

EGU General Assembly 2022:

**HS5. 11 - Water resources policy and
management: digital water and
interconnected urban infrastructure**

**Youth-led Participatory Sensing (YPS) Model
to enhance
drinking water security:
a case of Pokhara Metropolitan City, Nepal**

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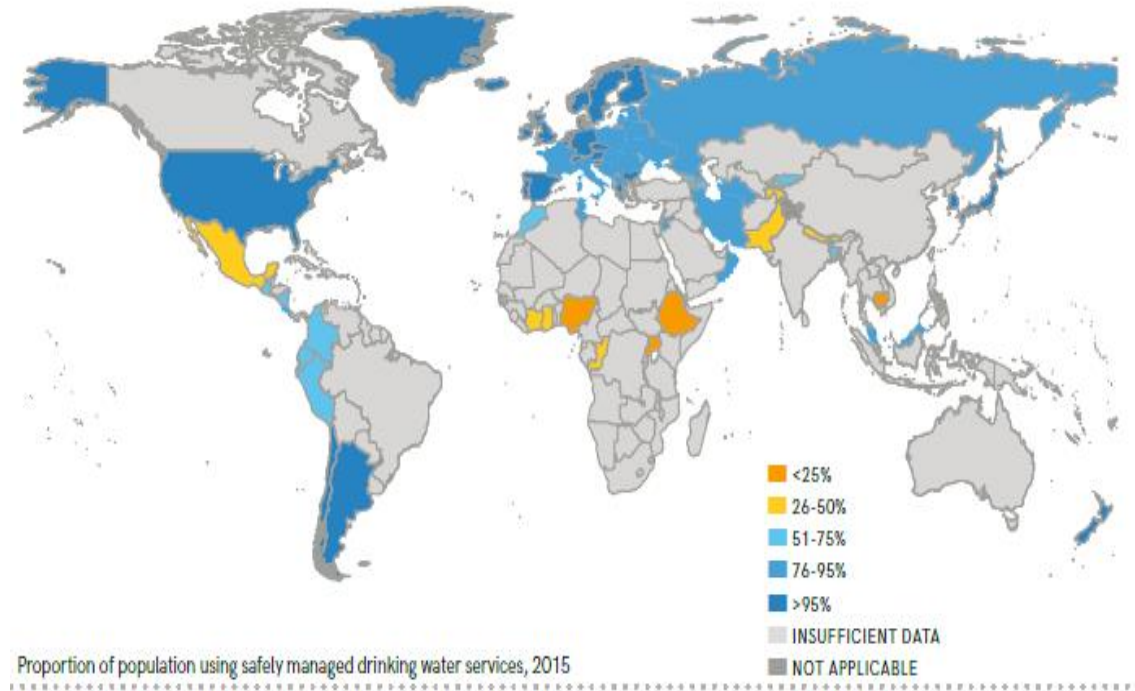
drinkPani



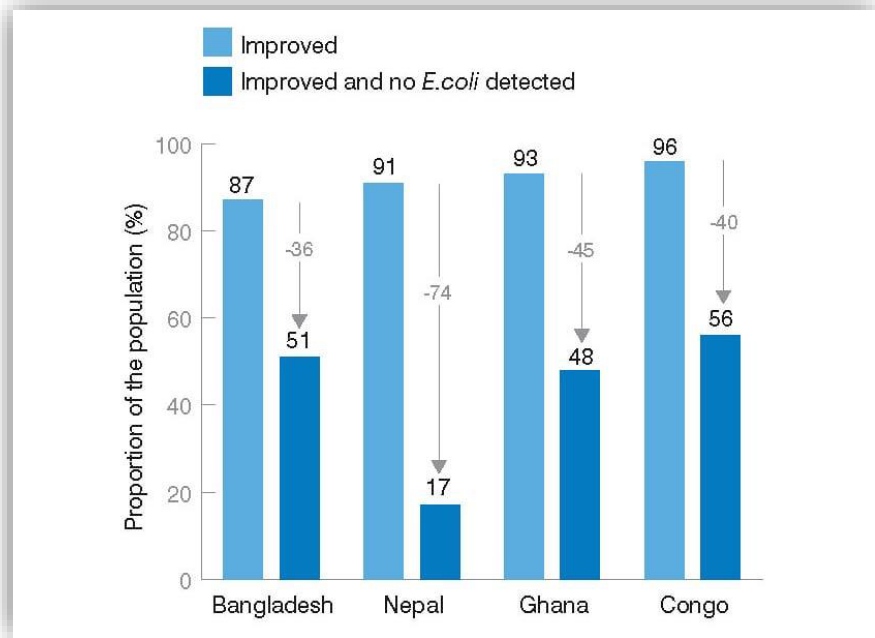
Context

- About **5.2 billion people** used safely managed drinking water services in 2015
- Nepal - **26 to 50%** in proportion of population

