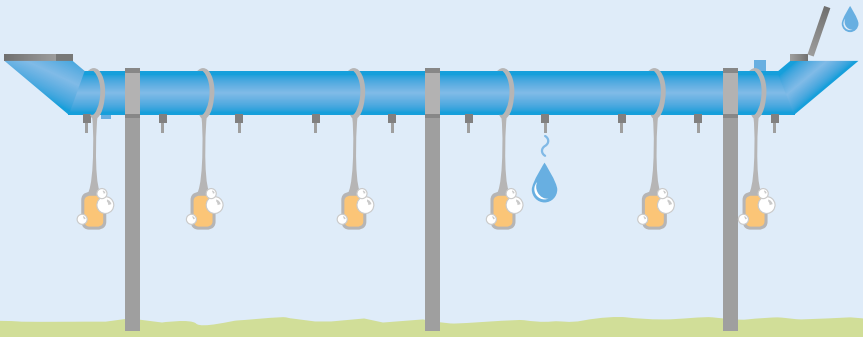
FIT FOR SCHOOL



TECHNOLOGY APPLICABILITY FRAMEWORK // TAF ASSESSMENT WASHaLOT 3.0

50 WASHaLOTs placed
in 10 Public Elementary Schools
in Batangas, Philippines

german cooperation
DEUTSCHE ZUSAMMENARBEIT

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

sustainable sanitation alliance

SCALE-UP-TOOL // THE TECHNOLOGY APPLICABILITY FRAMEWORK (TAF)

PURPOSE

This tool will help you to decide if a technology implemented as a pilot fulfils the criteria for further implementation and scaling-up. In order to evaluate the potential of a given technology, the parameters of the specific local setting have to be analysed before upscaling.

The results of the TAF can also be applied to a setting with similar parameters and therefore facilitate the upscaling process.

WHEN TO USE IT

In a specific local setting, the TAF systematically assesses the applicability of a technology in its pilot phase. It can also be used on a broader scale (city/nationwide level) during upscaling.

Developed for the WASH sector, the TAF is applicable in other sectors as well.

SETTING

Used in small groups with the actors involved in the process.

FACILITIES AND MATERIALS

Templates and workshop materials.

NOTES

DURATION: Demand-oriented (several days to several weeks incl. preparation, training, fieldwork, and reporting).

COSTS: Cost-efficient tool (costs: personnel, workshop and interviews, material and logistics).

TRAFFIC LIGHT SYSTEM USED TO SCORE TAF INDICATORS

- \+ High value, neutral or positive, supportive characteristics
- 0 Potential impact, could become critical, needs follow-up
- − Low value, negative, critical, hindering characteristics
- ? Unclear information, should be clarified

WHY TO USE THE TAF

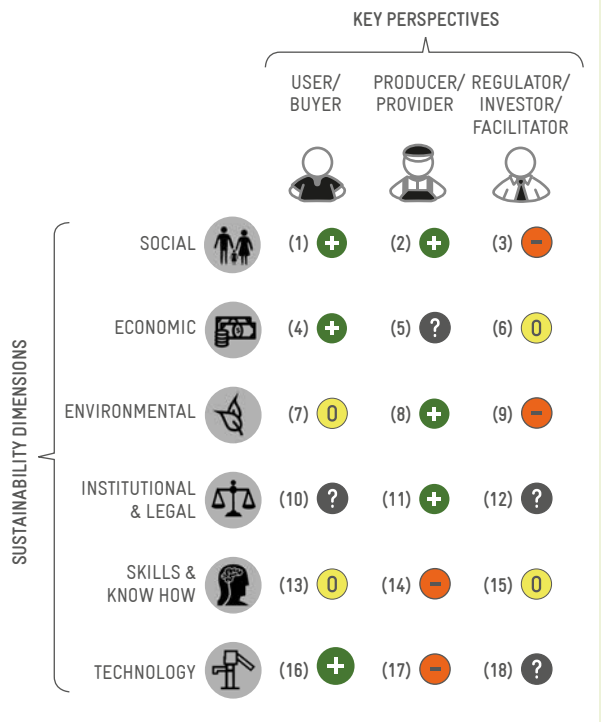
If you work with a technology in a specific local setting and you would like to expand its use to other locations, the TAF is an efficient tool to employ. The TAF comprehensively assesses an individual technology and identifies the risks and opportunities of use. It facilitates the understanding of how a new technology performs with regard to the different sustainability dimensions and which challenges might be faced in scaling up the technology. It is a comprehensive learning approach, which helps you and your partners to deal with the technology systematically. The TAF can be used as a planning tool as well as for monitoring purposes, after a first pilot phase or during implementation at scale.

THE TAF PROCESS IN A NUTSHELL

In a participatory process, a technology implemented as a pilot is assessed through the perspective of three key stakeholder groups engaged with the implementation of the technology: user/buyer, producer/provider and regulator/investor/facilitator.

The three key stakeholder groups assess the six TAF dimensions individually, resulting in 18 indicators (Fig.1). The TAF procedure comprises four steps, namely screening, assessment, presentation of results and interpretation.

Graphical TAF profile // Figure 1



Olschewski, Casey 2015: 6

THE FOUR STEPS

1. SCREENING

Analysis of applicability of a specific (new) technology in a defined setting.

2. ASSESSMENT

FIELD WORK: Assessment of technology with focus on the 18 TAF indicators through one-on-one interviews, focus group discussion(s) and/or observation by use of specific questionnaires. Generated field data is used as basis for scoring the 18 indicators according to the TAF standard traffic light system.

Scoring Workshop: Information/perspectives/opinions captured during field work are cross-checked with stakeholders for accuracy and the final scores are agreed upon.

3. PRESENTATION OF RESULTS

The scoring of each of the 18 indicators through specific scoring questions results in the graphical TAF profile (traffic light system, Fig. 1).

4. INTERPRETATION

The graphical TAF profile offers the basis for comprehensive interpretation and allows the identification of strengths, risks, bottlenecks and uncertainties with regard to a technology implemented as a pilot. It provides guidance for developing a roadmap for upscaling.

SOURCES:

› Olschewski, André; Casey, Vincent (2015): The Technology Applicability Framework. A Participatory Tool to Validate Water, Sanitation, and Hygiene Technologies for Low-Income Urban Areas. In: Hostettler S., Hazboun E., Bolay JC. (eds) Technologies for Development. Springer, Cham.

› Skat (2013): Olschewski, André: TAF (Step 0): Manual. WASHTech Project. St Gallen, Switzerland.

› Schweitzer, Ryan; Grayson, Claire; Lockwood, Harold (2014): Mapping of Water, Sanitation and Hygiene Sustainability Tools Technical Report.

PROGRESSION // FROM WASH TO ALL SECTORS

The TAF was developed within the EU-funded WASH Technologies project WASHTec with SKAT as the leading organisation. From 2011 to 2013, the TAF was developed as an open source tool and tested in three countries on 13 different WASH technologies. To date, the TAF has been applied in several countries worldwide. To broaden the use of the TAF in development cooperation, GIZ uses the tool's scaling-up potential and adapted the tool accordingly. Among others, GIZ carried out TAFs in Uganda, Afghanistan, the Philippines and Zambia (Fig. 2). The methodology can also serve as a decision support tool for technologies in other sectors apart from WASH, for example irrigation systems, technologies in waste management, renewable energy and transportation.

STRENGTHS AND LIMITATIONS

The TAF methodology comprises a transparent, systematic and participatory approach to include all relevant stakeholders as well as a comprehensive sustainability assessment across six dimensions. Even though a TAF assessment is primarily valid for a technology implemented as a pilot in a given local setting, the TAF results can be used to determine the scaling-up potential of this technology in a similar context. It gives an assessment of the technology, but also motivates and inspires dialogue between stakeholders and has the potential to inform and advise sector/policy development and larger projects/initiatives on scaling-up the particular technology and its upscaling in a broader context.

TAF implementation for technical innovations // Figure 2

GIZ has already tested and implented the TAF in different countries to assess the scaling-up potential of various technical innovations, for example in:

Afghanistan: → www.susana.org/en/knowledge-hub/resources-and-publications/library/details/3396

Philippines: → www.susana.org/en/knowledge-hub/resources-and-publications/library/details/3397

Uganda: → www.susana.org/en/knowledge-hub/resources-and-publications/library/details/2893

FOR FURTHER INFORMATION, PLEASE CONTACT:
sanitation@giz.de

LIST OF ABBREVIATIONS

BMZ	German Federal Ministry for Economic Cooperation and Development
CDA	Cooperative Development Agency
DepEd	The Philippines Department of Education
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
HWS	Handwashing with Soap
LSHTM	London School of Hygiene and Tropical Medicine
LAMCO	Lupang Arenda Multi-Purpose Cooperative
SBM	School-Based Management
MOOE	Maintenance and Other Operative Expenses (Government Fund, Philippines)
NSO	National Statistics Office
PHP	Philippine Peso
PTA	Parents-Teachers Association
SARS	Severe Acute Respiratory Syndrome
SDS	School Division Superintendent
SGOD	School Governance and Operations Division
TSA	Three Star Approach for WASH in Schools
TAF	Technology Applicability Framework
USD	US Dollar
WASH	Water, Sanitation and Hygiene
WinS	WASH in Schools

LIST OF FIGURES

CONTENT

1. INTRODUCTION

BACKGROUND // WHY (GROUP-)HANDWASHING AND WHY THE WASHaLOT IN SCHOOLS?

