

Effectiveness of Fisheries Based Programmes Telecast by Public and Private Television Channels in West Bengal

Amitava Ghosh¹, Arpita Sharma², and S. S. Dana³

1. Ph.D. Research Scholar, Dept. of Fishery Extension, WBUAFS, 2. Principal Scientist, CIFE (Deemed University of ICAR),

3. Professor & Head, Dept. of Fishery Extension,

West Bengal University of Animal & Fishery Sciences (WBUAFS), Kolkata- 700094

Corresponding author e-mail: amitava.skg@gmail.com

ABSTRACT

Aquaculture is a growing sector with an ability to have significant impact on economic development of country. Out of total fish production, inland fish production in India contributes 4.930 million metric tonnes and West Bengal ranks first in this regard. In the state, number of agriculture based audio-visual programmes are telecast via public (Doordarshan (DD)-Bangla) as well as private (ETV-Bangla) television channels. There are specific fisheries based programmes telecast on DD-Bangla (Krishi Darshan) and other private channels like ETV Bangla (Annadata). A study was carried out to measure the effectiveness of fisheries based television programmes in West Bengal. North 24-Parganas and South 24-Parganas districts were selected for the study as they ranked first and second in fish production in the state. A total of 60 viewers each from two districts making a total of 120 viewers were administered a structured interview schedule. Effectiveness was measured using a five point Likert scale. Parameters on which effectiveness of Krishi Darshan and Annadata programmes were scored were modes of programming, segments of programming, contents of programmes and other related issues. Mann-Whitney U-test revealed statistically significant difference with respect to effectiveness scores between Krishi Darshan and Annadata. Average effectiveness score for Krishi Darshan was 3.28 and for Annadata it was 3.36. Both the scores were above 3 but less than 4 suggesting that both the programmes were moderately effective, suggesting scope of considerable improvements.

Key words : Agriculture, Animal Husbandry, Fisheries, Effectiveness, Television, Programmes

Indian aquaculture has a tremendous growth during the last twenty years and has an ability to have significant impact on economic development of the country. According to FAO (2012) capture fisheries and aquaculture supplied the world with about 148 million tonnes of fish in the year 2010 with a total value of US\$ 217.5 billion which implies the importance of this sector in global economy. With the remarkable increase in production as reported by India (up 0.54 million tonnes in 2009), China and Myanmar (up 0.1 million tonnes each), Asia's share is approaching 70% of the global production. Being home to more than 10% of global fish biodiversity, Indian fisheries occupy the second position in global fish production with a combined annual fish and shellfish production from capture fisheries and aquaculture of about 8 million metric tonnes (Ayyappan et al., 2011). Out of the total fish production, inland fish production in India contributes 4.930 million metric tonnes and the state of West Bengal (W. B.) ranks first in this regard among the Indian states. As per the Annual Report of the Department of Fisheries, Government of W.B., 2010-11, the total fish production of W. B. comprising both inland and marine production was 15.38 lakh tonnes (Ghosh, et.al., 2013a & Ghosh & Sharma, 2014c).

With rising trends in fisheries sector, various fisheries based industries viz. ice plants, feed plants and fish meal plants have been established in different districts of W.B. which has become a major source of economic activities and employment generation. A number of agriculture based audio-visual programmes are telecast via public (DD-Bangla) as well as private (ETV-Bangla) television channels along with some radio channels like All India Radio (AIR) and private sector

Frequency Modulation (FM) radio channels to create awareness among the rural agrarian viewers and to acquaint them with the latest technical and scientific knowledge with regards to farming. Through such programmes, the farmer can get instant suggestions from the expert panel with regards to disease management and mitigation, pond preparation, feeding, nutritional and other management aspects of their farming through a phone call. Therefore, there is scope of short live and instant discussion on a particular problem with the expert panel members and the caller farmer (Ghosh, 2013). However, the common media, through which these programmes are telecast, is television which is also a powerful communication tool and very popular mass media in urban as well as rural areas and television programmes are considered most effective in providing agricultural information and technological know-how to the farming community (Ghosh, et.al., 2013b). Adeniyi and Bello (2000) have emphasized that mass media can be the key to development. Among mass media television is an effective media due to its simplicity and animation. Buren (2000) too has reported that among different mass-media, television gains a special status because of its potential to communicate to two sense organs simultaneously and to reach a large section of population residing in isolated and remote regions.

