



Privatization of Drinking Water in Rural Areas of Hisar District

Ms. Rinku¹, Prof. (Dr.) Sudhir Malik²

¹Research Scholar, Department of Geography, Baba Mastnath University, Asthal Bohar, Rohtak

²Head of the Department Geography, Baba Mastnath University, Asthal Bohar, Rohtak

Received: 011 Sep 2024; Received in revised form: 08 Oct 2024; Accepted: 12 Oct 2024; Available online: 20 Oct 2024

©2024 The Author(s). Published by Infogain Publication. This is an open-access article under the CC BY license

(<https://creativecommons.org/licenses/by/4.0/>).

Abstract— *The privatization of drinking water in rural areas has emerged as a significant trend, particularly in Hisar district, Haryana, where gaps in public water supply have led to the proliferation of private enterprises. This study examines the share, emergence and growth of privatized drinking water services in the district, highlighting the factors driving this shift. The research findings indicate that 51 private water enterprises are currently operational, employing 170 individuals and catering to the growing demand for purified drinking water. While privatization has improved access to safe water in several villages, it has also raised concerns regarding affordability, sustainability and equity, particularly for economically disadvantaged groups. The study identifies market-driven factors, such as consumer awareness, urbanization and deficiencies in public water systems, as key contributors to the rise of private water enterprises. However, the lack of strong regulatory oversight has resulted in challenges such as over-extraction of groundwater, increased costs and social disparities in access. Analysis of survey responses reveals that while a majority of respondents recognize the role of private enterprises in improving water quality, a significant proportion express concerns over rising costs and unequal access. The study concludes that a balanced approach integrating public water infrastructure with regulated private sector involvement is essential for ensuring sustainable and equitable water access in rural Hisar. Strengthening regulatory frameworks, promoting public-private partnerships and enhancing public water supply infrastructure are recommended to address these challenges effectively.*



Keywords— *Privatization, Drinking Water, Rural Areas, Hisar District, Marketization, Public Water Supply, Water Accessibility, Sustainability, Socioeconomic Disparities, Public-Private Partnerships.*

I. INTRODUCTION

Access to clean and safe drinking water is a fundamental human right and a crucial determinant of public health, economic development and social well-being. In many rural areas of India, including the Hisar district of Haryana, the provision of drinking water has historically been a public service, managed by government agencies. However, in recent years, there has been a growing trend towards the privatization of drinking water services, driven by challenges such as inadequate public infrastructure, unreliable supply and increasing consumer demand for purified water. Privatization refers to the shift of water service management from government-controlled systems

to market-driven enterprises, where private companies and individuals play a significant role in supplying drinking water.

Hisar district, one of the 22 districts of Haryana, has experienced a substantial increase in private water enterprises, particularly in rural areas where government water supply systems are often inconsistent or insufficient. The emergence of small-scale Reverse Osmosis (RO) plants, bottled water suppliers and chilled water enterprises has transformed water—traditionally considered a public good—into a commercial product. While this shift has improved access to clean drinking water for some households and institutions, it has also introduced

challenges such as affordability concerns, over-extraction of groundwater and socio-economic disparities in water access. The primary objective of this study is to analyze the share, emergence and growth of privatized drinking water in rural areas of Hisar district. The research examines the factors contributing to this trend, evaluates its impact on rural communities and identifies potential challenges associated with market-driven water supply systems. Using data from government records, industry reports and primary surveys, the study assesses the role of private enterprises in addressing water shortages and explores the implications of privatization for sustainable water management.

Objectives of the Study:

- i. To analyze the share, emergence, and growth of privatisation in drinking water in the district Hisar.

II. STUDY AREA

Hisar district is one of the 22 districts of north western Haryana. Hisar was founded in 1354 AD by Firoz Shah Tughluq and later became an important Mughal Centre. Hisar was constituted a municipality in 1867. Hisar is known as the steel city because of the Jindal Stainless Steel Factories. It is also the largest producer of galvanized iron in India. Hisar district lies at 28°53'45"N to 29°34'50"N latitude and 75°19'44"E to 76°18'15"E longitude. It is located about 164 km away from New Delhi and 235 km away from state capital Chandigarh. Hisar district is sharing border with Bhiwani district to the South, Fatehabad district to the North, Jind district to the East.