Handwashing with soap (HWS) proves to be one of the most effective interventions to prevent infectious diseases (Burton et al., 2011). HWS is a public health concern and children and adults alike should develop a habit of handwashing, especially after using the toilet or before preparing or eating food. If children adopt regular hygiene behaviour at an early age, they are healthier and less prone to be infected with diseases. This increases their school attendance and ultimately fosters their cognitive development, school performance and economic future (UNICEF, 2010). Habituation processes need to be reinforced beyond the family customs which are usually the first exposure children have with handwashing. Therefore, educational institutions like preschools, kindergartens as well as primary and secondary schools should encourage the development of hygiene practices to become life-long habits. Yet the provision and maintenance of adequate water, sanitation and hygiene (WASH) infrastructure remain a challenge in schools worldwide. Dirty and non-functional washing facilities often hinder children from practically applying what they are taught theoretically. In addition, water and soap must necessarily be available for a large group of children. In the Philippines, integrating group handwashing into daily school routines is a requirement for schools, as outlined in the WinS policy of the Department of Education (DepEd, 2016).

Accessible, functional and clean group washing facilities in schools allow for WASH activities for a larger number of children at various times throughout the day: handwashing prior to eating, after physical activity, playing or gardening, or at any critical time or other suitable moment. Schools are organised around routines, therefore time schedules are important. Group routine activities are a natural way of interaction in the school context, fostering inclusion, motivation and general participation, thus reducing the need to encourage and ensure individual behaviour of both students and teachers. Group washing facilities, which need to be water-saving, are designed to enable both group handwashing and individual handwashing prior to eating. Consequently, it is assured that children wash their hands at least once a day. The accessibility, functionality and cleanliness of group washing facilities depend on School-based Management (SBM) of the school principal to assure that water and soap are available, that the facilities are cleaned and refilled regularly and that the daily hygiene activities are a routine and part of daily school life. The importance of daily group handwashing has been recognised and integrated into the UNICEF/GIZ Three Star Approach (TSA) to WASH in Schools (2013) and serves as a model for WinS programmes globally. In 2016, UNICEF, GIZ[1], and the German Federal Ministry for Economic Cooperation and Development (BMZ) published a compendium of group washing facilities available around the world.

Cross-school assessments in many countries revealed the following: washing facilities in schools did not efficiently allow more than a few children to wash hands at the same time, for example prior to lunch; a lack of access to an improved water source from a piped water system; a lack of conventional WASH stands with a sufficient number of water outlets; an overall lack of funding (Siewert, 2015). Based on this analysis there is a demand for durable and scalable infrastructure solutions facilitating personal hygiene for children in primary schools, in particular group washing facilities, which are long-lasting, low cost and can be mass produced. The facility should be pre-fabricated to ensure quality and efficiency to a certain standard. Pre-fabrication should be done in the respective country or the region, depending on locally available materials, proximity to schools and transportation options as well as location of a technically equipped producer, capable of adhering to certain production quality standards. In addition, pre-fabricated facilities help schools to prevent 're-inventing the wheel', making use of lessons learnt from many places around the world and applying the latest knowledge.

[1] GIZ is a German development agency and is mainly commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ). All mentioned GIZ programmes, such as the GIZ Regional Fit For School Programme and the GIZ Sector Programme Sustainable Sanitation and their implemented projects are funded by BMZ. Hereinafter, the reference GIZ implies that the implementation is funded and commissioned by BMZ.

HISTORY // GROUP HANDWASHING FACILITIES IN SCHOOLS

Group washing facilities of various types have been developed by school communities in the Philippines since 2009 to address the need for handwashing and toothbrushing as school activities. When SARS and H1N1[2] hit Asia in 2005, public health experts expressed the urgent need for handwashing with soap in public places. The DepEd addressed the demand for hand hygiene and released the Department Order 56, s. 2009[3], demanding schools to provide handwashing facilities and practice handwashing once a day. As schools did not receive additional budget to construct handwashing facilities, parents and community members supported the construction and contributed materials, labour and creativity. No standardised DepEd system was developed and over the years, school communities developed systems on their own, some worked well while others failed. At that time, WASH activities were not systematically monitored and the implementation of the DepEd order was depending on the individual engagement of the respective school principals, as roles and responsibilities were not clarified, and implementing guidelines and the respective budget were not yet released.

Since 2011, SEAMEO Innotech and the GIZ Regional Fit for School Programme advised Ministries of Education in the Philippines, Cambodia, Indonesia and Lao PDR to develop and implement national WinS programmes. In 2014, a workshop was conducted in the Philippines to bring together production designers from Asia and Germany to address challenges and optimise the design of existing group washing facilities.

This workshop laid the foundation for the development of a washing facility named WASHaLOT. It is a group washing facility designed to facilitate hygiene activities for many people simultaneously whilst using minimal amount of water and is low in price and maintenance.

FIRST VERSION OF WASHaLOT

Since 2014, three major versions have been introduced. The first version of the WASHaLOT was a modular punched Galvanized Iron (GI) pipe, which was attached with a flexible garden hose to a container. The school was responsible to elevate the bucket to allow the water to flow through the pipe (Fig. 3, left).

WASHaLOT 2.0

The second major redesign reflected the feedback from schools that a group handwashing facility with an attached and elevated water container was needed as well as the possibility for individual handwashing, resulting in the creation of WASHaLOT 2.0 (Fig. 3, right).

WASHaLOT 3.0

The WASHaLOT 3.0 is the third version that the Regional Fit for School Programme and Sector Programme Sustainable Sanitation have developed in order to accommodate the need for handwashing in public schools. The WASHaLOT 3.0 has taken into account the experiences and challenges gathered from its predecessors encountered during implementation in previous years. The technology is now producible and adaptable to different countries and settings other than schools such as institutions, markets, churches, mosques and emergency refuge centres (Fig. 3, below. Fig. 4).

[2] Subtype of Influenza A virus

[3] See annex page 21 for the DepEd Department Order 56, s. 2009

First version of WASHaLOT (left), WASHaLOT 2.0 (right) and WASHaLot 3.0 (below) // Figure 3

KEY FEATURES // WASHaLOT 3.0

WATER CARRYING PIPE

The WASHaLOT 3.0 can either be attached to a water system or manually refilled, which is suitable for locations with and without piped water systems. The pipe can carry 25 litres of water which can accommodate up to 150 handwashings.

WATER-SAVING OUTLETS

Water outlets, compared to regular taps, deliver small amounts of water when manually pushed to the side. These outlets are easy for schoolchildren to handle and help avoid wasting water, as children often do not close the tap when lathering their hands with soap. The amount of water saved is significant: 125 ml of water is needed for a handwashing event compared to 1200 ml of water for conventional handwashing (Siewert, 2015).

TIME-SAVING HYGIENE ACTIVITIES

WASHaLOT handwashing and toothbrushing is not time-consuming: as up to 20 children can use it simultaneously, it only takes 5 to 10 minutes for a whole class to wash hands and brush teeth.

LOW COST

Production costs (material and labour) are around 100 USD per unit (150 USD including legs) in the Philippines. Costs might vary between countries. Operating costs are low due to limited water consumption.

