



# Trends of Water, Sanitation, and Hygiene (WASH) Research in Indonesia: A Systematic Review

Dr. Daniel, M.Sc.

*Faculty of Medicine, Public Health, and Nursing*

*Universitas Gadjah Mada*

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# Introduction

- Investigate WASH research in Indonesia:

1. Topic
2. Theme
3. Year
4. Location

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## Trends of Water, Sanitation, and Hygiene (WASH) Research in Indonesia: A Systematic Review

S. Satriani <sup>1</sup>, Izana Saffana Ilma <sup>1</sup> and D. Daniel <sup>2,3,\*</sup>

- <sup>1</sup> Department of Environmental Science, The Graduate School, Universitas Gadjah Mada, Yogyakarta 55281, Indonesia; satriani.pmu@mail.ugm.ac.id (S.S.); izana.saffana.i@mail.ugm.ac.id (I.S.I.)
  - <sup>2</sup> Department of Water Management, Faculty of Civil Engineering and Geosciences, Delft University of Technology, 2628 Delft, The Netherlands
  - <sup>3</sup> Department of Health Behaviour, Environment, and Social Medicine, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta 55281, Indonesia
- \* Correspondence: d.daniel@tudelft.nl or daniel01@ugm.ac.id

**Abstract:** This study provides an overview of water, sanitation, and hygiene (WASH) research trends in Indonesia from 1975 until April 2021. The systematic review compiled 272 articles related to the Sustainable Development Goals 6.1 and 6.2 in Indonesia, which were published in the Web of Science and Scopus databases. The results showed that the water-related topic (41%) was discussed more often than sanitation (22%) or hygiene (13%). Furthermore, the social theme (39%) was dominantly found in all these articles, mostly finding determinants of WASH-related behavior. However, few WASH implementation studies or behavioral change interventions were recorded in Indonesia, suggesting a gap between science and policy or implementation. On the other hand, hygiene-related topics (14%) and WASH-related financial themes (6%) were the least studied in Indonesia. Combinations of topics (23%) and themes (15%) were also often conducted in Indonesia, suggesting that WASH researchers started to recognize the need to analyze WASH problems holistically, i.e., from multiple perspectives. In addition, the distribution of WASH research was still dominated in the central part of Indonesia, whereas the WASH-related problems, i.e., poor WASH services, and behavior, often occur in this area. This study also offers some research gaps, both in terms of topics, themes, and regional distribution, that need to be considered for the design of future WASH research in Indonesia.

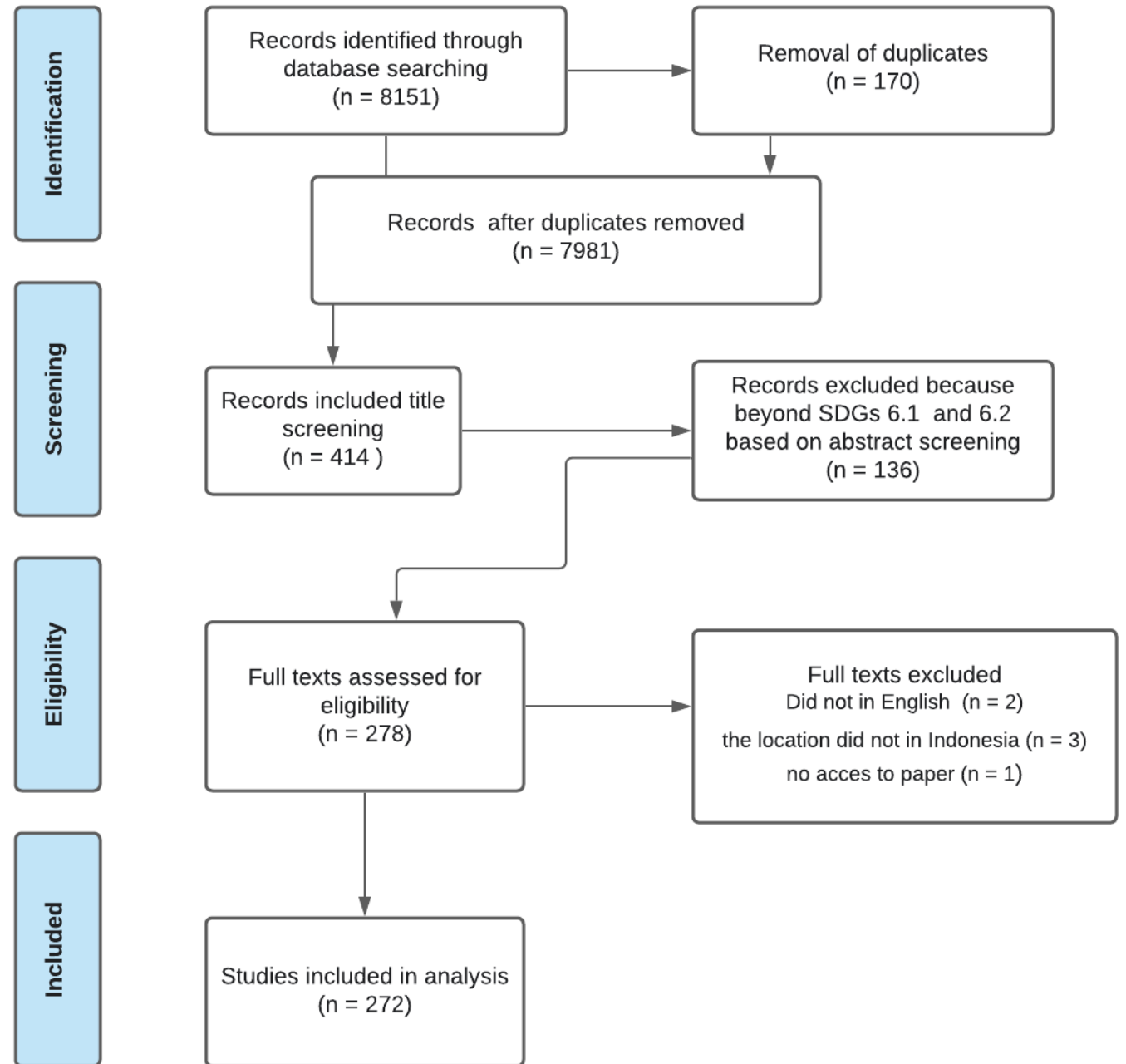
**Keywords:** water; sanitation; hygiene; WASH; systematic review; Indonesia