Hisar district, located in the state of Haryana, comprises a total of 268 villages, which are distributed across several Community Development (CD) blocks. Each block consists of a varying number of villages, contributing to the overall rural landscape of the district. Adampur block accounts for 38 villages, representing a significant portion of the district's rural settlements. Agroha block, on the other hand, has a comparatively smaller number, with only 19 villages. Barwala block, one of the larger administrative divisions in the district, includes 48 villages, making it one of the more densely populated rural areas.

The two subdivisions of Hisar block, namely Hisar I and Hisar II, collectively account for a substantial number of villages, with Hisar I having 51 villages and Hisar II comprising 42 villages. Together, they play a crucial role in the administrative and developmental framework of the district. The Uklana block, though smaller in terms of village count, includes 22 villages that contribute to the overall agricultural and socio-economic activities of the

district. Similarly, Narnaund block, which consists of 36 villages, adds to the agrarian and industrial landscape of the region. Moving towards the Hansi sub-region, the Hansi I block contains 42 villages, whereas the Hansi II block has 22 villages. These two blocks are vital in terms of historical and economic contributions to the district. When combined, the total number of villages across all these blocks reaches 268, reflecting the vast rural expanse of Hisar district. These villages serve as the backbone of the district's economy, with agriculture, dairy farming and small-scale industries playing a crucial role in the livelihoods of the local population. Understanding this block-wise distribution is essential for planning developmental projects, infrastructure enhancements and governance initiatives tailored to the diverse needs of each region.

Level of Privatisation of Drinking Water in Rural Areas of Hisar

The data on private drinking water enterprises in the rural area of Hisar district illustrates the growing trend of privatization and marketization of essential resources, such as drinking water. With 51 private enterprises employing 170 individuals, the water sector has seen a shift from public provisioning to privatized, market-driven models. This trend reflects a response to the shortcomings in public water supply systems, where gaps in availability, quality and reliability have created a demand for private solutions. Such marketization transforms water—traditionally a public good—into a commercial product, with access determined by purchasing power.

In Hisar, this privatization is evident in the proliferation of small-scale RO water plants, chilled water suppliers and mineral water enterprises. These businesses cater to both urban and rural areas, addressing the needs of households and institutions where government water systems are either insufficient or absent. However, this shift raises significant concerns about equity and affordability. While these enterprises generate local employment and improve access to safe drinking water for some, they also highlight disparities, as marginalized populations may struggle to afford the higher costs associated with private water sources. This trend of privatization in Hisar aligns with broader patterns of market-driven urban and rural development, where private initiatives often fill gaps in essential services. However, this comes with challenges. For instance, unchecked reliance on groundwater by private water suppliers raises sustainability issues, particularly in semi-arid regions like Hisar. Additionally, the commodification of water may exacerbate socioeconomic divides, limiting access for low-income groups and creating dependency on profit-oriented entities.

To address these challenges, policymakers must strengthen public water infrastructure, ensuring equitable access across Hisar district. Simultaneously, regulatory frameworks should oversee the operations of private water providers, emphasizing sustainability and affordability. By balancing privatization with robust public provisioning, Hisar can ensure that water remains a shared resource, accessible to all, while leveraging the market's potential for innovation and efficiency.

