

Comparative Analysis of Water Sustainability Indices: A Systematic Review

Supplementary Information

SI.1. Full list of reviewed paper

1. Srdjevic, Z., and Srdjevic, B. 2017. An Extension of the Sustainability Index Definition in Water Resources Planning and Management. *Water Resources Management*, 31(5), 1695–1712. [https://doi.org/10.1007/s11269-017-1609-6]
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5. Juwana, I., Perera, B. J. C., and Muttill, N. 2010. A water sustainability index for West Java. Part 1: Developing the conceptual framework. *Water Science and Technology*, 62(7), 1629–1640. [https://doi.org/10.2166/wst.2010.452]
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[<https://doi.org/10.3390/w14091493>]

SI.2. Indices listed in each reviewed publication.

Ordinal numbers of publications in cluster analysis (for the complete reference, please refer to the list in Appendix A.1)

1. (Srdjevic & Srdjevic, 2017) Sustainability Index
2. (Malkina-Pykh & Pykh, 2001) Water Resilience Index (WRI)
3. (da Silva et al., 2020) River Basin Water Sustainability Index (RBWSI)
4. (Maiolo & Pantusa, 2019) Sustainable water management index, SWaM_index
5. (Juwana et al., 2010) West Java Water Sustainability Index
6. (de Castro Pardo et al., 2023) Fuzzy-DEA water sustainability index
7. (Duarte et al., 2009) Global index of service quality (GISEQ)

8. (de Castro-Pardo et al., 2022) Water Sustainability Indicator based on a Multi-Reference methodology (WSI-MR)
9. (Cánovas-Molina A et al., 2023) Irrigation Sustainability Index (ISI)
10. (Najar & Persson, 2021) Sustainability index
11. (Forouzani & Karami et al., 2011) Agricultural water poverty index (AWPI)
12. (Kang et al., 2005) Water Resources Sustainability Index (WRSI)
13. (Cho et al., 2023) Korean Water Quality Indices
14. (da Silva et al., 2022) Water Resources Sustainability Index (WRSI)
15. (Abdi-Dehkordi et al., 2021) Combined Sustainable Development Index
16. (Duc et al., 2023) Weighted arithmetic water quality index (WAWQI)
17. (Alexakis et al., 2021) Linking dpsir model and water quality indices
18. (Khadija et al., 2021) Heavy metal pollution indices
19. (Arcoverde et al., 2023) Collaborative index (SDG index)
20. (ZamanZad-Ghavidel et al., 2021) Hydro-socio-economic index (HSEI)
21. (Azmanajaya et al., 2020) Multidimensional Sustainability Index
22. (Hirai et al., 2020) Group maturity index (Gmi)
23. (Sodhi and Yatskovskaya, 2014) Sustainability index
24. (Kumar et al., 2022) Sustainability index (SI)
25. (Benassai et al., 2011) Sustainability index

26. (De Carvalho et al., 2009) Sustainability Index for Integrated Urban Water Management (SIUWM)
27. (Gal et al., 2017) Kinneret Sustainability Index (KSI)
28. (Sandoval-Solis et al., 2011) Sustainability index for water resources planning and management
29. (Naubi et al., 2017) Watershed sustainability index (WSI)
30. (Odjegba et al., 2020) Sustainability indices
31. (Cai et al., 2021) SDG 6 index (SDG6I)
32. (Kılıkış, 2019) Sustainable Development of Energy, Water and Environment Systems (SDEWES)
33. (Kılıkış, 2018) Sustainable Development of Energy, Water and Environment Systems (SDEWES)
34. (Sudha et al., 2013) Water Bodies Protection Index (WBPI)
35. (Cervantes-Jiménez et al., 2020) Water management sustainability index
36. (El Behairy et al., 2021) Irrigation water quality Index (IWQI)
37. (Derdour et al., 2022) Water Quality Indexe
38. (Bi, 1996) Water quality indices: quality index, a hazard index and a risk index
39. (de O. Vieira et al., 2018) Water resources sustainability index
40. (Mvongo et al., 2023) Water Service Sustainability Index (WSSI)
41. Mvongo et al., 2021) Water Service Sustainability Index (WSSI)

42. (Biswas et al., 2022) Water Sustainability Index
43. (Juwana et al., 2010) West Java Water Sustainability Index (WJWSI)
44. (Jahanshahi & Kerachian, 2019) Evidential Reasoning-based Sustainability Index (ER-based SI)
45. (Crispim & Fernandes, 2022) Rural Water Sustainability Index (RWSI)
46. (Leones et al., 2023) Water Poverty Index (WPI)
47. (da Silva et al., 2021) Water Sustainability Index (WSI)
48. (Hernández-Bedolla et al., 2017) Sustainability Index
49. (Alvarado et al., 2023) West Java Water Sustainability Index (WJWSI)
50. (Elfithri et al., 2018) Watershed sustainability index (WSI)
51. (Mititelu-Ionuș, 2017) Watershed sustainability index (WSI)
52. (Juwana et al., 2016) West Java Water Sustainability Index (WJWSI)
53. (Juwana et al., 2009) West Java Water Sustainability Index (WJWSI)
54. (Juwana et al., 2011) West Java Water Sustainability Index (WJWSI)
55. (Al-Mohammed, 2023) Canadian Water Sustainability Index
56. (Mvongo et al., 2022) Water Service Sustainability Index (WSSI)
57. (Maynard et al., 2017) Sustainability index
58. (Zamanzad-Ghavidel et al., 2021) Hydro-social-economic-environmental sustainability index (HSEESI)
59. (Khan et al., 2022) Crop Water Stress Index (CWSI)

60. (Kristiana et al., 2011) Index of Sustainable Functionality (ISF)
61. (Attari & Mojahedi, 2009) Canadian Water Sustainability Index (CWSI)
62. (Finco et al., 2022) Combining Precision Viticulture Technologies and Economic Indices (with CWSI)