and practices – toilets, open or closed pits, open areas or bodies of water, septic tanks
- Health resources – hospitals, clinics, other medical facilities, area assignments of health workers

- Hygiene issues – areas of illness and epidemics, areas of serious flooding, dangerous water sources
- Other community resources – economic, social, and natural resources, LGU resources for WaSH, residence of health and medical practitioners, other major infrastructure
- Other information – conflict areas, areas with limited accessibility, possible influences on water quality upstream or in other areas of the water shed that are not included in the mapped area.

Figure 7. Sample of a Community Map

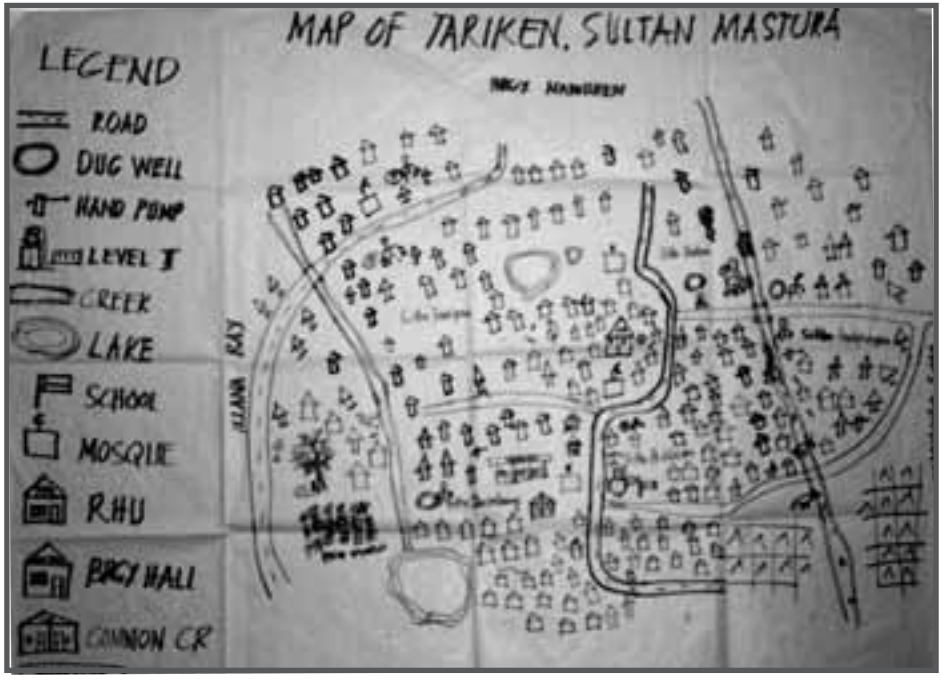


Table 9. How to Prepare a Community Calendar

Each group should prepare a daily and yearly or seasonal calendar, as follows:

DAILY AND WEEKLY CALENDAR should show routines, such as:

- Fetching of water
- Treatment of water
- Sanitation behaviors
- Other routines related to WaSH

YEARLY OR SEASONAL CALENDAR

- Seasons, e.g. summer or dry season and wet or rainy season
- Drying up of water and flooding
- Occurrence of illness or epidemics
- Academic calendar
- Work calendar
- Religious seasons such as Ramadan, Holy Week
- Cultural seasons such as fiestas, foundation days

Figure 8. Sample of Daily Calendar

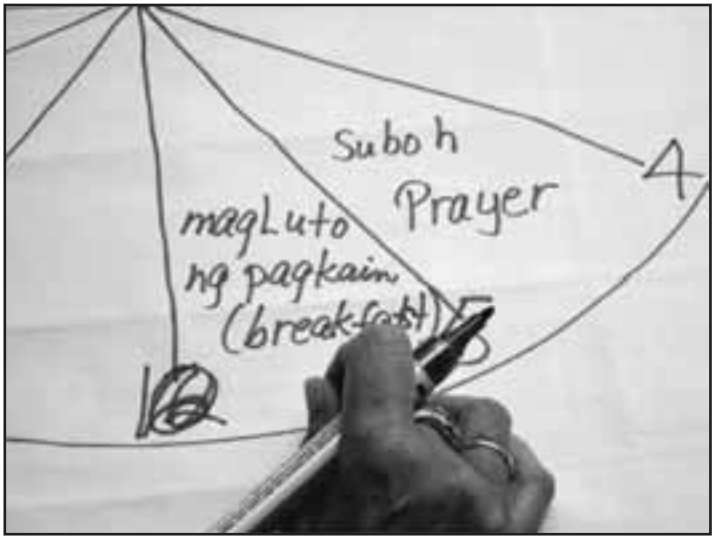


Figure 9. Sample of Annual Calendar

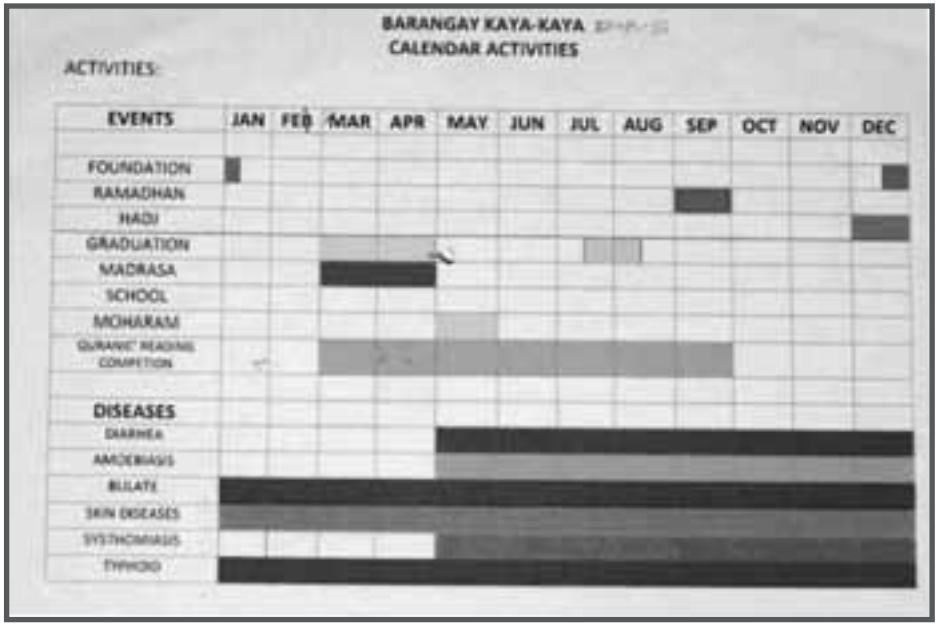


Table 10 . How to Prepare a Venn Diagram

A Venn diagram identifies the factors that affect people's lives and decision-making in a community. Factors are represented by:

- Words - that are associated with various letters
- Circles in varying sizes – representing the magnitude of the effect of the specific factor

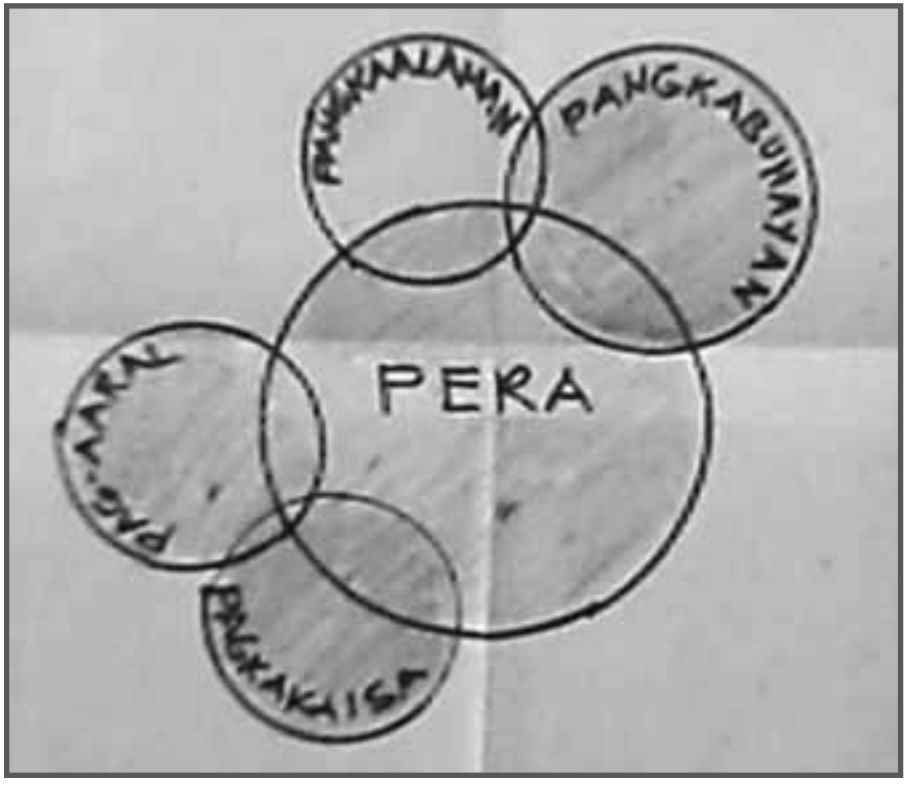
GUIDE TO PREPARING A VENN DIAGRAM:

1. Ask the participants to say a word associated with say, letter P.

2. When everybody has taken his or her turn, synthesize by asking which factors significantly affect their lives and decision-making processes.
3. Put circles of varying sizes to indicate the magnitude of the effect of the factor.

A sample of a Venn diagram is shown below:

Figure 10. Sample Venn Diagram



4) All the groups' maps, calendars and diagrams are then presented in a plenary session and then combined, taking note of and resolving any differences or inconsistencies. A consolidated map, calendar and Venn diagram are then drawn up, and then used to expand the discussion on WaSH issues and to summarize major findings.

How are the results of the Household Interview, Ocular Inspection and Data Gathering and Consolidation Community Focal Group Discussion reconciled?

The focal group is still the venue for this process. After consolidation of the map, calendar and Venn diagram, these are compared with the results of the other data collected. The comparison could be done using the following steps and guide questions:

1) Do the data from all the primary data gathering methodologies (after tabulation and summation in Step 3) match up?

2) If they do not match up, determine the source/s of inconsistency. The possible sources are:

   a) ***Area surveyed does not coincide with map prepared by the focal group.*** In this case, a re-survey may have to be done in the correct area.
   b) ***Sample size is too small or not geographically spread out.*** If this is the reason, the WSA would have to interview additional sample households and make sure that they are geographically dispersed.
   c) ***Survey techniques (how the interview and/or ocular inspection were conducted) may have caused some data inaccuracies.*** A re-survey would have to be done for the items where inconsistencies were noted.

3) If they do match up, then scale up the data to approximate the total population of the target community, following the example below:

EXAMPLE			
Total number of Households (HHs) in barangay:			150
Sample Size:			10%
Total number of HHs interviewed:			150 x 10% = 15
Survey Results:	Households that get their water from the river:		3
	Households that get their water from dug wells:		7
	Households that get their water from level II water system:		5
	TOTAL		**15**
Synthesis of Survey (Percentage for each category): **FORMULA** **Result ÷ Number of HHs surveyed x 100 = %**	Households that get their water from the river:	3 ÷ 15 x 100	20.0%
	Households that get their water from dug wells:	7 ÷ 15 x 100	46.7%
	Households that get their water from level II water system:	5 ÷ 15 x 100	33.3%
	TOTAL		**100.0%**
Scaling up of Data **FORMULA** **% from Synthesis of Survey x Total number of HHs = Total number of HHs**	Households that get their water from the river:	20.0% x 150	30
	Households that get their water from dug wells:	46.7% x 150	70
	Households that get their water from level II water system:	33.3% x 150	50
	TOTAL		**150**

This scaling up process is repeated for other classifications of data that were collected from the survey.

4) Use the scaled up data to prepare a brief summary of the WaSH situation in the community, covering the following:

- Percentage of level I, II, III water systems and undeveloped sources
- Percentage of sanitation facilities and/or practices, i.e. water-sealed toilet, closed pit, open pit, open field, river, lake, sea, etc.
- Number of health services

This completes the primary data gathering component of the WaSH Inventory process.

HOW ARE ALL THE DATA ANALYZED?

STEP 3: All the primary and secondary data gathered by the MWTF, WSA and the rest of the community are tabulated/synthesized, interpreted and summarized in a write-up of WaSH Inventory results.

How are the data tabulated or synthesized?

1) **General Guidelines** – All data gathered are consolidated through tabulation and summation. It would be helpful to tabulate the data by barangay (for municipal data) or by sitio/purok (for barangay data). By doing so, one can determine any differences among the areas and prioritize where the needs are most urgent.
   In doing the tabulation and summation, the WSA could use the same primary data gathering tools used during the household interview.
2) **Specific Steps** – Data could be tabulated and summarized as follows:

Table 11. Tabulation and Summation of Data

SOURCE OF PRIMARY DATA	STEPS
Household Interview	1. To facilitate the process, the same primary data gathering tools (Annexes B, C and D) could be used to tabulate and summarize the data. 2. For each item in the tool, add up the answers from the accomplished questionnaires. For example: *a) Read the first accomplished questionnaire.* *b) On a blank tool or questionnaire, write an "I" corresponding to the answers on the first questionnaire. Say, the answer to the first question is "shallow well", write an "I" within the space allotted for shallow wells in the blank questionnaire.* *c) Do the same for all the other answers on the first questionnaire, before moving on to tabulate the rest of the questionnaires.* *d) Group the "I" by 5s, i.e. "IIII-IIIII" so that it is easier to add up the totals after all the questionnaires have been tabulated.* *e) Write the total within the same allotted space.* *f) Do the same for all the accomplished questionnaires.*
Ocular Inspection	1. Data collected from the ocular inspection are a combination of photographs, illustrations, measurements and narrative data. 2. The photographs and illustrations could be posted on the communitymap. 3. The narrative data (e.g. flow rate, presence of leaks, etc.) could be attached to the tabulated data from the household

SOURCE OF PRIMARY DATA	STEPS
	interview, to add a qualitative dimension to the quantitative figures.
Community Map, Community Calendar and Venn Diagram	Synthesis of this data was already completed during the data gathering and consolidation community focal group discussion.

How are the synthesized and tabulated data interpreted?

After all of the data are consolidated, they are analyzed as:
Water – by water source
Sanitation – type of sanitation
Hygiene – type of health facility, health worker, health practice

The steps and guide questions for the data analysis are the following:

Table 12. Steps and Guide Questions for Data Analysis

WATER
LEVEL I WATER SYSTEMS 1. For each type of level I water system (well, pump, rainwater), average out the number of households per water source (scaled up total number of households using the source divided by total scaled up number of specific water source). 2. Describe the water quality for each water source. 3. For surface water sources, compare the flow rate vis-à-vis the water requirement of the households that use it (computed at a minimum of 20 liters per day per person).

WATER

How to measure the flow rate of a spring

a) Get a container of a known size in liters. Direct the source flow into the container and time in seconds how long it takes to fill the container.
b) Write down the time taken. Empty the container and repeat the process three times.
c) Average out the number of seconds to fill the container.
Average = (Time a + Time b + Time c + Time d) ÷ 4
d) Calculate liters per day. This is referred to as average source flow (ASF). Given that there are 86,400 seconds in one day:

ASF = (86,400 ÷ time to fill up the container) x container size
For example:
Container: 1.5 liters
Time a = 15 seconds
Time b = 13 seconds
Time c = 18 seconds
Time d = 10 seconds
Average = (15 + 13 + 18 + 10) ÷ 4 = 56 ÷ 4 = 14 seconds for 1.5 liters
Flow rate = 14 seconds for 1.5 liters
ASF = (86,400 ÷ 14) x 1.5 = 9,257 liters per day

If water source is a spring with multiple eyes, then you need to channel all the flows into one area then measure.

4. Compute for the average distance/time of a household from the water source.
5. Compare the collected data with the standards provided in Table 13.

WATER

LEVEL II AND III WATER SYSTEMS

1. Use the scaled up total to determine: how many households are using each tap stand (for level II systems); how many households have individual faucets (for level III systems).
2. Describe the water quality for each water source.
3. Describe the distribution system – current condition of spring box, water pipes.
4. Describe the management scheme for each system – who is managing the system, what is the fee structure, etc.
5. For level II water systems, compute the average distance of a household from the water source.
6. Compare all these data with the standards provided in Table 13.

UNDEVELOPED WATER SOURCE

1. Use the following guide questions to determine the viability of developing the water source:

    a) Accessibility. Is it possible to install equipment on the site? Is the source located on public or private land?
    b) Distribution. Can the water be distributed through a piping system or not?
    c) Number of Users. How many households are projected to be users of the water system and what will be their total water requirement, now and in the future?
    d) Type of System. Below are some guide questions for specific systems:

        I) Gravity Flow System. Is the source above the consumers and are there any points on the pipe route that are higher than the source? If the source is lower than any point along the pipe route, then the system will not work. If possible, find or conduct a survey of elevation vs. distance.

