

Abstract

The coverage of agricultural news is of great significance in the Indian economic and social scenario. The present study explores the print visibility of agricultural news in three newspapers in India. Therefore, research was accomplished through a random selection of three national- newspapers, Hindi(one) and English (two), namely Dainik Jagran, The Hindu, and The Hindustan Times. The agricultural news in the three newspapers was collected from December 2020 to November 2021 and categorized into political news, advisories, policy, techno-innovation, entrepreneurship, and environmental. The articles were extracted from E-Papers and print PDFs for practical purposes based on keyword selection. The findings revealed that the agricultural news covered by the newspapers was feeble and under 5 % of the total news content. The total number of agricultural articles found from December 2020 to November 2021 was 6191. However, Dainik Jagran led in print visibility with a yearly average of 4.71 per cent, followed by The Hindustan Times at 4.30 percent and The Hindu at 3.23 percent. The print visibility ranged from 8.0 percent to a maximum, and the minimum was 1.8 percent. It was also found that Agri-political news had maximum visibility in two of the three newspapers (68.3 percent in the Hindu and 33 percent in Dainik Jagran).

Keywords: Media visibility; agricultural news coverage; print media; news analysis; print media; agricultural communication; RLBCAU studies.

Introduction

Agriculture, the backbone of the Indian economy and society, has undergone several cycles of regression and growth. According to the World Bank, India is a global agricultural powerhouse, the world's biggest producer of milk, pulses, and spices, and the largest area under wheat, rice, and cotton plantation (World Bank 2012). To emerge as a leading economic force, a productive, competitive, diversified, and sustainable agricultural sector needs to develop significantly (World Bank 2012). There is a need to bring developmental agricultural news to the fore and create a rural-urban linkage whereby the urbanites, entrepreneurs, and investors are regularly informed about the developments in agriculture and allied fields, policies, schemes, incentives, and the like so that agriculture can gain the attention and involvement. The print media has a significant role to play in this aspect.

Inadequate representation of agricultural news may be a roadblock in its development. Most of the people of India still rely on traditional print and news media for information and communication of national and international news, including digitization-related information. In the era of digitization, print media is making more significant inroads and reaching out to broader populations. Thus, creating a possibility and scope of disseminating agricultural and related developmental news to a larger populace. News media can draw attention to movements' issues, claims, and supporters and shape the public agenda by influencing public opinion, authorities, and elites (Andrews & Caren 2010).

Newspapers are a means of communication and dissemination of information. Development communication integrates strategic communication in development projects (Kumaraswamy 2015). Strategic communication is a powerful tool that can improve the chances of success of development projects (Kumaraswamy 2015). With the help of strategic communication of agricultural news, newspapers can accelerate agrarian development in the country.

An important concern is whether agriculture and allied fields get their fair share of communication, or print visibility, compared to the dependency on them. A study in Nigeria says that while several sectors of the nation's development depend on information dissemination on agriculture and rural areas, newspapers have still not provided agriculture news with the desired attention and reportage (Okocha 2021).

There is a need to study and examine the role of print media in disseminating agricultural and related news in India. Modern newspapers have been accused of being business enterprises selling news as commodities. (Park 1923). Studies in the past have enumerated that political and crime news sells best. Often the print media, particularly the newspapers, have been rebuked for their undulating faithfulness in political and crime-related reporting and ignoring developmental news. This may be a reason why developmental and agricultural news receives scant attention from the newspapers.

Studies have shown that lack of access to developmental news greatly harmed many progressive policies and their stakeholders. World hunger and food security are major global concerns; realizing this, agricultural research, technology, education, and extension activities have been propelled towards growth. Research and education, infrastructure and technology, and human and financial resources have been mobilized. Hence it becomes crucial to explore the print visibility accorded to such crusades and happenings, as newspapers may serve a more social and economic purpose higher than profit-making.

