

16 SEPTEMBER

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WATER GOVERNANCE IN INFORMAL SETTLEMENTS

KNOWLEDGE EXCHANGE REPORT



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Introduction

The impact of COVID-19 is being most devastatingly felt in the world's urban areas, especially the urban poor communities including in informal settlements. In addition, the COVID-19 pandemic has reminded us once again of the central role that water, sanitation and hygiene (WASH) plays in protecting us from diseases. In 2011, the UN Human Rights Council recognized the rights to water and sanitation as vital for leading a life of dignity and as a prerequisite for realizing other human rights. However, despite clear international law on the human rights to water and sanitation, and widespread recognition of these rights, more than a decade later, most of the COVID-19 recommendations were almost impossible to implement in informal settlements due to poor infrastructure and lack of accessibility to basic social services.

To respond to water supply and quality related challenges in the informal settlements of Yangon, both UN-Habitat and WaterAid Myanmar have been implementing projects aiming at construction/ rehabilitation of water supply systems for the delivery of clean, safe, and reliable drinking water to communities in informal settlements. Due to their informal nature, these vulnerable neighbourhoods not only lack basic services, they also face challenges with maintenance of services following upgrading efforts. Therefore, both agencies also provide emphasis on strengthening the capacity of communities to operate and maintain the quality and function of their water supply systems. Much of the innovation in upgrading is in community-driven processes and partnerships with local communities and organizations formed by informal settlement residents. For these initiatives to succeed in the long run, collaborative governance strategies and clearly delineated mandates are needed, with explicit integration of urban green infrastructure into strategies for in-situ informal settlements upgrading and green growth opportunities.

Therefore, on the 16 of September 2022, UN-Habitat and WaterAid Myanmar jointly organized a knowledge sharing session. The objective of the session was to gain insight into, and share experiences regarding different approaches to governance of water supply systems in informal settlements.

The knowledge exchange session involved presentations from each participating organization followed by a Q&A session, and a facilitated discussion. This report summarizes the key points from the session. A full list of the 33 participants is attached (Annex 1) along with the original concept note and schedule (Annex 2).

UN-Habitat Presentation

UN-Habitat presented on the project “Building resilience against COVID-19 through WASH and waste management support in urban informal settlements”. This project consists of three components, 1) enhancing access to safe water and improved environmental sanitation, 2) improving solid waste management, and 3) improving hygiene awareness and capacity of communities. A key part of the first component is the construction of 22 drinking water supply systems across 8 townships.

UN-Habitat also shared past experiences on water governance. UN-Habitat mainstreams the People’s Process for their project and programme. In the past, the process involved the formation of Community Development Committees (CDCs) which comprised of volunteers from the community. CDC members take responsibility for managing, maintaining, and operating the system. To support the CDCs, UN-Habitat normally provides trainings and gives the community a comprehensive Water Safety Plan manual. The Project plans to apply the same approach for the governance of 22 water supply systems which are currently being implemented in peri-urban Yangon.

