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A Comparative Study of Television Media and Social Media Platforms in Shaping Youth Awareness and Environmental Concern Toward Recent Cauvery River Pollution 2024 - 25

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ABSTRACT

The Cauvery River, one of the lifelines of South India, has faced renewed threats in the form of pollution, industrial discharge, untreated sewage, and encroachment, all driving environment harm and public health risks of late. This study examines the role of television exposure and social media use in shaping youth awareness and environmental concern about the pollution of the river in 2024-25. Data was collected from 50 young people using a structured questionnaire that measured media exposure, awareness, and environmental concern. The reliability check of the data showed strong internal consistency: $\alpha = 0.970$ for items on TV and $\alpha = 0.966$ for social media items. The corrected Pearson correlation between TV exposure and awareness was $r = 0.854$ ($p < .001$), indicating a strong association. Simple linear regression showed that social media use significantly predicted environmental concern: $\beta = 1.051$, $R^2 = 0.852$, $p < .001$. It is concluded from these observations that traditional and digital media play an important role in shaping youth environmental consciousness and point toward the use of media-based campaigns to mobilize youth for Cauvery River conservation.

Keywords:

Cauvery River Pollution, Television Media, Social Media, Youth Awareness, Environmental Concern

BACKGROUND OF THE STUDY

Cauvery River Pollution Crisis, 2024 - 25

In November 2025, reports showed foamy, untreated wastewater-possibly mixed with chemicals-flowing into the Cauvery near Kushalnagar. A few people bathing in the river developed skin irritation and other health problems. Locals blamed it on damaged sewage lines and discharge of untreated effluents from commercial establishments. The pollution created widespread alarm and demands for immediate action by the government (Prajna 2025; The New Indian Express 2025). To address such concerns, a ₹49.56 crore sewage treatment project was restarted in Madikeri with the agenda of not allowing untreated waste to enter the river. Experts said that without continuous monitoring and enforcement, such steps could provide only temporary relief. The degradation has revived public concern; local activists and residents staged protests in Kodagu district, demanding protection of the river and removal of encroachments along its banks (Times of India 2025).

Role of Media and Youth Engagement

Media significantly shapes public perception and can mobilize concern. Agenda-Setting Theory suggests the issues the media foregrounds become the issues the public deems important. In environmental crises, media coverage can frame the problem, provide information, and change attitudes. Youth, who are highly active online, discuss environmental issues frequently and can act as catalysts for wider awareness. Given the Cauvery's ongoing pollution and rising local concern, an examination of how youth media exposure affects awareness and concern is timely to inform environmental campaigns, policy advocacy, and community mobilization.

REVIEW OF LITERATURE

1. **The New Indian Express (2025)** Reports on the Kushalnagar pollution incident showed how untreated wastewater was discharged into the Cauvery, leading to skin irritation and other health risks among the people. The report identified sewage infrastructure failures and slack industrial monitoring as the causative factors, underscoring why media-driven youth awareness in environmental crises matters.

2. **Times of India (2025)** Reports of protests across Kodagu and Mysuru underlined the fact that sustained media coverage magnifies public concern and places pressure on the government. Visual

media brought the issue into mainstream discussion, which supports the hypothesis that television reporting enhances youth awareness.

3. **Sharma & Kumar (2025)** Their work provides info on emotionally charged stories and visual content elicit a more poignant youth response, increasing engagement in environmental issues. Both television and social media prove effective in shaping environmental concern, aligning with this study's direction.

4. **Pandit, Mittal & Kushwaha (2025)** They found that frequent updates, interactive content, and environment-related hashtags on social media platforms are raising concern and engagement among youth despite some "digital activism fatigue." Overall, social media proved highly influential, supporting the current study's regression results.

5. **Iqbal, Akram & Haroon (2024)** Both TV and digital platforms were used by university students in acquiring information about environmental problems, and they prefer information that is timely and in a visual format. This makes the youth-focused analysis highly relevant.

6. **De-Lima-Santos (2022)** Agenda-setting theory applied to environmental journalism shows media attention drives public focus on crises, supporting the rationale for analyzing TV and social media's role in youth awareness.

7. **IJTSRD (2022)** The mass media continue to be a source of environmental information that families and youth in India trust, and continuous reporting raises awareness relevant to the study's objectives.

8. **Alam & Zakaria (2021)** High media use among the younger age brackets shows greater environmental concern, suggesting media access is the key to awareness.

9. **Bhavani River Pollution Assessment Team (2021)** Domestic sewage and industrial effluents seriously affect Bhavani, a Cauvery tributary, reinforcing the call for better awareness and public pressure.

10. **Susheela & Shivanna (2020)** Pollution around the KRS Dam had health, agricultural, and economic consequences, where many residents were not aware of the root causes of pollution; hence, media-delivered information becomes important.

