Role of mass media in water quality management

Citation: RAI, D.K., 2013. Role of mass media in water quality management. IN: Shaw, R.J. (ed). Delivering water, sanitation and hygiene services in an uncertain environment: Proceedings of the 36th WEDC International Conference, Nakuru, Kenya, 1-5 July 2013, 5pp.

Additional Information:

- This is a conference paper.

Metadata Record: https://dspace.lboro.ac.uk/2134/30961

Version: Published

Publisher: © WEDC, Loughborough University

36th WEDC International Conference, Nakuru, Kenya, 2013

DELIVERING WATER, SANITATION AND HYGIENE SERVICES
IN AN UNCERTAIN ENVIRONMENT

Role of mass media in water quality management

Dushyant Kumar Rai, India

BRIEFING PAPER 1793

The underlying assumption in traditional water resources planning process still continues to be: "fresh water is a gift of God, continued to be available in perpetuity and in abundance'. It is seen that elements important to the media agenda become central to the public mind. Public understanding of many issues including social issues can be treated as an example of a mass communication problem that has yet to be adequately solved. Many studies in the developing countries including India suggest that although people are aware of the water quality management problem in a general sense, understanding of particular causes, possible consequences, and solutions is severely limited. Expression mediums frequently presume that by increasing coverage, the media can create the desired depth and breadth of individual and public understanding, and once that is achieved people will start to participate in solving various issues related to our environment.

Introduction

Media is the most powerful tool for the formation of Public opinion in contemporary times. Talking about the media is like talking about a mission. Media is a source of information and education that is shaping the daily choices in people's life.

By the advancement and spread of technology the world has shrunk into a global village whereby the remote villages of China, the Pacific island of Hawaii and the deserts of Arabia are on our everyday screens at home at our dinner tables. Although the developments in communication and telecommunication means have created a global village but we are still in a Situation where we have very little information about our external environment, that is in a state of flux and, hence, largely unpredictable, generally we refer this situation as uncertain environment. A central issue arising in environmental pollution and its solutions and, more generally, in many applicative endeavors is to make a decision in spite of such an uncertain environment. The role and the mission of the media is to commit itself to the values that are imperative for today, and it is possible to achieve this goal only if civil societies commit themselves into risks and understand the need for it and encourage agencies that can play this role.

The environment and related issues are today's important concern but unfortunately public awareness about this topic has not been properly treated. In this article the role and impact of media regarding creating awareness in people about issues related to water pollution is discussed .Communication, both mass and interpersonal, hold key to improvement in public understanding of water management problems. However, previous research often holds mass media responsible for inadequate knowledge of the public related to the environmental problems. Content analysts typically find gaps in media coverage due to episodic coverage of dramatic events, and to focusing superficially on human interest and economic impacts, while overlooking systemic concerns. [1,2] Such findings give rise to the inference that public understanding mirrors the inadequacies of media coverage, an inference that has occasionally been supported by studies that have tried to document media effects more directly [3]. Despite these shortcomings, the extensive media coverage of these problems is not entirely a futile effort. Agenda-setting studies show that media coverage is at least partly responsible for focusing people's attention on environmental problems.

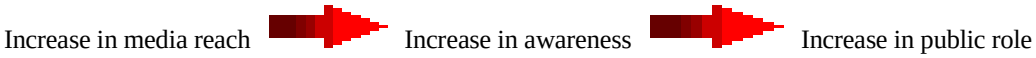
A glimpse of how much awareness is among students

In this study a comprehensive, self-administered questionnaire was first presented to 320 undergraduate students at the Banaras Hindu University and KVP University in Varanasi, India. It included a variety of questions about whether or not students considered the problem of water quality management; their opinions about the causes, consequences, and solutions to it; and their media use.

In the study it was found that the students were generally aware of a wide range of solutions to the given problem. While newspapers and television are the most frequently used sources of information, no statistically significant differences were found between uses of these two media. So, the findings of the study provide a more encouraging picture of the public Understanding of the problem of water quality management, along with evidence of some positive contribution from mass media and interpersonal channels of communication

Conceptualisation

In addressing the role played by mass communications in solving environmental problems such as global warming, a better grasp of what constitutes "awareness" of an environmental problem is clearly needed. It should be stressed that the ways in which people think about environmental problems, their individual "awareness," are not necessarily accurate or complete. Nevertheless, these cognitive processes are likely to influence both their willingness and ability to participate in solving the problem presume that by increasing coverage, the media can create the desired depth and breadth of individual and public understanding, and once that is achieved people will participate. The model is:



Research questions

- How do people understand water management problems in terms of reasons, effects and possible solutions?
- What is the "level of involvements" of people with the water management problems?