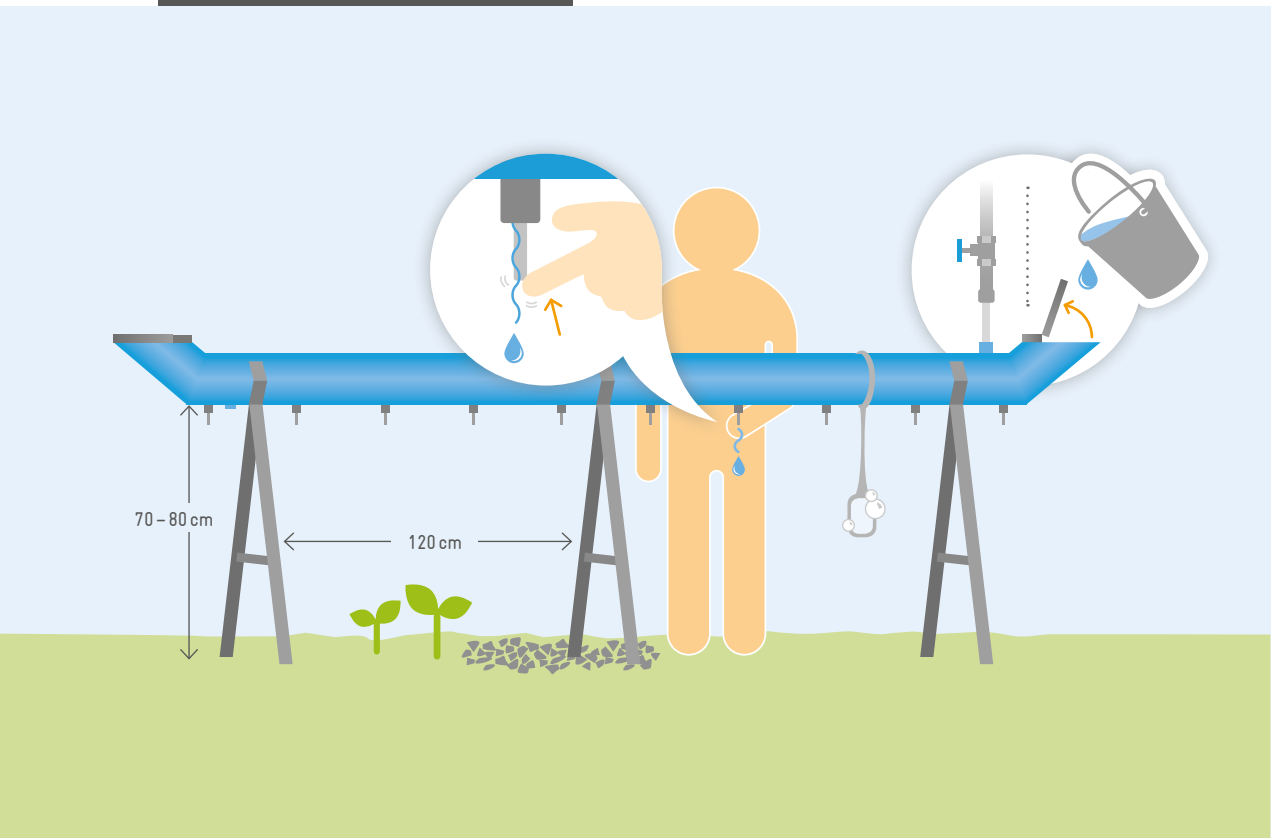
LOCAL PRODUCTION

Local production, a fundamental element of the approach, ensures development of local expertise for production and knowledge on repair and maintenance and strengthens local markets and the local economy.

FAST ACCESS WHEN NEEDED

In post-catastrophic scenarios water scarcity is often a problem and hygiene activities like handwashing are of utmost importance. The WASHaLOT 3.0 offers fast access to handwashing facilities to many people at a time.

WASHaLOT 3.0 infographic // Figure 4



CONTEXT // PRODUCTION, PILOTING, COMMUNITY INVOLVEMENT

In the Philippines, Lupang Arenda Multi-Purpose Cooperative (LAMCO) currently produces WASHaLOT 3.0 units. The cooperative has produced a total number of 115 units and 50 units have been installed in the investigated schools.

Piloting of the WASHaLOT 3.0 took place in 20 elementary schools in the Schools Division of Batangas Province, Philippines. Batangas Province is located 90 km south of Metro Manila. The Schools Division of Batangas Province is comprised of 609 elementary schools and 144 secondary schools spread across 36 school districts.

Ten of the 20 elementary schools, which piloted the WASHaLOT 3.0 for a period of four months (starting in September 2017) were included in this TAF analysis. These ten elementary schools received WASHaLOT 3.0 units in the context of a study on hygiene behaviour and usability of toilets by the London School of Hygiene and Tropical Medicine (LSHTM).

The WASHaLOT 3.0 units had been delivered to schools without legs and basins in order to provide room for community involvement, practical participation and development of ownership by the school community. One WASHaLOT 3.0 was provided for every two to three classrooms so that around 100 children would share one WASHaLOT 3.0 with ten water outlets. Schools received between three to six WASHaLOT 3.0 units depending on the number of classes the school has.

TECHNOLOGY APPLICABILITY FRAMEWORK // OBJECTIVES

To assess the future applicability and appropriateness of the WASHaLOT 3.0, the Technology Applicability Framework (TAF) has been applied. The TAF helps to understand if any technology implemented as a pilot fulfils the criteria for further implementation and scaling-up, by assessing the technology through the perspective of three key stakeholder groups engaged with the implementation of the technology: user/buyer, producer/provider and regulator/investor/facilitator.

This report captures the findings of an evaluation of the WASHaLOT 3.0 in the Province of Batangas after four months of operation.

OBJECTIVES OF THE TAF APPLICATION

- Assessing the need for the WASHaLOT 3.0 technology
- Assessing the circumstances of production, promotion and usage of the technology
- Sharing experiences about the WASHaLOT 3.0, including potential challenges and further necessary improvements
- Assessing the potential of the WASHaLOT 3.0 to address bottlenecks in WASH and WinS management in the Philippines and beyond
- Assess the readiness of the sector to take up this technology

Location of Batangas Province (orange) in the Philippines // Figure 5

2. METHODOLOGY

FIELD ASSESSMENT // DIMENSIONS, KEY PERSPECTIVES, 18 INDICATORS

Questionnaires[4] were adopted from the TAF questions which were modified in order to fit the current context of the WASHaLOT 3.0. Questions were divided into six sets for three key stakeholder groups: user group; producer; and facilitator. Three sets for the user group (school principal, WinS coordinator and students); a set for the producer; and two sets for the facilitator (physical facilities section and medical section of the DepEd Batangas Province Division).

Each set of questions was formulated in line with the six sustainability dimensions:

- Social
- Economic
- Environmental
- Institutional & legal
- Skills & know how
- Technology

Along these six sustainability dimensions, specific indicators were developed on each key perspective to further narrow areas of the assessment. It is important to understand that each of the indicators is of specific relevance[5] to determining the applicability, scalability and sustainability of the technology being assessed.

The assessment was conducted as a series of interviews[6] with stakeholders on different key perspectives starting January 25 and running through February 13, 2018. In each school four people were interviewed in a standardised procedure: the principal, the WinS coordinator (assigned teacher) and two student council representatives. This was followed by interviews with the manager of the cooperative who produced the WASHaLOT 3.0, and interviews with the third group: the DepEd Division engineer and Division WinS coordinator of Batangas Province as the regulator/facilitator to complete the different perspectives of the assessment.

[4] See annex page 23 for questionnaires

[5] See annex page 30 for the relevance of each indicator for the assessment

[6] See annex page 31 for the schedule of activities for the assessment

KEY PERSPECTIVES

SUSTAINABILITY DIMENSIONS

	USER GROUP School Principal WinS Coordinator Student Council	PRODUCER Manager LAMCO	FACILITATOR Division Engineer Division WinS Coordinator
SOCIAL	**(1)** Need for the WASHaLOT 3.0	**(2)** Need for WASHaLOT 3.0 promotion	**(3)** Need for change in perception and social marketing
ECONOMIC	**(4)** Affordability	**(5)** Profitability	**(6)** Supportive financial mechanisms
ENVIRONMENTAL	**(7)** Potential negative impacts on the environment and the user	**(8)** Potential negative impacts in the production of the WASHaLOT 3.0	**(9)** Potential negative impact of scaling-up
INSTITUTIONAL & LEGAL	**(10)** Structures for management and accountability of the WASHaLOT 3.0	**(11)** Legal regulation and requirements for registration of producer	**(12)** Alignment with national strategies and compliance to national standards
SKILLS & KNOW HOW	**(13)** Skill set of user in WASHaLOT 3.0 management	**(14)** Level of technical and business skills	**(15)** Sector capacity for introduction of WASHaLOT 3.0 and follow-up
TECHNOLOGY	**(16)** Reliability of WASHaLOT 3.0 and user satisfaction	**(17)** Viable supply chains for WASHaLOT 3.0 spares and services	**(18)** Support mechanisms for WASHaLOT 3.0 development

18 indicators for WASHaLOT 3.0 assessment // Figure 6

SCORING // PRESENTATION, WORKSHOP, DISCUSSION

After all interviews were completed, a scoring workshop with the interviewees was conducted in Batangas to assure that all interview participants confirmed that their expressed view had been properly represented in the assessment and to stimulate discussion and debate among the different stakeholders with regard to the assessment findings. Special attention was given to identify potential impediments to sustainability and the scaling-up process of the WASHaLOT 3.0. The results were presented to the participants by indicator (Fig. 6), starting with social dimension to technology dimension. The scoring process used a standard traffic light system to score each of the 18 specific indicators with respect to scalability and to present the view of the three key stakeholder groups, namely user/schools, producer/provider and regulator/DepEd (Fig. 8). In case the scores of the participants were divided, participants were asked to expound on how they scored the respective indicator to encourage further discussion and come to an agreement on the scoring. Four representatives from the user group, a representative from the producers and ten representatives from the facilitators attended the workshop.

