



**every
one**

deserves a decent
place to live.

Affordable Housing Beyond Our Borders- Managing the sanitation needs

May 26, 2021 | John Apambilla Akudago (PhD)

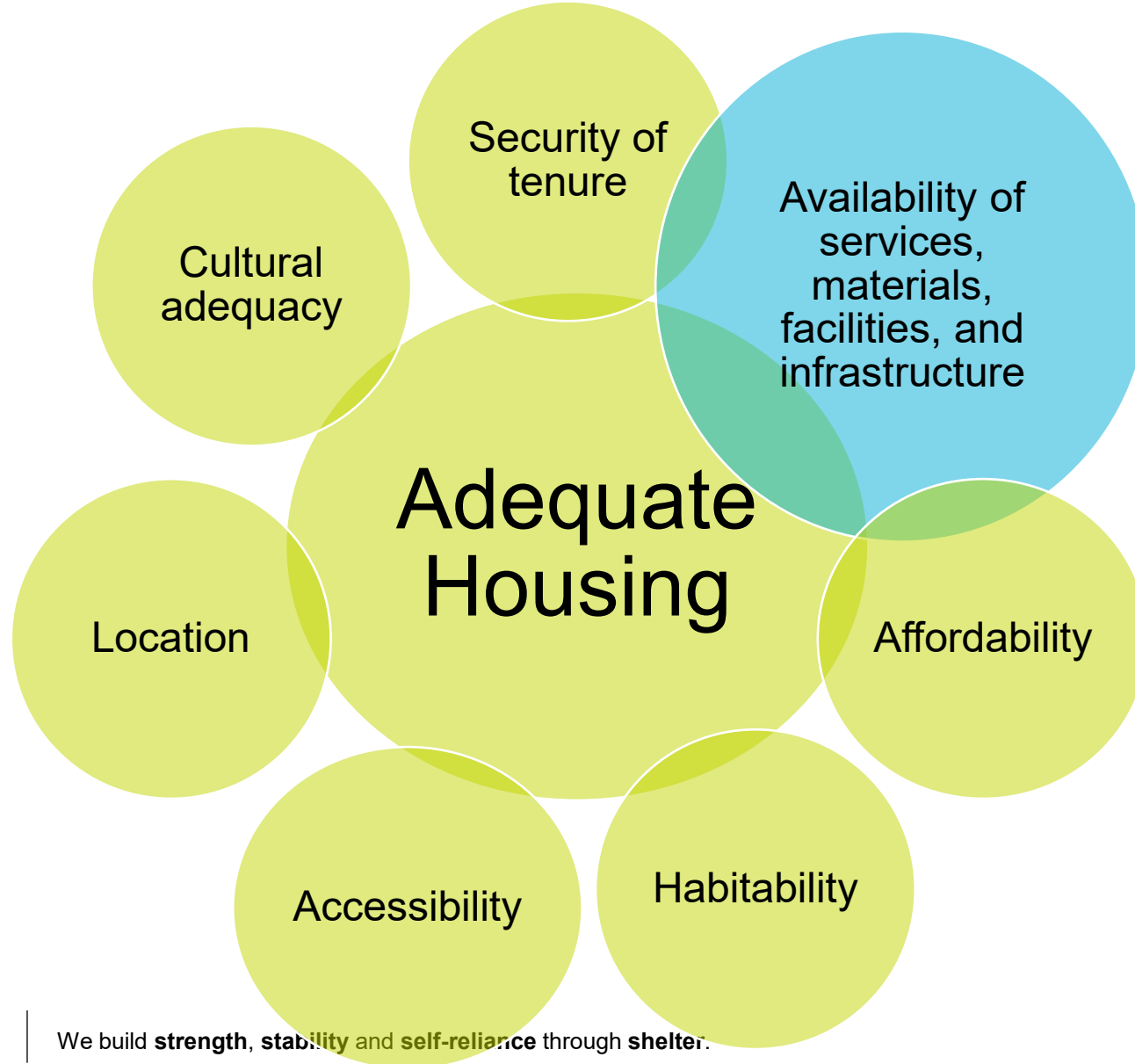
The Housing Need

