WASH RESILIENCY OF FAMILIES IN ASIA'S SLUM AREAS AMIDST THE PANDEMIC

No nation was ready when Covid 19 disrupted the world we know. Rich and poor countries and communities were both affected by the Pandemic. However, the poor were affected the most because of their higher vulnerability and lower capacity to recover from the disaster.

A team composed of members from Pakistan, India, Philippines and Indonesia were chosen to participate in the on-line BLOXHUB Summer School on Urban Resilience 2020. The team they named "PIPPI" analyzed the urban slum system in the global south amidst the pandemic and other disasters. Anchoring their objective with the vision of the New Urban Agenda and SDGs 6 and 11, they focused on slum communities' access to water, sanitation and hygiene (WASH).

Figure 1: Team Members of the Project

Today, by the most conservative estimates, about 900 million people live in slums. But most experts agree that including different types of informal settlements, the number goes up to 1.6 billion – which represents 1/4 of the world's urban population. By 2030, it's estimated that it 1 in 4 people on the planet will live in a slum or other informal settlement.

The team studied one of Asia's largest slums - Dharavi Slum in India. The slum has a population of around 1 million inhabitants occupying an estimated area of only 2.1 square kilometers. Its population density is approximately 277,136 people per square km which is almost 30 times of New York City, one of the most populated cities in the world.

WASH is already a complex and life-threatening issues in Dharavi slum even before the pandemic arrives. Dharavi has severe problems with public health. Water access derives from public standpipes stationed throughout the slum. Additionally, with the limited lavatories they have, they are extremely filthy and broken down to the point of being unsafe. Mahim Creek is a local river that is widely used by local residents for urination and defecation causing the spread of contagious diseases. The open sewers in the city drain to the creek causing a spike in water pollutants, septic

conditions and foul odors. Due to the air pollutants, terrible diseases such as lung cancer, tuberculosis, and asthma are common among residents.

On April 2020, Covid 19 positive cases rose in the city and the slum became its focal point. The city administration planned an intervention strategy employing community participation and partnership to contain the virus in the Dharavi slum. The community practiced the four T's (Tracing, Tracking, Testing and Treating) in addressing the virus. The positive cases subsequently decreased in the city.

Figure 2: Dharavi is located in the centre of the city, surrounded by wealthy neighbourhoods.
Source: India Net Zone

The team learned that with partnership between the City administration and local communities, even the deadly virus can be managed and contained. The Dharavi Slum's case sends a very strong message to the society and people around the globe the importance of forging partnerships and community participation.

The case inspired the team to take the perspective of a City Planner in analyzing the Slum WASH System. Aside from WASH, they also considered cross cutting considerations such as Human Rights, Gender Equality, Cultural Context, Environmental Justice and Sustainable Development. The team conducted a Stakeholder's analysis which showed that the Slum Families are in the Highest Interest and Lowest Power Quadrant while the City Planner is in the High Interest and Power Quadrant. Truly, the City Planner as an Agent of Change can positively impact the system.

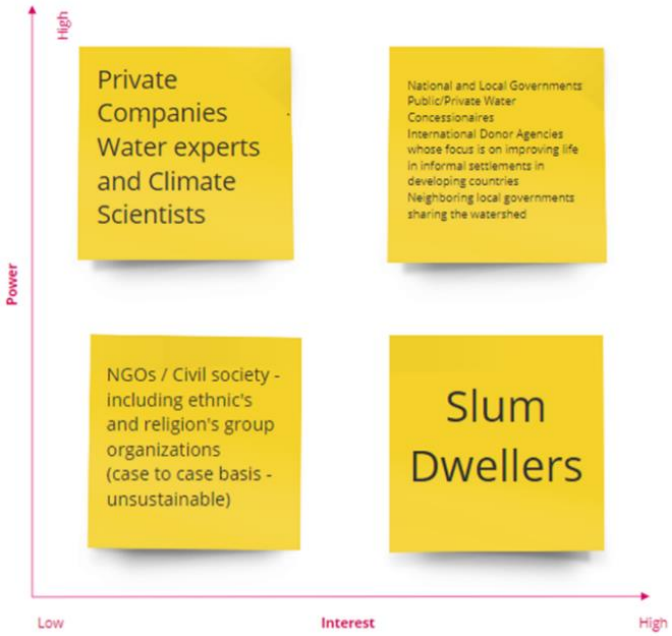


Figure 3: Stakeholders Analysis

The course introduced numerous analyzing and planning tools to the participants. The tools were challenging at first but gets easier when used and very useful in understanding the system. Some of the tools used are the Miro Board for collaboration, Kumu Maps for understanding the system, Slack for communication, ARUP Process and the course' System Approach for appreciating the situation and developing comprehensive and holistic plans for the system, among others. It is inspiring that all of these systems were taught on-line. This also showed the commitment and resiliency of the participants during the whole month of June 2020.