Marketization in Hisar has created a thriving private sector for water supply, driven by factors like inadequate public water systems, urbanization and increasing consumer awareness of water quality. Companies like Pashupati Pack Water (10 employees) and Shri Ram Puri Water (8 employees) reflect the emergence of structured businesses, while numerous smaller enterprises cater to niche and localized demands. This competitive environment ensures a variety of options for consumers but also establishes water as a purchasable commodity, creating barriers for economically disadvantaged groups. While marketization has increased access to clean water for some, it also raises

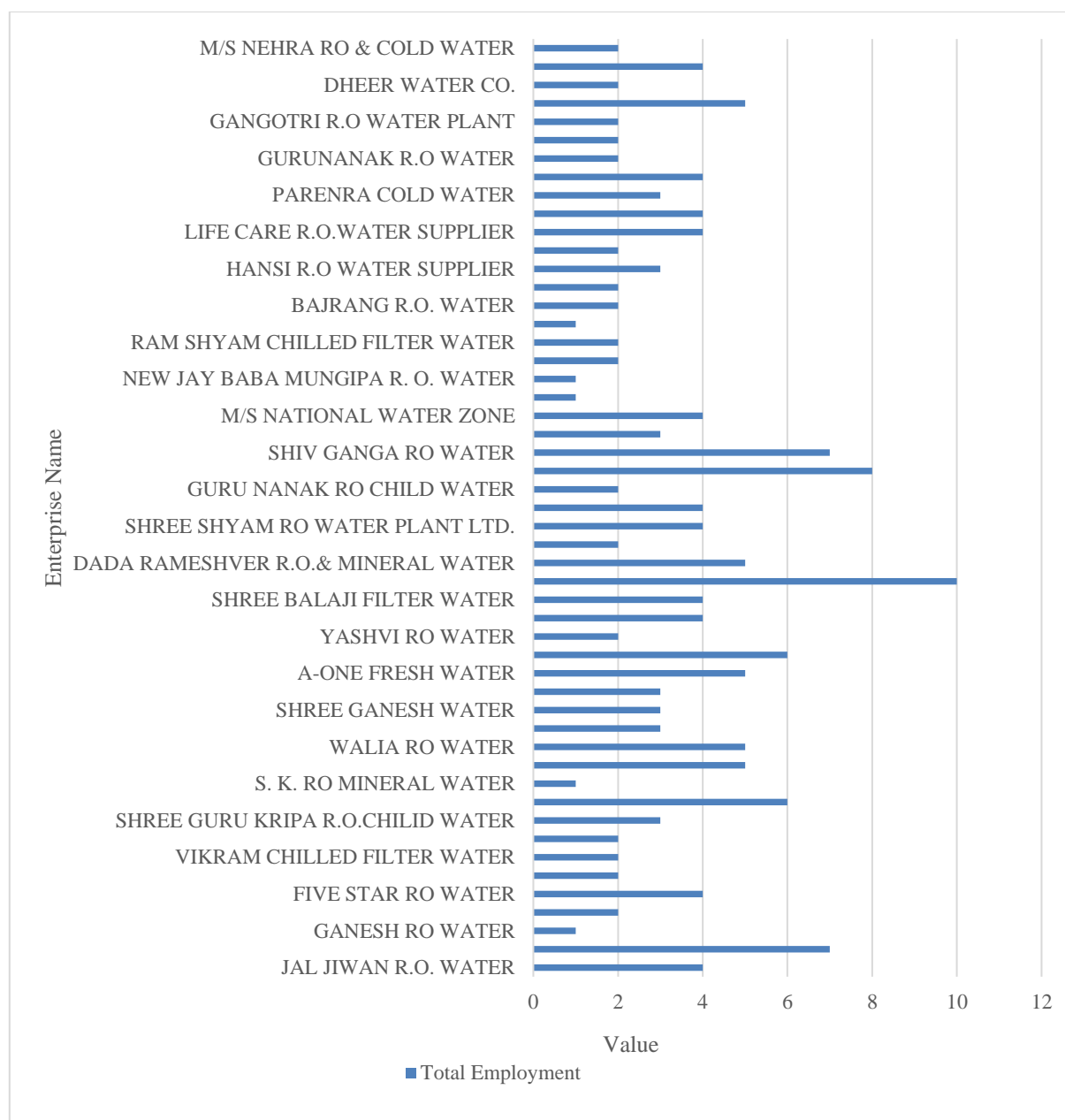
concerns about inequality and exploitation. Market-driven pricing makes water less affordable for low-income households, potentially excluding them from essential resources. Furthermore, the focus on profit can lead to unsustainable practices, such as excessive groundwater extraction, contributing to environmental degradation in the district. The lack of strong regulatory oversight amplifies these risks, as quality control and fair pricing often remain secondary priorities. Marketization in Hisar aligns with broader economic trends, where essential services like healthcare, education and utilities increasingly shift to market-driven models. However, in a resource as vital as water, marketization must be carefully balanced with public interest. Policymakers should encourage competition and efficiency in the private water market while implementing subsidies, regulations and quality standards to ensure equitable access. By addressing these challenges, Hisar can leverage market forces to enhance water access without compromising social equity or environmental sustainability.

