

Environment communication - Need of the hour

■ ANJALI PAHAD, HINAL TRIVEDI AND RUMA CHOKSHI

Article Chronicle :

16.01.2012;

Revised :

01.05.2012;

Accepted :

30.05.2012

SUMMARY: News media are the primary source from which people obtain their knowledge of the world's events and issues. Mass media are important sources of awareness towards environmental issues. A significant proportion of people's knowledge about environmental problems is acquired through mass media coverage (newspapers, magazines, television and radio). Media coverage of environmental issues is not only a question of creating a forum for political debate, but it is also a question of providing and managing the kind of information which will enable citizens to make decisions about 'appropriate' behaviour and precautions. There is a need to understand the deeper role that the media can play in raising public awareness and concern about environment. A starting point is the observation that the mass media serve as a primary source of information worldwide. The present study has been undertaken with the objective of assessing the role of Indian newspapers in creating mass concern with environment issues, through the perception of the selected citizens of Baroda city. A survey was conducted to obtain opinions of individuals about the extent of role of Indian newspapers in arousing popular interest by way of disseminating information about the environmental problems. The response strongly suggests a limited role of the Indian press in creating mass concern with environmental issues. Various reasons for the unsuccessful performance of the press have been presented in the findings.

HOW TO CITE THIS ARTICLE : Pahad, Anjali, Trivedi, Hinal and Chokhi, Ruma (2012). Environment communication - Need of the hour. *Asian J. Environ. Sci.*, 7 (1): 91-99.

Key Words :

Environment communication, News media, News paper

Mass media can bring about radical changes and improve social situation as it influences our social, civil, cultural, political, economic and aesthetic outlook. Modernization has converted media into an indispensable feature of human activity. However, factors like age, education, economic condition, personal needs and availability of proper components decide the quantum and frequency of media use. This is evident from the fact that most media centres are located in urban areas. The majority of consumers of media products are also concentrated in and around cities and towns.

Media use is an index of development. The greater the use, the higher will be the level of development. As social beings, humans are sustained by mutual interactions, exchange of ideas, information and views with the fellow beings. Illiteracy, which is nothing but absence of education and information is a stumbling block for any aspect of development-social, economic,

political, cultural and even spiritual. Media has become the harbinger of development through the removal of these roadblocks and the provision of information and knowledge.

In India, the ultimate power lies with the people. But a democratic society needs vigilant and informed people who are able to see through the gimmicks of political parties and politicians. Media creates such valuable citizens. Besides, media has done much good to society by exposing various scams, scandals, frauds, embezzlements and many other cases of corruption leading to initiation of enquiries and other processes of prosecution against the perpetrators of these crimes.

The media primarily reinforce existing views that people hold. This means that one should carefully define what goal one wish to achieve through the mass media. Usually this goal will be primarily informational - *i.e.*, one will want to inform people and give those facts or information about

Author for

correspondence :

ANJALI PAHAD

Department of Extension and Communication, Faculty of Family and Community Science, The Maharaja Sayajirao University of Baroda, VADODARA (GUJARAT) INDIA

See end of the article for Coopted authors'

their work or their cause. One should not expect the media to bring about major or rapid changes in public attitudes. The media is best used to provide factual information in a steady, credible manner, and that knowledge over time helps to change people's attitudes. Various mass media like newspapers do play active role in keeping the people of the society well informed and updated of the day to day happenings of the society.

Print media :

Newspapers are the most popularly known print media , which is a regularly scheduled publication containing news, information and advertising. There are around 6,600 daily newspapers in the world including India. Newspapers usually are circulated by delivery and by sales at local kiosks. Newspapers today also are available as non-print media on the Internet.

What's in a newspaper?

General-interest newspapers typically publish stories on political events, personalities, crime, business, entertainment, society and sports. Most papers also have an editorial page of opinions written by an editor or opinion writers. Other features include display and classified advertising, comics, puzzles and inserts from local merchants. Newspaper have been the most conventional and popular medium of conveying local, regional, national and international news to the readers.

