

# Steps towards safely managed sanitation webinar series: Guided clinics for practical progress

## Webinar #3. Strengthening data systems for safely managed sanitation

**Tuesday 15 April 2025**  
**10.00-11.00 AM CEST**



# Housekeeping



Please **turn off your microphones** (except for the final discussion/Q&A).



In case of **technical problems**, feel free to **ask for assistance in the chat**.



Please **use the chat** for questions and comments – which will be address at the end of the webinar, or later by email.



**Webinar will be recorded** – recording and slides will be shared with attendees.



Please keep your **questions relevant**



**to the topic of the webinar.**

**You can switch to the French interpretation channel by clicking the interpretation icon at the bottom of your Zoom window and selecting "French."**

## Introduction to the series

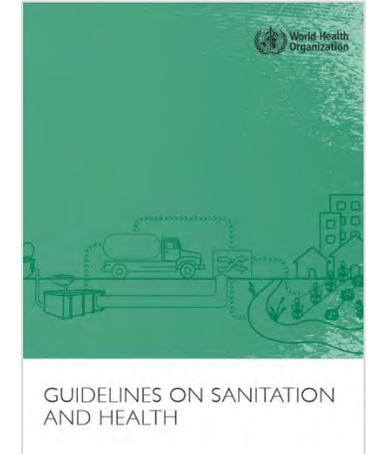
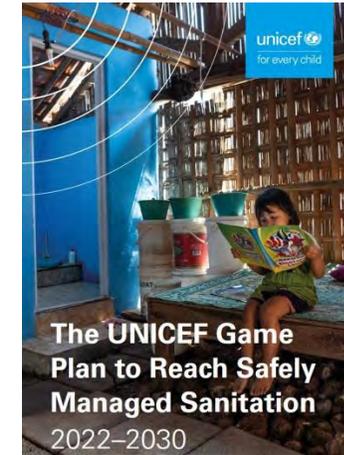
**Sophie Boisson**

World Health Organization



# A common framework for implementation

- Only 5 years before reaching the end of SDG period
- SDG 6 GAF and UN System-wide strategy on water and sanitation as a basis - sector alignment and coordination needed
- Major gaps in understanding what SMS and climate resilient sanitation (CRS) means
- WHO/UNICEF aligned in the sanitation approaches via the Game plan and the Guidelines - motivated to work with implementing partners their respective strategies



# 8 practical steps

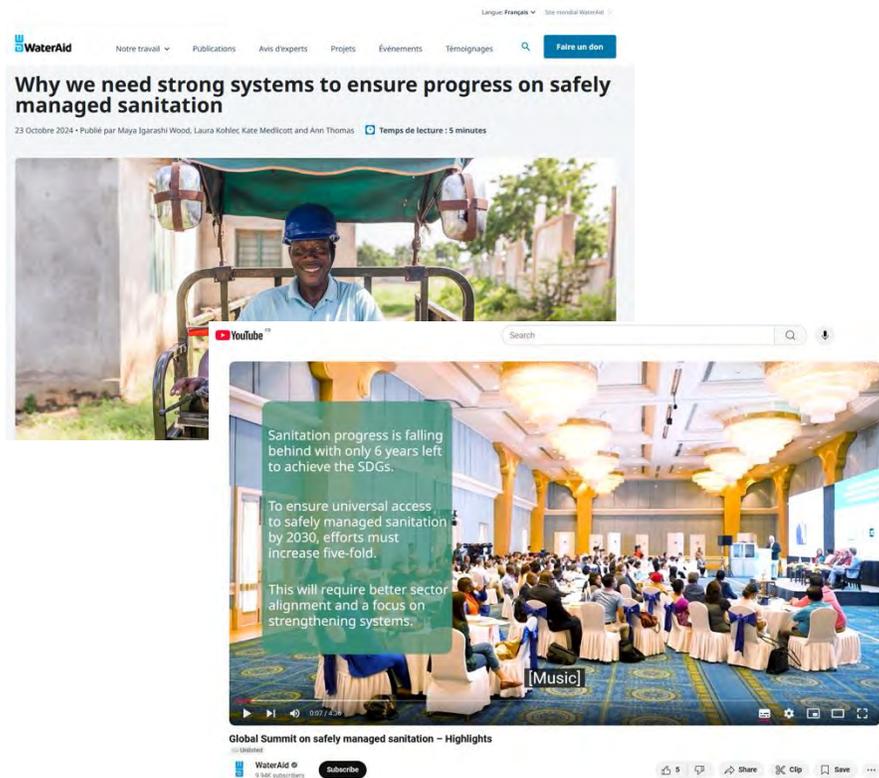
- **Builds on SMS workshop experience** – request to simplify implementation
- **Steps** – flexible/not linear, includes checklist and key actions that can be taken to progressively move towards SMS
- **Assist country teams** to work together at national and subnational levels, and **ensure activities are complementary** between the two organizations and with other sector stakeholders.



# Webinar series and related resources

Sanitation Summit, Nepal, June 2024

Watch [Summary](#) and [Thematic videos](#)



Webinar series: 6 thematic areas

<b>Webinar #1</b>	Strengthening governance, policies and regulations	<b>25 February</b>
<b>Webinar #2</b>	Financing safely managed sanitation	<b>25 March</b>
<b>Webinar #3</b>	Strengthening data systems for decision making	<b>15 April</b>
<b>Webinar #4</b>	Scaling up service delivery in rural settings	<b>13 May</b>
<b>Webinar #5</b>	Scaling up service delivery in urban settings	<b>27 May (date tbc)</b>
<b>Webinar #6</b>	Human resource capacity for safely managed sanitation	<b>17 June (date tbc)</b>

Register here:



## Background

# Strengthening data systems for safely managed sanitation

**Freya Mills**

WHO/UNICEF JMP



# Overview

- **Importance of data** to advance safely managed sanitation address inequalities
- **Harmonized definitions and indicators** for consistent and comparable monitoring
- **Standardized tools and methodologies** enable routine data across the service chain
- **Developing sustainable data systems** to collect, share and use data
- **Localize indicators and targets** for different scales and users
- **Future monitoring:** Strength of WASH systems and climate resilience



# Importance of strong monitoring systems

## SDG Acceleration Framework

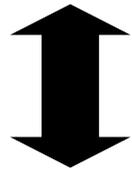


## High quality data enable:

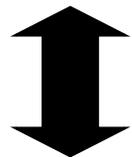
- Response to health risks with targeted interventions
- Identify inequalities to ensure no one is left behind
- Effective governance, policymaking and accountability
- Inform decisions and facilitate resource allocation
- Track progress towards global goals and national targets

# Data needs vary for different users and uses

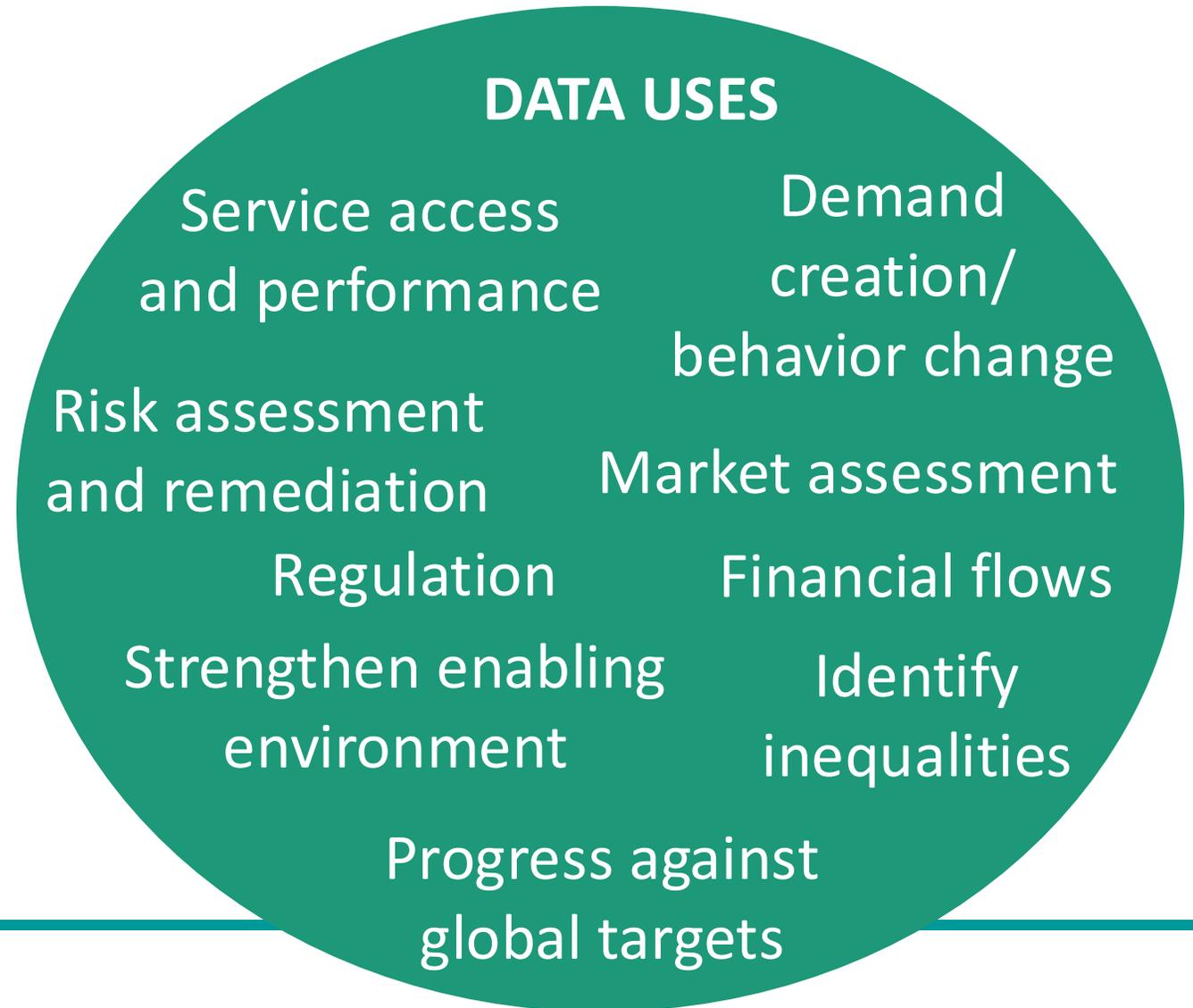
Local Monitoring



National Monitoring



Global Monitoring



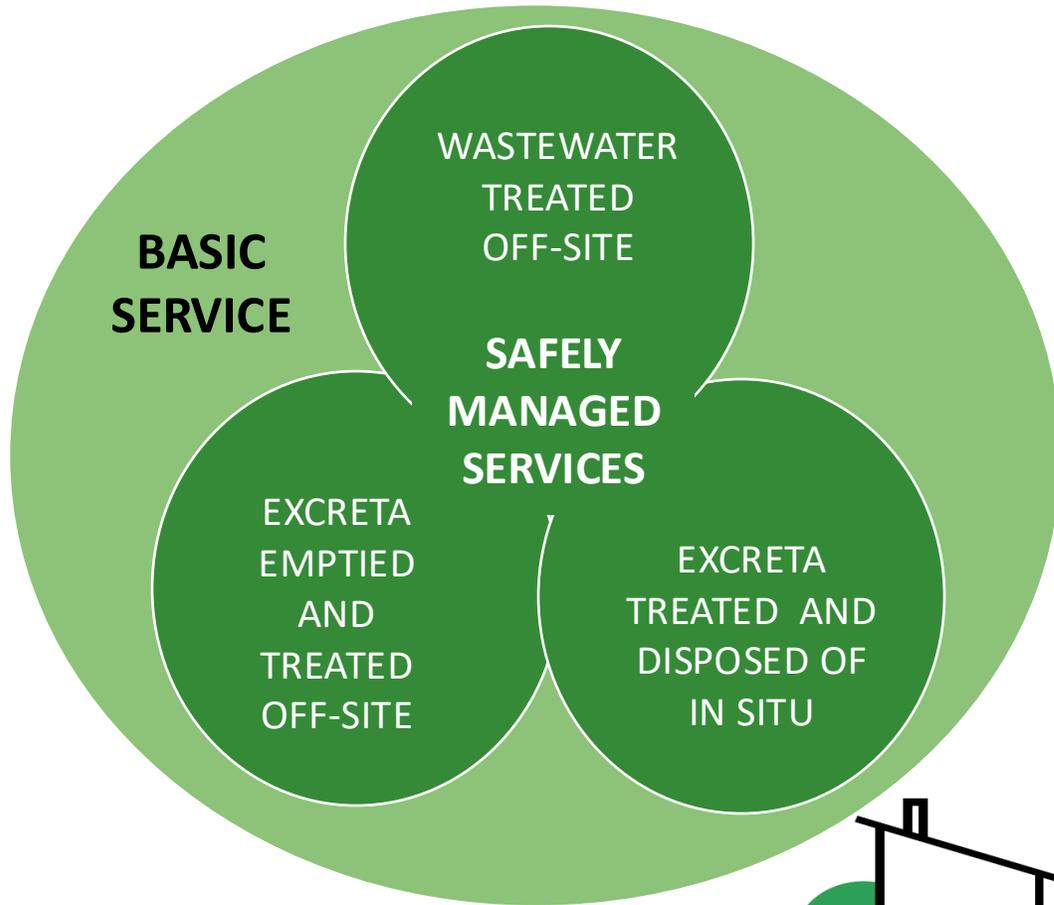
# Harmonized definitions for standardized data

## Global service ladder for SDG 6.2.1a

	SERVICE LEVEL	DEFINITION
IMPROVED	SAFELY MANAGED	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or removed and treated off-site
	BASIC	Use of improved facilities that are not shared with other households
	LIMITED	Use of improved facilities that are shared with other households
	UNIMPROVED	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
	OPEN DEFECATION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open places, or with solid waste