Traffic light system used to score TAF indicators // Figure 8

- \+ High value, neutral or positive, supportive characteristics
- 0 Potential impact, could become critical, needs follow-up
- − Low value, negative, critical, hindering characteristics
- ? Unclear information, should be clarified

WASHaLOT 3.0 TAF assessment workshop proceedings // Figure 7

3. RESULTS

SUSTAINABLE DIMENSIONS, KEY PERSPECTIVES, INDICATORS & SCORING

SOCIAL

USER GROUP – SCHOOLS: (1) NEED FOR WASHaLOT 3.0

The DepEd released a national policy on water, sanitation and hygiene in 2016 and on implementing guidelines in 2017 (DepEd, 2017) requiring all schools in the country to implement group hygiene activities.. Schools have expressed the need for having group handwashing facilities to allow for daily group hygiene activities on school premises, as their existing handwashing facilities are not sufficient to accommodate the student body. Users commended the WASHaLOT 3.0 as it fulfils their need for a handwashing facility that specifically serves many students at the same time. This is particularly needed for group hygiene activities like handwashing prior to eating or toothbrushing after eating. The schools acknowledged that the WASHaLOT 3.0 minimises the time needed for group hygiene activities. Aside from scheduled group hygiene activities, students also use the WASHaLOT 3.0 for individual handwashing after gardening, sports and doing arts and crafts. Students also reported using it for washing face and feet. A teacher of one school expressed that the WASHaLOT 3.0 has a rather slow water flow from the water outlets and two schools would appreciate having a basin.

SCORING +

PRODUCER: (2) NEED FOR WASHaLOT 3.0 PROMOTION

The producer expressed having a limited capability to promote the WASHaLOT 3.0 on their own. The idea and design of the WASHaLOT 3.0 were innovated by the Regional Fit for School Programme and Sector Programme Sustainable Sanitation. The producer expressed having no leverage to advocate and increase the demand for the use of the WASHaLOT 3.0.

SCORING +

FACILITATOR/REGULATOR – DepEd: (3) NEED FOR CHANGE IN PERCEPTION AND SOCIAL MARKETING

According to the comprehensive WinS policy by the DepEd there is already a demand for group handwashing facilities, hence further endeavours to change user perceptions about the product or engage in more social marketing are not considered necessary at the moment. The DepEd acknowledged that the simple design of the WASHaLOT 3.0 makes it easy for the schools to understand its function and use. DepEd representatives expressed that schools also have the freedom to make their own decision on how to manage the demand for group handwashing and toothbrushing.

SCORING +

WASHaLOT 3.0 – constructed with a basin and on metal legs // Figure 9

ECONOMIC

USER GROUP – SCHOOLS: (4) AFFORDABILITY

The school representatives have expressed that the running cost of the WASHaLOT 3.0 is affordable to schools. WASHaLOT 3.0 facilitates hygiene activities with a very little amount of water, therefore water consumption does not pose a challenge to the schools in Batangas. The cost for cleaning materials (brush and soap) is affordable and they have been included in the Government Fund "Maintenance and Other Operative Expenses" (MOOE, under janitorial services). However, the capability of schools to purchase additional WASHaLOTs is limited as schools do not have a corresponding funding line for procurement (the MOOE is intended for operation and maintenance only and excludes procurement of infrastructure). The installation of the WASHaLOTs was done with the help of Parents-Teachers Association (PTA) members and the budget for the materials to construct the legs was allocated from PTA funds or from sponsorship. Some schools recycled available materials such as lumber from an on-going construction project during the installation process. School representatives recommended that in the future WASHaLOTs should be produced and delivered complete with legs to avoid time-consuming processes like applying for funding for the construction of legs and the installation process as this carries the risk of losing momentum and excitement to start the implementation of daily hygiene activities.

SCORING 0

PRODUCER: (5) PROFITABILITY

The current price of a WASHaLOT 3.0 does not include after-sales service. If after-sales service is to be offered in the future, the price should slightly increase to sustain the business and be profitable. The producer, for instance, could establish after-sales technical support in terms of offering a customer hotline. Since the design is very simple, needed repairs could also be outlined in the manual. The customer hotline in turn could then be consulted if more complicated repairs become necessary.

SCORING +

FACILITATOR/REGULATOR – DepEd: (6) SUPPORTIVE FINANCIAL MECHANISMS

DepEd representatives determined that the local school board fund that is chaired by the mayor and co-chaired by the Public Schools District Supervisor (PSDS) would be the appropriate funding source to be tapped for the procurement of bulk batches of WASHaLOTs. The same school board also exists on the provincial level, chaired by the governor and co-chaired by the School Division Superintendent (SDS). DepEd representatives recommended exploring this line of funding and suggested lobbying the respective school boards to access the local school board fund or the special education fund.

SCORING +

Members of PTA building legs for WASHaLOT 3.0 // Figure 10

ENVIRONMENTAL

USER GROUP – SCHOOLS: (7) POTENTIAL NEGATIVE IMPACTS ON THE ENVIRONMENT AND THE USER/SCHOOLS

Schools did not see or observe any potential negative impact on the environment when using the WASHaLOT 3.0. Students are also aware that the WASHaLOT 3.0 is a washing facility, not a drinking water facility. In addition, water from the WASHaLOT 3.0 can be used to clean toothbrushes or dishes and cups.

SCORING +

PRODUCER: (8) POTENTIAL NEGATIVE IMPACTS IN THE PRODUCTION OF THE WASHaLOT 3.0

Materials needed in the production of the WASHaLOT 3.0 are available in all metro cities nationwide and can be acquired by the producer on a regular basis. The production of a WASHaLOT 3.0 only requires basic equipment like the plastic welder that needs high electrical input to operate. The producer did not see a potential negative impact on the environment during the production process.

SCORING +

FACILITATOR/REGULATOR – DepEd: (9) POTENTIAL NEGATIVE IMPACT OF SCALING-UP

Using the WASHaLOT 3.0 on a larger scale does not pose a negative impact on the environment. In fact, the minimal water consumption per handwashing using the WASHaLOT 3.0 saves a lot of water compared to traditional faucet handwashing facilities.

SCORING +

INSTITUTIONAL & LEGAL

USER GROUP – SCHOOLS: (10) STRUCTURES FOR MANAGEMENT OF AND ACCOUNTABILITY FOR WASHaLOT 3.0

Roles and responsibilities with regard to the WASHaLOT 3.0 are clearly delegated and structured. The schools have WinS coordinators who are assigned by the principals to oversee WinS implementation and activities related to WinS at each school. WASHaLOTs are assigned to classroom teachers who are supposed to manage the operation. Water refilling and cleaning are tasks handed over to students, who are usually members of the school student council, while classroom teachers manage the supply, use and storage of soap.

SCORING +

PRODUCER: (11) LEGAL REGULATION AND REQUIREMENTS FOR REGISTRATION OF PRODUCER

As Philippine law mandates, all cooperatives, including the producer, should be registered under the Cooperative Development Agency (CDA) before they can operate and provide service to the people. There are provisions in the law for cooperatives that safeguard their interest and help the cooperative with its development. In the knowledge of the producer, there is no regulatory board in place to regulate the production of the WASHaLOT 3.0 or group handwashing facilities in general. For quality assurance, the producer in collaboration with the University of Applied Sciences Potsdam developed a quality assurance protocol which has been tested and will be followed in the future.

SCORING +

FACILITATOR/REGULATOR – DepEd: (12) ALIGNMENT WITH NATIONAL STRATEGIES AND COMPLIANCE TO NATIONAL STANDARDS

DepEd national standards require ten water outlets for group handwashing facilities. There are no further specifications related to infrastructure. Handwashing facilities are checked by nurses assigned to the schools as part of a regular monitoring of WinS implementation.

SCORING +

SKILLS & KNOW HOW

USER GROUP – SCHOOLS: (13) SKILL SET OF USER IN WASHaLOT 3.0 MANAGEMENT

Students at the schools are familiar with how to operate the stainless steel outlets of the WASHaLOT 3.0. Students confirmed the ease of use as they only need to push the lever to the side for water to flow and water will automatically cease to flow when the user removes their hand from the lever (Fig. 11). Water refilling and cleaning is also made easier due to its wide water inlets at both ends. Users mentioned that they would appreciate additional information on the cleaning procedure for the WASHaLOT 3.0.

SCORING + 0

PRODUCER: (14) LEVEL OF TECHNICAL AND BUSINESS SKILLS

The cooperative personnel has adequate business skills and is highly knowledgeable of the law and provisions to operate a multi-purpose cooperative. In terms of technical skills, the producer has a pool of members that are skilled in plumbing, carpentry and ironworks that are necessary to produce the WASHaLOT 3.0. As mentioned in the fifth indicator, the producer has no capability to send personnel to schools for repairs. However, the producer assured availability of technical support via a customer hotline to facilitate assistance to schools to do the repairs themselves. The producer recommended including some basic repair actions like changing outlets into an instructional manual when scaling up the delivery of WASHaLOTs to schools.

