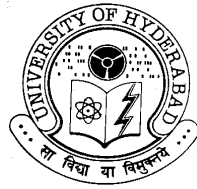


Media and Biodiversity
A Study Of Newspapers And Television news
In India



Dr. Vinod Pavarala

Reader in Communication

Sarojini Naidu School of Performing Arts, Fine Arts & Communication

University of Hyderabad

Gachibowli

Hyderabad 500046

A.P.

Email: ypsn@uohyd.ernet.in

or vinodp@satyam.net.in

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Any shortcomings in the paper that may have remained, despite the best help I have received, are all mine.

Vinod Pavarala

Introduction and Background

It is now widely understood that the survival of human beings is intimately connected with the conservation and sustenance of biodiversity, including the millions of species and varieties of crops, plants, livestock and wildlife. This biodiversity serves as the basis for livelihoods, cultures and economies of millions of people, especially those of marginal farmers, tribals, fisherfolk, and others. However, processes such as destruction of habitats, reckless hunting and over-exploitation, and introduction of exotic plants and animals have led to the rapid erosion of this diversity. This decline has had serious negative consequences for, among other things, soil fertility, agricultural productivity, food security and nutrition, and forest resources.

While communities around the country have been fashioning livelihoods in ways that conserve biodiversity, the government with all its nodal ministries has been largely taking a sectoral approach and failed to integrate adequately grassroots efforts. The realization that biodiversity conservation cannot happen ‘unless it became a mass movement and unless the laws, policies, technologies, development projects and demographic trends that are currently threatening it are tackled head-on’ (Kothari, 2001: 163) led to the National Biodiversity Strategy and Action Plan (NBSAP) currently in process. The NBSAP is an attempt at forging a holistic approach to biodiversity by exploring aspects like wildlife, agriculture, water, livelihoods, health, and laws, etc. together in a participatory process.

The media can play a significant role in bringing about awareness about many of these issues as well as help mobilize people’s participation in the conservation of biodiversity. This role becomes even more critical in the context of developing countries such as India, where the media are expected to function in the social responsibility model of the press. With increasing marketization and integration into global networks, however, the media’s priorities have shifted in favour of the needs and desires of the affluent and privileged, the urban, and the literate consumer. Rural issues get minimal attention in the media and much that is covered tends to be event-oriented rather than documenting and critically analysing underlying processes. The domination of market forces and the profit motive have undermined the stated role of the press in a liberal

democracy. Increasingly, there is a loss of diversity in the media in spite of the proliferation of outlets all around the country.

It is in this context that the study proposes to examine the Indian media's coverage of biodiversity issues. There are few systematic studies on media and biodiversity in India. In a book-length study, Chapman, et al (1997) took a comparative look at environmentalism and the mass media in the U.K. and India. Among other things, this project studied the coverage of environmental issues in a six-week sample of two Indian newspapers (*Indian Express* and *Navbharat Times*) as well as on the state-owned television network, Doordarshan, and All India Radio. Although there is no clear information about what percent of the newspapers' total news is devoted to environmental issues, it was reported that the two newspapers had about 110 and 47 stories, respectively, on the environment. It was found that in both the Indian newspapers, the environment is connected with development. Water, mostly in terms of shortages or pollution but also floods, was a major issue in the two newspapers. About seven percent of the total broadcast news time on Doordarshan English as well as on All India Radio was on the environment. The study also reported that much of the broadcast news on controversial environmental issues in these state channels was based on official pronouncements. Again, stories on water scarcity, water supply programmes, and floods dominated the broadcast news time.

This study will critically examine the media's role in propagating information regarding biodiversity, a matter of great national and global significance.

Research Objectives

The study seeks to answer the following research questions:

- Where do issues of biodiversity figure in the Indian media's list of priorities?
- If the various mass media in India give coverage to biodiversity issues, what specific aspects get highlighted?
- What are the sources of news and information for the media? Whose authority and knowledge in matters of biodiversity do the media accept as legitimate and credible? To what extent does the media acknowledge people's knowledge on biodiversity?

- To what extent is the media's coverage of biodiversity issues event-centred as against process-centred?
- Are there significant differences in the kind of coverage given to biodiversity in the print media and television, respectively?
- Are there differences between so-called national and regional media and English-language and regional-language media in the coverage given to biodiversity issues?

Research Methodology

The study has used the *content analysis* method for research. The Hyderabad editions of three English-language newspapers – *The Times of India*, *The Hindu*, *The Deccan Chronicle*, the Delhi edition of one Hindi language newspaper – *Navbharat Times*, and the Hyderabad edition of one Telugu newspaper – *Eenadu* – were analysed. As one of the more recent editions of *The Times of India*, reliable circulation figures are not available for the Hyderabad edition. According to the Registrar of Newspapers of India (RNI), 1999 report, the Mumbai edition of *The Times*, with a circulation of about 5.66 lakh is the largest circulated English newspaper in the country, while its Delhi and Bangalore editions recorded figures of 5.15 lakh and 1.27 lakh, respectively. *The Hindu*, technically with only one edition from Chennai and printed from different places, including Hyderabad, has a circulation of 2.70 lakh. *The Deccan Chronicle* is the largest circulated English daily published in Andhra Pradesh, with a circulation of about 1.36 lakh. The Hyderabad edition of *Eenadu* recorded circulation figures of about 1.67 lakh and is one of the largest circulated language dailies in the country. The Delhi edition of *Navbharat Times*, with a circulation of nearly 3 lakh is the second largest Hindi daily in the country, following the *Punjab Kesari*.

Newspapers for a period of six months (January-June 2001) were chosen and subjected to a further representative sampling. Using a systematic random sampling technique, every third issue of each of the five newspapers was chosen, adding up to a total 305 issues (61 issues per newspaper). By starting the selection process on a Monday, it was ensured that every day of the week was represented, thereby taking care that the sample did not suffer from any periodic coverage of biodiversity issues. For

example, if a newspaper carries a special Environment page on a Monday or another newspaper gives coverage to biodiversity issues in its Sunday magazine section, the sampling method ensured that a sample of those pages were included. When a specific sample unit was not available, the issue of the following date was selected. Once the sample issues of the newspapers were selected, the entire newspapers, including all the supplements, were subjected to content analysis.

Five prime-time newscasts of four television channels – Doordarshan (English and Hindi), Zee TV Hindi, Star TV English, and Eenadu TV Telugu – were also analysed. Television ratings are transient and are likely to shift from week to week. But after a general perusal of industry publications, the above newscasts have been identified among the most watched. In addition, the choice of ETV (Telugu) permits comparisons with its print counterpart, published by the same group. Using a systematic random sampling technique, every third episode of each of the newscasts was chosen from June to September 2001. If a specific newscast on the sample day could not be recorded, either because of mechanical or power failures, the newscast of the following day was included in the sample. About 30 episodes of each newscast were chosen, adding up to a total of 150 episodes over three months. The above sample newscasts were all videotaped and content analysed.

Both media (newspapers and television) were subjected to quantitative as well as qualitative content analysis. Newshole or total news time was computed for each of the five newspapers as well as the five television newscasts. The total space or time given to various categories of news in relation to the biodiversity was then measured in column inches or seconds/minutes, respectively, in the two media. Further, similar measurements were done for the various sub-categories within the broad area of biodiversity. Detailed subject categories within the broad area of biodiversity were delineated based largely on NBSAP definitions. After operationally defining each category, quantitative measurements of space and time were generated for each of them. Priority given to biodiversity issues in the media was determined according to placement of items in particular pages, timing of broadcasts in the overall schedule or the location of biodiversity issues at particular times during the broadcast. Representative items

appearing in the media were also examined qualitatively to gain more refined answers to the research questions.

Operational Definitions

For the purpose of the study, various subject categories have been operationally defined as follows:

Newshole/News time: Total printed space or broadcast time minus the advertisements in a newspaper or television newscast.

Politics: All the news reports, editorial comments, articles, photographs, cartoons, etc. dealing with the activities of political parties and politicians in India, their political speeches, rallies, etc have been included in this category. Policy pronouncements by politicians in power have been dealt with according to the specific subject.

Business/Economy: All the news reports, editorial comments, articles, photographs, cartoons, etc. dealing with macro-economic policies of the government, activities related to trade and business, financial affairs, including stock markets, and corporate activities have been included in this category.

Sports: All the news reports, comments, articles, photographs etc. dealing with sports and games, mainly on the designated sports pages, have been included in this category.

Entertainment/Culture: All the news reports, editorial comments, articles, photographs and other illustrations related to film, television, and other mass media as well items on the lives and experiences of personalities in these fields have been included in these categories. Also included are items on fine arts and performing arts, events and schedules – music and dance reviews, painting exhibitions, screenings, TV listings, etc.

Lifestyle: Included in this category are mainly feature articles, photographs and other illustrations related to contemporary attitudes on fashion and style, relationships, youth subcultures, counseling and advice columns, etc.

International: All the news reports, editorial comments, articles, photographs, cartoons, etc. related to political, social, and diplomatic events and activities or to personalities involved in such events and activities have been included in this category. Bilateral relations between India and another country have been categorized under this label.

Items related to entertainment, lifestyle, and the economy of countries other than India have been included under appropriate categories defined above.

Development: This category was used only to measure television news. Items related to economic and social problems, state or non-governmental initiatives to tackle the same, and government policies addressing such issues have been included in this category. Items related to literacy, women's empowerment, starvation deaths, devastations caused by natural disasters, etc. are part of this category.

Biodiversity: Biodiversity has been defined, for the purpose of this study, in two different ways to incorporate the explicit sub-categories listed in the *National Biodiversity Strategy and Action Plan: A Call for Participation* as well as items that were implicitly connected with the issue of biodiversity. For example, a sub-category labeled 'farmers' issues' has been included under 'agricultural ecosystems.' Similarly, categories such as 'Water' and 'Environmental Degradation' have been added for their obvious consequences for biodiversity. In addition, two categories – 'Biotech/Genetics' and 'Biodiversity – General' – have been included to account for items that give a wider focus on biodiversity than on specific areas within the field. The detailed categorization was as follows:

NATURAL ECOSYSTEMS (forests, grasslands, wetlands, deserts, mountains, coastal and marine areas); WILD SPECIES AND VARIETIES (plants, animals and micro-organisms and the genetic variation within each of these species);

AGRICULTURAL ECOSYSTEMS (farmlands, farmers' issues, pastures, capture fisheries, aquaculture); and

DOMESTICATED SPECIES AND VARIETIES (crops, plants, livestock, etc.);

WATER (irrigation, drinking water, inter-state disputes, sustainable management of water, local water bodies, etc.);

ENVIRONMENTAL DEGRADATION (pollution, waste disposal, use of plastic and paper, etc.);

BIOTECH/GENETICS (biotechnology, genetically-modified crops, animals, etc.);

BIODIVERSITY-GENERAL (general article/reports, etc. on conservation and sustainable use of biological diversity; and social, economic, ethical, legal, concerns).