WaterAid Myanmar Presentation

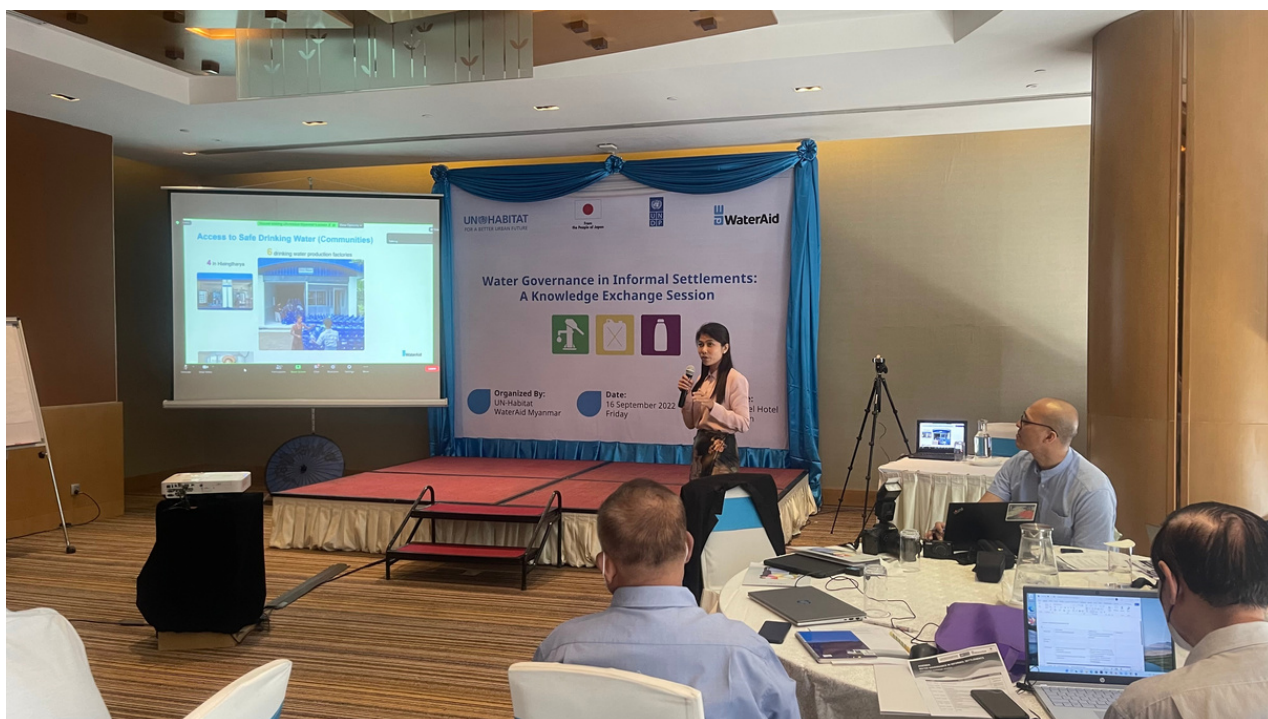
WaterAid Myanmar presented on their people-centred approach to providing safe drinking water to people across Myanmar. Within two townships, the organization has established six drinking water production factories. They have additionally established 6 drinking water production factories the communities. Two nunneries and three monasteries additionally supply water to their schools. Water can be purchased directly at the facility, but WaterAid also pays distributors via credits to allow water to be purchased at the household level.

WaterAid uses a community owned social enterprise model for the community water production factories. Community representatives comprise the board of directors and the laborers responsible for operating and maintaining the system. Members will go through Institutional Training, Management Training, and Accountability & Compliance Training, and/or a longer Operation & Maintenance (O&M) Training, depending on their role in the social enterprise. WaterAid Myanmar also has an agreement for three years with a private technical company for the continued mentoring on O&M and management of social enterprise for the board of directors as well as the production teams of each enterprise.

Myanmar Kitchen Presentation

Myanmar Kitchen presented on the operation of their water kiosk project. The project involves two water kiosks in Hlaing Thar Yar township which produce water to be distributed and sold to the community. These kiosks are located in monasteries where Myanmar Kitchen has signed 5-year agreements for use of the land. Additionally, Myanmar Kitchen signs 5-year maintenance contracts with the equipment suppliers.

The facilities operate as non-profits owned and managed by Myanmar Kitchen. Workers from the community are employed to handle the operation and maintenance of the facilities. Myanmar Kitchen also works with youths in their respective communities to build capacity for supervision and distribution of water bottles. In order to distribute the water, Myanmar Kitchen also signs agreements with distributors in the communities and supplies them with water.