There are specific fisheries based programmes telecast in Bengali on DD-Bangla (Krishi Darshan) and private channels like ETV Bangla (Annadata). DD-Bangla and other private channels telecasting these television programmes keep a record of viewers watching the show and to some extent the television rating points. The extent of record keeping depends on the type of

channel and the funding agency (sponsors) of the programmes (Ghosh & Sharma, 2014b). Preliminary visits and enquiries to the Doordarshan Kendra, Kolkata (DDK-Kolkata) revealed that the effectiveness of these programmes being telecast is usually not measured (Ghosh & Sharma, 2014a). Few studies have measured effectiveness of advertisements in terms of contents, reach, viewers rating points and viewer's profile but there is lack of studies regarding effectiveness of agri/fisheries based television programmes among the viewers in general and fishers in particular (Ghosh, 2013). However, a study by Sharma and Kishore (1970) attempted to study the effectiveness of radio as a mass communication media and found that radio was very effective in bringing significant change in knowledge and attitude of the farmers of various socio-economic strata. Farmers also significantly retained the communicated knowledge even after 15-30 days of broadcast. With this background, the present study has been carried out to assess the effectiveness of fisheries based television programmes in W.B.

METHODOLOGY

This study was conducted in North 24-Parganas district and South 24-Parganas districts of W. B. because these two districts recorded highest and second highest fish production respectively during the year 2011 (Ghosh, 2013). The highest fish producing district also has highest urban population whereas second highest fish producing district has highest rural population in W.B. (Census of India, 2011).

Viewers were treated as samples for the present study who were selected by using multi-stage sampling technique. Viewers were defined as those who watched fisheries based programmes both in Krishi Darshan and Annadata at least once in a fortnight. A total of 20 viewers were purposively selected from each of the three blocks from the two districts making a total of 120 viewers. The three blocks from North 24-Parganas district were Amdanga, Barrackpore-I and Barrackpore-II and from South 24-Parganas district blocks were Sagar, Kakdwip and Patharpratima.

To study the effectiveness of fisheries based television programmes telecast by public (Krishi Darshan) and private (Annadata) television channels in W. B., five points Likert scale with points suitable for corresponding variable was used with scores on a continuum with 1 (very poor) to 5 (very good) respectively (Bertram, 2013). The parameters on which the effectiveness could be measured were conceptualized and operationalized.

Viewers were administered this scale and they were asked to rate their perception of effectiveness on the specified parameters. Weighted average of the scores was calculated to get a comprehensive view of the effectiveness of these programmes, where the

respective points of Likert scale were used as corresponding weights for calculation. Viewers' perception were studied on parameters related to modes of programming namely dramatization, interview with progressive farmers, discussion form, lecture-debate and experts' involvement, question-answer form then parameters related to segments of programming like success stories, new technologies and modern equipment, agri-advisory, weather forecasting, agricultural spots, voice-over telecast, phone-in programme and advertisement. Parameters related to programme content like practical usefulness, novelty of information, coverage of information, income generation opportunity, relevance of illustration, entertainment, motivational aspects, seasonal appropriateness, diffusibility of programme contents, need based programming and experts' opinion were also considered as parameters for measuring the effectiveness. With respect to presentation of these programmes parameters like animation, graphics, anchoring, picture quality, sound quality, scheduled timing of the show, comprehensibility, attractiveness of programming, adequacy of time, pace of presentation, and language used were also studied along with media credibility, regularity of viewing and knowledge gain.

Mann-Whitney U-test was applied to test the H₀: there is no significant difference in effectiveness scores of different parameters of fisheries based programmes telecast by public and private television channel, i.e. Krishi Darshan and Annadata respectively. Based on the P value of corresponding parameters, decision has been taken on those parameters which are having P values less than 0.05 lead to the decision toward rejection of H₀, suggesting a statistically significant difference with respect to effectiveness scores of Krishi Darshan and Annadata. Moreover, weighted average score of different parameters reflect the level of effectiveness as rated by the selected viewers.