# What is 'safely managed sanitation'?

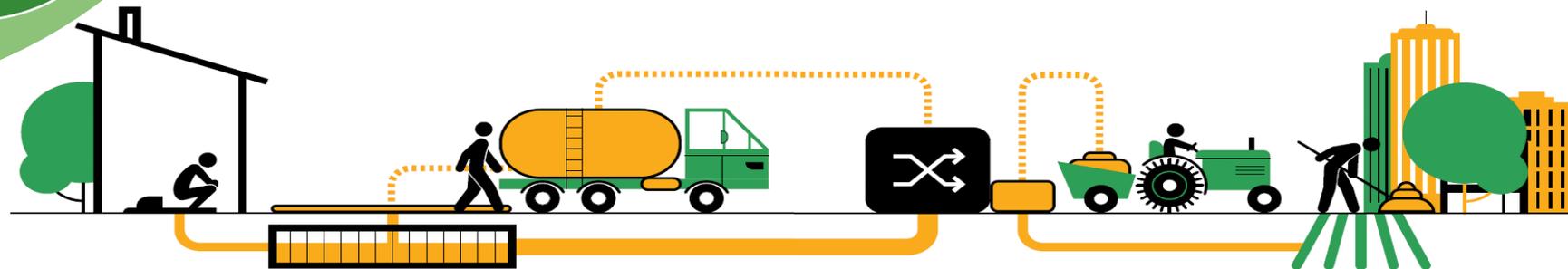


## Safely managed services

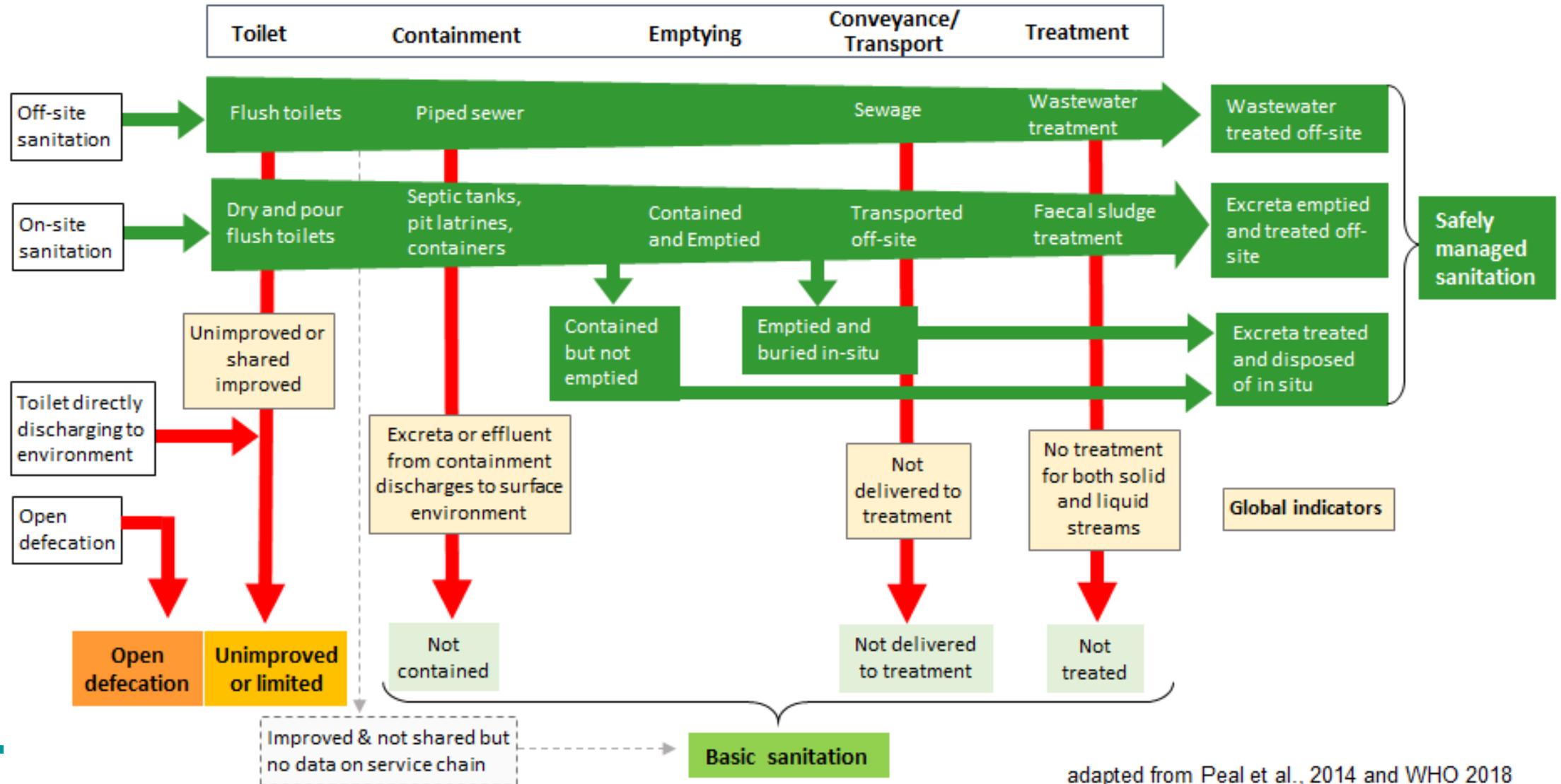
At least **basic sanitation** (improved, not shared)

**AND**

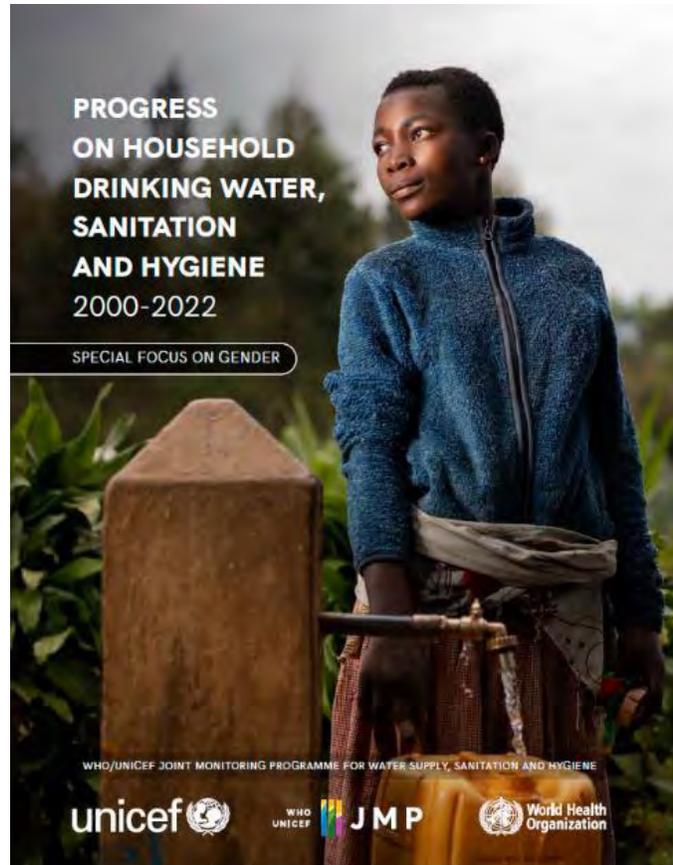
- i. **On-site sanitation treated and disposed in-situ** (safe disposal in-situ), or
- ii. **On-site sanitation emptied and treated off-site** (faecal sludge emptying and treatment), or
- iii. **Sewer to wastewater treatment**



# Data required across service chain



# Large data gaps for on-site sanitation



## Global data availability for safely managed sanitation

% of population (# countries, areas and territories) in 2022	SANITATION			
	Safely managed	Safely disposed of in situ	Emptied and treated	Wastewater treated
World (235)	86% (135)	85% (137)	1% (5)	59% (111)
Rural	80% (90)	84% (90)	0% (1)	9% (4)
Urban	81% (117)	83% (119)	24% (2)	44% (24)

# Range of data sources needed



	Service chain	Facility type	Containment	Emptying	Transport	Treatment
Data collection method						
Household questionnaire	High	Low	Low	Low	In-situ only	Low
Household sanitary inspection	High	High	Low	Low	Low	Low
Administrative and regulatory data	Low	Low	Low	High	High	High
Service provider and local government surveys	Low	Low	Low	High	High	High
Service chain spot checks / inspections	Low	Low	Low	Low	High	High

Levels of reliability and use of source

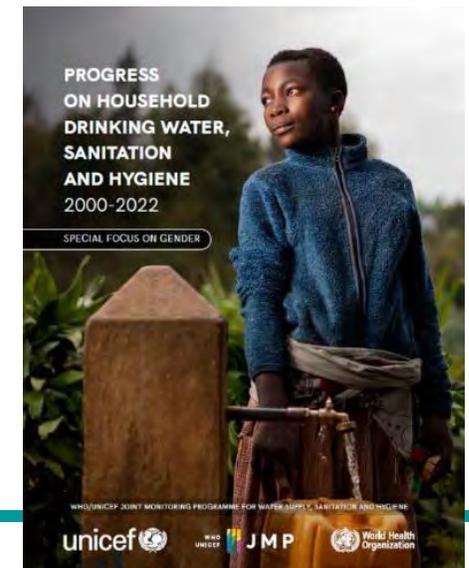
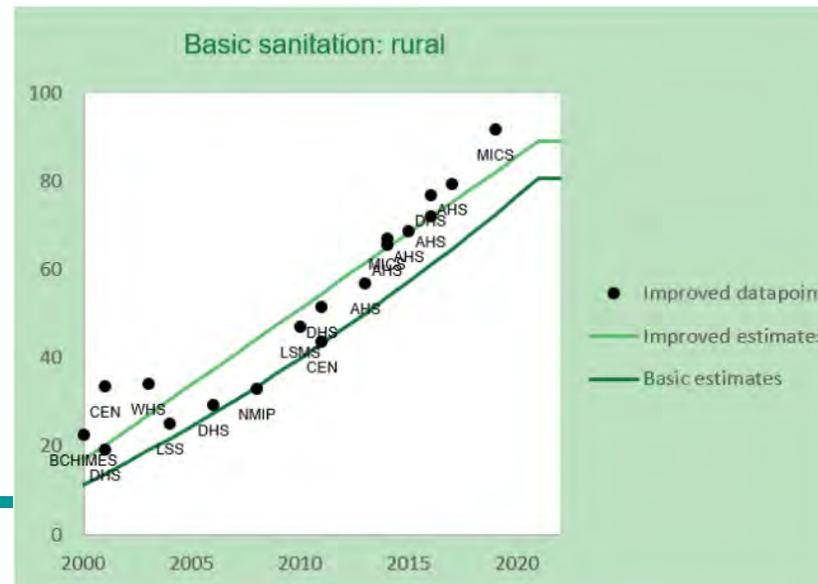
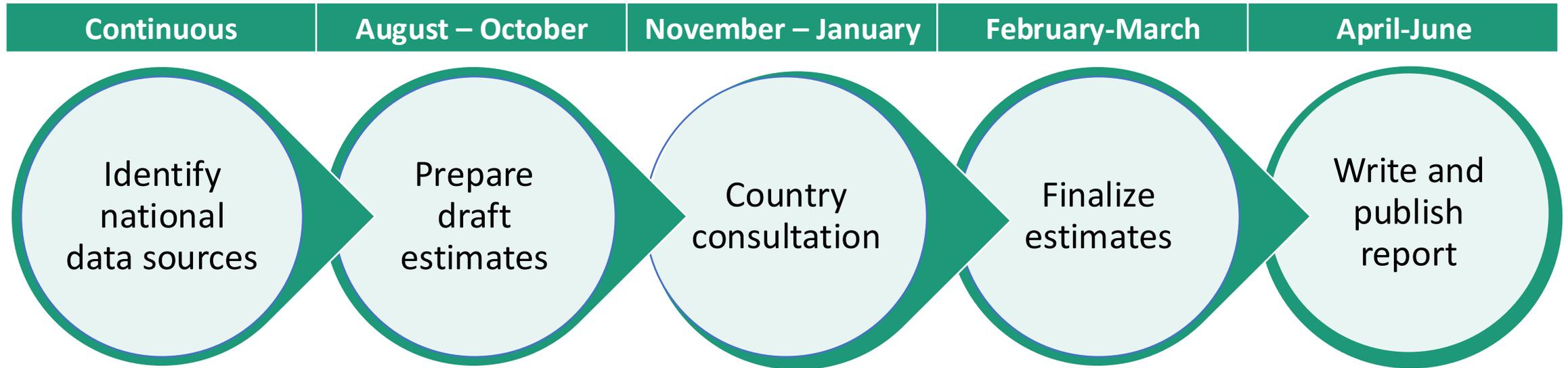
Low



High

RESOURCES: <https://washdata.org/monitoring/sanitation>

# JMP report cycle (every 2 years)



# Align to accelerate (A2A): Core indicators to monitor strength of WASH systems

## Multi-stakeholder initiative

- What factors lead some countries to make rapid progress towards increasing access to WASH services and others not?
- Convergence on WASH systems strengthening but varied descriptions and the monitoring piece is missing
- A common monitoring and review framework with a core set of indicators is needed
- Enable decision-makers to accurately monitor progress, evaluate impact, and ensure accountability at country, regional and global level
- For more information, see [A2A webpage](#)

Since 2015, 49 countries have increased coverage of at least basic sanitation by at least five % pts

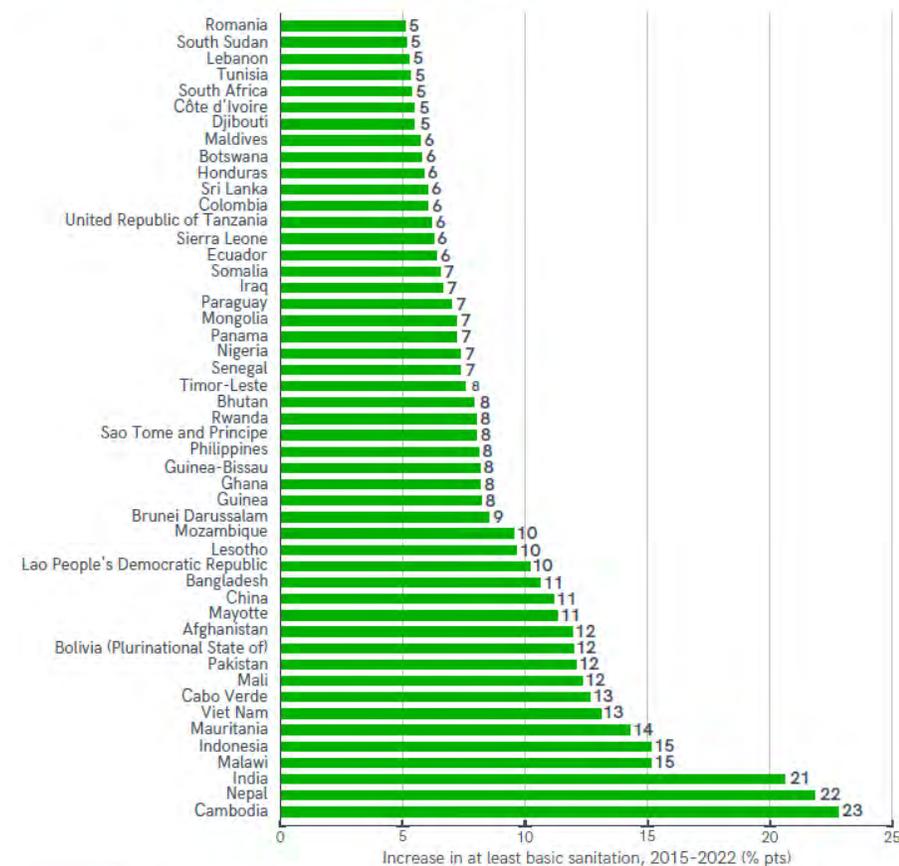


FIGURE 52 Change in the proportion of population using at least basic sanitation services, among countries with at least a five % pt change, 2015-2022

# A2A Discussion Paper – *for review/comments by 30 April*

The [A2A Discussion Paper](#) proposes a technical approach for the selection of a slim set of core indicators:

- **Proposal 1. Indicator domain families.** Eight groupings of WASH system-related topics and two priority cross-cutting areas for which core indicators will be defined.
- **Proposal 2. Core indicator selection criteria.** Ten criteria are proposed to evaluate and rank potential candidate core indicators.
- **Proposal 3. Process to select and prioritize A2A core indicators.** A multi-step process is proposed to engage and consult a diverse set of stakeholders and subject matter experts.