Materials and Methods

Random Selection of Newspapers

. The research was accomplished through a random selection of 3 national-level Indian newspapers, Hindi (one) and English (two), namely, Dainik Jagran (Hindi), The Hindu, and The Hindustan Times. The Delhi editions were selected over other regional options as they represent national news published from the country's capital. For ease of analysis, E- papers of the two English newspapers were selected. Dainik Jagran did not have an e-paper, so the PDF format was subscribed for one year. This became a significant decision as the research period was also marked by the onset of COVID-19 and the subsequent lockdown in which researching E-paper through contactless means proved to be the most practical and viable solution.

Selection of Period

News related to agriculture and allied fields was extracted from the three newspapers over a period of one year, from 1st December 2020 to 30th November 2021. The years 2020 and 2021 were significant for the study owing to the momentum in the agricultural scenario with the announcement of the Farm Laws by the Union Government (Chandra Ramesh 2020), and the subsequent farmers' protests in India. Much of the media coverage during this period was

covered by the farm protest and COVID-related political and unrest news, and COVID-related news.

Content Analysis method

Content analysis was found to be the most appropriate method for undertaking this research. We used mixed-methods content analysis for systematic and comprehensive content analysis. We first used quantitative content analysis to measure the number of agriculture-related articles in each newspaper. Then, qualitative content analysis was performed by manually reading and understanding each piece for a more in-depth, reflexive analysis (Altheide, D. L., & Schneider 2012).

The content was extracted through a keyword selection method, and then the news items were manually read and segregated into different thematic categories. The keywords used for news extraction were: agriculture, horticulture, forestry, farmers, farming, agri-innovation, environment, soil, cultivation, farms, and crops.

The news matter collected was then categorized into six heads based on content analysis. A sum of 1460 issues of three newspapers was checked, partly manually and partly through computer-aided to extract the news items covering agriculture and allied fields. They were then read and segregated into six agricultural categories. The six categories of agricultural news were- agri-political news, advisories, policy, techno-innovation, entrepreneurship, and environmental.

For each newspaper, the following data were collected: month, date, day, news headline, news category, news source, and news area. The data was recorded on spreadsheets every day.

Explanation of Categories:

Political news (Political) implies all news related to agricultural scenarios and addresses to farmers given by political leaders, parties, ministers, national and regional leaders, election mandates, speeches etc.

Advisories (Advisory) implies all weather-based crop and farming advisories, and information support.

Policy implies all agricultural, allied, or farmer-related policies, subsidies, and schemes, advertised, issued, and informed by government agencies, companies etc.

Techno-innovation (Tech-inno) implies any communication of agricultural innovation, technology, product development, research communication, and scientific communication in agriculture and allied fields.

Entrepreneurship (Entre) related news recorded content on agro-industries, ventures, agri-businesses etc.

Environmental news (Environ) related to that environmental reporting directly pointed to a relationship between agriculture and allied fields. For example, the impact of a specific flood on crops in the area.

Further, if any news material corresponded with more than one category from the above, it was counted separately for each head.

Results and Discussions

The Hindu

Fig.1.Number of Agri-news items in The Hindu (December 2020 – November 2021)

