

Plenary Session 3: The state of the global water and sanitation workforce



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What is a water job?

Jobs in water sectors fall under one of three functional categories (UN DESA 2008):

1. Water resources management, including integrated water resources management (IWRM) and ecosystem restoration and remediation;
2. Building, operating and maintaining water infrastructure; and
3. Provision of water-related services including water supply, sanitation and wastewater management.

You are here





What utility occupations

- Water and Wastewater Treatment Plant and System Operators
- Meter Readers, Utilities
- Electricians
- Plumbers, Pipefitters, and Steam fitters
- Pipelayers
- Industrial Machinery Mechanics
- Office Clerks, General
- Maintenance and Repair Workers, General
- Septic Tank Servicers and Sewer Pipe Cleaners
- Secretaries and Administrative Assistants, Except Legal, Medical, and Executive
- General and Operations Managers
- Bookkeeping, Accounting, and Auditing Clerks
- First-Line Supervisors of Office and Administrative Support Workers
- Landscaping and Groundskeeping Workers
- Customer Service Representatives




Global water workforce

- There is no global data set for the number of people who work in the water workforce, because...
 - ...not even national numbers are known in many cases, and there is no one pooling this information
 - ...and often the data is not separated out from other services
 - However, some information, although not exactly helpful, does exist:
 - United States: 1.7 million (300,000 in utilities)
 - Netherlands: ~36,000 (utilities)
 - United Kingdom: 127,000
 - 1.4 billion jobs (~42% of the world's workforce is heavily dependent on water (WWAP 2016))
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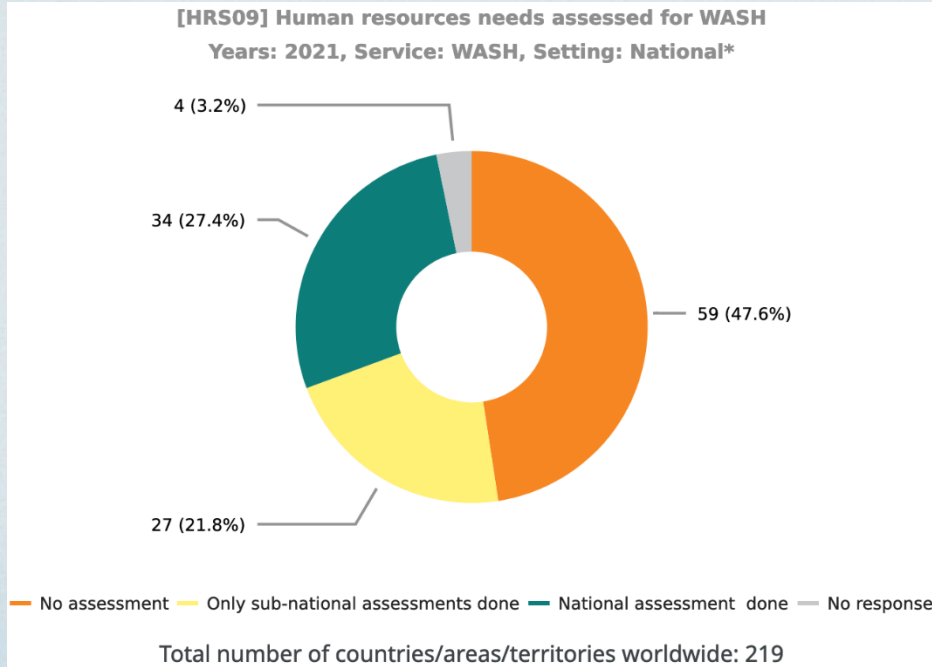


There is some information that we do know...

