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The WASHaLOT 3.0

Evolution, Features and TAF

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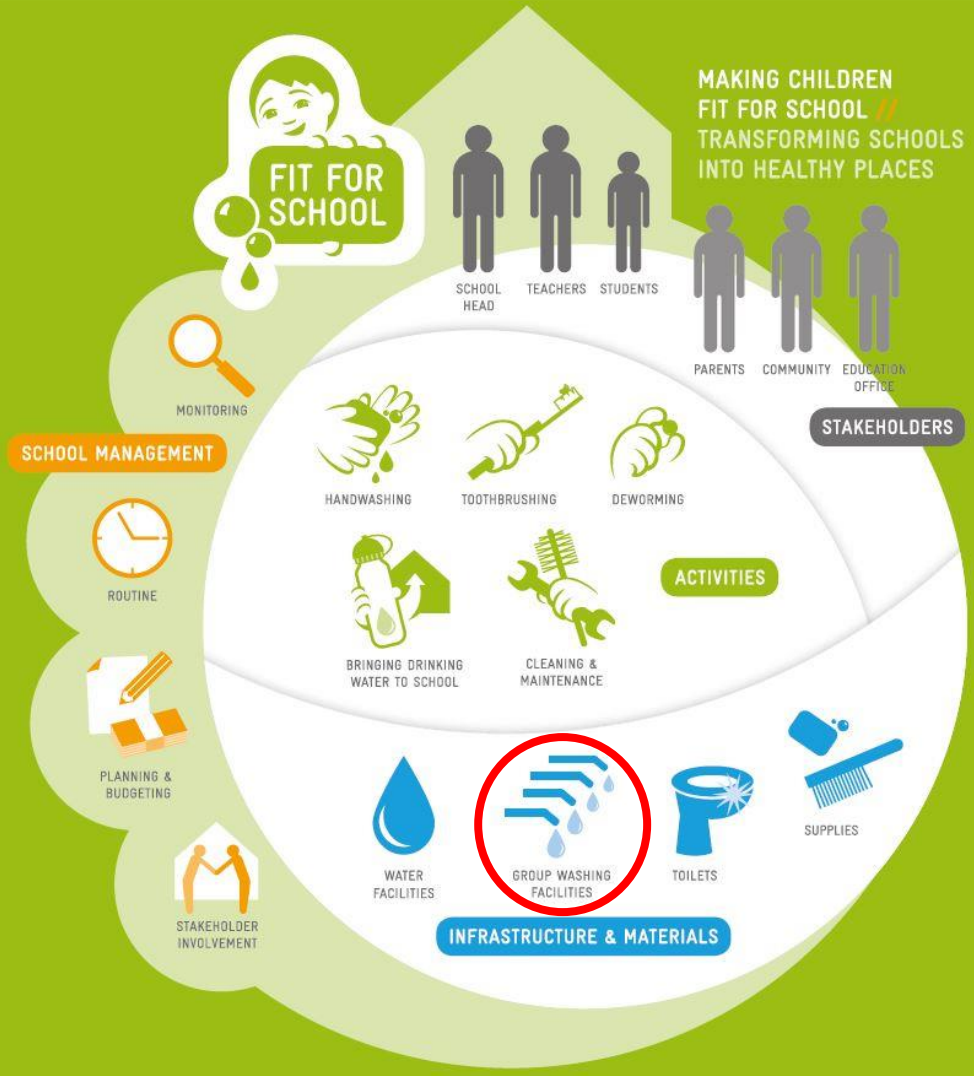
FIT FOR SCHOOL


FIT FOR SCHOOL
MAKING CHILDREN FIT FOR SCHOOL // TRANSFORMING SCHOOLS INTO HEALTHY PLACES
SCHOOL HEAD
TEACHERS
STUDENTS
PARENTS
COMMUNITY
EDUCATION OFFICE
STAKEHOLDERS
MONITORING
SCHOOL MANAGEMENT
ROUTINE
PLANNING & BUDGETING
STAKEHOLDER INVOLVEMENT
HANDWASHING
TOOTHBRUSHING
DEWORMING
BRINGING DRINKING WATER TO SCHOOL
CLEANING & MAINTENANCE
ACTIVITIES
WATER FACILITIES
GROUP WASHING FACILITIES
TOILETS
SUPPLIES
INFRASTRUCTURE & MATERIALS