Is this true that the media make an increase in awareness of people about causes & possible solutions?

Methods

Sample interviews

A detailed, self-administered questionnaire was first presented to 320 respondents in the One of the oldest cities of the world, Varanasi situated in the northern Uttar Pradesh state, India. However, since our primary interest was to study variations in media use, understanding, and stage along the path, it was more important that the full range of these variables was represented in the questionnaire. So, the utmost care was taken to ensure the same.

Measure

A number of studies have shown that media coverage of water related issues has tended to be
Superficial. In this work, we had asked a larger bank of questions to determine the stage of the path. Levels of understanding of the reasons, their consequences, and solutions to the problem were measured by asking respondents if they had heard of examples in connection with global freshwater problems. The items used in these lists were obtained from a variety of books and pamphlets about environmental problem.

Results and discussions

Distribution of respondents along the problem-solution path Of the 320 people interviewed, 82 percent had heard the terms "water management problems", "water pollution." Figure 2 shows the number of respondents reaching each stage on the path. Twenty cases were excluded due to logical inconsistencies in the data, such as respondents stating that it was both "not a problem" and "definitely a problem," leaving a valid sample of 300 cases. As can be seen from the data given below, the two largest groups of respondents were those who had decided that water management is a problem but had not yet given serious thought to solutions (39 percent), and those who had heard something about the topic but did not feel they knew

enough to state whether or not it was a problem (30 percent). Only 8 percent of our respondents were situated on the last stage of our path, feeling fairly certain about what actions should be taken to solve this problem.

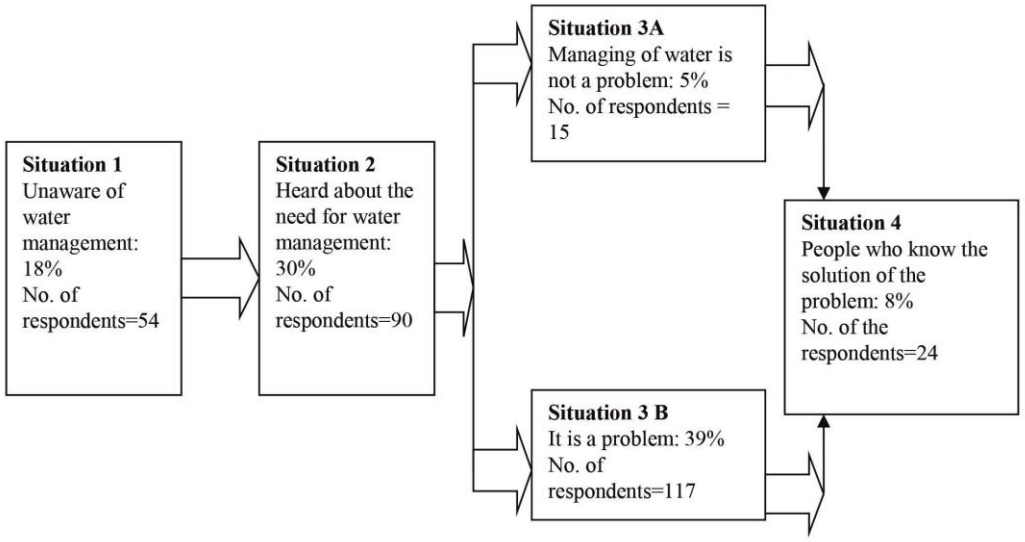


Figure 1.

A substantial number of people in our sample (48percent) considered the industrial waste to be a "very important" cause of fresh water pollution.

Table 1. Awareness of causes of fresh water pollution

Possible causes of fresh water pollution	% heard about this
Industrial Waste	80
Extensive Use Of Groundwater	79
Big Dams Obstructing Flow Of Rivers	75
Untreated Sewage Water	53
Agriculture	34

* *Only those respondents who had heard of water management problem and whose position on the path could be determined are included.*

Consequences of global environmental problems

Even in scientific circles, the likely consequences of depleting source of fresh water are less well understood than the causes. This is because effects will depend on a number of factors, as its amount, the rate at which it occurs, and the extent to which humans and other species are able to adapt to these changes. To further complicate matters, effects are likely to vary widely from region to region. People had heard of a wide variety of these effects Table 2.