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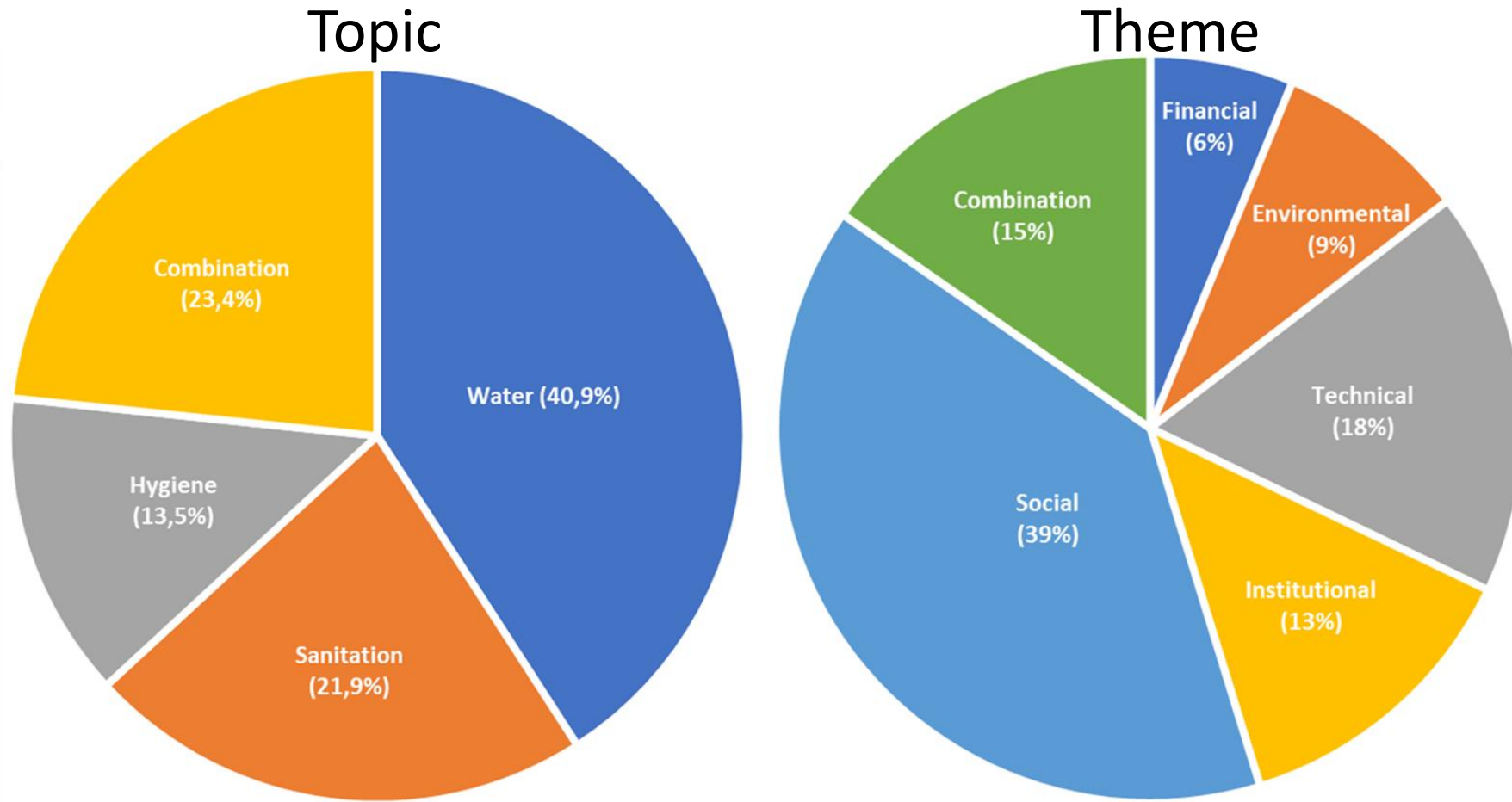
Academic Editors: Naomi Cano-Ibáñez, Khalid Saeed Khan and Annalaura Carducci