Comparison of Models

	UN-Habitat	WaterAid Myanmar	Myanmar Kitchen
Operations model	<ul style="list-style-type: none"> Community-owned model 	<ul style="list-style-type: none"> Social enterprise model 	<ul style="list-style-type: none"> Non-profit kiosk
Land	<ul style="list-style-type: none"> YCDC lands Monasteries Well-wishers 	<ul style="list-style-type: none"> YCDC lands Public schools Monastic schools 	<ul style="list-style-type: none"> Monasteries
Management of system	<ul style="list-style-type: none"> CDCs 	<ul style="list-style-type: none"> Board of Directors (BODs) 	<ul style="list-style-type: none"> Myanmar Kitchen
Operation of system	<ul style="list-style-type: none"> CDCs 	<ul style="list-style-type: none"> Board of Directors (BODs) 	<ul style="list-style-type: none"> Locals are hired for operation and maintenance
Distribution model	<ul style="list-style-type: none"> CDCs and distributors in the community 	<ul style="list-style-type: none"> Sales at the factory gate Sales from distributors at the household level Sell to other schools 	<ul style="list-style-type: none"> Local distributors at every street of covered area Want to improve logistics to reach more people
Water quality check	<ul style="list-style-type: none"> Meets national water quality standards during installation Annual checking and checking based on recommendation water treatment plant supplier. 	<ul style="list-style-type: none"> Quarterly testing is put in place Seasonal quality testing 	<ul style="list-style-type: none"> 5-year contract signed with supplier Incorporates quality control system Every 2 weeks by the third-party laboratory (water quality and e-coli).
Past and potential challenges	<ul style="list-style-type: none"> Present political environment poses a challenge to form functioning CDCs Difficulty for CDCs to open a bank account 	<ul style="list-style-type: none"> Unstable supply of electricity High cost of fuel to run generators Low price of water selling may affect long term O&M costs BOD team newly trained and inducted; continues to learn as time progresses 	<ul style="list-style-type: none"> Face power shortage Distribution * Solved by finding distributors

Q&A

After the presentations, a question and answer session was held. Several common questions emerged and the different responses are outlined below:



HOW DOES EACH PROJECT MAINTAIN AFFORDABLE PRICING?

- Myanmar Kitchen: Prices are set to cover salaries, operation, and maintenance costs. As a non-profit, this allows the water to be sold below the market price. At the moment, the system has not yet reached sustainability but will once their place in the market has been established.
 - UN-Habitat (UNH): Community members discuss the price, but it must be below the market rate. Price will vary according to the cost of maintenance at each plant.
 - WaterAid MM: Prices are analyzed by determining total inputs and outputs for each of the water supply system established together with an experienced consultant and by adjusting to the market price including labour costs. Profit from sales are utilized for O&M fund.
-



HOW DOES EACH PROJECT MANAGE LAND RIGHTS?

- UNH & WaterAid: Communities identify potential locations for the water plants. A final location is selected based on suitability based on demarcation process and approval from Yangon City Development Committee (YCDC).
 - Myanmar Kitchen: Agreements are formed with monasteries to use their land for 5 years. Ownership of the plant remains with Myanmar Kitchen.
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HOW DOES UN-HABITAT SET UP CDCS?

- CDCs are not registered with the General Administration Department (GAD). They usually comprise 5 or 7 members selected by community members.
- Positions include a chairperson, treasurer, secretary, etc. Almost half of the members are women.



WHAT ARE THE BENEFITS OF AN ENTREPRENEURIAL MODEL OVER A COMMUNITY OWNED MODEL?

- Community ownership allows for direct price control and water quality oversight.
- Community ownership can lead to fostering capacity building and strengthens communal bonds.
- However, ownership falls apart with internal conflict as nobody wants to, or can, take individual responsibility (tragedy of the commons).
- The ongoing political turmoil has led to distrust within communities and makes forming CDCs more difficult. In the current situation, the government may not allow CDCs to open bank accounts, and this may be challenging to ensure budget accountability.
- An entrepreneurial model creates clear responsibilities and prioritizes sustainable finances.
- It may be possible to learn from and incorporate aspects of both models into ongoing work.



HOW IS THE SUSTAINABILITY OF THE SYSTEM CONSIDERED?