Role of newspapers in society :

Newspapers are the most popular print medium. They remain the largest surviving form of information on the globe. The newspapers make a big source of information in the contemporary world. They largely contribute in formation of authentic opinions and perceptions about various thoughts and ideas, which would not be possible in absence of the newspapers. Newspapers give a true and correct picture of the society. Newspapers are not only the informers of social, political and economical changes taking place in different parts of the world, but also impart information regarding the views, perceptions of people on various issues from various parts of the world. In democracy, the role of the press is of great importance as it makes the public aware of the important changes and policy decisions.

They play a positive and constructive role. The newspaper have a noble mission of enlightening people, broadening their views and discovering evils of the society, in reality the newspaper is a watchdog of human rights, whom we call the fourth estate in the era of democracy, like health, literacy, sanitation, environment education etc.

Newspapers, with wide variety of the formats of presentations of information like news stories, articles, views and counter views, visuals, cartoons, investigative reporting,

editorials, news items etc. reflects public opinion, advices the readers, informs and empowers the users and helps in gratifying their need of information seeking on various themes.

Environmental communication :

Environmental communication is communication about environmental affairs. Environmental communication refers to the study and practice of how individuals, institutions, societies, and cultures craft, distribute, receive, understand, and use messages about the environment and human interactions with the environment. This includes a wide range of possible interactions, from interpersonal communication to virtual communities, participatory decision making, and environmental media coverage. From the perspective of practice, Flor (2003) defines it as the application of communication approaches, principles, strategies and techniques to environmental management and protection.

Environmental communication is also how we advocate for change, raise awareness and collaborate to address environmental issues, change behaviour, and pass legislation. Political, economic and technological initiatives need effective communication to succeed.

As with other forms of communication, environmental communication is both an activity/phenomenon and a field of study that, not surprisingly, studies the activity/phenomenon. As an activity/phenomenon, environmental communication is all of the diverse forms of interpersonal, group, public, organizational, and mediated communication that make up the social discussion/debate about environmental issues and problems, and our relationship to non-human nature. In his textbook, *Environmental communication and the public sphere*, Cox (2010) provides a more formal definition that situates environmental communication as a form of symbolic action. In Cox's words (p.20), environmental communication is "the pragmatic and constitutive vehicle for our understanding of the environment as well as our relationships to the natural world; it is the symbolic medium that we use in constructing environmental problems and negotiating society's different responses to them." By pragmatic, Cox (2010) means the instrumental function of educating, alerting, persuading, mobilizing, solving, etc.

Environmental communication is constitutive because it helps to shape people's understandings of environmental issues, themselves, and nature; it shapes the meanings we hold of these things.

Communication about 'the environment' in and through a broad array of news, advertising, art and entertainment media is one of the major sources of public and political understanding of definitions, issues and problems associated with the environment. *Environment, media and communication* examine the social, cultural and political roles of the media as a public arena for images, representations,

definitions and controversy regarding the environment.

Thus, when such a strong emphasis is being given on spreading not only awareness but also imparting, understanding, knowledge regarding environment to the society to build attitudes and acquire values amongst people regarding the protection of environment for its sustenance. Mass media are potential sources which are used to be key informers about environment communication. Communication regarding environment has been the focus on various mass media like television and newspapers.

Statements of problem :

In light of the above discussion the following questions arise:

- What is the role of a newspaper in society?
- Why and when people read newspaper?
- What is the role of newspaper in making people aware about the environmental affairs?
- Why it is so important for a newspaper to make an effort and highlight the environmental problems?

Keeping in mind the above mentioned questions, it was decided to conduct a systematic research study on "role of newspapers in environment communication".

Objectives :

- To study the role of newspaper in society.
- To study the media utilization pattern of people with reference to the newspapers.
- To study the opinions of the citizens of Baroda city regarding newspaper as mass medium
- To check the knowledge/awareness of the citizens of Baroda city regarding environmental issues.
- To study the opinions of the citizens of Baroda city regarding the role of newspapers in environment communication.

