

WASH AS ENTRY POINT TO REDUCE COVID-19 VULNERABILITIES AND OTHER HAZARDS

Date: 12 March 2021

UN-HABITAT'S RESPONSE TO COVID-19 PANDEMIC

Presentation by: Atsushi Koresawa

United Nations Human Settlements Programme



A better quality of life for all in an urbanizing world

UN-Habitat works with partners to build inclusive, safe, resilient and sustainable cities and communities. UN-Habitat promotes urbanization as a positive transformative force for people and communities, reducing inequality, discrimination and poverty.

SUSTAINABLE DEVELOPMENT GOALS



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FOR A BETTER URBAN FUTURE

Under-Secretary-General and
Executive Director of UN-Habitat

Maimunah Mohd Sharif

Regional Office for Arab States (ROAS) – CAIRO, EGYPT

- Covers **18** countries, Offices in **13** countries
- Regional Portfolio 2014 – 2019: **164** projects in **18** countries, USD **348 million**



Regional Office for Asia and Pacific (ROAP) – FUKUOKA, JAPAN

- Covers **42** countries, Offices in **17** countries
- Regional Portfolio 2014 -2019: **206** projects in **23** countries, USD **523 million**



Regional Office for Latin American and the Caribbean (ROLAC) – RIO DE JANEIRO, BRAZIL

- Covers **33** countries, Offices in **9** countries
- Regional Portfolio 2014 – 2019: **101** projects in **18** countries, USD **74 million**



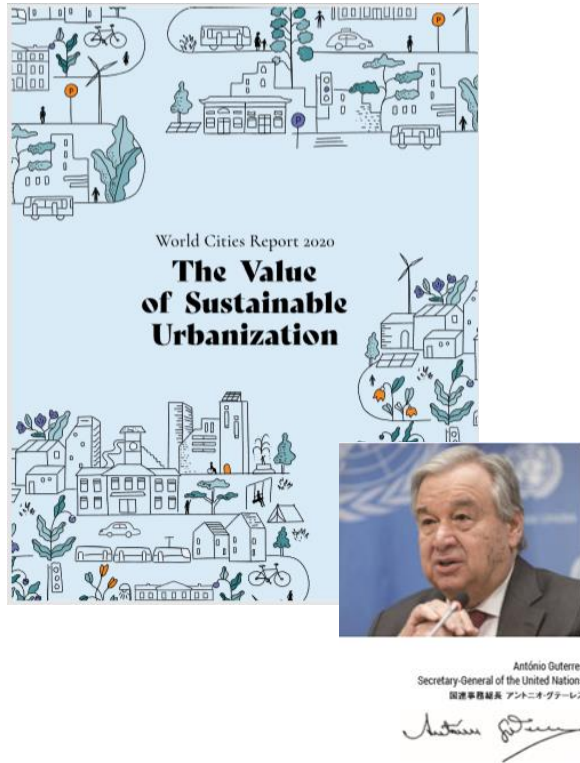
Regional Office for Africa (ROAf) – NAIROBI, KENYA

- Covers **48** countries, Offices in **24** countries
- Regional Portfolio 2014 – 2019: **210** projects in **22** countries, USD **194 million**

	With projects in 2014 - 2019	No project in 2014 - 2019
ROAf		
ROAP		
ROAS		
ROLAC		



COVID-19 impact in human settlements



“Cities have borne the brunt of the pandemic. The most vulnerable to disease are those living on the margins of our cities. Unplanned urban living leaves people vulnerable. The Covid-19 pandemic has exposed deep inequalities and demonstrated that tackling the virus is more challenging in urban areas where access to quality healthcare is uneven, housing inadequate, water and sanitation lacking, transport infrastructure patchy and jobs precarious.”

Vulnerability facts and figures

- **150 million** additional people **under \$1.90 USD a day** by 2021;
- **150 million** additional children living in **multidimensional poverty**.
- Over **270 million** people have been put directly **at risk of acute hunger**;
- The so-called “**new poor**” **are living in urban areas** and are better educated, working in informal sector and less likely to work in agriculture;
- **Disproportionate impact across vulnerable groups**, thereby exacerbating existing structural inequalities.

UN-Habitat's response in Asia Pacific

Action 1. Support local governments and community driven solutions in informal settlements

- Community Awareness & Preparedness in Informal Settlements: *Fiji, Philippines, Myanmar*
- *Community based infrastructure (WASH)* facilities: Fiji, Philippines, Myanmar, Lao PDR, Pakistan, Cambodia, Afghanistan,
- Safety kits, PPEs to vulnerable communities: Fiji, Philippines, Myanmar, Lao PDR, Pakistan, Cambodia

Action 2. Provide urban data evidence-based mapping , knowledge for informed decision making

- Socio-Economic Impact Assessments - Afghanistan, Cambodia, Fiji, India, Lao PDR, Myanmar, Philippines, Pakistan, Nepal
- Virtual Community Coordination Platforms for informal settlements: Pakistan
- Vulnerable Mapping to identify geographical areas most at risk from COVID-19 : Lao PDR
- Issue papers, technical notes related to impacts in different sectors/thematic areas: Myanmar, Lao PDR , Pakistan

Action 3. Mitigate economic impact and initiate recovery

- Livelihood improvement support to vulnerable groups through projects: Fiji, Philippines, Myanmar, Lao PDR, Nepal



Thank you

WASH AS ENTRY POINT TO REDUCE COVID-19 VULNERABILITIES AND OTHER HAZARDS

Presentation by: Avi Sarkar
Date: 12 March 2021

COVID-19 impact

Covid-19 has **exacerbated existing structural issues and inequalities**, which has made it imperative to **develop and better coordinate assessment strategies** to identify hotspots and vulnerable areas, and provide effective and efficient response to the most disadvantaged communities.



Turning challenges into opportunities



COVID-19 offers opportunities for **green growth and recovery** to reduce vulnerabilities, build back better, and promote people-centered and integrated development at all levels



Strengthening capacity on **preparedness, recovery and response**, with a focus on local governments and communities



Improving sustainable and inclusive **access to basic services**



Improving **water monitoring tools**



Enhancing awareness through well-defined **education and communication** strategies

International organizations, such as the United Nations Department of Economic and Social Affairs (UNDESA), and the Organisation for Economic Cooperation and Development (OECD) have drafted recommendations for a green recovery.

WASH as an entry point

Improved access to WASH can lead to:

- **Reduced vulnerabilities** and the spread of diseases;
- **Advanced inclusive urban development** with improved access to basic services;
- **Improved community engagement** in relevant activities through participatory approaches;
- **Accelerated filling of data gaps** through digitalization to improve water management and cope with scarcity, and enhance climate change mitigation and adaptation; and
- **Increased food security**, especially for the most vulnerable and those who are marginalized and living in remote areas.

Considering climate change impacts to reduce vulnerability

Climate change is a major threat for WASH. Thus, climate resilience should be mainstreamed into the development of recovery response strategies.

e.g. Its impacts, such as the increase in the frequency or severity of hazards, should be considered when defining solutions to ensure that proposed activities do not increase risk or create more harm to target population or the environment.

Multi-sectorial analyses – such as WASH needs assessments and climate vulnerability assessments – are complementary and much needed to improve the quality and impact of localized interventions.

Thank you

Technical Session

COUNTRY CASES

Presentation by:

Ms Inga Korte (Fiji),

Ms Parul Agarawal (India),

Mr Juan Torres (Laos),

Ms Oddy Angelo (Myanmar)

Fiji: WASH and COVID-19 in Informal Settlements

Presentation by: Inga Korte, UN-Habitat Fiji

Location

A map of the Pacific Ocean region, showing the outlines of Australia, New Zealand, and the islands of the Pacific. Fiji is highlighted in blue, and a dashed box indicates its location within the Pacific Ocean. A blue line points from the title 'Location' to the highlighted area.

Fiji is located in the Pacific Ocean. Our work in informal settlements focusses on the main Island of Viti Levu.