- Myanmar Kitchen: As of now, it is difficult to predict prices or necessary costs in the future due to current environment. Thus, Myanmar Kitchen decided to ensure the maintenance and operation of the kiosks for 5 years by forming agreements with monasteries and equipment companies. Contracts can be renegotiated after 5 years which allow flexibility given the uncertain future. They are also improving their logistics capacities because there is currently not enough demand to be sustainable. If they reach 4,500 bottle capacity, they will reach break-even.
- UNH: UN-Habitat constructed four water supply systems in peri-urban Yangon in the past. Two of them are continuously operated by CDCs, which UN-Habitat formed in the past. This shows that CDC members are able to operate and maintain the systems sustainably if they are well-trained and have a relationship with water treatment company and township engineers. However, two systems have become obsolete after running and providing the services to their communities more than 6 and 7 years. The obsolescence is a result of the township receiving government managed piped water supply system. Government water is cheaper and more easily accessible and thus preferred. After consensus of community members in the meeting, these plants have ceased operation and been shut down due to the decrease in consumption. Unlike other areas, families in informal settlements prefer tap water to bottled water from the systems due to their financial condition and accessibility.
- WaterAid MM: WaterAid MM or a WaterAid MM-deployed organization will support the BODs with functioning process of water supply systems for 2-3 years and the handover process will be discussed accordingly.

Facilitated Session

In the afternoon, a facilitated session was held where attendees had the chance to discuss issues raised in the morning session more in depth. The following 6 topics were suggested to guide the discussion.

1. Different management models
2. Pricing issues
3. Water testing/quality
4. Mapping of coverage
5. Securing information from YCDC for future integration
6. Fund mobilization for long-term maintenance

The attendees were divided into three groups: 1) a group consisting mostly of UN-Habitat members, 2) a group consisting of members of Water Aid Myanmar and Myanmar Kitchen, and 3) a group consisting of international participants.

GROUP 1

1. CDC model is preferred due to alignment with the People's Process
 - Business and social enterprise models place focus on profit over capacity building
 - Current political climate is a major downside to forming and strengthening CDCs
2. Water pricing should be set as a percentage of the market price
 - Delivery: 75-80%
 - Pickup: 60-65%
3. The contractor which has been outsourced for water treatment plant installation is responsible for Operation and Management (O&M) of the plants during the one-year warranty period. Technical support is sought from them after expiry of the warranty period.
 - Water quality has been adhered to the national standard and it is tested yearly
4. Approval is requested from YCDC on the legal use of land for water treatment plants and communities are selected based on a set of criteria for the installation of water treatment plants
5. YCDC is involved to help provide technical support for future maintenance and operations
6. Seek support from individual supporters including monasteries and private companies (i.e. donation of lands)

GROUP 2

1. Different management models were defined accordingly:
 - Organization management - single organization manages all project aspects
 - Community based management - emphasis is on ownership and capacity building of the communities
 - Combination model - management body oversees operations
2. Financial analysis should take into how different factors add up and change over time
 - NGOs and private sector can step in when costs exceed a ceiling
3. Quality checks should be conducted at regular (quarterly) intervals
4. Mapping should occur along with a feasibility study
5. Working with the YCDC is encouraged as they can provide legal approval and technical support
6. Funds should be sought from private and public sources
 - Changes in production should be accounted for

GROUP 3

The group discussed about pricing issues. They calculated that a 20-liter bottle of water should cost a minimum of 120 kyat for pickup and 150 kyat for delivery. In a social enterprise model, a 20-liter bottle of water should cost 250 kyat.

The following were made as assumptions to simplify calculations:

1. 150,000 kyat for staff salaries
2. 5,000 kyat per day for a rental pushcart
3. No expenses for social benefits of employees (i.e. insurance)
4. Salary for 6 working days per week



Conclusion

The knowledge exchange session generated healthy discussion about the challenges and differing approaches to water governance. It is clear that there is still much to be learned and tested, especially given the dynamic and complex landscape of the informal settlements. Several key themes emerged from the session.

Cost

Access to clean water is a human right. The session considered how to ensure access to affordable clean drinking water for all, while still covering the cost of production.

Responsibility

Clear responsibilities are necessary for sustainable operation and maintenance. The session analysed the potential responsible entity for the system as well as how these responsibilities can be sustained for long term continuation.

Trust

Trust within communities is critical for the adoption and continued maintenance of clean drinking water supply. The session considered how to overcome the current challenges and build trust in the water supply and governance structures.