RESULTS AND DISCUSSION

For measuring effectiveness, viewers scored the programmes as per their perception regarding effectiveness of different parameters as discussed in the methodology. The average likert scale score is presented in the Table 1 along with results of Mann-Whitney U-test.

As observed from Table 1, parameters like Language used, Comprehensibility and Voice Over telecast (field based) the scores were greater than 4 for both Krishi Darshan and Annadata. Except for the parameter Voice Over telecast (Field based), no statistically significant difference existed between Krishi Darshan and Annadata with regard to these parameters. Therefore, it is apparent that for these parameters there is no significant difference in scoring

Table 1
Results of Mann-Whitney U-test along with weighted average scores

Parameters	Average Likert Scale Score		Z-value	Asymptotic Significance (P) Value (2-tailed)	Decision
	 বাংলা BANGLA Krishi Darshan	 ঐব বাংলা Annadata			
1 Modes of Programming					
Dramatization	2.84	3.43	4.542	0	H₀ Rejected
Interview with Progressive farmers	3.58	3.30	2.963	0.003	H₀ Rejected
Discussion form	3.56	3.36	2.108	0.035	H₀ Rejected
Lecture and Debates and Experts' Involvement	3.00	3.03	0.481	0.630	H ₀ Accepted
Question-Answer form	3.88	3.66	2.139	0.032	H₀ rejected
2 Segments of programming					
Success Stories	3.51	3.92	3.488	0	H₀ Rejected
New Technologies and Modern Equipment	3.28	3.38	0.919	0.358	H ₀ Accepted
Agri-advisory	3.39	3.43	0.572	0.567	H ₀ Accepted
Weather Forecasting	3.26	3.15	0.303	0.762	H ₀ Accepted
Agricultural Spots	3.42	3.43	0.351	0.725	H ₀ Accepted
Voice Over telecast (Field based recorded)	4.08	4.40	3.234	0.001	H₀ Rejected
Phone-In Programme (Studio based)	4.06	2.08	11.850	0	H₀ Rejected
Advertisement	2.93	2.96	0.553	0.580	H ₀ Accepted
3 Programme content					
Practical usefulness	3.54	3.61	0.442	0.659	H ₀ Accepted
Novelty of information	3.33	3.68	3.658	0	H₀ Rejected
Coverage of information	3.40	3.78	3.359	0.001	H₀ Rejected
Income generation opportunity	2.62	2.83	2.506	0.012	H₀ Rejected
Relevance of illustration	3.16	3.48	3.422	0.001	H₀ Rejected

20 Effectiveness of Fisheries Based Programmes Telecast by Public and Private Television Channels in West Bengal

Entertainment	3.25	3.48	2.207	0.027	H₀ Rejected
Motivational	3.13	3.53	3.898	0	H₀ Rejected
Seasonal appropriateness	3.33	3.28	0.251	0.802	H₀ Accepted
4 Presentation					H₀
Animation	3.18	3.87	6.031	0	Rejected
Graphics	2.80	3.59	8.054	0	H₀ Rejected
Anchoring	4.13	3.86	2.488	0.013	H₀ Rejected
Picture quality	3.92	4.15	2.463	0.014	H₀ Rejected
Sound quality	3.60	3.77	1.922	0.055	H₀ Accepted
Scheduled Timing of the show	1.84	1.48	3.615	0	H₀ Rejected
Comprehensibility	4.21	4.31	1.029	0.304	H₀ Accepted
Attractiveness of programming	3.38	3.88	4.544	0	H₀ Rejected
Adequacy of time	1.55	1.93	3.882	0	H₀ Rejected
Pace of presentation	3.28	3.10	3.200	0.001	H₀ Rejected
Language used	4.38	4.40	0.120	0.904	H₀ Accepted
5 Others					H₀
Media credibility	4.17	4.62	5.803	0	Rejected
Regularity of viewing	2.18	2.29	2.064	0.039	H₀ Rejected
Knowledge gain	3.13	3.24	1.440	0.150	H₀ Accepted

of both Krishi Darshan and Annadata, and with respect to scores of these parameters effectiveness of both the programmes was high.