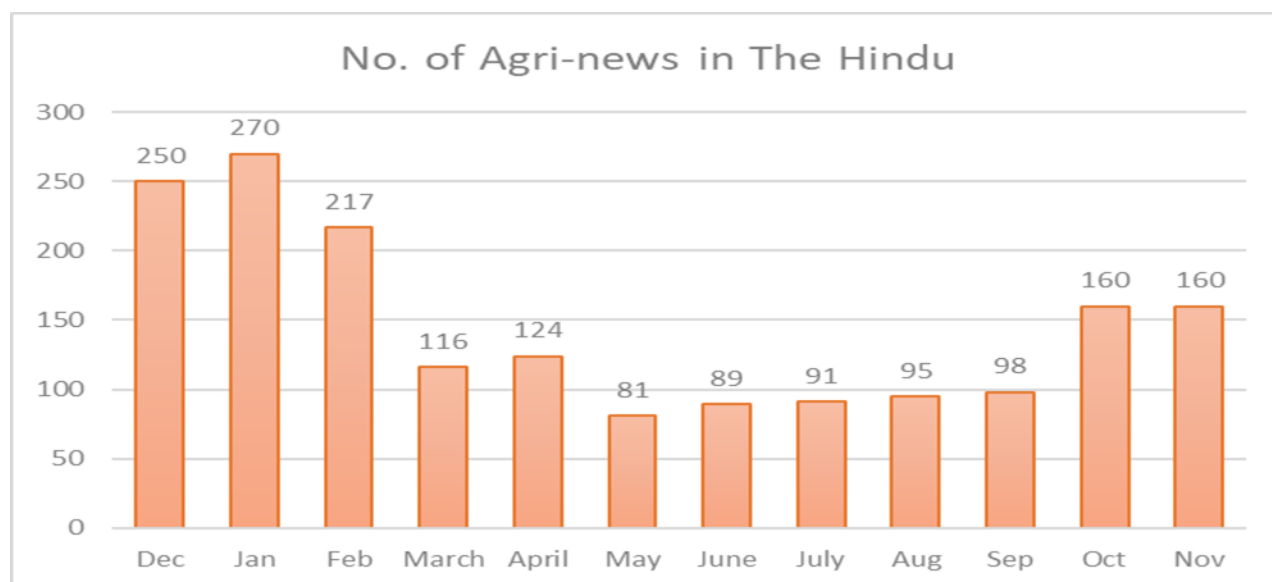


Figure 1. shows the total number of agricultural news coverage in The Hindu, Delhi edition, between November 2020 to December 2021. The maximum number of such articles found in the paper was 270 in January 2020, and the minimum was 81 in May 2020. In the entire study period of one year, the first three months, from December 2020 to January 2021, show the maximum coverage followed by a slump from March to September 2021. An increase in reporting is visible in October and November 2021, where articles have risen to 160 counts per month compared to 98 in September.

	Month	% Area	Political	Advisory	Policy	Tech-inno.	Entre	Environ	Total
The Hindu									
THI	Dec	6.239995	216	4	3	5	7	15	250
THI	Jan	5.304768	232	10	3	3	9	13	270
THI	Feb	5.320458	189	12	0	3	5	8	217
THI	March	2.522621	79	10	1	4	5	17	116
THI	April	2.769999	61	5	21	5	20	12	124
THI	May	1.90177	35	7	15	3	12	9	81
THI	June	1.765562	40	7	23	5	7	7	89
THI	July	1.831554	55	4	14	3	11	4	91
THI	Aug	2.173177	48	10	18	5	9	5	95
THI	Sep	1.212201	55	9	13	4	10	7	98
THI	Oct	4.259689	98	17	15	7	11	12	160

THI	Nov	3.514908	89	22	29	1	8	11	160
	Total		1197	117	155	48	114	120	1751

Table 1: Category-wise number of news items on agriculture in The Hindu (Dec 2020 – Nov. 2021)

As shown in Table 1 above, in January 2021, the number of news items was the maximum totalling 270. The percentage area of news covered was the maximum for December 2020. The maximum number of news articles were found to be published in the Agri-political category, totalling to 1197 out of 1751. This reinforces the hypothesis that political news receives maximum coverage. Agricultural news related to politics gets a much greater range amongst all six categories. This trend may be attributed to the two Farm Laws enacted in September 2020 by the Union Government of India and the modification of the Essential Commodities Act 1951 for agri-food stuff (Chand Ramesh, 2020). The period after the introduction of the Farm Laws was marked by farmers' protests, demonstrations, and speeches by political parties, leaders, and the like. Hence the high visibility of Agri-political news in the months from December 2020 to February 2021 and again in October and November 2021 may be attributed to it.