The following table compares the different governance models that were discussed throughout the session:

	Community Owned	Non-Profit	Combination
Management Structure	<ul style="list-style-type: none"> Community managed via members elected to a committee 	<ul style="list-style-type: none"> Privately managed by a board of directors (BOD) 	<ul style="list-style-type: none"> BOD overseen and regulated by community organization
Land Ownership	<ul style="list-style-type: none"> Land use permissions granted by YCDC 	<ul style="list-style-type: none"> Private agreements made (ex. with monestraies) for use of land May or may not include rent payments 	<ul style="list-style-type: none"> Undetermined
Employment	<ul style="list-style-type: none"> Volunteers from community 	<ul style="list-style-type: none"> Employees and contractors 	<ul style="list-style-type: none"> Employees and contractors

Pricing	<ul style="list-style-type: none"> • Price set by committee consensus to cover O&M costs 	<ul style="list-style-type: none"> • Price set by BOD to cover wages and O&M costs 	<ul style="list-style-type: none"> • Prices set by BOD and changes approved by committee
O&M	<ul style="list-style-type: none"> • Community training + support from contractors and YCDC 	<ul style="list-style-type: none"> • Employees trained on O&M 	<ul style="list-style-type: none"> • Employees trained on O&M
Unique Limitations	<ul style="list-style-type: none"> • Subject to tragedy of the commons 	<ul style="list-style-type: none"> • No price or quality oversight 	<ul style="list-style-type: none"> • Untested model
Unique Benefits	<ul style="list-style-type: none"> • Creates new skills within community via capacity building activities 	<ul style="list-style-type: none"> • Clear responsibility and motivation for O&M 	<ul style="list-style-type: none"> • Flexibility of non-profit with community oversight

While there is no-one-size-fits-all approach to overcoming these challenges, considering these elements going forward will strengthen the approach to water governance in informal settlements.



Annex 1: Attendance List

Name	Organization
Shihab Uddin Ahamad	WaterAid Myanmar
Khin Win Kyi	WaterAid Myanmar
Thiha Aung Soe	WaterAid Myanmar
Aye Than	WaterAid Myanmar
Khant Phyo Wai	WaterAid Myanmar
Peter Pau Za Dal	WaterAid Myanmar
Shresha Karmacharya	WaterAid Myanmar
Myint Zaw	Thuta Nyana Co., Ltd. (Research & Consultancy Services)
Win Thein	Thuta Nyana Co., Ltd. (Research & Consultancy Services)
Kyaw Lin	Thuta Nyana Co., Ltd. (Research & Consultancy Services)
Georgia Pretty	WaterAid Myanmar
Mir Nadia Nivin	UNDP
Patrick Galli	UNICEF
Pravin More	UNICEF
Payam Ardalan	Myanmar Kitchen
Soe Thandar Htet	Myanmar Kitchen
Hsu Hsu Lin Lett	Myanmar Kitchen
Catarina Camarinhas	UN-Habitat Myanmar
Shashank Mishra	UN-Habitat Myanmar
Htun Lynn	UN-Habitat Myanmar
Win Hlaing Tun	UN-Habitat Myanmar
Aye Cho	UN-Habitat Myanmar
San Win	UN-Habitat Myanmar
Aung Naing Oo	UN-Habitat Myanmar
Myo Nyunt Oo	UN-Habitat Myanmar

Name	Organization
Tun Lin Latt	UN-Habitat Myanmar
Than Lwin Oo	UN-Habitat Myanmar
Aung Pyae Phyo	UN-Habitat Myanmar
Myint Aye	UN-Habitat Myanmar
San Tun Aung	UN-Habitat Myanmar
Naw Khine Thazin	UN-Habitat Myanmar
Jun Fujihira	UN-Habitat Myanmar
Madison Berry	UN-Habitat Myanmar

WATER GOVERNANCE IN INFORMAL SETTLEMENTS KNOWLEDGE EXCHANGE SESSION

Background

The impact of COVID-19 is being most devastatingly felt in the world’s urban areas, especially the urban poor communities including in informal settlements. In addition, the COVID-19 pandemic has reminded us once again of the central role that water, sanitation and hygiene (WASH) plays in protecting us from diseases. In 2011, the UN Human Rights Council recognized the rights to water and sanitation as vital for leading a life of dignity and as a prerequisite for realizing other human rights. However, despite clear international law on the human rights to water and sanitation, and widespread recognition of these rights, more than a decade later, most of the COVID-19 recommendations were almost impossible to implement in informal settlements due to poor infrastructure and lack of accessibility to basic social services.