# Data

- Database: Scopus & Web of Science
- Review until April 2021
- Main criteria:
  1. SDG 6.1 dan 6.2
  2. English-written article
- Final: 272 international scientific articles

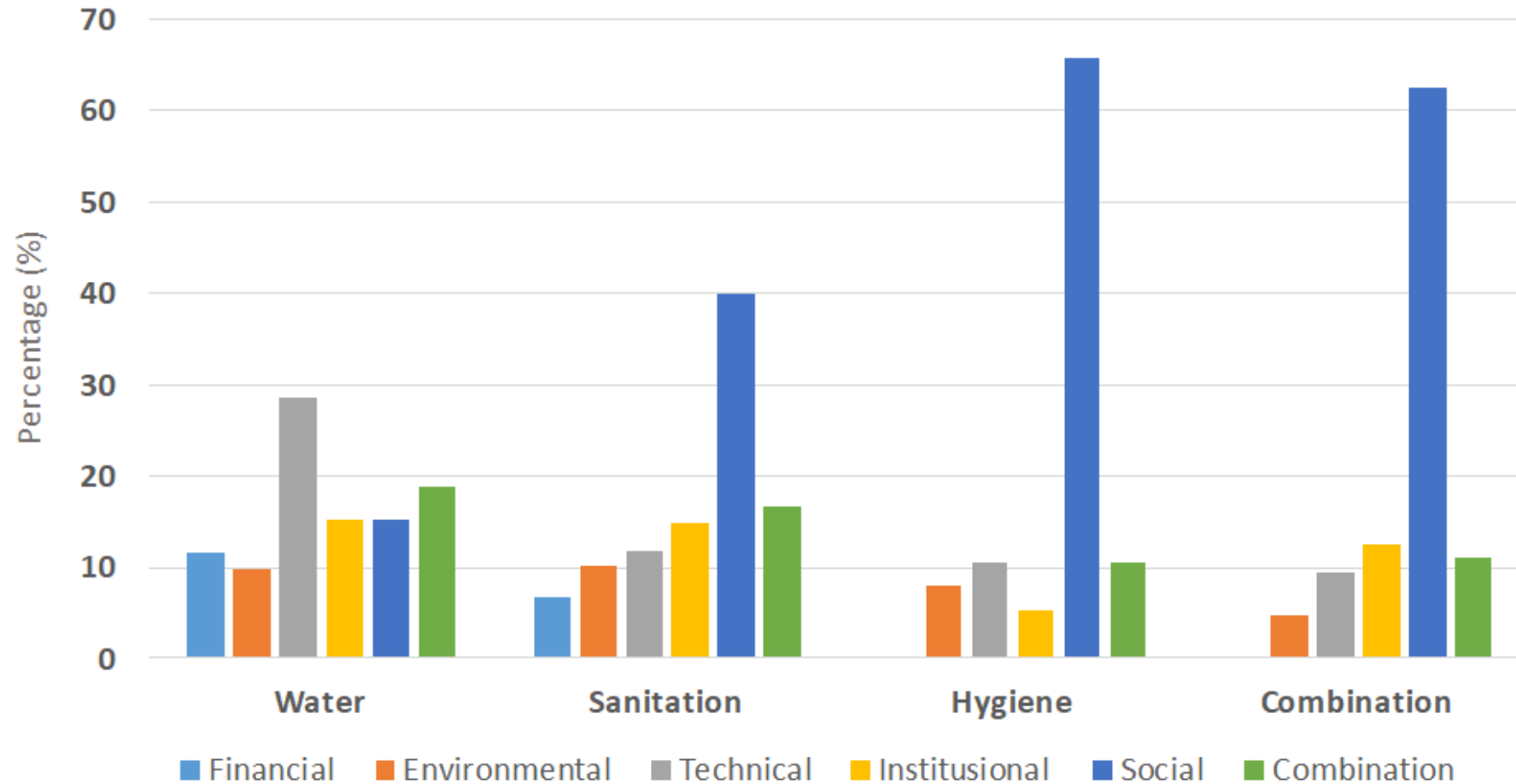


# Topic dan theme



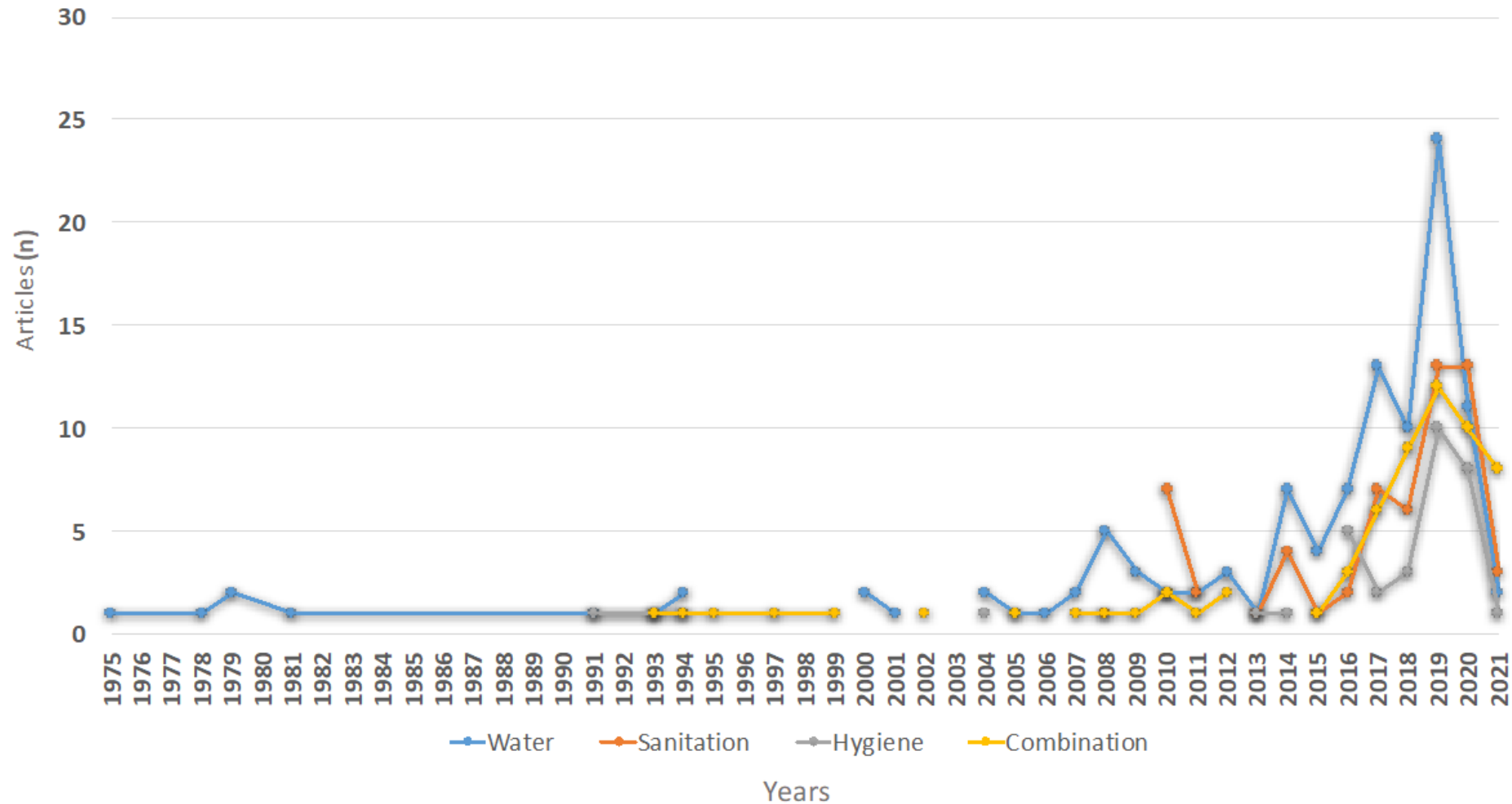
- Water topic and social theme are often studied
- Combination topic → multidiscipline