The [A2A Background Paper](#) provides additional information, examples and analysis.

For more information, join the webinar co-organized with Agenda for Change on 17 April at 13h CEST (interpretation in FR/ES)

Zoom registration link:



# Review process: monitoring climate resilience and WASH

- GLAAS and JMP are conducting a review of monitoring climate resilience and WASH:
  - Identifying frameworks, indicators, data collection opportunities, and data describing links between climate resilience and WASH.
  - A consortium of academic institutions (Leeds, Bristol, Oxford, UTS) were selected in March 2024 to support the work.
  - A Technical Working Group provides inputs and reviews outputs.
  - Outputs will identify areas where GLAAS and JMP could focus future monitoring efforts.
- Engaging with multiple stakeholders
  - Public webinars: July 2024, February 2025, April 2025
  - Outreach about the initiative has been started and will continue during global events, conferences, trainings and webinars
- Results to feed into work on Global Goal on Adaptation
  - Identification of indicators for GGA Water target 9a



For more information,  
join the webinar 23 April  
at 9am and 4pm CET  
(interpretation in FR/ES)

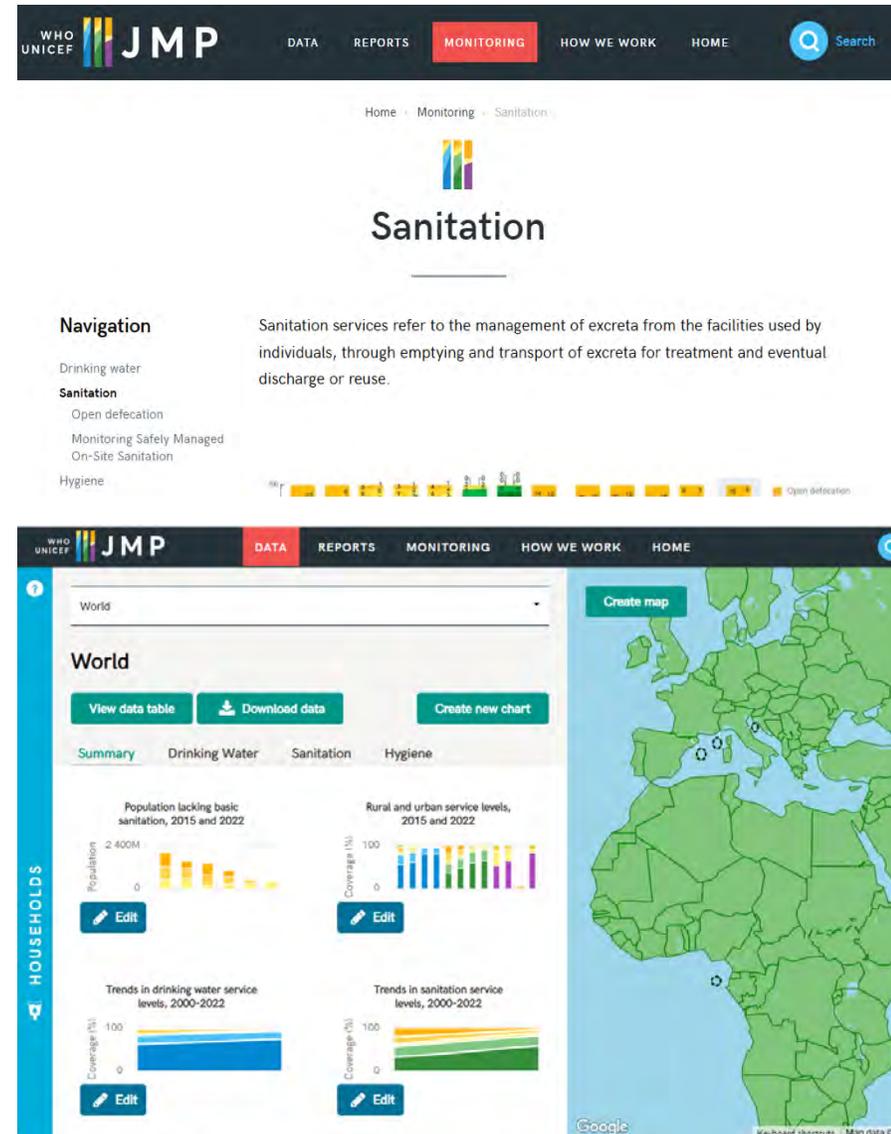
# For more information

<https://washdata.org/monitoring/sanitation>

- Guidance, indicators, draft tools, key lessons and examples from Phase 1 pilots
- Upcoming: Monitoring SMOSS online and offline training, data collection and analysis tools
- Country files and tools to explore the global data

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## Country examples

### **Setting up national monitoring system for safely managed sanitation in Nepal**

**Dr Rajit Ojha**, Department of Water Supply and Sewage Management, Nepal

### **Strengthening sanitation data systems in Indonesia**

**Indah Deviyanti**, WHO Indonesia

### **Non-sewered sanitation data systems in Sub-Saharan Africa: status, challenges, and recommendations**

**Shuko Musemangezhi**, Dev-Afrique, Zambia





# NWASH-MIS our Journey

Rajit Ojha, PhD  
DWSSM, Nepal

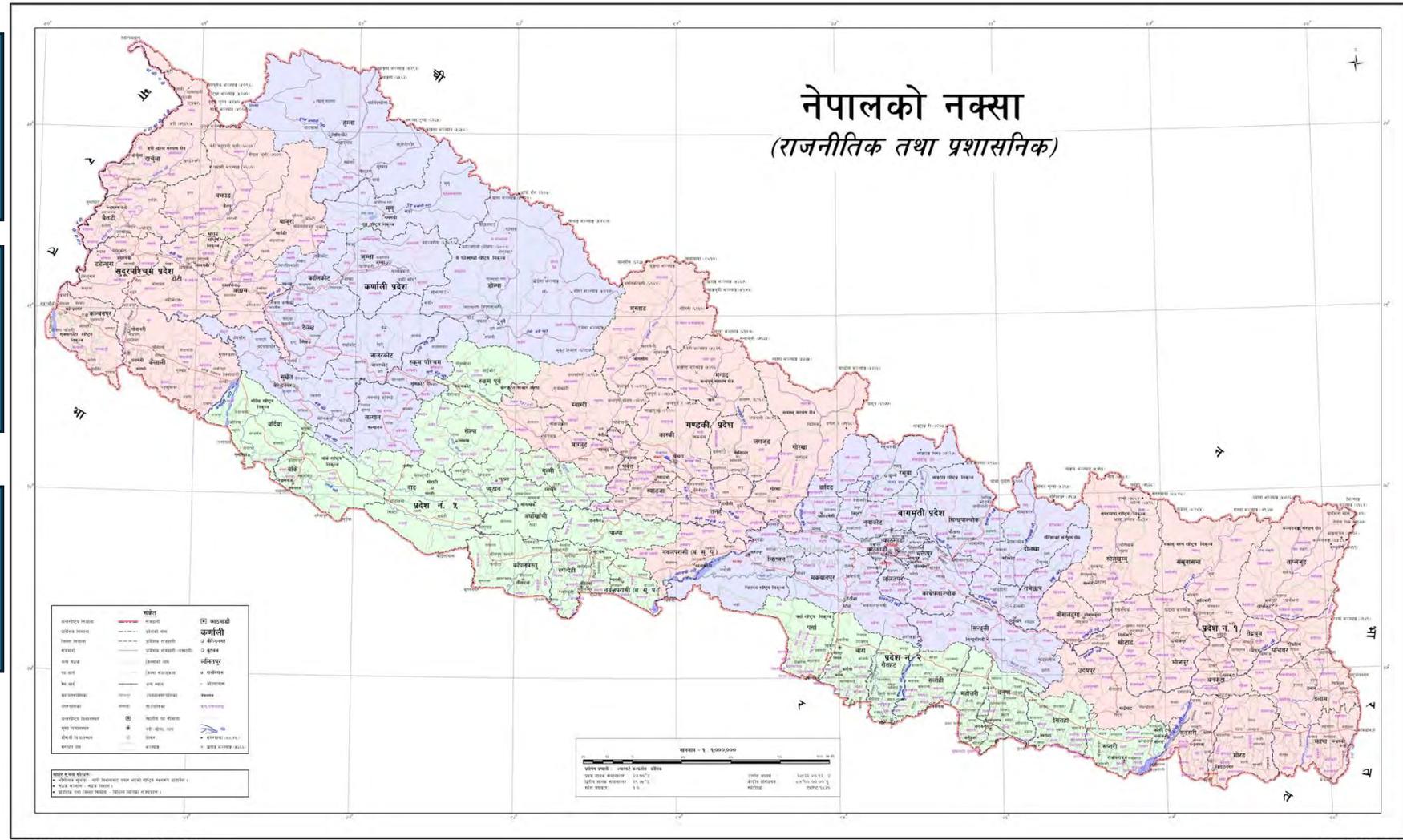


# Year:2015

## Federal State

## 7 Provinces

## 753 Local governments

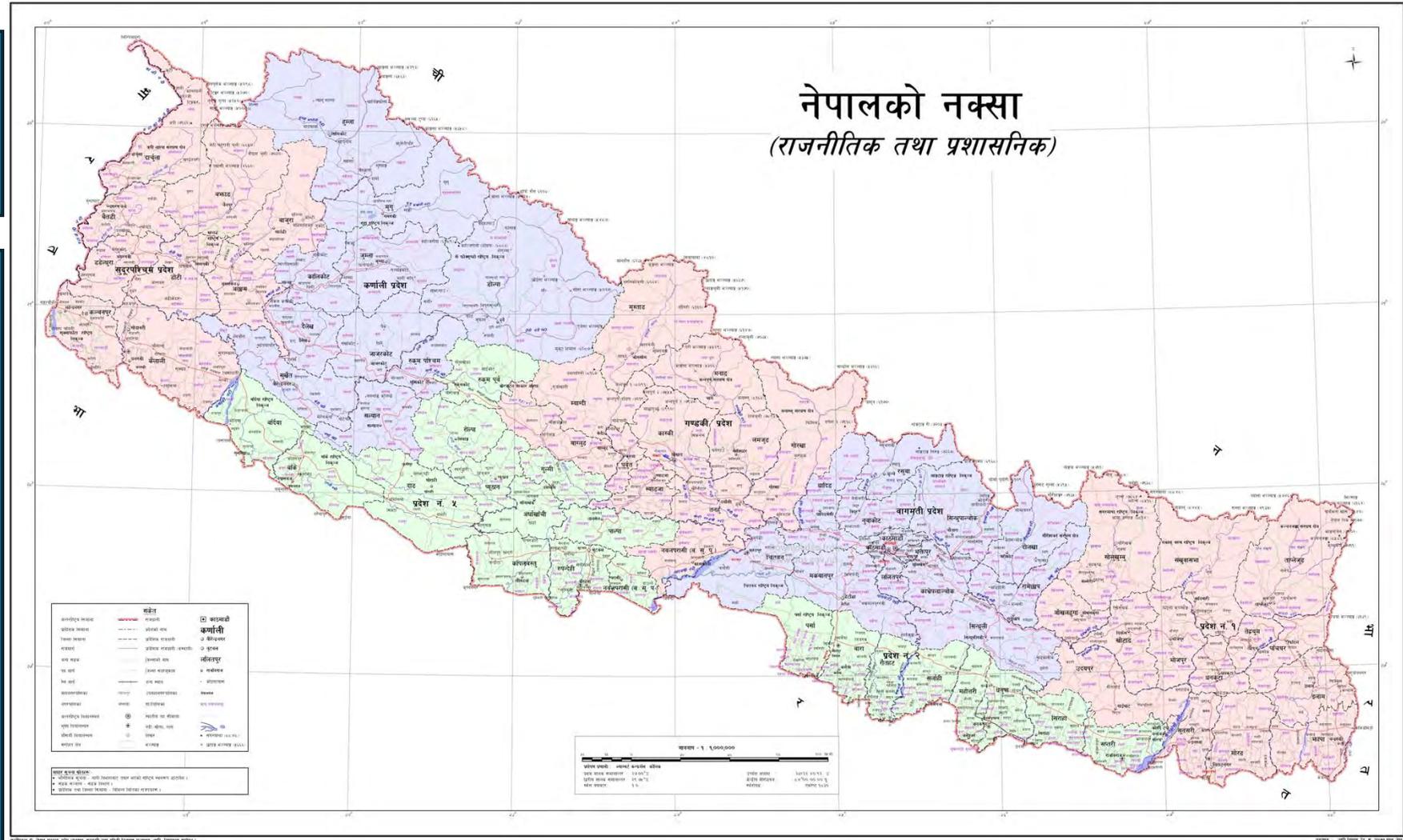


# Year:2015

753 Local governments

Water Supply and Sanitation – Fundamental Right as per the constitution

Most of the functions were devolved to LGs



स्रोत: नेपाल सरकार, पृष्ठ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.



