# Policy Environment in Nepal for Building Climate Resilience in Non-sewered Sanitation

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#### **Presentation Overview**

- Climate change and its impacts on sanitation
- Sanitation in Nepal
- Highlights of the key policy/plans reviewed
- Climate change and sanitation integration on policies and plans
- Conclusion and recommendation

# Climate change and its impact on sanitation

- Impacts felt in various sectors and evidence of potential impacts on sanitation growing
- Understanding of the potential effects on urban sanitation services and management is limited
- Nepal highly vulnerable and among the high-risk countries to CC impacts
  - Annual trend of temperature rise per decade in Nepal: an average of 0.056 degrees Celsius/year maximum temperature increase
  - Intense precipitation events likely to increase in frequency
  - Mean rainfall decreasing with predictions of a decrease in annual precipitation
- Research exists in sectors like agriculture and health but absent in sanitation



#### **Sanitation situation in Nepal**

- Reduction of OD from 66% in 2000 to 7% in 2022
- Increase in construction of 'septic tanks'
  - Rural areas: from 8% in 2000 to 57% in 2022
  - Urban areas: 41% in 2000 to 60% in 2022
- Low expansion of sewer connection
  - 27% in 2000 to 16% in 2022
- Poorly designed unsealed containments
- Manual emptying predominant
- Informal and unregulated service providers

Source: WHO & UNICEF 2023



#### **Adaptation to Climate Change**

- Support "economic growth, public health, reduce marginalisation and poverty and improve water quality" - (Dodman et al. 2022)
- An approach to building adaptation enabling environment through policies for planning and implementing adaptive measures - (Nepal 2019)
- A key action integration sanitation into NAPs, NDCs and investment in building resilience of services - (World Health Organisation 2022)



# **Policies and plans reviewed**

Climate change policy and plans	WASH policies and plans
National Climate Change Policy (NCCP) 2019	Water Supply and Sanitation Act (WSSA) 2022
Second Nationally Determined Contribution (NDC) (2020)	National Water Supply, Sanitation and Hygiene Policy (NWSSHP) 2023
National Adaptation Plan (NAP) 2021-2050	



- Climate Change Policy 2019
  - does not mention sanitation mentions management of hazardous waste
  - highlights collaboration and cooperation among stakeholders for climate adaptation and mitigation
- NDC 2020
  - provides for FSM treatment and resource recovery
  - aims to integrate climate assessment in WASH programming and implementation

- NAP 2021-2050
  - seeks building capacity to facilitate mainstreaming climate adaptation in policies, plans and budgets and to adopt innovative technologies
  - aims ensuring equitable resource mobilisation through national, and international financing for research, technology and services for climate change adaptation

- Water Supply and Sanitation Act (WSSA) 2022
  - ensure the provision of clean and quality drinking water and sanitation services
  - sanitation goal limited to provisions for sewerage and wastewater management
  - does not mention non-sewered sanitation and its management



- National Water Supply, Sanitation and Hygiene Policy (NDWSHP) 2023
  - ensure provision of safe and accessible sanitation services to achieve the SDGs target
  - promotes onsite sanitation, construction of FSTP and resource recovery
  - emphasises development of WASH plans and municipality-wide inclusive sanitation (MWIS) plans
    - WASH plan guideline lacks emphasis on sanitation
    - city-wide sanitation plan guideline lack clarity for planning at the system and services level
- While the NWSSHP 2023 refers to managing sanitation e.g through FSM, it lacks a coherent approach to addressing the sanitation service chain



# Sanitation and CC integration in CC and WASH policies

- Climate change policy provides an opportunity for CC integration in policies, strategies, plans and programme
- The plans provide wider prospects for adaptation and mitigation on sanitation
- WSSA 2020 silent on climate change
- NWSSHP 2023 indicates to make sanitation infrastructure climate adaptive inadequate direction to achieve it
- NWSSHP 2023 failed to effectively build on what is addressed by the climate change policy and plans
- The WASH plan and MWIS plan development guidelines lack clarity in their process description for resilient sanitation systems and services



#### **CC** resilience across sanitation service chain

Market of raw materials, spare parts and trained technicians/masons

Design and construction minimising the impact of climate hazards and ensuring easy access in adverse conditions

User interface appropriate to local climatic conditions

Provision of operational health and safety

Market of spare parts and trained technicians locally for timely and affordable maintenance

Emptying service mechanisms that can provide timely service and in adverse conditions

Vehicles that can operate in adverse conditions

Emptying

Provision of operational health and safety

Electricity to meet demand for the operation of FSTP

Technology combinations appropriate to the local climate, capacities for O&M and market for by-products

FSTP location, design and construction minimising impact from flood and inundation situations and accessible by road

Capture > Containment

Transport

Treatment

Safe disposal or reuse

Technology/system appropriate for local climate and geographical conditions and with consideration to the local knowledge and practice

Technology/system with low contribution to GHG emissions

Size appropriate for regular emptying to avoid spillage from flood situations, for easy emptying before the rainy season and to reduce GHG emissions

Design and construction minimising the impact of climate hazards and ensuring easy access in adverse conditions

Market of raw materials, spare parts and trained technicians/masons

Good road conditions to reach the containments and to transport FS to the treatment facility

Mechanism of timely repair and maintenance of damaged roads, bridges

Provision of operational health and safety

Market demand for by-products

Safe storage of solid and liquid byproducts

Provision to ensure public and environmental health safety for byproduct use and/or disposal

Provision of operational health and safety





#### Conclusion

- Importance of policies for action acknowledged
- Existing climate change and WASH policies and plans are not sufficient to ensure resilience at the systems and services level
- Policy guidance towards resilient sanitation services is unlikely to be achieved soon
- Sanitation not prioritised in the climate change agenda in the region and beyond
- Global gap in addressing the interplay of climate change and sanitation



# **Key recommendations**

- Integrate resilience in the government and donor-funded sanitation planning and programming
- Establish good practices for informed policy reforms
- Mobilise investments in partnerships with non-profit, academic and private sectors
- Enhance collaboration among the key ministries to initiate policy dialogue towards resilient sanitation
- Capacity development to address climate change in the sanitation sector
- Research to understand impacts and to identify resilient systems and services
- Collaborative learning, sharing of best practices and development of a global community

#### References

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