Justification :

The environmental issues in India are huge. They become more serious every day. The recent boom in industries, infrastructure nearly at bursting point not to mention the huge deforestation that's going on. A whopping 65 per cent of the land here is degraded in some way, shape or form and the endless government policies do little to control the damage. In fact, there is no shortage at all of government legislation protecting the environment but unfortunately it is never enforced due to flagrant abuse of power, corruption and lack of resources. Whether it's the rapidly dropping water tables, mass deforestation, land degradation or river contamination, India has it all and on a massive scale.

A society cannot survive if its natural resources are rendered unfit for use by its people. Science and technology can help in a limited way but cannot deliver it. The only hope of rescuing this grave situation is by making the mass aware

that they need to proactively begin to protect the environment they will inherit. Media plays a very important role in influencing the thought process of people today. Newspapers, magazines, radio, television, are the source of information for the people. Newspaper keeps people in touch with notable events both at home and abroad.

It is need for the hour to propose the environmental education with the essential elements of moral philosophy. For a conceptual change, people have to realize that they are part of the problem, and therefore they have to be part of the solution. The findings of the study would identify the role of newspaper in environment communication and concerns play in protecting environment by the people. This will also make people aware about the environmental problems and make realize their responsibilities towards the environment communication them for sustainable development.

EXPERIMENTAL METHODOLOGY

The present study was undertaken to study the opinions of citizens of Baroda city regarding the role of newspaper in environment communication. The following steps were undertaken to conduct the study:

Sample of the study :

The sample of the study comprised of hundred citizens from Baroda city. It included housewives, people from business and service class and students pursuing higher education. The sample was selected by using accidental sampling technique.

Construction of research tool :

A structured questionnaire was developed to study the opinions of citizens of Baroda city regarding the selected aspects and role of newspaper in environment communication year.

Tools for data collection :

A questionnaire was developed by the investigators. The questionnaire was divided into six sections. The first section consisted of the background information; the second section consisted of media utilization pattern of the respondents. The third section consisted of statements regarding opinion about newspapers as a mass medium. The fourth section consisted of statements regarding on awareness environment and fifth section consisted of statements regarding role played by newspaper in environmental communication and the last sixth section consisted suggestions of the selected respondents regarding the newspaper's role in environment communication.

Validation of the tool :

To check the validity of the questionnaire, the tool was

given to the experts in the related areas. The validity of the tool was checked in terms of the content validity, appropriateness of the response system and the clarity of the language. The suggested change by experts was incorporated before the tool was finalized.

Collections of the data :

Various methods were used for collecting data from people such as personal contact, connecting through friends, teachers. The data were collected personally by the investigators during the month of November-December-2011.

| Table A : Description of the tool for data collection | | | |
|---|--|-------------------------|--|
| Sr.No. | Sections | Tool | Response system |
| 1. | Background information | Check list | Open ended questions and multiple choice questions |
| 2. | Media utilization pattern | Check list | Multiple choice questions |
| 3. | Opinion about newspapers as a mass media | Opinionaire | Interval scale |
| 4. | Part-I - Awareness regarding environment | Part-I - knowledge test | Part-I |
| | | | 1. True or false |
| | | | 2. Match the followings |
| 5. | Part-II-Statements regarding environmental practices | Part-II- interval scale | Part-II- Two point rating scale/ response system |
| | Perception regarding role played by newspaper in environmental communication | Perceptionaire | Three point rating scale/ response system |
| 6. | Suggestions | Questions | Open-ended questions |