# What did this mean in terms of WASH data ?



Centralized data system  
will not work

## Data layers

ACTS AS SERVICE  
PROVIDERS MIS

Collection, update and use  
(Local level)

Validate, use  
(Provincial level)

Guidelines , update, use  
(Central)

Local governments and service providers need to be  
motivated enough to create the database

# MIS TIMELINE AND COLLABORATORS INVOLVED



FUNCTIONALITY & SUSTAINABILITY M&E



WASH PLAN/SDG 6.1 AND 6.2 REPORTING/SERVER SUPPORT TO GOVERNMENT/HR SUPPORT TO MIS UNIT



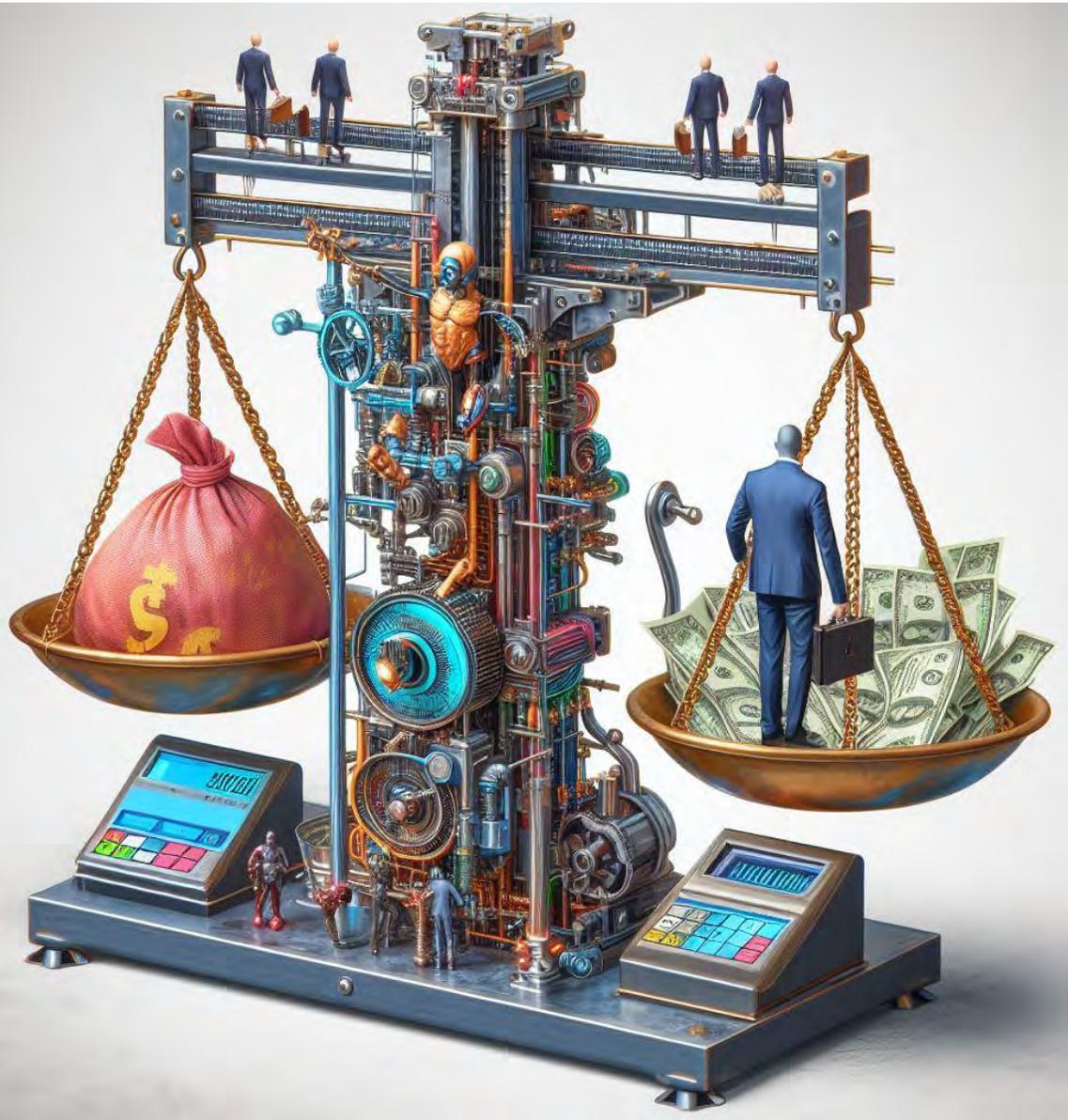
WATER QUALITY HR SUPPORT TO MIS UNIT/TRACKFIN



UTILITY CAREER PATH/BUSINESS PLAN OF UTILITIES/TARIFF CALCULATOR



MARKET DASHBOARD CWIS/SANITATION BENCHMARKING GOVERNANCE ASSESSMENT



Status

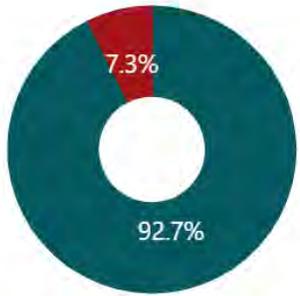
Goal

Investment Required

Financing Options

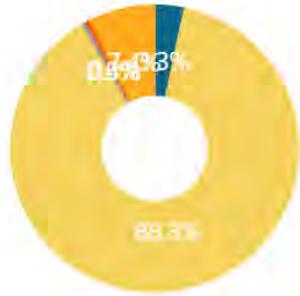


# Wash Plan Dashboard



Available 92.7%

Unavailable 7.3%



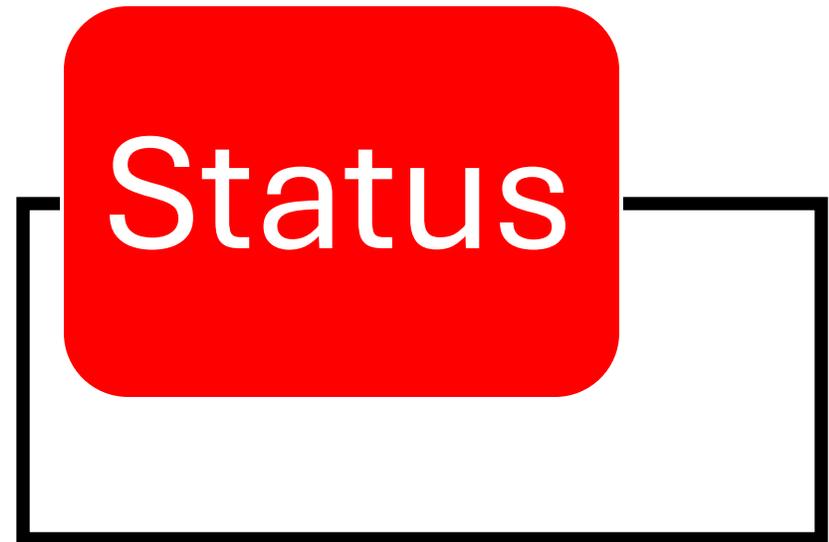
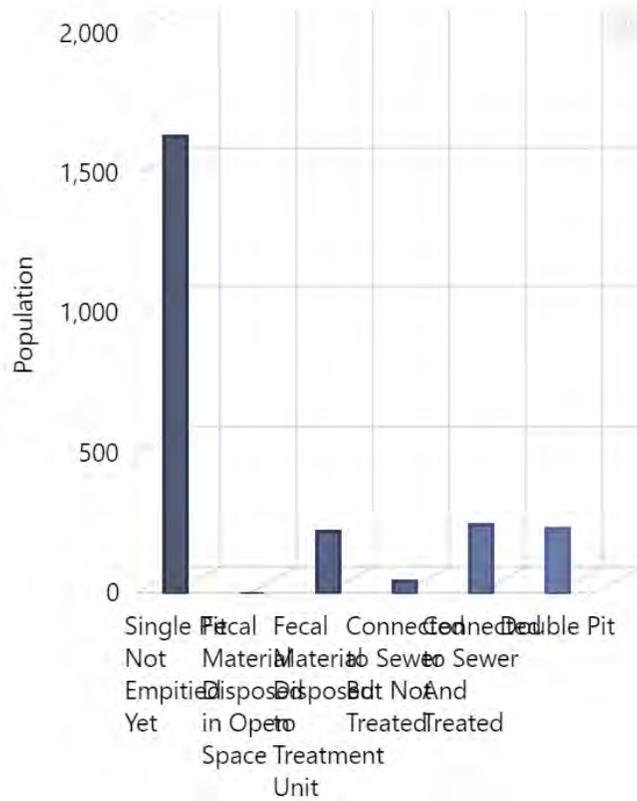
Safely Managed 3.3%

Basic 88.3%

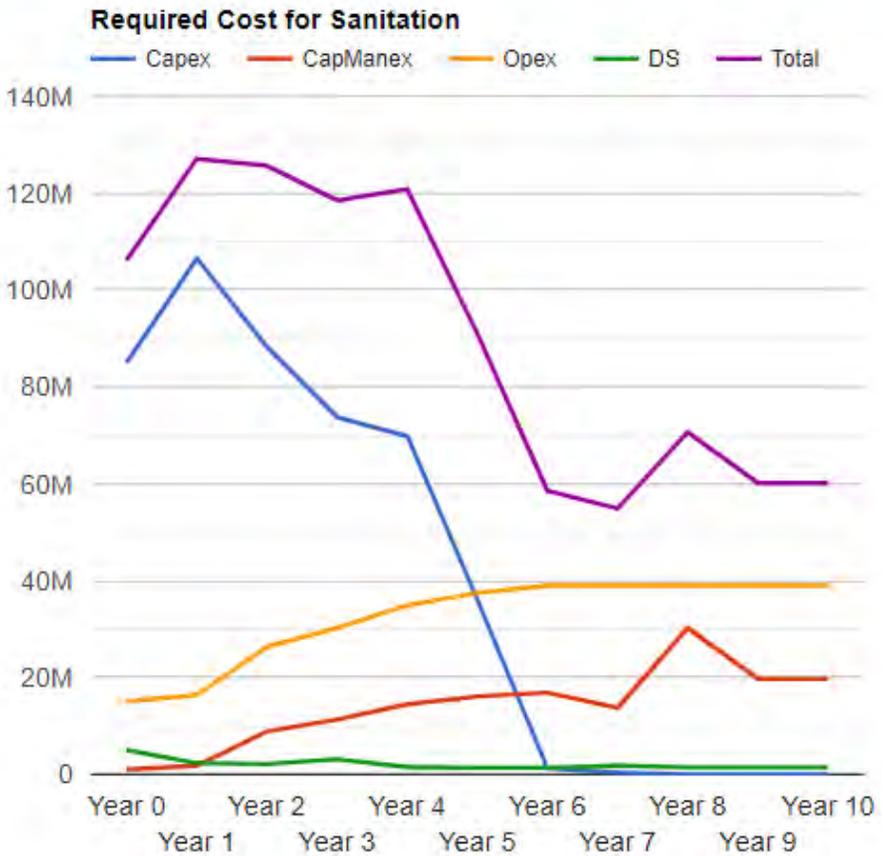
Limited 0.5%

Unimproved 0.4%

No Service 7.4%



Example: Karjanha Municipality, Siraha, Sanitation Status



Investment Required

Example: Gaur Municipality  
(retrieved from NWAASH  
1/14/2023)