Event-Centred Story: A news item or article related to biodiversity that concentrates on the specifics of a happening, i.e., statistical data, places, names, designations, quotations of speeches or statements, etc.

Process-Centred Story: A news item or article related to biodiversity that goes beyond an event and directs attention to trends, processes etc. and integrates various factors pertaining to the particular issue.

Results

News: Advertising

The content analysis began by first measuring the amount of space devoted by each newspaper to news (newshole). It was found that four of the five newspapers provided over 60% of their space to news, with the Hindi newspaper, *Navbharat Times* topping the list with about 71% of its space devoted to news. The *Deccan Chronicle*, with the largest circulation in Andhra Pradesh among all the newspapers in this study, divided its pages almost equally for advertising and news (Tables 1-6).

Table1: News: Advt in Times of India from Jan to Jun 2001 (61 issues)

Total Space (Col ")	Ad Space (Col")	Newshole (Col")
274560	88528 (32.24%)	186032 (67.76%)

Table 2: News: Advt in Deccan Chronicle from Jan to Jun 2001 (61 issues)

Total Space (Col ")	Ad Space (Col")	Newshole (Col")
293776	143869.5(48.97%)	149906.5 (51.02%)

Table 3: News: Advt in The Hindu from Jan to Jun 2001 (61 issues)

Total Space (Col ")	Ad Space (Col")	Newshole (Col")
3238236	127266.5 (39.29%)	196569.5 (60.7%)

Table 4: News: Advt in Eenadu from Jan to Jun 2001 (61 issues)

Total Space (Col")	Ad Space (Col")	Newshole (Col")
222140	84206.5 (37.9%)	137933.5 (62.09%)

Table 5: News: Advt in Navbharat Times from Jan to Jun 2001 (61 issues)

Total Space (Col")	Ad Space (Col")	Newshole (Col")
110880	32121 (28.97%)	78759 (71.03%)

Table 6: Comparison of News: Advt in Five Newspapers from Jan to Jun 2001 (61 issues each)

	TOI	DC	TH	EENADU	NBT
Total Space (Col")	274560	293776	323836	222140	110880
Ad Space (Col")	88528 (32.24%)	143869.5 (48.97%)	127266.5 (39.29%)	84206.5 (37.9%)	32121 (28.97%)
Newshole (Col")	186032 (67.76%)	149906.5 (51.02%)	196569.5 (60.7%)	137933.5 (62.09%)	78759 (71.03%)

(TOI=Times of India; DC=Deccan Chronicle; NBT=Navbharat Times)

When the news: advertising ratio was measured for the five newscasts in four television channels, it was found that the Doordarshan newscasts, both English and Hindi, devoted the maximum amount of time to news (97.43% and 96.20%, respectively), while ETV (Telugu), with a total of about 144 minutes of advertising (18.34%), had the least amount of time devoted to news (81.66%). Zee News (Hindi) as well as STAR News (English) also gave substantial time to advertising (15.15% and 12.46%, respectively) (Tables 7-12).

Table 7: News: Advt in DD English from June to Sept 2001

Total Duration (minutes)	Ad Time (minutes)	News time (minutes)
678:09	17:45 (2.57%)	660:24 (97.43%)

Table 8: News: Advt in DD Hindi from June to Sept 2001

Total Duration (minutes)	Ad Time (minutes)	News time (minutes)
637:21	24:24 (3.80%)	612:57 (96.20%)

Table 9: News: Advt in ETV (Telugu) from June to Sept 2001

Total Duration (minutes)	Ad Time (minutes)	News time (minutes)
785:42	144:07 (18.34%)	641:35 (81.66%)

Table 10: News: Advt in Zee News (Hindi) from June to Sept 2001

Total Duration (minutes)	Ad Time (minutes)	News time (minutes)
694:12	105:17 (15.15%)	588:55 (84.85%)

Table 11: News: Advt in Star News (English) from June to Sept 2001

Total Duration (minutes)	Ad Time (minutes)	News time (minutes)
710:01	88:51 (12.46%)	621:10 (87.54%)

Table 12: Comparison of News: Advt in five prime-time newscasts from June to Sept 2001

	DD Eng	DD Hin	ETV	Zee	STAR
Total Duration (min)	678.09	637.21	785.42	694.12	710.01
Ad time (min)	17:45 (2.57%)	24:24 (3.80%)	144:07 (18.34%)	105:17 (15.15%)	88:51 (12.46%)
News time (min)	660:24 (97.43%)	612:57 (96.20%)	641:35 (81.66%)	588:55 (84.85%)	621:10 (87.54%)

Relative Coverage of various News Categories

The newshole or news time computed above was then used as the base figure against which coverage given to various issues in each of the five newspapers and the five newscasts was measured. In the case of newspapers, six major categories of news – politics, economy/business, international, sports, entertainment/culture, and lifestyle – were identified and space devoted to biodiversity-related issues was measured in relation to the space given to these categories. For television, a review of the recorded tapes revealed that there is negligible time given to lifestyle, so that category was not included for measurement. Instead, a category called ‘development’ was substituted to evaluate whether television news gives any time to this area.¹

¹ The space or time measured for various categories of news in the newspapers or on television do not add up to the newshole or news time, which is all the space in the newspaper or time in the newscast after

What is surprising about the language newspapers, as highlighted by *Navbharat Times*, is their changing character. Among the seven categories of news measured, including biodiversity, it is entertainment (9.26%) and sports (7.56%) that garnered more coverage in the *Navbharat Times* than politics (5.04%), which seems to be vying for space with lifestyle (5.09%) (Table 17). While the other language newspaper in the study, *Eenadu* gave most importance in terms of space (17.56%) to politics, the amount of space it has devoted to entertainment (8.7%) and lifestyle (6.4%) is notable (Table 16).

The English newspapers, catering mainly to a metropolitan, middle-class audience, clearly reflect the post-liberalization media environment in India. With the exception of *The Hindu*, which gave the most amount of its news space to politics (18.80%), the English newspapers seem to have relegated politics to secondary significance. *The Times of India*, which is often credited with having inaugurated the trend of urban, urbane, and youthful focus of metropolitan newspapers, accorded politics the least priority (6.06%), just above biodiversity, which, of course, was given negligible space (Table 13). The economy (16.9%) and sports (12.4%) took pride of place in *The Times of India*, while the *Deccan Chronicle* devoted over one-fifth of its newshole to lifestyle (13.45%) and entertainment (8.28%) put together (Table 14).

It was found that the space given to biodiversity in the five newspapers ranged from less than one per cent to under three per cent of the newshole. The Hindi-language newspaper gave the least space (0.17%) to biodiversity, while the Telugu newspaper, *Eenadu* gave the maximum coverage (2.79%). Among the English newspapers, *The Times of India* devoted the least amount of space (610.5 col", 0.32% of newshole), with *Deccan Chronicle* (855 col", 0.57%) and *The Hindu* (1181 col", 0.6%) sharing the second place (Tables 13-15, 18). The exceptionally high coverage given to biodiversity (about three times that of other newspapers) by *Eenadu* could be explained by the coverage it gave in the summer of 2001, in a campaign mode, to the state government's widely publicized water conservation schemes (more on this issue later). However, without exception, all the newspapers in this study give greater primacy to entertainment, lifestyle, and sports over issues related to biodiversity.

subtracting the advertising space. Only the important news categories were included for comparison with coverage of biodiversity. There were many other categories of news that were not measured.

Table 13: Space given to various issues in Times of India from Jan to Jun 2001 (61 issues)

	SPACE (Col")	% of newshole
Politics	11276	6.06
Business	31436	16.9
Sports	23058	12.4
Entertainment	12709	6.83
Lifestyle	17705	7.71
International	14343.5	9.52
Biodiversity	610.5	0.32

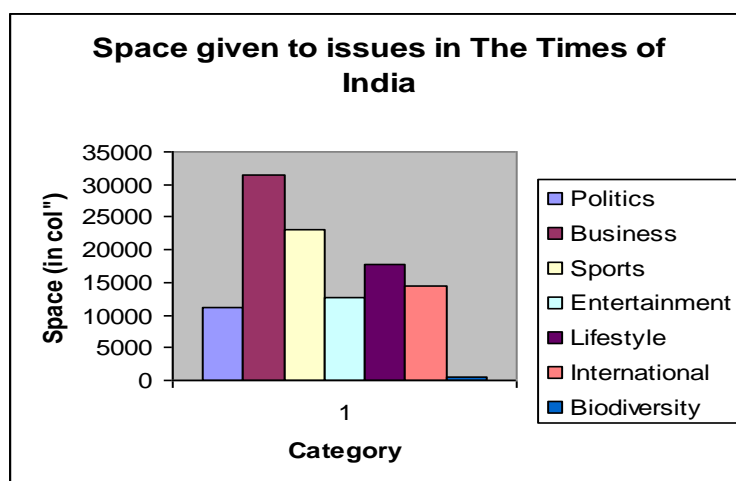


Table 14: Space given to various issues in Deccan Chronicle from Jan to Jun 2001 (61 issues)

	SPACE (Col")	% Of newshole
Politics	18063	12.04
Business	15819	10.55
Sports	16988.5	11.33
Entertainment	12149	8.28
Lifestyle	20168.5	13.45
International	11025	7.35
Biodiversity	855	0.57

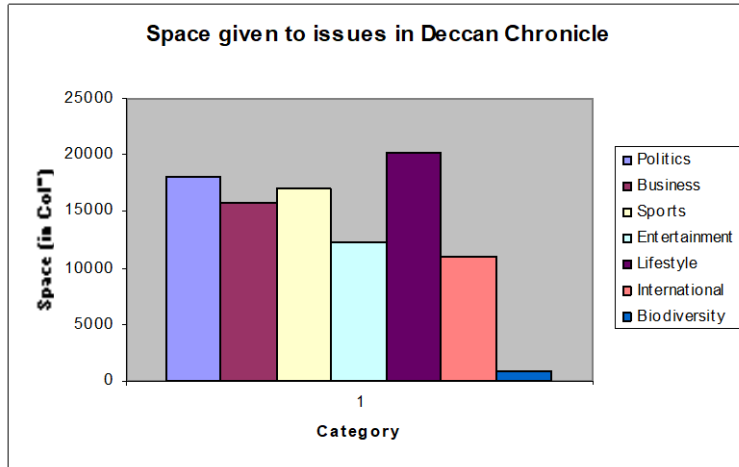


Table 15: Space given to various issues in The Hindu from Jan to Jun 2001 (61 issues)