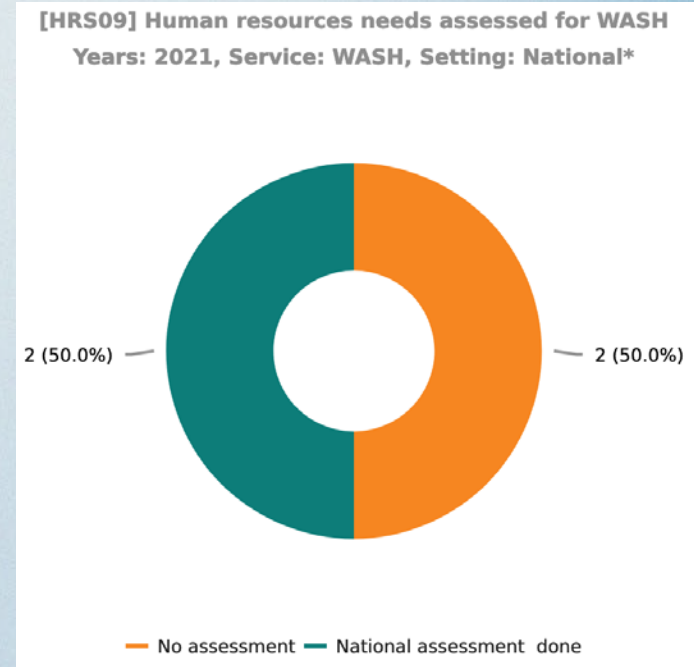
- UN-Water Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS Report) comes out every two years after a country-level survey
 - The survey has a series of questions around human resources in water and sanitation services delivery
 - Assessments
 - Constraints
 - Strategies
 - Sufficiency
 - Training
 - Health and safety
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Human resources needs assessed