(Source: JMP, 2017)

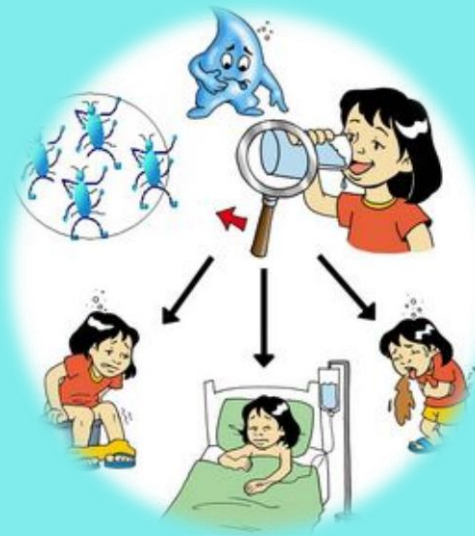


Water and Public Health



Overview on proportion of the population using **improved source** and **case of E.coli detection**

(Source: Guardian 2018)



About **2.2 million people** die from **diarrhea** each year

90% - children, mostly in **developing countries**

Nepal - 44,000 children under the **age 5 die/year**

(Source: WHO, 2017)

Questions?

Regulation in drinking water quality monitoring mechanism?

- *Youth at the centre of drinking water quality monitoring initiatives? Does it support ?*
- *Suitable Design? How about data accuracy-reliability and sustainability of the model?*
- *The knowledge of local women in this process?*

Location Map- Case Study Area



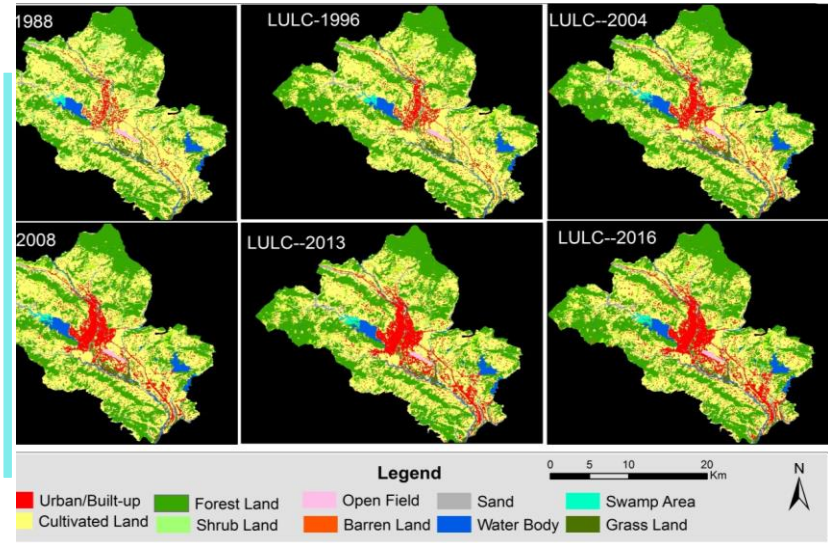
Legend

-  Pokhara_metropolitan
-  Kaski
-  Districts
-  Gandaki_zone
-  Development Regions
-  Nepal