11. **U. Prabhu, A.V. Balan (2020)** Downstream pollution from Bhavani further deteriorates the water quality in Cauvery, hence making public awareness necessary along with mass media on ecosystem-linked health.

12. **Jati & Rahayu (2020)** Repeated exposure via media to environmental topics increases awareness and emotional involvement among young people, particularly with visual and interactive formats-supporting the regression link between social media and concern.

13. **Nithya & Suresh (2019)** The Water Quality Index for the Cauvery demonstrated alarming pollution from untreated sewage and industrial wastes, hence requiring more efficient awareness efforts and grounding media-focused research.

14. **IJITEE (2019)** In Kerala, newspaper and TV coverage improved public understanding of river pollution. This will also motivate protective behavior, hence supporting TV exposure linked to awareness.

15. **International Water Association (2018)** Increased exposure to environmental messaging via media and local organizations generates community awareness while showing the role of media literacy in responsibility.

16. **IJMRA (2018)** Without repeated mass-media reinforcement, awareness about river pollution remained low, a finding that validated the need for ongoing media exposure.

17. **McCombs & Shaw (1972)** Early agenda-setting theory pioneered the idea that the prioritization of media sets the basis for what audiences think about, underpinning why TV and social media can Mold awareness and concern among youth.

OBJECTIVES

1. To examine the relationship between television media exposure and youth awareness about recent Cauvery River pollution.
2. To analyse whether social media usage predicts youth environmental concern regarding Cauvery River pollution.

HYPOTHESES

$H0_1$: Television media exposure has no significant relationship with youth awareness about Cauvery River pollution.

$H1_1$: Television media exposure has a significant positive relationship with youth awareness about Cauvery River pollution.

$H0_2$: Social media usage does not significantly predict youth environmental concern about Cauvery River pollution.

$H1_2$: Social media usage significantly predicts youth environmental concern about Cauvery River pollution.

RESEARCH METHODOLOGY

The study relies on primary data collected among young people through an online questionnaire. A Google Form was distributed via WhatsApp and email, featuring simple Likert-scale items on TV use, social media habits, awareness, and environmental concern regarding the Cauvery pollution. 50 youths responded to the survey, and all the responses were analyzed. In analyzing the data, we employed descriptive statistics, Pearson correlation to understand the relationship between TV exposure and awareness, and simple linear regression to find the impact of social media on environmental concern. The visuals included a heatmap and scatter plots. Excel and Python-based statistical tools were used to carry out the analyses with precision.

SCOPE OF THE STUDY

The sample consists of youths, aged 18 - 30 years, who can access either TV or social media. It assesses self-reported media exposure, awareness of 2024 - 25 Cauvery pollution events, and environmental concern. The study design is empirical in nature, and it does not track long-term behavior change or river quality data.

STATEMENT OF THE PROBLEM

Despite serious incidents of Cauvery pollution, few empirical evidences exist on how the media exposure shapes youth environmental awareness and concern. Such a situation hinders campaigns from getting any direction. So, this study seeks to fill that gap.

SAMPLING PLAN

A convenience sample of 50 young respondents was selected. The questionnaire link was shared with people who were easy to contact online and through the personal network. The unit of analysis is each youth respondent. Only those participants who actively use either television or social media were included; hence, the collection of data was efficient within the given timeframe.

LIMITATIONS OF THE STUDY

- The study focuses only on young people and may not reflect the views of older age groups or those living directly along the Cauvery River.
- The sample size is limited to just 50 respondents, which may not fully represent the larger population.
- The study was conducted within a short time frame, so a deeper and long-term analysis was not possible.
- Most respondents were from Bengaluru or nearby areas, which limits the geographical representation.

RESULT ANALYSIS & INTERPRETATION

RELIABILITY TEST

Table no. 01

Scale	Cronbach's Alpha	N of Items
Television Exposure (Q1 - Q5)	.970	5
Social Media Usage (Q6 - Q10)	.966	5

The reliability test was conducted using Cronbach's Alpha to evaluate internal consistency among the items measuring Television Exposure (Q1 - Q5) and Social Media Usage (Q6 - Q10). The TV scale showed $\alpha = 0.970$, while the social media scale showed $\alpha = 0.966$, both of which indicate excellent

reliability ($\alpha > 0.90$). This means the items within each scale are highly consistent with each other and reliably measure their respective constructs.

Objective- 1: To examine whether television media exposure significantly influences youth awareness about recent Cauvery River pollution issues.