Agenda

- Background
- WASHaLOT Evolution
- WASHaLOT 3.0
- WASHaLOT 3.0 assessment

SDG Target for WinS

	Drinking water	Sanitation	Hygiene
	Advanced service *To be defined at national level*	**Advanced service** *To be defined at national level*	**Advanced service** *To be defined at national level*
SDG Target	**Basic service** Drinking water from an improved source is available at the school	**Basic service** Improved facilities, which are single-sex and usable at the school	**Basic service** Handwashing facilities, which have water and soap available
	Limited service There is an improved source (piped water, protected well/ spring, rainwater, bottled water), but water not available at time of survey	**Limited service** There are improved facilities (flush/pour flush, pit latrine with slab, composting toilet), but not sex-separated or not usable	**Limited service** Handwashing facilities with water, but no soap
	No service No water source or unimproved source (unprotected well/ spring, tanker-truck surface water source)	**No service** No toilets or latrines, or unimproved facilities (pit latrines without a slab or platform, hanging latrines, bucket latrines)	**No service** No handwashing facilities at the school or handwashing facilities with no water

The Challenge

- All Schools by 2030 should have handwashing facility with **water and soap.**
- Increased demand for facilities which can accommodate hygiene activities of many users at the same time
- Emerging need for a **standardized** group washing facilities which can **accelerate scale up hygiene practices.**

Background of Group washing facilities

- SARS and H1N1 hit Asia in 2005
- Department of Education of the Philippines released DO 56, 2009 mandating schools to provide handwashing facilities and practice handwashing once a day at school
- Schools build group handwashing facilities on their own thus various types of group washing facilities were developed

Challenges encountered by schools

- Sources of funding are not clarified and often not available
- Limited concepts of low cost solutions
- Unavailability of skilled labor to construct group handwashing facilities in remote areas

Common problems of group handwashing facilities

- Taps easily got broken or stolen
- High water consumption
- Water unavailable or Insufficient water pressure
- Low quality of construction
- Short service life of materials being used

Demand for a standardized group washing facility

- Durable and assures functionality
- independent from piped water supply
- Low cost (Construction and O&M)
- Minimizes water consumption
- Allows community involvement
- Can be prefabricated

WASHaLOT

Why prefabricated?

- A pre-fabricated facility helps schools to prevent ‘re-inventing of the wheel’, making use of all learnings gathered in many places

- A pre-fabricated facility ensures quality and efficiency for local production, in a centralized place of the region/ province where it can be produced and distributed to respective schools.

WASHaLOT Evolution

WASHaLOT 1 (Core Module)

2013

Modular punched GI pipe with flexible external tank

WASHaLOT 2.0

2014-2016

Punched GI pipe with integrated water tank, allows for individual handwashing

WASHaLOT 3.0

2017 - present

High density polyethylene pipe with 10 individual stainless steel water outlets

Behind the development

- Reflecting from the experiences of previous models of the WASHaLOT, Sector program for sustainable sanitation together with Fit for School saw the need to develop WASHaLOT 3.0

- Sector program contracted product designer and University of Potsdam that worked to develop the WASHaLOT 3.0

- Prototyping and workshops was done in Germany and Philippines to refine the design of the WASHaLOT 3.0

What were the improvements

Improvements: Individual operation

One valve for group handwashing activity with 10 water outlets

Two valve system. First valve allows for individual handwashing. Second valve for group handwashing with 11 water outlets

Autonomous operation at each water outlets.

Improvements: water reservoir

Separate water reservoir from the washing facility

Water reservoir is integrated to the washing facility

Pipe of the washing facility as water reservoir

Improvements: Cleaning and Maintenance

Requires tilting the water container to access the opening and a wrench to open the plug on the pipe

Has two wide water inlet with hinged cover that serves as service entrance for cleaning purposes.