WATER

ii) Pumped System. Is there access to a power source, e.g. electricity, generator, solar and wind power?

2. What is the current and projected condition of any watersheds surrounding the water source?
3. Based on all of these data, which water sources have the potential to be developed as a water source for the community?

FOR LEVEL I, II AND III WATER SYSTEMS

1. Based on the comparison with standards, categorize the water issues into quality and quantity for each area. For example, Sitio 1 has easy access but water is highly unsafe, Sitio 2 has good water quality but quantity is not sufficient for the requirements of the community.
2. Take note of the undeveloped yet viable water sources.
3. Analyze the status of agencies or agencies that are providing water services.
4. Document all of the analyzed data into a write-up for water.

SANITATION

1. Add up the scaled up totals for each type of sanitation facility – water sealed toilet; closed pit; open pit; open field; river, lake or sea – then compute for the percentage of each type.
2. Compute for the distances between the sanitation facilities and the water source.
3. Compare these data with the standards provided in Table 13.
4. Based on the comparison, summarize the sanitation issues per area.
5. The summary will comprise the write-up for sanitation.

HYGIENE

1. Compute for the average number of health care facilities or workers per household (scaled up total of households divided by number of each type of facility or worker).
2. Look at the tabulated figures on incidence of disease and access to health information.
3. Summarize the hygiene issues per area.
4. The summary will comprise the write-up for hygiene.

National and international organizations have set some universal standards related to WaSH. While these are helpful benchmarks, the community should still take into consideration its unique situation as it prepares its write-up on interpreted WaSH Inventory results.

Table 13. Various Standards for WaSH

WATER		
ITEM	**STANDARD**	**SOURCE OF STANDARD**
Water consumption for emergency humanitarian relief	15 liters per person per day	*The Sphere Project* 2004 edition
Average water consumption	40 liters per person per day	PEF's *Water Works! Resource Kit* – Book 1 *The ABCs of Potable Water Projects* page 11
Farthest acceptable distance from residence to water source	Level I system – 250 meters Level II system – 25 meters	National Water Resources Board – Philippines
Minimum acceptable biological contamination for water	0 E. coli per 100 ml of water	Philippine standards

WATER		
ITEM	**STANDARD**	**SOURCE OF STANDARD**
Levels of biological contamination for water	0 to 10 E. coli per 100 ml of water – ACCEPTABLE	World Health Organization 1997
	10 to 100 E. coli per 100 ml of water – POLLUTED	
	100 TO 1,000 E. coli per 100 ml of water – DANGEROUS	
	More than 1,000 E. coli per 100 ml of water – VERY DANGEROUS	
Minimum acceptable chemical contamination for water	Chlorine – not to exceed 5 mg per liter	World Health Organization
	Arsenic – not to exceed 0.01 mg per liter	
	Manganese – not to exceed 0.4 mg per liter	
	Mercury – not to exceed 0.006 per liter	
SANITATION		
Minimum acceptable distance of sanitation facility from water source	25 meters	Philippine standards
Design of sanitation facility	Should prevent flies and other vectors from coming in contact with feces and urine	Philippine standards

Put together, the three write-ups – water, sanitation and hygiene – comprise the consolidated write-up on interpreted WaSH Inventory results. Once this write-up is completed, the community is ready for the next step: formulation of the WaSH Plan. ■

CHAPTER 4

PLANNING FOR WaSH

CHAPTER 4

INTRODUCTION TO THE CHAPTER

"Mahirap gumawa ng proseso na walang plano" (It is difficult to implement a process without a plan).[4] *The write-up on the consolidated results of the WaSH Inventory (Chapter 3) is the take-off point for the formulation of a WaSH Plan. This chapter details the importance of the WaSH Plan and its uniqueness by virtue of the Governance Approach that was used to formulate it, explains the planning process and provides helpful guide questions in the actual writing.*

There are many approaches to local development planning, many of which do not involve stakeholders whose lives are affected by these plans. This chapter introduces a WaSH Plan that emanates from the community, articulating its aspirations and choices on WaSH. Readers may choose to formulate a stand-alone WaSH Plan, using all or part of the recommended outline and contents; or some may opt to incorporate WaSH in other development plans of the LGU.

WHY A WaSH PLAN?

WASH PLAN Defined

A WaSH Plan is envisioned to be a community's primary planning document for WaSH, outlining its current situation, priorities and strategic responses to its water, sanitation and hygiene needs.

[4]Quoted from an MWTF member from the ARMM, speaking on the rationale of a WaSH Plan

Why is a WaSH Plan important?

Because the WaSH Plan is a detailed documentation of how the Governance Approach reconciles a community's divergent roles and mindsets on WaSH to arrive at a doable point of convergence. In relation to the transformative process of the Governance Approach (illustrated in Figure 3, Chapter 1), the WaSH Plan documents how ***Dapat*** (policy and mandate), ***Gusto*** (development priorities), ***Puwede*** (resources, capacities and good practices) and ***Kailangan*** (needs) all meet up and converge at ***Kaya!!!***. The result is a WaSH Plan that considers all these determinants of a community's WaSH situation, in the process of identifying the WaSH needs that should be addressed and most importantly, the most viable ways to address them.

While there may already be several local development plans available within a local government unit, it is unlikely that any of these provide sufficient focus and attention on water, sanitation and hygiene. By formulating a WaSH Plan, a community is able to:

1) ***Harmonize programs and projects for WaSH***. In local development planning, water, sanitation and hygiene are usually spread out among different sectors, such as health, social welfare, and infrastructure. The plan puts all of the WaSH concerns in a single sector. By doing so, all of the ongoing and future development interventions for WaSH are laid out together, making it easier to synchronize the various aspects of their implementation.

2) ***Converge and manage resources for WaSH***. Documenting all WaSH programs and projects in a single sector also helps in resource generation, both from internal and external sources. Internally, the plan provides information on the local funds available for WaSH. Planners could use this information to manage these available funds more efficiently, i.e. prioritize projects, schedule fund disbursements and even generate savings. The plan is also a tool for generating external resources, because it demonstrates to development assistance institutions that: 1) the community indeed has a need; 2) it has a well thought-out plan on how to address this need; and 3) because of the Governance Approach, the entire community is accountable for the sustainability of any intervention that contributes to the service delivery of WaSH.

3) ***Formulate a WaSH Plan that is more than just a plan – it is also a "covenant" between the local government and the public it serves, to be jointly accountable for delivering WaSH services to the community***. The WaSH Plan derives this uniqueness from the Governance Approach. Where many local development plans are predominantly supply-driven, i.e. determined solely by the legally-mandated governing body, the Governance Approach puts together a WaSH Plan: 1) that is demand-driven, or one that is collectively determined by the stakeholders and their local government; and 2) whose implementation and sustainability is a shared responsibility between the local government and their stakeholders.

What is the geographic scope of the WaSH Plan?

The Governance Approach does not prescribe any definition or limitation on the geographic scope of a WaSH Plan. It can be prepared for a community, a barangay, a municipality or even a province.

It does help if the priorities embodied in the WaSH Plan are recognized and shared by the municipal government, because this level of local government has the institutions and resources to facilitate implementation of the plan. For the purpose of this Field Guide, a Municipal WaSH Plan need not simultaneously or immediately involve ALL of its barangays in the processes of the Governance Approach to WaSH as a pre-requisite to planning. Initially, it is sufficient that the plan include selected barangays, provided that these represent all the major typologies of water, sanitation and hygiene resources, practices and needs within the municipality. Expansion of the Governance Approach to other barangays could be done later on.

Throughout this Field Guide, all references to the WaSH Plan shall be municipal in scope, i.e. a Municipal WaSH Plan, as described in the preceding paragraph.

How is the Municipal WaSH Plan related to other plans of the local government?

As the Municipal WaSH Plan is being formulated, it necessarily draws relevance from other major development plans of the municipality, mainly the following:

1) **Comprehensive Development Plan (CDP)**. The WaSH Plan is a sectoral plan, i.e. it covers only

one sector in the over-all development of the municipality. Thus, it has to remain consistent with the over-all Comprehensive Development Plan that encompasses all sectors of development.

2) **Executive and Legislative Agenda (ELA)**. All newly installed local government officials prepare an Executive and Legislative Agenda at the beginning of their term, which itemizes their program of action for the next three years in support of the CDP. The Municipal WaSH Plan should be linked to the ELA to ensure its inclusion among the development priorities of the current local government administration.

3) **Barangay Development Plan (BDP).** Like the CDP, the BDP embodies the over-all development agenda, this time of the barangay and its sitios or puroks. The WaSH Plan should also be consistent with the BDP/s, particularly of the barangay/s prioritized for WaSH.

After the Municipal WaSH Plan has been completed and adopted by the municipal government, it should then be integrated with the above-stated plans as a distinct sector, so that it forms part of the overall development of the municipality.

What is the timeframe of the Municipal WaSH Plan?

The recommended timeframe for the plan is between three and six years. This duration is based on the term of office of local government officials, and allows for plan updating and revision based on changing community needs and possibly changing priorities of incoming administrations. The six-year limit is deemed as a maximum, beyond which the plan may no longer be accurate and responsive to the new situation and development thrusts of the community.

Within this time frame, there should be a mechanism for an annual review and amendment of the plan based on the results of the MWTF's and WSA's monitoring and evaluation, as well as changing realities within the community. An annual review and amendment has the following benefits:

1) Adjustment of targets. During M & E, the MWTF and WSA may discover performance deviations vis-à-vis the established targets of the plan. Annual review and amendment would allow:

a) ***Setting of new targets*** – particularly if targets were achieved ahead of time, OR they are deemed to be unrealistic based on the current situation
b) ***Corrective measures*** – to be put in place, if targets are not achieved because of implementation problems

2) **Responsive plan**. If the MWTF and WSA wait three to six years before reviewing the plan, it may lose valuable time and opportunity to address new WaSH concerns in the community that may crop up within this time frame. An annual review and amendment makes the plan more responsive to any new developments on WaSH.

3) **Recognition of successes and outstanding performance.** An annual review and amendment of the plan allows the MWTF and WSA to recognize and reward successful experiences and praiseworthy performance, and replicate them in other areas.

What are the general objectives of the Municipal WaSH Plan?

Although the intended objectives of a Municipal WaSH Plan may differ from one local government to another, the following are common to all plans:

1. **Direction**. To establish a road map for installing, implementing or improving the delivery of WaSH services in the municipality
2. **Accountability**. To hold specific individuals, groups and the community-at-large, including the local government, responsible for the sustained delivery of WaSH services
3. **Measurement of accomplishments**. To establish objectives and targets to which actual accomplishments can be compared, and for which appropriate actions can be taken; and
4. **Motivation**. To encourage all sectors to participate in the delivery of WaSH services

WHO AND WHAT ARE NEEDED TO COMPLETE THE MUNICIPAL WaSH PLAN?

Who will prepare the Municipal WaSH Plan?

1) **MWTF**. The MWTF takes the lead, by virtue of its position as well as experience and technical competence in the planning process.

2) **WSA**. The task force works closely with the WSA/s in the formulation of the plan, to ensure that the plan articulates the actual conditions within the community/ies and considers these interests and limitations in formulating appropriate responses.

3) **Other stakeholders**. Outside of the membership of these two bodies, other individuals and groups could also be engaged in the planning process (Chapter 2), according to the unique situation of the target community/ies.

What are the sources of information for preparing the Municipal WaSH Plan?

1) **Write-up on WaSH inventory results**. The principal source of information for the Municipal WaSH Plan is the consolidated and interpreted results of the WaSH Inventory. Because most of these results originate from primary data sources, the situation presented in the write-up is generally accurate and realistic – a good basis for any planning exercise.

2) **CDP and ELA**. The Municipal WaSH Plan has to be anchored on the bigger development agenda of the municipality, which is verbalized in the CDP and ELA. The vision, mission, objectives, strategies, programs and projects in these plans – particularly those that are related to WaSH – can feed into the Municipal WaSH Plan.

3) **Other sectoral plans**. Some municipalities have separate and stand-alone sectoral plans, which elaborate on a specific sector in more detail than that contained in the CDP or ELA. Sectoral plans that have some relevance to WaSH are also helpful secondary sources of information for the Municipal WaSH Plan.

WHAT ARE THE STEPS IN WRITING THE MUNICIPAL WaSH PLAN?

The steps in writing the Municipal WaSH Plan are based on the following recommended outline for the document:

I. Municipal WaSH Situationer
II. Municipal WaSH Vision and Mission
III. Municipal WaSH Objectives and Results
IV. WaSH Strategies and Approaches – including Behavior Change Communication Plan
V. WaSH Programs, Projects and Activities
    A. Work and Financial Plan
    B. Resource Mobilization Strategy
VI. WaSH Mechanisms
VII. Monitoring, Evaluation and Updating of the WaSH Plan
VIII. Annexes

STEP 1: A Municipal WaSH Plan should begin with a municipal WaSH situationer.

How is a Municipal WaSH Situationer written up?

The write-up of interpreted WaSH Inventory results is the primary source of information for describing the municipal WaSH situation. A well-implemented WaSH Inventory will present an accurate and comprehensive picture of the WaSH situation in the municipality. The individual write-ups on water, sanitation and hygiene from the previous chapter already contain all, if not the bulk, of the information needed to write the situationer. A recommended outline is presented in Table 14 below:

Table 14. Recommended Outline for Municipal WaSH Situationer

A. DEMOGRAPHIC PROFILE OF THE COMMUNITY

B. WATER SITUATION

1. Access to water – percentages of water sources by type (level I, II, III and undeveloped sources)
2. Description of each water source by type, to include:
    a) Location of sources
    b) Number of sources
    c) Number of users – total and average per source
    d) Flow rate vs. water usage
    e) Average distance between households and water source
    f) Water quality
    g) Other relevant data – e.g. culture, behavior and practices related to water

C. SANITATION SITUATION

1. Access to sanitation – percentages of sanitation facilities by type (water sealed toilet, closed pit, open pit, open field, river, lake, sea)
2. Description of each sanitation facility by type, to include:
    a) Location of facilities
    b) Number of facilities
    c) Number of users – total and average per facility
    d) Other relevant data – e.g. culture, behavior and practices related to sanitation

D. HYGIENE SITUATION

1. Access to health facilities and workers – including location, number and ratio to community population

2. Description of health problems – with focus on illnesses related to WaSH
3. Other relevant data – e.g. culture, behavior and practices related to hygiene

E. OTHER ASSETS AND RESOURCES

These are the other economic, social, infrastructure, natural and fiscal resources and institutions that could be engaged for WaSH.

STEP 2: The vision and mission of the municipality are included in the Municipal WaSH Plan.

How are the Vision and Mission for the Municipal WaSH Plan formulated?

The provision of basic services, of which WaSH is the most fundamental, is built into the mandate of local governments to promote the general welfare of its people. This is usually verbalized, either explicitly or implied, in the vision and mission statements of the municipality.

The vision and mission of the municipal WaSH Plan could be formulated in either of two ways:

1) **Retain the original vision and mission of the municipality** – Some local planners prefer to "preserve" the municipal vision and mission in its original form when writing separate sectoral or similar development plans, such as the municipal WaSH Plan. The rationale for the retention is to keep all plans expressly consistent with a single vision and mission, and to prevent any confusion that could result from having several versions of these statements.

   If the municipal WaSH Plan retains the original vision and mission of the municipality, the planners could prepare a brief write-up emphasizing the specific phrase/s of the statements that is/are being addressed by the plan.

Table 15. Example of Retaining Original Vision and Mission for Municipal WaSH Plan

VISION:	The municipality of Talipao envisions itself to be a productive agricultural community with its God -fearing, peace-loving people practicing a healthy lifestyle, availing of quality education under effective leadership.
WRITE-UP:	*This Municipal WaSH Plan supports the Vision of the municipality, specifically in envisioning a people that live a HEALTHY LIFESTYLE. The provision of potable, affordable, sufficient and accessible water, and appropriate and adequate sanitation and hygiene facilities, is a basic requirement for a healthy population. Only by providing WaSH resources and facilities can the people of Talipao begin to envision a healthy lifestyle for themselves.*
MISSION:	To respond to the increasing needs of the community and its constituents through improved revenue generation, capacity development, effective delivery of social and economic services, and optimum utilization and conservation of natural resources in partnership with civil society organization.
WRITE-UP:	*The Municipal WaSH Plan helps to accomplish the mission of the municipality, particularly in the:* *1) Delivery of social services – of which water, sanitation and hygiene are the most basic* *2) Optimum utilization and conservation of natural resources – by formulating environment-friendly strategies and approaches; and* *3) Partnership with civil society organization – where the Governance Approach to WaSH promotes participation of all stakeholders in delivering the basic service*

2) **Develop a WaSH-specific vision and mission, anchored on the original statements.** Other local planners opt to formulate another sector-specific vision and mission, but strictly anchored on the original statements. The rationale for this option is to help sharpen the sectoral plan towards a more specific and focused direction.