Table 2. Awareness of possible effects of fresh water pollution	
Possible causes of fresh water pollution	**% heard about this**
Increased World Hunger	78
Health Problems	72
Water Scarcity	61
Extinctions Of Plants And Animals	57

**Excludes those who have not heard about the problem or whose stage cannot be determined.*

Solutions

Respondents were generally aware of a wide range of solutions to the given problems. Five solutions were seen as very helpful by a little over 50 percent of the respondents: reducing industrial emissions of untreated water, planting more trees, introducing water harvesting technologies, stopping flow of untreated water into the water sources, Ensuring free flow of river water.

Table 3. Awareness of possible solutions	
Possible solutions to fresh water pollution	**% heard about this**
Reducing industrial emissions of untreated water	85
Introducing water harvesting technologies	83
Ensuring free flow of river water.	78
Stopping flow of untreated water into the water sources	75
Planting more trees	68

**Excludes those who have not heard about the problem or whose stage cannot be determined*

Table 4. Sources of information about problems	
Medium	**% having obtained information (n=320)**
Newspaper	90
Television	82
Magazines	67
Family And Friends	65
Books	38
Workshops And Classes	21
Internet	7.6

While newspapers and television are the most frequently used sources of information about the management of fresh water, no statistically significant differences were found between uses of these two media.

Implications and conclusions

We recognize that the relationships between media use and understandings are Co relational, and need to interpret with caution. It is possible that being aware of and engaged with the problem of fresh water pollution encourages different patterns of media use. However, numerous studies have documented the ability of mass media and interpersonal communication to produce effects on knowledge, opinions, and behavioral intentions despite their current shortcomings, our results suggest that the media are already making some contribution to public understanding of the problem. Mass communication and public understanding of fresh water pollution along with this positive beginning, the evidence also identified important areas for improved communication. Our findings suggest that the overemphasis on deforestation as a cause of the problem can be traced back to interpersonal sources, although a belief in the efficacy of halting this process and/or planting more trees is more strongly associated with television use. In any event, it seems clear from this study that we need to be just as concerned about the content of public dialogue as we have been about the accuracy of media coverage. We also need to be concerned about the relationship between the two. The importance of interpersonal communication also suggests that it may also be useful for the designers of public education campaigns to consider ways of creating community involvement in solving the problem of climate change. At present, attempts to solve this problem tend to concentrate on individual actions or on national or international policy options. However, there is evidence suggesting that providing targets for a community to reach can be effective in reducing waste or energy consumption. This is another area in which communications research might make a useful contribution to engaging the public in solving environmental problems

References

Sharon Friedman, "Two decades of the environmental beat," in covering the Environment, Ed. Everette E. Dennis and Craig L. LaMay, published as Gannett Center Journal 4, no. 3 (1990): pp. 13–23; Anders Hansen, "Greenpeace and press coverage," in The Mass Media and Environmental Issues, Ed. Anders Hansen (Leicester: Leicester, University Press, 1993), 150–178.

Jamie D. Haveri, Comprehensiveness of Coverage of the 1988 Yellowstone Area Fires by Local and Regional Newspapers (Master's thesis, University of Washington, 1991); Donella Meadows, "Changing the world through the information sphere," in Covering the Environment, pp. 49–61.

Kenneth Novic and Peter M. Sandman, "How use of mass media affects views on solutions to environmental problems," Journalism Quarterly 51, no. 3 (1974): 448–453; ArvinW. Murch, "Public concern for environmental pollution," Public Opinion Quarterly, no. 35(1971:102-109)

UNEP, "Climate change fact sheets," (1997). Available electronically at (http://www.unep.ch/iuc/submenu/ infokit/factcont.htm); GRCIO/Carnegie Mellon, Global Warming and Climate Change (informational booklet) (1994). Available electronically at (http://www.gcrio.org/gwcc/toc.html); National Safety Council, Reporting on Climate Change: A Journalist's Guide (Washington, D.C.: Environmental Health Center, National Safety Council, 1994); Paul C. Stern, Oran R. Young, and Daniel Druckman, Eds., Global Environmental Change: Understanding the Human Dimensions (Washington, D.C.: National Academy Press, 1992).

Contact details

Dushyant Kumar Rai
Near Anand Marg Ashram, Vill & P.O Susuwahi,
Chitaipur, Varanasi, Uttar Pradesh, India
Tel: 91-9452355720, 91-0542-2300794.
Fax: 91-0542-2300794.
Email: drdushyantrai@gmail.com