

# TRAINING IAEA FELLOWS

## SOLVING HUMAN AND TECHNICAL PROBLEMS

The Agency's technical assistance activities started in 1958 with the granting of fellowships: by the end of 1965 it had received about 4500 nominations for normal fellowships, of which it had awarded approximately 2500. These 2500 Fellows have come from some 60 Member States and have been sent for study to 31 host countries and 3 international organizations.

As part of the Agency's continuous effort to check the effectiveness of the programme, a questionnaire is sent to the Fellows who have completed their training and returned home for at least six months. An evaluation of the questionnaires returned to the Agency indicates that approximately 95 per cent of the Fellows returned to their home countries on completing their training. Of the five per cent who remained abroad, about two-thirds did so to further their education with finance from sources other than the Agency. Of those who have gone home, 55 per cent have retained essentially the same position as they held before their training, 44 per cent have obtained a higher position and one per cent are without employment. Further it appears that approximately 94 per cent of the Fellows are employed in work related to the training received, 3 per cent are working in a field which is partially related to their training and 3 per cent are working in fields not related to their training. The Agency concludes from the questionnaire that its fellowship programme is quite effective in accomplishing its intended purpose.

With such a wealth of experience one might expect most of the major problems of international training and education to have been solved. This is generally true, as regards the mechanics of administration, but a number of problems remain.

One persistent problem arises from the lack of a common definition of the two terms, education and training. As an example, developing Country A needs to have a man trained in a specific technique in order to meet some particular practical requirement. The man is proposed to the Agency for a one-year fellowship. The Agency, after considering such matters as, (i) how the man's training fits into the overall programme of Country A, (ii) his technical qualifications, (iii) the extent of previous technical assistance to Country A, (iv) the man's language abilities, (v) estimated costs and funds available, awards the man a one-year fellowship for training in Host Country B, in one of its universities.

It is at this point that difficulties may occur, because often to the university, the Fellow is just another student and is automatically placed in the same category as the majority of students who are seeking degrees. To the Fellow, the prospect of receiving a degree is naturally most enticing and frequently he will promote his own enrollment into a programme leading to a degree although his Government has not specifically proposed it. In general, although the nominating country and the IAEA are not against the acquisition of a degree, the primary purpose of the fellowship is to furnish

the man with knowledge and experience which he can apply in his home country.

As a result of this diversion, and possibly because of language difficulties, differences in educational programmes or inadequate advance academic preparation, the man cannot meet the requirements of the degree programme. And because by this stage he is regarded in the same way as any other student, he is dropped from the university roll by the end of his first half year, his training is not accomplished, and the Fellow appears as a failure to his country and himself. Had it been understood in advance that the degree, in itself, was not the most important objective, and if more universities were willing to take such Fellows as trainees in contrast to degree-seeking students, the Fellow could formally take the course, but not for degree credit. This might appear a simple matter to resolve but it is not so straightforward when it is necessary to communicate through a number of languages and educational systems in 30 Host Countries, each of which may have many academic institutions.

Language constitutes another handicap for the student. Before being awarded a fellowship he must pass a language proficiency test conducted by a qualified professor. However, these tests are often conducted by the Fellow's former teacher, who may be somewhat biased about the ability of his students. On numerous occasions, Fellows who were certified as "good" in a particular language were unable to communicate at all when they began their training. In such a case the fellowship must be either terminated, or interrupted for language instruction.

## ADAPTATION TROUBLES

There is probably no way of eliminating the shock experienced by individuals who travel or study in countries which are culturally far different from their home countries. However, if the shock can be somewhat softened, the first few months or half-year of the fellowship becomes far more effective, since the Fellow is better able to concentrate on his studies. An orientation programme can be quite effective, not only in helping the Fellow to learn about customs, languages, beliefs and taboos of the people among whom he finds himself but also about how to find inexpensive but wholesome food, clothing, lodging, etc., how much to tip and how to travel frugally. These matters may seem trivial, but to a Fellow receiving a very limited stipend in a country where he finds himself the prey of the taxi-driver, the merchant or the real estate agent, they can make the difference between having a mind which is free to study and one worried about money or physical discomfort. Such an orientation course can also advise on clothing needs, which are particularly important for a Fellow travelling from a warm climate to a place with severe winters. This problem is not limited to physical discomfort, because to be a centre of attraction or curiosity as a result of one's type of dress can be embarrassing and distracting. It is extremely difficult for a Fellow to buy extensive additions to his wardrobe from his monthly stipend, which must be used for food and lodging, especially when he first arrives and has no opportunity to save nor to establish his monthly expenditure.

Most married Fellows would prefer to take their families with them during their fellowship programme, but their financial situation does not allow this, and it is discouraged by the Agency, which has no funds for family allowances. Leaving the family behind - although perhaps allowing more time for study - may have adverse effects on the Fellow either through nostalgia or concern over his family's welfare in his absence. This becomes a severe problem with fellowships of more than one year: a large number of fellowships are terminated because of illness in the family or because the family cannot be properly provided for at home. The Agency can do little about this beyond stressing to the Fellow and to the nominating country the importance of making adequate provisions. There has been some difficulty in obtaining suitable candidatures from some countries, because beneficiary Governments make no arrangements for maintenance of dependents.

Despite the obstacles, in the majority of cases the technical training programme is effectively carried out and the Fellow returns home crammed with new ideas, vigour and enthusiasm. Unfortunately, this sometimes becomes somewhat tarnished at the frontier of his home country, where he may be required to pay customs duty on the books and teaching aids which he has thoughtfully and hopefully brought with him. Although in general the Fellow receives an allowance to buy books for use during his training, he should perhaps also be helped to pay duty on these technically important items.

Such problems can at least be solved by additional funds, but some others faced by the returning Fellows are not so easily remedied. For example, some of them find that at home there is no need for their experience and training - perhaps because of poor planning by the authority which nominated them, perhaps because of changes of plan caused by political or economic developments, or because there are other similarly-trained persons filling a few established jobs of that particular type. Unfortunately, too, supervisors of some of the returned Fellows are envious of their newly-acquired knowledge and tend to keep it obscured lest their own positions should be jeopardised. The best that the Agency can do in such cases is to attempt to encourage the Government to make better use of former Fellow's talents, by taking opportunities offered by the visits of experts to the country, or by discussions about future training of prospective Fellows.

This article stresses the problems of international nuclear education and training - the problem cases which attract much of the Agency's current efforts. Nevertheless, as stated previously, the Agency considers its programme to be quite effective and is proud of the contribution it has made, utilizing the funds provided by Member States, to the rapid increase in knowledge and the application of nuclear energy throughout large portions of the world.