Pokhara Metropolitan City (PMC), Nepal



LULC (Land Use-Land Cover) Map
from 1988 to 2016

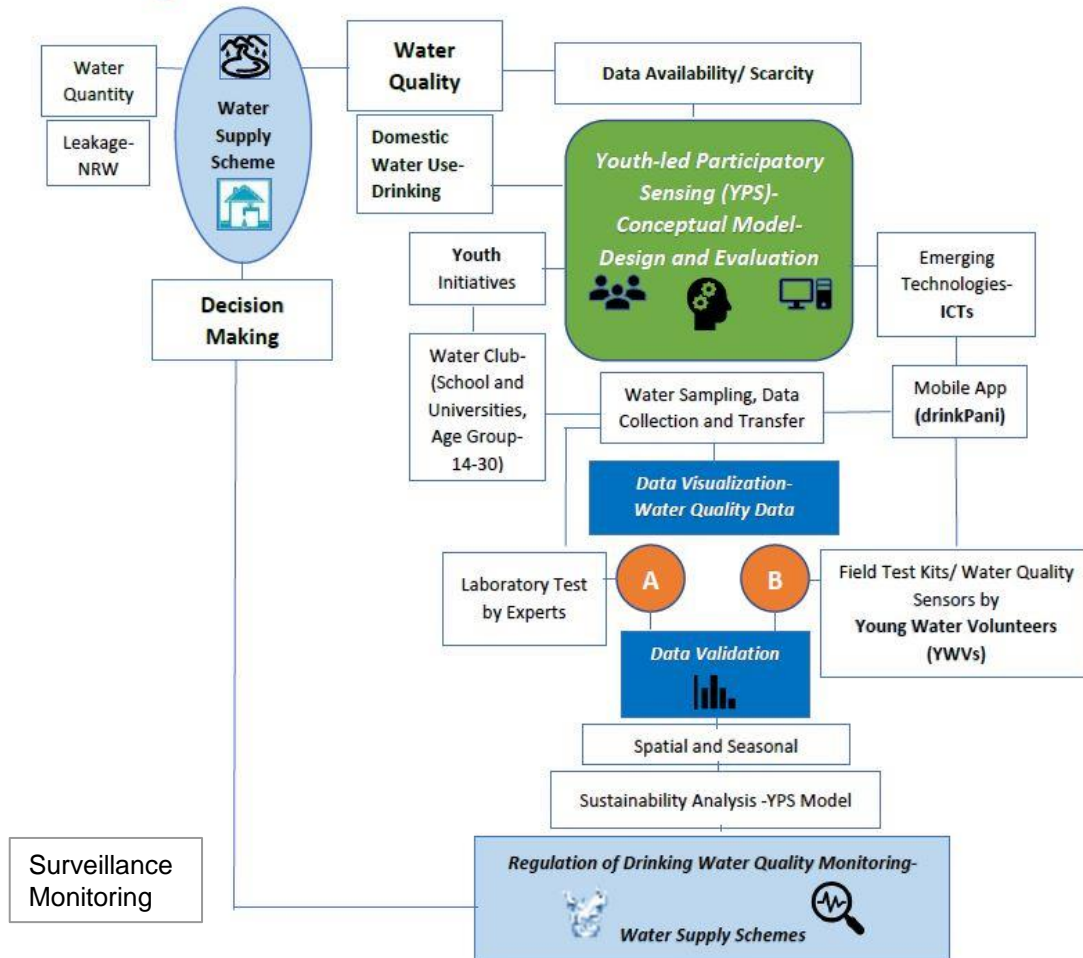


(Source: Rimal 2018)

Objective

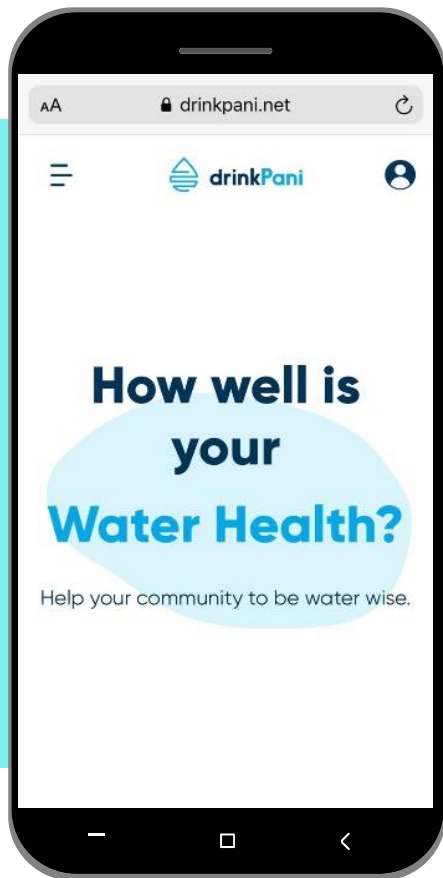
“ Intends to **bridge the gap** between **water utilities & communities** in information flow on water supply and quality with **Youth** as key actors & **ICTs** as the main tool to navigate the path to reach policy makers for evidence-informed **decision making**”

