Leaving no one behind, ensuring the right to sanitation

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19 November 2019

Right to Sanitation

- Entitles everyone to
  - Physical and affordable access to sanitation, in all spheres of life
  - Safe, hygienic, secure, and socially and culturally acceptable
  - Provides privacy
  - Ensures dignity

- Technologies
  - Toilet
    - Individual households, public/community, institutional (educational institutions, hospitals, offices)
  - On-site sanitation system (OSS)
    - Septic tank, soakage pit
  - Off-site sanitation system (OffSS)
    - Sewerage network, sewage pumping station, sewage treatment plant, faecal sludge and septage treatment plant

Right-holders

- Users of toilets
  - Men, women, non-binary gender, children
  - With special needs (pregnant, elderly, young, disabled, convalescing)
- Sanitation workers
  - Desludging, collection and transportation of human waste from OSS
  - Cleaning of sewers
  - Workers at OffSS

- Human beings/ citizens/ residents

Rights, Sanitation and the Environment

- Environment
  - Narrow ‘human’ environment
  - Broad ‘natural’ environment

- Relationship between sanitation and the environment
  - Input: availability of land, water and energy influence enjoyment of the right to sanitation
  - Output: measures undertaken for realisation of the right to sanitation adversely affect land, water and air

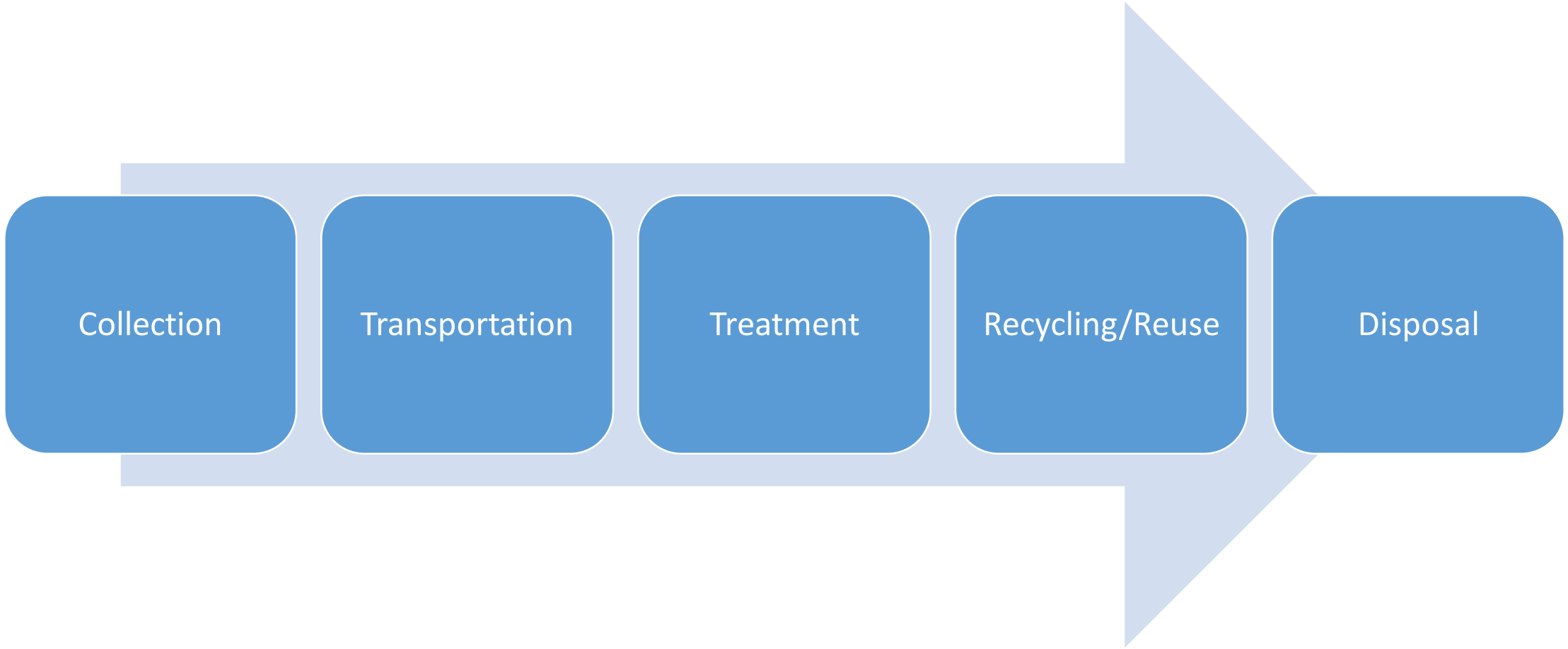
- Right *to* environment and right *of* environment
  - Anthropogenic perspective: some elements of the natural environment receive consideration – eg fish (aquaculture)
  - Ecological perspective: protection of the natural environment for its own sake (with attendant benefits for human beings)

From Open Defecation to Toilets

- Open defecation
  - Lack of proper sanitation facilities
  - Raw human waste leaches into underground water resources, runs-off into surface water bodies, contaminates agricultural produce
  - Environmental protection as an end in itself; not just an argument to exclude the poor from the urban landscape
  - *Who is the real polluter?*

- Toilet
  - Design – hilly or coastal areas, high water table
  - Location - distance from source of drinking water supply
  - Water supply for flushing/cleaning

‘Human Waste’ Management



Collection & Transportation

- Collection
  - OSS – septic tank/soakage pit
    - Local government, private operator, both
    - Design and location
  - OffSS – sewerage network
    - Local government
    - Coverage

- Transportation
  - Septage transporter
    - Local government, private operator, both
    - Accidental spillage
  - Sewerage network
    - Local government
    - Leakage

Treatment

- Sewage treatment plant (co-treatment)
- Faecal sludge and septage treatment plant

- Input
  - Land - location
    - NIMBY, proximity to forest, wildlife
  - Water
  - Energy
- Output
  - Environmental pollution

- Standard setting – appropriateness
- Design of plant – capacity to treat effluents
- Mixing of domestic and industrial effluents (before treatment)

Recycling/Reuse

- Waste as a resource
- Agriculture, floriculture, water for non-potable uses
- Water conservation, reduced energy consumption for water extraction (+)
- Standard setting – absence, appropriateness
- Environmental (soil, water) pollution (-)

Disposal

- On land
  - Soil, groundwater
- Into drains that are supposed to carry grey water or rain water and discharge into water bodies
- Directly into rivers, lakes and the sea

- Standard setting – appropriateness
- Assimilative capacity of waterbodies
  - Competing pressure – water supply for different uses
- Mixing of domestic and industrial effluents (after treatment)

Human Waste Management

- Toilet cleaning agents
  - Chemical residue
- Sanitary napkins/diapers/toilet paper
  - Collection & disposal – landfill, incineration
- Medicines
  - Individuals or hospitals
  - Antimicrobial resistance (AMR) in the environment

Action Points

- Recognise the inextricable link between sanitation and the environment
- Expansive regulatory landscape
  - Non-binding policy measures cannot replace binding regulations
  - Design and implementation of binding regulations, monitoring enforcement, punishing violators
- Overcome fragmentation, coordinate actions
- Acknowledge the scale of the challenge but do not postpone action
- Sustainable sanitation and environmental sustainability go hand-in-hand
  - Short term approaches, costly future
  - Change in thinking and behaviour