Population: **884 887** (56% urban)

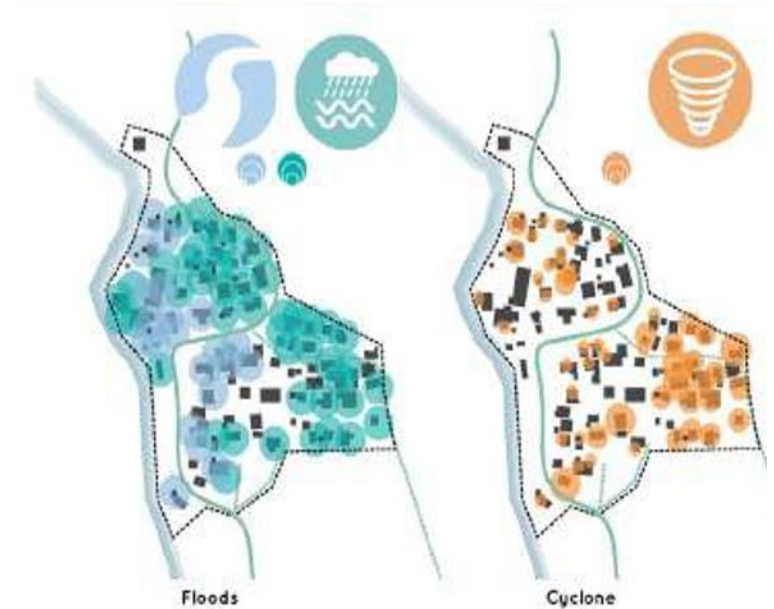
Est. number of informal settlements: **275**

Appr. **25%** of urban population live in informal settlements (123 563 people)

Data collection and Methodology

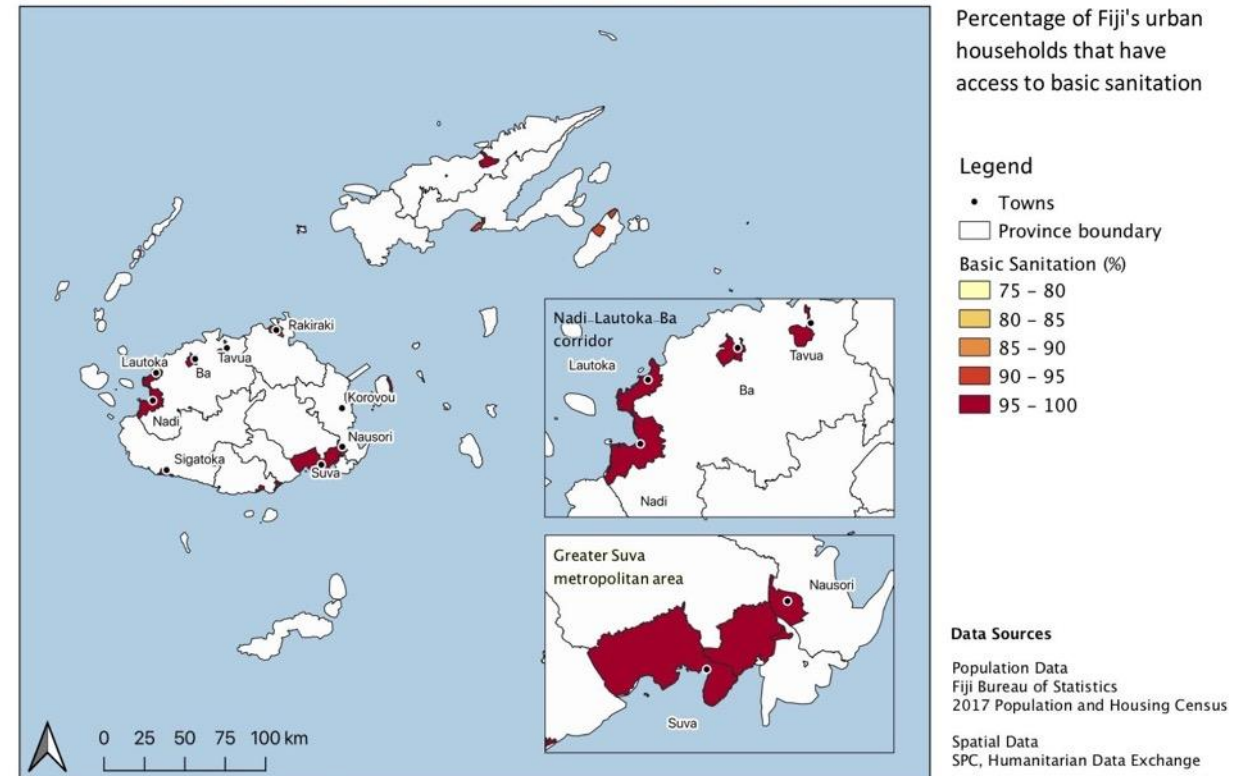
Understanding of underlying community vulnerabilities

- Comprehensive **vulnerability and risk assessments** of selected settlements:
HH survey, Focus Group Discussions, GIS and hazard maps for improved policy and planning, participatory mapping, transect walks, Community Action Plans
- **Rapid Assessment of COVID-19 in Informal Settlements** to provide insight on strengths and vulnerabilities of informal settlements in light of the COVID-19 pandemic



Access to WASH in urban Fiji

- High coverage of access to drinking water (though does not guarantee water quality or consistency)
- High coverage of access to basic sanitation (improved, not shared)
- Standard level of safely managed waste water treatment

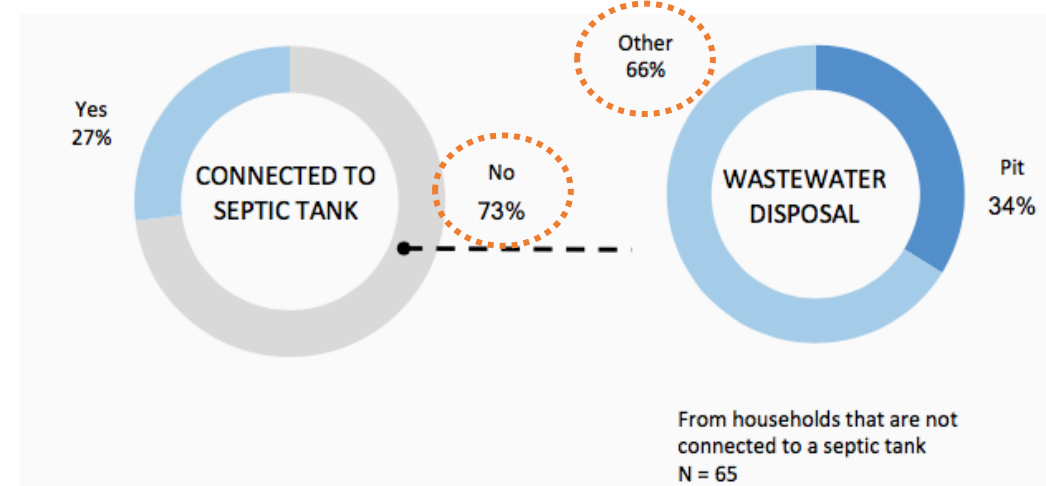
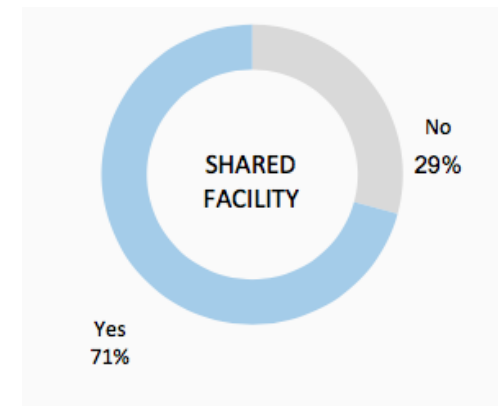


WASH in Fijian Informal Settlements

However, the situation in Informal settlements is different:

- Inconsistent water supply
- Poor water quality
- Shared and inadequate facilities
- No/ inadequate treatment (into drainages, oil drums)
- Poor/ limited maintenance
- Not flood resistant (but most IS are located in flood prone areas)
- Waste disposal
- Poor drainage systems
- Lack of awareness and safe practices