   In formulating distinct vision and mission statements that are consistent with the over-all statements, the planners could use the following instructions as a guide:

   a) Review the vision and mission of the municipality.

   b) Look for key words or phrases that directly or indirectly refer to water, sanitation and hygiene. Some of these key words or phrases are:

      "Access to potable water, sanitation and hygiene"

      "Health, cleanliness, reduction in disease/death"

      "Well-being, quality of life, healthy lifestyle"

      "Social Services, Basic Services"

      "Environment, Sustainability"

   c) After identifying and highlighting these key words and phrases, the planners then engage in an exercise to formulate the vision and mission, where:

      The ***vision*** should describe how the local government and stakeholders see their community years from now in the area of WaSH. It may be helpful to communicate to the planners on a personal level, by asking them to visualize the quality of life that they aspire for their children and grandchildren. The vision should be realistic enough to be attainable, yet lofty enough to motivate and inspire, remaining consistent with the over-all vision of the municipality.

      For example (using the same example of the municipality of Talipao):

A municipality where every household has access to potable and affordable water, in quantities sufficient to support its requirements for living a healthy lifestyle through proper sanitation, hygiene and economic productivity.

In general, the **mission** is a statement that expresses how the local government and stakeholders will collectively work to attain the WaSH vision and support the municipal mission.

For example:

To plan, design, install and efficiently manage appropriate WaSH systems in the municipality and to promote the concept of joint accountability and responsibility between the local government and the community in the delivery of WaSH services.

d) The planners should agree on a final version of the municipal WaSH vision and mission.

STEP 3: The municipal WaSH objectives and results should address the WaSH situation and translate the WaSH vision into real and achievable targets.

How are effective Municipal WaSH Objectives and Results developed?

Effective objectives and results are those that establish a logical link between the current situation that compels action, and the desired situation. In the case of WaSH, the municipal WaSH situationer is broken down into specific issues and concerns, while the municipal WaSH vision is translated into doable targets, written in S.M.A.R.T. terms.[5] The logical link between these two aspects of the plan is

[5] **S**-mart; **M**-easurable; **A**-ttainable; **R**-ealistic; **T**-ime-bound

expressed as objectives and results.

Some tips in developing effective objectives and results are enumerated below:

1) Review the municipal WaSH situationer and identify the specific needs or concerns that need to be addressed.

2) Evaluate each need or concern and ask the following questions:

   a) *Does the community have the resources available to address this need?*
   b) *Will addressing this need contribute to the realization of the Municipal WaSH vision?*

3) If the answer to both questions is "yes", translate the need or concern into a positive statement, incorporating the S.M.A.R.T. elements. For example, if the concern is "only 50% of households have access to potable water", translate this into a statement like *"increase access to potable water from 50% to 100% of households in the municipality within three years".* Do the same for all the other needs or concerns.

4) Review the initial objectives and results and go through a process of prioritization, ranking them according to urgency and doability, within the timeframe of the Municipal WaSH Plan.

5) As a final review, lay down the trimmed down list of objectives and results between the current situation and the Municipal WaSH vision, and check if they logically lead one to the other. Retain those that have this logical link.

Additional examples are given in Figure 11:

Figure 11. Examples of Effective Objectives and Results

CURRENT SITUATION

- Only Level I Water System is available
- Houses are dispersed and community-based water systems are not viable
- Water is turbid, yellowish, with a foul odor, and confirmed to be not potable
- There are no sanitation facilities
- Diarrhea is common among children, especially during the rainy season

OBJECTIVES AND RESULTS

Within a 3-year period:

- Increased access to water
- Increased access to filtration technology to ensure availability of potable of water
- Availability of appropriate and adequate sanitation facilities
- Reduced incident of childhood diarrhea

MUNICIPAL WaSH VISION

A municipality where every household has access to potable and affordable water, in quantities sufficient to support its requirements for living a healthy lifestyle through proper sanitation, hygiene and economic productivity.

STEP 4: The appropriate municipal WaSH strategies and approaches should achieve the objectives and results, taking into consideration the strengths and challenges of the community.

How are appropriate Municipal WaSH Strategies and Approaches determined?

Strategies and approaches refer to the ways that objectives are achieved, utilizing available assets and resources. While the planning process itself usually incorporates the formulation of objectives and strategies in one step, these are documented separately so that the WaSH Plan flows logically from what the community seeks to achieve (objectives and results) to how the community intends to achieve it (strategies and approaches).

The municipal WaSH strategies and approaches are also a link between the current and the desired situation, but one that focuses on *how* to achieve the objectives and results. It is the general course or path of action that the municipality has decided to take in order to attain its municipal WaSH vision.

The WaSH Plan has three types of strategies, namely:

1) **Technical Strategies** are related to the installation or physical construction of the WaSH system.

   Example: Develop Buluan spring to provide 25 liters per day per person in the sitios of Madang, Kalumamis, Talisay and Haron. The spring assumes that it will supply the minimum of 25 liters per person per day for a ten-year population growth rate of 5%.

   The next two strategies generally support the selected technical strategies and approaches.

2) **Organizational Strategies** are for establishing the mechanisms, systems and policies for the effective management of the WaSH system, as verbalized in the technical strategy.

   Example: Strengthen WSA to implement, maintain and manage user fee based spring water system in Buluan.

3) **Advocacy Strategies** are strategies on IEC that are intended to develop mindsets and/or behaviors that would support the sustainability of the WaSH system/s. Because of the crosscutting nature (i.e. applies to all steps of the Governance Approach to WaSH) of this strategy, it is recommended that a Behavior Change Communication Plan be formulated, as an elaboration of the advocacy strategy. Details on the preparation of this plan are provided in Chapter 6.

Example: Conduct an IEC campaign on the following messages: 1) user's fee for the spring water system in Buluan; and 2) water conservation. The IEC campaign for both messages is to be anchored on Islamic values.

Some guidelines for determining the appropriate strategies and approaches are provided below:

1) Review the municipal WaSH objectives and results.

2) For each one, ask the following guide questions:

   a) *What are the available resources in our municipality that can contribute to the attainment of the objective?*

   b) *What are the limitations of our municipality that may hinder the attainment of the objective?*

   Answers to these questions should be available in the Municipal WaSH Situationer.

3) Compare the resources and limitations, and analyze the information. The following guide questions could be of help:

   a) ***Technical Strategy***. *Based on the available resources and the limitations in my municipality, which Technical WaSH strategy/ies or approach/es is/are feasible?* The following technical information could give some indication on the technical feasibility.

Table 16. WaSH Technical Strategies and Approaches

WaSH STRATEGY/ APPROACH	CONDITIONS WHERE SYSTEM IS FEASIBLE
Level III Water System (Individual Household Connections)	■ Adequate water is available ■ Water source is high enough above the consumers OR there is access to energy for pumping ■ Water quality is acceptable

WaSH STRATEGY/ APPROACH	CONDITIONS WHERE SYSTEM IS FEASIBLE
Level III Water System (Individual Household Connections)	■ Treatment options are accepted ■ WSA is set up to maintain and operate system ■ Community is willing to pay for operating costs ■ Review of existing Level I sources as competition has been considered
Level II Water System (Communal Faucet)	Same as level III water system
Level I Water System (Well, Spring)	■ Water quality is acceptable ■ Contamination is minimal OR options are available to minimize contamination
Rainwater Harvesting	■ Rainfall and collection area are sufficient for annual water supply ■ Collection tank is sized to allow suitable amount of storage for dry periods ■ Alternative water sources for dry periods ■ Cleanliness and appropriateness of collection sources to prevent contamination of water ■ Water treatment is available
Improvement of Existing Dug Wells and/or Repair of Hand Pumps	■ Quantity of available water is sufficient, i.e. well yield ■ Vulnerability to flooding and contamination from sources such as rice fields, septic systems, industries

WaSH STRATEGY/ APPROACH	CONDITIONS WHERE SYSTEM IS FEASIBLE
Improvement of Existing Dug Wells and/or Repair of Hand Pumps	■ Naturally occurring chemical contamination and turbidity is within the limits or can be treated
Home-based Filtration System	■ Water is from a single source ■ There is sufficient water to operate system effectively ■ Community cannot afford to shoulder the cost of filtering water from the source but are willing to pay for the home-based system
Water-sealed toilet	■ Water is available for flushing toilet ■ Water table is low enough to reduce contamination
Ventilated Improved Privy (VIP)	■ Water is insufficient or not available for flushing ■ Soil is permeable enough to allow liquids to flow away from latrine
Alternative Water Treatment	■ Chlorine – is community able to manage this correctly and will they be able to drink despite the change in taste? ■ Solar Disinfection – is there sufficient sunlight during all seasons? Is there sufficient access to storage bottles?

b) ***Organizational Strategy***. *For the technical WaSH strategies and approaches that your municipality has identified as feasible, there has to be a group or organization that will direct the community in the installation, operation and management of these technical strategies. In identifying or defining this organization/s, the following factors have to be considered:*

- *What will be the nature of the organization/s? A service provider that supplies the WaSH services for a fee? A fabricator/manufacturer or distributor that sells WaSH systems? A technical assistance provider and coordinator that will bring together different players to install, operate and manage the WaSH system? A single organization may take on more than one role, but it must make sure that it does not spread itself too thinly among its multiple roles.*
- *Is there an existing organization in the municipality that can take on this role? If yes, identify this organization and define its roles as part of the organizational strategy.*
- *If there is no such organization, one has to be created. The creation of this organization – its legal basis, composition and roles – is part of the organizational strategy. Chapter 2 contains guidelines in the creation of two organizations, primarily the MWTF and WSA.*
- *In either case, how should the organization be enabled to perform all of its roles, e.g. financial support for the installation, operation and maintenance of the WaSH system/s; capability building to ensure its effectiveness in the performance of its functions; internal policies, systems and procedures to keep the organization running efficiently amidst changing membership, leadership and circumstances. The measures that would address these factors are included as organizational strategies.*

c) ***Advocacy Strategy**. For the technical WaSH strategies and approaches that have been identified as feasible, what changes in the community's mindset, behaviors and practices are needed to support the technical strategies? How can the community be led towards this change? The answers to these questions would comprise the advocacy strategy. Chapter 6 provides more detailed guidelines in the formulation of effective advocacy strategies.*

4) If several technical strategies or approaches are identified and yet resources are limited, planners may need to undergo a prioritization process. One option is to use a rating system to rank the different options according to criteria that is important to them, e.g. cost, length of time to install or implement, number of households that will benefit, etc. Each strategy option is given a score for every identified criterion and a total score is computed. The strategy options are then ranked

according to their total scores, from most feasible to least feasible. From this ranking, planners could choose which WaSH strategy/ies to implement. All of the identified technical strategies have to be supported by the appropriate organizational and advocacy strategies.

STEP 5: The municipal WaSH programs and activities detail how the WaSH strategies and approaches are to be implemented. This section of the plan is divided into two sub-sections: 1) a work and financial plan; and 2) resource mobilization strategies.

How is a Work and Financial Plan (WFP) for WaSH prepared?

The format for the Work and Financial Plan for WaSH is very similar to the WFPs of other plans such as the CDP, BDP and other sectoral plans. The WFP is usually tabulated as shown below:

Table 17. Sample Format of Work and Financial Plan

PROGRAM/ PROJECT	LOCATION	AMOUNT	SOURCE OF FUNDS	TIME FRAME	IMPLEMENTING ORGANIZATION	MANAGING ORGANIZATION
In this column, list down all of the programs and/ or projects to be implemented over the time frame of the Plan, in support of the strategies and approaches.	*In this column, write down the exact location where the program or project will be implemented.*	*In this column, write the amount needed to implement each program or project.*	*In this column, write down where the funds for the program or project will be coming from. If there are multiple fund sources, write all of them with an amount breakdown, if possible.*	*In this column, write down the estimated implementation period of each program or project.*	*In this column, for each program or project, write down the office, organization or body that will lead the implementation and be held accountable for its completion.*	*In this column, write down the office, organization or body that will operate and maintain the program or project.*

What is unique about the work and financial plan for WaSH is that every program or project will have a separate component on operation and management of the WaSH system. Because the Governance Approach views WaSH as an ongoing service and not a one-off project, operation and management of the WaSH system is an essential component and could actually be considered a program or project in itself, with its own budget, fund source/s, time frame and managing organization.

What Resource Mobilization Strategies are appropriate for WaSH?

There are a number of fund sources and corresponding resource mobilization strategies that the local government and its stakeholders could use to generate funds for WaSH. The information provided in the WFP would be very helpful in guiding the planners on traditional as well as creative ways of mobilizing resources for WaSH. In reviewing the WFP, some of the guide questions that planners could ask are:

1) **Based on its nature and location, what materials are needed to implement and manage this program or project?** By asking this question, planners may realize that resources need not always come in the form of funds but can also be provided in kind, e.g. cement, wire, office space and/or office equipment for the WSA, etc. Business groups, civic organizations or even households could actually contribute materials to a project.

2) **What are the ways by which users of the WaSH system/s can contribute resources, most especially in the operation and management component?** As households begin to enjoy and become accustomed to the benefits of a WaSH program or project, they become more receptive to the concept of *user's fee*. Households just need to understand or realize that user's fee will: 1) ensure that they continue to derive benefits from the WaSH program or project; and 2) allow them to demand consistent quality and uninterrupted service as "customers" of the program or project. User's fees could be computed and collected based on quantity (e.g. per gallon, per drum), time (e.g. per month, per year) or some other variation that is deemed most appropriate for the target community.

3) **Do the "traditional" fund sources, i.e. barangay and municipal government, have fund**

allocations for a program or project of this nature? By linking the WaSH programs or projects with on-going programs and projects of the LGUs, existing fund allocations could actually be mobilized for WaSH. The same guide question could also be asked of the provincial government and line agencies.

4) **Are there development assistance institutions (e.g. ODA, CSOs) that can help fund, or source funds, for the implementation of this program or project?** If there are, the next question is: *What needs to be done to avail of this funding assistance?* Requirements may come in the form of project proposals, accreditation, etc. The local government and stakeholders could work together to fulfill these requirements.

STEP 6: The WaSH mechanisms refer to the organizational structure that would implement the Municipal WaSH Plan. This section should identify the participating institutions as well as their respective roles.

What is the implementing structure for the Municipal WaSH Plan?

Implementation of the Municipal WaSH Plan will rely on the organizational mechanisms put in place to install and, most importantly, sustain the WaSH services after the infrastructure is completed.
In the Governance Approach, the lead organizations for implementing the Municipal WaSH Plan are the:

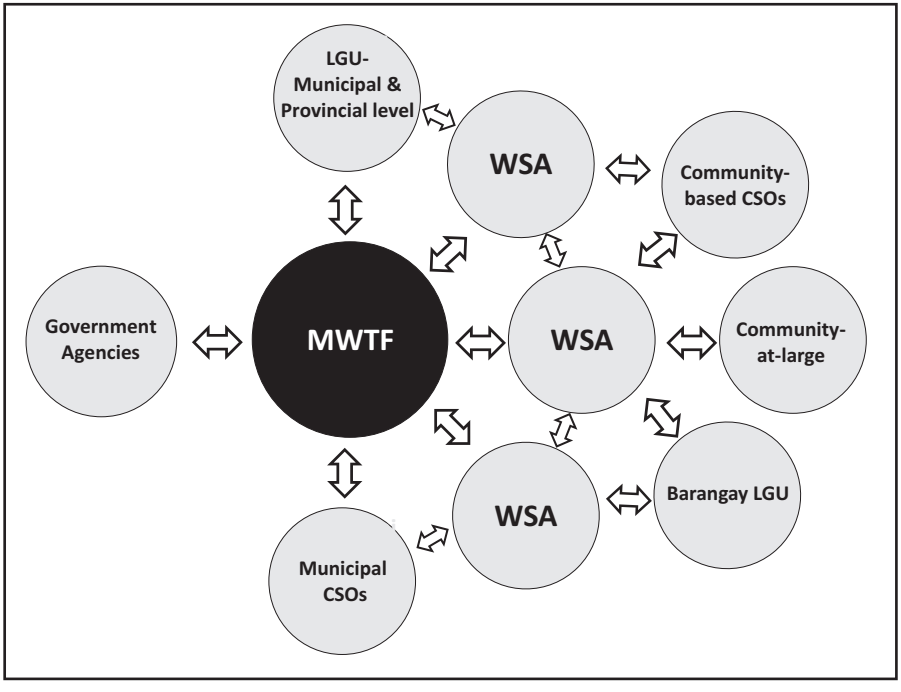
1) **MWTF**. This local body ensures:

   a) The continued engagement of the local government in the delivery of WaSH services; and
   b) That the implementation of the Municipal WaSH Plan remains consistent with the overall development thrusts of the municipality

2) **WSA**. This association:
   a) Is a mechanism for engaging the local community in the delivery of WaSH services; and
   b) Will most likely be the implementing organization for operating and maintaining the WaSH systems that are installed in the community.