| Table B : Categorization of the variables | | | |
|---|--|---------------------|--|
| Sr.No. | Variables | Basis | Category |
| 1. | Sex | - | Male |
| | | | Female |
| 2. | Age | Below 30 years | Younger |
| | | Above 30 years | Older |
| 3. | Education qualification | Graduation | Moderately educated |
| | | Post-graduation | Highly educated |
| 4. | Occupation status | - | Employed |
| | | | Unemployed |
| 5. | Type of reading pattern | Below mean | Light reader |
| | | Mean and above mean | Heavy reader |
| 6. | Language of reading newspaper | - | English |
| | | | Hindi |
| | | | Gujarati |
| 7. | Media utilization pattern | Below mean | Less intense media utilization pattern |
| | | Mean and above mean | More intense media utilization pattern |
| 8. | Opinion about newspaper as a mass medium | Below mean | Favourable opinions |
| | | Mean and above mean | Unfavourable opinions |
| 9. | Awareness regarding environment | Below mean | Unaware |
| | | Mean and above mean | Aware |
| 10. | Perception regarding role played by newspaper in environment communication | Below mean | Not effective |
| | | Mean and above mean | Effective |

| Sr.No. | Purpose | Statistical measures |
|--------|---|----------------------|
| 1. | Background information | Percentages |
| 2. | Media utilization pattern | Percentages |
| 3. | Opinion about newspapers as a mass medium | Percentages |
| 4. | Part-I-Awareness regarding environment | Percentages |
| | Part-II-Statements regarding environmental practices | Percentages |
| 5. | Preparation regarding role played by newspaper in environmental communication | Percentages |
| 6. | Suggestions | Percentages |

EXPERIMENTAL FINDINGS AND DISCUSSION

The present study was undertaken with the major objective of studying opinions of citizens of Baroda city regarding the role of newspaper in environment communication. The findings have been discussed under the following heads:

- Background information.
- Media utilization pattern.
- Opinions about newspapers as a mass medium.
- Awareness regarding environment .
- Perception regarding role played by newspaper in environmental communication.
- Suggestions.

Section 1 :

Background information :

Back information of respondents has been presented in Table 1.

- The majority of the respondents *i.e.* 69 per cent of them were males and 31 per cent of the respondent were females.
- Age wise, high majority *i.e.* 72 per cent of the respondents were 30 years and below and 28 per cent of them were above 30 years of age.
- High majority *i.e.* 77 per cent of the respondents were graduates, whereas only few *i.e.* 23 per cent of them were post graduates.
- The very large section of the respondents for the present study were employed, and only 28 per cent of them were unemployed, out of which most of the respondents were full time employed with experience of more than 10 years.
- The respondents of the present study were distributed percentage wise with reference to the newspapers they read. The times of India was widely read English news papers; where as the mostly read vernacular newspapers were 'Divya Bhaskar', 'Gujarat Samachar' followed by 'Sandesh'(Fig.1).

Table 1 : Percentage distribution of the citizens of Baroda city according to the variables (n=100)

| Sr.No. | Variables | Percentage |
|--------|--------------------------------|------------|
| | Sex: | |
| 1. | Male | 69 |
| | Female | 31 |
| | Age: | |
| 2. | Below 30 years | 72 |
| | Above 30 years | 28 |
| | Education qualification: | |
| 3. | Moderately educated | 77 |
| | Highly educated | 23 |
| | Occupation status: | |
| 4. | Employed | 72 |
| | Unemployed | 28 |
| | Newspaper reads: | |
| | The Times of India | 62 |
| | The Indian Express | 9 |
| | Gujarat Samachar | 52 |
| 5. | Sandesh | 17 |
| | Divya Bhaskar | 26 |
| | Hindustan Times | 5 |
| | The Economic Times | 5 |
| | Any other | 5 |
| | Language of reading newspaper: | |
| | English | 84 |
| 6. | Hindi | 5 |
| | Gujarati | 32 |
| | Any other | 0 |
| | Type of reading pattern: | |
| | a. Weekdays: <=30 min | 88 |
| | >30 min-1 hour | 9 |
| | >1-3 hours | 2 |
| 7. | >3 hours | 1 |
| | b. Holidays: <=30 min | 62 |
| | >30 min-1 hour | 23 |
| | >1-3 hours | 13 |
| | >3 hours | 2 |