SCORING +

FACILITATOR/REGULATOR – DepEd: (15) SECTOR CAPACITY FOR INTRODUCTION OF WASHaLOT 3.0 AND FOLLOW-UP

The DepEd has the capacities to assure orientation and introduction of WASHaLOT 3.0 to all schools through its School Governance and Operations Division (SGOD), which is responsible for physical facilities. A short video or manual could also be used to introduce the schools to the management and use of the WASHaLOT 3.0. Nurses conduct regular visits to schools where they regularly check the status of WinS implementation and functionality of the WASHaLOTs. A school physical facilities coordinator or property custodian, together with the school WinS coordinator, manages the operation and maintenance of the WASHaLOT 3.0 on the school level.

SCORING +

Student washing hands at WASHaLOT 3.0 // Figure 11

Nurses together with school head during one of their regular school visits // Figure 12

TECHNOLOGY

USER GROUP – SCHOOLS: (16) RELIABILITY OF WASHaLOT 3.0 AND USER SATISFACTION

The simplicity of the WASHaLOT 3.0 makes it easy to use and operate on a daily basis. The WASHaLOT 3.0, with ten water outlets, is able to accommodate up to 20 students simultaneously thus minimising the time for group hygiene activities. Users do not perceive the cleaning of the WASHaLOT 3.0 as difficult. However, schools expressed he need for a manual, which provides information on the proper cleaning procedure and regularity of cleaning. Furthermore, the WASHaLOT 3.0 consumes less water compared to conventional handwashing facilities with faucets. Schools specifically appreciate that the WASHaLOT 3.0 is a mobile facility which can be transported for safekeeping during the long holidays. Aside from positive feedback, all schools recommended that a set of standardised legs should be included in the WASHaLOT 3.0 package. One school expressed the wish for a stronger water flow from the water outlets.

SCORING 

PRODUCER: (17) VIABLE SUPPLY CHAINS FOR WASHaLOT 3.0 SPARES AND SERVICES

The WASHaLOT 3.0 is a relatively new technology that has been developed by GIZ and the University of Applied Sciences Potsdam and has been produced by LAMCO in the Philippines. The simple design and locally available materials, a viable supply chain and a programmatic business model could be developed by the producer for the whole country in case the DepEd orders a large number to supply all schools. Feedback mechanisms could also be installed through the capacities and channels within the Department of Education.

SCORING 

FACILITATOR/REGULATOR – DepEd: (18) SUPPORT MECHANISMS FOR WASHaLOT 3.0 DEVELOPMENT

GIZ and the University of Applied Sciences Potsdam have supported the development and advocacy for the WASHaLOT 3.0. DepEd divisions, local executives and NGOs have expressed interest in funding procurement of the WASHaLOT 3.0.

SCORING 

4. SUMMARY

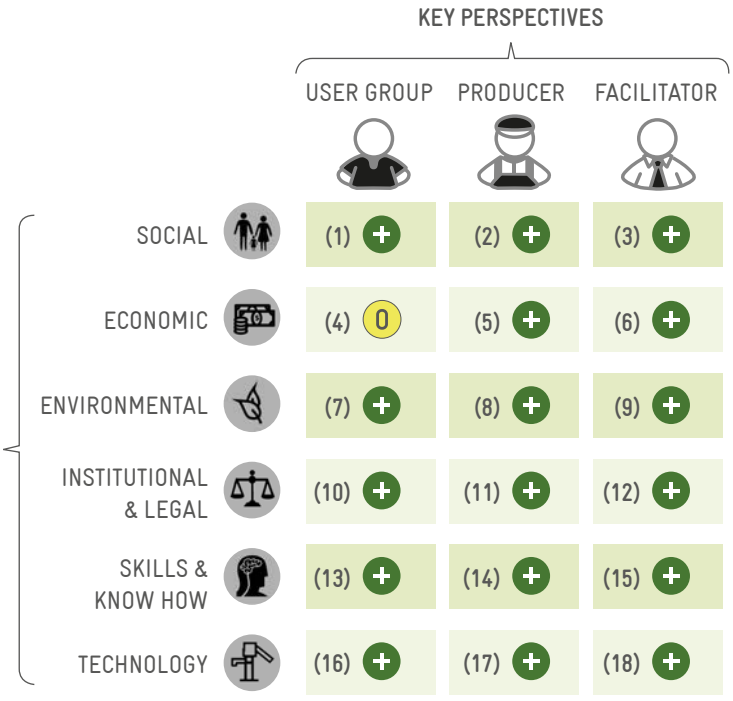
The assessment shows that the WASHaLOT 3.0 has been scored positively for almost all of the indicators considered. The WASHaLOT 3.0 as a technological solution to the need for group washing facilities shows very good potential for applicability in schools to provide a venue for healthy hygiene habit formation.

The WASHaLOT 3.0 offers a low cost functional, durable, water-saving and easy to operate group washing facility which addresses most of the challenges related to the management of hygiene practices in the schools. The simple design and ability to accommodate many students, thus minimising time allotted for conducting group washing activities prior to eating or after garden work make it suitable for schools where teacher-to-student contact time is important.

The DepEd has the capacities and structure to implement the introduction of the WASHaLOT 3.0 to its schools. Already existing regular school visits and monitoring/evaluation in pilot schools can also be utilised as a feedback and follow-up mechanism before upscaling the WASHaLOT 3.0.

ADVANTAGES WASHaLOT 3.0 // REFLECTED IN THE TAF ASSESSMENT

- It is low cost and easy to install for immediate use.
- It allows for time-saving group hygiene activities for up to 20 children at the same time.
- Its water-saving outlets address the problem of high water consumption (or water scarcity) as they only deliver water when pushed to the side (no tap closing required).
- It is adequate for settings without a permanently reliable water source, as the pipe can be filled when water is available and therefore function as a water reservoir.
- It is produced locally with universally available material and a standardised quality is ensured by following a production manual and video (in development, see 6. Recommendations).
- It is easily cleaned and maintained thanks to complementary cleaning tools and mechanisms which are part of the WASHaLOT 3.0 package.



Graphical representation of WASHaLOT 3.0 assessment // Figure 13

(1) Need for the WASHaLOT 3.0
(2) Need for WASHaLOT 3.0 promotion
(3) Need for change in perception and social marketing
(4) Affordability
(5) Profitability
(6) Supportive financial mechanisms
(7) Potential negative impacts on the environment and the user
(8) Potential negative impacts in the production of the WASHaLOT 3.0
(9) Potential negative impacts of scaling-up
(10) Structures for management and accountability of the WASHaLOT 3.0
(11) Legal regulations and requirements for registration of producer
(12) Alignment with national strategies and national standards
(13) Skill set of user in WASHaLOT 3.0 management
(14) Level of technical and business skills
(15) Sector capacity for introduction of WASHaLOT 3.0 and follow-up
(16) Reliability of WASHaLOT 3.0 and user satisfaction
(17) Viable supply chains for WASHaLOT 3.0 spares and services
(18) Support mechanisms for WASHaLOT 3.0 development

\+ High value, neutral or positive, supportive characteristics
0 Potential impact, could become critical, needs follow-up
− Low value, negative, critical,hindering characteristics
? Unclear information, should be clarified

5. LIMITATIONS

Due to the limited period of the assessment (four months) several challenges resulting from long-term use, as for example algae accumulation, vandalism and subsequent hygiene concerns, could not be evaluated by this TAF. As, however, the WASHaLOT 3.0 is a handwashing facility and so far not designed for drinking water, this problem might only become critical in some cases. In addition, the problem of algae accumulation is mitigated as dark lids are attached to the WASHaLOT 3.0 in order to prevent sunlight penetration. Generally, it is advised to clean the facility thoroughly and regularly.

Funding schemes for the procurement of the WASHaLOT 3.0 need to be established with the DepEd. Challenges might also arise in after-sales service, regularity of cleaning and dispose of the cleaning tools needed.

Furthermore, the investigated schools are located in a suburban context, thus the feasibility in megacities should be evaluated separately and was not a subject of this assessment. A potential lack of impartiality of the interviewees can be seen as another limitation. Due to the fact that the WASHaLOT 3.0 units have been donated to the school in the context of a hygiene research project, a certain degree of response bias could exist. This might further be aggravated by a cultural component in the Asian context: Many people tend to be very polite and so a tendency to answer in a way that pleases the interviewer cannot be ruled out.

Depending on the sector's (DepEd) uptake on the WASHaLOT 3.0 design, it is evident that there might be challenges in fully integrating the WASHaLOT 3.0 into their construction/ building codes, even though it was not discussed or brought up during the assessment. This is due to the fact that the WASHaLOT 3.0 is designed to be mobile whereas physical facility planners of the DepEd favour the design of fixed and massive infrastructures.

6. RECOMMENDATIONS

FUNDING

The scaling-up availability of group handwashing facilities in schools needs clear directives from the Central Office of the DepEd concerning allocation of budget, respective budget lines and agreements between national and local government units as well as categorising whether the WASHaLOT 3.0 is considered infrastructure or movable property.

INFORMATION MATERIAL

An operation and maintenance manual for school management is needed prior to scaling up the production and use of the WASHaLOT 3.0 nationwide. The manual should contain information on WASHaLOT 3.0 installation, operation and cleaning, including simple repairs. The manual should also list a customer hotline within the DepEd for schools to contact if technical support for the WASHaLOT 3.0 is required. The DepEd contact person should have close connection to the producer. Aside from the operation and maintenance manual, a short video would also be helpful to introduce the WASHaLOT 3.0 to DepEd divisions and schools in the Philippines.