Responses from HH survey in Bilo settlement, 2020



Major challenges

Climate change and COVID-19 exacerbate existing conditions and inequalities



Informality of land tenure



Impacts of climate change



Lack of awareness on safe practices



High rates of poverty



Inadequate and shared sanitation

Way Forward

- Mapping and assessment of all 270+ Informal Settlements in Fiji and classify (index)
- Alleviate the impacts of climate change (flooding, cyclones): Improve basic services (sanitation facilities, footpaths, evac centres) through adaptation
- Address lack of awareness and knowledge on safe practices
- Address informality of land tenure
- Socio-economic aspects: address high rates of poverty and food insecurity in informal settlements

WASH interventions to Build Back Better in India

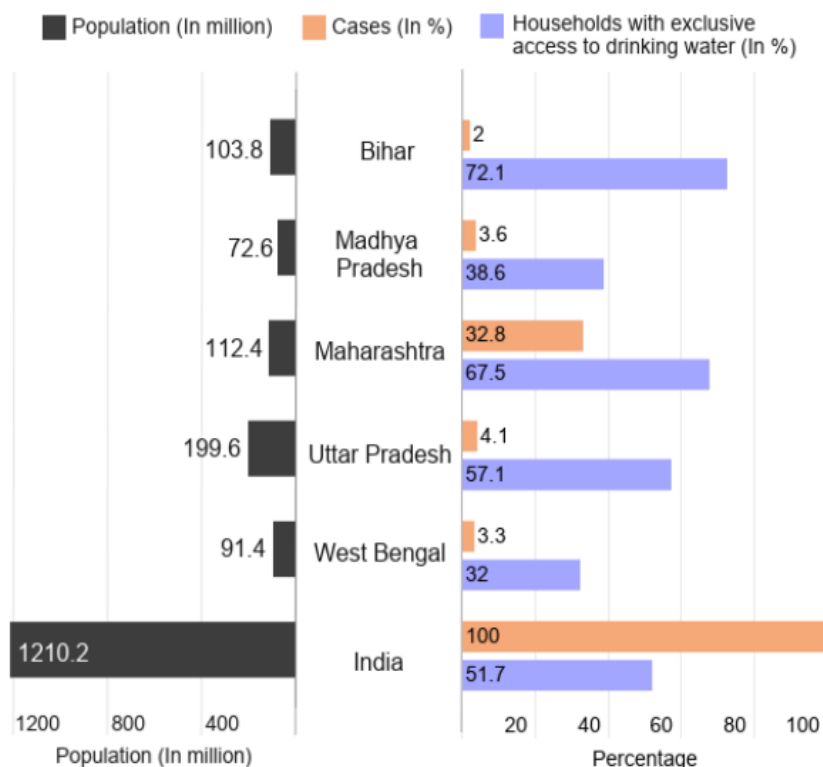
Presentation by: Parul Agarwala, Country Programme Manager,
UN-Habitat India Country Office

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Issues and major challenges in WASH

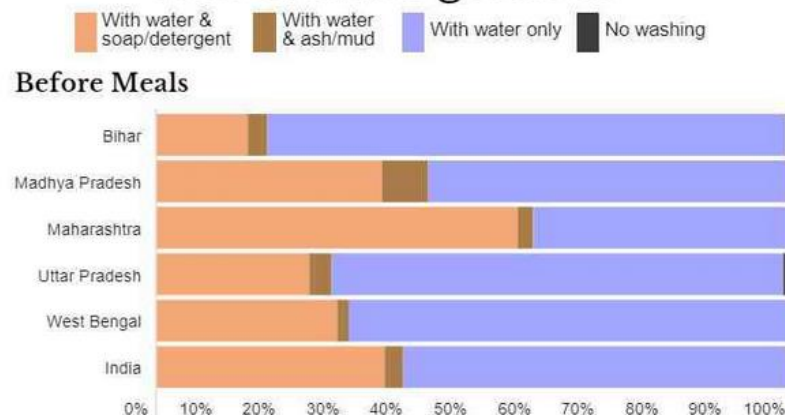
- India ranks 2nd among the most affected countries in the world in terms of confirmed cases (USA ranks 1st) and 4th in deaths caused by coronavirus (India is after USA, Brazil and Mexico).
- Further, due to reverse (urban-rural) migration, concentration of COVID-19 increased significantly in migrant receiving poor districts.
- Current COVID-19 pandemic Sanitation and Hygiene: Concern globally