Financing Options

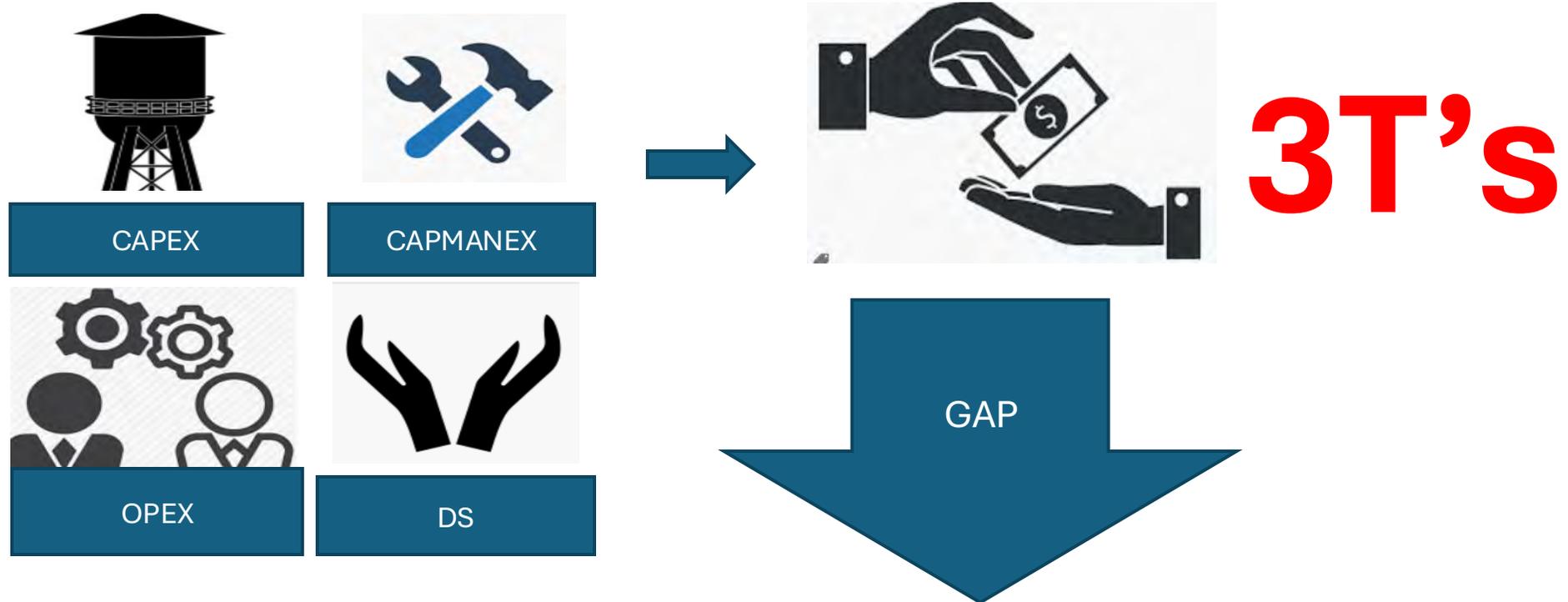
# THE MAJOR FUNDING REQUIREMENTS ARE NEITHER SEEN NOR ADDRESSED

CAPITAL  
EXPENDITURE

ALL REQUIRED  
OPERATING EXPENDITURE

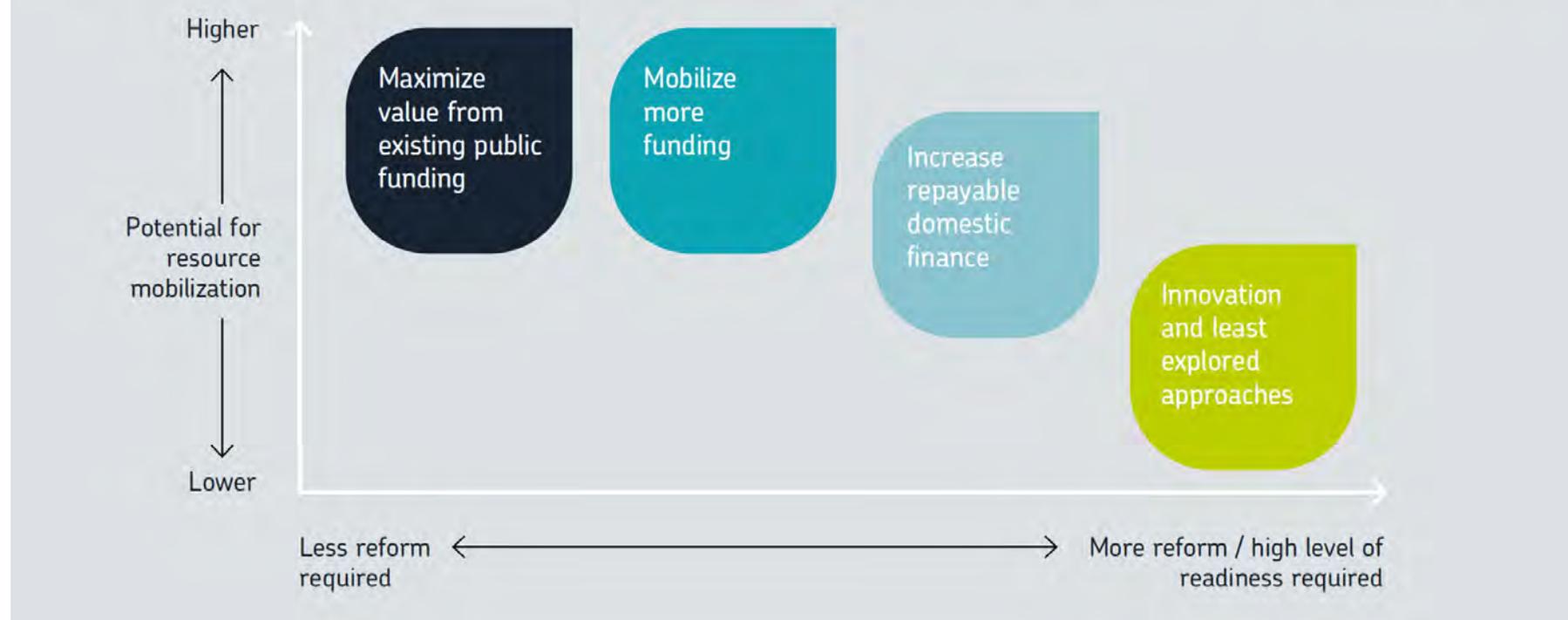


# Analysis through the system



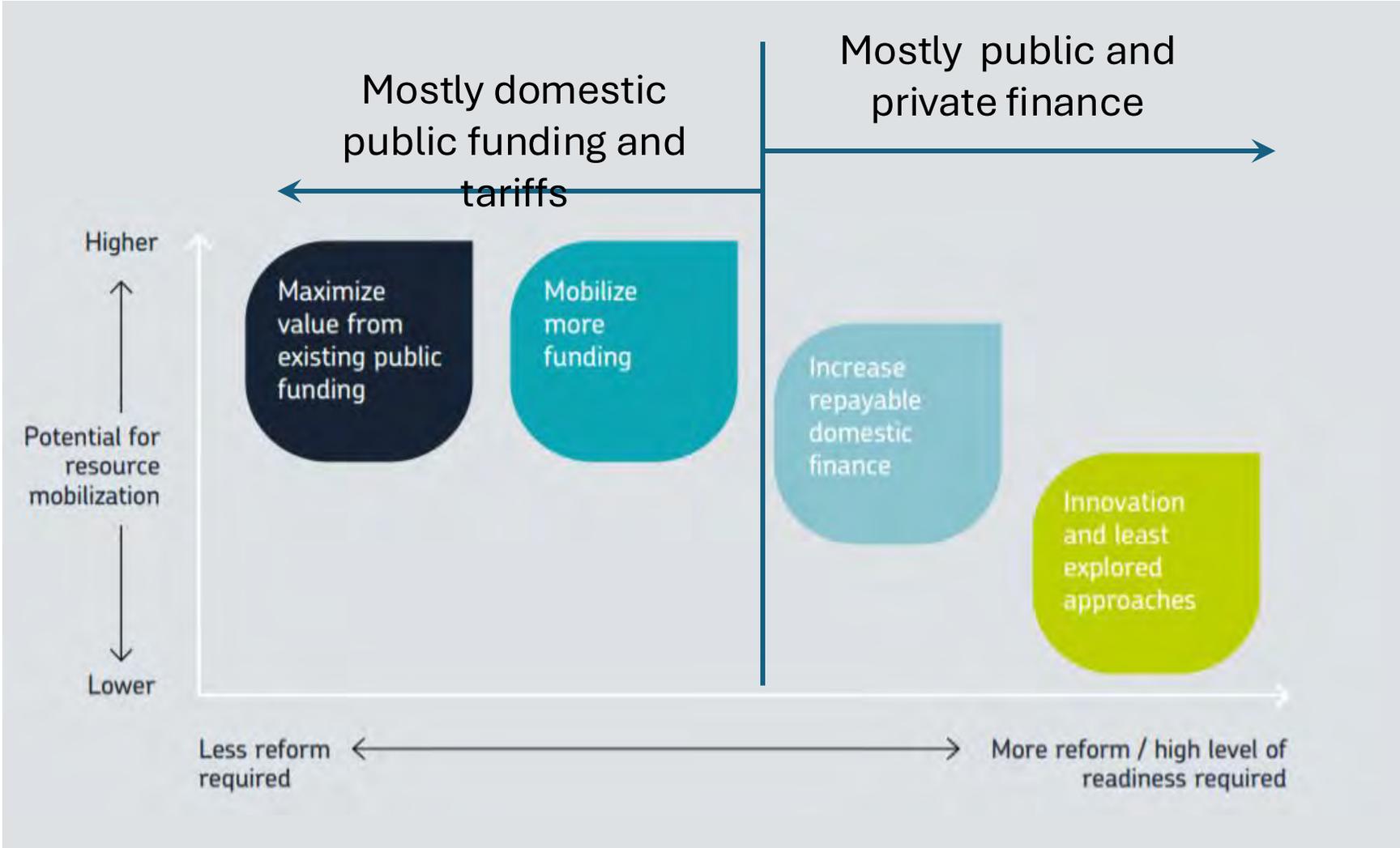
**Trade , Repayable finances,  
Shares , equities, bonds ,  
CSRs**

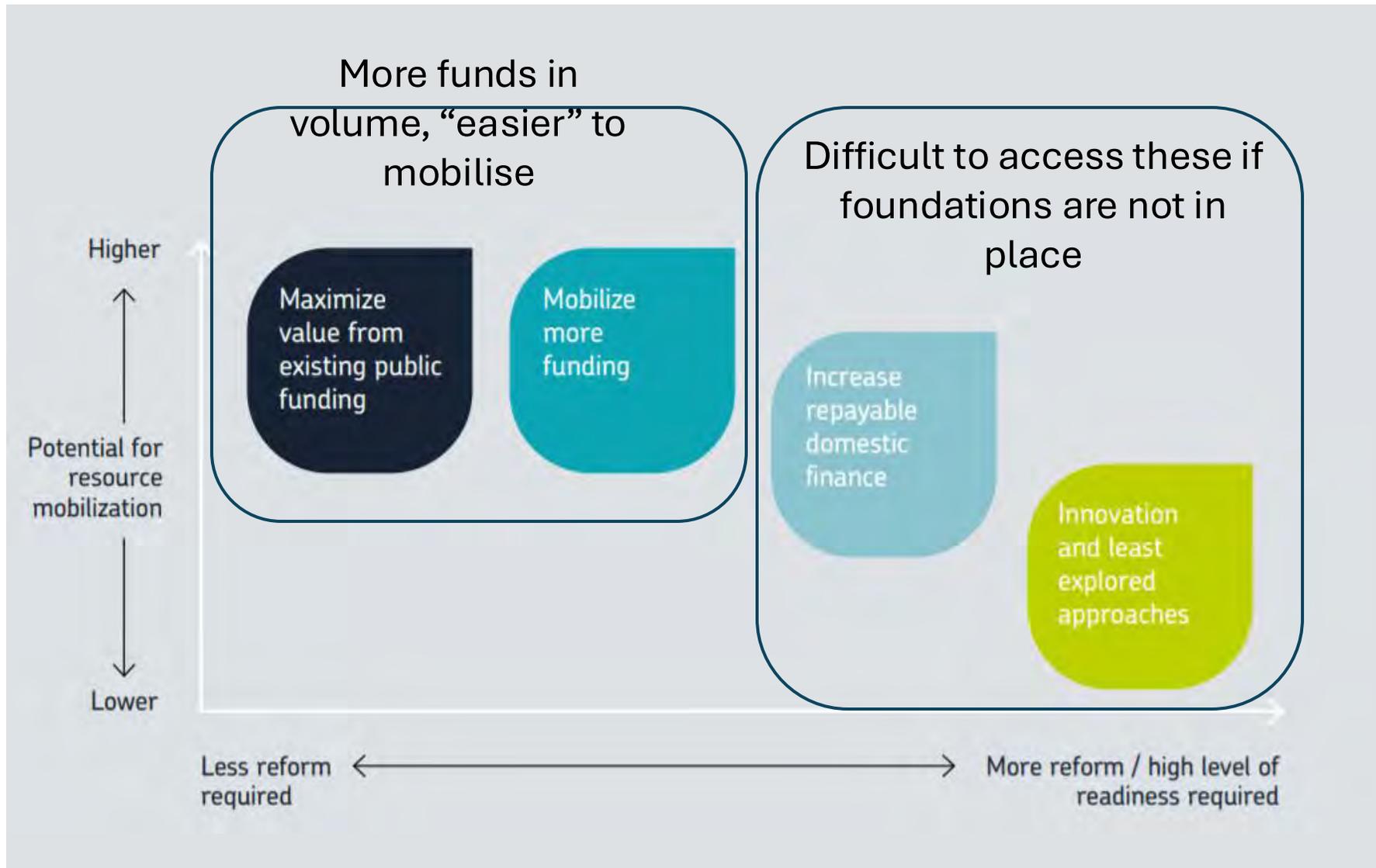
## FOUR CRITICAL INTERVENTION AREAS WITH THE POTENTIAL TO MOBILISE MORE RESOURCES



Source: SWA 2020. Water & sanitation, how to make public investment work. A handbook for finance ministers. Available in EN, FR, SP, PT:

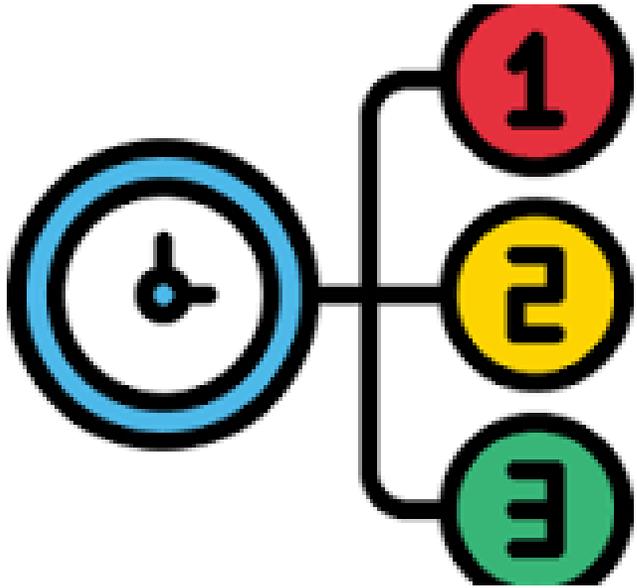
<https://www.sanitationandwaterforall.org/handbook-finance-ministers-how-make-public-investment-work>





# How can we maximize the value of existing funding

Dedicated funds on Local Priorities from Federal and Provincial Governments



**A**dvocacy

**B**ackstopping

**C**oordination & Collaboration



**Policy & legislation:** sector policy & strategy, legal framework, norms & standards, by-laws



**Planning:** planning & budgeting, capacity & frameworks for planning



**Institutions:** coordination, roles, responsibilities, capacity, sector mechanisms



**Finance:** flows & responsibilities, clear frameworks including life-cycle costs & source identification



**Infrastructure:** development & maintenance, project cycles, asset management, roles



**Regulation & accountability:** accountability mechanisms, regulatory framework & capacity



**Monitoring:** framework & routine implementation, service levels, use of data

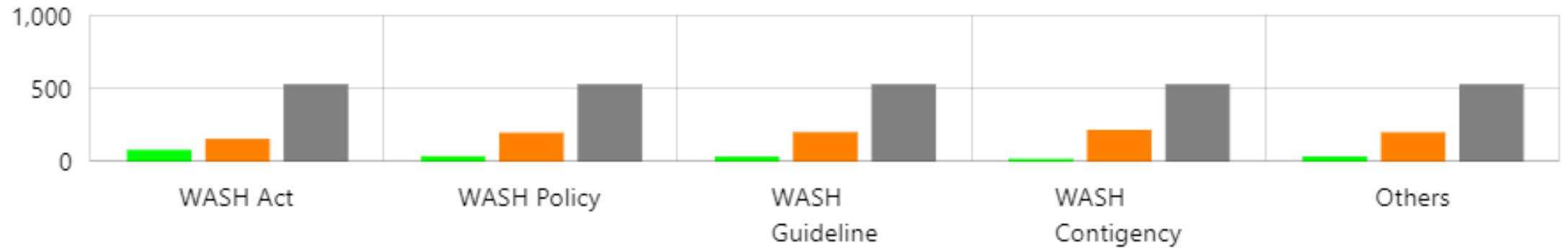


**Water resources management:** allocation & management of resource abstraction, water quality, coordinated efforts

# LEGAL FRAMEWORK STATUS OF LG's

## Integrated

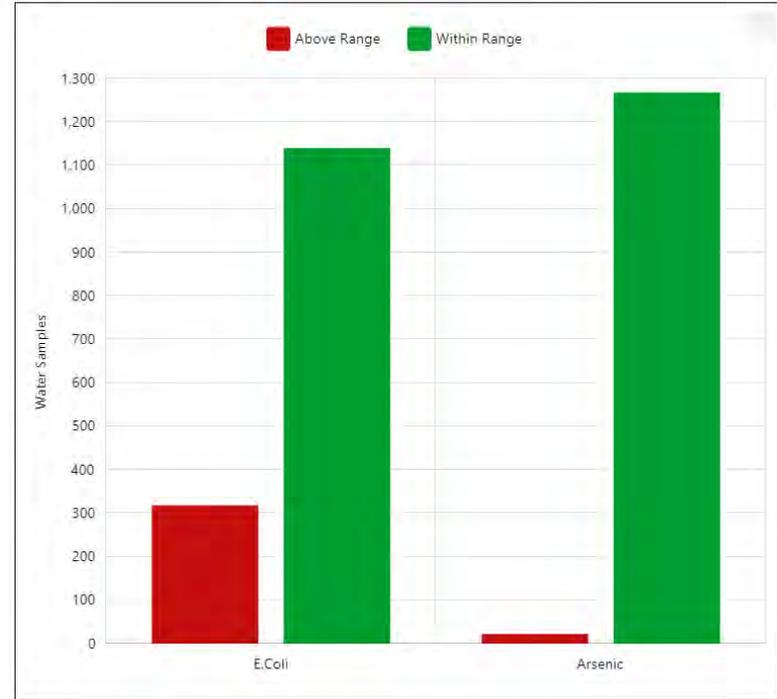
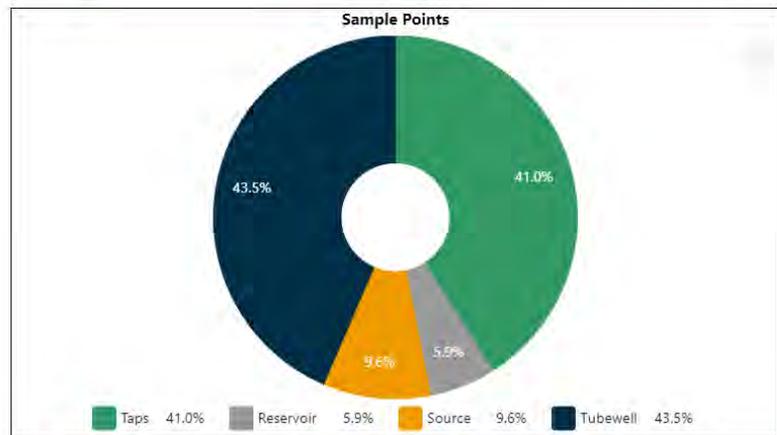
Yes No No Data



Institutional Provision	Yes	No	No Data
WASH Unit Formation	154	66	533
WASH Focal Person	209	14	530
NWASH MIS Focal Person	154	65	534
Adequate HR Capacity	0	0	753
Capacity Strengthening Master Plan	55	164	534