Generally, the relationship between these two bodies and with the rest of the municipality and community are defined below:

Figure 12. Relationships of MWTF, WSA and Stakeholders



Planners may choose to adopt this illustrated relationship or incorporate a more structured organigram in their Municipal WaSH Plan, whichever option would facilitate implementation of the plan. As for the recommended composition and specific roles of the MWTF and WSA, these may be found in Chapter 2.

STEP 7: The main document concludes with details on the monitoring, evaluation and updating of the Municipal WaSH Plan.

How is the extent of accomplishment of the Municipal WaSH Plan measured and how are deviations addressed, if any?

The completion of the Municipal WaSH Plan is not an end but just the beginning. As soon as the plan is adopted by the Sangguniang Bayan,, the implementing structures should begin monitoring its accomplishment. To facilitate the process, the Objectives should be converted to Key Performance Indicators (KPIs), which are easier to measure and whose accomplishment will ultimately lead to the attainment of the objectives. Some examples are provided below:

Table 18. Examples of Key Performance Indicators

OBJECTIVE	KEY PERFORMANCE INDICATORS
Increased access to water	a) One ferro-cement tank (FCT) rainwater harvesting system constructed for every 10 households, supplying 20 liters of water per person per day for nine months a year b) 100% of households with adequate (at least 20 liters per household member per day) water supply c) 100% of households within one kilometer of water supply d) User's Fees collected from 100% of household clients

OBJECTIVE	KEY PERFORMANCE INDICATORS
Access to filtration technology to ensure access to potable of water	a) One bio-sand filter installed in every household b) Drinking water of 100% of households meet standard of 10 E. coli or less for every 100 ml of water c) 100% of households fully paid their bio-sand filters within 12 months d) 100% of installed bio-sand filters subjected to maintenance inspection by WSA at least once every quarter
Availability of sanitation facilities	a) One latrine constructed in every household b) Open field and open bodies of water no longer used as a sanitation facility c) 100% of installed latrines subjected to maintenance inspection by WSA at least once every quarter d) WSA has a system and safe dump site for desludging septic systems
Reduction in incidence of childhood diarrhea	a) Elimination of childhood mortality caused by childhood diarrhea b) Reduction of childhood diarrhea cases from 120 to 30 cases a year

Some planners choose to provide timelines, or break the key performance indicators into time periods over the entire duration of the Municipal WaSH Plan.

For example:

OBJECTIVE:
Increase access to water from 50% to 100% of households within three years
TIMELINE:
Year 1: 60% of households; Year 2: 80% of households; Year 3: 100% of households

Monitoring and evaluation of the KPIs is best done on a regular basis or prescribed frequency, in order to address any performance deviations as early as possible.

How often should the Municipal WaSH Plan be updated?

The Municipal WaSH Plan is a "living" document – it should always respond to the changing realities within the area and among the people for which the plan was written.
Updating of the plan could be done at two levels:

1) **Within the implementation period of the plan**. As the MWTF and WSA regularly conduct M & E, the plan is updated to adjust to any variations in the accomplishment of the objectives and results. Updating within the implementation period of the plan could also be done if circumstances within the community have changed to a point that renders certain aspects of the plan irrelevant or inappropriate. In such cases, modifications could be made to the plan, to include changes in the objectives and results, strategies and approaches, and plans, programs and activities.

2) **At the end of the plan period**. Depending on the agreed duration of the plan (i.e. anywhere from three to six years), preparations to update the plan should already begin as early as six months before the end of the plan period, so that there is continuity in the delivery of WaSH services to the community.

STEP 8: Supporting documents, which would otherwise be inappropriate for inclusion in the main plan, are appended as annexes.

What supporting documents are considered as relevant Annexes of the Municipal WaSH Plan?

The annexes are usually documents that supported the preparation of the Municipal WaSH Plan; or documents that were formulated as a result of it. These could include:

1) Executive orders and related documents that formed the basis of the creation of the MWTF and WSA
2) Write-up of interpreted results of the WaSH Inventory including the consolidated community map, community calendar and Venn diagram
3) Minutes from relevant meetings
4) Engineering and technical data
5) Memorandum/a of Agreement or Understanding (MOA or MOU) between parties for the implementation of WaSH-related initiatives

STEP 9: After the Municipal WaSH Plan is completed, it is presented to the community through a validation focal group for one last review before finalization.

How is the Municipal WaSH Plan validated by the community?

The MWTF, through the WSAs, meet with the community to present the Municipal WaSH Plan. The objectives of the focal group are to: 1) present the pre-final version of the plan; and 2) enjoin the community to participate in the process of selecting the appropriate WaSH systems. Although these systems are already written in the plan, they are still subject to a consultation with the community, and the focal group is the venue for determining the kind of services that they want.

In terms of attendance, it is suggested that the WSAs target the following:

1) **Attendance of at least 75% of households in the community** to ensure participation of the different sectors; and
2) **Participation of Barangay Development Council (BDC)**. The members of the BDC in attendance should constitute a quorum, to allow them to endorse the plan for adoption by the Barangay LGU, and for elevation to the Municipal Development Council (Step 10 of this chapter)

It will be recalled that the last time the community-at-large was convened for WaSH was during the data gathering and consolidation workshop, as a final primary data gathering activity of the WaSH Inventory (Chapter 3). Thus, in presenting the plan, the MWTF and WSA could emphasize the following points:

1) **Review of the Governance Approach to WaSH** – The presenters could begin the focal group session with a review of the Governance Approach in the delivery of WaSH services
2) **Looking Back at the Results of the WaSH Inventory**. This portion could help "set the stage" for the presentation of the plan, wherein the presenters recall the WaSH needs and concerns identified in the inventory
3) **Presentation and Validation of the Plan**. This is the main agenda of the focal group. The identified WaSH systems are submitted to the community for their validation. Any changes at this point will be inputted to the plan
4) **Information, Education and Communication Campaign**. The presenter could use this focal group session as a venue for teaching the local stakeholders about the WaSH system/s that will be installed in their community – a general description of the system, how it is used and what benefits could be derived from the system
5) **Call to Action**. After a consensus is reached about the plan, the MWTF and WSA could now call for the community to participate in the installation, operation and management of the WaSH systems; and
6) **Adoption by Barangay LGU.** With the endorsement by the BDC, the Barangay LGU could now formally adopt the plan as an official document of the barangay, paving the way for

its inclusion in the local development plans and resource allocation of the municipality.

STEP 10: The community-validated plan is then presented to the Municipal Development Council for its endorsement.

What is the role of the Municipal Development Council in the planning process?

After the community validation, the plan is elevated to the Municipal Development Council (MDC) for its endorsement. The MDC is a multi-sectoral body mandated to review and evaluate all development plans and programs for the municipality, particularly those that require the use of financial and technical resources of the LGU. Any proposed development for the municipality will require approval or endorsement of the MDC before it can be submitted to the LGU for formal adoption. In most cases, especially for development interventions that will affect specific barangays, the MDC requires the endorsement of the BDC before it proceeds with its review and evaluation process.

STEP 11: The final step in the preparation of the Municipal WaSH Plan is the submission of the document to the Sangguniang Bayan for its adoption, integration with the other local development plan/s of the municipality and the appropriation of the corresponding funds.

How does the Municipal WaSH Plan become an officially recognized development plan of the municipality?

The last major step in the planning process for WaSH is the submission of the MDC-endorsed Municipal WaSH Plan to the Sangguniang Bayan, the local legislative body that decides on the

adoption of the plan as an official development plan of the municipality. Official adoption of the plan paves the way for the appropriation of funds for plan implementation.

This legislative process could be swift and straightforward for some municipalities, and more arduous for others. Barring territorial differences, some factors help facilitate the adoption and appropriation of the plan, such as:

1) **Active participation of SB Member in the MWTF**. The inclusion of an SB Member in the core membership of the MWTF is of strategic importance to the delivery of WaSH services in the municipality. Legislative support – in the form of resolutions, ordinances and fund appropriations – are critical to the successful implementation of the Municipal WaSH Plan. An active SB Member in the MWTF is an invaluable asset, one who will champion WaSH in the powerful legislative branch of the local government.

2) **Consistency of Municipal WaSH Plan with the CDP and ELA**. Presenters of the Municipal WaSH Plan would do well to always relate the plan to its "mother" plans, the CDP and ELA. By making it clear that the Governance Approach to WaSH would support the overall development of the municipality as documented in these two plans, legislators would be more open and receptive, not only to the Municipal WaSH Plan's official adoption, but more importantly to its incorporation into the CDP and ELA, and the allocation of resources thereafter.

This final step in the planning process ensures that water, sanitation and hygiene are recognized as its own distinct sector; and the Governance Approach to WaSH, and perhaps later on to the delivery of other basic services, will be institutionalized. ■

CHAPTER 5

WaSH INITIATIVES PLANNING AND IMPLEMENTATION

CHAPTER 5

INTRODUCTION TO THE CHAPTER

After the Municipal WaSH Plan has finally been adopted by the Sangguniang Bayan, the next process is planning and implementation of the specific WaSH initiatives, as proposed in the plan. This chapter takes each WaSH strategy and approach – technical, organizational or advocacy – and breaks it up into doable or actionable steps.

Many development planners view the completion of a development plan as the end-result; the Governance Approach looks at the Municipal WaSH Plan as only the beginning, and makes certain that it is translated into action. This chapter goes through the process of converting the general WASH strategies and approaches into specific actions that both the LGU and the community can do. Communities that have little or no experience (or little or no success) in planning and implementation of WaSH systems may choose to go through all the steps. More experienced communities may pick out the steps and guidelines that would enhance their own processes.

STEP 1: The Governance Approach engages the local government and the community in coming up with a WaSH Wo rk Plan, which details the actions that need to be taken to implement each of the WaSH strategies and approaches identified in the Municipal WaSH Plan.

HOW IS THE WaSH WORK PLAN FORMULATED?

Where to Begin. The starting points of the WaSH Work Plan are the following sections of the

Municipal WaSH Plan:

1) **Objectives and Results**. These are the "anchor" of the WaSH Work Plan, i.e. all the actions listed down in the WaSH Work Plan have to contribute to the achievement of the objectives and results; and
2) **Strategies and Approaches,** which are actually treated as general steps that are then translated into more specific and actionable steps.

What comprises the Scope section of the WaSH Work Plan?

Converting the strategies and approaches into a "to-do-list". Each of the technical, organizational and advocacy strategies is rendered into a list of tasks that have to be done to achieve the proposed strategy. This "to-do-list" comprises the scope section of the Work Plan. The scope is further divided into three sections, according to the type of strategy. The following guidelines may be of help in coming up with the scope:

1) **Technical Scope (for technical strategies)**. This is done by suitable experts within or from outside the community. Each technical strategy usually refers to the infrastructure component of a specific WaSH system, e.g. dug well improvement, ferro-cement tank for rainwater harvesting, etc. The technical strategy has to be designed so as to meet the objectives and results as set out in the Municipal WaSH Plan. Standard detailed designs of some WaSH systems are provided in ***Annex G***. However, experts must first review the standard design and determine its suitability for the community. The technical scope section of the WaSH Work Plan has to include the following items for each technical strategy:

    a) **Location of the WaSH system** – see item below on "How is the site or location of the WaSH system determined?"
    b) **Water Source** – for WaSH systems that require water, the water source/s has/have to be identified and described
    c) **Detailed Design –** this includes drawings and a technical description of the proposed WaSH system. The detailed design should indicate how it is expected to meet the specific objective/s in the Municipal WaSH Plan

d) **Bill of Materials** – this is a list of materials needed for the installation or construction of the WaSH system. These materials are identified based on the detailed design

e) **Procedure for Installation or Construction** – this is an enumeration of the specific steps that have to be performed in setting up the WaSH system, up to the point where it is ready for use by the community

f) **Maintenance, Repair and Administration Details** – this last section of Technical Scope provides guidelines and instructions on the physical operation, repair and maintenance of the WaSH system/s

2) **Organizational Scope (for organizational strategies)**. The organizational strategies and approaches in the Municipal WaSH Plan formulated in Chapter 4 would have already covered all the important aspects of the organization/s that will take the lead for WaSH in the community and municipality, i.e. nature, composition, role, and enablers to sustain and strengthen the organization. Thus, this section of the WaSH Work Plan should just itemize the steps towards addressing these aspects.

   This section should also indicate whether the existing organizational structures in the community that were created for, or assigned to handle WaSH should also be the project management structure for the installed WaSH system.

   The organizational scope of the WaSH Work Plan should always directly support the Technical Scope, i.e. the designated organization/s should be customized according to the technical requirements for designing, installing, operating, maintaining and managing the specific WaSH system/s selected for implementation.

3) **Advocacy Scope (for advocacy strategies)**. This section of the WaSH Work Plan enumerates what needs to be done to send the IEC messages that will bring about the desired changes in the mindset, behavior and practices of the community. This is discussed in more detail in Chapter 6.

From the Scope section of the WaSH Work Plan, how is the Timetable prepared?

All the tasks identified in the scope section of the WaSH Work Plan should be consolidated in a universal list and then put in chronological order. Tools such as the Gantt chart and PERT-CPM network are valuable tools for completing this section of the Work Plan. Each task should include the time required and the stakeholder responsible. The timetable should always be prepared with the targeted completion date in mind.

What information is needed to arrive at a Budget for the WaSH Work Plan?

The scope and timetable sections of the WaSH Work Plan are the basis for the preparation of the budget. For each task, the following should be identified:

1) **Resource requirements** specifying the type of resource, e.g. materials, tools, labor, meals, etc.
2) **Source/s of these resources** identifying the actual and potential sources of the resources listed above
3) **Monetary value** of these resource requirements
4) **Date of release** referring to when the resource should be made available for the specific task. The chronological list of tasks prepared in the timetable will be the source of this information.

A consolidation of the scope, timetable and budget compose the WaSH Work Plan. Some municipalities or communities may prefer to have separate WaSH Work Plans for each technical strategy.

How is the implementation of the WaSH Work Plan monitored?

A contextualized monitoring tool requiring both quantitative and qualitative data can be developed to track the progress of each activity in the WaSH Work Plan, in particular how the actual schedule of activities and expenditures compare with the plan's timetable and budget. Monitoring is regularly conducted throughout the implementation of the WaSH Work Plan in order to: 1) update the timetable and budget; and 2) identify and promptly resolve issues – i.e. implementation delays and overspending – that may hamper the completion of the plan.

The monitoring tool could be as simple as a checklist of tasks and their corresponding schedule and budgets, with some writing space provided for notations and recommendations.

HOW IS THE SITE OR LOCATION OF THE WaSH SYSTEM DETERMINED?

The Municipal WaSH Plan would have already provided some indication as to the area where the WaSH systems are to be installed or implemented. And just like all the other processes in the Governance Approach, the determination of the exact site or location is a process that continues to bring together local government and local stakeholders in arriving at a final decision.

What is the Peace and Conflict Impact Assessment (PCIA) Tool?

In the Philippines, many of the communities that are seriously lacking in WaSH services are also areas that are prone to violent conflict. For this type of community, a peace and conflict impact assessment such as the PCIA system of Ken Bush would take into consideration how the installation of a WaSH service in a particular community would impact on the structures and processes that could promote peaceful co-existence; and those that could provoke violent conflict. A PCIA would anticipate the impact of a WaSH service on the peace and conflict environment of the community, *before* the system is installed.

The PCIA is conducted using the following PCIA tool, which consists of prompt questions that the local government and the community could use for site selection.

Table 19. Prompt Questions for Analysis of Potential Peace and Conflict Impact in Five Impact Areas

IMPACT AREA NO. 1: SOCIO-ECONOMIC IMPACT
▪ How will the project impact on the peace and development processes of the locality? ▪ Will the project contribute to:

IMPACT AREA NO. 1: SOCIO-ECONOMIC IMPACT

- social cohesion?
- support to development of people's organizations/CSOs/ private sector?
- developing trust and confidence of revolutionary groups in government processes?

- Are women and men to be equally represented in the planning processes?
- What measures are in place to ensure the effective participation of other sectors and stakeholders in the design of the project?
- What mechanisms and processes will ensure that criteria for selection of beneficiaries are made clear to all stakeholders?
- Will the processes ensure prioritization of least served and marginalized constituencies? Transparency in selection? In fund appropriation and work scheduling?

Timing

- Are there major activities that might be involved in that can affect project implementation? (e.g. elections, peace talks, eruption of violence, etc.)
- What are the factors (cultural, religious, political, ethnic, gender bias) that may affect the implementation of the project?
- How will local resources (financial and human) be mobilized for the requirements of project implementation?
- How will the project contribute to poverty reduction? (increased income, generate employment opportunities or increased productivity especially those of "marginalized sectors/communities")?
- Is the project relevant to the condition of the target community?
- How will the project be sustained such that benefits accrue to more members of the community?