DESCRIPTIVE STATISTICS

Table no. 02

Variable	Mean	SD	Min	Max
TV Exposure (Q1–Q2 Avg.)	3.42	1.2911	1	5
Awareness (Q3)	3.66	1.2056	1	5

CORRELATION RESULTS

Table no. 03

Test	Value
Pearson r	0.8541
P - value	3.1585×10^{-15} (0.0000)
N	50

Interpretation

The correlation test shows a strong and highly significant positive relationship between television exposure and awareness. This means that youth who watch more television news tend to have higher awareness about the causes of Cauvery River pollution. The very low P-value indicates that this relationship is statistically reliable and not due to chance

Heatmap showing Correlation Results

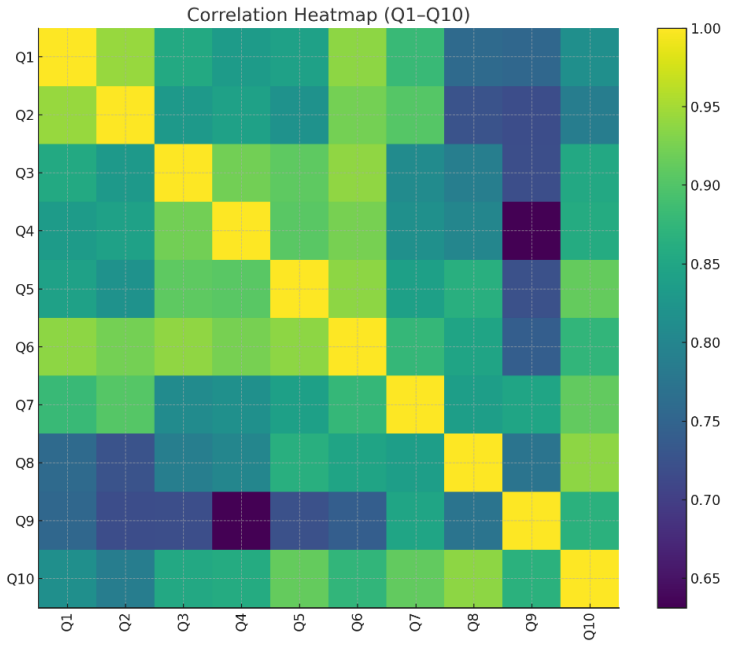

Fig no. 01

The heatmap visually confirms that the TV-related items (Q1–Q5) form a strong cluster, showing consistent responses across all TV questions. Awareness (Q3) aligns well with these items, further supporting that television exposure and awareness are closely connected. The heatmap supports the validity of the correlation results by showing clear grouping and logical relationships among the variables.

Hypothesis Testing

Since the correlation analysis shows a strong and statistically significant positive relationship between television exposure and youth awareness about Cauvery River pollution, we are rejecting the Null Hypothesis ($H0_1$) and accepting the Alternative Hypothesis ($H1_1$).

Objective 2: To analyse whether social media usage significantly predicts youth environmental concern regarding recent Cauvery River pollution issues.

REGRESSION ANALYSIS

Table no. 04

Component	Value

Slope (β)	1.051
Intercept	–0.271
R^2	0.852
Adjusted R^2	0.848
F (1,48)	275.30
t-value	16.593
p-value	< .001
N	50

Interpretation

The regression results show that social media has a very strong influence on youth environmental concern. With an R^2 of 0.852, social media alone explains most of the variation in how concerned young people feel about Cauvery pollution. The slope ($\beta = 1.051$) shows that higher social media usage leads to higher concern. The very high F-value and extremely low p-value ($p < 0.001$) confirm the model is statistically significant. Overall, social media clearly plays a major role in shaping youth attitudes toward the environment.

