

I am convinced that aquatic researchers in developing countries should utilize the information systems laid down by their more numerous and financially better endowed colleagues in agricultural science and technology. In the earlier Information Newsletter (April 1982), I pointed out the usefulness of agricultural information systems as vehicles on which regional fisheries information systems can ride rather than build separate systems. Indeed, in the U.S.A., the status of aquaculture as an integral part of agriculture has been formally recognized (see p. 12), and in the last Newsletter (January 1984, p. 17), we noted how the lessons of the green revolution apply to aquaculture. However, all aspects of aquatic science can benefit from the lessons of agricultural and technological research and the information systems that service them.

#### Agricultural Information Needs

What can the aquatic sciences learn from information training deficiencies in agricultural institutions? The most recent study in this area was undertaken by a research fellow at the International Rice Research Institute (IRRI), Los Baños, Philippines.<sup>1</sup> The nature of problems in 154 agricultural organizations in this study of "Training needs of information services in agricultural research and educational organizations in Asia: a 9-country survey," is shown in the



Patsy Cariño, instructor (left), University of the Philippines Institute of Library Science, discussing the results of a computerized literature search with students of the 6th Unesco Post-Graduate Training Course for Science Information Specialists in Southeast Asia, 1984. Patsy was one of the teachers in charge of the course.

### Information Training

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table. The relative importance of the staffing problems points to the great need for training courses in this field. Who will deny the overall lack of trained staff and financial support?

It was concluded that there are no simple solutions to these problems, but they must be faced. In the long term, it was suggested that Asian educational institutes consider degree courses in agricultural journalism, similar to those offered in U.S. land grant universities where full agricultural as well as journal-

Problems of information services in 154 agricultural teaching, research and extension organizations in nine Asian countries.

Problem	% with problem
Lack of adequately trained staff	90
Lack of financial support	81
Lack of equipment	79
Lack of professional staff	79
Lack of in-service training program	68
Low government priority	44
Bureaucracy and red tape	41
Lack of coordination between information service sections	33
Lack of support from administrators	32
Lack of demand from teachers, scientists, extension workers	21
Lack of response from farming community	11

#### FOR MORE INFORMATION

<sup>1</sup>S. Gowdar, H.A. Ables and T.R. Hargrove, IRRI Research Paper Series No. 98, November 1983. 10 p.

<sup>2</sup>"Handbook for Information Systems and Services", P. Atherton. 1977. Unesco, 7 Place de Fontenoy, 75700 Paris, France.

<sup>3</sup>AIT, P.O. Box 2754, Bangkok 10501, Thailand.

<sup>4</sup>VITA, 1815 North Lynn St., Suite 200, Arlington, Virginia 22209, U.S.A.

ism courses are provided. In the case of aquatic sciences, courses in fisheries and aquaculture would be required.

The survey also looked at short-term training needs. The top ten priorities, in order, were: 1) Technical writing, 2) Publication editing, 3) Audiovisual production, 4) Information retrieval, 5) Photography, 6) Graphic arts, 7) Librarianship, 8) Printing, 9) Typesetting and 10) Mailing service.

The first fisheries-oriented training course for developing countries, which will cover some of the needs cited above, will take place at the University of Rhode Island this year (see p. 21).

#### General Services

For the broader principles of information systems, a standard text is Unesco's "Handbook for Information Systems and Services"<sup>2</sup>, available in English, French and Spanish. This book provides guidelines for both formal and *ad hoc* information training at all levels.

Unesco seems to be the major source of funding and activity in this field, primarily through its UNISIST program. UNISIST has held international and regional training courses in information retrieval.

The International Development Research Centre (IDRC) of Canada also has interests in information training. Its most recent activity is a regional training program on Specialized Information Centers for Information Analysis and Consolidation. It is being organized by the Library and Documentation Center of the Asian Institute of Technology (AIT)<sup>3</sup> and is to be held in July 1984.

The AIT Library and Documentation Center will organize similar training programs in the future, open to interested librarians and information specialists, including those in aquatic sciences.

Another agency providing information training in developing countries is VITA<sup>4</sup> (Volunteers in Technical Assistance), which specializes in small-scale development technologies. VITA has an Information Resource Development Training Program in English, French or Spanish, consisting of a structured series of lectures, discussions, seminars, practical exercises and field trips. During 1984, there are 3-week courses scheduled for June and September at a cost of \$1,100. ●