IMPACT AREA NO. 2: CONFLICT MANAGEMENT CAPABILITIES

- How can the project increase the capacity of structures or individuals in the locality, especially of the target beneficiaries, to manage peace and conflict dynamics in the

IMPACT AREA NO. 2: CONFLICT MANAGEMENT CAPABILITIES

community?

- How will the project contribute to enriching, if not installing, locally initiated and supported mechanisms that keep track of violent conflicts? Or contribute to their just resolutions?

IMPACT AREA NO. 3: POLITICAL STRUCTURES AND PROCESSES

- What specific policies or mandates does the planned project/ program address?
- How can the project/ program strengthen mutually beneficial relationships between the LGU and community and CSOs, including members of revolutionary groups in the community?
- What mechanisms are in place that would allow for project policy enforcement?

IMPACT AREA NO. 4: ARMED CONFLICT AND SENSE OF SECURITY

- Is the peace and order situation in the area favorable for project implementation? Are there perceived threats of military operations? Or eruption of clan feuds? Or threats from lawless elements?
- How might the level of "trust and confidence" of the target communities in relation to LGU/ donor-initiated project assistance affect the entry of the project in the area?
- What project strategies could be developed or strengthened to raise the awareness and activities of the community on human rights and protection issues?

IMPACT AREA NO. 5: SOCIAL EMPOWERMENT

- Does the project create avenues for social cohesion such that people are able to participate regardless of gender, belief, ethnic origins and class?
- Does the project support gender & capacity enhancement of both formal and informal community structures such as the Barangay Development Council, Katarungang Pambarangay or others that are present in target communities?
- Does the project enable marginalized people to have confidence in their ability to engage in governance and economic activities?

The responses to the prompt questions in Table 19 would determine the suitability of a proposed site for the installation of a WaSH system. Depending on these responses, the municipality or community should make adjustments to ensure that installation of the WaSH system at the selected site:

- **WOULD** contribute to the transformation of conflict, prevent conflict or build peace capacities within the area; and
- **WOULD NOT** lead to an outbreak of conflict or an escalation of conflict

AFTER COMPLETING THE WaSH WORK PLAN, HOW IS A WaSH SYSTEM INSTALLED IN A SELECTED SITE OR LOCATION?

STEP 2: Based on the WaSH Work Plan, the resource requirements – materials, tools, equipment, labor and operation and management system – are assembled in preparation for the actual installation of the WaSH system.

How are the resource requirements for the installation of the WaSH system assembled prior to actual implementation?

The WSA takes the lead in this step. By this time, resource requirements – in cash and in kind – would have already been identified and committed from various sources. This step is simply the bringing together of all these resources:

1) **Funds**. If the resource is in the form of cash, the MWTF and WSA must agree on the disbursement procedure for these funds, e.g. to whom will funds be released, who will take charge of purchasing materials and paying for skilled labor, if any, etc.
2) **Materials**. This would be the best time to double-check the available materials vis-à-vis the actual requirements. It would be practical to make provisions for extra materials, in anticipation of damage or wastage in the course of installation.
3) **Skilled Labor**. While the community-at-large is invited to do hands-on work in the actual

installation, some communities may prefer to have some skilled laborers at hand, e.g. masons, carpenters, to guide the unskilled laborers during actual installation or construction. It may be necessary to prepare a schedule for their deployment.

4) **Unskilled Labor**. These are the community members who will join the labor "contingent" during actual installation. Aside from doing actual construction or installation work, the community could also contribute logistics such as food and beverages for the laborers. The WSA could give specific assignments, create working teams from among the community members, and schedule their deployment during actual installation.
5) **Operation and Management System**. For community-based systems, one of the tasks of the MWTF and WSA is to design and implement an Operation and Management System for the WaSH service. This is to ensure sustainability of the WaSH system immediately after installation.

STEP 3: The entire community is mobilized for the actual installation of the WaSH system.

How is the community mobilized for the actual installation of the WaSH system?

As soon as installation of the WaSH system begins, the earlier legwork would have already prepared the community for the work at hand. There are creative ways to acknowledge the significance of this process:

1) **Hands-on work by municipal officials**. The presence of the municipal Mayor,vice Mayor and other local officials engaged in manual labor during the installation of the WaSH system demonstrates the Governance Approach in action.
2) **Fiesta atmosphere**. The WSA and the BLGU could organize a modest potluck or picnic celebration, especially on the first day of the actual installation work. A festive atmosphere motivates community members to participate in the activity.
3) **Celebration of milestones.** As installation proceeds, the community could demonstrate its

progress by celebrating highlights that indicate that the WaSH system is well on its way towards full installation. Some of the milestones that could be celebrated are: first flow of water to a specific area in the community; completion of first water-sealed toilet, etc.

STEP 4: For water projects, a water quality test is conducted on the water generated, or filtered, from the WaSH system. For sanitation and hygiene projects, quality-checks and trial runs are conducted before they are cleared for use by the community.

How is quality testing conducted on the WaSH system?

Before a WaSH system is actually used by the community, water projects undergo an additional step: water quality testing. The water output is first tested for its potability, making sure that it is free from harmful elements. Biological contamination can be measured using the Portable Microbiological Laboratory. This can then be further validated if possible by government line agencies such as Department of Health (DOH) and the Department of Science and Technology (DOST).

Commissioning of water systems is critical. All of the operational settings at the start of operations, i.e. flow rates and pressures, must be measured and noted. This provides the WSA with a baseline so that they can maintain the system to these standards. The same baseline data can also be used to determine the possibility of expansion.

For other systems, these go through a final quality check or test run just to make sure that they are fit and ready for use.

STEP 5: After the WaSH system is determined to be ready for use, the community holds a formal launch ceremony.

How is the WaSH system formally launched within a community?

After all of the quality checks are completed, the community formalizes the start of operations of the WaSH system through a simple ceremonial launch. The ceremony could be highlighted by an activity related to the output of the WaSH system, e.g., drinking a glass of water that has passed through a bio-sand filter; pumping a pail of water from an improved dug well, etc. The materials such as the ceremonial glass or ceremonial pail could be kept by the WSA for posterity.

In the early weeks or months of use, the WSA should be ready to do some trouble-shooting as the community familiarizes itself with the WaSH system. ■

CHAPTER 6

PLANNING AND IMPLEMENTING AN IEC CAMPAIGN FOR WaSH

INTRODUCTION TO THE CHAPTER

All throughout this Field Guide, the importance of planning and conducting an IEC campaign for each and every process in the Governance Approach has been emphasized. The Governance Approach stresses the importance of stakeholder ownership, not only of the WaSH system itself, but of all the processes of service delivery. Stakeholders will participate in and own the processes only if they understand them, believe that they work, and express this belief through their words and actions.

This chapter introduces the concept of behavior change communication, whereby IEC is used to influence a community's understanding, mindset, behavior and practices, particularly on the Governance Approach to the delivery of WaSH services, This chapter hopes to transform the stakeholders from misinformed skeptics and passive observers to educated participants and advocates. The formulation of a behavior change communication plan is actually included in the process of preparing a Municipal WaSH Plan (Chapter 4), as part of the section on strategies and approaches for advocacy. The guidelines in this chapter could be used to launch an entirely new IEC campaign on WaSH, or it could ride on existing IEC campaigns of the municipality that have some relation to water, sanitation and hygiene.

WHAT IS BEHAVIOR CHANGE COMMUNICATION?

Behavior change communication (BCC) is the strategic use of communication to promote positive health outcomes[6]. BCC uses a systematic process consisting of four major steps:

1) Identification of communication issues

[6] www.globalhealthcommunication.org

2) Definition of desired behavior change results
3) Preparation and Implementation of BCC plan; and
4) Monitoring and evaluation

Most of the communities that are targeted by this Field Guide have been deprived of water, sanitation and hygiene facilities for such a long time. And where these basic services are absent or grossly lacking, chances are facilities and resources for education are likewise deficient. Thus, their behaviors on WaSH – shaped by an environment where these basic services and opportunities to learn about them are scarce – are already well-entrenched. BCC uses a focused and deliberate process to promote the desired behaviors on WaSH amidst this challenging setting.

The Governance Approach to WaSH continues to engage the local government and the community stakeholders in the BCC process. Thus, all of its steps should be undertaken in a workshop or focal group with the MWTF and WSA as participants.

Just as the Governance Approach will be incorporated in the BCC process, in the same way the BCC process should be incorporated in the entire Governance Approach to WaSH, because all of the processes require some behavior change in varying degrees.

Therefore, the BCC steps:

1) **Are applicable to all the processes in the Governance Approach to WaSH** – namely: institution building, inventory, planning, system installation, operation and management; and
2) **Should ideally be planned before the actual implementation of the process** – wherein the potential communication issues are identified in advance so that an appropriate IEC campaign could be prepared and carried out.

STEP 1: The first step in BCC is the identification of communication issues (existing or potential) related to the implementation of the Governance Approach to WaSH.

How are WaSH-related communication issues or problems identified?

There are many issues or problems facing the implementation of the Governance Approach to WaSH. Some of these are communication problems.

> ***COMMUNICATION PROBLEM Defined***
>
> *A communication problem is one that relates to knowledge, beliefs, attitudes, awareness, and local practices.*

Taking off from this definition, a communication problem could be classified into one of the following types:

1) **Level of interest or acceptance/adoption**. The community receives the information; however, they are not interested in either accepting or adopting the information because they perceive other concerns to be more relevant, deserving of their attention and worth investing their time and resources on.

   Examples:
   a) *Barangay health workers introduce the process of boiling water prior to drinking. But households are not interested as they would rather use their limited firewood for cooking their meals than boiling their water.*
   b) *A bio-sand filter has been set up at the school grounds and water filtration services are being offered at one peso per gallon. Households prefer to use their money on more urgent concerns such as buying food or more "pleasurable" items such as cigarettes.*

2) **Lack of access to the communication channel**. This problem occurs when the means by which information is disseminated is not available to the target community; thus, they do not receive the information.

   Examples:
   a) *Only 10% of households have a television set*
   b) *Posters on WaSH are posted in the Barangay Health Center, which is 10 kilometers away from most households*

3) **Level of openness to change**. This is very similar to the first type of problem, except that the

reason why the community refuses to accept or adopt the new information is that they do not see or appreciate the added value or benefit of changing their current beliefs, habits and practices. It is the community's way of saying "why change when what I do now works well for me?"

Examples:

a) *The BLGU put up a new ferro-cement tank in the community, but households still prefer to get their water from the river, which is more convenient because they can bathe right here before carrying the water home.*
b) *Latrines have been installed in strategic places within the community, but households prefer the "practicality" of disposing of their feces in any open field*

4) **Level of knowledge or awareness**. In this type of problem, the community may be receiving the information. However, this information may not have been adequately or properly translated into knowledge that they can use; or the messenger (person or group delivering the message) and the community have not leveled off or established a common understanding on concepts such as health, illness, etc.

Examples:

a) *A doctor visits the community and gives a mini-lecture on diarrhea – its causes, symptoms and prognosis. However, the lecture stops short of informing the households what actions they should take to prevent diarrhea.*
b) *A pamphlet is distributed at the health center promoting a particular kind of soap for washing hands. But the pamphlet does not explain why, how and how often people should wash their hands.*

5) **Level of access or exposure to information**. This is a basic communication problem where the community really does not have, or hardly has, access to information.

Examples:

a) *The municipality has an on-going information campaign on water-borne diseases. But because the community is located very far from the barangay center and has only 10 households, the campaign does not reach their area and they do not receive the*

information.

b) Posters on how to make water potable are being distributed to the different barangays. But because a particular community has a very low literacy rate, they do not understand the contents of the posters.

6) **Level of participation or mobilization**. For this type of communication problem, it is possible that the community receives the information and it is adequately translated into useable knowledge. However, the behavior change may require some activity/ies involving the entire community, which the communication process failed to do.

Examples:

a) A household interview was conducted to gather primary data on WaSH. Unfortunately, the community was not informed about the activity, and as a result, households were reluctant to share truthful information during the actual interview.

b) A non-functioning water system in the community is going to be rehabilitated. The group that is spearheading the rehabilitation explained the entire process to the Municipal Engineer before proceeding. But because the community was not informed of the rehabilitation, the group encountered angry resistance, with the residents resenting the fact that outsiders entered their territory and "tampered" with their water system uninvited.

7) **Direction of public perception (on image, identity or positioning)**. This type of communication problem occurs when the information or message being delivered is contrary to the popular belief.

Examples:

a) Members of an indigenous tribe do not boil the water that they fetch from the lake prior to drinking because their forefathers have told them that the lake is a gift from the gods. Thus, it is pure and should not be tainted by any human process.

b) Residents of the community prefer to dispose of their feces in their farm because they believe that it makes their soil more fertile, which is good for their crops.

8) **Lack of determination to adopt a product, service, skill or desired behavior**. This type of

communication problem is very similar to the first and third type described earlier. In this case, however, the community may have already begun to accept the information and demonstrated a willingness to change. Unfortunately, the communication process was not sustained and the community reverted to its old ways.

Example:
A community completed all the major processes in the Governance Approach to WaSH. But after installation of the WaSH system, there was no IEC on the operation and management of the system. The system eventually fell into disrepair due to lack of maintenance, and the community went back to fetching water from unsafe sources.

In the BCC process, it is important to accurately identify the communication problems/issues so that appropriate IEC could be undertaken. It also helps to first acknowledge the behavior issues around WaSH, and then identify the communication that can influence these behavior issues, as this procedure makes it easier later on to proceed to the other steps of the BCC process.

The following table is a worksheet that could be used for identifying WaSH-related communication problems/issues:

Table 20. Worksheet for Identifying WaSH-related Communication Issues

BEHAVIOR ISSUES AROUND WaSH	COMMUNICATION THAT CAN INFLUENCE BEHAVIOR
In this column, list down all of the WaSH-related communication problems (existing or potential) that you can identify. Based on the definition, these are problems relating to knowledge and awareness, beliefs, attitudes or behavior and local practices. Depending on when this problem identification is being done, the WaSH-related communication problems include:	*In filling up this column, the group could use the eight types of communication issues listed earlier, as a guide for determining the specific communication problem.*

BEHAVIOR ISSUES AROUND WaSH	COMMUNICATION THAT CAN INFLUENCE BEHAVIOR
■ *Problems prior to the introduction of the Governance Approach* ■ *Problems that could affect implementation of a particular step or process in implementing the Governance Approach* ■ *Other communication problems*	
FOR EXAMPLE:	
■ Households do not boil or treat their water prior to drinking, even if the water comes from unsafe sources. ■ Household members do not use sanitation facilities to dispose of their feces ■ Household members do not wash their hands after disposing of their feces or before eating ■ Households would be hesitant to disclose truthful information during the household interview ■ Households would be resistant to paying sser's fees	■ The community is too remote that BHWs do not come here to explain the importance of boiling water prior to drinking (level of access or exposure to information) ■ Communal latrines are available but there was no effort to explain their use and benefits (level of knowledge or awareness) ■ The poster on hand washing is in English and the community understands only their native dialect and/or cannot read (level of access or exposure to information) ■ The community is wary about disclosing information to a total stranger (level of participation or mobilization) ■ Their belief is that water is part of nature and should be available for free (direction of public perception)

STEP 2: Taking off from the communication issues, the desired behavior-based results should be determined.

How are Behavior-based Results determined?

A behavior-based result has three features:

1) **Clear identification of participant group**. Whose behavior do we want to change? Who can help us bring about this change?

2) **Detailed description of the promoted behavior**. The behavior should be both appropriate and realistic for the intended community. The description could define when and/or how many times the behavior should take place.

3) **Measurable result over a specific period of time**. Similar to SMART objectives, behavior-based results should also be measurable so that the degree to which the BCC has succeeded in changing behavior can be evaluated

BEHAVIOR-BASED RESULT Defined

Behavior-based result is a statement articulating an intended behavior change or maintenance of an existing desired behavior.

In formulating good behavior-based results for WaSH, it would help to first answer the following guide questions:

1) **What is it that we want to change?** This refers to the undesirable WaSH behavior that is currently practiced in the community. This undesirable behavior has been identified earlier in Step 1 as a behavior issue around WaSH.

2) **Who do we want to change?** These are the participant groups that are to be involved in the behavior change on WaSH, namely:

a) ***Primary Audience*** – the group that is exposed to the health risk and whose behavior has to change; and
b) ***Secondary Audience*** – the group that can influence the behavior of the primary audience or can be influenced by the primary audience

3) **What is our goal with whom we want to change?** This is the desired behavior that is being promoted by the BCC process.

4) **What is our timetable?** This is the period of time within which the desired behavior is expected to be adopted by the primary audience.

