ABSTRACT

Tamil Nadu, one of the major states of the Indian union, with a geographical area of 13 million hectares is ranked eleventh in size in terms of land area among the Indian States. The net area sown in Tamil Nadu is about 6 million hectares of which cultivable area of about 3 million hectares (50 percent) is endowed with irrigation facilities under various canal systems, tanks and wells. The remaining 50% of the cultivable land is only rain fed. The annual average rainfall is 943 mm of which 450 mm is received during north-east monsoon period, 300 mm in the southwest monsoon period, 50 mm in the winter and 143 mm in the hot weather period. Situated in the tropical zone the state has good sunshine for most of the year, except in the months of November and December when the cloud cover is usually heavy. With a shortage of irrigation sources and dependent on the vagaries of the monsoon, it becomes necessary to manage the available resources efficiently so that optimal benefits are derived and livelihood of million of farm workers are safeguarded.

Though several irrigation systems in Tamil Nadu were of ancient origin and even the more recent irrigation systems had well-established system of equitable and efficient distribution. However, both the ancient and more recent systems have come under severe strain due to increased population growth, changes in the cropping pattern and introduction of new varieties of high yielding and water-intensive rice cultivation. Therefore, it became necessary to tap modern management methods in order to improve the efficiency of the extant
irrigation systems as well as protect them from over-exploitation and decay. With a view to achieving this objective, the Government of Tamil Nadu established the Irrigation Management and Training Institute (IMTI) at Tiruchirappalli in the year 1984 with an annual budget, as per the estimate of the last year, of Rs. Three crore. The mission of IMTI is to train and orient the personnel who are involved in the irrigation activities in order to equip them with the necessary knowledge, attitude and skills for sustainable and equitable management of the irrigation system as well as provide them knowledge on state-of-the-art techniques and emerging technologies.

Since its inception, IMTI has conducted more than two thousand training programmes for the officials of irrigation and other related departments and farmers. However, none of these training programmes has been subjected to a systematic evaluation in order to assess its efficiency, effectiveness and attainment of objectives of IMTI envisioned by the planners and policy makers. The research presented in this thesis is the first of its kind to fill this void. As being the first such attempt, the research confines itself to evaluating the training programmes of IMTI in terms of its training strategy, course contents, philosophy and pedagogy with a view to derive theoretical and policy conclusions regarding the organization of the IMTI training programmes.

The approach chosen was to obtain and analyze the views and experiences of the three major stakeholders of IMTI viz., the trainers and the trainees who consist of officials of the irrigation and other allied departments and farmers. As the number of trainees has hit the 80,000 mark by 2005, it was
decided to collect views, experiences, and expectations from the trainees in the year 2002-2003 only in view of the cost and other logistical constraints involved in covering the entire trainees and trainers. Necessarily, three different questionnaires specific to each of the three categories of stakeholders were evolved. Those meant for the trainers and official trainees were self-administered. The researcher administered the questionnaire for the farmer trainees. Number of trainers is only 15 and therefore all of them included in the study and in addition to the self-administered questionnaire, data were collected from them by discussions individually and in groups. In the case of official trainees, there were a total of 4382 who had undergone training during the year 2002-03. It was considered appropriate to draw a 10 percent of sample, which would ensure 5 percent or less of sampling error. Accordingly, 438 official trainees were selected randomly. In the case of farmer-trainees, there were 3849 trainees during the year 2002-03. Applying the same principle as in the case of the official trainees, a ten percent random sample was selected yielding a sample size of 384. Due to non-availability of the farmer-trainees for interview and to non-response of the official trainees, data from all the selected sample respondents could not be collected. In the case of official trainees, the total number of respondents is 300 and in the case of farmer-trainees the total number of respondents is also 300. One possible problem that may have a bearing on the findings is the question of selection implied in failing to collect data from all the respondents included.
Simple statistical analysis of the data collected from the three types of stakeholders indicate that the course content and training strategy, faculty strength and quality, and training infrastructure have been found adequate by majority of both type of trainees. The training was considered useful in discharging official job functions by a large majority of official trainees and only a small group seems to be not satisfied with the training and therefore these trainees also found the training to be not useful. The number of such negative evaluation, however, is insignificant. One of the major grouse of the these official trainees is that training at IMTI does not confer any post-training advantage in terms of recognition of their training as an additional qualification. Such a situation, therefore, acts as a dampener on the motivation level of the trainees.

On the other hand, one could notice from the responses of the farmer trainees, that they have attempted to present a much more objective assessment of the training and therefore their responses are useful for effecting appropriate changes in training strategy and course content. While most of the farmer trainees indicated that the training was very useful and in specific instances objective behavioural change was indeed effected as a result of the training, they also indicated that the training should have more field oriented strategies rather than predominantly class room lectures as is being done usually. It was also found that there were differentials in rank scores given by the farmer-trainees by categories of independent variables such as age of the farmers, landholding size, number of training courses already attended and educational qualifications of the farmers. However, in the case of official-trainees, such differentials for
various background variables were not noticed suggesting homogeneity of responses.

In addition to the structured questionnaire where respondents had to choose between alternatives provided by the researcher, there were also open-ended questions in which verbatim responses were recorded. Analysis of the verbatim responses, though was more cumbersome and difficult, provided some insights into the opinions of the trainees on the usefulness of the training and how the training programme could be made more effective, though they found the situation, by and large, to be satisfactory.

Some of these suggestions relate to updating the course content more frequently than it is being done now and increasing the field work component to a much higher proportion. There was general consensus on the high quality of IMTI's infrastructural facilities such as audio-visual material, seating arrangement, ventilation and, light, transportation, boarding and library and they felt that IMTI could organise simultaneously four programmes. A major negative opinion emanating from the trainers is the lack of continuity of service in the institute, and uncertainty surrounding their tenure in the institute.

Further Research on the impact of the training programme may be undertaken by suitable quasi-experimental designs for taking into consideration training as an intervention and by selecting either matched controls or randomized control groups.