MODULAR PACKAGE

To take lessons learnt into account, the WASHaLOT 3.0 should be marketed as a packaged concept. This package should include necessary materials and information enabling the users to manage installation and operation and maintenance aspects of the WASHaLOT 3.0 as well as to ensure standardised quality and easy shipment.

WASHaLOT 3.0 PACKAGE

WASHaLOT 3.0	4 inch in diameter and 3 metre long High Density Polyethylene Pipe with 10 stainless water outlets
Detachable legs	Three pieces of 1.2 metre long Galvanized Iron (GI) pipe with detaching mechanism to be able to detach the WASHaLOT 3.0
Spare water outlets	Two pieces of stainless water outlets for replacement of damaged outlets
Cleaning tool	A circular brush with a diameter of 4 inch and 18 inches long that can be attached to a 1.5-metre flexible rod to be able to reach the centre of the WASHaLOT 3.0 pipe.
Vinyl stickers	Four colours of vinyl stickers measuring one square-foot each colour for beautification
IEC materials	A copy of WASHaLOT 3.0 User Guide and Factsheet

WASHaLOT 3.0 packages could be ordered in bulk by the Schools Division Offices and delivered to their target recipient schools. The package should be allocated to each class or section. Allocating one WASHaLOT 3.0 to each class will clarify roles and responsibility that could in turn ensure good management and accountability of the WASHaLOT 3.0 during its operation.

The WASHaLOT 3.0 package // Figure 14

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8. ANNEX

Republic of the Philippines
Department of Education
DepED Complex, Meralco Avenue, Pasig City

JUN 04 2009

DepED ORDER
No. 56, s. 2009

IMMEDIATE CONSTRUCTION OF WATER AND HAND WASHING FACILITIES IN ALL SCHOOLS FOR THE PREVENTION OF INFLUENZA A (H1N1)

To: DepED ARMM Regional Secretary
Regional Directors
Schools Division/City Superintendents
Regional/Division Physical Facilities Coordinators
Heads, Public Elementary and Secondary Schools
All Others Concerned

1. Fully aware of confirmed Influenza A (H1N1) cases in the country and that schools can be a major source of transmission of the virus, immediate measures need to be undertaken to prevent its spread and other infectious diseases in schools.

2. Relative to this, all schools, regional and division offices are required to take immediate actions as follows:

a. Assessment of the availability of water resources at the school level. The Division shall ensure availability of running water and soap in all schools. If running water is not available, storage of clean water in a clean container/drum may suffice.

b. Construction for common hand washing facilities in schools to be sourced from Maintenance and Other Operating Expenses (MOOE) or School Building Repair and Maintenance Scheme (SBRMS) funds or from any available local funds. For this purpose, a special design of lavatory counter and cost estimates are enclosed for reference. Implementation of this project shall be subject to the guidelines for utilization of MOOE and SBRMS funds.

3. The facilities shall be made available immediately or within one week upon receipt of this Order.

4. Immediate dissemination of and compliance with this Order is directed.

JESLI A. LAPUS
Secretary

230-1

Republic of the Philippines
Department of Education

DepEd ORDER
No. 10, s. 2016

19 FEB 2016

POLICY AND GUIDELINES FOR THE COMPREHENSIVE WATER, SANITATION AND HYGIENE IN SCHOOLS (WINS) PROGRAM

To: Undersecretaries
Assistant Secretaries
Bureau and Service Directors
Regional Directors
Schools Division Superintendents
Public and Private Elementary and Secondary Schools Heads
All Others Concerned

1. For the information and guidance of all concerned, the Department of Education (DepEd) issues the enclosed **Policy and Guidelines for the Comprehensive Water, Sanitation, and Hygiene in Schools (WinS) Program** for the promotion of correct hygiene and sanitation practices among school children and a clean environment in and around schools to keep learners safe and healthy.

2. This Policy aims to:

   a. ensure correct knowledge and understanding among learners of effective hygiene and sanitation projects;
   b. improve equitable access to safe water, adequate toilets, and hand washing facilities;
   c. improve hygiene and sanitation practices among the learners to enable them to develop life-long positive hygiene and sanitation behaviors;
   d. ensure that schools are kept clean and safe through school-based solid waste management, proper drainage, the elimination of breeding grounds for mosquitoes to prevent vector-borne diseases, and food sanitation; and
   e. engage public and private partners for program implementation and sustainability.

3. All Orders, Memoranda, and other issuances inconsistent with this policy are deemed repealed, rescinded, or amended accordingly upon its effectivity.

4. This Order shall take effect 15 days after its publication in the Official Gazette or a newspaper of general circulation.

5. Immediate dissemination of and strict compliance with this Order is directed.

BR. ARMIN A. LUISTRO FSC
Secretary

DepEd Complex, Meralco Avenue, Pasig City 1600 633-7208/633-7228/632-1361 636-4876/637-6209 www.deped.gov.ph

USER GROUP – SCHOOLS // PRINCIPAL

(1) NEED FOR THE WASHaLOT 3.0

!	The Central office has released the DepEd Order on Policy and Guidelines for comprehensive WinS programme last 2016. A part of its aim is to have school children practice daily good hygiene habits at school such as handwashing on break times and before meals, and toothbrushing after lunch.
?	**With this policy in place, do you feel or see the need of an infrastructure that could accommodate group hygiene activities (e.g. 10 or more students at a time) in your school?** › Are there existing infrastructure in your school that could accommodate group handwashing activities?
!	As part of a research project done in your division, you were given group handwashing facilities called WASHaLOT 3.0. These WASHaLOTs should make possible handwashing and toothbrushing as group activities.
?	**Does the WASHaLOT 3.0 fulfil its purpose? Can children wash their hands and brush their teeth there?** › Is the WASHaLOT 3.0 accessible or can be accessed to all students in your school? › Is it also being used for other purposes different from group handwashing or toothbrushing like individual handwashing, e.g. after garden work, after eating with hands, feet washing, face washing, washing of plates and among others? › Do you know of other infrastructure that allows children to wash their hands together in a group? If yes, where do you see advantage or disadvantage of the WASHaLOT 3.0 compared to those models.
	What is your impression/assessment of the WASHaLOT 3.0? › Did you hear of any concerns from the teachers, students or parents about the WASHaLOT 3.0? If yes, what are the concerns?
	Does the WASHaLOT 3.0 contribute to cleanliness and well-being of students and teachers?

(4) AFFORDABILITY

!	The WASHaLOTs were given to your school without its legs, you are to provide the legs for it as a shared responsibility promoting ownership.
?	**In installing/setting-up the WASHaLOT 3.0, who paid for the cost or where did the funds for the legs of the WASHaLOT 3.0 come from?**
	Do you have access to water daily to use in the WASHaLOT 3.0? › Where do the fund to pay water bills come from? › How do you pay the needed cleaning materials (water, cleaning agent, etc)? › Do you find these expenses costly? › Did you encounter any repair need so far? › If yes, how much was that? › How did you manage?
	Imagine, your school population would be much higher, and you would want to have more WASHaLOTs. The cost of one WASHaLOT 3.0 is around 100 USD (5,000 PhP), could your school community afford to buy more? Where would you get the funds from?

(7) POTENTIAL NEGATIVE IMPACTS ON THE ENVIRONMENT AND THE USER

?	**Is there a risk that negative impacts to the environment could result from the use of the WASHaLOT 3.0?** › Have you experienced that students were drinking or accidentally drinking from the WASHaLOT 3.0? › Are the students informed not to drink from the WASHaLOT 3.0?

(10) STRUCTURES FOR MANAGEMENT AND ACCOUNTABILITY OF THE WASHaLOT 3.0

?

You as the school head are responsible for all infrastructure on school premises. Have you managed to establish a clear concept for roles and responsibilities related to the WASHaLOT 3.0? If yes, who is responsible for:

› Set-up/installation
› Regular refilling with water?
› Cleaning?

(13) SKILL SET OF USER TO MANAGE THE WASHaLOT 3.0

?

Are you satisfied with the design of the technology and how it works?

› Have you experienced any problems with the WASHaLOT 3.0 or even a break down?
› If yes, who fixed it? If no, if the WASHaLOT 3.0 was not functioning in the future, would there be someone in the school community who could support the repair?

(16) RELIABILITY OF TECHNOLOGY AND USER SATISFACTION

?

Are students, teachers and utility personnel able to manage the technology and to provide water refilling and cleaning on a regular basis?

› Do you think the WASHaLOT 3.0 can still be used during dry season where access to water is limited?
› Do you have students with special needs? Can they also use the WASHaLOT 3.0?
› Is there a part of the WASHaLOT 3.0 which did not work properly? How do you think it can be improved?
› Do you have recommendations in which the WASHaLOT 3.0 could be improved?

Do you find the WASHaLOT 3.0 nice to look at?

