

## **EFFECTIVENESS OF TRAINING PROGRAMMES ON FRESHWATER AQUACULTURE CONDUCTED BY CIFA**

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The study evaluates the effectiveness of the training programmes conducted by Central Institute of Freshwater Aquaculture, Bhubaneswar. A structured questionnaire was developed and data were collected through mailed survey during 2007-2009. Though most of the participants (76%) were sponsored by their department, 24% used their own resources to attend the programme at CIFA. The participants referred the reading material provided to them frequently and found the practical sessions useful (97%). Level of satisfaction of the participants was measured with a five point scale for eight parameters. The mean score recorded for seven out of eight parameters was above 4.40. This indicates the high level of satisfaction expressed by the participants. Over 97% of the respondents indicated that they would recommend their colleagues to get trained by CIFA. Overall the study reveals that, the training programmes were effective. The constraints faced by the respondents for not being able to put their new skills and knowledge into practice were also identified.

### **INTRODUCTION**

The purpose of training is to educate a person so as to be fit, qualified and proficient in doing some job. It is a sustained, coordinated and focused effort to enhance individual competence for enduring success. Training for development according to Lynton and Pareek (1990) focuses on training not primarily as a source of new information, but rather as a means for changing behaviour for lasting improvement on the job. Extension personnel are the change agents who receive the technology from university/ research institute and transmit the same among the users. Hence, extension officers need to keep abreast of the latest developments in technology front. Central Institute of Freshwater Aquaculture (CIFA) is organizing several training programs every year since 1976. These programs are meant for master trainers who in turn are expected to transfer the technology in their respective work place. Prasad (1994) has advocated that for transfer of technology and improving human skills regarding developmental process, training is an important mechanism. To ensure agricultural development, present institutes need to be strengthened with well-planned system of training. Development of

human capital through long term efficient and effective training and extension support was emphasized by Murshed-E-Jahan *et al.* (2008). The Institute has organized 406 courses with 7359 participants till the end of 2006. Though participants' feedback was obtained after each training, no systematic follow up was done to assess the impact. Hence, in this study, an attempt was made for impact assessment of the training programs conducted by CIFA during 2003-07.

## **MATERIALS AND METHODS**

The study was undertaken among the trainees who attended training programme at CIFA during 2003-07. The objectives were to study the extent of effectiveness of training programmes on freshwater aquaculture; to assess the level of satisfaction of the trainees and to identify the reasons for not utilizing newly acquired knowledge and skills in their present work situation. A structured questionnaire was developed to collect feedback about the training programmes and was mailed to 500 ex-trainees during 2007-2009. A total of 195 completed schedules were received. The level of satisfaction of the participants was measured with the help of a five-point scale for eight parameters. The parameters were - training objectives clearly stated; technical content was understandable; topics covered were important; practicals conducted were effective; teaching methods were appropriate; length of the course was appropriate; resource persons were competent and field visits were useful. Responses were recorded in a five-point continuum (Strongly Agree - 5; Agree - 4; Undecided - 3; Disagree - 2; Strongly Disagree - 1). Standard statistical measures e.g. frequency, mean, standard deviation, etc. were used to interpret the data.

## **RESULTS AND DISCUSSION**

A total of 195 candidates who had undergone CIFA training during 2003-2007 and responded to mailed questionnaire were considered under the study. Distribution of the respondents according to different training courses is presented in Table 1. Out of them, 156 (80%) were men and only 20% were women (Table 2). Around 76% of the participants were sponsored by their parent department and only 24% used their own resources for attending training programmes at CIFA (Table 3). People, who used their own resources comprised of entrepreneurs, researchers and students.

From Table 4, it was observed that reading material given to the participants as a part of the training material was quite useful. Twenty four percent of the respondents referred to the reading material once a day. As many as 37% of the respondents referred it once a week and 26% referred it once a month only.

Table 1. Distribution of the respondents according to different training courses

Sl.No.	Title of the Training Programmes	No. of respondents	Percentage
1	Aquaculture Nutrition	26	13.33
2	Extension	24	12.31
3	Molecular Biotechnology	19	9.74
4	Pearl Culture	16	8.20
5	Freshwater Aquaculture	27	13.85
6	Fish Disease Diagnosis	15	7.69
7	Fish Immunology	17	8.72
8	Molecular Genetics	13	6.67
9	Seed Production	13	6.67
10	Portable Carp Hatchery	10	5.13
11	Others*	13	6.67
12	Not mentioned	2	1.02
Total		195	100.00

Note: \*The sample of respondents of other programmes include Aquaculture Engineering- 1, Asian catfish - 2, Bio-informatics - 1, Carp seed rearing - 1, Cryopreservation - 1, Peninsular carps -2, Impact of genetic upgradation - 2, Ornamental fish farming - 3.