Access to Drinking Water In India's Most Populous States

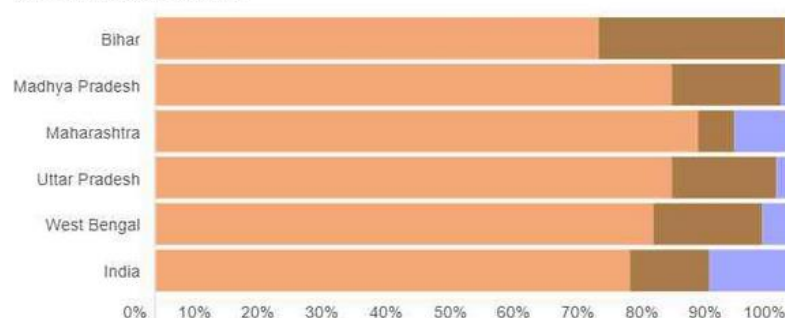


Source: Census 2011, Ministry of Health and Family Welfare, India

Handwashing Habits

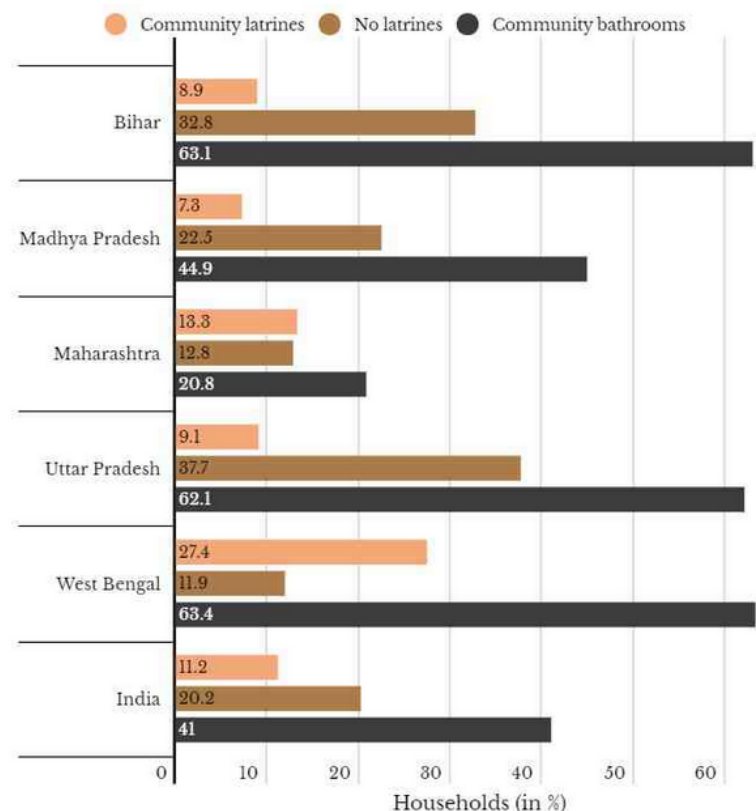


After Defecation



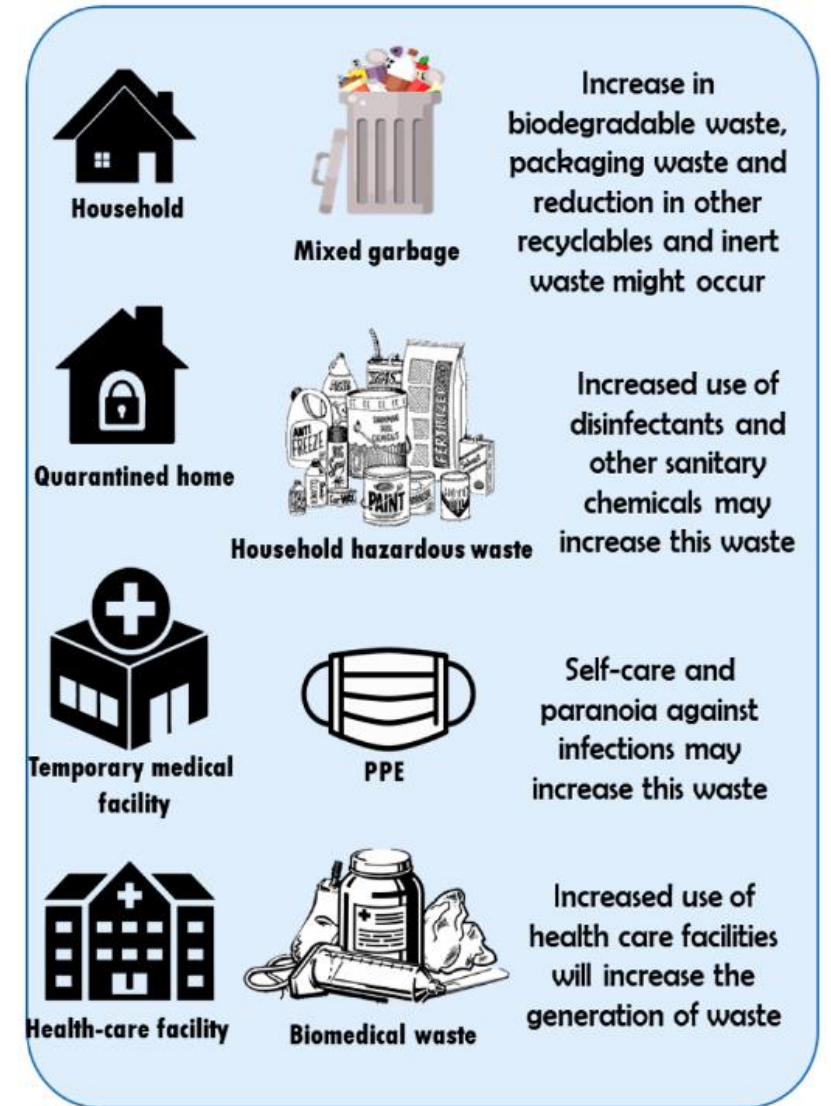
Source: Drinking Water, Sanitation, Hygiene and Housing Condition In India via IndiaSpend

Households Using Community Sanitation Facilities



Contd...

- Waste Management is one of the most important sanitary barriers to prevent dissemination of illnesses and diseases.
- As the quantity of the domestic hazardous waste (DHW), also includes gloves, masks, etc., is increasing significantly, there is a problem of the collection of the waste separately. Especially posing risk to the frontline sanitation staff (waste collectors)
- A total of 199 number of Common Biomedical Waste Treatment Facilities (CBWTFs) are operational (23 under construction) in the country for treatment and disposal of BMW besides 15,281 HCFs have their captive treatment facilities.
- On an average, **India generated about 183 tonnes of COVID-19 related bio-medical waste per day** in September (2020). This quantity is in addition to the regular bio-medical waste generation of about 609 MT per day (CPCB).



Contd...

(Water, Sanitation and Hygiene)

- Due to mass transmission of SARS-CoV-2, government made large number of quarantine centres, screening centre, isolation wards for keeping the infected.
 - This implies that substantial quantities of wastewater would be generated from such facilities which may pose a threat if not treated before release.
 - It is especially challenging for temporarily requisitioned COVID-19 dedicated centres where toilets are connected directly to the municipal sewage network, as there is no residence time and disinfectants addition is not easy.
 - Increase in water consumption: due to increased consciousness towards cleanliness
- *Urgent need to establish impetus and showcase better mechanisms and systems that can help reduce the burdens on cities' water and sanitation systems, and make recycling and treatment processes more robust and reliable.*

Build Back Better: Strengthening Policy and Innovation

- India released early guidelines in March 2020 for handling of biomedical waste in hospitals and quarantine areas (including households); these were revised four times to streamline on ground operations and interventions on biomedical waste.
- **Biomedical waste** at Quarantine Camps / Home-care to be treated as Domestic Hazardous Waste (to be treated as defined under SWM Rules, 2016 and dispose as per provisions under BMW Rules, 2016 and guidelines of CPCB)

18th March 2020: Initial guidelines [CPCB-BMW-25032020.pdf \(mpcb.gov.in\)](https://www.mpcb.gov.in/Portals/0/2020/03/18/CPCB-BMW-25032020.pdf)

25th March 2020: Revision 1 guidelines [63948609501585568987wastesguidelines.pdf \(mohfw.gov.in\)](https://www.mohfw.gov.in/pdf/63948609501585568987wastesguidelines.pdf)

25th March: Advisory (CBMWTFs as essential services) [Essential Services During Covid 19 Outbreak : MES Advisory – Govtempdiary](#)

18th April 2020: Revision 2 guidelines [Annexure 23 \(BMW COVID guidelines\).pdf \(haryanahealth.nic.in\)](https://www.haryanahealth.nic.in/Portals/0/Annexure%2023%20(BMW%20COVID%20guidelines).pdf)

10th June 2020: Revision 3 guidelines [GuidelinesCPCBCovidRev3.pdf \(tnpcb.gov.in\)](https://www.tnpcb.gov.in/Portals/0/GuidelinesCPCBCovidRev3.pdf)

17th July 2020: Revision 4 guidelines [Rev. 4 Guidelines for disposal of COVID 19 Waste generated during treatment, diagnosis, Quarantine of COVID-19 Patients 17.07.2020 \(1\) \(cpcb.nic.in\)](#)

Contd... (Practices and Innovation)

- In India, practical implementation of effective COVID-19 waste management guidelines included:
 - ✓ Multiple cares at each step, including containers/bins/trolleys to be disinfected daily,
 - ✓ Use of double-layered color-coded bags (using 2 bags) for collection,
 - ✓ Regular sanitization of workers, and vehicle sanitization etc.
- LCA of PPEs for disposal of PPE waste has become vital for environmentally sound management of PPEs (presently going to CBMWTFs). Work on decentralised BMWs has increased.
- **Many industries in India such as GMR, TCS, Mahindra, Reliance created isolation and quarantine centres in factory premises for workers** with sanitation facilities, to reduce transmission amongst working population
- Central and State governments used IEC and awareness campaigns for migrant workers to educate them about the new virus, its transmission and health habits to be followed for avoidance of transmission
- India is conducting research on wastewater for development of tailored prediction models with respect to prevalence of COVID-19 in an area.
- Ambient air pollution control equipment are being modified to purify and decontaminate air.

Interventions led by UN-Habitat on WASH and SWM

I. Landfill Remediation (Fukuoka Method) in Vijayawada

- Remediation of an existing dumpsite into a safe and secure landfill to trap leachate, gas ventilation and minimize contamination.
- Reclaimed site to be converted into sports/recreational area as the site is next to a residential area.



Proposed site at Ajith Singh Nagar, Vijayawada with 12-15 years of legacy waste

II. Flower Waste Recycling in Vijayawada and Guntur

- On an average 30 tones of flower waste is generated per month that is dumped into landfill.
- Planned Technology: Eco-friendly recycling interventions
- UN-Habitat technical and advisory support for project formulation, preparation of project document and implementation support.
- VMC is implementing flower waste collection, management and recycling into eco-products through SHGs creating local jobs



Contd...

III. 'Zero Waste Wards' including COVID-19 responses

- waste minimisation, segregation including channelisation of PPEs and household BMW
- sustainable material recovery and channelization
- in-situ waste management and end disposal
- showcasing resource recovery and GHGs reduction
- community participation and advocacy

IV. Advisory support to stakeholders

- Providing TA on state/city policies, bye-laws and plans related to SWM and WASH to cities in India
- Advisory on ground interventions on e-waste, plastic waste management.
- Discussions on maximizing route optimization for effective C&T.