Table 1: R.O. Water Enterprises' Name and Employment Present in Villages of Hisar District 2023

Sr. No.	Enterprise Name	Total Employment
1.	JAL JIWAN R.O. WATER	4
2.	M/S HOPE UNDER WATER SERVICES COMPANY	7
3.	GANESH RO WATER	1
4.	SAGAR R.O CHILLED WATER	2
5.	FIVE STAR RO WATER	4
6.	VIRAM .R.O.WATER	2
7.	VIKRAM CHILLED FILTER WATER	2
8.	SHIV DHARA RO WATER	2
9.	SHREE GURU KRIPA R.O.CHILID WATER	3
10.	YAAMI ALKALINE MINERAL WATER	6
11.	S. K. RO MINERAL WATER	1
12.	STAR SHINE R O WATER	5
13.	WALIA RO WATER	5
14.	OMPATI RO & FILLTER WATER	3
15.	SHREE GANESH WATER	3
16.	BAMEL R.O WATER FILTER	3
17.	A-ONE FRESH WATER	5
18.	CHIRAG R.O. WATER	6

19.	YASHVI RO WATER	2
20.	S.L RO WATER	4
21.	SHREE BALAJI FILTER WATER	4
22.	PASHUPATI PACK WATER	10
23.	DADA RAMESHVER R.O.& MINERAL WATER	5
24.	GURU NANAK R.O. CHILD WATER	2
25.	SHREE SHYAM RO WATER PLANT LTD.	4
26.	M/S NEELKANTH COLD & FILTER WATER	4
27.	GURU NANAK RO CHILD WATER	2
28.	SHRI RAM PURI WATER	8
29.	SHIV GANGA RO WATER	7
30.	PRINCE PURE DRINKING WATER	3
31.	M/S NATIONAL WATER ZONE	4
32.	BABA MUNGIPA R. O. WATER	1
33.	NEW JAY BABA MUNGIPA R. O. WATER	1
34.	PIHU R.O. WATER	2
35.	RAM SHYAM CHILLED FILTER WATER	2
36.	VED AQUARIUM GALLERY & WATER TESTING LABORATORY	1
37.	BAJRANG R.O. WATER	2
38.	SATNAM R.O. WATER	2
39.	HANSI R.O WATER SUPPLIER	3
40.	AMIR RO WATER PURIFIER SALE & SERVICE	2
41.	LIFE CARE R.O.WATER SUPPLIER	4
42.	SUMAN COLD AND FILTER WATER	4
43.	PARENRA COLD WATER	3
44.	PRIYANSHU RO WATER	4
45.	GURUNANAK R.O WATER	2
46.	SHREE GANPATI MINERAL WATER PLANT	2
47.	GANGOTRI R.O WATER PLANT	2
48.	CHAHAL WATER SUPPLY	5
49.	DHEER WATER CO.	2
50.	A TO Z RO WATER SERVICE CENTRE	4
51.	M/S NEHRA RO & COLD WATER	2

Source :- Department of Industries & Commerce, Haryana



Source: Table 1

Fig.1: R.O. Water Enterprises' Name and Employment Present in Villages of Hisar District 2023

