

become members of the MINISIS User's Group that pools information on new applications and common problems and advises IDRC on future developments. Within Asia, groups in Malaysia, Korea, China, and Singapore are presently licenced to use the MINISIS system.

Problem—Solving Workshops

Difficulties encountered with finance and administration can often hinder the successful implementation of a research project. In an effort to examine how these problems can be overcome, the IDRC, in co-operation with the Philippine Social Science Council (PSSC), sponsored a meeting in Manila on February 11–12.

Fifteen IDRC-assisted national institutions were represented in the workshop. In total, 30 project co-ordinators and finance officers attended. Some of the major problem areas that were identified were related to personnel, transfer of funds, lack of co-ordination between researchers and finance staff, improper budgeting, procurement of equipment and supplies, travel, and government red tape.

The workshop was extremely valuable because it gave a national focus to problems and allowed solutions geared to localized situations to be developed. The dialogue between participants was stimulating because actual practices being followed by some institutions offered immediate solutions to the problems encountered by others. The interaction with representatives from government agencies afforded the participants a chance to air specific problems in their dealings with these agencies and to clarify certain procedures which appeared vague before.

Because of the impact of the workshop held in the Philippines, consideration is now being given to holding similar seminars in other ASEAN countries.

Bivalve Culture

The Primary Production Department of the Ministry of National Development of Singapore and the IDRC recently held a workshop in Singapore on the culture of bivalves—aquatic animals with two shells, such as oysters, mussels, cockles, and clams.

The workshop was held from February 16–19 and attended by 35 participants from all the ASEAN countries as well as Bangladesh, Burma, China, Fiji, India, Papua-New Guinea, Sri Lanka, Tahiti, and Canada.

In most countries, there is extensive natural growth of bivalves in the coastal areas. However, a number of countries have now started artificial culture and it is estimated that, with suitable research, culture techniques can increase production three-fold.

Therefore, emphasis during the workshop was placed on how existing or related bivalve-culture technology might be adapted to local conditions in neighbouring countries to increase production. Participants also had an opportunity to visit the impressive raft-culture system and associated post-harvest equipment for mussels developed by the Singapore Primary Production Department.

A number of research areas were identified for priority. Among these were training in culture techniques, improved seed supply, improved site selection criteria, detailed economic studies, and encouragement of the exchange of technical information on bivalve research.

To date, IDRC has supported two bivalve projects in Asia: one on mussel culture in Singapore and another on oyster culture in Sabah, Malaysia. As part of its continuing commitment to the development of bivalve culture in Asia, IDRC will be sponsoring the participation of a number of Asians in a bivalve-culture training course to be held at Dalhousie University in Halifax, Nova Scotia, from June 16 to August 4.

Fish Processing

The greatest number of fish-processing projects supported by the IDRC are concerned with fish drying. One project recently approved is to develop and test a hot-air dryer for the production of salted dried fish.

The aim of the project is to reduce the post-harvest losses, improve product quality and storage life, and thereby increase the marketability of the products and the incomes of fisherfolk in remote fishing villages of rural east coast Peninsular Malaysia.

It is proposed that the dryer will be heated by solar radiation during the daylight hours and by burying agricultural wastes, such as rice hulls, coconut husks and shells, rice straw, and sawdust, during the night to achieve drying within 24 hours. Initial work will begin by adapting the design of a fish dryer used in the Philippines. The project is expected to last three years.

Fish Surveying

The Royal Ontario Museum in Toronto, Canada, is conducting a survey of the fish in Malaysia's Baram River basin for a joint project of the State of Sarawak and the IDRC.

The aim of the survey is to determine how much protein will be available to the 53,000 people, mostly rice farmers, living along the river. The project will also establish guidelines for fish harvests in the area.

Computers

Canada: a Pioneer in the Computer World

CANADA'S information processing industry represents a large and still growing segment of the country's economy. It dates from 1952, when Canada's first and the world's second computer was installed at the University of Toronto. Since that pioneering day, the country's computer/data processing industry has remained in the forefront of this technology.

Canadians are setting the pace in interactive computerized banking networks. They are in the forefront in the design and manufacture of word processing systems and in telecommunications products—they lead in the development of specialized software for intelligent terminals, in the use of data communications such as packet-switched networks, in the development and use of fibre optics and in the application of the unique Telidon technology of interactive video.

It is a rapidly expanding industry, with annual growth rates in excess of 20 per cent, and the industry's technological capabilities are finding ready acceptance in countries around the world.

Data Processing Exports

Data processing equipment and services are exported worldwide, having already established a reputation for excellence in the highly competitive, highly knowledgeable domestic market. Indeed, Canadian products have gained a firm foothold in what must be the world's hardest-to-crack data processing market—the United States.

Canada's success is partly due to a long-standing capability in electronics technology, particularly in its application to telecommunications, in which Canadian engineering has long enjoyed a worldwide reputation. Also, Canadian firms have focussed on specialized areas in data processing in which an apparent demand existed.

Thus, drawing on existing technological resources, emphasizing inherent strengths, and capitalizing on specialized market demands, Canadian firms have gained a degree of expertise second to none. Today, Canada is the world's eighth-largest exporter of computing equipment.

Several multi-national corporations now established in Canada have given their Canadian operations total responsibility for specific product lines, including design, development, and production for the world market, a challenge to which these Canadian