After these questions have been answered, the behavior-based results may be formulated. The following worksheet gives an example of how to formulate a behavior-based result, building up on some of the examples given in Table 20:

Table 21. Worksheet on Formulating Behavior-based Results

CURRENT UNDESIRABLE BEHAVIOR	DESIRED BEHAVIOR	PRIMARY AUDIENCE	SECONDARY AUDIENCE	TIMETABLE
Households do not boil or treat their water prior to drinking, even if the water comes from unsafe sources.	*Households boil or treat their water prior to drinking.*	*All households, with some focus on household member/s in charge of handling drinking water*	*Barangay Health Workers* *Barangay Officials* *Tribal or Religious Leaders* *Schoolteachers*	*2 months*

CURRENT UNDESIRABLE BEHAVIOR	DESIRED BEHAVIOR	PRIMARY AUDIENCE	SECONDARY AUDIENCE	TIMETABLE
BEHAVIOR-BASED RESULT: Within three months, 100% of households in the barangay will be boiling their water prior to drinking.				
Household members do not use sanitation facilities to dispose of their feces	*Households use the community latrines for disposing of their feces*	*All households*	*Barangay health workers* *Barangay officials* *Tribal or religious leaders* *School teachers* *Agency that installed community latrine*	*6 months*
BEHAVIOR-BASED RESULT: Within six months, 100% of households in the barangay will be using the community latrines for disposing of their feces.				
Households would be resistant to paying user's fees	*Households regularly pay user's fees for their water supply*	*All households, with focus on the household member/s who earn/s a living and/or handle the budget*	*Barangay officials* *Tribal or religious leaders*	*1 year*
BEHAVIOR-BASED RESULT: Within one year, 100% of households in the barangay will be regularly paying User's Fees for their water supply.				

STEP 3: A BCC Plan consists of 4-Ms: Making Contact; Message; Messenger; and Methods.

What are considerations in Making Contact with the primary audience?

Making contact is all about knowing the primary audience whose behavior needs to be changed and who will be the direct recipients of the IEC. Some of the audience characteristics that should be considered when preparing a BCC Plan are:

1) **Factors that affect their WaSH knowledge and behavior.** These include:

   a) ***Individual Pre-disposition***. These are the community residents' individual tendencies towards accepting new knowledge or adopting new behavior. For example: During times of illness, do they seek outside help or self-medicate? When faced with an unknown disease, do they look for help from health authorities or from neighbors with a similar experience?
   b) ***Cultural and Social Factors.*** What are the community's prevailing beliefs and corresponding practices on WaSH? What authority or influence centers affect the way they think and behave on WaSH?
   c) ***Political and Economic Factors.*** These include access to healthcare, availability and quality of healthcare infrastructure and services, existing policies on health, and institutions that promote health in the community

   Most of these factors were already identified in previous processes such as the WaSH Inventory.

2) **Current access to information**. At present, what are their sources of information? Through what channels is the information delivered?

3) **Media Habits and Preferences**. Among the available forms of communication, which ones do

they prefer? If they have several preferences, are these based on the type of information that is being relayed? For example, if their preferences are listening to the radio, attending barangay assemblies and reading the local newspaper, is there a distinction as to the type of information they seek from each of these communication channels? If yes, what are these distinctions? How about language or dialect preference? This information will help in planning what channels to use for specific types of information in the IEC campaign.

Knowing these things about the primary audience will increase the chances of "making contact" with them, i.e. getting the message through in a way that compels them to accept the new knowledge and adopt the desired behavior.

MESSAGE Defined

A message is a concise statement whose purpose is to prompt the primary audience to act in a way that supports the behavior-based results and goal of the IEC campaign. The message is intended for the primary audience to adopt the desired behavior.

What are effective IEC Messages for WaSH?

The qualities of an effective message for WaSH are:

1) **Short**. A message has a better chance of audience recall if it is brief. No more than four short sentences is the recommended length.

   For example, the message "Safe water is for a healthy life" is easier to remember than "Drinking potable water is important because it prevents the occurrence of several water-borne diseases such as diarrhea and amoebiasis, and keeps the population healthy."

2) **Simple and easy to understand**. It is in a language (or dialect) that is familiar to the audience, uses simple words that are likely to be understood by the majority, and does not rely on technical terms or unfamiliar jargon. An IEC

message developed by locals or residents of the community has a much greater chance of success than one developed by outsiders because the former knows what words to use in "speaking" to the hearts and minds of the audience.

For example, in a Tagalog-speaking community, the message "Ang tubig na di ligtas ay nakamamatay" is easier to understand than "Water that is full of harmful elements such as viruses, micro-organisms and parasites can lead to higher mortality rates from the common water-borne diseases."

3) **States, either explicitly or indirectly, the behavior that needs to be changed and/or the desired behavior that is being promoted**. The message should compel action, or should at least provoke the audience's thoughts or feelings of wanting to take action. Some ways of doing this are to:

   a) ***Identify the problem or issue within the message itself***. This brings the audience to a realization that their current behavior is a problem that needs to be addressed

      For example, in the message "Ang pagdudumi sa kahit saan ay magdudulot ng sakit sa iyong angkan at kapitbahayan", the problem of indiscriminate disposal of feces is built into the message.

   b) ***Identify the challenges or obstacles that are causing the problem***. This is an implicit way of presenting the problem, wherein the audience is made aware of the root cause, or at least the factors that are leading to it. Here, the message does not explicitly state but rather implies what needs to be done.

      For example, the message "The leading cause of diarrhea in children is the drinking of unsafe and dirty water" may not actually state the problem or the desired action, but indirectly tells its audience to stop the practice (drinking unsafe water) that is causing the problem (diarrhea in children).

c) ***Identifies who needs to act or remedy the problem.*** A message that identifies the target audience calls their attention and, hopefully, prompts them into action. This type of message is useful if the BCC Plan is able to pinpoint a very specific audience for the message, in which case recognizing them could give them importance and motivate them to act.

For example, the mothers in a community were identified as the persons responsible for handling the drinking water in the home. A message like "Mother of the family's home is defender of the family's health."; "Safe water from you means a better life for them." No specific action is recommended, but the importance of the audience's role could be enough to induce a positive response.

d) ***Defines the critical action needed***. Finally, this type of message is the most straightforward of all. It actually instructs the audience what to do.

For example, if the desired behavior is for people to wash their hands and to do it properly, telling them how to do it may be the best kind of message: "Wash your hands with soap while singing Happy Birthday twice, rub between the fingers, tweak underneath the nails, to keep your hands clean and nice."

4) Audience-focused. While framing the message so that it reaches a greater part of the audience, it is important to recognize and consider audience characteristics (as explained in making contact, in an earlier section of this chapter) so that the message resonates with them.

For example, a hand washing campaign for adults would certainly differ from a similar campaign among children.

The specific communication issues identified in Table 20 can give a lot of insight during message development.

Who are effective Messengers of WaSH-related messages?

Messenger refers to the persons, groups or institutions that deliver the WaSH messages.

Some qualities of a good messenger are:

1) **Credibility**. If the audience values the messenger and respects or considers the information that the messenger is communicating, then the messenger is said to have credibility.

2) **Trustworthiness**. Taking credibility one step further, if the audience accepts the message as the truth, then the messenger is said to be trustworthy.

3) **Likeability**. A messenger that is credible and trustworthy, yet not well liked by the audience will find it difficult to motivate behavior change among the audience. Likeability makes the audience more receptive to the message.

4) **Knowledge**. The first three qualities are based on audience perception. Knowledge, on the other hand, is an inherent quality that the messenger should have on the WaSH message. Without knowledge or expertise, credibility and trustworthiness cannot be sustained.

There are different kinds of messengers. Generally, the messengers play one of the following roles:

1) **Message Champions and Advocates**. Messengers that play this role are not only pro-active spokespersons for the message, they are also active practitioners who boast of personal experience in successful applications of the message. It would be good to identify the WaSH message champions and advocates before the BCC plan is implemented, and to secure their commitment for the entire process.

   Take for example a municipality where several WSAs have been organized and all of its barangays are already successfully adopting the Governance Approach to WaSH, as demonstrated by the installation of several WaSH systems and 100% household access to

potable water. The MWTF and WSAs of this municipality can be tapped as champions and advocates of the message that "The Governance Approach to WaSH works" because their actual experiences substantiate the message and prove the message true.

2) **Change Agents**. While champions and advocates primarily *inspire* behavior change, change agents are more involved in the process of leading the community towards the desired behavior, i.e. *make behavior change happen*. Change agents are more immersed in bringing about behavior change and guiding the audience through the process.

   In the Governance Approach to WaSH, the MWTF and WSA are usually the change agents. They are deeply involved in the work and take every step with the community towards achieving the desired behavior.

3) **Support Network**. This group consists of individuals, groups or institutions who can complement the message of the champions/advocates, and contribute to the work effort of the change agents. Usually, they support the BCC effort in a specific way, e.g. delivering a specific message, addressing a specific audience, delivering a message in a specific way.

   Some examples of individuals or groups that could form a BCC support network are:

   Religious and traditional leaders – they are considered authority centers that can deliver a WaSH message in the same way that they give instruction to their constituents, e.g. sermons, caucuses, meetings.

   Schools – they take care of delivering the message to a specific audience, i.e. school children.

   Barangay officials – because of their mandate, they are effective messengers for messages that involve enforcement of policies and laws, such as payment of User's Fees.

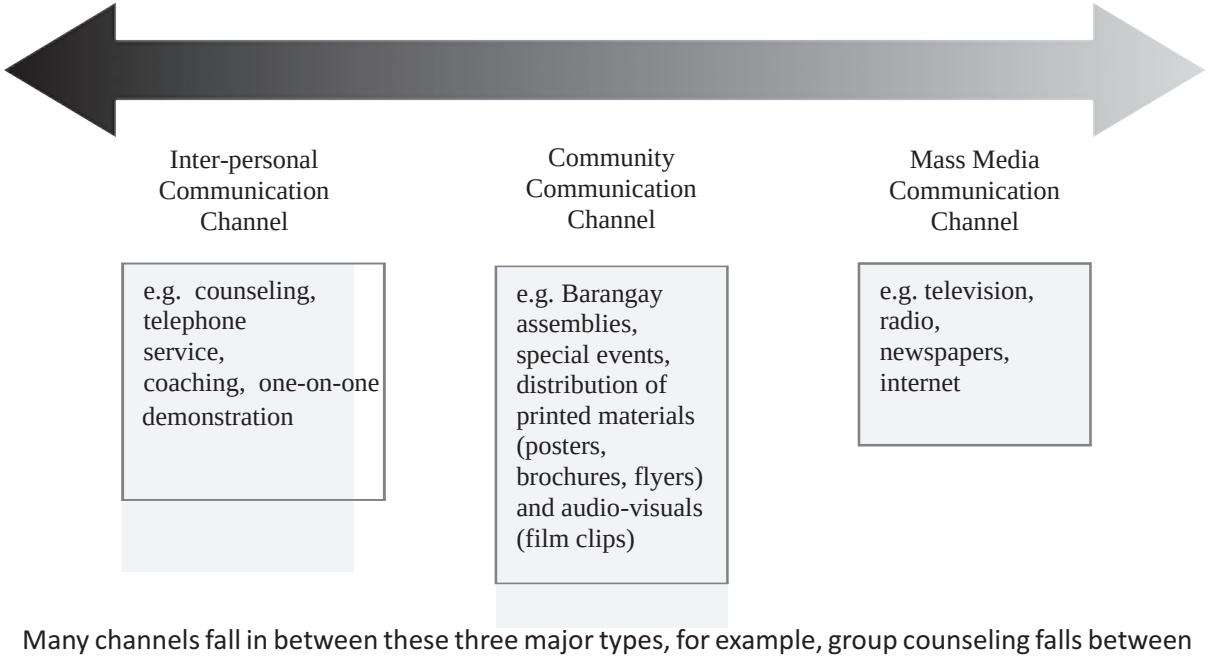
A single message can have several messengers, depending on the profile of the audience and the

communication channels available for use. Again, the specific communication issues identified in Table 20 can help in the selection of effective messengers.

What are the Methods or communication channels for delivering the WaSH message?

The methods or communication channels for delivering a WaSH message run along a continuum based on audience reach. Three major types of communication channels lie along this continuum:

Figure 13. Continuum of Communication Channels



Many channels fall in between these three major types, for example, group counseling falls between inter-personal and community channels.

Deciding on which channel to use should take into consideration all the other M's, namely Making Contact (the audience), the Message and Messenger. Some general guidelines in choosing from

among the three major types are:

1) **Inter-personal Communication Channel**. This is communication between two persons, either face-to-face or through other means, e.g. telephone. This type of channel is used in cases where disclosure of information that the audience considers private or personal is an important part of communication.

   For example, if there are communities whose cultures frown upon open discussion of sanitation issues, then a one-on-one or house-to-house discussion with individual households would be more productive.

2) **Community Communication Channel**. This is the most common type of communication channel used for WaSH This channel is effective in cases where:

   a) The community members share the same knowledge and behavior that needs to be changed; and
   b) Community participation is a critical part of the behavior change process.

   WaSH benefits from this type of communication channel because it meets both criteria.

3) **Mass Media Communication Channel**. Broadcast media types – radio, television, print and lately, the Internet –have the widest reach. But because communication is one-way, i.e. from messenger to audience only, this type of channel usually just creates awareness and needs to be supported by other types of channels on the left side of the continuum to effect behavior change. Another limitation of this channel (except for newspapers) is the need for electricity to access the information.

   A television info-mercial on hand washing created awareness on the importance, recommended frequency and technique for washing hands. But there is no way of determining if proper and frequent hand washing has actually increased as a result of this info-mercial.

The same message can be relayed using different channels, with each one achieving a specific communication objective among the audience.

STEP 4: Monitoring and evaluation are done periodically to determine if the BCC plan was effective in accomplishing the behavior-based results for WaSH.

How is Monitoring and Evaluation conducted on the BCC Plan for WaSH?

M & E Template for BCC Plan. Just like any plan, the BCC plan for WaSH has to be periodically assessed on whether the behavior-based results are being achieved as planned. It would be helpful to include an M & E plan within the BCC Plan, to include the following four aspects – implementation, reach, recall and outcome:

Table 22. Sample M & E Plan Template for BCC Plan

ASPECT OF BCC	GUIDE QUESTIONS	KEY PERFORMANCE INDICATORS
Implementation	Were all the activities for the specific behavior-based result implemented according to the design, timetable and budget specified in the BCC Plan?	FOR PRINTED MATERIALS ■ Number of materials printed ■ Number of materials disseminated ■ Areas where materials were disseminated ■ Actual schedule of activities for printing and distribution of materials ■ Amount spent for printing and distribution of printed materials FOR COMMUNITY-BASED ACTIVITIES (e.g. assemblies, sermons, meetings) ■ Actual frequency of the activity ■ Number of participants in each activity ■ Amount spent for conducting activity FOR INTER-PERSONAL ACTIVITIES ■ Actual frequency of the activity

ASPECT OF BCC	GUIDE QUESTIONS	KEY PERFORMANCE INDICATORS
		■ Total number of participants (e.g. persons, households) reached by the activity ■ Amount spent for the activity FOR MASS MEDIA ■ Number of times message was aired (for radio or television), posted (for internet) and printed (for newspaper)
Reach	Did the message, messenger and method used reach the targeted audience as specified in the behavior-based result?	■ Number of persons or households that received the message through the specified messenger and method
Recall	Did the targeted audience remember hearing or seeing the message?	■ Number of persons or households that remember hearing or seeing the message
Outcome	Was the behavior change achieved among the target audience?	Number of persons or households: ■ Exhibiting awareness of the desired behavior change ■ In agreement with the desired behavior change ■ Willing to adopt the behavior change ■ Actually adopting the behavior change

M & E Methodologies . The suggested methodologies for conducting M & E of the BCC plan are:

1) **Review of project documentation**. This methodology applies to the Implementation of the BCC plan, since this aspect is largely within the control of the plan implementers;

2) **Site Visits**. This methodology could be used as an initial or cursory method for determining reach, recall and outcome, e.g. visit to a barangay to check if posters were actually displayed; spot check on conduct of inter-personal and community-based activities; random and informal conversation with a few residents to test if they remember a specific message; observation of WaSH practices in a target community. While this methodology can give an indication of reach, recall and outcome, it needs to be reinforced by more focused methodologies (number 3 below);
3) **Household Surveys and Focus Group Discussions**. Because these methodologies are designed to communicate directly with the target audience and generate specific answers, one can determine reach, recall and outcome more accurately.

Handling Results of M & E of BCC Plan. The M & E results should prompt the MWTF and WSA to take appropriate action, to ensure that the IEC campaign continues to support all the steps of the Governance Approach. The following guide questions could be helpful:

1) **What factors contributed to accomplishment or non-accomplishment of each of the four aspects of the BCC Plan?** The factors that produced positive results could be mobilized or replicated for the other aspects. The negative factors, on the other hand, could be managed either by mitigating their effect on the plan and/or eliminating the factor altogether;
2) **For the Behavior-based Result/s that was/were not accomplished, what should be done?** The M & E Template in Table 22 already classifies the non-accomplishment as an implementation, reach, recall and/or outcome issue, making it easier to identify the appropriate corrective measures.

Just like the M & E template, these guide questions should be asked of each behavior-based result. Any changes resulting from the M & E activity should be documented as an amendment of the BCC Plan.