Improvements: Higher Quality Material

Galvanized Iron for Pipes and fittings and Plastic water container for reservoir

High Density Polyethylene plastic for the pipe and stainless steel for water outlets

WASHaLOT 3.0

WASHaLOT 3.0 - Features

- Autonomous operation of each outlets that allows more than one individual handwashing or group handwashing of up to 20 students.

- Outlets automatically closes when not in use thus saving water.

- Making use of the pipe as a water reservoir with a capacity of 24 liters.

- Has a pipe water connection readily available with an option of manual refilling at the wide water inlets at the end of the pipe.

Pilot Implementation

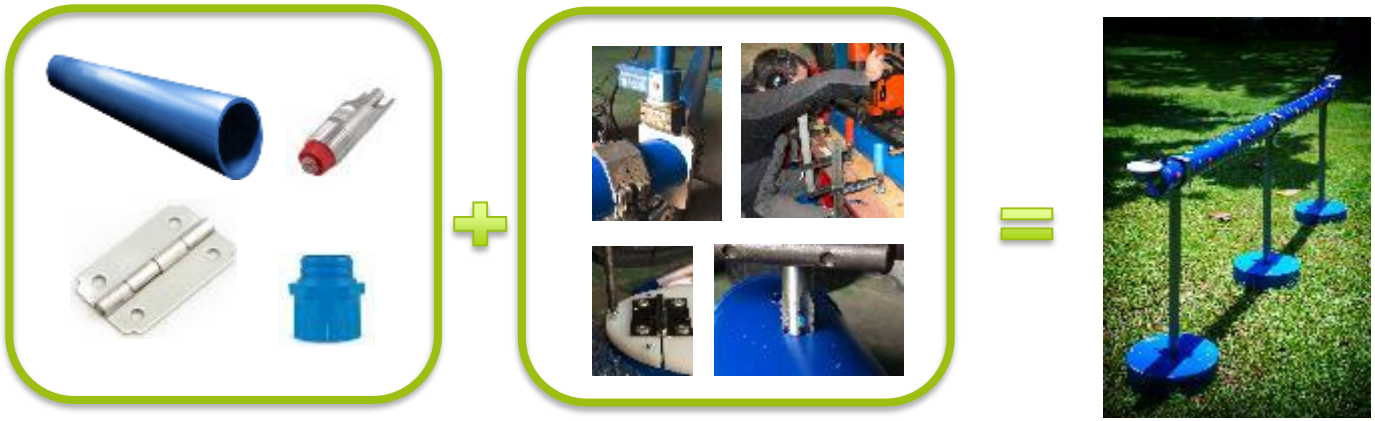
- 50 WASHaLOT 3.0 units are piloted in 10 schools in Batangas, Philippines
- Schools only received the WASHaLOT 3.0 with out the legs only vinyl stickers for beautification leaving space for community involvement

WASHaLOT 3.0 at schools – Mobile Legs

WASHaLOT 3.0 at schools – Fixed legs

WASHaLOT 3.0 at schools – Wall Mounted

Cost of WASHaLOT 3.0



	Material Cost	Labor Cost	Production Cost
Without Legs	75 USD	25 USD	100 USD
With Legs	110 USD	40 USD	150 USD*