COVID-19 VULNERABILITY MAPPING MODEL FOR LAO PDR

Presentation by: Juan Torres, UN-Habitat Lao PDR

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Location

A map of East Asia, including China, Japan, and the Indochina peninsula. Laos is highlighted in blue, indicating its location within the region. The map is a light gray background with white outlines for the countries. Laos is a blue-shaded landmass in the center-left of the frame, situated between China to the north and Vietnam to the east. Japan is shown as a series of islands to the northeast, and the Philippines are visible to the south.

Lao PDR is located in the
Indochina peninsula

Population: 7, 030,000



Area: 236,800 km²

Variables applied to the VA model



Population Density



Settlement connectivity



Socio economic factors



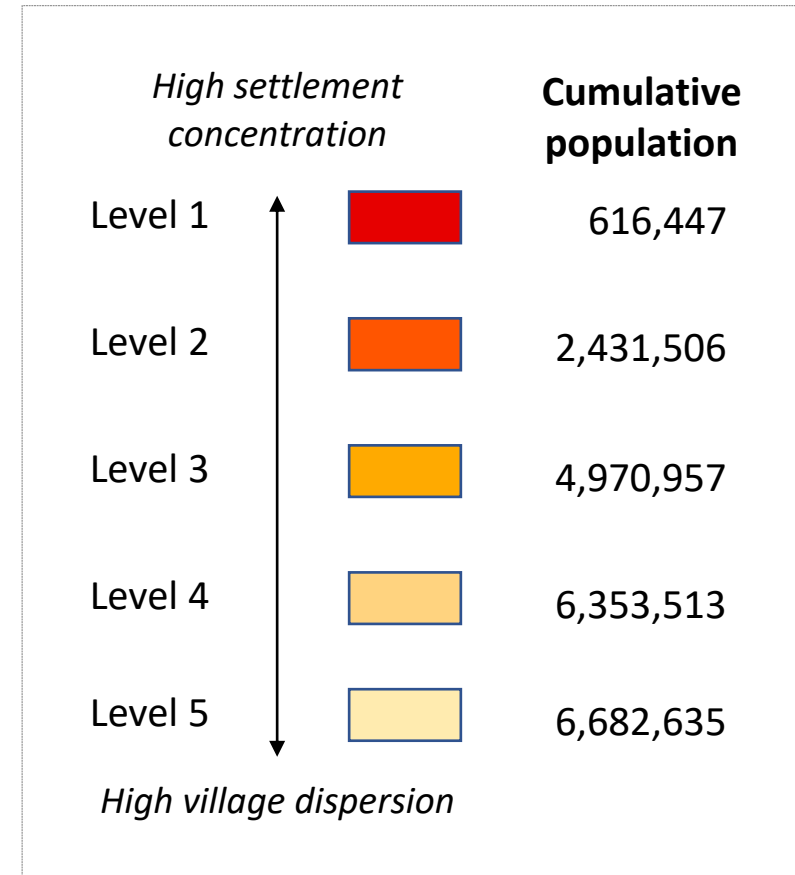
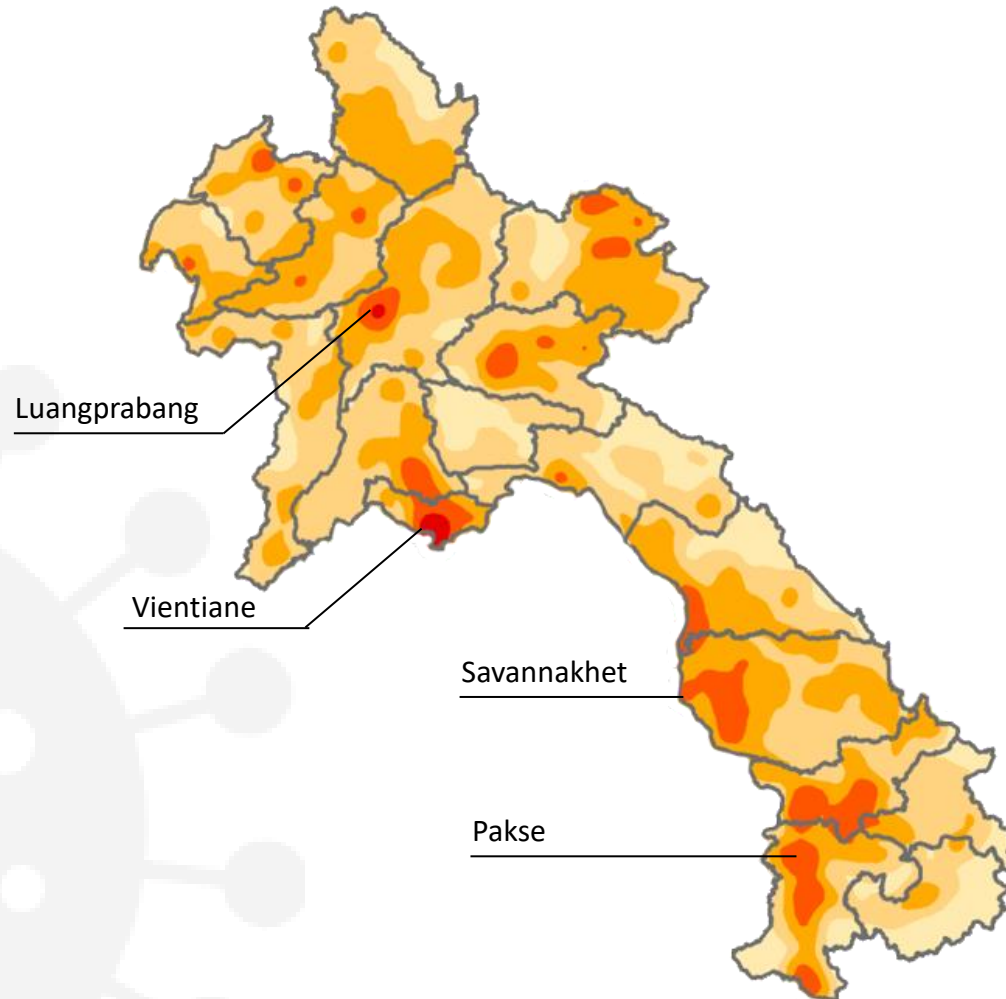
Migration