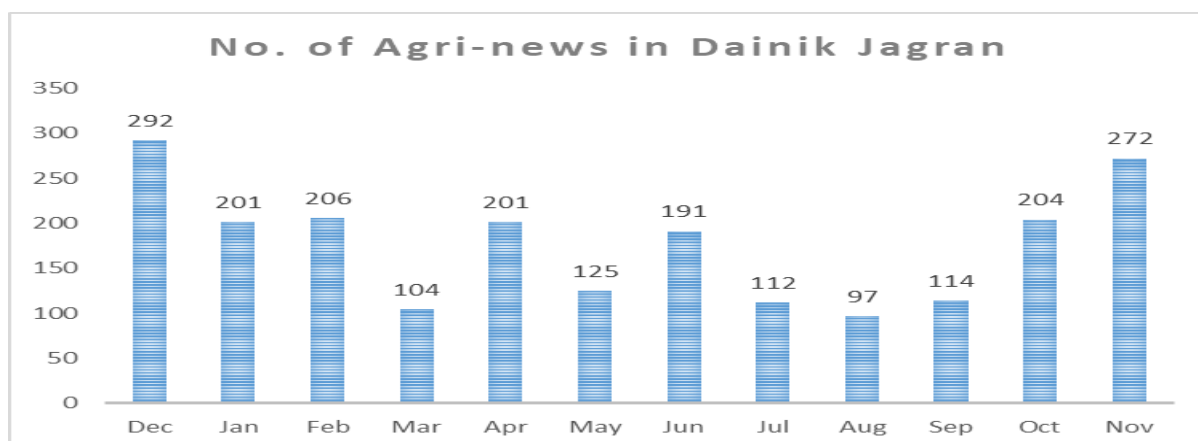
Similarly, Agri-policy news ranked second in coverage, with a total of 155 articles over the year. It was majorly covered during April and June. It was usually covered through editorials that created awareness about the existing laws in the agriculture sector and the new underrated policies benefitting the people engaged. News articles in the Environment category were covered in October and November. Only those articles that related environmental concerns with agriculture and allied fields were studied for this study. Articles that stated the impact of environmental problems on agriculture, farmers, etc., were analysed, and general articles related to weather and climate were not kept in the scope of the study. The print visibility of environmental news in October and November 2021 may be attributed to reporting the burning of straw stubble, harvesting, etc. In March and April 2021, environment news coverage increased owing to the reportage of forest fires.

The news coverage in the advisory and Agri enterprise categories was approximately the same. A creative form of covering and highlighting the political news by The Hindu newspaper was portrayal aided by cartoons.

48 items were found in the category of agriculture-related techno-innovation. A majority of them focussed on start-ups. The enterprise sector includes the rise and depreciation in MSP and export and import of various crops, majorly sugarcane and its product, sugar. It also dealt with the processing and marketing the agricultural produce and hence had an innovative approach.

Dainik Jagran

Fig.2. Number of Agri-news items in Dainik Jagran (December 2020 – November 2021)



As can be evaluated from Figure 2., above, the highest number of agriculture news articles were found in December 2020 in the agri-political category. The highest number of agriculture news articles appeared in December 2020 and January and February 2021 due to the reactions to the enactment of farm laws by the Union Government.

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However, the highest environmental news coverage was found in November 2021, which dealt with topics like air pollution and stubble burning. In April 2021, news of forest fires in Uttarakhand and their consequences, and in June 2021, cyclones and disturbances caused by them and their impact on the environment made headlines.

The amount of techno-innovation news has been constant throughout the months. The quantity of policy news was highest in November 2021 due to more policies announced to deal with the nation's environmental concerns. Other policy articles varied from political to food grain export or import. The variation in coverage of the Agri-enterprise category of news is low, remaining constant for most of the months. This section included initiatives by farmers, like contract farming, the number of products bought by the government on MSP, and commercialising a new product by farmers Statistics

In all, out of the total agricultural news, in Dainik Jagran, Agri-political news was 33 percent, environmental news was 28 per cent, policy coverage was 15 percent, the advisory news was 3 percent, techno-innovation was 12.6 percent, and enterprise was 7 percent.