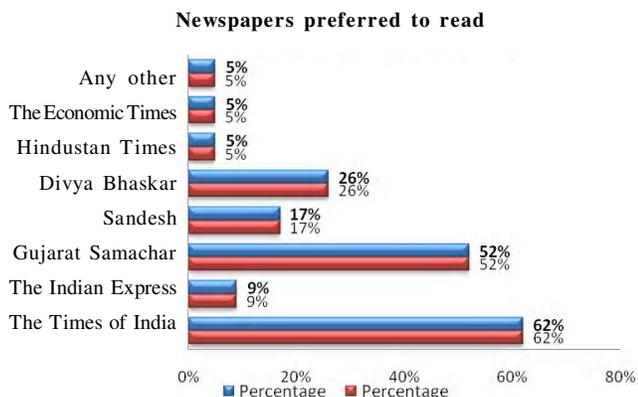


Fig. 1 : Percentage distribution of the citizens of Baroda city according to newspapers they reads

- Very high majority *i.e.* (84%) of the respondents prefer to read newspapers in English language followed by Gujarati and Hindi (Fig. 2).

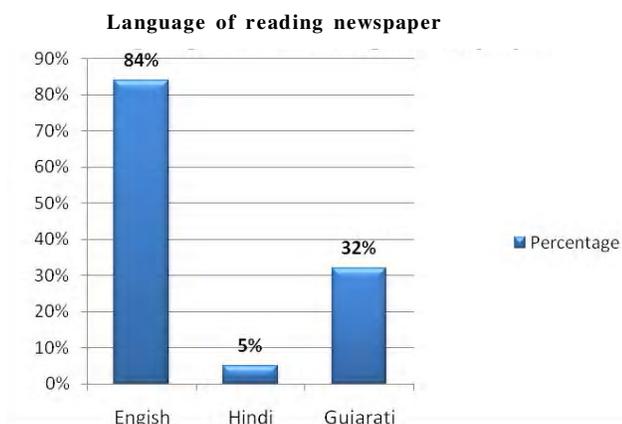


Fig. 2 : Percentage distribution of the citizens of Baroda city according to their language of reading newspaper

- Most of the respondents read newspaper for almost thirty minutes daily on week days, and thirty minutes to one hour on holidays (Fig. 3a and b).

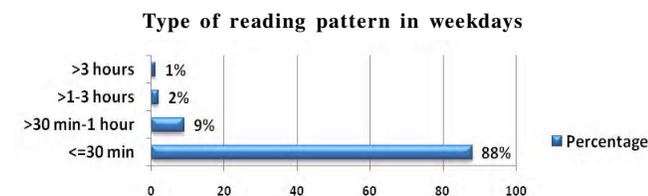


Fig. 3a : Percentage distribution of the citizens of Baroda city according to their type reading pattern in weekdays

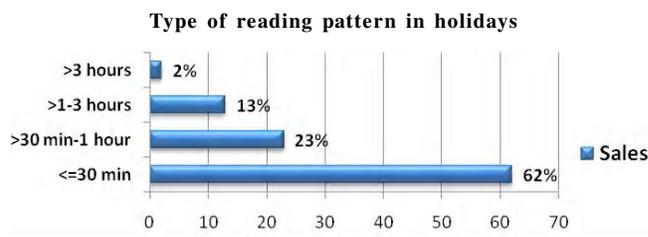


Fig. 3b : Percentage distribution of the citizens of Baroda city according to their type reading pattern in holidays

Section 2 :

Media utilization pattern:

A high percentage of the respondents *i.e.* (59%) had less intense media utilization pattern whereas 41 per cent of the respondents had more intense media utilization pattern (Fig. 4).