	SPACE (Col")	% of newshole
Politics	36961	18.8
Business	23808	12.11
Sports	32604.5	16.58
Entertainment	12081.5	6.14
Lifestyle	17786.5	9.04
International	20590	10.47
Biodiversity	1181	0.6

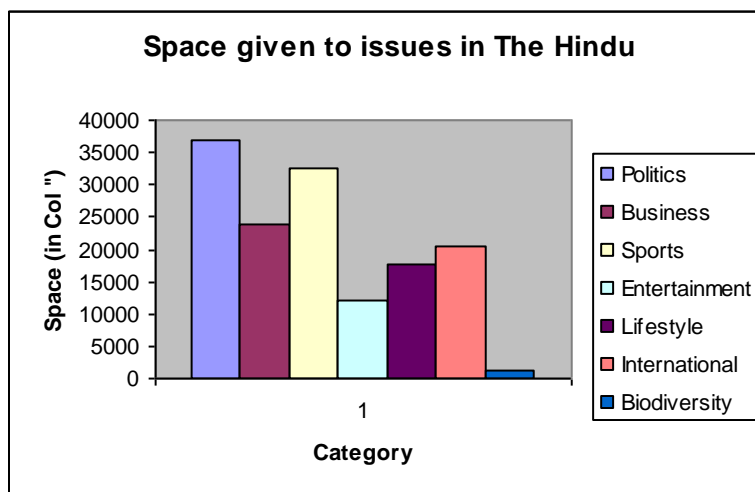


Table 16: Space given to various issues in Eenadu from Jan to Jun 2001 (61 issues)

	SPACE	% of newshole (Col")
Politics	24231	17.56
Business	15899	11.52
Sports	8211.5	5.95
Entertainment	12005.5	8.7
Lifestyle	8842.5	3.65
International	5044.5	6.41
Biodiversity	3852.5	2.79

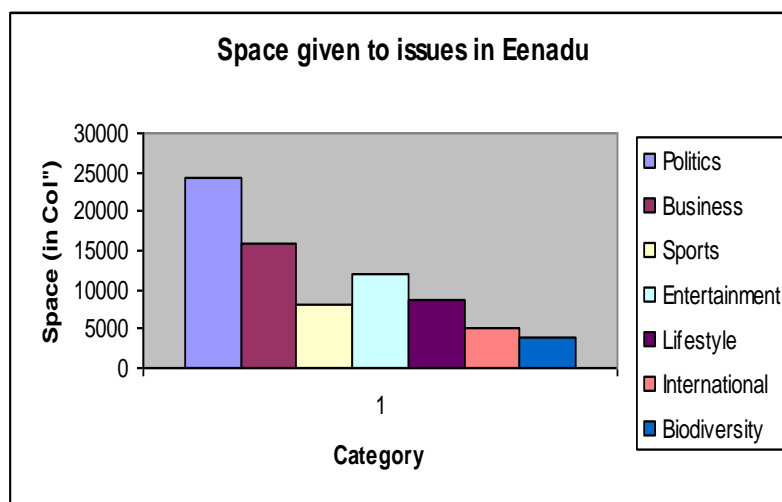


Table 17: Space given to various issues in Navbharat Times from Jan to Jun 2001 (61 issues)

	SPACE (Col")	% of newshole
Politics	3973	5.04
Business	4726	6
Sports	5958	7.56
Entertainment	7295.5	9.26
Lifestyle	4006	5.09
International	3410.5	4.33
Biodiversity	134.5	0.17

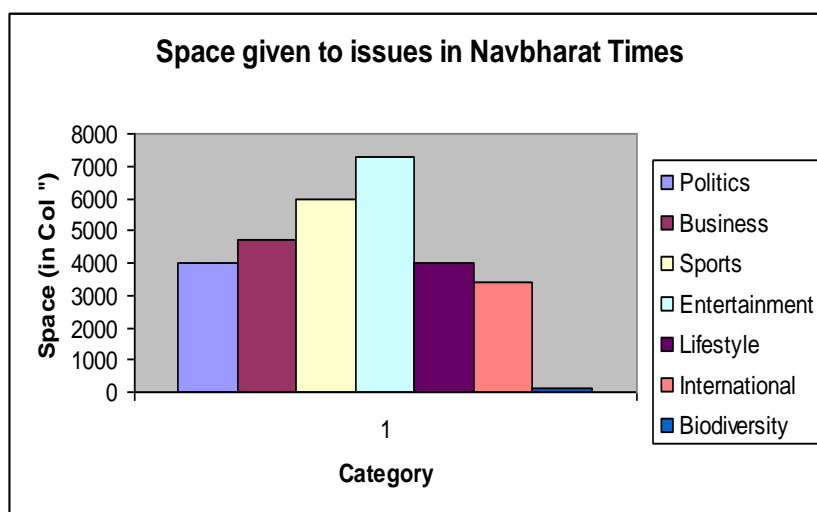


Table 18: Comparison of Coverage given to issues in five newspapers between Jan to Jun 2001 (61 issues each)

CATEGORY	TOI (Col")	DC (Col")	THE HINDU (Col")	EENADU (Col")	NBT (Col")
NEWSHOLE	186032	149906.5	196569.5	137933.5	78759
Politics	11276 (6.06%)	18063 (12.04%)	369761 (18.80%)	24231(17.56%)	3973(5.04%)
Economy/Business	31436 (16.90%)	15819 (10.55%)	23808(12.11%)	15899(11.52%)	4276(6.00%)
Sports	23058 (12.40%)	16988.5 (11.33%)	32604.5(16.58%)	8211.5(5.95%)	5958(7.56%)
Entertainment	12709 (6.83%)	12419 (8.28%)	12081.5(6.14%)	12005.5(8.7%)	7295.5(9.26%)
Lifestyle	17705 (9.52%)	20168.5 (13.45%)	17786.5(9.04%)	8842.5(6.41%)	4006(5.09%)
International	14343.5 (7.71%)	11025 (7.35%)	20590(10.47%)	5044.5(3.65%)	3410.5(4.33%)
Biodiversity	610.5 (0.32%)	855 (0.57%)	1181(0.60%)	3852.5(2.79%)	137.5(0.17%)

(TOI=Times of India; DC=Deccan Chronicle; NBT=Navbharat Times)

On television, the state-controlled Doordarshan (English) as well as Doordarshan (Hindi) newscasts devoted a majority of their time to international news (14.75% and 17%) (Tables 19-20). Even on the ETV (Telugu) newscast, international news got some degree of primacy (6.44%) (Table 21). While Indian media do generally give much attention to international affairs, this kind of coverage on television during the study period was, perhaps, because of the killings of the Nepal royals. The story had royalty, palace intrigue, rebellious prince, romance, succession battle, murder, and funerals – the kind of ingredients that would make for good television footage.

Domestic politics was also given substantial coverage in television news, with the private channels spending more time on the subject than state television. Eenadu TV gave politics nearly 20% of its time, while STAR News spent the maximum amount of its time (10.40%) to this category (Tables 21-23). Zee News (Hindi), surprisingly, gave more time to sports (12.64%) than to politics (11.51%), and accorded more time (9.05%) to business news than any of the other channels (Table 22). Sports and business were significant categories in other channels as well, with the former getting second priority on STAR and third on Doordarshan.

The category of development added specially for measuring television news got negligible coverage on ETV (0.25%) and Zee (0.91%), while the two DD newscasts and STAR gave the subject slightly more importance (over two per cent). It is interesting to note that one of the corporate-owned channels, which were not supposed to acknowledge development issues, provided as much time for them as the state-controlled channels (Tables 23-24). Much of this could be accounted for by STAR's tailpiece called 'India Matters' where development concerns were occasionally highlighted. These development stories included a special series on Doordarshan called 'Woman Power,' which had items such as women in Tamil Nadu driving tractors for agriculture, domestic violence in Delhi, and problems of girl child labour in Andhra Pradesh. Other development items included: the release of the human development report by UNDP, the Centre's decision to cut the quantity of rice and wheat supplied through the public distribution system, literacy campaign in different states, women's self-help groups in Andhra Pradesh, starvation deaths in Kashipur, Orissa, and Chattisgarh, and floods and relief efforts in West Bengal and Bihar.

On the issue of biodiversity, newspapers certainly did better than primetime newscasts on Indian television. Television news was completely indifferent to biodiversity, with its coverage ranging from a measly three-and-a-half minutes overall (about half a per cent of total news time) in the two DD newscasts to zero time on ETV and Zee News (Table 22). STAR devoted less than a quarter percent of its total news time to biodiversity. What is astonishing is the complete contrast presented by ETV in comparison to its print counterpart (*Eenadu*), which gave substantial amount of space for issues related to biodiversity. This could be explained by the fact that while most of the

attention given by the newspaper to biodiversity was owing to regional events and activities on water conservation, the primetime newscast on its Telugu channel is primarily national news in Telugu and not regional news. The selection of this newscast might have been warranted for the sake of comparison with other television newscasts, but it did not allow for appropriate comparisons between *Eenadu*, the newspaper, and ETV, the channel. ETV has a separate programme titled ‘Andhravani’, which provides more focus on regional issues through features and reports.