The MWTF and WSA would have to allocate funds for the implementation of the IEC campaign for WaSH, as described in this chapter. ■

“Napakasimple nung system, ang kailangan lang ay kumbinsido ka that it will work.”

Datu Roman Sangki

This is how Datu Roman Sangki, Barangay Chairperson of Dimampao, described the bio-sand filter (BSF), a water filtration system that was introduced by the Local Governance Support Program in ARMM (LGSPA), through its Governance Approach to WaSH.

A Murky Situation. Barangay Dimampao is part of the municipality of Datu Abdullah Sangki in the province of Maguindanao. The barangay has a total population of 4,550 persons and 687 households. Located in the low-lying area of the municipality, the barangay is frequently hit by flash floods during the rainy season, when the Alla River and Kakal River overflow. They get their water from underground sources using hand pumps. But because of their low-lying location, the water that flows from these pumps is always turbid, yellowish and smells like iron. Add on to this the fact that half of the population defecates in the open field and whatever sanitation facilities they have are sometimes located close to the water source. Only 10% of households practices water treatment, using boiling as their treatment method. With all these conditions, it is no surprise that diarrhea, amoebiasis and skin diseases are rampant especially during the rainy season, mostly affecting children. Given its water situation, the barangay was targeted for assistance by LGSPA, in partnership with the United Youth for Peace and Development (UNYPAD) as managing civil society organization (MCSO).

After the creation of their MWTF and WSA, the community immediately started working on completing their WaSH Inventory and formulating their WaSH Plan.

Water Filtration as the Solution. Because not much could be done about their underground water source given the geography of the barangay, and with an abundant supply of sand and gravel in the area, the plan identified the bio-sand filter as the most feasible system for implementation in Barangay Dimampao.

Training began in May of 2009. The municipality of Datu Abdullah Sangki has the distinct advantage of having an ABC President, Mr. Jose Eterno, who had already been trained earlier by ASDSW, LGSPA's resource partner on WaSH. Thus, Mr. Eterno doubled up as stakeholder and resource person. A great majority of the community residents participated in the training, eager to find out if the BSF was going to be the solution to their age-old problem on potable water. With such a high attendance, the community built more than the projected number of BSF units. And at the end of the training, the promise of yellowish, turbid and foul-smelling water coming out of the BSF as clear, odorless and tasteless water was realized.

Own Initiative. As the trained community continued production of BSFs, they noticed a high percentage of damaged filters. Not to be discouraged, they searched for the root cause of the damage, and found that the problem was with the fabrication of the filter mold. Using funds of the WSA, its members brought the mold to a metal fabricator and explained the problem. The newly-fabricated mold produced perfectly built BSFs.

A Better Way. But the community would not stop here. They began exploring ways to build more BSFs faster and easier. The group designed a new mold based on the original one. But this time, they asked the metal fabricator to put removable sides, attached to the mold only by bolts. With this new design, the WSA now produces two BSFs per day at a lower production cost. Since they first began in May 2009, the community has built a total of 90 BSFs that the households are now using to filter their water for drinking.

Income Generation through WaSH. The WSA sells the BSF at 1,700 pesos per unit, a price that households are willing to pay for clean and safe drinking water. Later on, LGSPA tapped the WSA to produce 24 BSFs for the municipality of Datu Piang. Since then, they have served "orders" from the municipalities of Ampatuan, Guindulungan, Mamasapano, Pagalungan, Talitay, Datu Paglas, Buluan and Paglat, and they expect more orders from private organizations as well as individuals. Today, the community not only has access to safe water, it has actually discovered alternative livelihood to augment their income from farming.

'Hindi lang sikmura namin ang ligtas, pati t-shirts namin na puti, hindi na nakakahiyang suotin." This candid comment from a teenager in Barangay Dimampao demonstrates that the problem of water is now behind them, and they can look forward to the promise of better things for their barangay. ■

ANNEXES

ANNEX A

Directory of WaSH Development Facilitators

ORGANIZATION/ OFFICE	CONTACT PERSON	CONTACT DETAILS	WaSH EXPERTISE AREAS
A Single Drop for Safe Water, Inc. (ASDSW)	The Executive Director	Manalo Ext. corner Jacana Road, Brgy. Bancao Bancao, Puerto Princesa, Palawan Tel: (048) 434-1101 Email: bringingpeopleh2ope@yahoo.com Website: www.asdforsafewater.org	Comprehensive WaSH Process; Governance Approach
Bansag Babai	The Executive Director	Gov. Muss S. Izquierdo Avenue, San Raymundo, Jolo, Sulu Email: charina_isahac@yahoo.com	Comprehensive WaSH Process; Governance Approach
Kadtabanga Foundation for Peace and Development Advocates, Inc.	The Executive Director	Sitio Curbada, Awang, Datu Odin Sinsuat, Maguindanao Email: kfpdai@yahoo.com	Comprehensive WaSH Process; Governance Approach
Maranao People Development Center, Inc. (MARADECA)	The Executive Director	092 Cabili St., Lilod Madaya, Marawi City, Lanao del Sur Email: maradeca99@yahoo.com	Comprehensive WaSH Process; Governance Approach
Muslim-Christian Agency for Advocacy, Relief and Development, Inc. (MuCAARD)	The Overall Coordinator	#12, 11-15th Sts., Nazareth, 9000 Cagayan de Oro City Tel: (08822) 728-542 and (088) 857-2423 Email: mucard@philcom.ph	Comprehensive WaSH Process; Governance Approach
Muslim Women Peace Advocates (MWPA)	The Convenor The Secretary General	Kasannangan Library Rasul Compound, Alat, Jolo, Sulu Email: mercia_damwpa@yahoo.com	Comprehensive WaSH Process; Governance Approach
Sulu Tanjuh Organization	The Executive Director	Serantes, Jolo, Sulu Email: fhadjulani_sto@yahoo.com	Comprehensive WaSH Process; Governance Approach
United Youth for Peace and Development (UNYPAD)	The Executive Director, Development Management Center	Datu Liwa Candao St., RH-3, Cotabato City Tel: (064) 390-3184 Email: unypadnatl@yahoo.com	Comprehensive WaSH Process; Governance Approach

ORGANIZATION/ OFFICE	CONTACT PERSON	CONTACT DETAILS	WaSH EXPERTISE AREAS
MWTF of Datu Abdullah Sangki	Hon. Jose Eterno, ABC President	Municipal Hall, Datu Abdullah Sangki, Maguindanao Mobile Phone #: 0926-5297601	Training, production and installation of bio-sand filter (BSF)
WSA of Dimampao, Datu Abdullah Sangki	Hon. Datu Roman Sangki	Dimampao, DAtu Abdullah Sangki, Maguindanao Mobile Phone # 09284503041	
MWTF of Sultan Kudarat	The MPDC	Municipal Hall, Sultan Kudarat, Maguindanao	Bio-sand (BSF) and toilet bowl-making
MWTF of Sultan Mastura, Maguindanao	The MPDC	Municipal Hall, Sultan Mastura, Maguindanao	WaSH Inventory
MWTF of Pangutaran, Sulu	Mr. Wilkingson Tan	Municipal Hall, Pangutaran, Sulu	Water testing
WSA of Bgy. Ganta, Kabuntalan, Maguindanao	The President	Barangay Ganta, Kabuntalan, Maguindanao	Dug well improvement

ANNEX B

Secondary Data Collection Tool

WASH Inventory (WIn)

MUNICIPAL DATA

Conducted by: (Name) _____ Designation:_____ Date:_____
Organization: _____

Respondent::(Name) Designation: _____ Date:_____
Office: _____

Province:
Municipality:
Total Number of Barangays:

Classification of Municipality (Please check)
☐ urban ☐ rural

Total population _____
No. of men: _____
No. of women: _____
No. of children (12 y/o and below) _____
Total Household population _____

Municipality w/ WASH Plan?: _____ YES _____NO

List of organizations or offices working towards WASH:
_____
_____

List of water - borne diseases: _____

Annual pop. growth _____ %

Area most affected: _____

Incidence of occurrence of identified illnesses /diseases(frequency/impact)

Means of livelihood _____

sector most affected (men, women, children, elderly):

Average monthly income per household _____ pesos

Geological description (check all that apply)

Type of geography		**Type of soil**	
mountainous	_____	rocky	_____
lowland	_____	sandy	_____
marshland	_____	loam	_____
coastal	_____	clay	_____
other (specify)	_____	other (specify)	_____

Barangay Profile

Total number of poulation: _____ (male: _____) (Female: _____)

Total Household Population: _____ Average Number of Household Members: _____

Barangay with WASH Plan?: _____YES _____NO

Agencies/organization operating in the Barangay: _____

Concerns or Interventions of these agencies/organizations: _____

Main Source of Income: _____ Monthly Income (in Pesos): _____

Religion (in estimated percentage): _____Islam _____ Christians _____Others (specify):_____

General description of Barangay (Geography, distance from poblacion, etc.: _____

List of water - borne diseases: _____

Areas most affected: _____

Incidence of identified illnesses/diseases(frequency/impact):

sector most affected (men, women, children, elderly):

Rainfall Data (PAGASA/ other sources)

What is the average rainfall for the last 5 years?

Month	Average rainfall (inches or mm, specify)
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

ANNEX C

Primary Data Gathering Tool for Level I (Well, Pump, Surface Source), Level II and Level III Water Systems

WASH Inventory Tool

I. Water source within 1 km from house?	A. Wells and Pumps					B. Surface sources (list the name/s) (lakes, rivers, springs, creeks)	Tap stand (List name & Location)	Faucet (Level III) List name of Provider
	Dugwell	shallow well (<30 ft. in depth) & hand pump	deep well (>30 ft. in depth) & hand pump	shallow well & electric pump	deep well & electric pump			
1. What is your source of water?								
2. Access to water								
a. Is your source of water within 1km or 20min walk from your house? **YES** / **NO**								
If NO, what is the b. maximum distance walked for water (in meters or km) **≤ 100m** / **≤ 500m** / **> 500m**								
c. Estimated average time taken to fetch water (go to source, collect bring home) [minutes/hours] **> 1 H** / **≤ 30Min** / **≤ 10M**								
d. Unsafe or dangerous route? **YES** / **NO**								
If YES, identify reason								
3. Water fetching duties What percentage of water fetching duties are carried out by:								
a. Men								
b. Women								
c. Children (12 y/o and below)								
[note: a+b+c should equal 100%]								
4. Water usage								
a. Average amount of water *carried to house* per HH per day (in liters) **≤ 100L** / **≤ 200L** / **> 200L**								
b. Average amount of water *used at well* per HH per day (in liters) **≤ 100L** / **≤ 150L** / **> 200L**								

I. Water source within 1 km from house?	A. Wells and Pumps: Dugwell	shallow well (<30 ft. in depth) & hand pump	deep well (>30 ft. in depth) & hand pump	shallow well & electric pump	deep well & electric pump	B. Surface sources (list the name/s) (lakes, rivers, springs, creeks)	Tap stand (List name & Location)	Faucet (Level III) List name of Provider
5. Water quality								
a. is the water potable/ drinkable? **YES**								
NO								
Identify source of Information								
> Is the water turbid? **YES**								
NO								
sometimes								
> Is the water colored? **YES**								
NO								
sometimes								
If Yes, describe color								
> Does the water have smell? **YES**								
NO								
sometimes								
If Yes, describe smell								
Is your water safe? **YES**								
NO								
Why?								
e. Do you know if your water source was tested? **YES**								
NO								
If so, what kind of tests were conducted?								
> E. Coli tested **YES**								
NO								
Result?								
> Presence/absence test? **YES**								
NO								
Result?								
Is water being treated? **YES**								
NO								
i. If YES, specify treatment								
Boiling								
Chlorination								
Solar Disinfection								
OTHERS								

ii. how long does it take to treat?	1 - 15 Min	16 - 30 Min	1 hour	1 day	Other Time
Boiling					
Chlorination					
Solar Disinfection					
OTHER Sickness					

iii. who treats the water	Father	Mother	Children	Others	

I. Water source within 1 km from house?	A. Wells and Pumps					B. Surface sources (list the name/s) (lakes, rivers, springs, creeks)	Tap stand (List name & Location)	Faucet (Level III) List name of Provider
	Dugwell	shallow well (<30 ft. in depth) & hand pump	deep well (>30 ft. in depth) & hand pump	shallow well & electric pump	deep well & electric pump			
6. Health-related issues a. Are there any incidence of illness or diseases in your family associated with this source? **YES**								
NO								
If YES, what kind of illness/diseases (specify) Diarrhea								
amoebiasis/bulate								
skin diseases								
others								

When does this usually occur? (season, month/s)	Diarrhea	Amoebiasis	Bulate	Skin diseases	other answers
rainy season (May - November)					
summer (December -April)					

b. Which sectors are afftected by illnness/disease the most?	infants	children	adults	elderly	other answers

c. Who is the primary caregiver when someone gets sick?	father	mother	grandparents	siblings (brother or sister	professional caregiver

For Level II or Level III Systems Only					
7. Systems Description a. How often is water service interrupted	Daily	Weekly	Monthly	Very Rarely	Never

b. Condition of pipes	buried	exposed	w/ leaks	w/ illegal tapping	Others (e.g.busted)

c. Condition of tanks	clean	lids tightly fitted	needs repair	others (specify in another sheet)	

d. Fees What do you think of the fees being asked by the water system?	cheap	reasonable	expensive	others (specify in another sheet)	

ANNEX D

Primary Data Collection Tool for Level I Water System (Rainwater)

I. Level I Water System

C. Rainwater harvesting Location	Sitio 1	Sitio 2	Sitio 3	Sitio 4	Sitio 5
1. # of public buildings w/ rainwater harvesting facility Identify (school, clinic, etc.)	1 or 2:				
	3 or 4:				
	≥ 5:				
	none:				
2. Do you harvest rainwater? YES					
NO					
3. Does the supply run out? YES					
NO					
IF YES, during which month/s?					
January - March					
April - June					
July - September					
October - December					
Others (note in another sheet)					
Storage facilities					
4. What type of storage container is used?					
plastic barrels					
concrete tank					
ferrocement tank					
drums					
pail/basins					
Others (note in another sheet)					

5. What is the average storage capactiy of the containers?	< 10L	100 - 200 L	500 - 1000L	1500 - 3000L	Other Answer
6. Who installs the systems?	contractor	homeowner	government	private	Not Applicable
7. Who cleans the roof?	mother	father	children	Paid Help	Others
Water quality 8. Is the water being treated? YES					
NO					
IF YES: a. what method is used to treat it? Boiling					
Chlorination					
Solar Disinfection					
OTHERS: put answer in another sheet					
b. who treats it?	mother	father	children	Paid Help	Others
9. Rainwater is generally used for? laundry					
dishwashing					
irrigation					
watering of plants					
bathing					
cooking					
drinking					
others					

ANNEX E

Primary Data Collection Tool for Undeveloped Sources, Spring and Surface Sources

Undeveloped Sources

A. Characteristics of the Spring (Name/location of Spring)	**Spring 1**	**Spring 2**	**Spring 3**
1. Has the flow rate been measured? YES			
NO			
If YES: a. What is its flow rate?			
b. what month was the measurement conducted?			
c. How many HH can it serve?			
d. Is electricity available for pumping purposes? YES			
NO			
If YES, how reliable is it?	Very Reliable	Moderately Reliable	
2. Is the spring concentrated in one area only or does it have multiple eyes? If multiple, how many?			
3. Describe the history of the spring. Is it new? Does it dry up? Did it use to be strong?			
4. Is the land on which the spring is located privately or publicly owned? Is it available to be developed?			