Which one would you prefer to receive, a WASHaLOT 3.0 plus a standardized legs? Or only WASHaLOT 3.0 and you provide the legs so that you could have freedom to do the legs on how the way you like it?

USER GROUP – SCHOOLS // TEACHER, WinS COORDINATOR

(1) NEED FOR THE WASHaLOT 3.0

!	The Central office has released the DepEd Order on Policy and Guidelines for comprehensive WinS programme last 2016. A part of its aim is to have school children practice daily good hygiene habits at school such as handwashing on break times and before meals, and toothbrushing after lunch.
?	**With this policy in place, do you feel or see the need of an infrastructure that could accommodate group hygiene activities for your students?** › Do you have existing infrastructure in where your students could practice group handwashing and toothbrushing activities?
!	As part of a research project done in your division, you were given a group handwashing facility called WASHaLOT 3.0. These WASHaLOT 3.0 should possible handwashing and toothbrushing as group activities.
?	**Does it fulfil its purpose? Can children wash their hands and brush their teeth there?** › Is the WASHaLOT 3.0 usable by everyone? › Is it also being used for other purposes different from group handwashing or toothbrushing activities like individual handwashing, e.g. after garden work, after eating with hands, feet washing, face washing, washing of plates and among others? › Do you know of alternatives to this type of group handwashing facility? If yes, where do you see advantage or disadvantage of the WASHaLOT 3.0 compared to those models?
?	**Is the WASHaLOT 3.0 easy to use?** › Have you heard of any positive or negative comments from your students with regards to the WASHaLOT 3.0?
	Do you think the WASHaLOT 3.0 contributes to cleanliness and well-being of your students?

(7) POTENTIAL NEGATIVE IMPACTS ON THE ENVIRONMENT AND THE USER

?	**Is there a risk that negative impacts to the environment could result from the use of the WASHaLOT 3.0?** › Have you experienced that your students were drinking or accidentally drink from the WASHaLOT 3.0? › Are the students informed not to drink from the WASHaLOT 3.0?

(10) STRUCTURES FOR MANAGEMENT AND ACCOUNTABILITY OF THE WASHaLOT 3.0

?	**On a classroom level, have you managed to put up a clear concept on roles and responsibility on water refilling, student leaders during the conduct of hygiene activities and cleaning of the WASHaLOT 3.0?** › Is water refilling and cleaning of the WASHaLOT 3.0 being conducted regularly?

(13) SKILL SET OF USER TO MANAGE THE WASHaLOT 3.0

?	**Do you, as a teacher, able to manage the WASHaLOT 3.0 so that it can be used daily?** › Are you familiar of the parts used in the WASHaLOT 3.0? › Have you experienced having problems with the WASHaLOT 3.0? If yes, who fixed it? › Have you received an information on how to manage the WASHaLOT 3.0? › Has the information you have received been sufficient or would you need more? › What kind of information would you further need?

(16) RELIABILITY OF WASHaLOT 3.0 AND USER SATISFACTION

?	**In general, are you satisfied with the WASHaLOT 3.0, do you like the design and the function?** › Do you think the WASHaLOT 3.0 can be used during dry season where access to water is limited? › Do you have students with special needs? Were they able to use the WASHaLOT 3.0 also? › Is there a part of the WASHaLOT 3.0 which did not work properly? How do you think it can be improved? › Do you have recommendations in which the WASHaLOT 3.0 could be improved?
	Do you find the WASHaLOT 3.0 nice to look at?
	Which one would you prefer to receive, a WASHaLOT 3.0 plus a standardized legs? Or only WASHaLOT 3.0 and you provide the legs so that you could have freedom to do the legs on how the way you like it?

USER GROUP – SCHOOLS // STUDENT

(1) NEED FOR THE WASHaLOT 3.0

!	As you may have noticed in the news and in social media (if they have social media accounts) there are campaigns on washing hands to kill germs thus preventing common diseases and also on toothbrushing to have a healthier smile. Some of you might have been told by their parents to do so and is already practicing it on your respective homes.
?	**When in School, do you feel the need of an area where you can practice this hygiene habits at school together with your classmates?** › Do you think it is helpful to have a group handwashing facility in your school?
!	Your class has received group handwashing facilities called WASHaLOT 3.0. These WASHaLOTs should make possible handwashing and toothbrushing as group activities.
?	**Does the WASHaLOT 3.0 fulfil its purpose? Were you able to wash your hands and brush your teeth on it?** › How often do you use the WASHaLOT 3.0? › Aside from group activities, have you also used the WASHaLOT 3.0 or other purposes like individual handwashing, e.g. after garden work, after eating with hands, feet washing, face washing, washing of plates and among others?
	Do you like washing your hands in the WASHaLOT 3.0? › What do you like about the WASHaLOT 3.0? › Is there something that you don't like about it?

(13) SKILL SET OF USER TO MANAGE THE WASHaLOT 3.0

	As the primary user of the WASHaLOT 3.0, do you know how to refill water and clean the WASHaLOT 3.0? › In time when the WASHaLOT 3.0 runs out of water, who is responsible in refilling the WASHaLOT 3.0 with water? › Who is responsible for cleaning?

(16) RELIABILITY OF WASHaLOT 3.0 AND USER SATISFACTION

?	**Is it easy for you and everyone to use the WASHaLOT 3.0?** › What makes the WASHaLOT 3.0 not easy to use? (Ask only if they answer not easy to use.) › Do any of your classmates have difficulty using or accessing the WASHaLOT 3.0?
	Does the WASHaLOT 3.0 work all the time, or are there any parts that don't work well?
	Do you find the WASHaLOT 3.0 nice to look at?

PRODUCER

(1) NEED FOR THE WASHaLOT 3.0

!

DepEd released a national memorandum on comprehensive implementation of the WinS policy. Part of this policy is that all schools in the country should have access to group handwashing facilities to provide venue for students to practice group hygiene activities.

?

Do you see or envision the demand for the WASHaLOT 3.0?

Do you think promotion is necessary to scale up the WASHaLOT 3.0 in a broader area?

› Do you have resources in promoting the WASHaLOT 3.0?
› Do you see potential of the WASHaLOT 3.0 to be utilized even outside of schools, for example in day care centers, public markets, or restaurants? Would it be marketable for different costumers?

(5) PROFITABILITY

?

Do you generate good profit from the production of the WASHaLOT 3.0?

› Would it be still profitable for your company if you offer after sales services like repair and/or replacement of parts?
› Do you have resources to offer after sales services? (Only ask if they consider after sales.)

(8) POTENTIAL NEGATIVE IMPACTS IN THE PRODUCTION OF WASHaLOT 3.0

?

Do you see or are you aware of any impacts to the environment in producing/manufacturing the WASHaLOT 3.0?

› In producing the WASHaLOT 3.0, do you recycle scrap raw materials that are not being utilized?
› Is your company being checked or regulated on possible impacts to the environment by any active agency (eg DENR, DOST) or other accreditation standards (e.g. ISO certification)?

(11) LEGAL REGULATIONS AND REQUIREMENTS FOR REGISTRATION OF PRODUCERS

?

Is your company registered and certified to produce/manufacture this kind of water technology?

› Is it possible for the company to operate without being legally registered or certified? (Only ask if not certified.)

Do you have quality assurance procedures in place when the WASHaLOT 3.0 is produced? Is this internally or externally?

› Who conducts external audit on your quality assurance procedure? (ask if checked externally)

(14) LEVEL OF TECHNICAL AND BUSINESS SKILLS

?

As the producer of the WASHaLOT 3.0 do you think you have the technical and business skills to manage the WASHaLOT 3.0 when the demand grows up? (QA, setting up supply chains, after sales services?)

› Do you need external support to define and develop these skills?
› Is there a local training provider where you can improve these skills?

(17) VIABLE SUPPLY CHAINS FOR WASHaLOT 3.0 SPARES AND SERVICES

?

Are raw materials in producing the WASHaLOT 3.0 easily available locally?

How does the delivery of WASHaLOTs to schools work?

› Is it also possible to supply schools that are in remote areas?

Are retailers and suppliers for other type of group handwashing facilities already available, which could become the supply chain for the WASHaLOT 3.0 too?

In your company, do you have existing mechanism where in you gather feedback from users on your products?

› Can this also be utilized for the WASHaLOT 3.0?

FACILITATOR/REGULATOR – DepED // DIVISION ENGINEER

(3) NEED FOR CHANGE IN PERCEPTION AND SOCIAL MARKETING

!	In the DepEd WinS policy, schools should practice daily group handwashing during break times and group toothbrushing after lunch. But as of the moment, many of the schools still lacks facilities that could accommodate such activities.
?	**How do schools currently address the lack of group handwashing facilities?**
?	**How do you perceive the WASHaLOT 3.0?** › In your view, how do school community perceive the WASHaLOT 3.0?
?	**In choosing the type of group handwashing facilities, how is it being done in national/division level?** › Can the school community choose the type of handwashing facilities to be constructed in their school? (Ask if guide question is not clear.)