Table 19: Time given (in min) to various issues in Primetime Newscasts on DD English (from Jun to Sep 2001)

Category	Time (in min)	%
Politics	55:54	8.41
International	97:39	14.75
Sports	34:5	5.23
Entertainment	14:00	2.12
Business	20:12	3.05
Development	16:41	2.49
Biodiversity	3:4	0.52

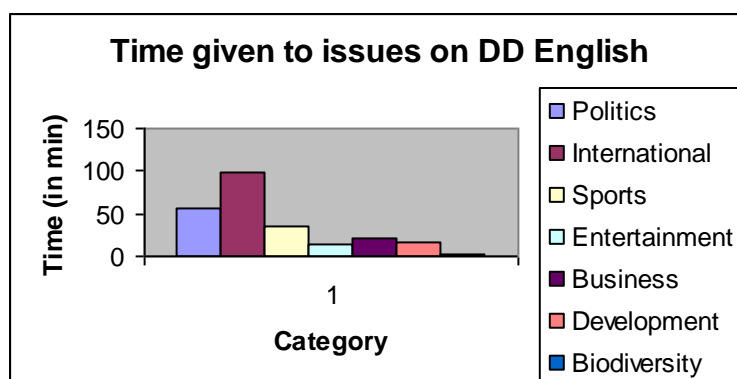
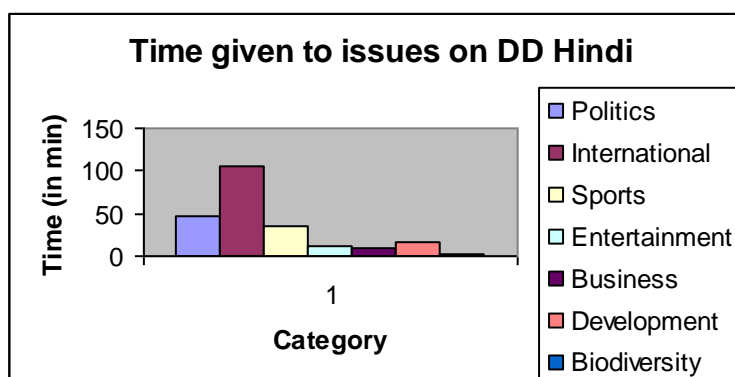


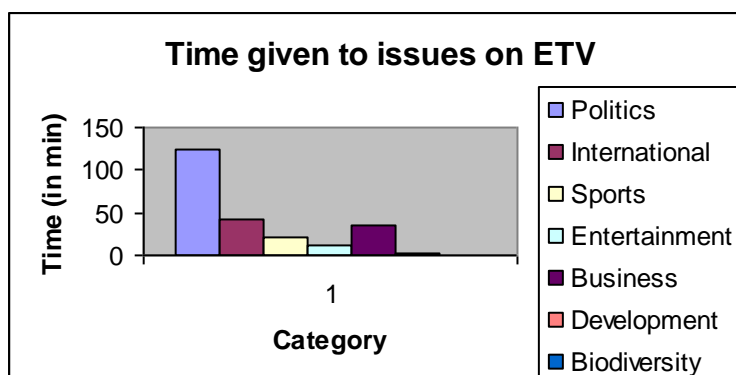
Table 20: Time given (in min) to various issues in Primetime Newscasts on DD Hindi (from Jun to Sep 2001)

Category	Time (in min)	%
Politics	46:39	7.57
International	104:33	17.03
Sports	35:4	5.78
Entertainment	12:78	2.09
Business	9:07	1.48
Development	16:41	2.68
Biodiversity	3:4	0.56



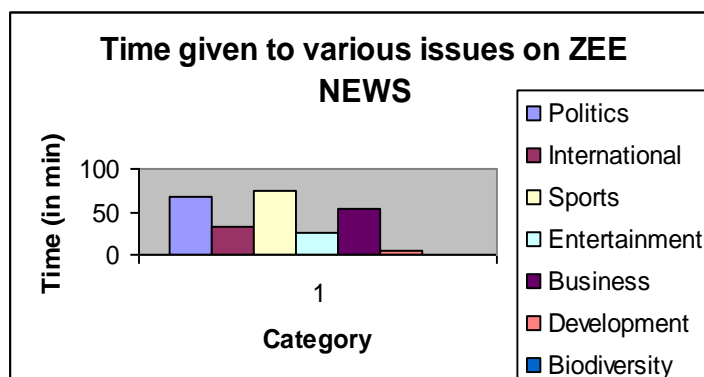
**Table 21: Time given (in min) to various issues in Primetime Newscasts on ETV
(from Jun to Sep 2001)**

Category	Time (in min)	%
Politics	125:29	19.54
International	41:29	6.44
Sports	22:02	3.43
Entertainment	11:92	1.86
Business	36:19	5.64
Development	1:59	0.25
Biodiversity	0	0



**Table 22: Time given (in min) to various issues in Primetime Newscasts on ZEE NEWS
(from Jun to Sep 2001):**

Category	Time (in min)	%
Politics	67:73	11.51
International	32:47	5.52
Sports	74:41	12.64
Entertainment	25:39	4.31
Business	53:25	9.05
Development	5:33	0.91
Biodiversity	0	0



**Table 23: Time given (in min) to various issues in Primetime Newscasts on STAR NEWS
(from Jun to Sep 2001):**

Category	Time (in min)	%
Politics	64:59	10.40
International	32:34	5.21
Sports	50:22	8.09
Entertainment	12:32	1.98
Business	26:33	4.24
Development	14:36	2.31
Biodiversity	1:45	0.23

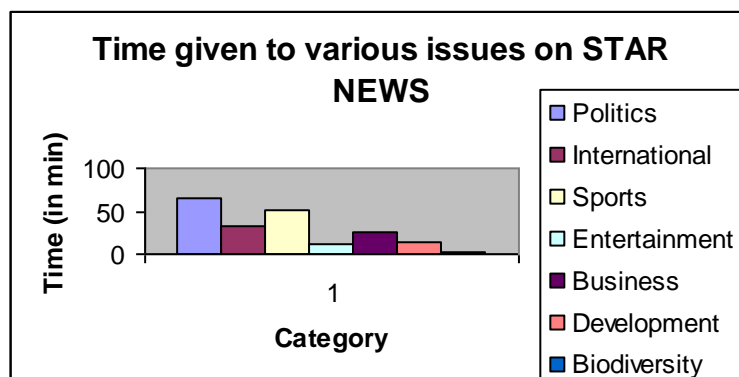


Table 24: Comparison of Time given (in min) to various issues on Primetime Newscasts of four TV Channels (from Jun to Sep 2001)

CATEGORY	CHANNEL				
	DD Eng	DD Hindi	ETV	Zee News	STAR News
NEWS TIME	660:24	612:57	641:35	588:55	621:10
Politics	55:54 (8.41%)	46:39 (7.57%)	125:29 (19.54%)	67:73 (11.51%)	64:59 (10.40%)
International	97:39 (14.75%)	104:33 (17.03%)	41:29 (6.44%)	32:47 (5.52%)	32:34 (5.21%)
Sports	34:50 (5.23%)	35:40 (5.78%)	22:02 (3.43%)	74:41 (12.64%)	50:22 (8.09%)
Entertainment	14 (2.12%)	12:78 (2.09%)	11:92 (1.86%)	25:39 (4.31%)	12:32 (1.98%)
Business	20:12 (3.05%)	9:07 (1.48%)	36:19 (5.64%)	53:25 (9.05%)	26:33 (4.24%)
Development	16:41 (2.49%)	16:41 (2.68%)	1:59 (0.25%)	5:33 (0.91%)	14:36 (2.31%)
Biodiversity	3:40 (0.52%)	3:40 (0.56%)	0	0	1:45 (0.23%)

Coverage of Biodiversity Issues

With only a total of 456 stories over a sample of 305 issues of five newspapers spread over six months, the study found the newspapers chosen for this study indifferent to the cause of biodiversity. A closer examination of this minimal coverage was undertaken to disaggregate biodiversity into various sub-categories. This exercise revealed that while the *Navbharat Times*, with a mere 13 items amounting to a total of 137.5 column inches (col"), gave biodiversity the least priority, *Eenadu*, with as many as 243 stories adding up to 3852.5 col", accorded the issue the most prominence in its pages (Table 30). In fact, it is the space given by *Eenadu*, about three to 30 times that given by other newspapers, has exaggerated what would have been an even more abysmal attention paid to biodiversity.

Eenadu's coverage of biodiversity needs some explanation. The space provided by the newspaper to the issue of biodiversity was considerably enhanced by the attention it paid to the sub-category of water. About three-quarters (76.35%) of the total space given to biodiversity in *Eenadu* was devoted to the issue of water (Table 28). Apart from the usual stories on irrigation projects, inter-state water disputes, and drinking water problems, which constituted this category, the newspaper's 189 items on water were overwhelmingly made up of the sub-category of sustainable management of water. By March 2001 *Eenadu* had been giving some coverage, albeit patchy, to the seasonal water

problems and the need for conservation. For example, a report on one of the events connected to the World Water Day on March 22 was titled “*Jala Samrakshanaku Prathi Okkaru Nadum biginchali*” (“All should participate in water conservation,” *Eenadu*, March 23). Similarly another story on March 29 headlined “*Daham...Daham...Bindedu Neeti Kosam Baarulu Theeru thunna Janam*” (“Thirst...Thirst: People line up for a pot of water”) detailed the drinking water problems of residents in the Old City of Hyderabad caused by the drying up of borewells and indifferent municipal supply.

By mid-April this coverage was intensified with the gaining of momentum of the state government’s participatory water management schemes such as *Neeru-Meeru* (Water and You) and *Jala Yagnam*. All through May *Eenadu* ran a campaign, with special pages in colour with evocative feature titles like “*Sujalaam, Suphalaam*” that invoked agrarian images of plenitude and productivity, complete with readers’ responses, slogans, poetry, and photographs. The newspaper, with its multiple editions all over the state, has strong agrarian interests and reaches out to farmers through sister publications such as the popular *Annadata* (literally meaning ‘the provider of food’). With slogans like “*Kurise vaananu bandhidham, Karuvu pye asthram sandhidham*” (“Let us capture rain water and attack drought,” May 1), these special pages of the newspaper attempted to project the picture of an entire state – politicians, bureaucrats, farmers, and citizens – rolling up its sleeves in a festive mood to conserve water on a war-footing. Through pages titled “*Chaitanya Keratam*” (a wave of inspired awakening, brought on by a strong consciousness about an issue), *Eenadu* published, with a tone of urgency, reports and articles on enthusiastic participation by people at the level of village communities and urban neighbourhoods in water conservation schemes like rainwater harvesting, building of check dams, percolation tanks, etc., and cleaning up of local water bodies (see, for example, issues of May 4 and 16). In fact, one report published on May 1 (“*Eenadu vedikapai ekamaina nethalu*” – “United leaders on *Eenadu* platform”) revealed that the newspaper even organized at various places in the state platforms for discussion among legislators, local leaders, officials, and others on water conservation issues.

