

## Communication Behaviour of Shrimp Farmers

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**An effective two-way communication is the soul of extension education which *inter alia* strives to evoke desirable changes in the attitude and behaviour of both communicators and receivers. Possession of rich knowledge base is fundamental in making appropriate in-time decisions in shrimp farming, an input and risk loaded enterprise. An attempt has been made in this investigation conducted among the 34 proportionate randomly chosen shrimp farmers to examine their communication channels and information processing behaviour. Personal localite (Peers), personal cosmopolite (formal sources) and impersonal cosmopolite (mass media) were their order of preferred communication sources. Information received were processed with peers, stored in classified notebooks and shared with fellow farmers. Evolving and strengthening of extension networking systems, revamping the state fisheries extension systems with adequate extension skilled staff supported with required logistics, promotion and facilitation of farmers' fora at field level and optimal utilization mass media for aquaculture extension would help the end user well informed and take appropriate decisions.**

**(Key words:** Communication behaviour & channels, Shrimp farming, Communication approach)

Communication is the process of exchanging any information between the communicator and the audience. An effective two-way communication is the soul of extension education. Possession of rich knowledge base is fundamental in making appropriate in-time decisions in shrimp farming an input and risk loaded enterprise. Learning of new know-hows and do-hows ensure desired changes in the shrimp farmers knowledge, technology, skills and attitude. The modern communication medium has diversified streams, including research institutions, government extension agencies, other government organizations, input dealers, mass media, etc. (Malik *et al.*, 2000). The role of communication in affecting socioeconomic change cannot be over-emphasized- greater the number of information sought- higher the contact with the communication sources and wider is the adoption. Three kinds of resources are essential for rapid aquacultural progress, viz. capable scientists at work on the problem of the people, farmers who have confidence that science can help them, and a bridge of communication to link the duo. Singh and Sahay (1970) rightly pointed that, the investigator advances knowledge, the interpreter advances progress. It is frequently asserted that farmers' rich experience and accurate scientific knowledge enhance their capacity to manage shrimp farms efficiently. Knowledge on the farmers' communication sources and their information processing behaviour would help the extension system in devising proper communication strategies. With this background, this study was

conducted with the objectives, viz. i) to examine the existing communication channels accessible to the farmers, and (ii) to study the information processing behaviour of the respondents.

### MATERIALS AND METHODS

The present study was carried out in Ramanathapuram district of Tamil Nadu, which ranks second in area under shrimp culture in the State. A sample of 34 farmers was selected from five villages by means of proportionate random sampling method. The data have been collected through a well-structured interview schedule. Awareness and use of communication channels and information processing behaviour of the farmers were studied through the methodology devised by Deboral (1989) with slight modifications. Percentage analysis was used in categorization and interpretation of the data collected.

### RESULTS AND DISCUSSION

#### Profile of the respondents

The personal profile of the respondents is presented in Table 1. It is seen from the data that most of the farmers belonged to middle age group and two-thirds were educated at collegiate level. The entrepreneurial urge of young age and high profit nature of this enterprise could have fascinated the educated people. Most of the farmers had other occupations in addition to shrimp farming and a farming experience of 10 years and above. The size

**Table 1. Profile of the respondents**

Variables	Response (%) N= 34
<b>Age</b>	
Young	3(8.82)
Middle	29(85.29)
Old	2(5.88)
<b>Educational level</b>	
Primary	-
Middle	-
High School	3(8.82)
Hr Sec	12(35.29)
Collegiate	19(55.88)
<b>Occupational status</b>	
Aquaculture + Agri	7(20.58)
Aquaculture +business	9(26.47)
Aquaculture alone	18(52.94)
<b>Farm size</b>	
Up to 2.00 ha	26(76.47)
2.01-4.00 ha	8 (23.52)
<b>Farming experience</b>	
Up to 5 years	5(14.70)
6-10 years	16(47.05)
> 10 years	13(38.23)
<b>Social participation</b>	
Low	4(11.76)
Medium	25(73.52)
High	5(14.70)
<b>Economic motivation</b>	
Low	-
Medium	2(5.88)
High	32(94.11)
<b>Risk Orientation</b>	
Low	-
Medium	3(8.82)
High	31(91.17)

of the farm holdings ranged from 1.0 ha - 4 ha. They had medium level of social participation. They had high level of economic motivation and risk orientation. The respondents adopted improved extensive shrimp farming system with a stocking density of 4-6 post-larvae (PL) per square metre.

#### Communication channels used

Farmers communicate with multiple sources of information to assess and enrich their knowledge base. Communication sources through which the farmers get information about production practices of shrimp culture have been classified into three categories as personal cosmopolite, personal localite and impersonal cosmopolite channels (Tables 2 & 3).