The team identified the main objective for intervention, namely access to water, access to toilets and hygiene practices. Based on the system, we develop an intervention process based on theory of change.

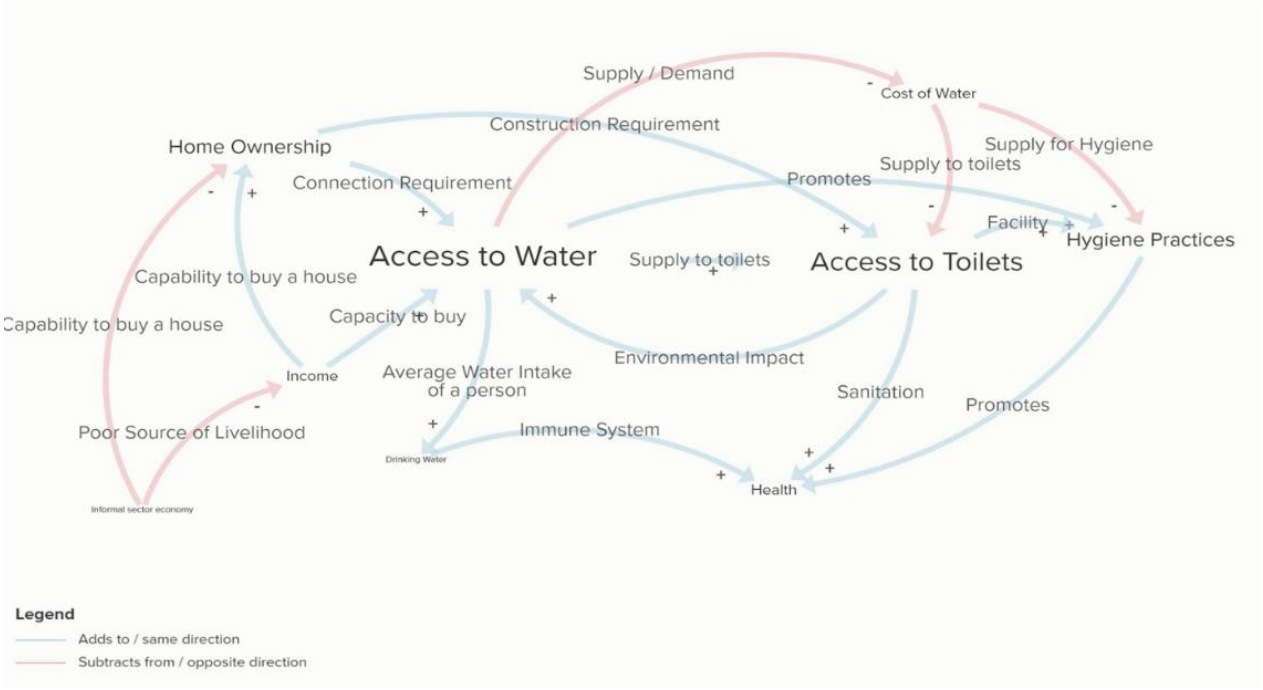


Figure 4: System Dynamic Analysis for Resilience Strategies

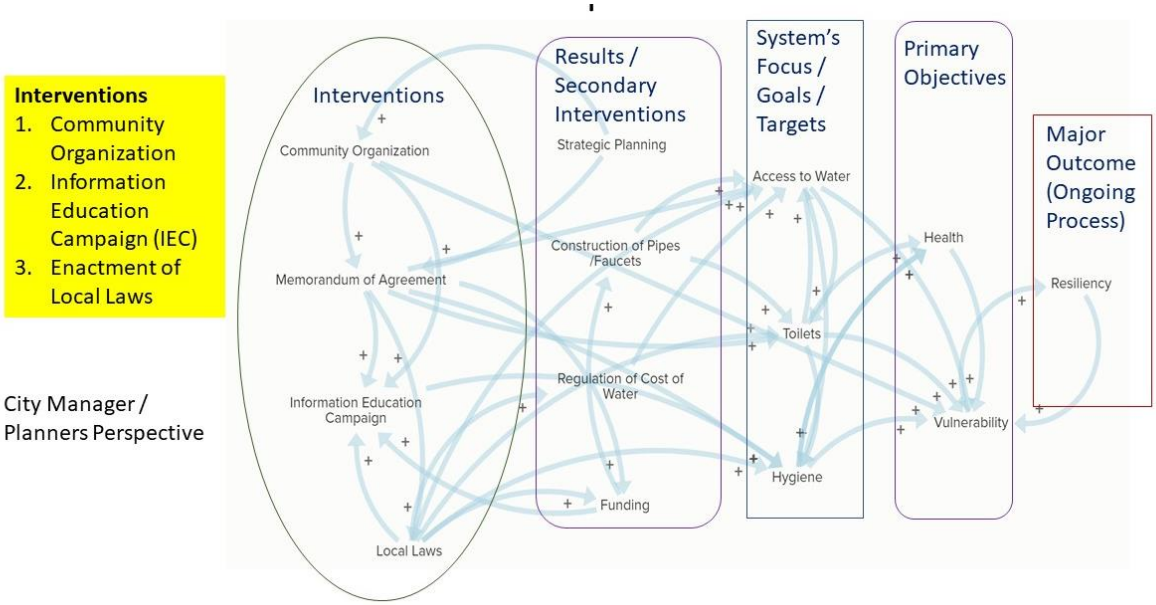


Figure 5: Theory of Change for the intervention program

The team used promotion of co-benefits, positive externalities and ownership of stakeholders, socio-economic relevance, reduction of vulnerability, positive impacts to the city, feasibility, and contribution to local resilience in selecting their strategies. Their goal is to provide WASH in slums that will improve their health and reduce their vulnerabilities resulting to community resilience. The team took into consideration that the system is continuously subjected to population growth and urbanization, inequality and poverty, and lack of investments (Trends and Drivers). The general strategies include Community Organization and partnering with other stakeholders, Information Education Campaign (IEC) and Enactment of Local (City) Laws.

The team identified the different roles of a City Planner and identified specific activities within the planner's mandate, responsibilities, and sphere of influence.

Role of the City Planner	Projects / Activities	Outputs

• Promote people participation in development planning	• Organize the Community (if not yet organized)
	• Put all stakeholders on one table
	• Conduct Strategic Planning Workshops with all Major Stakeholders
	• Facilitate MOA Draft Document
		• Approved 1-3 Year Strategic Plan
		  • Conduct of Information Education Campaign on Good Hygiene Practices (Community , school levels)
		  • List of activities, tasking (Government, NGOs, Private Sector, Local Community), key result areas, monitoring
		  • Ownership / Commitment of Stakeholders
		• Signed MOA Among Local Stakeholders

• Provide technical advice to the local council	• Provide a draft document and advice the Mayor and City Council about the need to pass a local law on WASH	• Enacted Resolution Ordinance Declaring Access to Water and Toilet as a Basic Human Right • Enacted Resolution Requesting the Private Water Concessionaire to provide affordable water supply to slum areas