Global



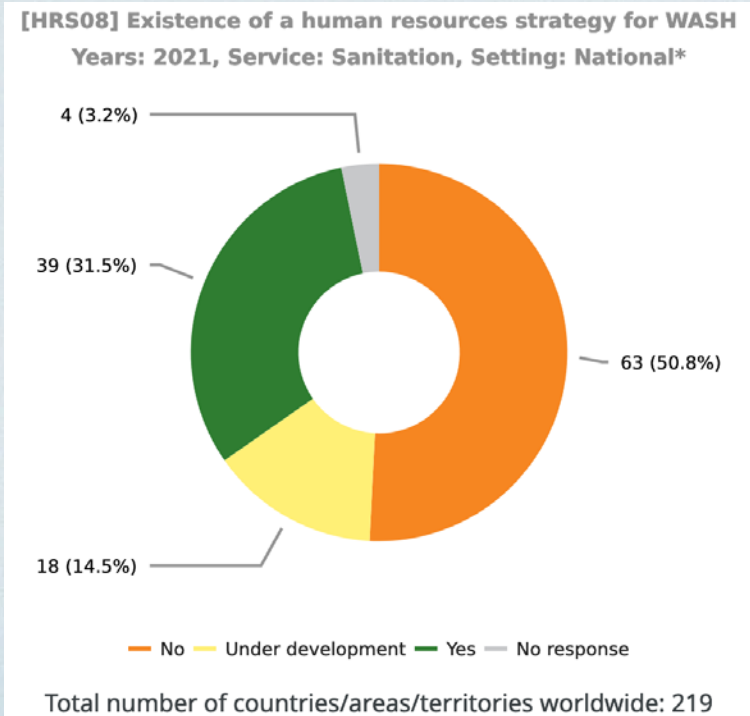
West Balkans*



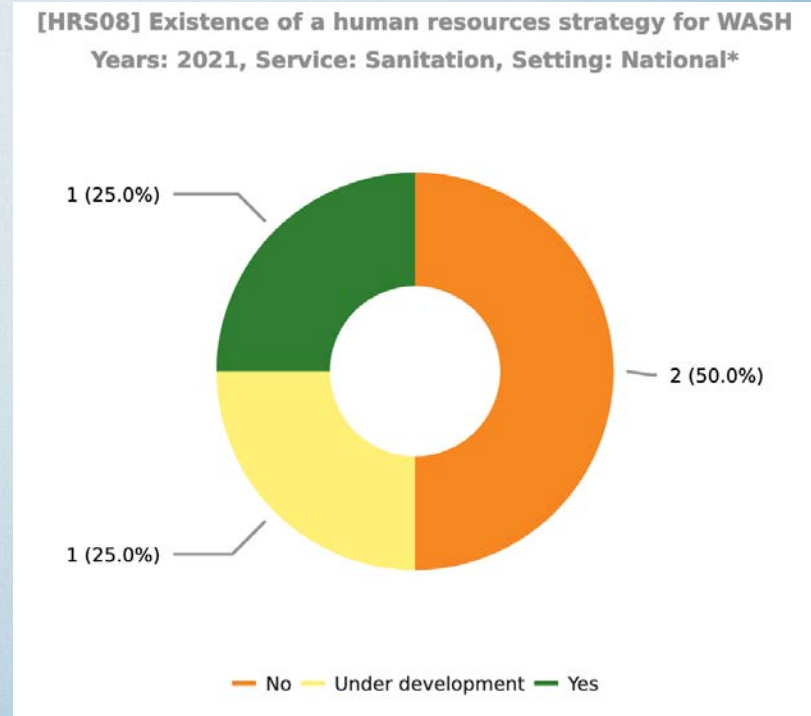
* Reporting countries: Albania, Bosnia and Herzegovina, Montenegro and Serbia

Human resources strategy

Global



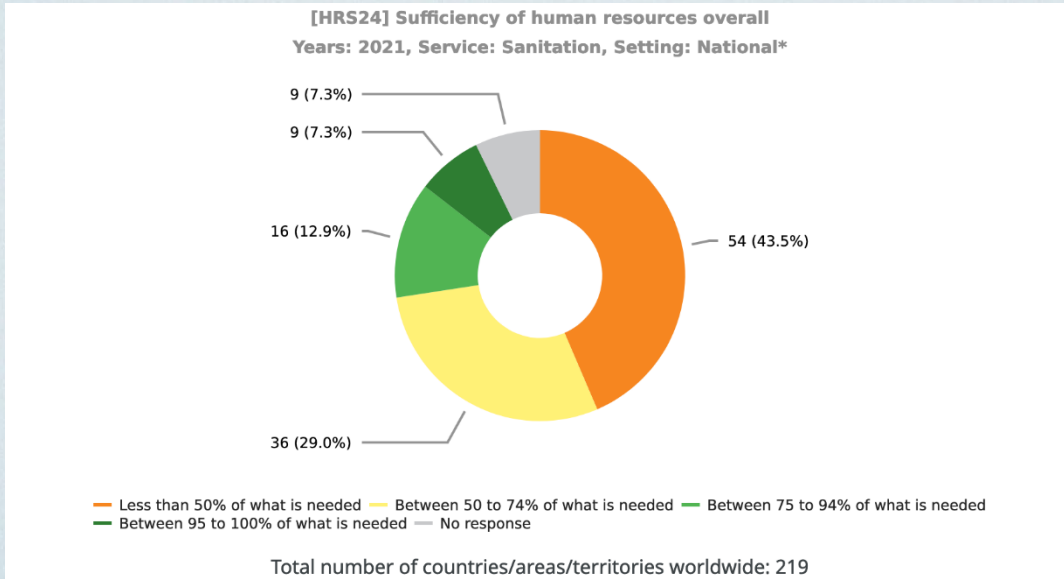
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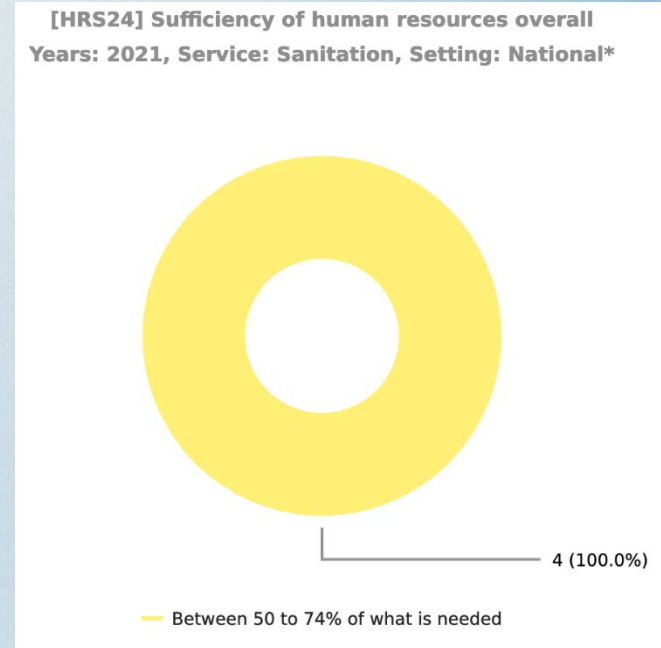
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Sufficiency of human resources