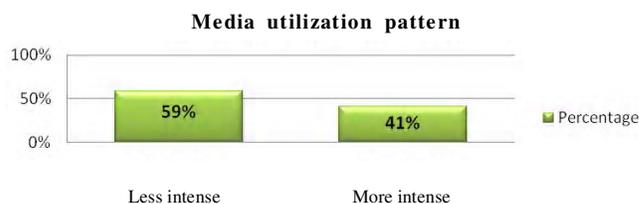


Fig. 4 : Percentage distribution of the citizens of Baroda city according to their media utilization pattern (newspaper)

Section 3 :

Opinion about newspapers as a mass medium :

Nearby 63 per cent of the respondents had favourable opinions regarding the role of newspaper in environmental communication, however (37%) of the respondents felt that newspaper is not playing its role in the communicating about environment (Fig. 5).

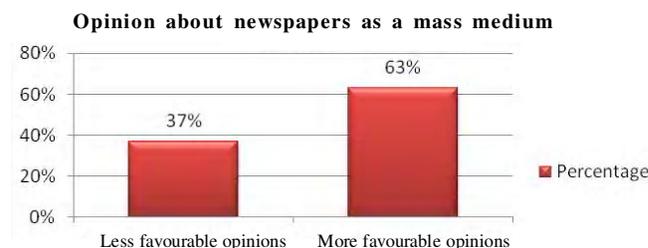


Fig. 5 : Percentage distribution of the citizens of Baroda city according to their opinion about newspapers as a mass medium

Section 4 :

Awareness regarding environment :

Part 1:

High percentage *i.e.* (67%) of the respondents had more

knowledge regarding concept of environment whereas, only few *i.e.* (33%) of the respondents had less knowledge about environment (Fig 6).

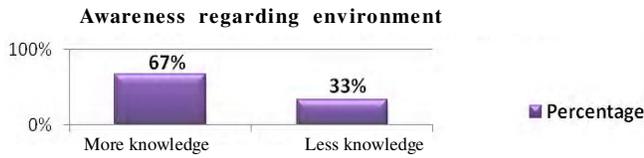


Fig. 6: Percentage distribution of the citizens of Baroda city according to their awareness regarding environment (Part-1)

Section 4 :

Awareness regarding environmental practices :

Part 2:

A very high percentage of the respondents (70%) were aware of the day to day practices which can lead to environmental protection. However, 30 per cent of the respondents were unaware of the same (Fig. 7).

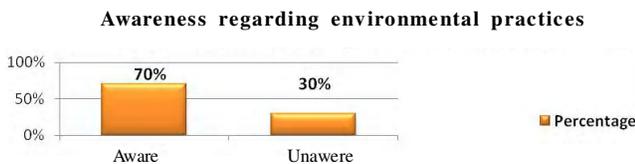


Fig.7: Percentage distribution of the citizens of Baroda city according to their awareness regarding environmental practices (Part-2)

Section 5 :

Perception regarding role played by newspaper in environmental communication :

Findings related to the role played by newspaper in environmental communication reflected that 59 per cent of the respondents felt that newspaper play contributory role in environmental communication, however 41 per cent of the respondents felt that newspapers do not play effective role in communicating about environment (Fig. 8).

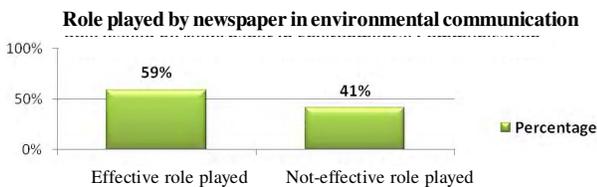


Fig.8: Percentage distribution of the citizens of Baroda city according to role played by newspaper in environmental communication

Section 6 :

Suggestions :

The respondents for the present project gave their suggestions on three categories and they were the role of citizens of the society, the role of the media professionals, and the role of media policy makers in strengthening the performance of media for environmental communication.