# Topic and theme



Social theme is dominant in sanitation, hygiene, and combination topic → factors related to WASH behavior/practice (behavioral determinant)

# Year



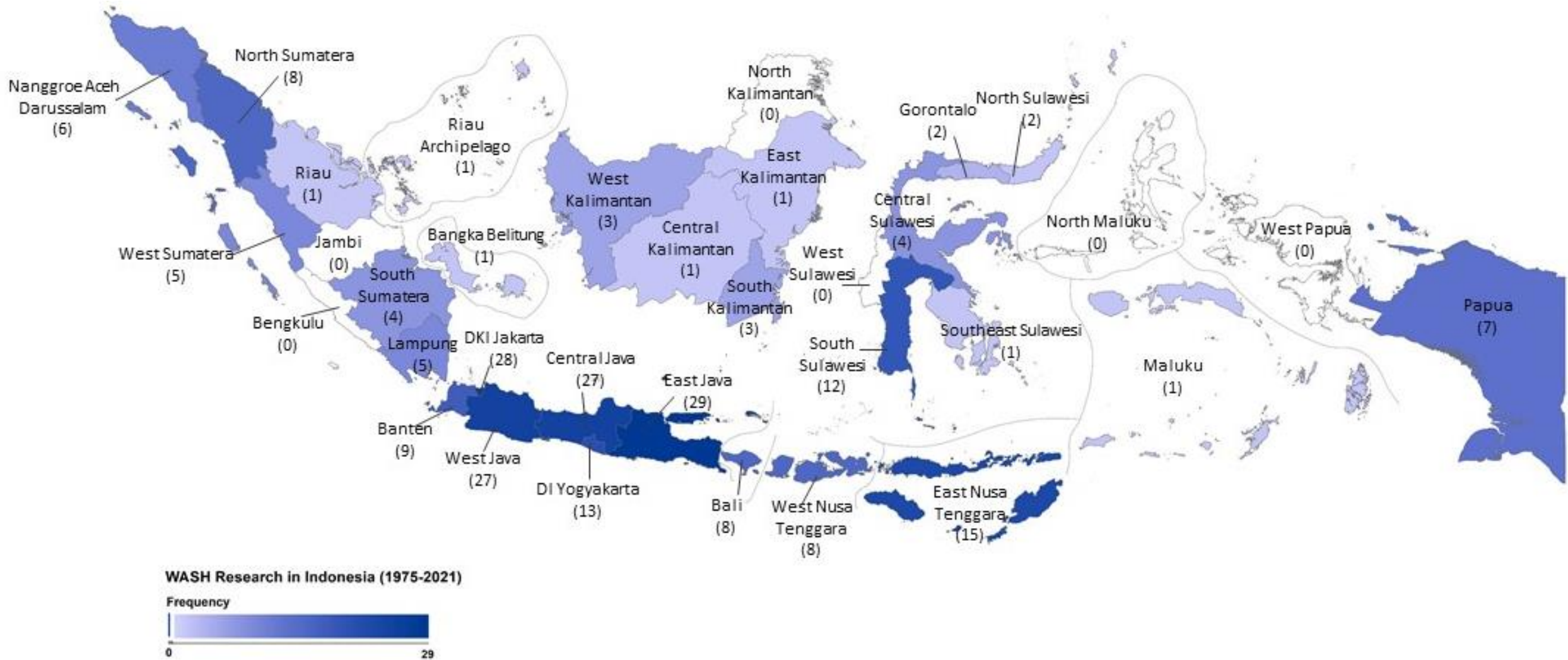
There is an increase in the WASH research in the last decade

# Word cloud abstract



WASH research in Indonesia is often related to health and sustainability issues

# Location



WASH research Inequalities in Indonesia → mostly in Java, followed by East Nusa Tenggara



# Suggestions on future WASH research

- WASH in public space (school, healthcare facilities, etc.)
- Emergency situation
- Disability and gender (menstrual hygiene)
- Vulnerable community (remote area, indigenous community, dll.)
- *Lessons learned* of WASH program/implementation
- Location outside Java island
- Financial theme
- ...



# Reflection

- Need multidisciplinary research
- Collaboration between academia and non-academia (NGO, local or national government, industry, etc.) → research-based policy/program/implementation
- Collaboration between university/research institution in Java and non-Java
- Need a platform to share research findings → WASH symposium/conference in Indonesia

# Thank You

Contact: [daniel01@ugm.ac.id](mailto:daniel01@ugm.ac.id)

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