Global



West Balkans*



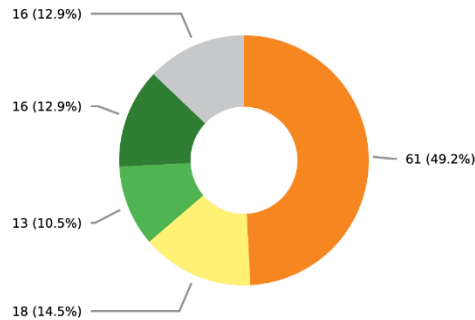
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Sufficient number of professionals trained

Global

[HRS35] Annual sufficiency of number of professionals trained

Years: 2021, Service: Sanitation, Setting/Sub-service: Municipal wastewater and sewerage, Setting: National*



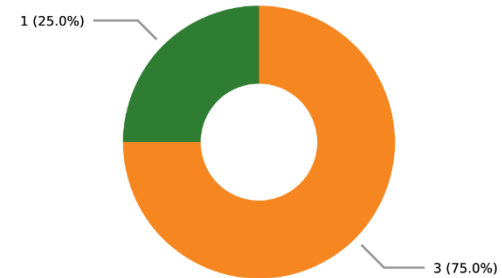
Less than 50% of what is needed Between 50 to 74% of what is needed Between 75 to 94% of what is needed Between 95 to 100% of what is needed No response

Total number of countries/areas/territories worldwide: 219

West Balkans*

[HRS35] Annual sufficiency of number of professionals trained

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Less than 50% of what is needed Between 95 to 100% of what is needed

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Increasing gap in the workforce

- In the Global North, the baby boomers will be retiring in the next decade...
 - In the Global South, with a big push to achieve universal access to water and sanitation, there are not enough professionals to achieve the goal (SDG targets 6.1 and 6.2)...
 - Worldwide, there is increasing focus on wastewater collection, treatment and re-use, but, again, not the workforce, or the ability to attract the workforce needed to meet future demand...
 - Based on back of the envelope math, which just demonstrates, again, the need for more assessment in this area, the global water workforce will need to expand by 8 million within the next decade (low estimate)
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What is holding us back?

- Inability to attract people, especially young professionals to the water and sanitation sector
 - Gender barriers at all points of the recruitment process
 - Educational systems are not aligned with human resource needs
 - Ageing workforce that is retiring without the backfill of young professionals
 - While investments in water and sanitation are made, human resources to implement is often not taken into consideration
 - People are less willing to work in rural areas
 - Issues of migration (“brain drain”, conflict, etc.)
 - Stigmas to working in water and sanitation, especially the later
 - Lack of data and information on water workforce situation and needs
 - Compensation is often lower than other sectors
 - “Shift” work is less attractive to the younger generation
 - Lack of public visibility
 - And more...
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Thank you