Today, around 1.2 billion people live in substandard housing

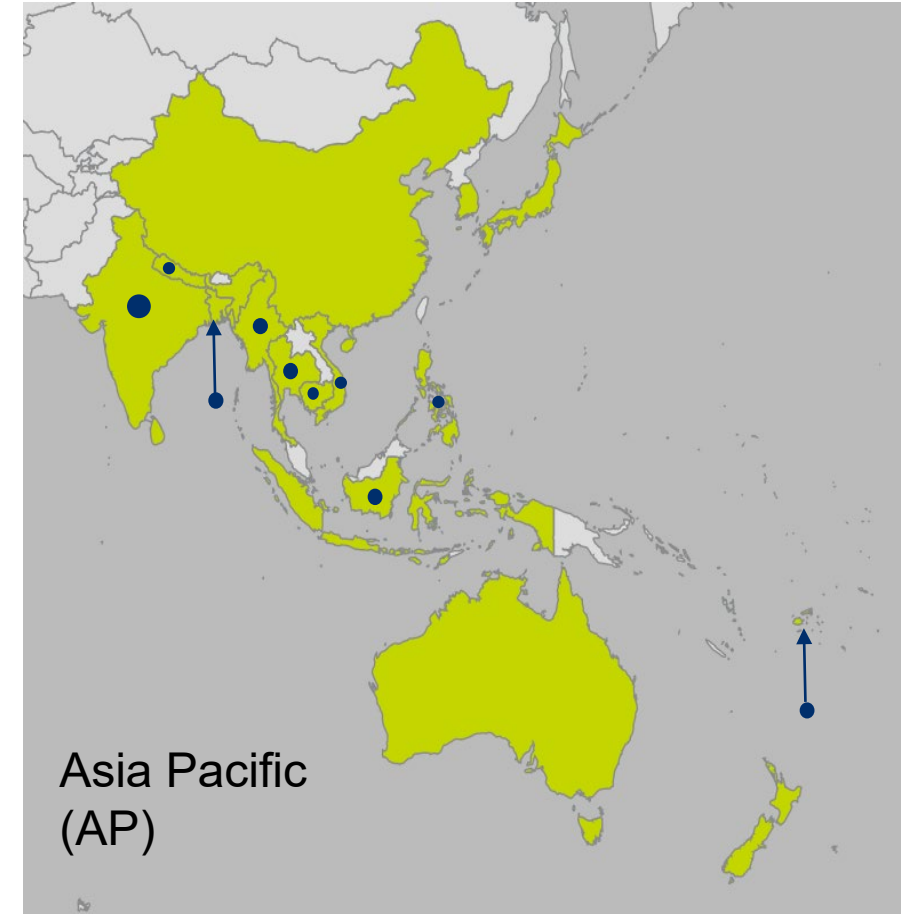
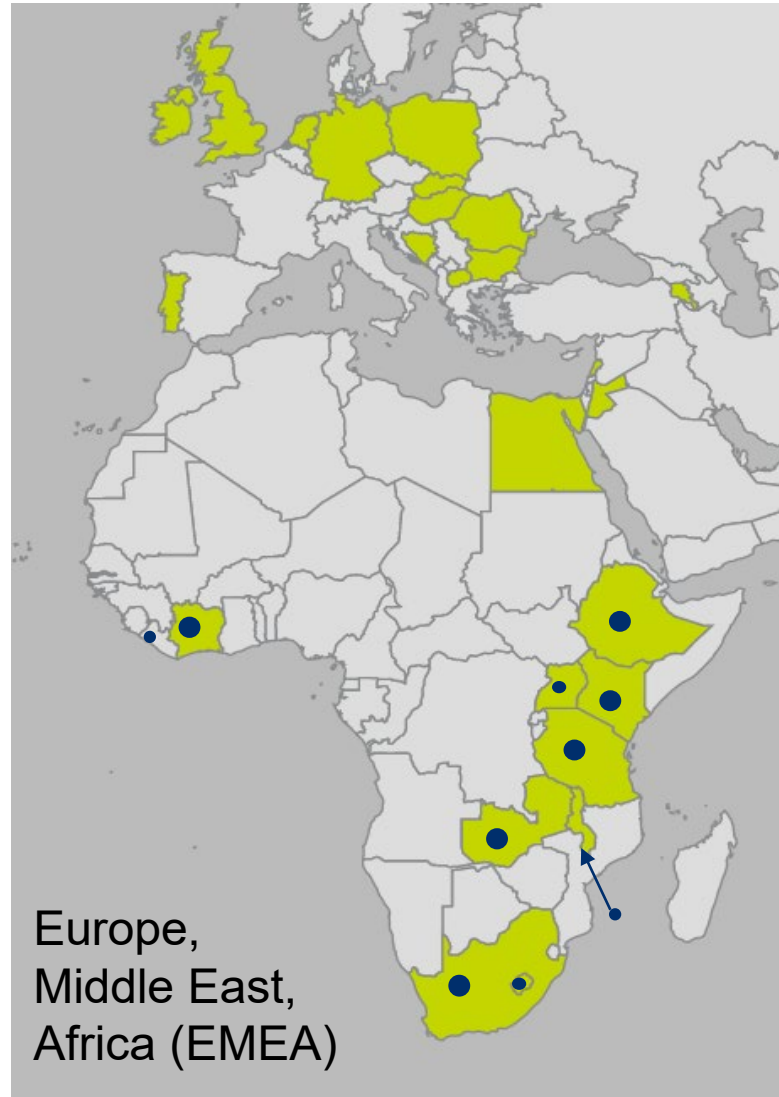
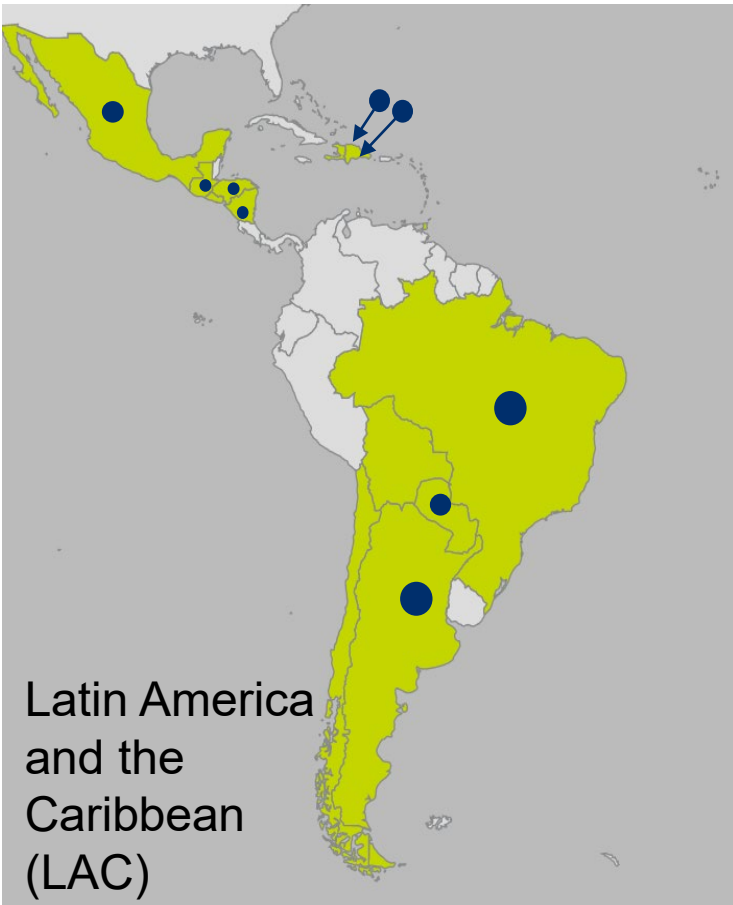
Almost 1 billion people, or 32% of the world's urban population, live in slums