Although not covered in a campaign mode like *Eenadu*, the Hyderabad-edition of *The Hindu* chosen for this study also gave primacy (41.66%) to the issue of water within the broader category of biodiversity (Table 27). With the exception of *Navbharat Times*

(Table 29), the other newspapers also provided substantial space (within the minuscule coverage given to biodiversity as a whole) to water (*Times of India* – 20.31%; *Deccan Chronicle* -- 30.87%; Tables 25, 26, 30). These newspapers have not given the state-sponsored water management schemes the same kind of attention as *Eenadu*. They have concentrated, instead, on irrigation-related stories and inter-state water conflicts. Both *Eenadu*, with its strong Andhra Pradesh focus, and *The Hindu*, with its base in the southern part of India, gave more attention to inter-state water disputes such as the one between A.P. and Karnataka over Krishna waters or the one between Karnataka and Tamil Nadu over Cauvery (Tables 28 and 27). This is the case even though *Eenadu*'s disproportionate coverage of sustainable management schemes makes it seem that its 10 stories on inter-state water issues is not high percentage-wise. It is surprising, however, that inter-state disputes do not find the same kind of space in *Deccan Chronicle*'s coverage of water, given that it is also very much a publication focusing on A.P. (Table 26).

Three of the five newspapers in the study gave the sub-category of wild species, particularly wild animals, most space in their coverage of biodiversity. The *Times of India* had 23 stories on wild species (46.6% of space) out of which 22 were on animals, while all of the 24 stories on wild species (34.38% of space) in the *Deccan Chronicle* were on animals. Similarly, the *Navbharat Times*, which gave such negligible space to biodiversity (13 stories), had as many five items on wild species, all on animals (Tables 25, 26, and 29). *The Hindu* and *Eenadu* also gave substantive space in their respective pages to wild species, with the focus overwhelmingly on animals (13 out of 14 stories in *The Hindu* and 12 out of 13 in *Eenadu*). Most of these were brief, one-paragraph stories on animals killed in hunting and poaching animal-human encounters around national park areas, and on the safety of wild animals in the country's zoos. For example, the *Times of India* had on page 5 of February 9, 2001 a news item headlined, "Seven Arrested for Killing Tigers," about the police arresting some people in connection with the killing with the killing of a three-and-a-half year old tigress in the Srisailem Tiger Reserve.

The *Deccan Chronicle* of February 27 had two reports of animal deaths, both on page 9. While the first one ("Leopard found dead near Manair) reported that a 15-month old leopard was found on the outskirts of Ramulapalle village under the Karimnagar

mandal of Andhra Pradesh. The second story (“12 peacocks, 20 rabbits die in Konapur”) was about the discovery of the carcasses of 12 peacocks and 20 rabbits in a village in Nizamabad district of A.P. It was suspected that the animals died after consuming water in a paddy field contaminated with chemical fertilizers. Following the killing and skinning of a one-year-old tigress at the Nehru Zoological Park, Hyderabad in October 2000, and subsequent reports of more unfortunate deaths in some other zoos of the country made the media, especially in Hyderabad, to focus on zoo animals. For instance, the *Times of India* reported the efforts of authorities in Hyderabad to strengthen security measures at the zoo (“Zoo gets Rs.89 lakh to improve security,” January 7, 2001).

Other aspects of wild species mentioned in our operational definition such as plants and micro-organisms hardly figured in any of the newspapers in this study. Wild animal life does have its attractions for a predominantly urban news media as well for their readership. The ‘cute’ value, for a largely middle-class urban audience, of panthers, tigers, lions, leopards, elephants, deer and the like cannot be denied. As Ashish Kothari (1997:23) put it, worldwide conservation efforts have also focused on a few ‘charismatic’ species, “typically large animals which attract a lot of public attention.” Smaller species, such as insects and invertebrates, have been neglected both in activism as well as legislation for wildlife protection. The newspapers seem to echo this prioritization.

Agricultural ecosystems seem to have uniformly received short shrift from all the newspapers in the study (Table 30). While the *Navbharat Times* does not have a single story on the subject during the sample period, the *Times of India* had just three out of a total of 51 stories on biodiversity, the *Deccan Chronicle* nine out of 71, and *The Hindu* nine out of 78. *Eenadu* had maximum coverage in this category, with 12 stories out of 243 for biodiversity, with a total space of 272.5 col". Two-thirds of the total coverage given to agricultural ecosystems concentrated on what we have called ‘farmers’ issues’. The *Times of India*, in a rare page 1 story, on June 25, 2001 had a report headlined, “Anantapur farmers given inferior seeds,” wrote about how groundnut farmers in the Anantapur district in A.P., many of whom had committed suicide the previous year after their crops were affected by budnecrosis, refused to accept the bad quality seeds supplied to them by the A.P. Seeds Corporation. Similarly, *The Hindu* published a story on January 5, 2001 (“Ryots complain to Naidu against MNCs,” page 5) stating that upland

farmers of West Godavari district urged the Chief Minister to protect them from the multinational seed purchasing companies, which were exploiting them by not paying them the appropriate price. While the politically volatile character of farmers' issues and the sensational suicides of farmers ensured, at least, some coverage, there was almost complete blackout of fisheries and aquaculture.

Natural ecosystems also did not receive much attention in the newspapers under study (Table 30). The number of items on the subject ranged from three to seven, with the *Deccan Chronicle* devoting the most space of about 121.5 col" (Table 26). Much of this marginal coverage highlighted issues related to forests. The *Navbharat Times*, for instance, had as many as three stories on forests. On January 16, 2001, it carried a page 5 story datelined Dehradun about the Uttaranchal government making simpler the process of registration of forest land ("Van bhoomi hastantaran ki prakriya saral kee gayi"). Similarly, an April 16 report on page 5 ("Aushadiyon mein prayukt hone vaale paudhon ke samrakshan ki yojana") quoted the Uttar Pradesh Minister for Forests as having announced the setting up of a task force to come up with a scheme to protect medicinal plants and herbs in the state's forests. On the eve of Forest Day on March 20, *Eenadu* ran a three-column article on the declining forest cover in the state of Andhra Pradesh and the country ("Atavi ksheenata tho manugadaku muppu" – "Declining forests are a danger for our survival").

Much of the coverage on domestic species was limited to crops. For example, the *Deccan Chronicle* had a report ("Disease eats into massive peanut crop," May 16, 2001) on how about 2.40 lakh hectares of groundnut crop has been affected by bud necrosis disease in Anantapur district of Andhra Pradesh. There were also a few reports on livestock. The *Times of India* published a page 7 report on January 10 titled "NDDB unit breeds 'super cows'" which detailed the news of the National Dairy Development Board in Uttar Pradesh having bred 'super milker' cows with an average yield of 9000 kg per lactation each.

The study did not find much coverage on the controversial subjects of genetics and biotechnology in connection with biodiversity. In fact, *The Hindu* was almost the sole exception with about 10% of its biodiversity space given to the issue biotech/genetics. It reported, for example, a meeting of scientists working in the area of

biotechnology from India and the U.K. during which they called for legislation to regulate genomic research (“Scientists moot legislation on bio-tech,” January 10, 2001). In the same issue of the newspaper, the director of the Centre for Cellular and Molecular Biology at Hyderabad was reported to have said that the Centre has been trying to import a cheetah from Iran for cloning, as the species is extinct in India (“Long wait for cheetah,” page 4). In yet another news item, *The Hindu* reported the unraveling of the genetic formula for rice by scientists at the Torrey Mesa Research Institute in the United States (“Genetic code of rice cracked,” January 28, page 12).

The category of environmental degradation also recorded some coverage, with the *Deccan Chronicle* publishing five and *Eenadu* eight stories, respectively, on pollution. A report on February 6 in *Eenadu* (“*Janaavaasala madhya kaalushyakaraka parishramalu*” – “Pollution-causing industries amidst residential areas”, page 13 of city supplement) gave details of air, water and sound pollution caused by plastic, iron, glass moulding, and acid industries in certain residential neighbourhoods of Hyderabad. Similarly, another story on February 12 reported on the efforts of the state Pollution Control Board to address the problem of polluted waters of the Manjira reservoir (“*Kaalushyam chera nunchi thwaralo Manjiraku vimukti*” – “Manjira to be free from pollution soon”). The *Deccan Chronicle* of February 19 carried a story on page 8 about serious health hazards to residents of a particular neighbourhood caused by a heavily polluted nala, which flows through the area (“Nala poses risk to residents”). Use of plastic and wastage of paper also received some attention. On April 4, 2001, *Eenadu* ran a five-column colour feature, with photographs and boxed opinions from experts, on the negative effects of plastic carry bags (“*Praja chetane...plastic nishedhaniki ootham*” – “People’s awareness only way for banning of plastic”).

The Hindu and *Eenadu* had two general items each on biodiversity, although in the former it amounted to about 6.35% of its total space given to biodiversity, while in the latter it added up to a mere 0.16%. One article in *The Hindu* (“Biodiversity Bill insists on sovereign rights” March 8, 2001) examined the biodiversity bill in the context of legislation related to intellectual property rights. In another story, filed by its correspondent from London, the newspaper reported on an international biodiversity review by two influential environment groups. Among other things, the report revealed

that in the Third World land meant for protection of biodiversity is increasingly being put to agricultural use to feed a growing and impoverished population (“Major biodiversity hotspots under threat”, May 13, 2001, page 12). On April 22, Earth Day, *Eenadu*, in what was clearly the kind of innovation possible in language journalism with its close affinity to literature, had a colourful box item on page 1 with the illustration of a globe shedding tears and with the title, “This is not a story, but my plight” (“*Katha kaadu, idi na vyadha*”). The accompanying text was in the form of a letter to the public signed by “Mother Earth” (*Nela Thalli*), narrating in highly poetic language about the destruction of forests, pollution, and the general abuse of nature by humanity.