Data indicate that personal-localite channels, viz. feed dealers (100%) and fellow farmers (85%) were the primary communication channels used for receiving information regarding production practices of shrimp culture. They were the source of information for all the technical matters viz. purchase of quality hatchery seeds, stocking of PCR tested seeds, fertilizer application, feeds and feeding, soil and water quality management, discharge of water, and disease management aspects. The feed dealers visited ponds regularly and at times of farmer's request offered required technical assistance. However, the farmers felt that the information provided them are mainly to market their products not for helping the farmers. Their supply of inputs on credit, easy and timely accessibility outweighed their intentions and competence. Absence of an effective fisheries extension network with Department of Fisheries gave them the monopoly. Many farmers had employed full time technicians and unskilled permanent labourers to manage routine farm operations as reported by Kumaran *et al.* (2003). The shrimp farmers association established in Ramanathapuram district is active only during adverse times like disease outbreak, water scarcity, etc. However, fellow farmers were kept informed about date of stocking, drainage discharge into canals and creeks. This was because of their previous negative experiences.

**Table 2. Communication channels of shrimp farmers**

Communication channels	Response (%) N= 34
<b>Personal-cosmopolite channels</b>	
Fisheries college and Research Institute, Thoothukudi	8 (23.52)
Scientists of CMFRI, Mandapam	10 (29.41)
Officials of Department of Fisheries	5 (14.70)
<b>Personal-localite channels</b>	
Progressive farmers	11 (32.35)
Friends /relatives/Neighbours	29 (85.29)
Feed consultants	34 (100.00)
<b>Impersonal-cosmopolite channels</b>	
Radio	2 ( 5.88)
Television	2 ( 5.88)
Newspapers	21 ( 61.76)
Aquacultural magazines	4 ( 11.76)
Aquacultural exhibitions	2 ( 5.88)

Multiple responses (Numbers in parentheses indicate percentage)

**Table 3.** Approach of communication channels for shrimp farming practices

SL. No	Shrimp farming practices	Personal –cosmopolite N=34 (%)	Personal –localite N=34 (%)	Impersonal-cosmopolite N=34 (%)
1	Purchase of hatchery seeds	2 5.88	32 94.11	-
2	Stocking of PCR tested seeds	2 5.88	32 94.11	1 2.94
3	Fertilizer application	1 2.94	16 47.05	-
4	Feeds and feeding	3 8.82	34 100.00	-
5	Water management practices	2 5.88	29 85.29	-
6	Soil management practices	1 2.94	4 11.76	-
7	Discharge of water	-	34 100.00	-
8	Disease diagnosis and management	7 20.58	32 94.11	1 2.94
9	Marketing	-	27 79.41	-
10	Hiring labourers	-	17 50.00	-
11	License and subsidies	32 94.11	-	-
12	Application of probiotics	4 11.76	31 91.17	1 2.94

Multiple responses (Numbers in parentheses indicate percentage to total)

Impersonal cosmopolite channels like mass media (Radio, TV and print), CMFRI, Mandapam and Fisheries College, Thoothukudi through farm publications were the second important communication sources (Table 2). However, the farmers were of the view that their frequency of contact was rare.

The personal–cosmopolite channels ranked the third important communication source (Table 2). It was reported that although shrimp farmers were aware of the State extension agencies, the latter seldom visited the farmers. However, almost all shrimp farmers relied on the State Fisheries Department for obtaining license and subsidies. Inadequate extension staff, orientation and heavy populist works thrust on them carried away their time.

#### Information processing behaviour of respondents

The information processing behaviour of respondents was studied under three headings, viz. information evaluation, information storage and information transfer. From Table 4 it is seen that majority (44%) of respondents assessed the information from fellow farmers (21%) and hardly three 3 percent accepted without any evaluation. Most of the respondents (85%) stored the information by maintaining classified note books and memorizing (35%). The received information was shared with fellow farmers in farmers meetings (26%).

**Table 4.** Information processing methods

Information processing methods	Response (%) N= 34
<b>Information Evaluation</b>	
a. Discussion with officials in the State Department in Aquaculture	5(14.70)
b. Judging in the light of climatic condition	-
c. Judging in the light of socio-economic condition	2( 5.88)
d. Discussion with other farmers	15(44.11)
e. Acceptance without reservation	1( 2.94)
f. Weighing in the light of past experience	7 (20.58)
<b>Information storage</b>	
a. By maintaining classified note books	29 ( 85.29)
b. By memorizing	12 (35.29)
c. By conveying to family members and asking them to remember	-
<b>Information transfer</b>	
a. Giving radio/TV talk	-
b. Writing in newspapers	-
c. Speaking in local meetings	4 (11.76)
d. Conveying to other members at farm or at home	9 ( 26.47)
e. By demonstration	-
f. Lending aquacultural magazines to others	2 ( 5.88)

Multiple responses (Numbers in parentheses indicate percentage to total)

**Implications of the study**

- The study showed that it was the high time that formal fisheries extension networking system has to be systematically evolved and strengthened with adequate qualified personnel recruitment, capacity building in extension basics, approaches and methodologies with sufficient budgetary and other logistics support. This would clip the monopoly of the input dealers.
- The effectiveness of mass media-facilitated extension has been proved in agricultural sciences. However, its utilization in fisheries was inadequate. Hence, it should be optimally exploited for fisheries extension.
- Promotion and facilitation of farmers fora at field level ensured effective information exchange among the fellow farmers and check communication and time lag.

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