Table 1 presents data on R.O. (Reverse Osmosis) water enterprises and their employment contributions in the rural areas of Hisar district for the year 2023. The table lists 51 enterprises, varying in size and employment capacity, reflecting the distribution of small-scale water purification businesses catering to local needs. The employment distribution among these enterprises is relatively low to moderate, with most establishments employing between 1 to 7 workers. The enterprise with the highest employment is Pashupati Pack Water, which employs 10 people, followed by Shri Ram Puri Water (8 employees), indicating a larger operational scale. Other businesses with

a significant workforce include M/S Hope Under Water Services Company (7 employees), Shiv Ganga RO Water (7 employees) and Yaami Alkaline Mineral Water (6 employees).

A significant number of enterprises have small employment figures, such as Ganesh RO Water, S.K. RO Mineral Water, Baba Mungipa R.O. Water, New Jay Baba Mungipa R.O. Water and Ved Aquarium Gallery & Water Testing Laboratory, each employing only one person. These small-scale businesses likely operate at a local level, catering to specific communities. Meanwhile, several enterprises employ between 2 to 5 workers, forming the

majority of the listed businesses, highlighting a moderate workforce engagement in the rural water purification sector. The presence of multiple R.O. water enterprises in different areas suggests a growing demand for purified drinking water in rural Hisar. The spread of these businesses also indicates an increasing entrepreneurial focus on water purification services, either as a primary or supplementary livelihood. However, the employment figures suggest that most enterprises function on a small-scale basis, primarily employing a limited number of workers. This could be due to automation in water purification processes, limited market size, or capital constraints. The R.O. water sector in Hisar's rural areas plays a crucial role in employment generation, albeit at a micro-level. The business model predominantly follows a small-scale structure, ensuring local accessibility to clean drinking water while providing limited but essential employment opportunities to rural workers. The data also highlights potential areas for business expansion and

workforce enhancement, particularly in scaling up operations, improving infrastructure and increasing workforce engagement to meet the growing demand for safe and purified drinking water in rural communities.

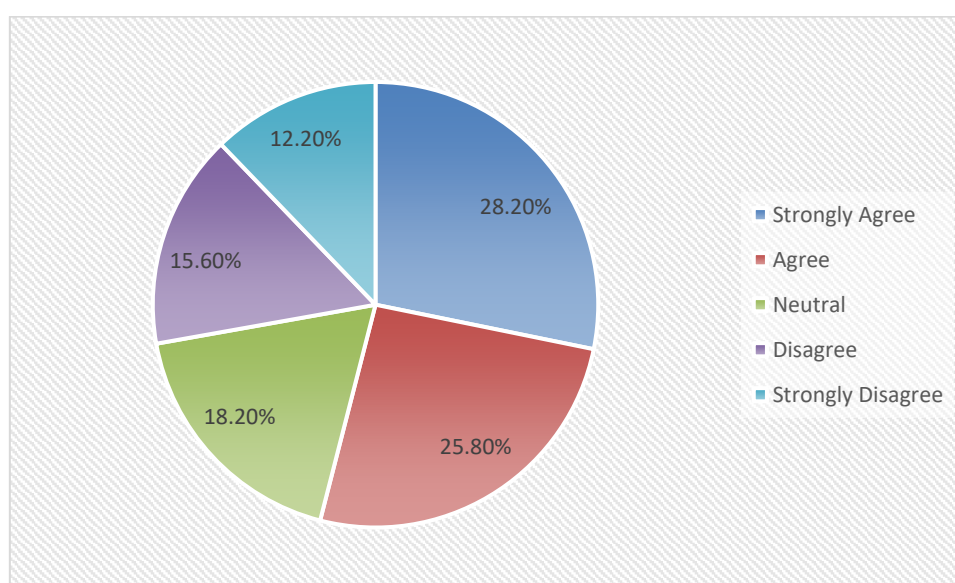
III. RESULTS AND DISCUSSIONS

The analysis of the questionnaire's responses highlights the growing share and emergence of privatization and marketization in drinking water across Hisar district. A significant number of households rely on private enterprises for bottled water and RO-treated supplies, driven by concerns over public water quality and reliability. The proliferation of small-scale water businesses indicates rapid market growth, particularly in urban and semi-urban areas, catering to diverse consumer needs. This trend underscores a shift toward commodifying water, emphasizing the need for regulations to ensure affordability, sustainability and equitable access.