Table 25: Space given to biodiversity issues in Times of India from Jan to Jun 2001 (61 issues)

Sno.	Category	No of stories	Total Space	Nature of Story (In Col Inches)	
				EC	PC
1	AGRICULTURAL ECOSYSTEMS Farmers' issues Farmlands Fisheries	3 1 1 1	32 (5.24%)	3	0
2	WILD SPECIES Animals Plants	22 1	284.5 (46.6%)	18	5
3	NATURAL ECOSYSTEMS Preservation of Forests Trees	3 1 1 1	45 (7.37%)	3	0
4	DOMESTICATED SPECIES Plants Animals Livestock Crops	10 1 3 2 4	117 (19.16%)	10	0
5	WATER Irrigation Local bodies	11 9 2	124 (20.31%)	9	2
6	ENVIRONMENTAL DEGRADATION Use of paper	1 1	8 (1.31%)	1	0
	TOTAL	51	610.5	44	7

(EC=Event-Centred; PC=Process-Centred)

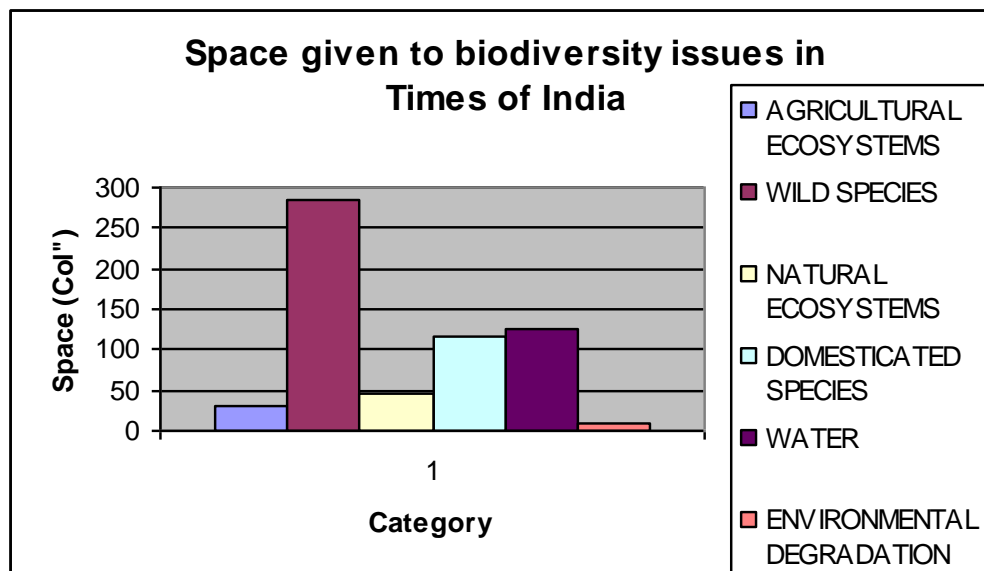


Table 26: Space given to biodiversity issues in Deccan Chronicle from Jan to Jun 2001 (61 issues)

Sno.	Category	No of stories	Total Space (In Col Inches)	Nature of Story	
				EC	PC
1	AGRICULTURAL ECOSYSTEMS Farmers' issues 8 Farmlands 1	9	88 (10.29%)	9	0
2	WILD SPECIES Animals 24	24	294 (34.38%)	20	4
3	NATURAL ECOSYSTEMS Preservation of 2 Forests 3 Mountains 1	6	121.5 (14.21%)	2	4
4	DOMESTICATED SPECIES Crops 2	2	17 (1.98%)	2	0
5	WATER Irrigation 13 Sustainable Management 5 Local bodies 2 Drinking water 3 Inter state 2	25	264 (30.87%)	23	2
6	ENVIRONMENTAL DEGRADATION Pollution 5	5	70.5 (8.24%)	3	2
TOTAL		71	855	59	12

(EC=Event-Centred; PC=Process-Centred)

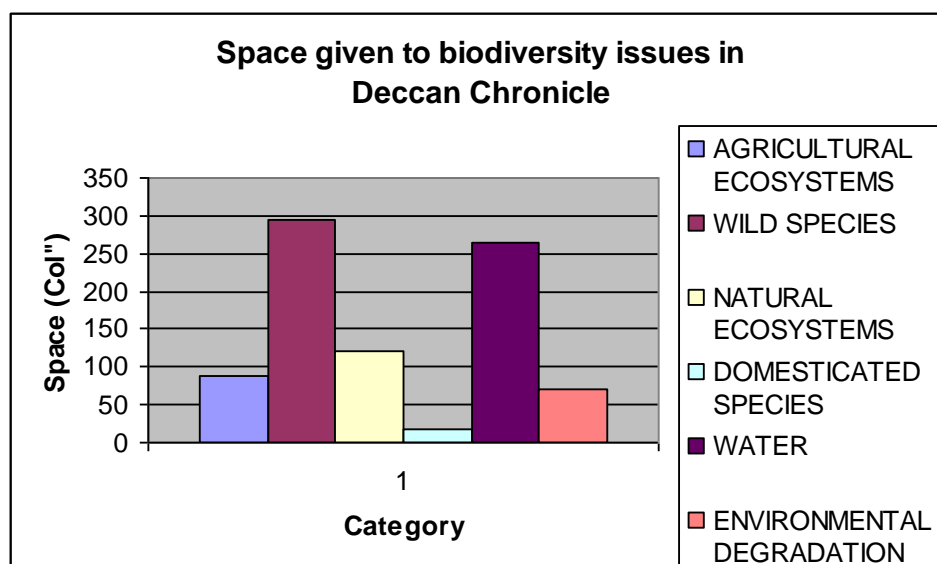


Table 27: Space given to biodiversity issues in The Hindu from Jan to Jun 2001 (61 issues)

Sno.	Category	No of stories	Total Space (In Col Inches)	Nature of Story		
				EC	PC	
1	AGRICULTURAL ECOSYSTEMS	9	150.5 (12.74%)	8	1	
	Farmers' issues					7
	Farmlands					2
2	WILD SPECIES	14	197.5 (16.72%)	11	3	
	Animals					13
3	NATURAL ECOSYSTEMS	7	110.5 (5.55%)	6	1	
	Preservation of					2
	Forests					3
	Mountains					1
	Marine areas					1
4	DOMESTICATED SPECIES	3	14.5 (1.23%)	2	1	
	Pets					1
	Livestock					1
5	WATER	33	492 (41.66%)	28	5	
	Inter state					5
	Irrigation					17
	Local bodies					1
	Sustainable					
	Management					6
	Drinking water					3
Inland transport	1					
6	ENVIRONMENTAL DEGRADATION	3	23.5 (1.99%)	3	0	
	Use of plastic					2
	Pollution	1				

7	BIOTECH / GENETICS	7	117.5 (9.95%)	6	1
	GM animals	1			
	Agriculture	4			
	General	2			
8	BIODIVERSITY (general)	2	75 (6.35%)	0	2
TOTAL		78	1181	64	14

(EC=Event-Centred; PC=Process-Centred)

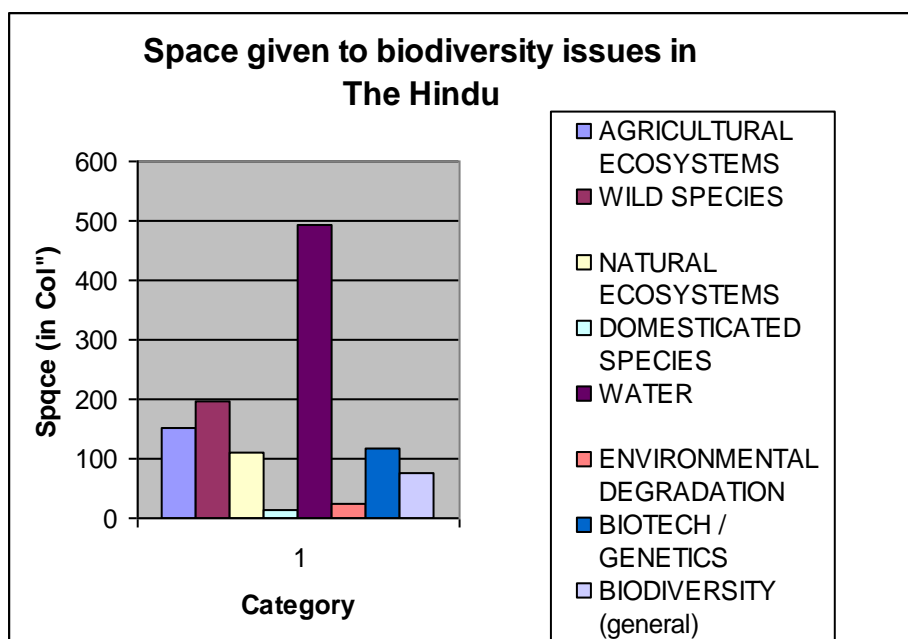


Table 28: Space given to biodiversity issues in Eenadu from Jan to Jun 2001 (61 issues)

Sno.	Category	No of stories	Total Space (In Col Inches)	Nature of Story	
				EC	PC
1	AGRICULTURAL ECOSYSTEMS	12	272.5 (7.07%)	7	5
	Farmers' issues	6			
	Farmlands	6			
2	WILD SPECIES	13	163.5 (4.24%)	8	5
	Animals	12			
	Plants	1			
3	NATURAL ECOSYSTEMS	5	69 (1.79%)	4	1
	Preservation of	4			
	Forests	1			
4	DOMESTICATED SPECIES	3	70 (1.82%)	0	3
	Plants	1			
	Livestock	1			
	Crops	1			
5	WATER	189	2941.5 (76.35%)	84	105
	Inter state	10			
	Irrigation	23			
	Local bodies	13			

	Sustainable management	121			
	Drinking water	22			
6	ENVIRONMENTAL DEGRADATION	10	243 (1.17%)	2	8
	Use of plastic	1			
	Pollution	8			
	General	1			
7	BIOTECH / GENETICS	6	46 (1.19%)	5	1
	GM animals	2			
	Agriculture	2			
	Human	1			
	General	1			
8	BIODIVERSITY (general)	2	26 (0.16%)	1	1
9	ENVIRONMENT	3	21 (0.54%)	3	0
TOTAL		243	3852.5	114	129

(EC=Event-Centred; PC=Process-Centred)