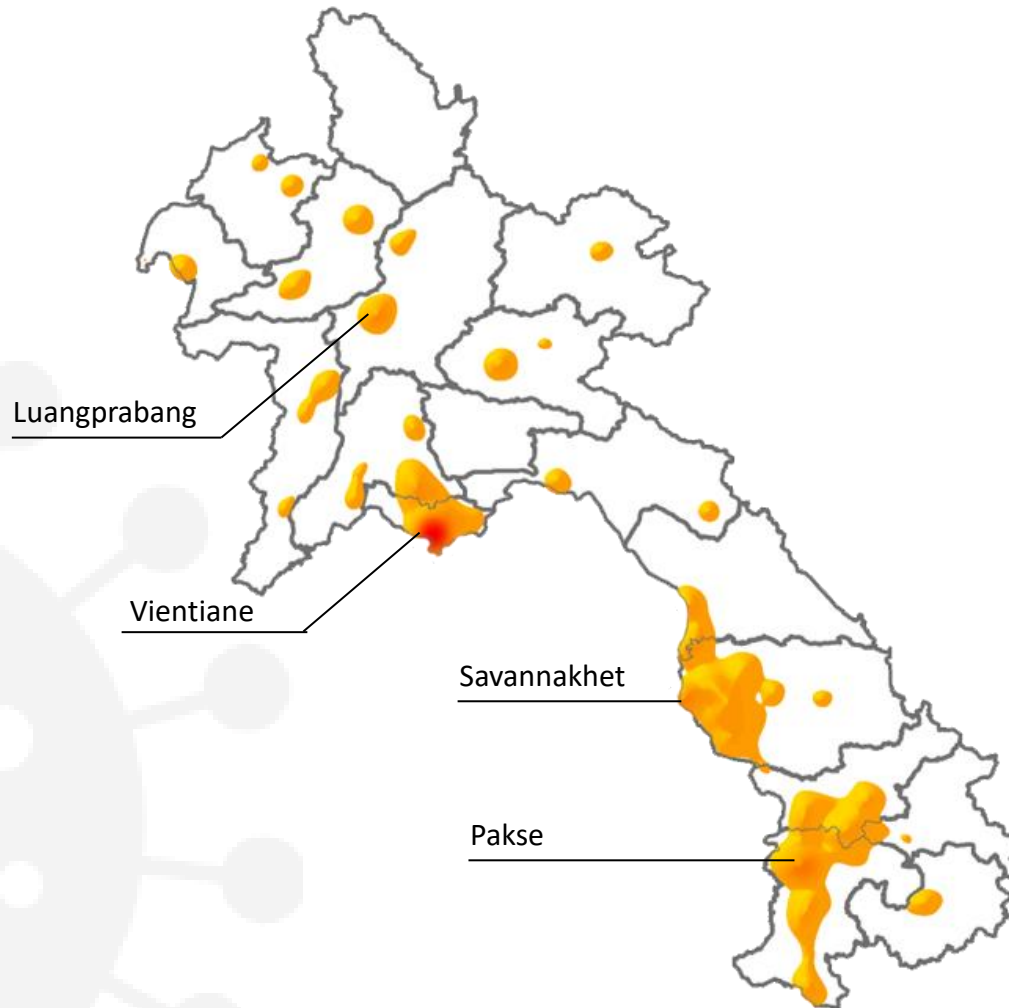
Healthcare



Settlement's density



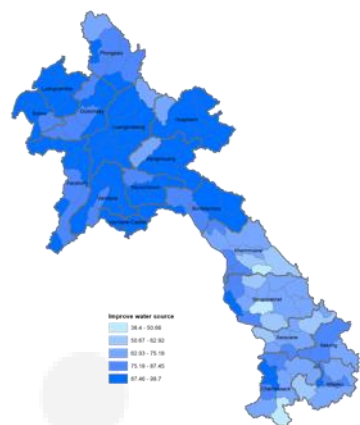
Population Density



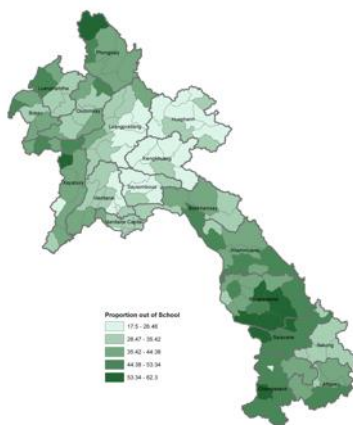
48% of Lao PDR **total population** are located in the main **urban areas** and **emerging towns**

Vulnerability assessment model

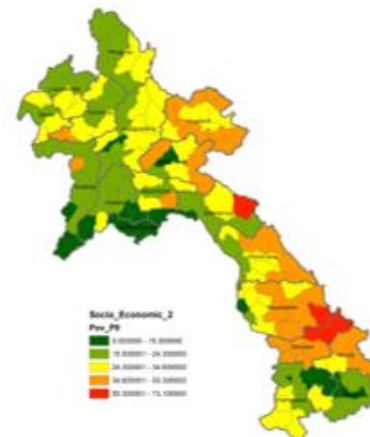
Vulnerability Index 脆弱性指数



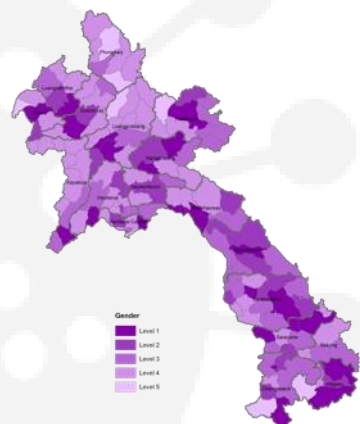
Water - 水



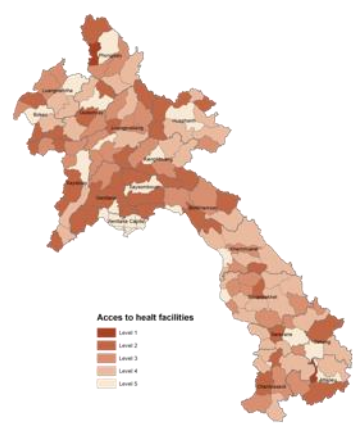
Education - 教育



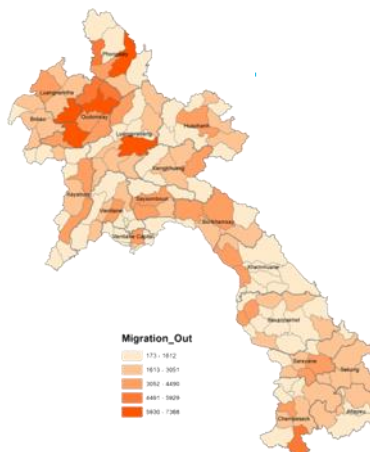
Poverty - 貧困



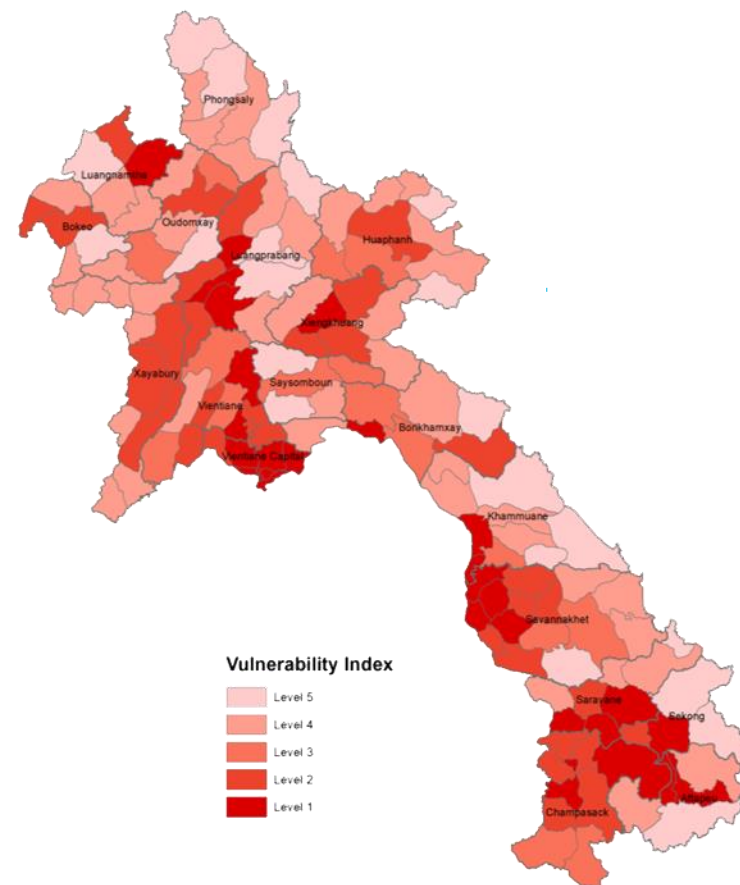
Gender - 性別



Health - 健康

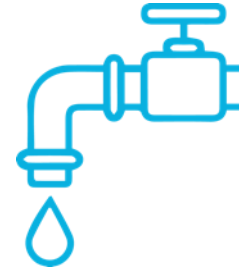


Migration - 移住



Access to WASH facilities in Lao PDR

16% of the households use **unimproved water sources**



21% of the households spend more than **30 minutes** to collect water



10% of the households **do not** have handwashing facilities

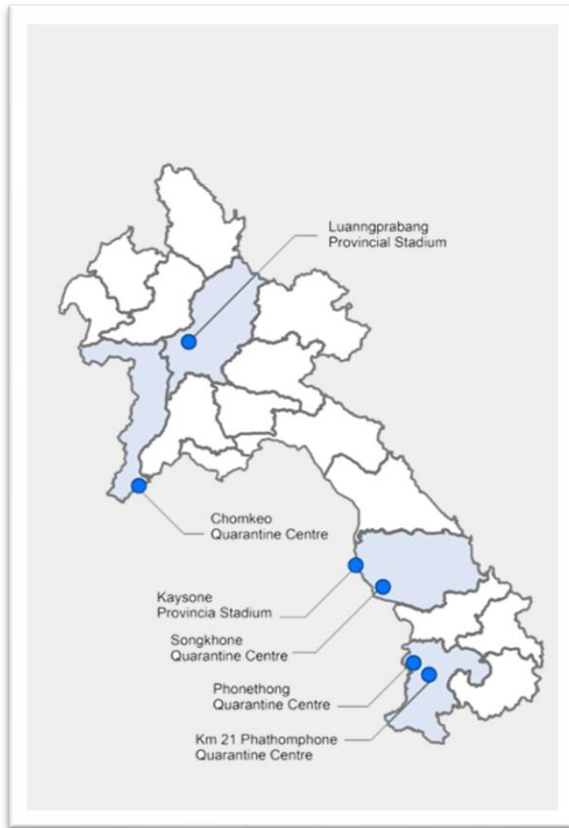


46% of the households with access to handwashing facilities **do not have water and soap**