Table 2: Category-wise number of news items on agriculture in Dainik Jagran (Dec 2020 – Nov. 2021)

Dainik Jagran Month	Political	Advisory	Policy	Techno-inno	Enterprise	Environ	Total
Dec	188	3	16	27	35	23	292
Jan	139	0	9	25	11	17	201
Feb	100	9	24	35	1	37	206
Mar	29	4	15	24	4	28	104
Apr	19	5	44	38	8	87	201
May	25	5	14	9	26	46	125
Jun	16	15	37	25	7	91	191
Jul	30	0	13	9	11	49	112
Aug	37	2	9	13	14	22	97

Sep	47	0	11	8	17	31	114
Oct	25	12	56	31	8	72	204
Nov	49	11	74	24	7	107	272
Total	704	66	322	268	149	610	2119

Hindustan Times

As can be seen in figure 3, the agriculture news count was maximum in The Hindustan Times, at 2329, which was 37.5 percent of the news of all the three newspapers studied. The newspaper carried the maximum number of news articles in agricultural and allied fields in Dec 2020. Environmental news coverage was the highest in The Hindustan Times compared to Dainik Jagran and The Hindu. The highest number of news items belonged to the environmental category, which alone contributed around 48 percent of the total news, out of which 18 percent of the news articles were recorded in November. Political news, 31 percent of the total news items, received maximum coverage in December 2020 and again in January and February 2021. Advisory and policy were almost constant throughout the month, at 5.5 percent and 8 percent of the total agricultural news, respectively. Techno-innovation news coverage was a meagre .08 percent, and was the least compared to other newspapers. This section focussed on the impact of agricultural innovations on national and global levels.

Hindustan Times focussed more on environmental news, be it on the national or global level. Natural disasters in any part of the world and the after effects, the discovery of new species of animals, countries giving the nod to lab-grown meat, international summits like G20 and COP 26 were given their due area in the newspaper. The newspaper also had a more scientific approach towards global environmental concerns. Geopolitical conflicts regarding environmental resources, like the Brahmaputra water conflict between India, Bangladesh, and China, also had a small share of the total news area. Agriculture policies in India were also compared to other countries, for example, Kenya's experiment on farm laws. The newspaper had several detailed analysis articles on several aspects of agricultural economics.

Fig. 3: Number of Agri-news items in Hindustan Times (December 2020 – November 2021)