Table 2. Sex wise distribution of participants

Sex	No. of participants	Percentage
Male	156	80.0
Female	39	20.0
Total	195	100.0

Table 3. Frequency distribution of the participants according to type of financer

Financer	No. of participants	Percentage
Sponsored by the parent Deptt.	148	75.9
Own source	46	23.6
Missing data	1	0.5
Total	195	100.0

CIFA's training methodology comprises an appropriate mix of lecture, demonstration, practical sessions and field visits. Practical sessions were given adequate emphasis on skill oriented programmes. The data revealed that 97% of the respondents found practical sessions useful (Table 5). Noor and Dola (2010) also reported that 93.3% of those respondents were in agreement that Government initiated training programme had been useful to the respondents and had brought about improvement in their skill, knowledge and abilities.

Table 4. Frequency of use of reading material

	Frequency	Percent
Once a day	47	24.1
At least once a weak	72	37.0
At least once a month	51	26.2
At least once a year	10	5.1
Rarely	11	5.6
Never	2	1.0
Missing data	2	1.0
Total	195	100.0

Table 5. Usefulness of the practical sessions

	Frequency	Percent
Useful	189	97.0
Cannot say	3	1.5
Not useful	3	1.5
Total	195	100.00

Participants' level of satisfaction with training was measured with the help of a five point scale for eight training parameters *viz.*, training objectives clearly stated, technical content was understandable, topics covered were important, practicals conducted were effective, teaching methods were appropriate, length of the course was appropriate, resource persons were competent and field visits were useful (Table 6). Mean score of 195 respondents against eight parameters ranged between 3.82 to 4.57 and seven out of eight parameters recorded the mean score above 4.40 which indicates high level of satisfaction of the participants with the training. In other words, they rated CIFA as a very high effective training provider. Mean score for 'length of the course was appropriate' was 3.82 which has been confirmed from the suggestions given by the participants who indicated that duration should have been extended. Ajore (2001) reported that 38.88% of the respondents wished to increase the duration of training programme.

When asked whether the respondent would recommend other colleagues to get trained by CIFA, a whopping 97% responded in the positive (Table 7). Ajore (2001) while measuring the impact of training conducted by CSSRI (Central Soil Salinity Research Institute), Karnal observed that training objectives have been achieved substantially with the support of 83% of the respondents' full satisfaction.

Table 6. Parameter wise level of satisfaction with training

Training Parameters	Response categories					Mean	Standard Deviation
	SA	A	UD	D	SD		
Training objectives clearly stated	87	55	0	1	1	4.57	0.611
Technical content was understandable	72	63	5	2	1	4.42	0.696
Topics covered were important	79	63	2	0	0	4.53	0.528
Practicals conducted were effective	74	61	6	3	0	4.43	0.676
Teaching methods were appropriate	69	67	3	3	0	4.42	0.645
Length of the course was appropriate	44	61	11	22	5	3.82	1.136
Resource persons were competent	78	60	4	1	1	4.48	0.658
Field visits were useful	70	61	6	4	0	4.40	0.706

(SA-strongly agree, A-agree, UD-undecided, D-disagree, SD-strongly disagree)  
(Maximum score=5 & minimum score=1)

Table 7. Recommend others to get trained by CIFA

	Frequency	Percent
Yes	190	97.4
No	3	1.5
Not Mentioned	2	1.0
Total	195	100.0

Though the training programmes were effective in transferring the skill and knowledge, its application in field situation is rather poor. Participants were asked why they failed to practice what they picked up from CIFA. As many as 49% respondents indicated that lack of infrastructure, time and fund prevented them from putting the newly acquired skill and knowledge into practice (Table 8). The other constraints were lack of administrative support and lack of motivation.

Table 8. Constraints encountered by participants

List of constraints	No. of participants	Percentage
Lack of infrastructure, time and fund	95	48.7
Lack of administrative support	23	11.8
Lack of motivation	12	6.2
Any other	19	9.7
Missing (Not responded)	46	23.6
Total	195	100.0

It may be concluded that, the training programmes conducted by CIFA have been effective. Results indicated that participants were highly satisfied with the training programmes in terms of its content (training objectives, topics, understandable content) as well as delivery (training methods, hands on practice, competent resource persons, field visits). The participants also rated CIFA as a successful training provider. However, there are certain issues related to application of new learning in present work place of the participants. Lack of financial resources, motivation etc. prevent them from practicing new skills. It is important that the trainees should get an opportunity to practice what they learn from CIFA. New technological know-hows and package of practices of scientific aquaculture must percolate down to the farming community through the extension officers. Conducive environment must be created to facilitate application of new and improved aquaculture practices to the grass roots level.

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