COVID-19 prevention support on quarantine centers

Quarantine centers



IEC Materials



WASH Infrastructure



BRIDGING THE DATA GAP FOR EFFECTIVE COVID-19 RESPONSE IN INFORMAL SETTLEMENTS

Presentation by: Oddy Angelo, UN-Habitat Myanmar

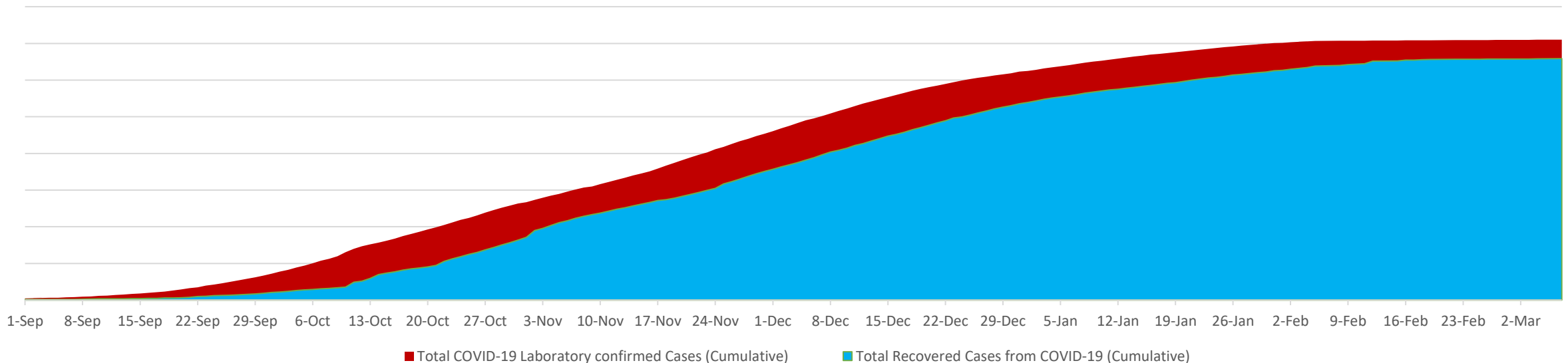
Covid-19 outbreak pattern in Myanmar

- Cities are the hot spots of COVID-19 outbreak also in Myanmar
 - Total confirmed Cases: **142,034**
 - Total recovered : **131,672**
 - Total deaths among laboratory confirmed cases: **3,200**
- 70% of cases in Yangon Region and of that **77% in the city**



Having no home, lacking space for physical distancing in overcrowded living areas or having inadequate access to water and sanitation has become a “death sentence”, handed out predominantly against poor and marginalized communities

UN Special Rapporteur on the Right to Housing



Lack of access to accurate and updated information

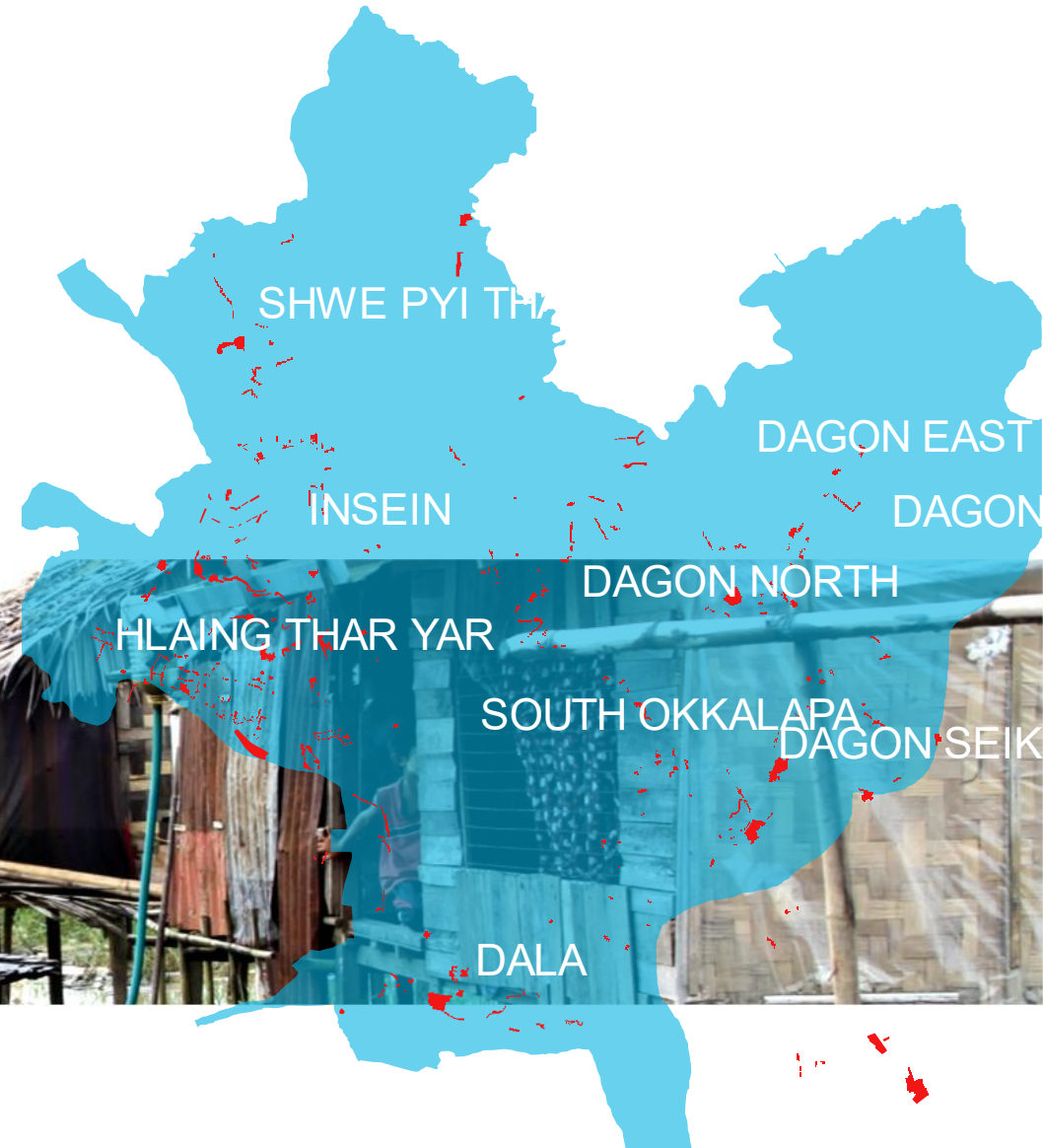
- While timely government response, on-groundwork by civil society groups and volunteers combined with crucial support by UN agencies including UN-Habitat has prevented a widespread outbreak of COVID-19 in informal settlements, **residents continue being both fearful of emergent outbreaks and the economic fallout of the pandemic**

Constraints hamper the ability of informal settlements to effectively tackle the COVID-19 pandemic:

- **Glaring gaps in data** on informal settlements, especially **related to access to health and access to WASH facilities**, impair the government's ability to make informed response plans
- Lack of access to accurate and updated information, **truncated access to water, hygiene, health care services, and the risk of income loss** due to mobility restrictions and temporary suspension of businesses activities compound the inability of the urban poor living in informal settlements in Yangon to effectively tackle the COVID-19 pandemic
- **Lack of affordability** and cost of basic protection equipment also make poor communities unable to protect them from pandemic