** Fabrication of standardized legs*

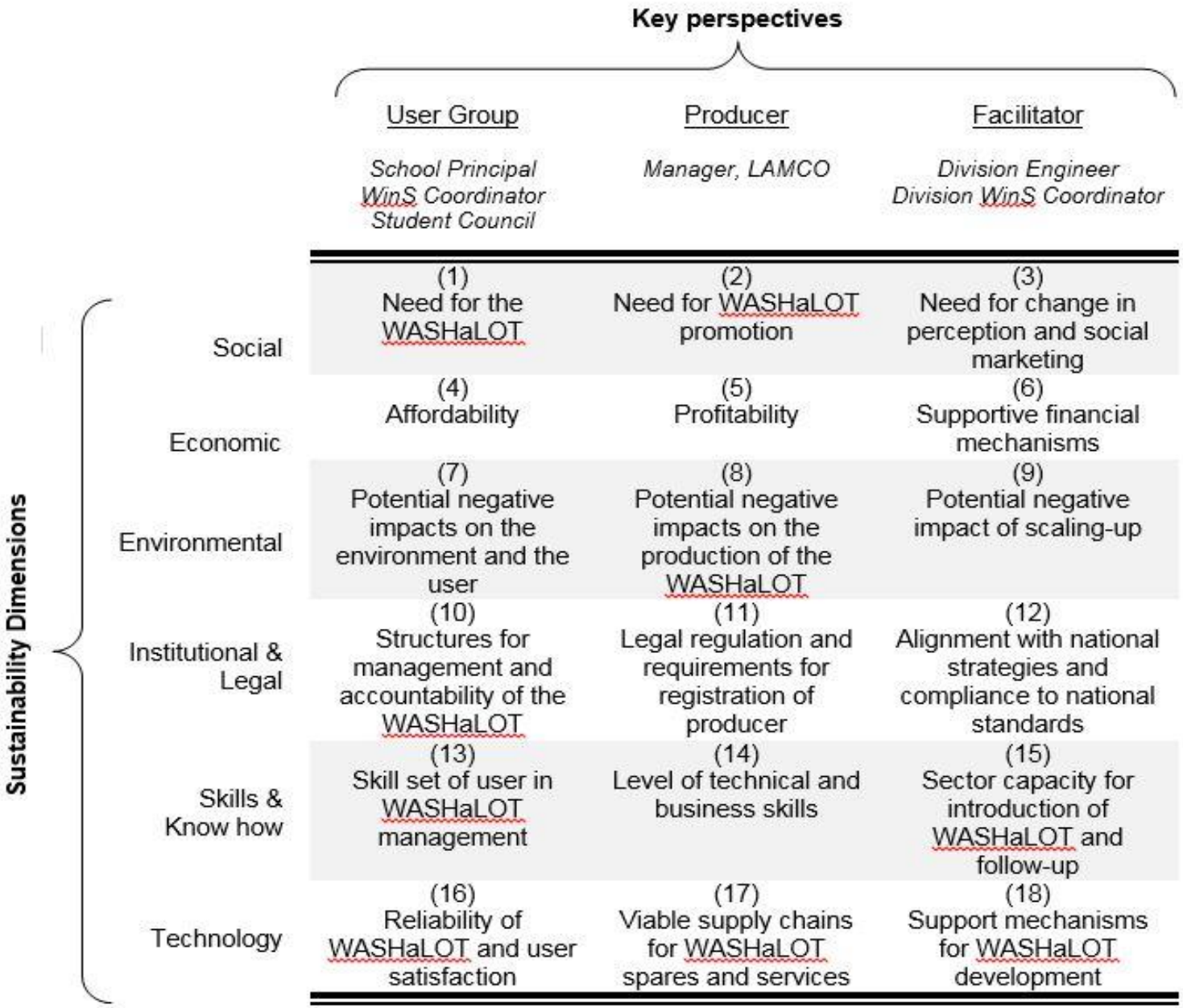
Technology Applicability Framework

Technology Applicability Framework (TAF)

- **Technology Applicability Framework** is an established method with the objective to assess the scale-up potential of a technology.

