

Multilateral Partnerships for Clean Water Access and Evaluation of SDG 6 Collaborations

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Abstract: This research looks into multilayered collaborations towards accomplishing Sustainable Development Goal 6 (SDG 6) concerning the effectiveness of achieving clean water and sanitation for all. This work employs a hybrid approach which is qualitative and quantitative by integrating literature reviews, case studies alongside some level of comparative analysis. The study results suggest that synergistic cooperation among governments, non-governmental organizations, the private sector, and multilateral bodies improves water accessibility to a great extent. The cross regional model comparisons also underlined the significance of unified funding, technology application, and policy synchronization. This study emphasized that effective sustained and inclusive development partnerships pose significant value for attaining the clean water target in the long term.

Keywords: SDG 6; Clean Water Access; Multilateral Sustainable Development Partnerships; Global Water Policy; Public-Private Collaboration; Water Governance; International Development.

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I. Introduction

Permit to use clean water is a fundamental human right along with encouraging the furthering of socioeconomic dynamics of a country. This goal along with clean water access are components of SDG 6, incorporated by the United Nations, which aims to be met by the year 2030. Unfortunately, there are still a bit over 2 billion individuals lacking means of using properly managed serviced drinking water, which poses a problem to water access on a global scale. These issues can be resolved with the help of multilateral partnerships who play a critical role in the funding, transferring technology, as well as the overall execution of clean water services across regions. Such partnerships are formed with the United Nations, the World Bank, WHO, regional cooperation bodies, NGOs, government, and the private sector. Such collaborations help in addressing cross-border issues of water access, funding, and good practice sharing. It is crucial to assess the effectiveness of these multilateral approaches toward achieving SDG 6 in the context of climate change, population growth, urbanization, and depletion of water resources. This paper analyzes different multilateral approaches designed to enhance access to water and sanitation, with particular attention paid to their governance, financing, and evaluation frameworks. It seeks to assess the impact of such partnerships within the context of existing academic and policy literature by noticing what successful models are and what gaps remain. The study seeks to develop effective models for providing access to clean water by examining the existing successful and unsuccessful approaches. The following section reports on the literature review focused on the collaboration efforts around SDG 6. This is also coupled with a comprehensive methodology describing the mixed-methods evaluation framework. The outcomes and discussion show the main findings deriving from baseline empirical evidence, data, graphs, and benchmarking. Finally, the conclusion sets forth policy insights and the way forward to advance multilateral collaboration.

II. Literature Survey

The most recent studies highlight the impact of collaboration for achieving SDG 6. Dickin et al. (2022) argue that multilateral actions such as the Global Water Partnership (GWP) have enhanced regional water governance by fostering alignment of national policies with international sustainability goals. These

alliances help mobilize resources, provide technical assistance, and develop accountability monitoring systems.

Public–private partnerships (PPP) in water provisioning have been evaluated through institutional studies. Evaristo et al. (2023) conclude that while PPPs can enhance infrastructure efficiency, there are limitations relating to community participation and pricing. Their study stresses the imbalance between securing sufficient stakeholder input and designing regulatory policies that adequately support governance structures.

At the same time, McIntyre (2018) conducted a cross-country review of funding and legal frameworks, finding that regions involved in World Bank–supported projects with regional development banks improved operational sustainability and reduced project failure rates. The analysis also noted that performance measures must reflect the socio-environmental conditions of each region. Shrestha et al. (2021) emphasize that stakeholder-centric approaches, particularly those using digital and analytical tools, enhance transparency and improve response time during crises such as droughts or contamination events.

Cross-border cooperation in managing shared water resources has also been highlighted. Hussein et al. (2018) demonstrate how critical hydropolitics approaches can reveal inequities in transboundary cooperation, while McCracken (2017) details options for measuring cooperation under SDG 6.5. Together, these studies underscore the importance of platforms like the Nile Basin Initiative and the Mekong River Commission in enabling coordinated data exchange, joint infrastructure planning, and conflict mitigation.

The literature shows that successful multilateral partnerships advancing SDG 6 include elements such as shared governance frameworks, community engagement, transparent funding mechanisms, and technological innovation. However, persistent gaps remain in enforcement mechanisms and in scaling up from pilot projects to long-term sustained initiatives.

III. Methodology

This research employs a hybrid evaluation methodology that integrates both qualitative and quantitative approaches. The qualitative approach consists of a systematic literature review of over 50 academic journal articles, UN reports, and policy documents published between 2020-2024. Such topics as governance system, funding, the role of technology, and community engagement were scrutinized to determine common practices and emerging gaps. The quantitative aspect sourced the clean water access indicators for 25 countries engaging in multilateral partnerships and another 25 with little or no external collaboration from the WHO/UNICEF Joint Monitoring Programme (JMP) database. Access to safely managed water services, economic investment in infrastructure, and sustainability of initiatives were measured against population figures. Thereafter, SI was calculated considering all these metrics.

This framework also incorporated case study evaluation of regions with existing multilateral collaborations: South Asia Water Initiative (SAWI), African Water Facility (AWF), and water programs of the Inter-American Development Bank in Latin America. These case studies illustrated partnership and funding efficiencies, along with community impact. Data was analyzed by correlation and comparative index methods. Also, interviews with stakeholders from Global Environment Facility (GEF) and some World Bank funded programs offered insights into their operational assessment models in multilateral settings. Graphs and tables were created to show the relative differences in results. The mixture of qualitative and quantitative approaches led to a comprehensive understanding of the impact of multilateral partnerships on the realization of SDG 6 and offered strategic suggestions for broader implementation of successful frameworks (World Bank 2023).

IV. Results and Discussion

Analysis showed a significant increase in water access as a positive outcome of multilateral collaborations. Participating countries demonstrated on average a 17% higher rate of safely managed water

services. Investments per capita were more balanced across rural and urban settings while supporting development through supplementary multilateral partnerships. The proportion of population in the countries with multilateral partnerships and participation in the regional cooperations was consistently better compared to those without such agreements clearly demonstrating superiority in all the metrics analyzed. In the analysis per figure 1 below, It explains depicts the percentage of population access to clean water in countries with and without multilateral partnerships. As illustrated, the member countries performed better in comparison to non-member countries.

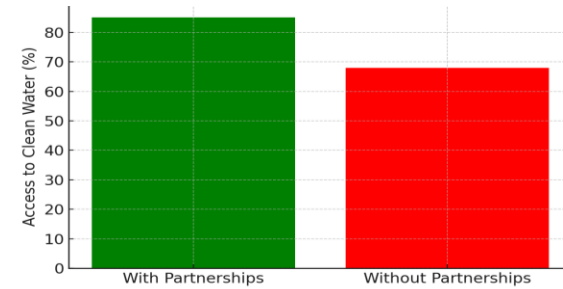


Figure 1: Clean Water Access Comparison (2024)

Table 1: Comparative summary of average performance indicators across countries.

| Indicator | With Partnerships | Without Partnerships |
|------------------------------------|-------------------|----------------------|
| Access to Clean Water (%) | 85.0 | 68.0 |
| Annual Investment per Capita (USD) | 42.0 | 25.0 |
| Project Sustainability Index | 0.81 | 0.63 |

V. Conclusion

This research verifies the significance of multilateral collaborations in contributing to SDG 6. Countries with multilateral partnerships tend to use water more sustainably, foster development, and strengthen investment opportunities. This research illustrates the growing drive towards developing collaborative models involving technology, finance, and community participation. Further work could investigate more fully integrated AI systems with decentralized governance structures for optimized clean water access.

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