drinkPani : research based initiative



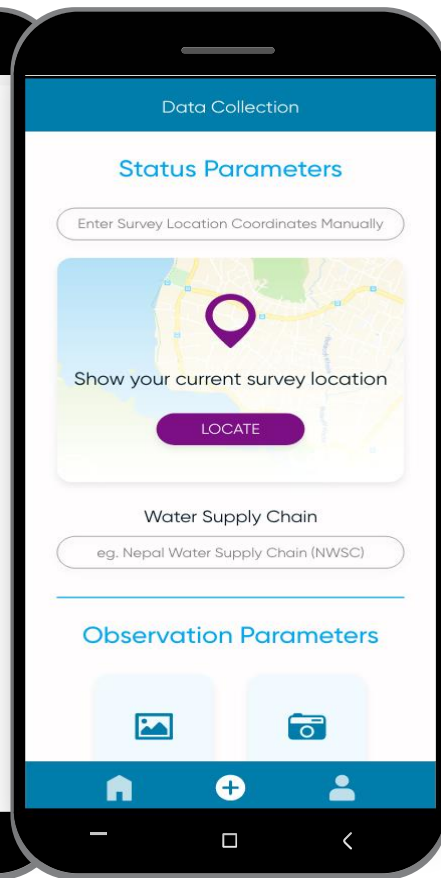
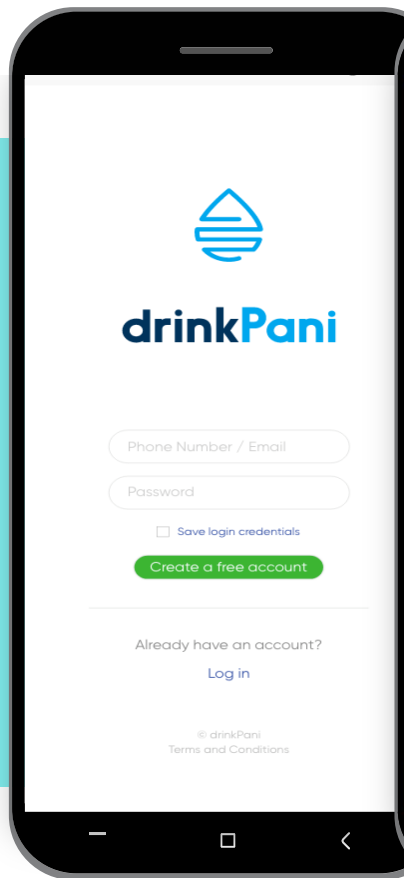
Methodological Approach

*From supply system
to decision making
in a loop!*



Our Mobile App & the Website

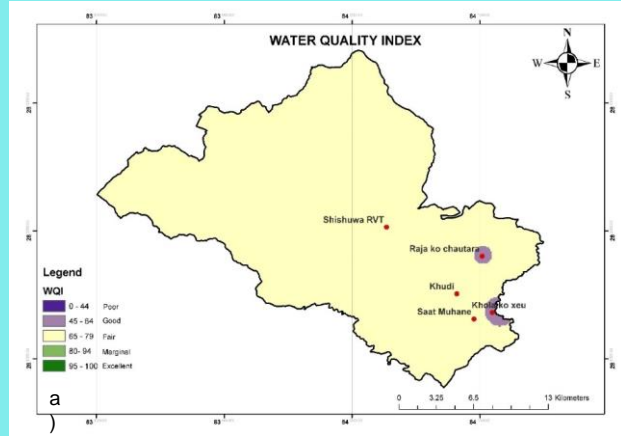
Water works in the first line of defense to drive healthy living & drinkPani believes in Shaping Digital Water Future!



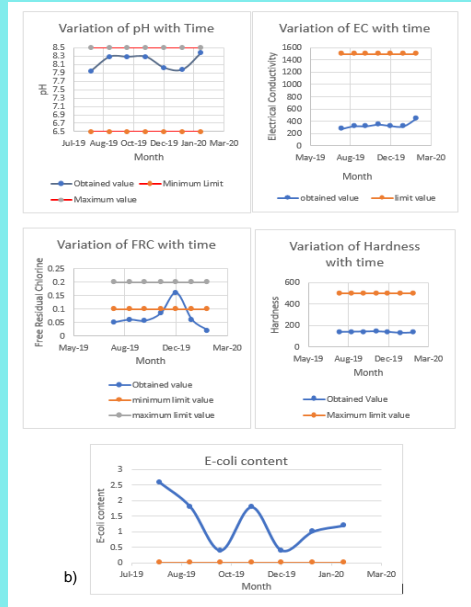


Some impression of field activities

A glimpse of initial findings



Variation of Water Quality Index in the Sisuwakhudi Area – Lekhnath Water Supply Scheme – one of the two selected water supply schemes of Pokhara Metropolitan City, Nepal



Graphs showing the temporal variation of PH, EC, FRC, Total Hardness and E-coli (CFU/100ml)



drinkPani Stories (Video Storytelling Series)

drinkPani Bootcamps



**Challenges
&
Way Forward!**



Note of thanks and acknowledgements!





Any Questions?

For more details:

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