Phone-In-programmes (studio based) of Krishi Darshan was perceived as more effective with an average score of 4.06. In contrast, Annadata scored on an average 2.08, which implies that viewers found Annadata's Phone-in programmes less effective. Statistically too there was significant difference between these two programmes with regards to Phone-In programme. As Live-phone-in programme is a very popular segment on Krishi Darshan, where experts from different organizations/institutions are involved and the queries are answered in a live mode, the

effectiveness scores were very high. In case of Annadata, Phone-in programmes are not telecast in live mode.

However, with reference to the parameter Picture quality the average score for Annadata was 4.5 which was marginally more than the score of Krishi Darshan (3.92). A further enquiry into this revealed that the programmes of Annadata are transmitted in digitized mode resulting in better picture quality. It was also reported that programmes of Krishi Darshan are generally telecast in terrestrial mode. Statistical analysis revealed that there was significant difference in Picture quality of Krishi Darshan and Annadata and therefore, H₀ was rejected. Whereas in Anchoring,

Krishi Darshan scored 4.13 which was more than the score of Annadata (3.86) and in terms of Media credibility also Krishi Darshan has got the higher score (4.17) than the Annadata (3.62) which revealed that viewers were highly relying on the public broadcaster in W. B. i.e. DDK-Kolkata. Statistically significant difference was observed in these respects.

With regards to Dramatization and Graphics of Krishi Darshan and Advertisements, Income generation opportunity, Need based programming, Regularity of viewing, Diffusibility of programme content, Scheduled timing of show, and Adequacy of time of both Krishi Darshan and Annadata had got average score < 3 , indicating that they were not found to be effective as perceived by the viewers. The parameters Scheduled timing of show and Adequacy of time were only parameters, which scored < 2 . This was because of the timing of telecasting of the shows, which did not suit the viewers and they opined that the shows should be telecast in between 8-10 pm. At present, the timing of the shows are 5.30 pm for Krishi Darshan and 6.30 am for Annadata and repeat telecast on the next day at 6.05 am for Krishi Darshan, which is not convenient for them. Moreover, Annadata does not have any repeat telecast system. Except the parameter Advertisements, significant difference was found between Krishi Darshan and Annadata with regard to above mentioned parameters.

As evident from the Table 1, all the other parameters had a score of ≥ 3 suggesting that they were found to be medium effective at this level. Along with this as per the result of U statistic, some of the parameters were found to be statistically significant whereas some were not as far as fisheries based television programmes of Krishi Darshan and Annadata were concerned. In a study of effectiveness of farm programmes as perceived by the televiewers, Deshmukh and Wattamwar (2010) used a three point rating scale for assessing the responses and found that the programme was perceived as useful, effective and motivating. The outcome of the study revealed medium effectiveness of the farm programme as perceived by the televiewers. A similar study by Patil and Suryawanshi (2011) revealed 'fair' effectiveness of farm programmes.

Similar test i.e. Mann-Whitney U-test has been applied individually on the scores of parameters of two television programmes, which have been rated by viewers of two different districts under the present study. This was done to test consistency in

effectiveness scores as regards to significant difference in different parameters of Krishi Darshan and Annadata. Significant difference in case of two television programmes was found for parameters like New technologies and Modern equipments, Weather forecasting, Picture and Sound quality, Scheduled timing of the show, Practical usefulness, Novelty of information, Coverage of information, Income generation opportunity, Attractiveness of programming, Media credibility, Adequacy of time, Entertainment, Diffusibility of programme content, Seasonal appropriateness, Language used, Knowledge gain and Expert's opinion. This implies that for these parameters there was a consistency in scoring of two television programmes as perceived by the viewers since statistically significant difference existed between them.

As the overall average effectiveness score for Krishi Darshan was 3.28 and for Annadata it was 3.36, Annadata is perceived to be comparatively effective than the former. However, overall average effectiveness score of 3.32, gives the impression that both the programmes were perceived to be moderately effective. The parameters which have been perceived to be more effective for Annadata can be used to improve Krishi Darshan and vice-versa for the benefit of the viewers.