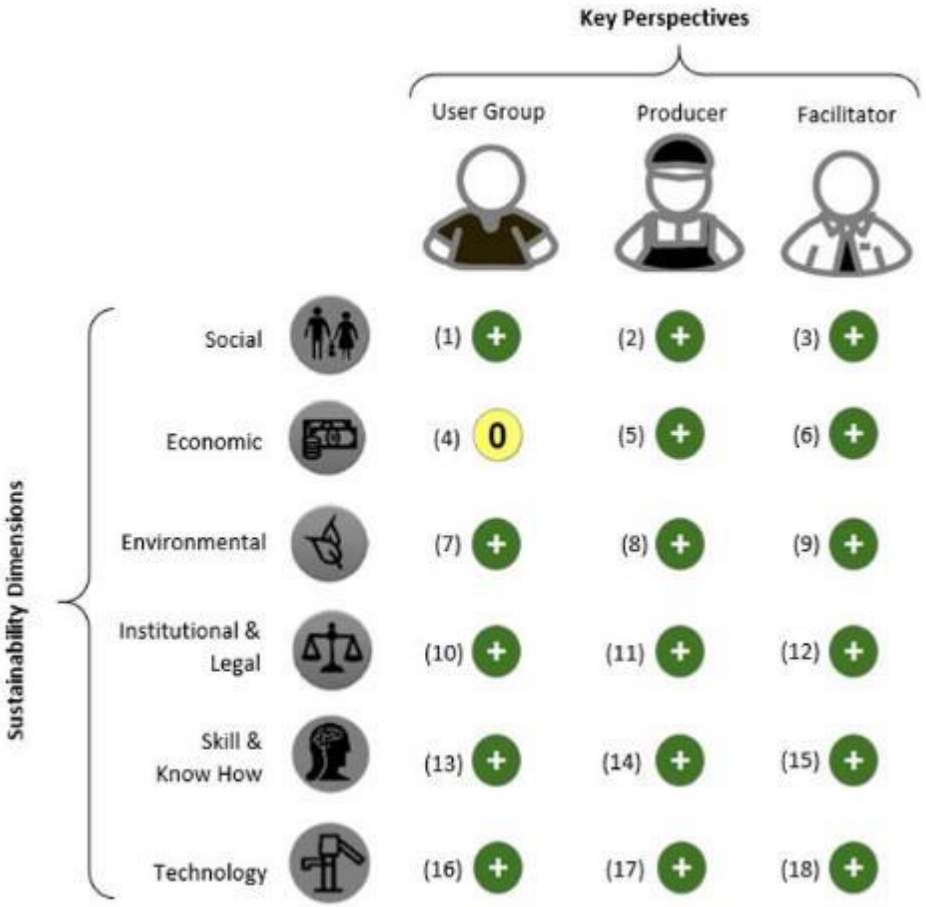
- Developed within WASHTech project by SKAT foundation

- The TAF assessment was conducted in 10 public schools in Batangas (Philippines) where 50 units of WASHaLOT 3.0 were installed.



Sustainability Dimensions	Key perspectives: User Group *School Principal* *WinS Coordinator* *Student Council*	Producer *Manager, LAMCO*	Facilitator *Division Engineer* *Division WinS Coordinator*
Social	(1) Need for the WASHaLOT	(2) Need for WASHaLOT 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 on the production of the WASHaLOT	(9) Potential negative impact of scaling-up
Institutional & Legal	(10) Structures for management and accountability of the WASHaLOT	(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 management	(14) Level of technical and business skills	(15) Sector capacity for introduction of WASHaLOT and follow-up
Technology	(16) Reliability of WASHaLOT and user satisfaction	(17) Viable supply chains for WASHaLOT spares and services	(18) Support mechanisms for WASHaLOT development

WASHaLOT 3.0 assessment result



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(11) Legal regulations and requirements for registration of producer
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(13) Skill set of user in WASHaLOT management
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+ 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

Key Learnings from the assessment

- Need for clarification of funding source / respective budget line (construction and not maintenance)

- Need for Information Materials: O&M Manual and video for users and school management are necessary for scaling-up the WASHaLOT.

- Modular package: A WASHaLOT package that includes standardized legs for faster implementation and uniformity of installation to ensure quality of installation.

What's next for WASHaLOT 3.0

- Localized production and use of WASHaLOT 3.0 in other countries
- Testing applicability of WASHaLOT 3.0 in emergency settings
- Development of modular package of the WASHaLOT in different contexts (eg. school, community, emergency, etc.) including management support materials such as manuals and videos

Partners in developing the WASHaLOT

STUDIO URBANE LANDSCHAFTEN

- Till Hergenhahn
- Lupang Arenda Multi-purpose Cooperative

References and Resources

Fit for School Resources

→ **LINK**

Videos

- EHCP - Creating School Health Facilities
- WASHaLOT 2 - in Cambodia
- WASHaLOT 2 – in ARMM (Philippines)

SDG target for WinS

→ **LINK**

Question and Answer