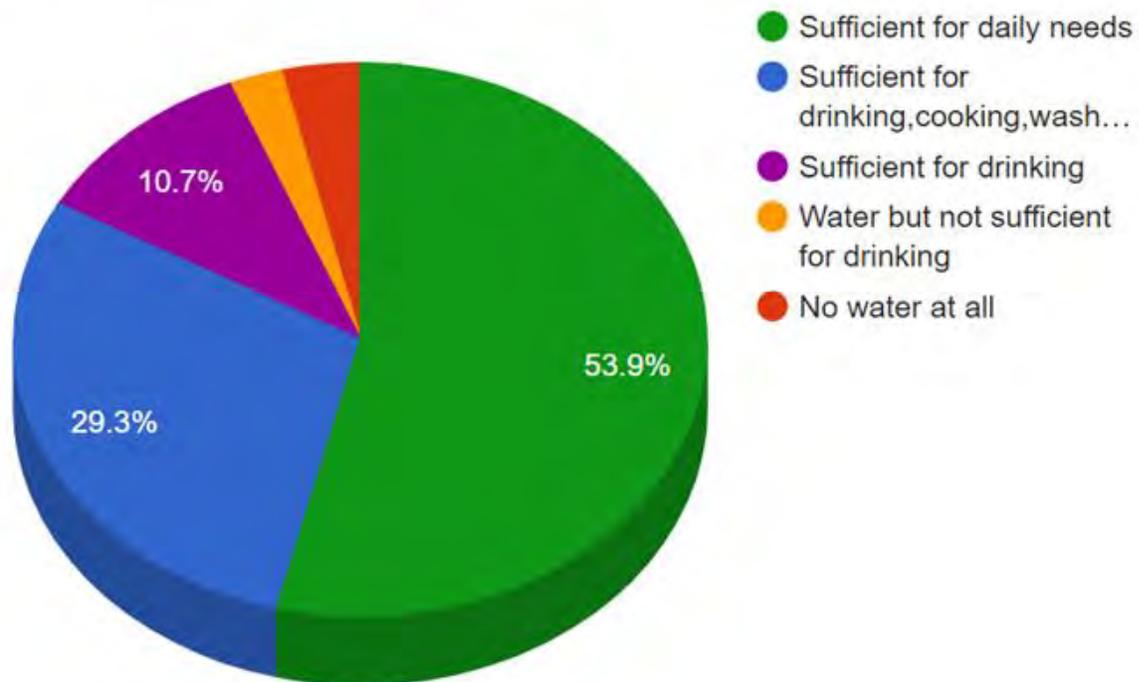
# Institutional data

Water quality

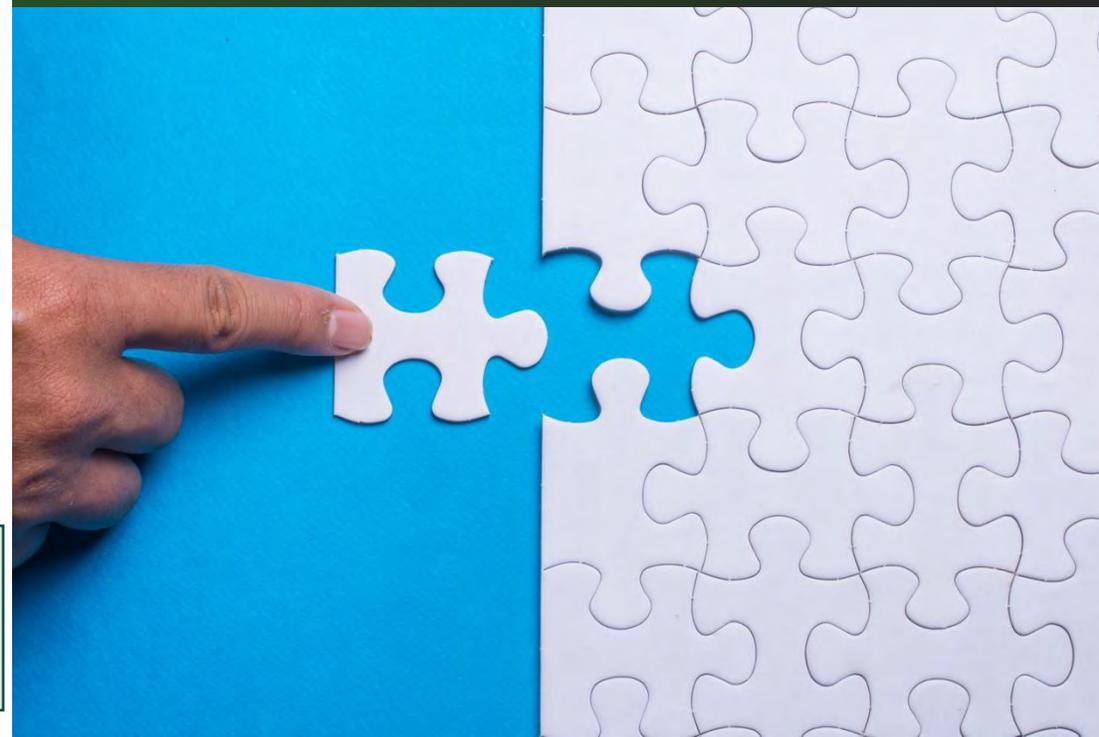


**More than 42000 schemes**  
**More than 20000 service providers**  
**Average size of big utilities approximate 3000 connections**

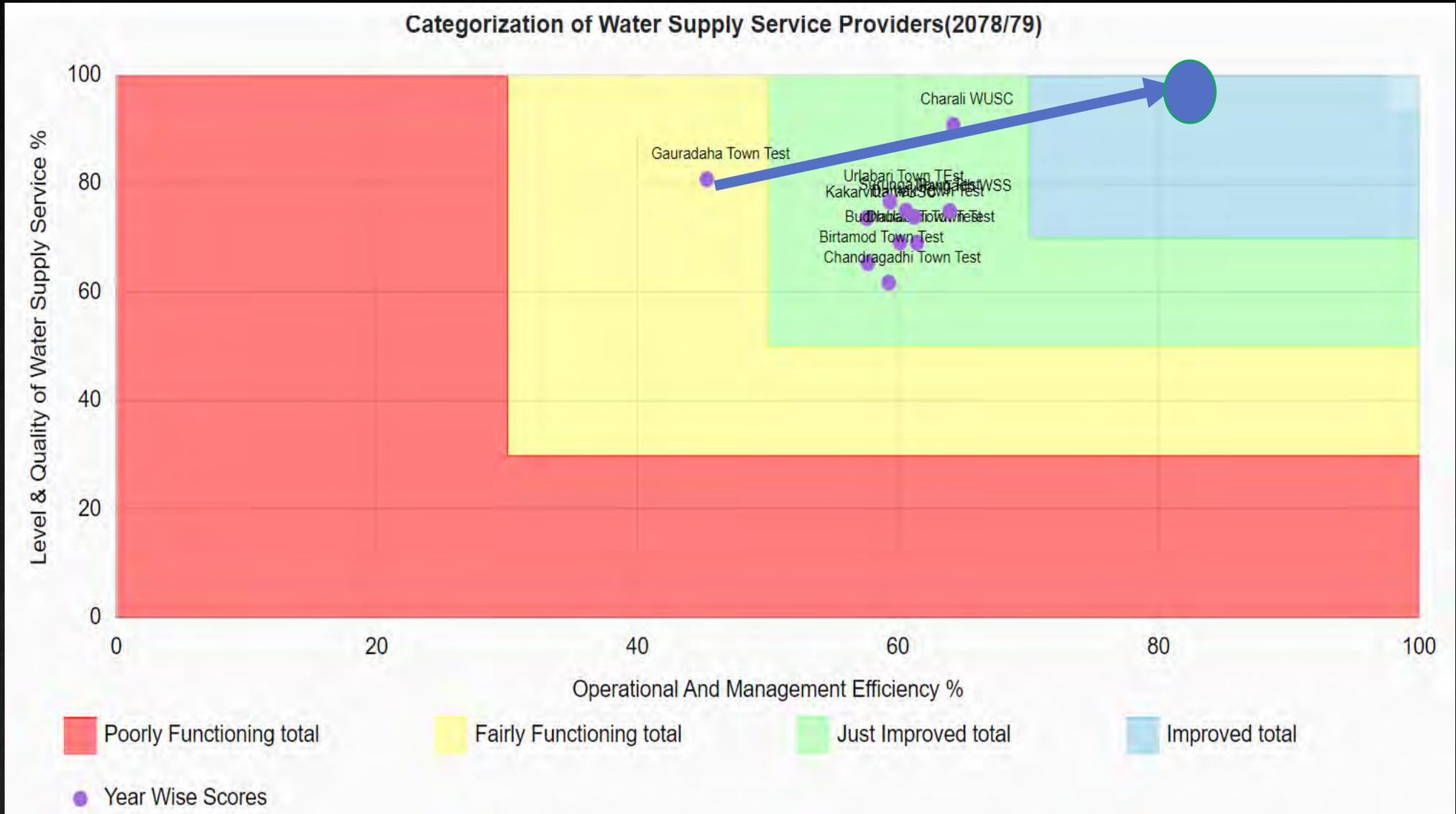
Tap Flow Condition



**There must be a problem since we are not delivering expected service level as designed**



# IDENTIFY WHERE YOU ARE.. PLAN WHERE YOU WANT TO BE



**3 components associated in our regulation which in practice would be great if it was single entities responsibility but has been shared among 3 entities**



Ministry of  
Water Supply  
for Service  
level Inspection



Department of  
Water Supply and  
Sewerage  
Management for  
licensing



Water Tariff Fixation  
Commision for  
setting up the tariff  
of water and  
wastewater services

All these 3 entities **can provide guidance only below some thresholds** because of 3 layers of governments , there are some responsibilities of these 3 functions have been devolved to province and LGs



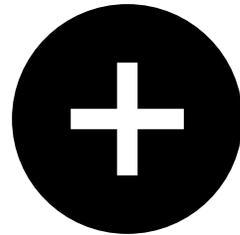
Ministry of  
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licensing



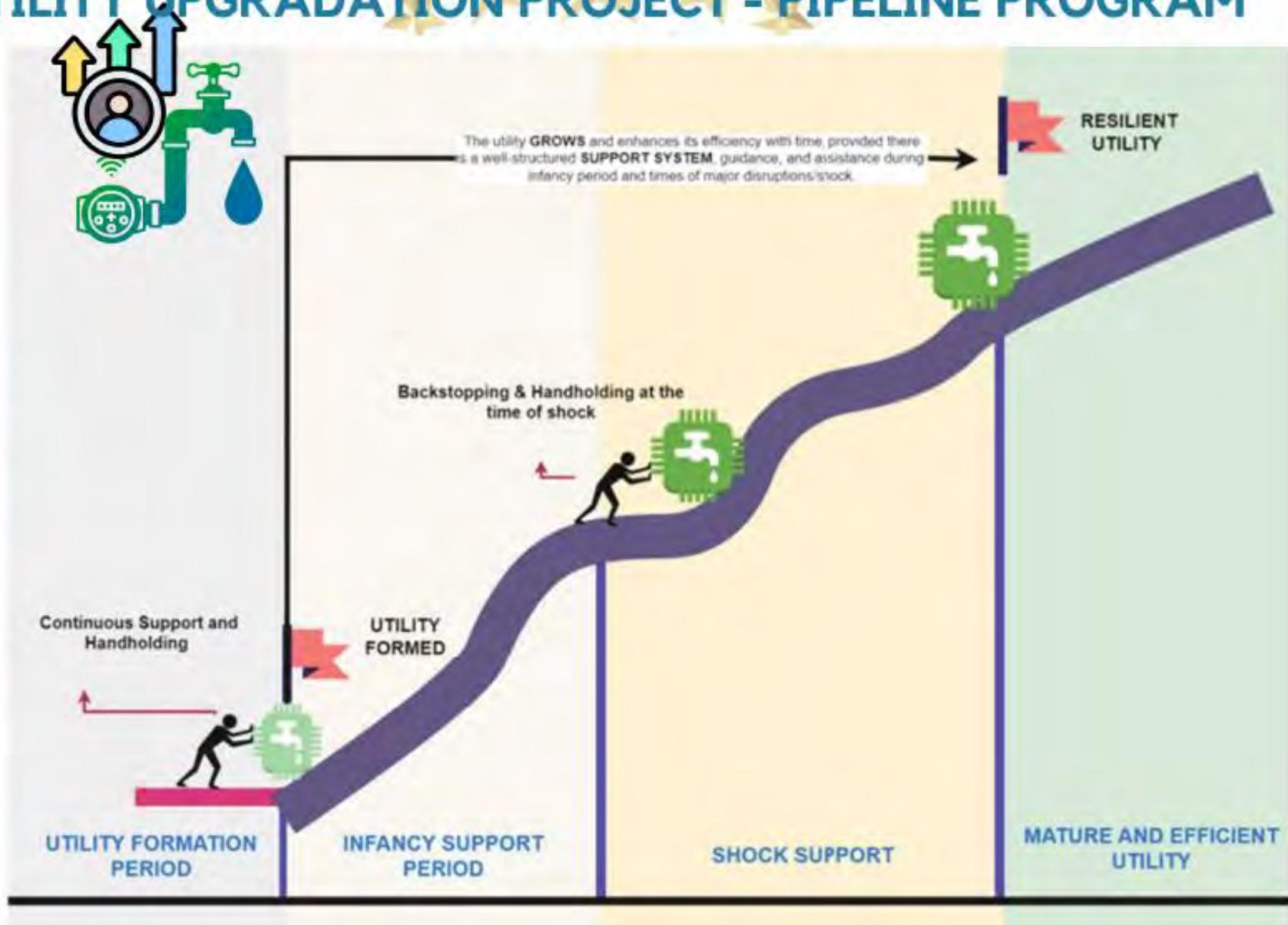
Water Tariff Fixation  
Commision for  
setting up the tariff  
of water and  
wastewater services



**Enforcement and Capacity building should go hand in hand and capacity building should be for both regulator and service provider**