Table 2: Private companies have improved the quality of drinking water in my area.

Response	Value	Percentage
Strongly Agree	141	28.20
Agree	129	25.80
Neutral	91	18.20
Disagree	78	15.60
Strongly Disagree	61	12.20
Total	500	100.00

Source: Primary Data



Source: Table 2

Fig.2: Private companies have improved the quality of drinking water in my area.

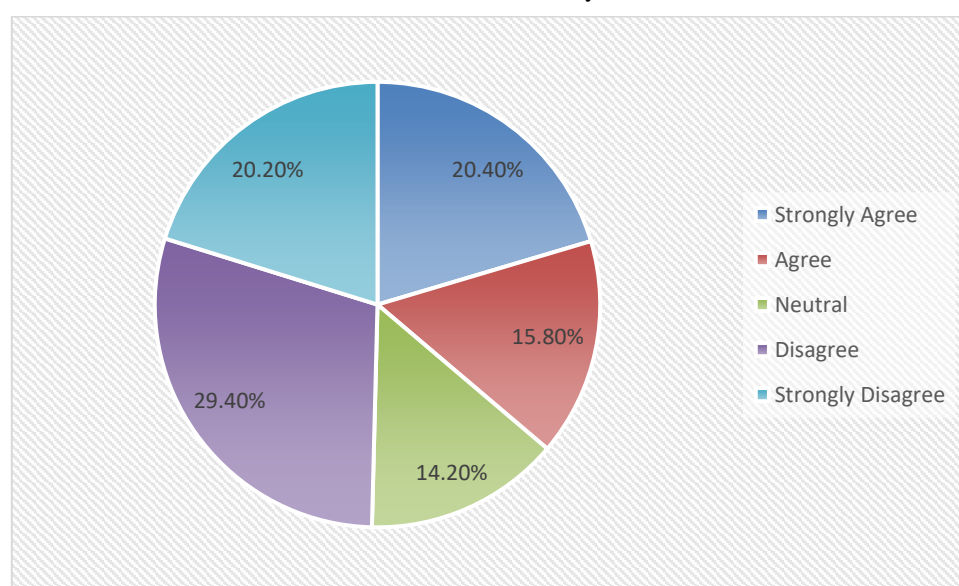
Table 2 highlights perceptions of the role private companies play in improving the quality of drinking water in respondents' areas. A majority, 54% (28.20% strongly agree and 25.80% agree), believe that private companies have positively contributed to enhancing water quality. This reflects the effectiveness of private initiatives, such as bottled water providers, private treatment plants, or corporate partnerships, in addressing concerns over water safety and quality. 18.20% of respondents are neutral, suggesting either a lack of awareness or mixed experiences with the impact of private companies. These individuals may not have direct interactions with private water suppliers or perceive their

contributions as inconsistent. On the other hand, 27.80% (15.60% disagree and 12.20% strongly disagree) do not see private companies as having improved water quality. This may be due to limited access to private services, distrust of privatization, or concerns over affordability and equity in services provided by private entities. This data underscores the need for a balanced approach in integrating private sector efforts with public initiatives to improve water quality. Ensuring affordability, accessibility and transparency in private water services can enhance their positive impact while addressing concerns raised by dissatisfied respondents.

Table 3: I prefer purchasing bottled water due to the lack of trust in public water supply.

Response	Value	Percentage
Strongly Agree	102	20.40
Agree	79	15.80
Neutral	71	14.20
Disagree	147	29.40
Strongly Disagree	101	20.20
Total	500	100.00

Source: Primary Data



Source: Table 3

Fig.3: I prefer purchasing bottled water due to the lack of trust in public water supply.