(6) SUPPORTIVE FINANCIAL MECHANISMS

?	**Could you imagine DepEd procurement of the WASHaLOT 3.0 in national level/division level?** › If this would push through, would there be preconditions like no group handwashing facilities and/or good WinS performance for the schools to receive the WASHaLOT 3.0?
?	**Under your division, what is the most likely available budget line (e.g. school improvement funds from LGU, PTA funds) where schools could use it to procure a WASHaLOT 3.0 if schools would procure it by school level?**

(9) POTENTIAL NEGATIVE IMPACTS ON THE ENVIRONMENT OF SCALING-UP

?	**Do you see any impacts on the environment if all schools are using the WASHaLOT 3.0 like effect of greywater (water with soap) to plants?** › Is there an assigned person in your division who should be contacted to discuss this?

(12) ALIGNMENT WITH NATIONAL STRATEGIES AND COMPLIANCE TO NATIONAL STANDARDS

?	**Is there a DepEd national standard or construction guideline in constructing group handwashing facilities in school?** › Is the WASHaLOT 3.0 in compliance to the national standard being set by DepEd?
?	**Do schools get regulated of what type of group handwashing facilities that are constructed?** › Is there an assigned person, to check for this?

(15) SECTOR CAPACITY FOR INTRODUCTION OF WASHaLOT 3.0 AND FOLLOW-UP

?	**Are current resources available and sufficient at national down to division level to provide adequate technical advice and support for the introduction of the WASHaLOT 3.0?** › Who is responsible for organizing and providing necessary information and advice to the schools? (Validate if guide question is not clear.) › Who would be responsible to support schools related to management of the WASHaLOT 3.0 on school level?

(18) SUPPORT MECHANISMS FOR WASHaLOT 3.0 DEVELOPMENT

?	**Would there be incoming project or existing project that could support the development and promotion of the WASHaLOT 3.0?**

FACILITATOR/REGULATOR – DepED // DIVISION WinS COORDINATOR (NURSE)

(3) NEED FOR CHANGE IN PERCEPTION AND SOCIAL MARKETING

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(14) LEVEL OF TECHNICAL AND BUSINESS SKILLS

?	**As the producer of the WASHaLOT 3.0 do you think you have the technical and business skills to manage the WASHaLOT 3.0 when the demand grows up? (QA, setting up supply chains, after sales services?)** › Do you need external support to define and develop these skills? › Is there a local training provider where you can improve these skills?

(18) SUPPORT MECHANISMS FOR WASHaLOT 3.0 DEVELOPMENT

?	**Would there be incoming project or existing project that could support the development and promotion of the WASHaLOT 3.0?**

RELEVANCE OF THE 18 INDICATORS

(1) NEED FOR THE WASHaLOT 3.0

Target users must express a demand for the services (caters group hygiene activity) provided by the WASHaLOT 3.0 to be able to overcome management challenges in the future.

(2) NEED FOR WASHaLOT 3.0 PROMOTION

Without strong promotion, technologies or products will not be known to users and buyers. Good promotion is essential for scalability.

(3) NEED FOR CHANGE IN PERCEPTION AND SOCIAL MARKETING

There should be a change in perception towards handwashing. More people should wash hands more often. Group handwashing activities increase the number of students washing hands and create the demand for the WASHaLOT 3.0. This requires strong leadership in school and integration/alignment with institutional policies and opens the door for social marketing.

(4) AFFORDABILITY

Users need to be able to afford buying the WASHaLOT 3.0, so that scalability will be possible without external funding or subsidy. Users also need to be able afford payment for the operation and cleaning including repairs, so that their investment in the WASHaLOT 3.0 is sustainable.

(5) PROFITABILITY

Price of the WASHaLOT 3.0 should also include cost for after sales support, development of supply chain and sufficient profit for the producer to be interested to continue production. Sustainability of the WASHaLOT 3.0 may fail if producers cannot raise sufficient revenue to cover these. In cases like these, subsidies from third parties (e.g. NGOs) will be needed.

(6) SUPPORTIVE FINANCIAL MECHANISMS

Supportive funding or subsidies are needed to assist introduction of the WASHaLOT 3.0 but does not guarantee its sustainability or scalability.

(7) POTENTIAL NEGATIVE IMPACTS ON THE ENVIRONMENT AND THE USER

The use of the technology could have negative impacts on the local environment or on the user.

(8) POTENTIAL NEGATIVE IMPACTS IN THE PRODUCTION OF WASHaLOT 3.0

Production of WASHaLOT 3.0 in massive scale may require materials that may be hard to provide on a constant basis and may have an impact to the environment.

(9) POTENTIAL NEGATIVE IMPACT OF SCALING-UP

If a technology is scaled up to use in multiple districts, there could be impacts on the environment and natural resources at a bigger scale.

(10) STRUCTURES FOR MANAGEMENT AND ACCOUNTABILITY OF THE WASHaLOT 3.0

The roles and responsibilities must be clear in order to get the optimal benefits from the WASHaLOT 3.0.

(11) LEGAL REGULATION AND REQUIREMENTS FOR REGISTRATION OF PRODUCER

Legal registration of a company is important before a company could produce or provide service with-in the country. Effective monitoring of the producer's activities by regulatory authorities enhances quality assurance. The roles and responsibilities must be clear in order to get the optimal benefits from the WASHaLOT 3.0.

(12) ALIGNMENT WITH NATIONAL STRATEGIES AND COMPLIANCE TO NATIONAL STANDARDS

Technologies introduced should be aligned with national standards if they are to get support from government institutions. Support from government institutions is important to achieve scalability and sustainability.

(13) SKILL SET OF USER TO MANAGE THE WASHaLOT 3.0

Technologies might need specific skills and understanding to operate and manage it.

(14) LEVEL OF TECHNICAL AND BUSINESS SKILLS

Producers and providers need specific technical and business skills to ensure that they will continue to provide before and after sales services.

(15) SECTOR CAPACITY FOR INTRODUCTION OF WASHaLOT 3.0 AND FOLLOW-UP

The sector must possess sufficient capacities for introduction, information dissemination, monitoring, documentation and to provide technical support.

(16) RELIABILITY OF WASHaLOT 3.0 AND USER SATISFACTION

Products have to fulfil the expectations of users. If expectations are not met, the users may not be willing to use or even pay for it.

(17) VIABLE SUPPLY CHAINS FOR WASHaLOT 3.0 SPARES AND SERVICES

Availability of raw materials locally is essential for the WASHaLOT 3.0 to be scalable and be used on a sustained basis. Local suppliers can also enhance the feedback from users to suppliers.

(18) SUPPORT MECHANISMS FOR WASHaLOT 3.0 DEVELOPMENT

The development and introduction of technologies require a lot of financial resources. Many initiatives don't manage to pass this challenge that's why they fail.

SCHEDULE OF ACTIVITIES // INTERVIEW AND WORKSHOP

Date	Perspective // Name
January 26, 2018	User Group Interview // Bukal Elementary School
	User Group Interview // Quilib San Roque Elementary School
January 29, 2018	User Group Interview // Muzon Elementary School (San Juan)
	User Group Interview // Balagbag Elementary School
	User Group Interview // Calubcub II Elementary School
January 30, 2018	User Group Interview // Balibago Elementary School
	User Group Interview // San Agustin Elementary School
	User Group Interview // Timbugan Elementary School
February 1, 2018	User Group Interview // Procopio Mailig Memorial Elementary School
	User Group Interview // Marcos Espejo Elementary School
February 12, 2018	Producer Interview // Lupang Arenda Multi-purpose cooperative manager
February 13, 2018	Facilitator Interview // DepEd Batangas Province division engineer
February 27, 2018	Facilitator Interview // DepEd Batangas Province division WinS coordinator
March 2, 2018	Scoring workshop with stakeholders of the three perspectives

Note: Principal, WinS Coordinator and representative from student council are interviewed in every school

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Sector Programme "Sustainable Sanitation"
Postfach 5180, 65726 Eschborn, Germany

www.giz.de/en // www.fitforschool.international

Authors: Frederick Madrid, Dr. Bella Monse,
Jan-Christoph Schlenk, Marcel Siewert-Freundel, Sophia Bäurle
Special Advisors and Reviewers: Dr. Susanne Bieker,
Anna Kristina Kanathigoda, Younes Hassib
Design and layout: Christine Lüdke, malzwei, Germany
Photo Credits: Ivan Sarenas, Philippines

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The Regional "Fit for School" Program is realized in the Philippines, Indonesia, Cambodia and Lao PDR in partnership with the Southeast Asian Ministers of Education Organization Regional Centre for Educational Innovation and Technology (SEAMEO INNOTECH). In addition, the Sector Programme "Sustainable Sanitation" supports the global roll-out of the "Fit for School" approach by offering expertise to bilateral and global programmes (WASH, education, and health) predominantly in Africa.

For more Information on the work of the Sector Programme "Sustainable Sanitation" in the context of "Fit for School" please contact Dr. Bella Monse, bella.monse@giz.de

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