An adequate home can have transformational impact on individuals and communities because a home is a safe place to foster stability, security and opportunity for its residents.

WASH and Adequate Housing



Where Does Habitat have WASH programs?



WASH and Housing

Water, Sanitation, and Hygiene, also known as WASH, is a cross cutting issue that encompasses access to clean water, adequate sanitation, personal hygiene, home hygiene, and water and sanitation services delivery.



Sustainable Water and Sanitation Services



1. Initial installation cost
2. Operation and maintenance cost
3. Post installation support cost
4. Safe disposal of the sludge (Environmental concerns)

Case Study- Sanitation in India



Wastewater is disposed through the municipal sewage system

What happens without Sewage system?

1. Biogas is produced from the breakdown of organic matter with absence of oxygen
2. The biogas consist of :
60-70% Methane,
30-40% Carbon dioxide,
4% Water ,
0-0.5% Hydrogen Sulfide
0-1.5% of Nitrogen gas

1. Benefits of biogas
2. Fuel
3. Wastewater is free from disease causing bacteria
Fertilizer for agriculture

[Source of data :PowerPoint Presentation \(energycom.gov.gh\)](http://energycom.gov.gh)

Case Study- Sanitation in Liberia



Septic tank



Biogas



Sanitation facility

Conclusion

Sanitation technologies selected must:

- 1. Ensure safe disposal excreta**
- 2. Less operation and maintenance cost**
- 3. If possible can have other benefits**

Thank you!

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