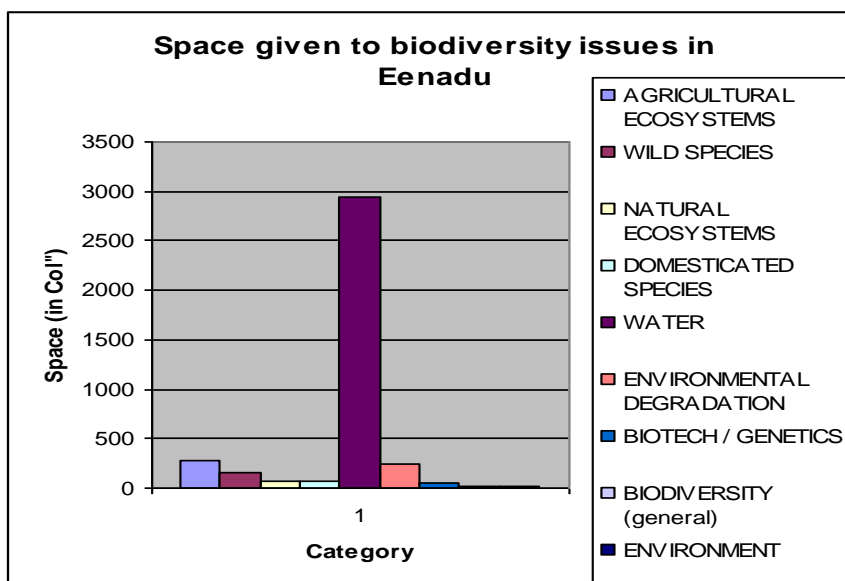
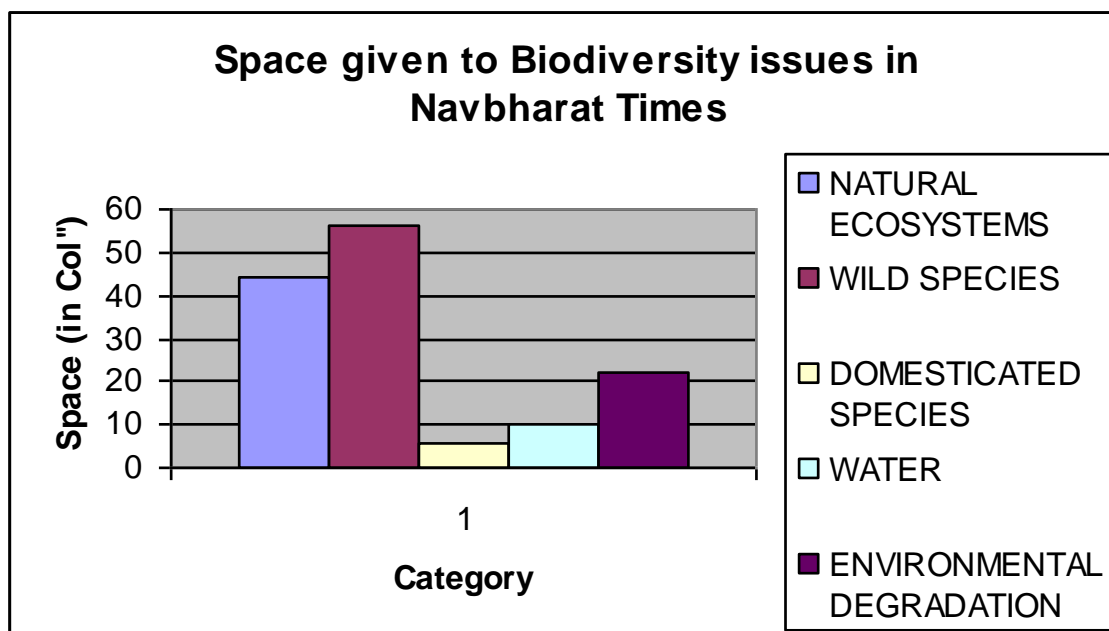


Table 29: Space given to biodiversity issues in Navbharat Times from Jan to Jun 2001 (61 issues)

Sno.	Category	No of stories	Total Space (In Col Inches)	Nature of Story	
				EC	PC
1	NATURAL ECOSYSTEMS	4	44 (32%)	3	1
	Forests	3			
	Preservation of	1			
2	WILD SPECIES	5	56 (40.72%)	2	3
	Animals	5			
3	DOMESTICATED SPECIES	1	5.5 (4.0%)	0	1
	Livestock	1			

4	WATER Sustainable management	1	10 (7.22%)	1	0
5	ENVIRONMENTAL DEGRADATION Use of plastic	2	22 (16%)	2	0
	TOTAL	13	137.5	8	5

(EC=Event-Centred; PC=Process-Centred)



**Table 30: Comparison of biodiversity coverage in five newspapers from Jan to Jun 2001
(61 issues each)**

	TOI (Col")	DC (Col")	The Hindu (Col")	Eenadu (Col")	NBT (Col")
Agricultural Ecosystems	32 (5.24%)	88 (10.29%)	150.5 (12.74%)	272.5 (7.07%)	0
Wild Species	284.5 (46.6%)	294 (34.38%)	197.5 (16.72%)	163.5 (4.24%)	56 (40.72%)
Natural Ecosystems	45 (7.37%)	121.5 (14.21%)	110.5 (5.55%)	69 (1.79%)	44 (32%)
Domesticated Species	117 (19.16%)	17 (1.98%)	14.5 (1.23%)	70 (1.82%)	5.5 (4%)
Water	124 (20.31%)	264 (30.87%)	492 (41.66%)	2941.5 (76.35%)	10 (7.22%)
Environmental Degradation	8 (1.31%)	70.5 (8.24%)	23.5 (1.99%)	243 (1.17%)	22 (16%)
Biotech /Genetics	0	0	117.5 (9.95%)	46 (1.19%)	0
Biodiversity	0	0	75 (6.35%)	26 (0.16%)	0
Environment	0	0	0	21 (0.54%)	0
TOTAL	610.5	855	1181	3852.5	137.5

TOI=Times of India; DC=Deccan Chronicle; NBT=Navbharat Times

The three stories on biodiversity across five newscasts in a three-month sample period do not provide us adequate data to study the finer elements of the coverage on television. However, a closer look is warranted at the minimal time provided by television news to the issue of biodiversity. The 1:45-minute total coverage given by Star News to biodiversity was essentially a single story broadcast during the channel's newscast on August 15, 2001 on depleting forest cover in Assam. The report, coming as the sixth item and in the 10th minute of the newscast, talked about how the Assam government was trying to settle villagers in about 1700 sq km of forest north of the Brahmaputra river. This plan, the story says, 'has infuriated conservationists, who accuse the government of playing politics with dwindling forest cover.' Accompanied by long shots of dense, green forest and shots of tree felling and logging, the reporter suggests, without further explanation, that 'the only reason why the government wants to settle this area is because of its proximity to the Bodo communities.'

Doordarshan's 3:40 minutes of coverage given to biodiversity in its newscasts during the sample period were made up of two reports. The first one of 1:57 min duration appeared on June 19 as the 11th item and into the 16th minute of the primetime newscast. It was a report of a two-day consultation on community grain banks for sustainable food security held in Bhubaneswar by the M.S. Swaminathan Research Foundation. The story started with the anchor editorializing, "Only by linking ecological security with food security can India rid itself of endemic hunger and fulfill the goal of a hunger-free India by the year 2007. The M.S. Swaminathan Research Foundation is pioneering efforts to bring about an ever-green revolution through community participation." The voice-over from the reporter, accompanied by visuals of women and men working in the fields, then spoke of the 'paradox of poverty amidst plenty and of bursting food godowns juxtaposed with starvation deaths' and emphasized that ecological conservation is essential for food security. The story then cuts to the seminar and presents excerpts from speeches of various dignitaries. The Union Minister for Rural Development, Venkaiah Naidu calls for grassroot level efforts at conservation and sustainable use of genetic resources. This, he said, will need local level institutions and structures, which can be operated by local women and men with the help of micro-credit.

Dr. M.S. Swaminathan and the Chief Minister of Orissa also get some time in the news item.

The second story on Doordarshan related to biodiversity, of about 1:43 min duration came on June 22 as the 10th item and in the 18th minute of the newscast. It was a report on the severe water crisis facing the city of Chennai, with the onset of summer. With visuals of women waiting with empty vessels, dried up tank beds, and half-empty reservoirs, the reporter's voice-over informed viewers that after two poor monsoons, the city's water reservoirs ran virtually bone-dry. He spoke of the various efforts being made by the city's water managers to keep the supply going for the harassed citizens. These measures included transporting water by train ('water specials') and in water tankers by road.

Nature of Biodiversity Reportage

An important question raised at the outset of this study was: to what extent is the media's coverage of biodiversity issues event-centred as against process-centred? Media scholars have often characterized newspaper journalism as engaging primarily in event-centred reporting, presenting events in their stark, isolated reality without providing a larger perspective to help interpret the so-called facts (Altheide, 1976; Snow, 1983; Parenti, 1993). The effect of such an approach is not so much as neutrality, but reinforcement of the status quo. A dominant perspective in professional journalism in the West as well as in India (where journalism education and training are moulded after the Western model) has been the notion of 'objectivity' as the bare reporting of 'facts'.² As one critic put it:

...belief in objectivity as a form of unbiased observation and in facts as things that have an independent reality still pervades common thinking, and the craft of journalism is no exception (Snow, 1983: 47).

² One study of American newspapers in the 1990s suggests that the stories grew longer, included more analysis, expanded from specific locations to broader regions, placed more emphasis on time frames other than the present, and named fewer individuals (Barnhurst and Mutz, 1997). The study asserts further that journalists are increasingly supplementing news with a context of social problems, interpretations and themes. While this may be true of the American newspapers, in India, journalists are still caught up in an event-centred orientation and provide little or no contextual information along with hard news.

Against this background this study sought to assess how the media approached a subject such as biodiversity, which is inherently processual and whose examination needs consideration of long-term trends and complex factors. It was found that of the 456 items in all the five newspapers during the sample period, 289 (63%) could be classified as event-centred stories and 167 (37%) as process-centred. The English newspapers were almost uniformly biased in favour of an event-centred approach to biodiversity. Forty-four of the *Times of India*'s 51 stories (86%) on biodiversity were event-centred as against 59 out of 71 (83%) for *Deccan Chronicle* and 64 out of 78 (82%) for *The Hindu* (Tables 25-27). In a typical poaching story, the *Deccan Chronicle*, for instance, had its bureau report on January 7, 2001 that five persons have been arrested for hunting down a panther in the S.Ramapuram forest area of Gopavaram mandal in Cuddapah district of A.P. ("Five held for hunting panther in Gopavaram"). There is passing mention of 'differences' between poachers and villagers, but no discussion of either the causes or consequences of this kind of reckless destruction of wildlife.

One of the reasons why newspapers appear to be so dominated by an event-centred approach is the tendency to cover various functions and press conferences and reproduce, without much critical review or contextual information, the statements and claims made by various stakeholders. Take, for instance, the issue of agriculture. *The Hindu*, within a gap of two days, published two reports, both on page 3, which seemed to purvey contradictory claims on the state of agriculture in the state. On February 19, the newspaper's Special Correspondent reported a function organized by the Federation of Farmers' Associations. At the function the government's Commissioner of Agriculture "sought to allay fears over the Government's proposal to introduce contract farming in a big way, saying there will not be any loss either to land or right of ownership of the farmer." On February 21, the newspaper's Special Correspondent (may or may not be the same one above) did a story on a press conference organized by a non-governmental organization that has been working with small and marginal farmers. The representative of the NGO, among other things, accused the state agricultural policies of being biased toward "big farmers and crops requiring high inputs, large water sources and chemical-based fertilizers and pesticides". The reporting of the two events may have enhanced the 'objective' credentials of the newspaper, but it does nothing to clarify matters for readers

– that farmers’ interests are not always homogeneous and that the problems faced by small farmers are qualitatively different from stronger and more powerful farmers’ lobbies.