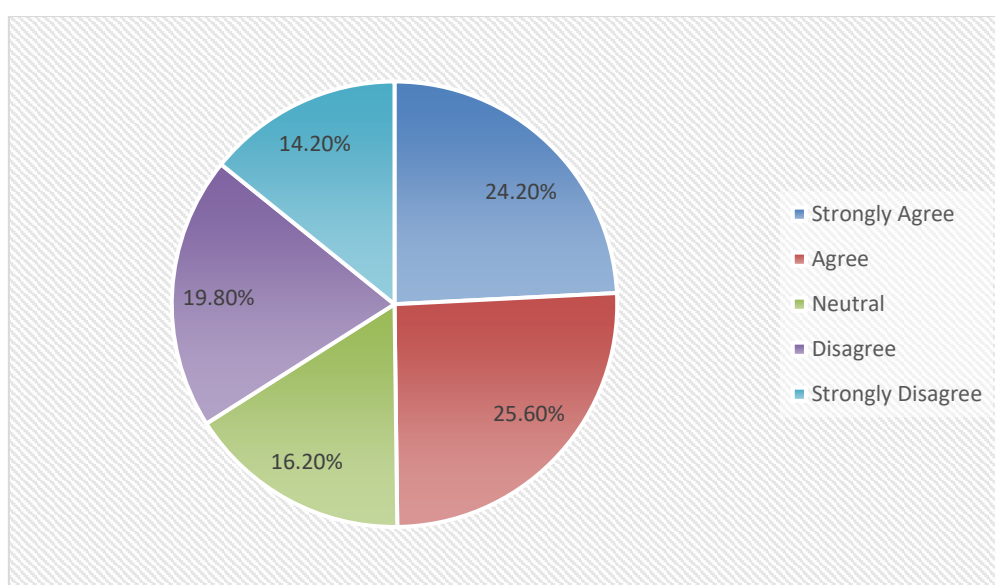
Table 3 explores the preference for purchasing bottled water due to distrust in public water supply. A notable proportion of respondents, 36.20% (20.40% strongly agree and 15.80% agree), express a preference for bottled water, highlighting a lack of trust in the quality or reliability of public water. This preference may stem from concerns about contamination, inconsistency, or inadequate treatment in public systems. 14.20% of respondents are neutral, possibly indicating mixed experiences with public water or a lack of strong opinion on the matter. On the other hand, a significant 49.60% (29.40% disagree and 20.20% strongly disagree) do not prefer bottled water, suggesting greater trust in public water supply or reliance

on alternative treatment methods like filtration or boiling. These respondents may also consider bottled water unnecessary or costly, given the availability of affordable and acceptable public water options. This data underscores the importance of improving public water quality and communication efforts to build trust among users. Enhancing water treatment infrastructure, ensuring consistent quality and increasing transparency about water safety can reduce dependence on bottled water and foster greater confidence in public water systems.

Table 4: Privatization of water services has made access to drinking water more expensive.

Response	Value	Percentage
Strongly Agree	121	24.20
Agree	128	25.60
Neutral	81	16.20
Disagree	99	19.80
Strongly Disagree	71	14.20
Total	500	100.00

Source: Primary Data



Source: Table 4

Fig.4: Privatization of water services has made access to drinking water more expensive.

Table 4 highlights perceptions regarding the impact of privatization on the cost of accessing drinking water. A combined 49.80% (24.20% strongly agree and 25.60% agree) believe that privatization has made drinking water more expensive. This suggests concerns about the financial burden associated with private water services, likely due to higher charges for bottled water, private suppliers, or premium water treatment services. 16.20% of respondents are neutral, possibly reflecting mixed experiences or limited exposure to privatized water services. These individuals may not perceive a direct impact of privatization on water costs in their localities.