The role of citizens of the society :

- All most all the respondents suggested that awareness regarding use of eco-friendly products and eco-friendly practices were created by the print media in the mass as well as in society.
- Majority of the respondents suggested that people were not using dustbins on the roadsides which was major problem for making clean roads, so all the citizens of the society should use dustbins on roadsides and for that we should make creative dustbins for attracting people, to plan a fine system for people who were not following the rules and regulations etc.
- To the some extent people suggested for arranging community meeting every week for generating environment awareness.

The role of the media professionals :

- All the respondents suggested that media professionals can start columns in the daily newspapers which was giving information regarding the environment, so that general masses can read and start practicing in the daily routine.
- More articles should be published in the monthly newspapers so that people read it in their spare times and become aware
- Conduct more awareness programme on environment to sensitize the people.
- Print media personnel’s should start “save the environment” campaign like save the girl child the campaign started by The times of India and also should promote this type of programmes in the society.
- Majority of the respondents suggested that media professionals should make more interesting, attractive and innovative advertisement for the environment awareness in the society which can be published in the daily newspapers, on air, and on television also.
- Some of the respondents also suggested that media professionals can also start the lucky draw competitions like at present daily newspapers were using giving the coupons and forms in the news papers for the one month and people have to fill-up that form and giving gifts.

The role of media policy makers :

- Some of the respondents suggested to make some

interesting policy for the masses in which they have to buy the trees and planting them in their houses.

- Some schemes also could be planned like which one family were using high eco-friendly practices in their house had get the batch of eco-friendly family etc.
- Where awards for “eco-friendly family” could be given to the families who adopt the maximum practices to save environment.
- Media policy makers can also incorporate awards for the media, who published the maximum articles on environment in a given period of time.

The present research study undertaken with the major objective to seek the opinions of the selected citizens of Baroda city regarding the role of newspapers in environmental communication. It has been found that newspapers are effective in communicating about environment. The possible reasons could be that people not only consider this medium as trust worthy to seek news in detail but also that newspapers cover wide variety of developmental themes like health, education, sanitation, hygiene etc. Some of the newspapers select special themes either to celebrate international and national days like national consumer day, environment day etc. This gives wide scope to cover the themes in detail. Further, the citizens selected for the study read reputed national English dailies like Times of India and Indian Express and also well circulated Gujarati newspapers like Gujarat Samachar, Divya Bhaskar etc. These newspaper are widely accessible, reputed and have large circulations. Any newspaper industry will have to keep abreast like readers with recent themes and related issues are in competition with other organizations. Thus, it is possible that the respondents have opinioned favourably towards these newspapers covering environmental issues. Moreover, the readers of these newspapers are by and large well educated sections of the society. They may have opinioned so, only they were satisfied with the content coverage and details presented in the newspapers.

The favourable opinions are also supported by Ifenkwe (2008) who remarked that newspapers could easily pass the information on environment as is considered the best print medium in environmental reporting. He further reported that newspapers also exhibit consistent leadership in promoting activities in environmental matters.

This implies that newspapers should continue extending their services in the reporting environment issues catering to all sections of people of the society. Not only like basic information on environment but practices should regarding environmental conservations also be reported in details.

Further newspapers can take up nation wide social development project on environment concerns like Times of India has successfully undertaken “Save the girl child” project. This can be a prime incentive for people to involve into environmental protection.

Print journalists should work rigorously towards environmental communication to inform the readers. Another finding revealed that high majority of the citizens who were selected for this study were well aware of the day to day environmental protection. This reflects that these selected respondents who have high awareness level regarding environmental protection and related aspects also have intense media utilization pattern, which reflects that these respondents may have received the awareness through newspapers. Further, these respondents were having high educational qualification and also employed. This shows that people who are highly educationally qualified and employed have high awareness regarding environmental issues. This trend is also supported by Hoerisch (2002), who studied the role of media in imparting environmental awareness through people’s perceptions and revealed that India’s leading newspapers namely Times of India, Hindustan Times and Hindu have an article on environmental issues at least every second day. Further, all the interviewed people have reported that there have been increases in the number of articles on environment both due to a higher awareness and interest of the readers.