• conduct training programs necessary to evolve plans and programs for implementation	• Coordinate with Stakeholders in providing the following trainings:
	  • Training of youth as peer educator and health educators
	  • Household and neighbor demonstration sessions on Covid-WASH nexus/integration
	  • Community engagement in WASH activities
		• Developed Local WASH Advocates / Champions
		• Developed Local Information Education Campaign (IEC) Materials
		• Empowered Communities

• formulate and recommend fiscal plans and policies
• Monitor and evaluate the implementation of programs, projects, and activities
	• Advise the elected officials to include in the city budget the WASH projects in the Slum Area
	• Monitor the implementation of the project
	• Develop and send proposals to the national government or international agencies if the local budget is not available for the WASH projects
		• Constructed Government funded facility
		  • sanitation resources- hand washing spaces – water storage tank
		  • Community toilets/latrines
		• Distributed safety kit –hygiene kits
		• Construction and repair of water and sanitation facilities in Slum
		• Sent Project Proposals to Funding Agencies

Table 1: Project Activities for Output Recommendation

No nation was ready when Covid 19 disrupted the world we know. The virus did not infect people based on race, color, or socio-economic status. We learned that all of us belongs to one system – world. The world we know is changing. We must cooperate and collaborate with each other to survive and enjoy our existence. We must learn to be resilient as one human race.

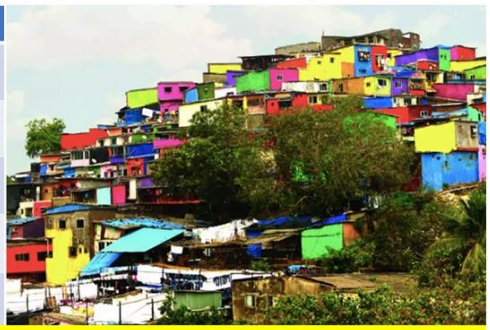
The team would like to convey that nothing is impossible in the slum areas. Factors such as a strong political will, restless administrative spirit and active community participation can make our slum become as colorful as rainbow.

References

http://www.indianetzone.com/7/dharavi_maharashtra.htm

Thank you very much!

	Local Words	Meaning
P	**PANI** (Hindi and Urdu)	**Water**
I	**IBA** (Bahasa)	**Poor**
P	**PARIWAR** (Hindi and Urdu)	**Family**
P	**PALIKURAN** (Tagalog)	**Toilet**
I	**IGIBAN** (Tagalog)	**Water Source**



"Water for the Poor Families and Toilets and Universal Access to Water Source"