To respond to water supply and quality related challenges in the informal settlements of Yangon, both UN-Habitat and WaterAid have been implementing projects aiming at construction/ rehabilitation of water supply systems for the delivery of clean, safe, and reliable drinking water to communities in informal settlements. Due to their informal nature, these vulnerable neighborhoods not only lack basic services, they also face challenges with maintenance of services following upgrading efforts. Therefore, both agencies also provide emphasis on strengthening the capacity of communities to operate and maintain the quality and function of their water supply systems. Much of the innovation in upgrading is in community-driven processes and partnerships with local communities and organizations formed by informal settlement residents. For these initiatives to succeed in the long run, collaborative governance strategies and clearly delineated mandates are needed, with explicit integration of urban green infrastructure into strategies for in-situ informal settlements upgrading and green growth opportunities.

Summary of the session



OBJECTIVE

To strengthen approaches of capacity building of communities, operation and management of the water systems through sharing and discussion about lessons learned and possible measures to be taken to respond to common issues in informal settlements of Yangon.



DATE & TIME

16 September 2022
9:00 am – 12:00 pm* (optional session from 14:00 pm onwards)



VENUE

Eureka room
Novotel Hotel



AGENDA

09:00 – 09:30	Registration	10:30 – 10:45	Sharing from UNICEF/ Myanmar Kitchen
09:30 – 09:40	Welcome Remarks		
09:40 – 09:50	Opening of the session and introduction of Participants	10:45 – 11:00	Break
09:50 – 10:00	Brief introduction about the UN-Habitat & Japan SB project	11:00 – 12:15	Discussion
10:00 – 10:15	Sharing from UN-Habitat	12:15 – 12:30	Closing Remarks
10:15 – 10:30	Sharing from Water Aid	12:30 – 13:30	Lunch
		14:00 – 16:30	Facilitated Session

AGENDA

WATER GOVERNANCE IN INFORMAL SETTLEMENTS

Knowledge exchange session

TIME	TOPIC/ ACTIVITY	FACILITATOR
09:00 – 09:30	Registration and welcome	
09:30 – 09:40	Welcome Remarks	UN-Habitat WaterAid
09:40 – 09:50	Opening of the session and introduction of Participants	Jun Fujihira (UN-Habitat)
09:50 – 10:00	Introduction Brief introduction about UN-Habitat and the project for “building resilience against COVID-19 through WASH and waste management support in urban informal settlements”	Jun Fujihira (UN-Habitat)
10:00 – 10:15	Presentation 1 UN-Habitat’s experiences, approaches, and plan on the operation and management of 22 water systems in cooperation with partners	Htun Lynn (UN-Habitat)
10:15 – 10:30	Presentation 2 Water Aid’s experience on capacity building trainings, operation and management related to water systems	TBD (WaterAid Myanmar)
10:30 – 10:45	Presentation 3 Myanmar Kitchen/UNICEF’s experience on WSS in communities	Myanmar Kitchen
10:45 – 11:00	Break	
11:00 – 12:15	Discussion Discussion and consideration of lessons learned that could be put into future governance of water supply systems	TBD (UNH)
12:15 – 12:30	Closing Remarks	UN-Habitat WaterAid
12:30 – 13:30	Lunch	All

14:00 – 16:30	<p>Facilitated session on documentation of findings, including WSS models and water governance</p> <p>WaterAid in collaboration with UNDP is commissioning a learning documentation of WSS in Yangon’s peri-urban areas. Discussions and findings from the morning session will be captured to feed into this learning documentation more critically.</p> <p>Participants from UN-Habitat, Myanmar Kitchen, UNICEF and UNDP are very much welcome to join this segment of the workshop.</p>	WAMM
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