Graph Showing Regression Plot

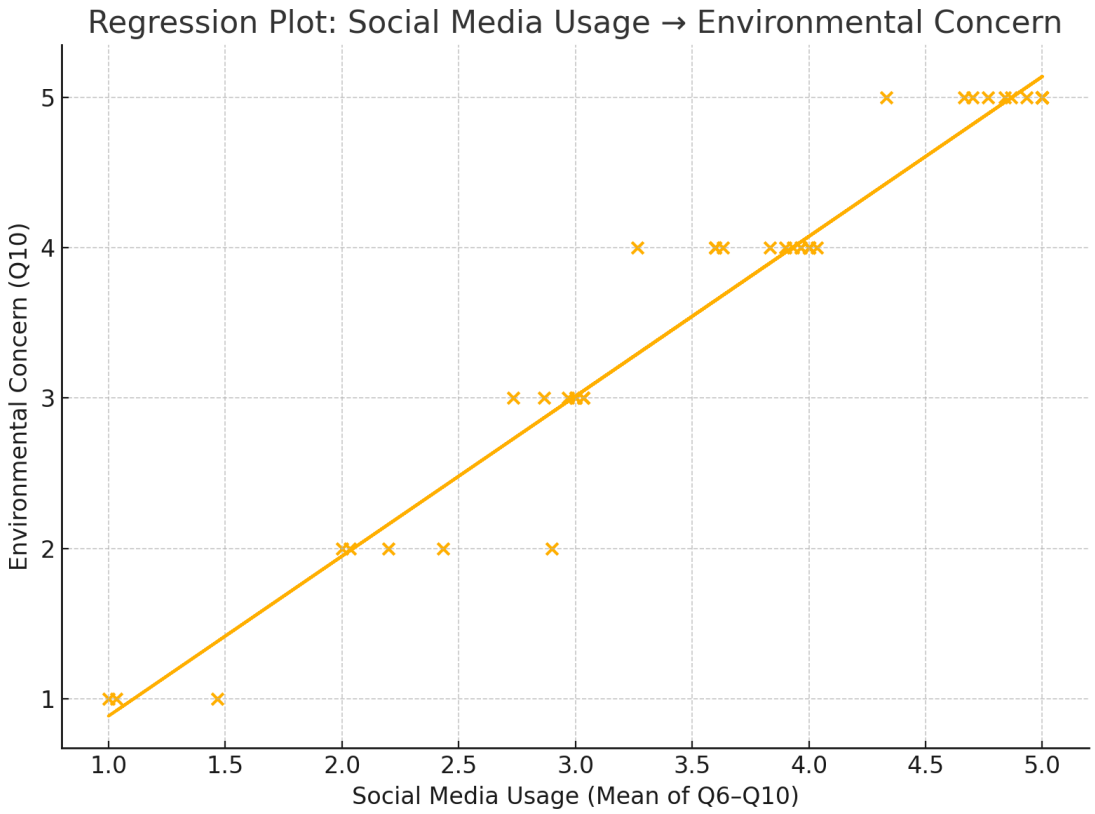

Fig no. 02

Interpretation

The regression plot shows a clear upward trend, indicating that students who use social media more tend to feel a stronger sense of environmental concern about the Cauvery River. Most of the points lie close to the regression line, meaning the data fits the prediction very well. This visual pattern supports the statistical result that social media usage is a strong predictor of environmental concern. In simple terms, the younger people engage with pollution - related content on social media, the more responsible and aware they feel about environmental issues, especially those related to the Cauvery River.

Hypothesis Testing

Since the regression analysis shows a strong and statistically significant predictive impact of social media usage on youth environmental concern, we are rejecting the Null Hypothesis ($H0_2$) and accepting the Alternative Hypothesis ($H1_2$). This indicates that social media usage significantly contributes to higher levels of environmental concern among youth.

FINDINGS OF THE STUDY

1. The study showed that young people who watch more television news about the Cauvery River tend to be more aware of what is happening. TV clearly helps them understand the issue better.
2. Social media had an even stronger effect - students who actively use platforms like Instagram and YouTube showed higher environmental concern, meaning these platforms emotionally influence how they feel about pollution.
3. The survey questions were found to be highly reliable, which means the responses were consistent and trustworthy.
4. The Correlation heatmap revealed that many of the media-related questions were closely connected, showing that youth often consume TV and social media together.
5. The regression analysis showed that social media usage explains a large portion of why some youth show higher concern than others.
6. Overall, the findings make it clear that both TV and social media contribute to awareness, but social media connects with youth on a deeper emotional level.

SUGGESTIONS AND RECOMMENDATIONS

1. Television channels should keep giving regular, clear, and engaging updates about Cauvery River issues so that awareness continues to grow.
2. Social media campaigns using short videos, infographics, and relatable posts should be created to reach young audiences effectively.
3. Colleges and universities can organize simple awareness programs, guest talks, and field visits to help students understand the issue more deeply.
4. Local influencers, educators, and eco-content creators can be encouraged to share information in a youth-friendly and engaging way.
5. Authorities should make water-quality updates and pollution alerts easily accessible online so people can stay informed.

6. Youth should be encouraged to take part in clean-up drives, eco-events, and community activities, as hands-on involvement increases their interest.
7. Pollution control boards and local bodies should take strict, visible action against illegal waste disposal and encroachments to prevent further damage.

CONCLUSION

The study clearly depicts that media plays a powerful role in shaping how young people understand and react to the Cauvery River pollution issue. Television helps build awareness by presenting facts and news stories, while social media creates stronger emotional involvement by showing real-time videos and discussions. Together, they influence how youth think, feel, and respond to environmental problems. As the Cauvery river continues to face pollution challenges, the responsibility to stay informed becomes even more important. By using media effectively and encouraging youth participation, society can move towards better river protection and stronger environmental responsibility. The study reinforces that informed youth are one of the strongest forces in bringing positive change.

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