The two language newspapers, thanks in most part to *Eenadu*’s unprecedented campaign on water, seemed to be less event-centred (*Eenadu*, 47% and *Navbharat Times*, 61%) in their coverage than their English counterparts (Tables 28-30). For example, on April 25 *Eenadu* had a four-column, page 1 story headlined, “*Nela Nissaram..! Neeru Kashayam..!!*” (“Land infertile...Water salinated”), which discussed in detail the problems of farmers in Anantapur district faced with a hard, rocky and uneven land, soil infertility caused by decades of chemical fertilizers, soil erosion and highly salinated water for irrigation. Similarly, on May 1, in one of its special water pages, the newspaper published an article on how large-scale rain harvesting in China had helped the country tackle drought conditions effectively. In yet another process-centred report on the same page, *Eenadu* explored the issue of financial resources for the government’s water conservation schemes and emphasized the need for people’s participation in sustainable water management. *Navbharat Times* carried a four-column, 18-col" news story on April 19 about “Bird sanctuary struggling for existence” (“*Astitva bachane ko joojh raha hai pakshi vihar*”). The news agency report discussed how a natural environment created for many rare species of birds near the Thar Desert in Rajasthan, thanks to the backwaters of Indira Gandhi Canal, is fast declining owing to severe drought in the area.

Table 31: Comparison of Sources Cited for Biodiversity Reporting in Five Newspapers

	TOI	DC	The Hindu	Eenadu	NBT
Politicians	11 (15.71%)	24 (26.96%)	40 (38.09%)	59 (30.56%)	2 (9.52%)
Officials/ Bureaucrats	28 (40%)	32 (35.95%)	28 (26.66%)	62 (32.12%)	9 (42.85%)
Scientists/experts	13 (18.57%)	7 (7.86%)	16 (15.23%)	26 (13.47%)	5 (23.80%)
NGOs/activists /civic orgns	11 (15.71%)	13 (14.60%)	16 (15.23%)	21 (10.88%)	2 (9.52%)
Ordinary people /citizens	7 (10%)	12 (13.48%)	3 (2.85%)	24 (12.43%)	2 (9.52%)
Corporations	0	1 (1.12%)	2 (1.90%)	1 (0.51%)	1 (4.76%)
TOTAL	70	89	105	193	21

TOI=Times of India; DC=Deccan Chronicle; NBT=Navbharat Times

Serving as a complement to the event-centred approach of the media is what may be called the ‘official source perspective’ (Snow, 1983) offered in the reportage. The findings of a study done by Reese, et al. (1994) of American television news seems not only valid for television news in India, but also for newspaper reporting. The study of news sources suggested that behind the ‘conventional wisdom’ of mainstream news lies a structured pattern of sources: newsmakers, experts, and analysts. Supporting an elite model the study points out that a single cohesive ‘insiders’ group, knit together by officials, accounts for most of these sources and spans a number of key national issues.

An analysis of the various sources cited in the coverage given to biodiversity issues suggests that the five newspapers relied heavily on politicians, bureaucrats, and scientific experts. More than three-fourths of the newspapers’ information on biodiversity seems to come from these three sources (Table 31). Officials from the government departments of forestry, wildlife, environment, agriculture, animal husbandry, water works, irrigation, besides authorities heading zoos, wildlife parks, pollution control boards, dominate most of the coverage in the newspapers. While about 43% of the sources cited by *Navbharat Times* in its biodiversity coverage are bureaucrats, they accounted for 40% of sources in the *Times of India* and about 36% in *Deccan Chronicle*. Similarly, elected representatives are cited often in connection with issues related to biodiversity. The category of sources used most frequently in *The Hindu* is politicians (38.09%), they garner substantial attention as sources in *Eenadu* (30.56%) and *Deccan Chronicle* (26.96%) as well.

It was to be expected that in covering a field, which is supposedly so technical, the media would mobilize considerable scientific expertise. An examination of the sources for biodiversity news in the five newspapers revealed that, with the exception of *Deccan Chronicle* (7.86%), all the others have cited biologists, geneticists, agricultural scientists, and veterinary researchers, etc. in good measure (ranging from 13.47% in *Eenadu* to 23.80% in *Navbharat Times*). In contrast, while non-governmental organizations, civic organizations, and activists, owing to their increasingly articulate presence in public debates, got some notice, ordinary people – citizens, members of village communities, residents of neighbourhoods – were not given the same kind of importance. And whenever ordinary people got some space in newspaper items on

biodiversity, they were portrayed as helpless and passive victims narrating their share of ‘atrocities’ (Bromley, Shupe, and Ventimiglia, 1979) for the consumption of journalists and their readers. For example, these sources, sometimes even unnamed and nonchalantly referred to as ‘*prajalu*’ (the people), appeared as victims of pesticide spraying in Kerala, as hapless farmers in Haryana whose livestock has been attacked by the foot-and-mouth disease, or as pitiable farmers in the Rayalaseema region of Andhra Pradesh coping with their parched lands. They are rarely represented as people endowed with an enormous stock of indigenous knowledge on biodiversity or as active agents who are able, creatively and courageously, to protect and preserve the rich biological diversity of the country.

Of the three stories on biodiversity in the television newscasts studied here, two could be termed ‘process-centred’ and one, event-centred. There is not enough data to draw any broader conclusions, but it is safe to say that television news, with its limited time and strong anchoring in the visual element, would be generally more event-centred. In terms of sources, the one STAR News story cites an environmentalist on the dangers of depleting forest cover in Assam and offers visual testimony from an anonymous villager about illegal logging operations by defense personnel. No official source was used in this story. Doordarshan’s two stories, on the other hand, use ministers, officials, and scientists as the only sources. In the story on the seminar organized by the M.S. Swaminathan Foundation, the Union minister was given much more time than the other speakers. The report also sought to enhance the credibility of the story by introducing M.S. Swaminathan as ‘the renowned agriculture scientist’ and certified that his Foundation was ‘making efforts to bring about an ever-green revolution’. The story on Chennai’s water crisis depended mainly on unnamed water management authorities of the city. The ‘harassed’ or ‘beleaguered’ citizens of Chennai remained nameless and were not interviewed for the story.

The reasons for this over-reliance on officials and official documents as well as the scientific elite are that they are easily accessible in towns and cities and the information they provide appears to be legitimate and enhances the credibility of the newspaper. As Snow (1983) argued:

When the practice of using official sources is placed in context with other dimensions of the factual event-centred approach, the result is a very objective-appearing procedure that adds significantly to the naïve notion that newspaper journalism is usually objective and unbiased (Snow, 1983:55).

The perspective of event-centred reporting discussed above orients journalists and readers to an understanding of complex phenomena, such as biodiversity, through specific events, factual summaries of those events, and the objective reproduction of official sources of information. An important consequence of this approach to biodiversity (or to any other significant issue for that matter) is a superficial understanding of the issue. With only a few facts provided in headlines and lead paragraphs, this kind of reporting oversimplifies complex issues and promotes drawing of unwarranted inferences. Further, the event-centred approach, buttressed by the official source perspective, by giving primacy to the event itself, neglects the factors that led to the event or the context in which the event occurred.

Conclusions & Recommendations

This study finds that the issue of biodiversity has a low priority in the Indian news media. The print media give the subject substantially greater attention than television news. While the newspapers have given up to three percent of the newshole to issues related to biodiversity, television news is indifferent to the topic, with two of the channels drawing a blank in their coverage. It might be suggested that perhaps television channels provide special features outside of their newscasts to focus on the environment or, more specifically, biodiversity. Although it requires further investigation, a cursory review of the schedules of various channels gives no such hope. The popular agricultural programme on ETV called 'Annadata' may be an exception, but it was outside the purview of this study. In the print media, categories such as lifestyle and entertainment have often fared much better than biodiversity, reflecting the priorities of a medium biased towards urban, metropolitan readership.

Eenadu provided the maximum space for biodiversity, thanks mainly to its water campaign, but the *Navbharat Times*, with the least space, belies any possible generalization about language dailies doing necessarily better than their English-language

counterparts. Further, the channels that blanked out biodiversity from their newscasts were the Hindi-language Zee News and the Telugu ETV. There is also no evidence to suggest that media outlets such as the *Deccan Chronicle*, with their regional and local moorings, focus any more on biodiversity issues than newspapers with more ‘national’ credentials and aspirations such as *The Times of India* or *The Hindu*.

Within the minimal coverage given to biodiversity in the media, issues related to water and wild species of animals seem to get the most attention. Much of the reporting on biodiversity is event-centred and relies heavily on an official-source perspective, privileging people in power and the scientific elite as the only valid sources. There is no acknowledgement of people’s knowledge on the revival and preservation of the biological diversity of India.

Based on the above findings, the study makes the following recommendations for possible action:

1. Conduct consultations with media owners and managers and impress upon them to give more space and time to environmental issues, particularly to biodiversity.
2. Seek and establish linkages with donor agencies and non-governmental organizations involved in biodiversity-related activities to sponsor space and time in the media to focus attention on biodiversity.
3. Conduct training workshops for working journalists and freelancers on issues related to environment and ecology, with special attention on the biodiversity of the country. These could be organized in association with communication and journalism departments of universities, the Press Institute of India, state press academies where they exist, the Ministry of Environment and Forests, and NGOs. With a combination of lectures and field visits, the purpose of the workshops should be to familiarize journalists with some of the key aspects of biodiversity and help equip them with the right kind of contextual background on important topics related to biodiversity. The field visits, in particular, could be used to acquaint journalists with the tremendous amount of indigenous knowledge that exists among people at the grassroots and to develop a healthy respect towards these knowledge-holders.

4. Create easily accessible databases on the subject matter of biodiversity, so that reporters and freelancers attempting to highlight any aspect of biodiversity would be able to provide detailed information and verify the claims made by various stakeholders.
5. Work with the University Grants Commission and universities to expand the curriculum for undergraduate as well as postgraduate programmes in communication and journalism to include environmental journalism as an important aspect of their training. Where possible, this can be done by merely broadening the already existing subjects such as development communication or development journalism.
6. Institute short-term scholarships and fellowships for not only working journalists and freelancers, but also for journalism and communication students to encourage them to work in a focused manner on reporting issues related to biodiversity or to make television documentaries on the subject.

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