Conclusion :

Newspapers play vital role in the society. A strong function of information dissemination, gate keeper and watchdog to the society, is effectively played by this medium. Since, independence, newspapers have been actively contributing to the society. The numbers of newspapers have multiplied several folds. In many surveys done by researches, academicians and newspaper organizations at various points of time have revealed that an average reader read newspaper for about 30 minutes a day. Hoerisch (2002) has expressed that newspapers are “the backbone of the news” in India. With an increasing in discussions and debates on environment amongst people, policy makers newspapers have started covering on these aspects. The focus is mainly on the air, water and land pollutions and on deforestations. The need of the hour as felt by the respondents in those newspapers should widely cover the environmental issues like use of CNG in vehicle, use of public transport system, conservative approach towards life. Some of the motivational coverage of environmental issues on negative consequences of the use of pesticides and promoting organic farming and usage of organic products is observed.

The respondents who felt that newspapers are not so effective in environmental coverage may be because of certain probable reasons like that environmental journalism is relatively new field which is still in its infancy and in gearing up for its proper phase. Secondly, environment is competing with all the other issues covered in the newspaper whereby the most severe selection criterion in the news worthiness of an issue. The interest of the reader for as news on environment

is concerned is supposed to be still fairly low by the editors.

Thus, it can be concluded that newspaper have already geared up for the environmental communication not only in terms of coverage of broad variety of environment related theme and also the scientific knowledge building, but also contributing to the belief that addressing environmental issues in a developing country like India is not a matter of luxury, but of pure livelihood.

Coopted Authors' :

HINAL TRIVEDI AND RUMA CHOKSHI, Department of Extension and Communication, Faculty of Family and Community Science, The Maharaja Sayajirao University of Baroda, VADODARA (GUJARAT) INDIA

REFERENCES

- Bandhu, Desh** and Dyal, R. (1999). *Environmental education for a sustainable future*, Indian Environmental Society, NEW DELHI (India).
- Coffman, J.** (2002). Public communication campaign evaluation: *An environmental scan of challenges, criticisms, practice, and opportunities*. Cambridge, MA: Harvard Family Research Project.
- Cox, Robert** (2010). Environmental communication and the public sphere. Thousand Oaks, CA: Sage Publications.
- Das, Nandita** (2001). A study on social and environmental impact of TV and radio programmes, Center of Media Studies, NEW DELHI (India).
- Das, R.C.**, Baral, J.K., Sahu, N.C. and Misras, M.K. (1998). The environmental divide. The dilemma of developing countries.
- Flor, Alexander** (2003). Environmental communication. University of the Philippines-Open University, Diliman, Quezon City .

Hoerisch H. (2002). Environmental activism through an entertainment-Education radio soap opera in India, pp. 173-177, In: Oepen, M., Hamacher, W. (Ed.), Peter Lang Publishers, FRANKFURT, GERMANY.

Horsley, D. (1977). The effects of social learning experiment on attitudes and behaviour toward Environmental Conservation. *Environment & Behaviour*. **9** : 349-384.

Ifenkwe, G.E. (2008). Department of rural sociology and extension. Micheal okpara University of Agriculture. *J. Agric. Extn.*, **12** (2).

Kolstad, C. (2000). Environmental; Economics. Oxford University Press, NEW YORK.

Mckinney, M. and Schoch, R. (1998). Environmental science system and solutions, Jones and Bartlett Publishers, LONDON.

Sarah, E.L., Susan, J. E (2002). University of Toronto and McMaster University. Association of American Geographers. Blackwell Publishing Oxford OX4 2DQ. U.K.

WEBLIOGRAPHY

- <http://www.all-about-india.com/Environmental-issues-in-India.html>
- <http://www.scribd.com/doc/44004485/Environmental-Communication>
- <http://gaz.sagepub.com/content/73/1-2/7.abstract>
- <http://uncpmediaandsociety.wordpress.com/>
- http://www.passia.org/seminars/99/media_and_communication/rami2.html