Conversely, 34% (19.80% disagree and 14.20% strongly disagree) do not believe privatization has significantly increased costs. This could reflect satisfaction with affordable public water supply or perceptions that private services offer value for money through improved quality or reliability. This data underscores the need for a balanced approach to water service management. While privatization can improve service quality and infrastructure, measures must be implemented to ensure affordability and equitable access, particularly for vulnerable populations. Public-private partnerships that

combine quality improvements with cost regulation could address these concerns effectively.

IV. CONCLUSION

The privatization of drinking water in rural areas of Hisar district reflects a significant shift in water resource management, driven by deficiencies in public water supply, increasing consumer demand for purified water and market-based solutions to address water accessibility. This study highlights the growing role of private enterprises, including small-scale RO water plants and bottled water suppliers, in meeting the needs of rural households and institutions. While privatization has contributed to improved water quality and increased availability in many areas, it has also introduced challenges related to affordability, sustainability and social equity. Survey findings indicate that while a majority of respondents acknowledge the positive impact of private water enterprises on water quality, concerns remain regarding the rising costs and unequal access. The market-driven approach has made drinking water a purchasable commodity, often excluding economically weaker sections of society. Additionally, unregulated groundwater extraction by private water suppliers poses long-term environmental risks, particularly in semi-arid regions like Hisar, where water resources are already under stress. To ensure equitable and sustainable water access, a balanced approach is necessary. Strengthening public water infrastructure, implementing regulatory frameworks for private water suppliers and encouraging public-private partnerships can help mitigate the negative effects of water privatization. Policies should focus on ensuring affordability, promoting responsible groundwater management and maintaining quality standards for both public and private water services.

REFERENCES

- [1] Adams, E. A. (2018). Privatization and the rural water supply challenge in Ghana: Caught between national policies and local realities. *World Development*, 107, 192-206.
- [2] Biswas, A. K., & Tortajada, C. (2010). Water supply of Phnom Penh: An example of good governance. *International Journal of Water Resources Development*, 26(2), 157-172.
- [3] Department of Industries & Commerce, Haryana. (2023). R.O. water enterprises' name and employment present in villages of Hisar district. Government of Haryana.
- [4] Foster, S., & Chilton, J. (2003). Groundwater: The processes and global significance of aquifer degradation. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 8(10), 57-72.
- [5] Ghosh, N. (2018). Water pricing reforms in India: Insights from key economic and political economy studies. *Water Economics and Policy*, 4(2), 1-22.
- [6] Gleick, P. H. (2003). Global freshwater resources: Soft-path solutions for the 21st century. *Science*, 2(5), 24-28.
- [7] Hall, D., & Lobina, E. (2006). Water privatization in Latin America. *Development in Practice*, 16(1), 39-56.
- [8] Kumar, M., & Singh, O. (2020). Assessing groundwater depletion and drinking water scarcity in semi-arid regions: A case study of Haryana, India. *Environment, Development and Sustainability*, 2, 61-80.
- [9] Mukherjee, M., & Shah, T. (2005). Socio-ecological impacts of groundwater-based drinking water supply in India. *Economic and Political Weekly*, 4(8), 746-756.
- [10] Narain, S. (2002). The politics of water: The challenges of privatization. *Down to Earth*, 11(1), 25-29.
- [11] Pritchard, M., Mkandawire, T., & Edmondson, A. S. (2008). Factors affecting the sustainability of rural water supply systems in Malawi. *Physics and Chemistry of the Earth, Parts A/B/C*, 33(8-13), 846-849.
- [12] Prasad, N. (2006). Privatization of water: The Indian experience. *Economic and Political Weekly*, 4(3), 60-68.
- [13] Sharma, R., & Vairavamorthy, K. (2009). Urban water demand management: Prospects and challenges for India. *Water Policy*, 11(4), 442-456.
- [14] Swyngedouw, E. (2005). Governance innovation and the citizen: The case of London's water privatization. *International Journal of Urban and Regional Research*, 29(2), 456-471.