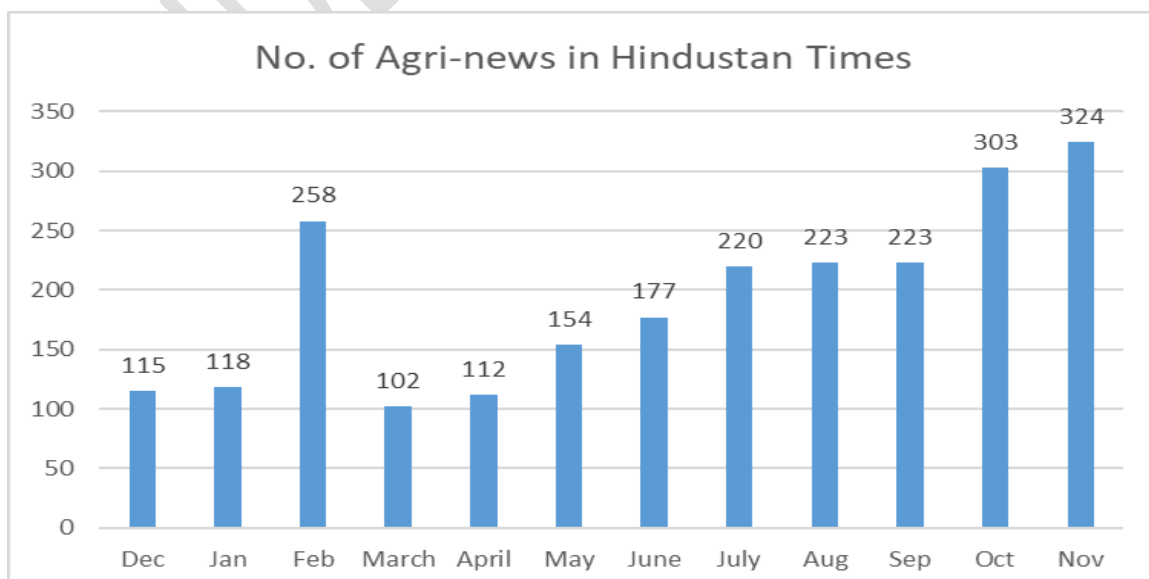
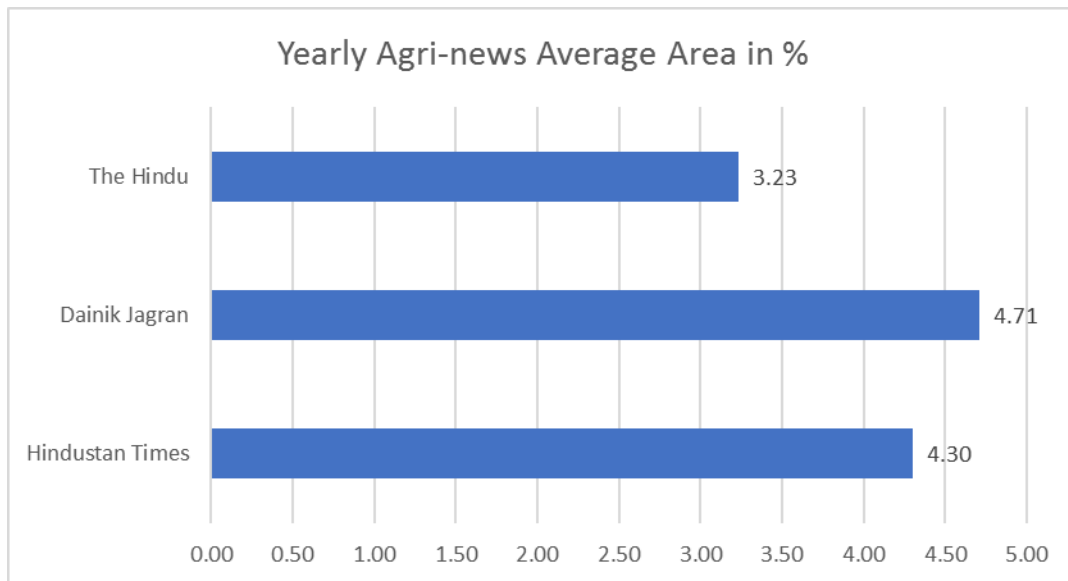


Table 3: Category-wise number of news items on agriculture in Hindustan Times (Dec 2020 – Nov, 2021)

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Month	% Area	Political	Advisory	Policy	Techno-innovation	Enterprise	Environment	Total
December 2020	4.904194	62	11	33	2	6	1	115
January 2021	4.428515	92	2	18	1	3	2	118
February 2021	5.359438	187	0	13	1	1	56	258
March 2021	2.127384	49	8	13	1	3	28	102
April 2021	2.105253	27	4	7	0	5	69	112
May 2021	4.504891	20	5	5	0	11	113	154
June 2021	4.27612	17	12	20	0	9	119	177
July 2021	2.454097	35	5	9	4	13	146	212
August 2021	4.582593	29	12	13	0	17	152	223
September 2021	4.4769	46	28	23	5	19	102	223
October 2021	5.098729	93	27	33	4	18	128	303
November 2021	7.278367	68	15	17	1	11	212	324
Total (Hindustan Times)		725	129	204	19	116	1128	2321

Conclusion**Fig. 4: Yearly Agri-news percentage in 3 newspapers (December 2020 – November 2021)**