5. What is the distance of the source to the service area (range in meters, kilometers)			
6. Is there a difference in the elevation between source and service area? Estimated elevation difference (in meters)			
Is the source the highest point of proposed pipeline?			
B. Watershed 1. Describe the watershed above the spring (forest cover, protected..)			
2. what is the land uses immediately around the spring? (used for farming, urbanized, etc.)			
C. Water Quality a. Is the water potable/ drinkable? YES NO Identify source of information			
If answer is **NO**, answer the following: b. Is the water turbid? **YES** **NO**			
c. Is the water colored? **YES** **NO** If YES, describe color in another sheet.			
d. Does the water have smell? **YES** **NO** If YES, describe smell in another sheet.			
If answer to **a** is **YES**, answer the following:) Is your water safe? Why? **YES** **NO**			

ANNEX F

Primary Data Collection Tool for Sanitation and Hygiene

Sanitation Facilities

1. Types of Sanitation Facilities	River/Ocean	Open Field	Open Pit	Covered Pit (including ventilated/improved privy)	Water Seal with septic tank	Connect to system	Antipolo Flushing	Antipolo No Flushing
a. What type of sanitation facility does your HH used?								
b. Locations of sanitation type ie. water seal all in poblacian etc	**House**	**Neighbor's**	**Center of community**		**River**		**Others (specify location)**	
c. Proximity to Water Source (main water source) ie. septic tank or pit close to well							NOTES HERE:	
%ge greater than 25m								
%ge between 5 and 25m								
%ge less than 5 m (includes those using river for water supply)								
d. Estimated average time taken to go to CR if defecating in field or river	**< 5 minutes**	**< 15 minutes**	**< 30 minutes**	**> 1hour**	**Others**	**Not Applicable**		
2. CR Buildings	Inside house	outside house with door, enclosed with roof	Outside house w/ 3 walls and dor	Outside house w/ temporary structure and 3 or 4 walls	Outside House w/ no structure	Outside of property line, i.e. river		
a. %ge of CR's that have buildings								
b. Public CR	For Groups of houses	Public Buildings			Public Areas			
How frequent were these facilities used?		School	Brgy. Hall	Health Center	Market	Other Area		
Very regular (everyday)								
Seldom (once a week)								
Never								
Others (specify: e.g. NO IDEA)								
c. Are they clean and kept in good condition? **YES**								
NO								
NO IDEA								

	For Groups of houses	Public Buildings			Public Areas		NOTES HERE:
Who maintains them?		School	Brgy. Hall	Health Center	Market	Other Area	
Community							
LGU (Barangay/Municipal)							
Private							
Others (specify: NO IDEA)							
3. Sanitation Behaviors a. Anal Cleansing %ge	**water**		**not water**		**If not water, specify:**		
b. Open field %ge	**buried**		**not buried**				
c. Open field distance from residents%ge	**less than 10m**		**10m to 25m**		**greater than 25m**		
d. How many times do you wash your hands in a day?	**less than 5 times**		**6 to 10 times**		**greater than 10 times**		
e. When do you wash?	**before or after eating**		**after toilet use**		**others**		
f. Where do you get your food?	**From the farm**	**From the market**		**From my backyard**	**Others**		
g. Do you wash your food before cooking?	**YES**		**NO**				
h. What do you do with your left over food?	**Fed to animals**	**store**		**use as compost**	**Others**		
i. If you store it, how do you do it?	**Store in refrigerator**		**Store in the table w/ cover**		**Others**		**Cover Used**
If covered, what do you use to cover it?	**Plates**		**Basin**		**Food Cover**		**Others**
j. Any incidence of sickness due to food preparation?	**YES**		**NO**		**If yes, what sickness have you experienced?**		

B. Hygiene and Health Facilities	GOVERNMENT		PRIVATE		OTHERS
1. Supplied Health services	Hospital	Barangay Health Center	Clinic w/ Doctors	Hospital	
a. # of residents with easy access to:					
b. # or specification of medical personnel	less than or equal to 3	less than or equal to 6		greater than 6	Notes Here:
Doctors					
Nurses					
Midwives					
c. Average time allocated for Clinic by medical personnel	< 2hours	4 hours		8 hours	
d.Were you able to access free medical assistance & supplies? YES					
NO					
e. Were you able to access medical assistance & supplies even if paid? YES					
NO					
f. Incidence of Illness	Never	Seldom		All of the time	
Diarrhea					
amoebiasis (or bulate)					
skin diseases (rashes/skin allergies)					
Bulate					
Others (specify)					

2. Education on Hygiene						
a. Do you receive education/information on sanitation and hygiene?	Yes	No				
b. %ge of families that have received Hygiene information	From Schools	From Health Workers		NGO/other agencies		OTHERS
c. What kind of information do you receive?	Water	Sanitation		Hygiene		OTHERS
> List down title of information						
d. In what form are these education or information	Comics	Pamphlets/fliers	Casette/CD	Video	Lecture	OTHERS
e. Where these information of any use to you?	YES	NO				
> In what way?						

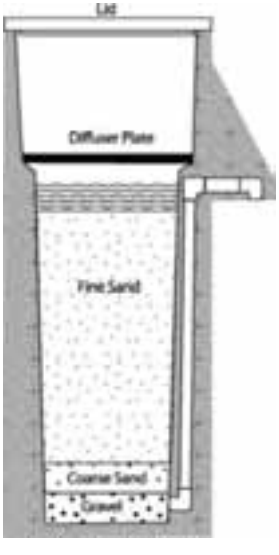
Description and Guidelines for Installation of Selected WaSH Systems

1. Bio-sand Filter

1.1 Purpose

The bio-sand filter (BSF) is a household water treatment system that uses sand to filter out small particles. This includes biological contamination such as virus and bacteria as well as worms and parasites. It can reduce bacteria load by between 90 to 99%. It removes a large percentage of iron contamination and can be modified to remove arsenic.

It is recommended for household use only, filtering up to 200 liters per day at a maximum flow rate of one liter per 100 seconds. Drinking and cooking water should be disinfected to remove remaining contamination that is left.



1.2 Description

The BSF is a concrete box with a tube cast in it for outlet water. This box is then filled with layers of gravel and sand which is the filtration media.

This unit is 300mm square, and 1000mm high. There are no moving parts or outside energy sources needed.

Components

- Case: made of concrete using a steel mold, which is filled with a concrete mixture. Once hardened the case is then extracted from the mold.
- Discharge tube: from the bottom of the case up to the discharge spout. This can be plastic or copper. It is cast into the case.
- Gravel: ½" to ¼" in size. This is the underdrain and prevents sand blocking the discharge tube and disperses the flow so that flow is not concentrated around the entry to the discharge tuber.
- Coarse sand: ¼" to 1/16" used to prevent the fine sand entering and gravel underdrain.
- Fine sand: sieved and washed to provide sand of a certain size range. This is the filtering mechanism.
- Diffuser plate: gi sheet with holes. Prevents water disturbing the sand when it is poured in.
- Lid: wooden.

How to Use

- Place a clean container under the spout.
- Open lid and pour in water from the source
- Let it drain through the sand into the tube and then into the container.
- Note:
  - Water should always be from same source
  - Use it at least once a day every day
  - Do not use it for more than 200 liters per day
  - As flow reduces remove diffuser plate, stir up the top level of sand and then remove dirty water. Reinstall diffuser plate and use.
  - Takes about three weeks to achieve the maximum filtration efficiency

Filtering Mechanism

- The sand is the filter:
  - Mechanical Trapping: as water moves through the pores in the sand the bigger particles can't fit through the pores.
  - Adsorption/Attraction: small particles are attracted by electrical and chemical forces to the larger particles and are then mechanically trapped.
  - Predation: the top layer of sand (Schmutzdecke) and the water above the sand (50mm) contains biological organisms that prey on each other, so smaller organisms are eaten.
  - Natural Die Off: as the water travels through the sand column there is no nutrition or oxygen and it takes time. All these factors combine to kill off those organisms that got past the first 100mm of sand.

1.3 Materials Required

The following is per filter. This includes construction and installation materials. Usually they are built in batches:

Description	Qty	Unit
Portland cement	½	sack
Sifted sand	0.070	cubic meter
Sifted gravel	0.050	cubic meter
¼" Plastic tube for potable water	1	meter
Galvanized plain sheet #26	0.3x0.3	meter
½" Plywood	0.3x0.3	meter
1"x1" Lumber	0.5	m
1 ½" Nails	10	ea
Duct tape	0.05	roll
Vegetable oil	0.25	liter

1.4 Tools Required

These are required for full time production of 400 filters a year

Quantity	Description
2	BSF mold (made of ¼" and 1/8" steel)
1	½" Screen for gravel
1	¼" Screen for gravel
1	20 Wire per inch screen for sand
2	Shovels
4	14mm Wrenches
2	Rubber mallets
2	12mm Rebar 1.5m long
2	1" Paint brushes
2	2" Putty Knives
1	Tape measure
1	Wood saw
1	Carpenters hammer
1	Tinsnips
1	Pliers
2	Wire brushes
1	38mm Box wrench
2	Cement trowels
6	Buckets
1	Large water source for washing gravel and sand
1	L Square
1	1" x 1" x 5' lumber
1	Permanent marker
1	Utility knife

2. Ferro-cement Tank

2.1 Purpose

The ferro-cement tank (FCT) is used for storage of water. Ferro-cement refers to the low cost construction method ferro-cement tanks can be used in any situation:

- Rain water harvesting for roof top collection systems
- Above and below ground storage for water systems
- Elevated on a water tower
- Sizes for this method range from 3,000 to 30,000 liters

2.2 Description

Ferro-cement tanks are built using Portland cement, sand, gravel and tie wire (#16) to build a round tank with much less labor and materials than a traditional square hollow block or poured concrete tank.

The tank construction uses a mold made out of 8mm re-bar and wire mesh. This mold is the shape of the tank and is then cut into pieces. These pieces are then wired back together and covered with rice sacks or woven plastic sheet.

- A round base with re-bar reinforcing is placed with tie wires crossing at about 6" intervals sticking out the side of the base.
- The mold is placed on top of this base and covered with mortar (cement, sieved sand and sahara) about ¼" thick.
- Fittings are installed in the walls.
- Once this is hardened then the tie wires in the base are connected to each other crossing the sides and top of the tank. This is for horizontal reinforcement
- Another layer of mortar is placed on the outside of the wire.
- Tie wire is then wrapped around the tank. This is closely spaced at the bottom of the

tank spreading out as you move up. Typical spacing at the bottom of the tank is 1/4" to ½". This resists the pressure of the water inside the tank.

- A final layer is plastered on the outside of the tank.
- Covers are built.
- The mold is removed and a final layer of plaster placed inside the tank.

Wall thickness is about 1 ½" which is where the major cost savings occur.

2.3 Materials Required

This is for a 3,000 liter tank.

Description	Qty	Unit
Portland cement	12	sack
Sifted sand	1	cubic meter
Gravel (1")	0.5	cubic meter
Sahara	12	sacks
Tie wire #16	10	kilogram
Reinforcing bar, 8mm	2	pcs
Woven sacking material	10	square meters
Drain fittings		
Outlet fittings		
Inlet fittings		
Overflow fittings		
Duct tape	1	roll

2.4 Tools Required

Quantity	Description
1	Tank mold (re-bar, wire mesh and match marked)
1	Sheet of GI plain sheet cut for base, manhole lip and manhole forms
1	1” Screen for gravel
1	16 Wire per inch screen for sand
2	Shovels
1	Tape measure
1	Tinsnips
1	Pliers
1	Piece of foam
2	Wooden floats
2	Cement trowels
4	Buckets
1	Hacksaw
1	Permanent marker
1	Utility knife

3. Dug Well Improvement and Hand Pump Repair

3.1 Purpose

Dug wells are the simplest method of gathering water from underground sources. These sources are typically shallow unconfined aquifers, more commonly known as water table. However they can be dug deeper depending on soil type and ability of laborers digging the hole. Water is removed by the consumer by a hand pump or more commonly bucket on a rope.

Shallow well pumps are the most common hand pumps used in the ARMM provinces, especially in the Maguindanao marshlands. Shallow well pumps can only be used where the water level is

within 25' of the ground level. These can be installed in dug and drilled wells.

3.2 Description

Dug well is typically a hole in the ground. However this is not safe due to run off and flooding. The top part of the well should be cased and this casing should be above the ground. This prevents contaminated surface water from directly entering the well. A concrete apron around the well also directs spilled and used water away from the well. The only way that contaminated surface water can enter the well is by infiltrating the surrounding earth. It would then be filtered by the earth prior to entering the well.

The casing can be made many different ways. One of the most effective is by using a suitably sized culvert. This can be upended and the hole dug inside the culvert allowing it to move into the ground as the hole is dug. Not only does it fit tightly sealing the hole but also protects those that are digging the hole from collapse of loose soil. Other casings can include, hollow blocks, poured concrete, ferro-cement concrete steel/plastic drums with the ends removed.

Shallow well pumps (also referred to as Jetmatic which actually is a brand name) are commonly used and readily available. They create a vacuum within the pipe that extends below the water level and suck the water up to the discharge. Because of this they can only be used when the water level is within 25' of the ground level. The mechanism is very simple and is easy to install and maintain.

3.3 Materials Required

This is for a culvert lined well with shallow well pump

Description	Qty	Unit
Portland cement	6	sack
Culvert 24” dia	2	ea
Gravel (1/2”)	1	cubic meter
Sand	1	cubic meter
Shallow well hand pump	1	ea
1 ¼” Foot valve	1	ea
1 ¼” Straight GI coupling	1	ea
1 ¼” Male PVC adapter	2	ea
1 ¼” PVC pipe (X no. of pieces to reach water level)	X	pcs
1 ¼” PVC couplings	X-1	pcs
PVC solvent	1	can
Teflon tape	2	rolls
Tie wire # 16	1	kilogram
Replacement gaskets and rubber cup for pump	1	set
Household bleach	1	liter
GI plain sheet #26	1	sheet
Grease	0.5	kilogram

3.4 Tools Required

Quantity	Description
1	6” adjustable wrench
2	14mm combination wrench
1	12” Pipe wrench
1	18” Pipe wrench
2	Shovels

Quantity	Description
1	Tape measure
1	Tinsnips
1	Pliers
2	Cement trowels
1	Hacksaw

4. Latrines

For household toilets there are many different systems that can be installed. Two are listed below. Water seal toilets and the ventilated improved privy where there is no water available for flushing.

Water seal toilet flooded area (Sultan Kudurat) leach pipe and vent pipe

4.1 Water Seal Latrine

4.1.1 Purpose

Water seal toilets are the preferred option by many people. As with all toilets the design is to prevent fecal contamination of water sources, food supplies, and access by vectors such as flies, mosquito's and vermin. The water seal, seals the toilet side from the latrine side.

4.1.2 Description

The water seal toilet can be a squat pan or a bowl. The “P Trap” a U shaped discharge pipe remains full of water when it is flushed. This section of water creates the water seal.

Generally these are connected to a septic tank for solid waste collection. The latrine is a hole in the ground, or an above ground tank (for flood prone areas) with a water seal toilet directly emptying into it. This contains the solids. Excess liquid exits the latrine through a pipe. This pipe (leach pipe) contains multiple slots or holes and is buried. The liquid then infiltrates in to the ground. If the ground is non-porous then the ditch containing the pipe is filled with 6 to 12” of gravel to promote infiltration over a larger area. In raised toilets in flood prone areas the ground is built up in a mound to cover the leach pipe and provide filtration of the liquid before it reaches the water table.

Note that the top part of the hole is cased, this can be a culvert, hollow block or ferro-cement. The bottom of the hole is left as soil as is the lower part of the hole. This is done to prevent the hole from collapsing and also to prevent water entering and flooding the tank.

A vent pipe is required (end screened to prevent insects entering) so that as the water level rises the air can move out of the latrine. This vent pipe exits above the roof line to prevent smell issues.

4.2 Ventilated Improved Privy

4.2.1 Purpose

As with water seal toilets the purpose of the ventilated improved privy (VIP) is to separate the fecal matter from contaminating water, vectors and food. However this is used in areas where there is insufficient water for flushing of the water seal toilet.

4.2.2 Description

Similar to the water seal toilet the latrine is a hole in the ground. The top part is cased to prevent the hole from collapsing. Usually these toilets are not located in flood prone areas. As much of the hole is left open so that liquid (urine) can soak away. If the ground type is non-porous a leach pipe may be installed with gravel underneath it to promote infiltration of the urine.

This is usually a squat type toilet with an open hole. The smell and fly issues are solved by the ventilation system.

- A dark vent pipe outside the building and exiting above the roof line (end is screened) promotes air flowing into the latrine and out the pipe. The sun heats the pipe and hot air rises, also the pipe being above the roof line is exposed to the wind which creates a suction.

- The building is kept dark except when being used. Any flies that enter the latrine are drawn to the light. The screen contains them where they actually stay until they die.
- Ash, rice hull, soil or other materials are added after defecation. This material absorbs odors, and moisture. It also bulks up the solids deposited promoting airflow and with that increased rates of decomposition.
- Eventually this hole will fill up and the toilet will be moved to a new hole. The hole is covered for two years and then can be used for compost or just left in place.

4.3 Materials Required

This is for culvert lined water seal (WS) and/or VIP, for a single household and does not include the building.

Description	Qty	Unit
Portland cement	3	sack
Culvert 36” dia (VIP maybe 1 only)	2	ea
Gravel (1/2”)	1	cubic meter
Sand	1	cubic meter
Water seal toilet bowl complete with P trap (WS only)	1	ea
Reinforcing bar 10mm	4	pieces
4” orange PVC pipe (leach pipe)	1	piece
4” Cleanout plug (leach pipe)	1	piece
4” Blue or black PVC pipe (vent pipe)	2	pieces
Mosquito netting	0.3x0.3	meter
PVC solvent	1	can
Black paint (if vent pipe is blue)	0.5	liter
Tie wire # 16	1	kilogram
GI plain sheet #26	1	sheet

4.4 Tools Required

Quantity	Description
2	Shovels
1	Tape measure
1	Tinsnips
1	Pliers
2	Cement trowels
1	Hacksaw


LGSP
LOCAL GOVERNANCE SUPPORT PROGRAM IN ARMM


Canadian International Development Agency
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ARMM