# UTILITY UPGRADATION PROJECT - PIPELINE PROGRAM

## Utility Upgradation





Create the dashboard for private sector with enabling environments analysis



Model the: HR, tools, materials required

Status

Goal

Investment Required

Financing Options

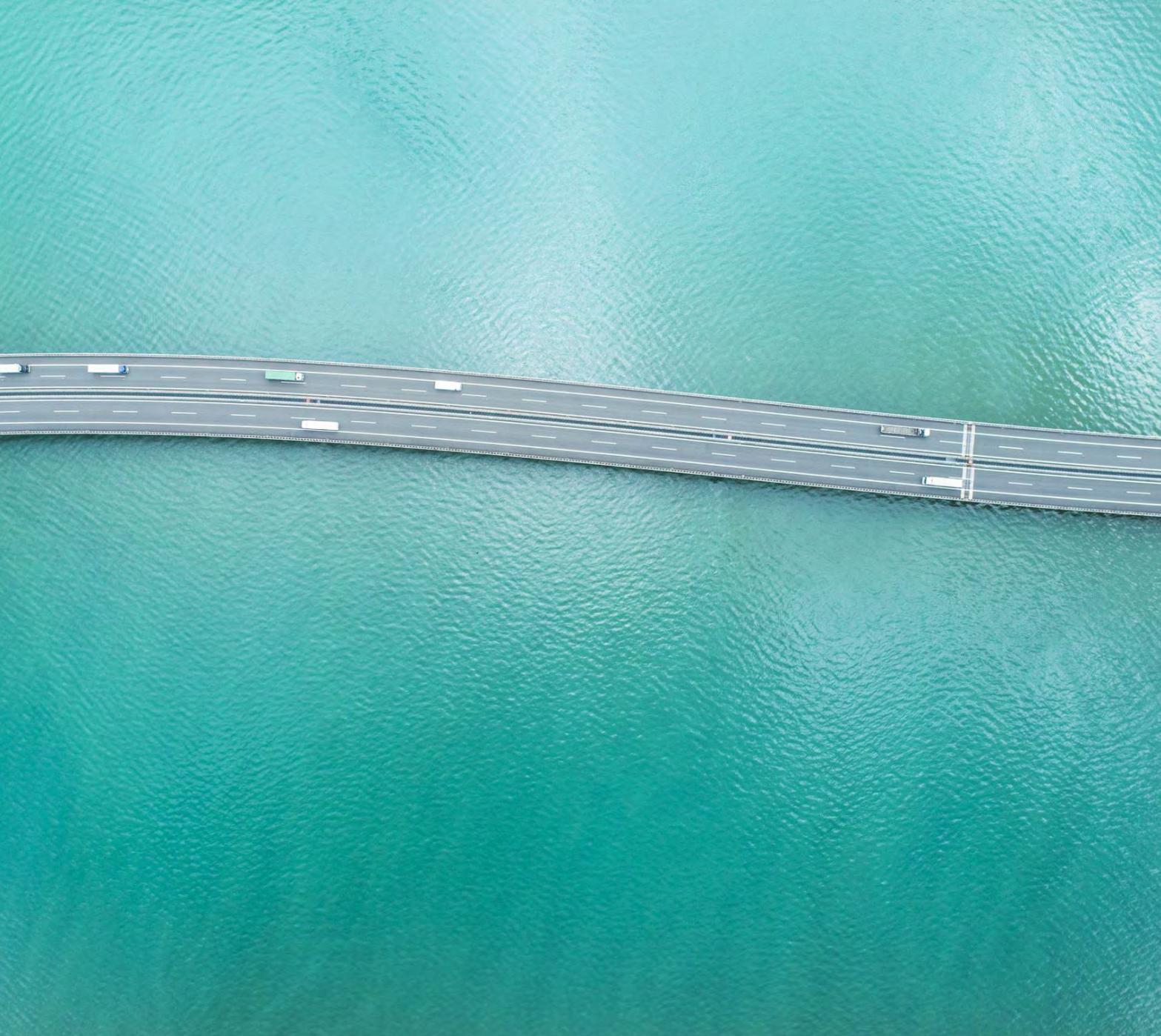


# How to improve data collection? The simpler it is the better data we have



Left - Corrosion identified by our model. Right - Broken tap identified by our model/





Thank you

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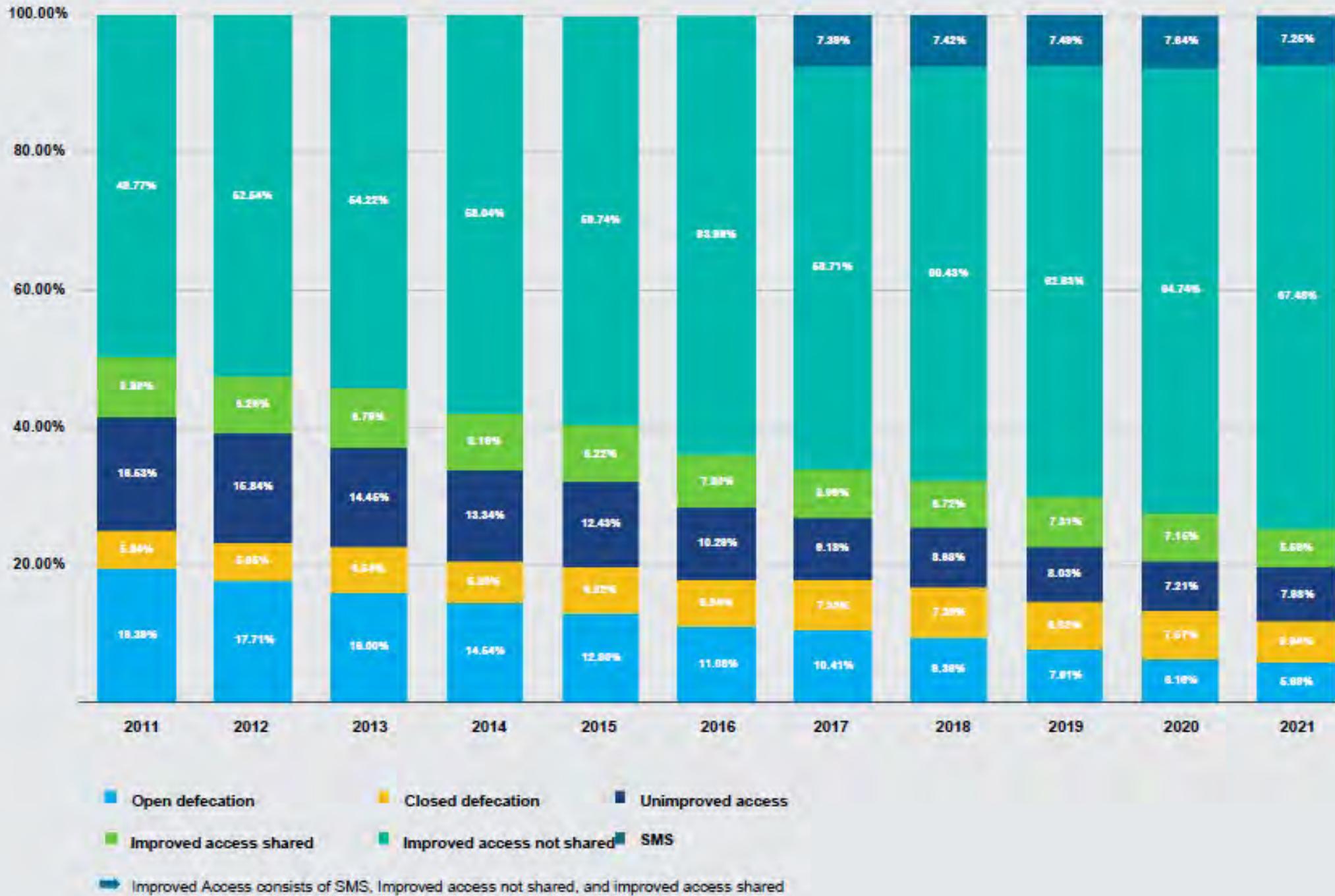
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# Strengthening Safely Managed Sanitation Data Monitoring in Indonesia

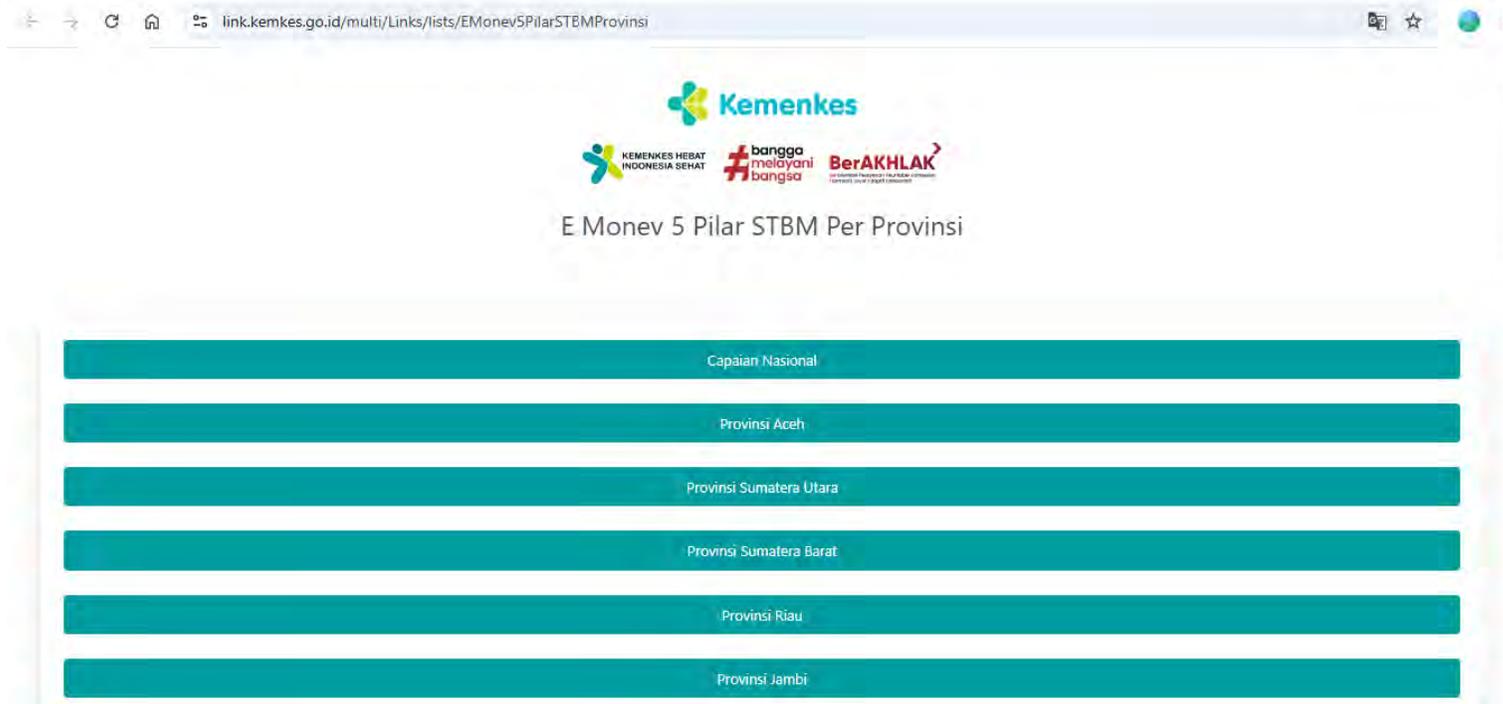
Indah Deviyanti

NPO Environmental Health and Climate Change

# Safely Managed Sanitation Progress - Indonesia



# Overview of Sanitation Data Monitoring Systems in Indonesia – e Monev STBM



5 Pillars STBM (Sanitasi Total Berbasis Masyarakat- Adopted from CLTS) , containing :

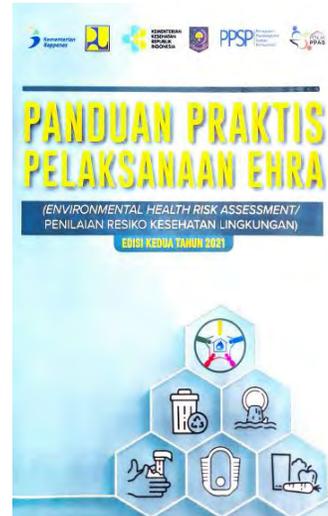
1. **Stop Open Defecation.**  
Monitor Sanitation service ladder  
Done quarterly by sanitation at PHC level
2. Hand Hygiene
3. Safe Water and Food
4. Solid waste
5. Liquid waste

# Overview of Sanitation Data Monitoring Systems in Indonesia

## Environmental Health Risk Assessment (EHRA)

Sanitation Component include :

1. Type of sanitation
2. Risk of infiltration
3. Toilet structure
4. Cleanliness
5. Emptying practice
6. Cost and affordability of desludging
7. Risk of flooding → relevant with climate



**EHRA**

1. Internalization and perception alignment

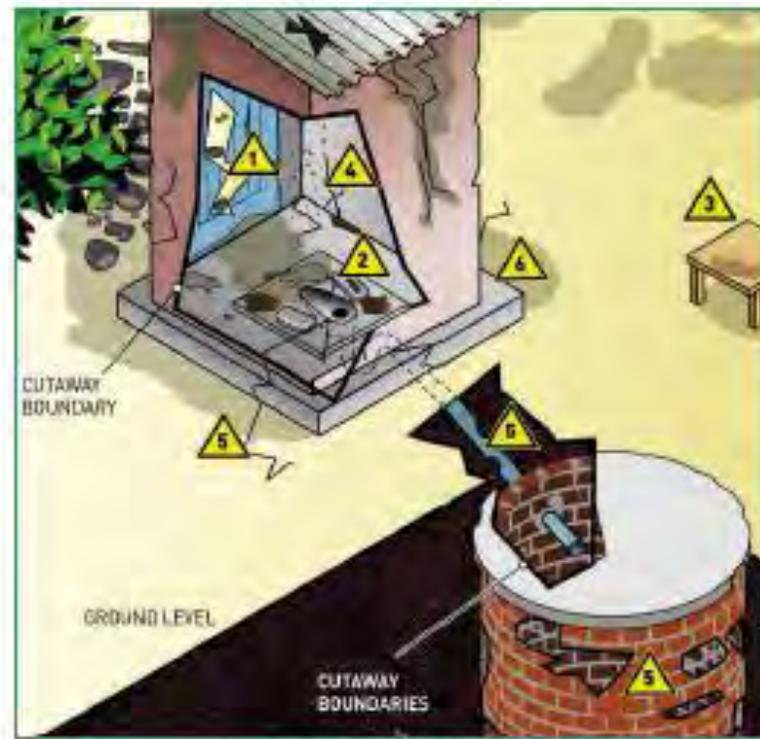
2. Mapping of sanitation conditions and progress

3. Sanitation development scenarios

4. Consolidation of sanitation budgeting and marketing

5. Finalization of District San Strategy

# Pilot testing of sanitation inspections for national monitoring in Indonesia



- E-Monev and EHRA offer detailed data collection; however, their usefulness is more to the district planning, as they are conducted only annually and every five years, respectively.
- MoH, with support from UNICEF Indonesia piloted the WHO SI inspection to better target infrastructure investments and empower community for improving their own facilities
- The inspection involved sanitarian and relevant local stakeholders including local community and youth organizations

## Lesson Learned

- The data have been instrumental in identifying high-risk areas and prioritizing interventions, leading to more effective use of resources
- The tools have not addressed in detail the facility improvement plan and only focused on the household level
- Inconsistent implementation across different regions, particularly in remote areas
- Needs for better integration into broader strategic financing

## WHO's Efforts

- Training and capacity-building efforts empower local stakeholders to manage sanitation systems more effectively through initiation of SSP
- Adoption of Sanitary Inspection for sanitation surveillance
- Stakeholder discussion for potential GCF access for SSP implementation in Indonesia
- Bring evidence from GLAAS for further national discussion on sanitation planning



PERENCANAAN PENGAMANAN SANITASI (SSP)