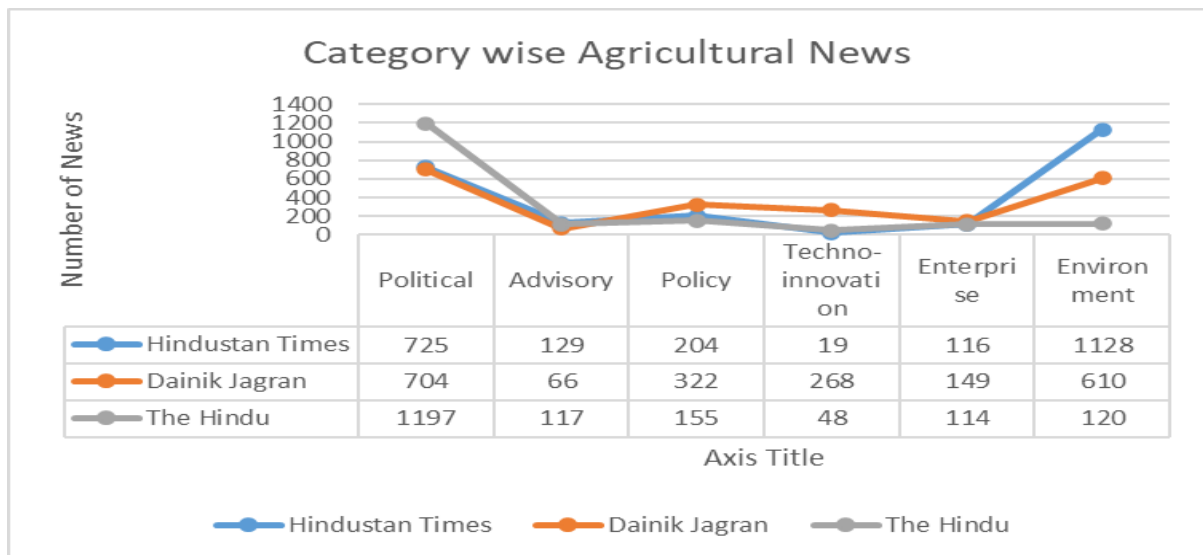


From the table below it can be concluded that the maximum coverage of agricultural news was 4.71, in the Hindi daily, Dainik Jagran, followed by Hindustan Times at 4.30 percent and The Hindu at 3.23 percent.

Data analysis of the three newspapers studied reveal that the average agricultural news coverage in India's national newspapers is less than 5 percent. Secondly, even in this less than 5 percent ratio of agricultural news receiving visibility, a significant portion is devoted to the agrarian news which has political association, again implying that political news receives more coverage than other developmental areas of newspapers.

The print visibility and media coverage accorded to techno-innovation and agricultural enterprises news need to increase if agriculture has to sustain itself as the country's major economic activity and ensure the participation of the urban populace in agriculture and allied fields. Lack of exposure to agricultural development may be a deterrent to agricultural growth and the establishment of an urban-rural linkage. Due to a lack of publicity, many agricultural policies do not reach the public and garner interest. Thus, agro-journalism needs to be an essential part of print journalism in the form of newspapers as they have greater and faster reach to the general population.

Fig. 5: Category-wise Agricultural news in 3 papers (December 2020- November 2021)



Recommendations

Instead of recommendations write conclusions

Shah Pour, from the University of Applied Science, Netherlands, says that the Ministry of Agriculture, Irrigation and Livestock and other development organizations may consider including or giving priority in print media to messages relevant to the farmers' needs and problems (Pour 2011).

To support farmers' initiatives and establish urban-rural linkages, a step that governments can initiate is to make efforts for a mandatory column for agricultural developmental news in major newspapers. To achieve this, the government may buy space in the newspapers since newspapers are a business initiative with profitability and survival in mind. Or, incentives may be provided for publishing agricultural news. Agricultural journalism may be given a boost as a career and a tool for agri-communication. A fixed proportion of agriculture news may be allotted to the front page.

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