Informal settlements in Yangon

- **423** pockets of informal settlements
- **400,000** people [85,00 households]
- **8%** of Yangon total population
- Deficient access to water, high density of settlements, and insecure 'security of tenure' with the allied risk of evictions place **residents at greater risk of infection**



Issues related to WASH an public health

- No access to adequate and safe water at the places of need
- Lack of awareness to sanitation and hygiene; and practice
- Not proper (none) solid waste collection and management [absence of waste segregation; limited 3Rs]
- Absence of drainages/sewerage networks
- Loss of livelihoods

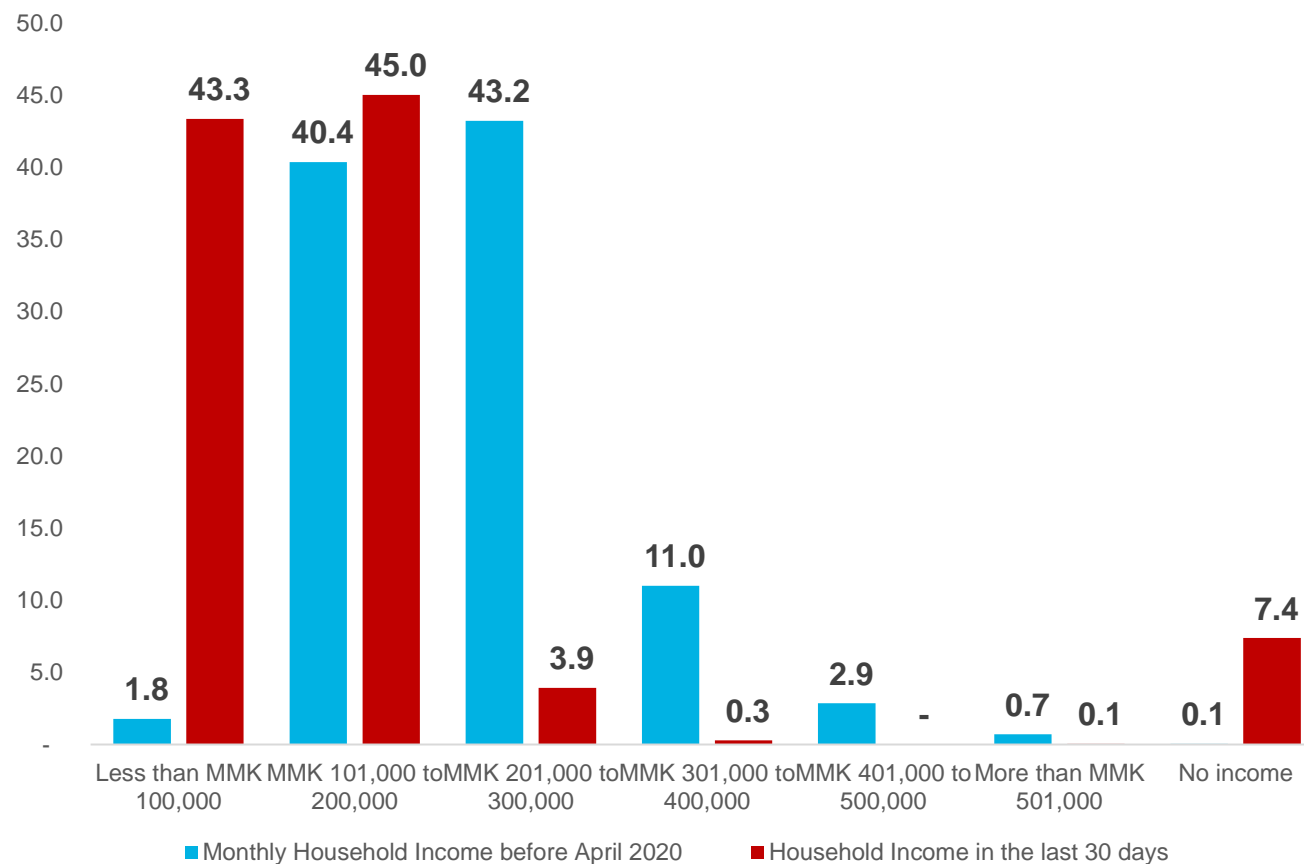


Impact on urban poor

STEEP FALL IN HOUSEHOLD INCOME

- Sample: **1,680 households residing in informal settlements**
- **7 townships** with the highest concentration of residents in informal settlements
- Before the pandemic, **1.8%** of households earned **less than USD 76 (MMK 100,000)**. In the past 30 days, **43.3%** of households have earned **less than USD 76**
- **7.4% of households** reported **no income** in the past 30 days

Household income before April 2020 vs. past 30 days



Access to water

- There exists considerable variation in the source of drinking water among informal settlements. In the overall sample, **only 6.3%** of households reported **piped water**
- **30.0%** of all respondents reported a tube well or borewell (either within the house compound or nearby) as the primary source of drinking water, and **26.5%** dependent on **rainwater collection** to meet their drinking water needs
- **71.4%** of households reported monthly **expenditure** to access drinking water. **37.1%** of households spent between MMK 5,000 to 10,000 **(USD 7) per month** on drinking water
- Close to **25.0%** of households reported **financial constraints** as the major difficulty **in accessing drinking water**



Access to sanitation

- 89.6% of households in the sample reported **having access to an own toilet**
- 76.0% of households with a toilet used a **pit latrine**
- Out of the households without access to a toilet, 55.0% reported that **they used a neighbor's toilet** or a shared toilet. 33.0% reported having access to a **public toilet**
- 11.0% reported practicing **open defecation**



Access to waste management

- The most frequently – **59,8%** - reported waste disposal method is dumping at a **community dumping site**; **23.6%** disposal at a **YCDC designated dumping site**
- **81.8%** of households **do not pay any money** for waste disposal services
- **59.5%** of households pay charges to a **private waste collection service**, **27.1%** pay **YCDC**, and **13.4%** reported paying the **community** for waste disposal and **management**



Hygiene awareness



- The average rate of households who responded that they **always wear a mask** when they go outside was **88.4%** (compared to 82.0% in April 2020)
- **95.4%** of these households responded that they **did not always wear a mask** because it was either **too hot** making it uncomfortable to wear or that they **could not breathe** well while wearing a mask
- **53.3%** said that they practice **handwashing less than 5 times a day**
- **34.3%** said that they **cannot afford** to buy soap/extra water

UN-Habitat response

- Advocacy paper on housing released in May 2020, along with water and sanitation, **housing, is at the forefront of the battle against COVID-19**
- Expand **awareness raising and information dissemination** efforts putting in place prevention measures against COVID-19 for those involved
- Install **hand washing stations** at strategic locations in informal settlements
- Target **supply of basic needs** to vulnerable communities including access to water
- Ensure adequate access to **water, soap, and sanitation** facilities for the **homeless**



Awareness raising and information dissemination

150,000 people

116 schools [98,000 students]



Expand access to water through installation of hand washing stations

500 hand washing stations



Hand soap distribution to **46,000 people** and **98,000 students**

Health centers supported with **PPEs**



Surgical masks distributed to **120,000 people**
Cloth masks/face visor to **98,000 students**



Community volunteers supported with cash payments to supplement lost of income due to COVID-19

2,000 volunteers

Bridging the data gap for effective Covid-19 response

- Response interventions have **contributed to build stronger awareness** not only on the impacts of COVID-19 but also **on the pressing needs of informal settlements**
- Strong advocacy and **proven people's centered** support has **opened opportunity** for further response interventions (short/medium/long)
- **Major programme to begin** in 8 townships in Yangon with largest number of informal settlements
- Target beneficiaries: 25,000 households [102,500 people] and 90 schools [76,500 students]
 - Enhancing access to safe water and improved environmental sanitation in informal settlements
 - Improving solid waste management in informal settlements
 - Improving hygiene awareness and capacity of communities in informal settlements

Thank you

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