CONCLUSION

It is evident from the present study that these programmes are highly popular among the viewers i.e. fishers. Though there are several initiatives and measures being taken to popularize these programmes, these are perceived as moderately effective for both Krishi Darshan and Annadata. Thus, there is enough scope to improve the effectiveness of these programmes. The fisheries based programmes have dedicated viewers who regularly watch programmes at least once a fortnight. As aquaculture is developing at a faster rate in W. B. where people in general are fish loving, fisheries based television programmes can play a major role in motivating, creating awareness and providing the latest know-how of the culture techniques in fisheries free of cost to the fishers in the state. The present study has indicated conclusively that there is much scope of improvement of such programmes both in the public sector and the private sector television channels as well.

Paper received on : June 13, 2015

Accepted on : July 04, 2015

REFERENCES

1. Adeniyi, H. and R. Bello, 2006. Nigerian Media, Indigenous Languages and Sustainable Development. In: Shifting the Center of Africanism in Language Politics and Economic Globalization, Arasanyin, O.F. and M.A. Pemberton, (Eds.). LINGREF, Somerville, MA, USA, pp: 155-160. **DOI:** <http://www.lingref.com/cpp/acal/36/paper1419.pdf>
2. Ayyappan, S., Jena, J. K., Gopalakrishnan, A., Pandey, A. K. 2011. Handbook of Fisheries and Aquaculture. Directorate of Information and Publications on Agriculture, *Indian Council of Agricultural Research, New Delhi, India : 1-31.*
3. Bertram, D., 2013. Likert scale. Available [online] at <http://poincare.matf.bg.ac.rs/~kristina/topic-dane-likert.pdf>. [accessed on 29 March 2013].
4. Buren, E. D., 2000. Cultural Aspects of Communication for Development. Translator: Falsafi, S. Tehran. *IRIB Press. Iran : 110-114.*
5. Census of India, 2011. Government of India, Ministry of Home Affairs. <http://censusindia.gov.in/2011-common/censusdataonline.html>. [accessed on 29th November 2012].
6. Deshmukh, P. R. and Wattamwar, V. T., 2010. Effectiveness of Farm Programme Amachi Mati Amachi Mansa as Perceived by Televiewing Farmers. *J. of Agril. Extn. Manage.* 11(1): 107-114.
7. FAO, 2012. The State of World Fisheries and Aquaculture, 2012. Rome : 209.
8. Ghosh, A., 2013. Effectiveness of Fisheries Based Television Programmes in West Bengal. *M.F.Sc. Dissertation*, (Unpub.) *Central Institute of Fisheries Education* (Deemed University), Panch Marg, Off Yari Road, Mumbai- 400 061 : 3-5.
9. Ghosh, A. and Sharma, A., 2014a. Assessment of Television Ratings of Fisheries-Based Programmes Telecast On Krishidarshan in West Bengal, *Fishery Technology.* 51(1): 54-57.
10. Ghosh, A. and Sharma, A., 2014b. Television Programmes on Fisheries and Aquaculture: A Descriptive Study, *Indian J. of Marketing.* 43 (2): 37-42.
11. Ghosh, A. and Sharma, A., 2014c. Content Analysis of Fisheries via-a-vis Agriculture and Animal Husbandry Based (Krishidarshan) Live-Phone-In Television Programmes in West Bengal, *Indian J. of Fisheries.* 61(2) : 146-150.
12. Ghosh, A., Sharma, A. and Ambulkar, R., 2013a. Seed Mahotsav Scheme for Increasing the Scope of Indigenous Fish Marketing in West Bengal: Perception and Constraint Analysis, *Indian J. of Marketing.* 43 (9) : 25-31.
13. Ghosh, A., Sharma, A., Das, S. K., 2013b. 4 P's Model for Effectiveness of Fisheries Based Television Programmes, *International J. of Research in Applied, Natural and Social Sciences.* 1(6): 27-34.
14. Patil and Suryawanshi., 2011. Perception of Television Viewers towards Effectiveness of Farm Programmes. *Asian Science.* 6 (1&2):1-5.
15. Sharma, S. K. and Kishore, D., 1970. Effectiveness of Radio As A Mass Communication Medium in Dissemination of Agricultural Information. *Indian J. of Exten. Edu.* 6: 12-14.