Langkah-langkah manajemen risiko untuk pengelolaan sistem sanitasi yang aman

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# Terimakasih

Indah Deviyanti  
deviyantii@who.int

# Non-Sewered Sanitation Data Systems in Sub-Saharan Africa: Status, Challenges, and Recommendations

Bridging Gaps, Unlocking Opportunities, and Driving Impact

Shuko Musemangezhi | 15/04/2025

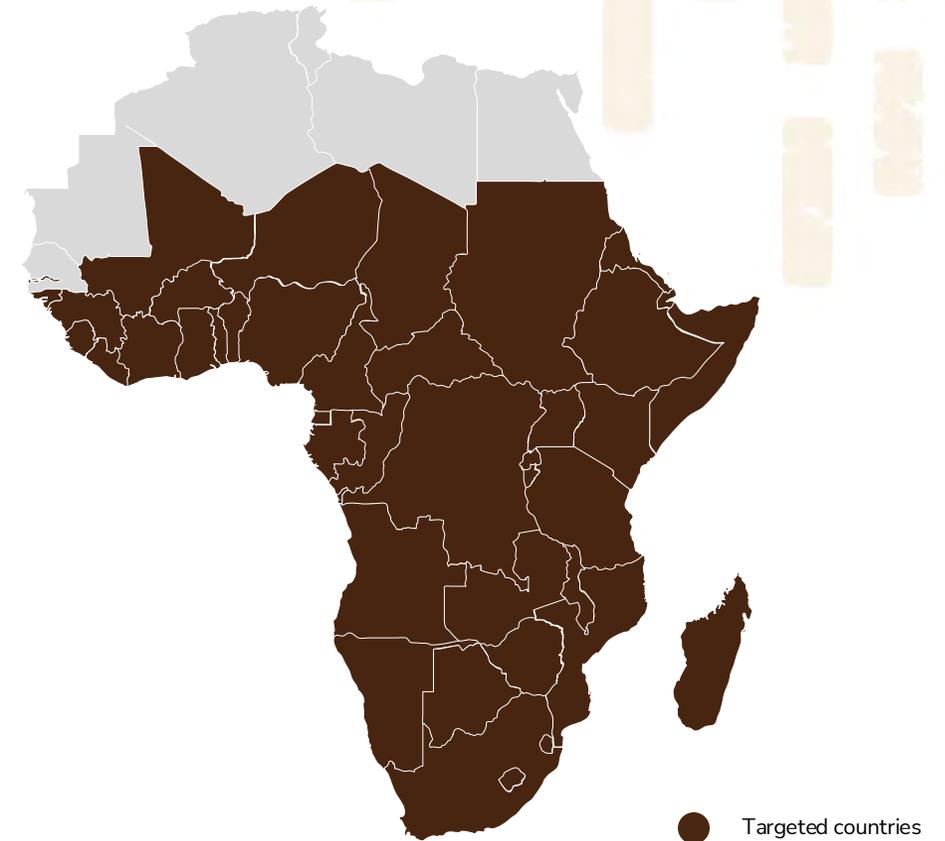


# Dev-Afrique is implementing a Sanitation Data Systems Strengthening project in sub-Saharan Africa with support from the Gates Foundation

**Project goal:** To improve public data systems for effective decision-making and performance management for sanitation service delivery at municipal and utility levels

Dev-Afrique contributions:

- **Improve understanding of data systems strengthening best practices from non-WSH data systems** like Health. Dev-Afrique will landscape transferable best practices from health sector data systems to facilitate learning within WSH
- **Improve understanding of the current state of non-sewered sanitation data systems** at municipals and utilities in sub-Saharan Africa.
- **Support developing and piloting the WSH data systems maturity index** developed by ESAWAS and Athena.
- **Landscape and develop an inventory of successful WSH tools** in South Asia and sub-Saharan Africa. The tools resulting tools map will facilitate lesson learning and potential replication in municipals and utilities with existing gaps.
- **Provide technical support and facilitate cross-learning and insights sharing** on data systems best practices.



# Why NSS Data Systems Matter

Robust Data Systems

 **Inform Policy & Planning:**  
Enable evidence-based decision-making for sanitation investments.

 **Improve Service Delivery:**  
Enhance monitoring of access, safety, and inclusivity.

 **Support Climate Resilience:**  
Track the impact of climate change on sanitation systems.

 **Drive Accountability:**  
Strengthen regulatory frameworks and performance monitoring

Global Reporting

SDG	Linkage with sanitation
 Clean Water & Sanitation	Tracks access to safely managed sanitation, faecal sludge management, and hygiene
 Good Health & Well-being	Links sanitation data to disease surveillance, antimicrobial resistance, and public health
 Sustainable Cities	Supports urban sanitation planning, informal settlement upgrades, and waste management
 Climate Action	Monitors resilience of sanitation services to climate shocks and extreme weather
 Gender Equality	Captures gender-disaggregated sanitation access data for policy action

Regulatory Demands



Utility Goals



# Why NSS Data Systems Matter

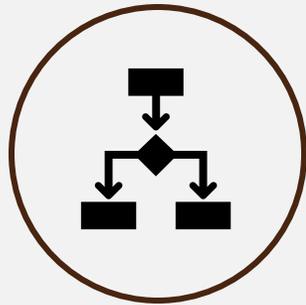


**NSS data scarcity** across SSA has led to a **lack of requisite data** needed to **improve service delivery, track performance, increase operational efficiency, and build an investment case for resource allocation**

Dev-Afrique, supported by the Gates Foundation, conducted a **landscape assessment of NSS data systems across utilities and municipalities** in 10 SSA countries to **illuminate existing challenges and enable the identification of best practices** that can guide interventions aimed at strengthening NSS data systems.

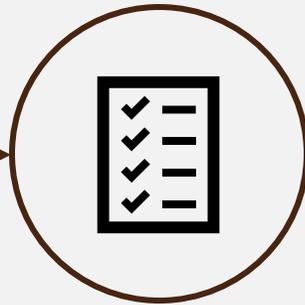
# Assessment Scope and Methodology

Qualitative case study using a participatory approach



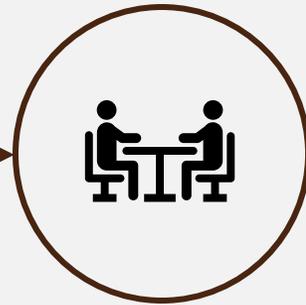
## Adaptation of assessment framework

Dev-Afrique's 2022 Geospatial Value pipeline framework was adapted to map critical elements of a data system.



## Desk based review

A review of online articles, conference proceedings, previous reports, and key stakeholder reports and websites.



## Stakeholder interviews & analysis

Dev-Afrique interviewed 28 stakeholders including governments, regulators, utilities, and municipalities from 10 countries.

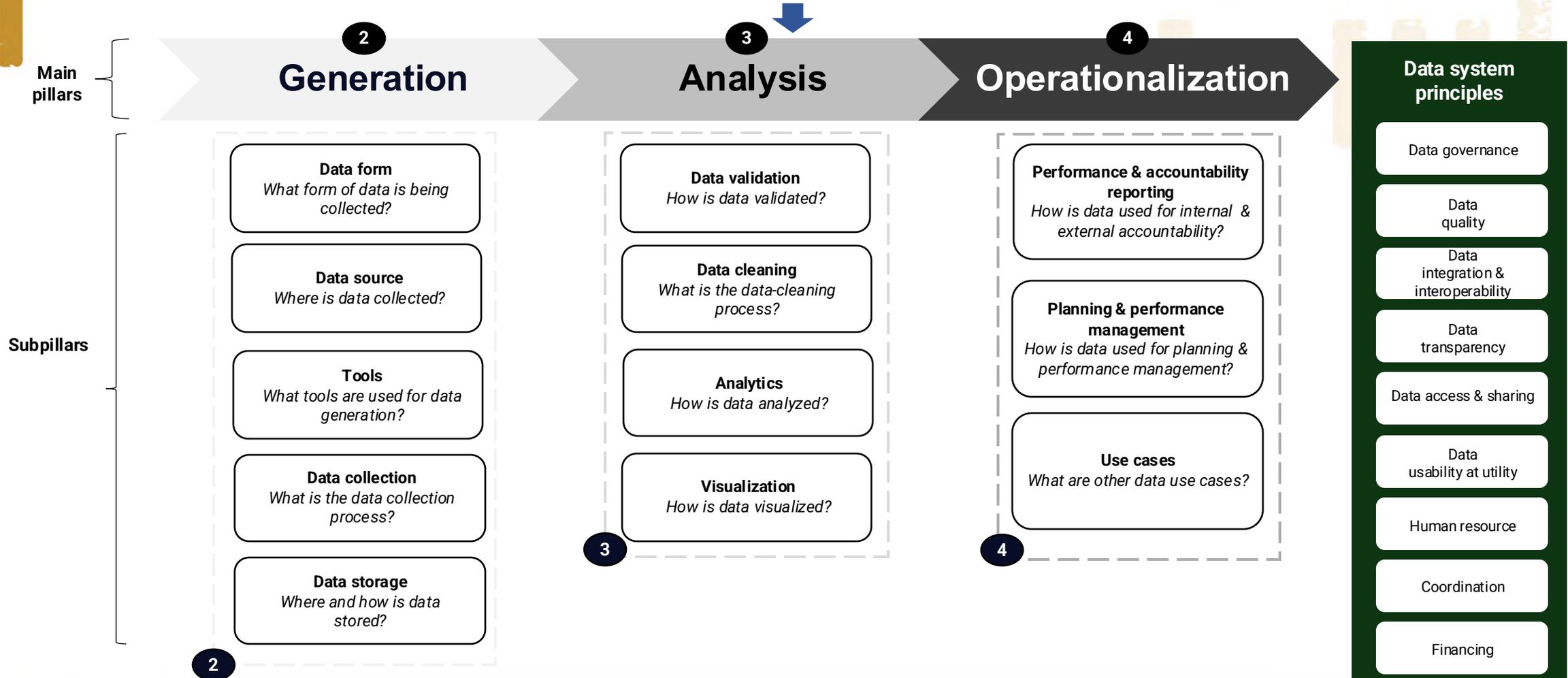


## Multi-layer review

The draft report underwent multiple layers of peer review to validate the findings.

# Assessment Scope and Methodology

1 To ensure the data value chain is most effective, first define the data's intended use—i.e, *What decisions do you want to make using data?*



# Assessment Scope and Methodology

## Rwanda

Rwanda Utilities Regulatory Agency (RURA)  
Water & Sanitation Corporation (WASAC)  
Association of Emptiers in Rwanda

## Uganda

Water Utility Regulation Department (WURD)  
Kampala Capital City Authority (KCCA)  
National Water & Sewerage Corporation (NWSC)  
Ministry of Health

## Nigeria

Office of Drainage Services  
Lagos State Ministry of the Environment & Water Resources (MoE Lagos)  
Lagos State Water Regulatory Commission (LASWARCO)  
Lagos State Wastewater Management Office (LSWMO)  
Environmental Health Council of Nigeria

## Ethiopia

Ministry of Water & Energy

## DRC

US. Agency for International Development

## Kenya

Ministry of Water, Sanitation, & Irrigation (MoWSI)  
Water Services Regulatory Board (WASREB)  
Water & Sanitation Providers Association (WASPA)  
Kisumu Water & Sanitation Company (KIWASCO)  
Malindi Water & Sewerage Company (MAWASCO)  
Nakuru Water & Sanitation Company (NAWASSCO)

## Zambia

Southern Water & Sanitation Company (SWSC)  
Lusaka Water Supply & Sanitation Company (LWSC)  
Western Water Supply & Sanitation Company (WWSC)  
Ministry of Health (MoH)

## Tanzania

Energy & Water Utilities Regulatory Authority (EWURA)

## South Africa

Department of Water & Sanitation (DWS)



# Landscape Status



Most utilities have not conducted baseline mapping



NSS data is not fully mainstreamed into utility decision-making process



Most utilities use basic analytics approaches and excel for analysis.



No existing standard operating procedures to guide data system principles

# Non-sewered sanitation data systems in sub-Saharan Africa are weak and fragmented

## Data Generation

1. Infancy of NSS data collection methodologies
2. Lack of baseline NSS data
3. Inadequate political will and investments
4. Weak data capacities
5. Fragmentation of NSS data collection

## Data Analysis

## Data Operationalization

6. Fragmented NSS data storage systems
7. Limited of regulation and clear reporting frameworks
8. Poor data quality
9. Inadequate compliance monitoring

# Non-sewered sanitation data systems in sub-Saharan Africa are weak and fragmented

Data Generation

**Data Analysis**

Data Operationalization

1. Lack of automated data validation tools
2. Project driven analysis
3. Insufficient skilled personnel
4. Absence of interoperable data systems
5. Under-utilization of GIS capabilities
6. Inaccurate GIS mapping
7. Financial constraints
8. Absence of NSS data systems guiding principles

# Non-sewered sanitation data systems in sub-Saharan Africa are weak and fragmented

Data Generation

Data Analysis

**Data  
Operationalization**

1. Fragmentation of NSS data
2. Limited funding
3. Political interference
4. Limited operationalization of NSS data
5. Inconsistent data quality
6. Limited MEL frameworks and dedicated units

# Significant opportunities exist to drive impact for NSS data systems

1. **Standardization of Data Protocols (KPIs, guidelines, policies, regulation):** Establishing uniform data collection and reporting standards can enhance the reliability and comparability of sanitation data.
2. **Investment in Digital Infrastructure:** Allocating resources towards digital tools and platforms can streamline data management processes.
3. **Capacity Building:** Training personnel in data management and analysis is crucial for the effective utilization of data systems.
4. **Integrated Monitoring Systems:** Developing centralized platforms that aggregate data from various sources can provide a comprehensive overview of sanitation services and inform policy decisions.
5. **Building a strong investment cases** for NSS data systems

AN INITIATIVE BY

**Dev-Afrique**

20  
25  
REPORT

**DATA SYSTEMS  
FOR NON-SEWERED  
SANITATION IN  
SUB-SAHARAN AFRICA:**

STATUS, CHALLENGES, AND RECOMMENDATIONS



**WSH Data Labs**  
NEW SYSTEM FOR SANITATION SERVICE DELIVERY

**Dev-Afrique**

## DESCRIPTION

This report examines non-sewered sanitation (NSS) systems across Sub-Saharan Africa, highlighting key gaps, challenges, and practical solutions for utilities, municipalities, and regulators to strengthen data-driven service delivery, strengthen accountability, and attract investment.

**DOWNLOAD THE REPORT**

Thank You

 **WSH Data Labs**  
DATA SYSTEMS FOR SANITATION SERVICE DELIVERY

AN INITIATIVE BY

 **Dev-Afrique**



## Questions & Answers



## Summary and close

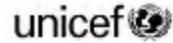
**Irene Gai**

WASH Systems & Programme Partnerships Senior Manager

WaterAid



## Upcoming webinars



Register here:



**Webinar 4: Scaling up service delivery in rural settings – 13 May**

Webinar 5: Scaling up service delivery in urban settings – 27 May (TBC)

Webinar 6: Human resource capacity for safely managed sanitation – 17 June (TBC)