26 THE STATE OF SCIENTIFIC INFORMATION SYSTEMS IN BELIZE

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Belize has a population of 130,000 with a population density of 14.5 persons to the square mile. The high man-land ratio makes agricultural development the greatest economic potential for Belize. English is the official language, but Spanish is widely spoken. Languages of minor significance are Carib, Maya and Ketchi.

Belize has a literacy rate that has been quoted as high as 95 percent. Primary school education is free and the highest learning institutions are Sixth Form Studies and the Belize Teachers' College.

There is one Radio Station in the country and this is Government controlled. Radio Belize gives satisfactory reception in all parts of the country and it is undoubtedly the most widely used information medium. Government Ministries run regular programmes of a scientific nature in agriculture, health and meteorology. The Government Information Service operates a mobile cinema unit which takes pictures regularly to the rural areas. Many schools and Government Departments also have movie projectors.

The three weekly newspapers in Belize will carry from time to time scientific articles which has relevance in the country. Periodicals published containing scientific material are:

Extension Bulletin, by the Ministry of Agriculture;
Agricultural Information Bulletin, by Prosser Fertilizer and Agrotec Company;
Project Bulletin, by C.A.R.E. Inc.;
Belizean Farmers by the Belize Agricultural Society;
Asuntos Caneros by Belize Sugar Industries; and
Journal of Belizean Studies, by the Belize Institute of Social Research and Action (BIRSA).

Central Farm, the Government Agricultural Research Station has the only science library as such. However, all public libraries carry a science section to which foreign and local material are sent. Schools and colleges also carry science publications. The American Consulate in Belize City has a wide collection of science publications and movie films.

In Belize, scientific research is sponsored by the Government, regional agencies such as Caribbean Agricultural Research and Development Institute (CARDI), Universities and Foundations. Basically, Government research programme is geared toward the application of principles in the

maximisation of the natural resources of the country. As one would expect, the greatest thrust is in agriculture. In many cases the local researchers work jointly with outside agencies on a specific problem. A limited research is done in fisheries and this is carried out mainly by outside research workers with Government collaboration. The Forestry Department also has a research section, which, like Agriculture, concentrates on applied research.

The Belize Audobon Society, dedicated to the conservation of wild life, carries out field studies on wild life population, movements and habits. In the social sciences, BIRSA in its journal produce articles on local archaeology, history and anthropology. Extensive research has been done on the Mayas of Belize with funds from universities and Foundations. The Department of Archaeology monitors these studies and is supplied with all information and findings from such studies. Other research studies carried out from time to time are in the field of anthropology, particularly on the Black Caribs and the Mayas. The publications arising from these are usually lodged at the public library.

Scientific information gathered as outlined above must be disseminated and made available to the proper audience such as farmers, students and the general public. As far as reaching farmers is concerned, the Ministry of Agriculture Extension Services is set up for this function. The staff consist of 34 officers spread over six administrative districts and a clientele of 12,000. There is a special officer for radio programmes and one for publications. Two farm programmes are done by this specialist weekly, one is in Spanish. Radio Belize has recently started a daily programme, Tillers of the Soil, to which the Ministry of Agriculture and other agricultural agencies make contribution. The main agriculture programme is heard on Sundays and runs for 45 minutes. The items usually consist of a talk by one of the agricultural specialists, an interview with a farmer or a discussion; advice on current agricultural problems; announcements; and a very popular feature is a serial "From Polly to Polly", a radio drama with a rural setting and used as a vehicle for disseminating new technological practices in agriculture. The publications specialist officer gets most of his material from research workers. These he edits and prepares for farmers level.

None of these specialist officers have had any training in the work they perform. One was nominated last year to a workshop on agricultural broadcasting which was to be held in Guyana. The workshop has been postponed indefinitely we are informed. The need for training in this area should be very helpful, since the radio is the most widely used medium of communication in Belize.

Similarly, the specialist officer in publications has had to rely mainly on his initiative for presentation of publication material. He has no support staff and so must await his turn for typing and the use of the cyclostyling machine.

Recently one of the Ministries acquired a scanner and this has improved the appearance of our publications. The Government Printers may accept requests for off-set work if one is prepared to wait indefinitely. Limited finances precludes the wide use of commercial printers.

The need for training in communication techniques is even more obvious among the field staff. As a result they function more as field advisers and less as demonstrators and teachers. There can be more use made of visual aids and communication equipment such as projectors, tape recorders, etc. It is recognised that not every officer is an artist, but training in such areas as mass media, conceptualisation, propaganda techniques and so on, will enable him to tell the artist what he wants. Last month CARDI held its regional workshop/seminar "The Problems of Agricultural Research and Development" in Belize. Arising out of the discussion was a strong recommendation to Government for streamlining the flow of information from Research to Extension and vice versa.

In the main, scientific knowledge in Belize schools is taught in a classroom situation. Then, the material is broken down into subjects - chemistry, biology, agricultural science, etc. Too often the knowledge gained is not related to the students day-to-day experiences. It may be good only for school examinations and classroom purposes. Belizean educators are now becoming aware of this situation and last year they took steps to remedy it. Nine rural schools have been selected to participate in a pilot project which will be following the "integrated curriculum approach" to education. At the "out-door laboratory", students acquire scientific knowledge relevant to their environment and learn to see clearly the man-land relationship around them. The project will run for three years.

In conclusion, there is no doubt that Belize has a far way to go in developing her scientific information systems. If it is accepted that one of the preconditions for a receptive audience is a high general level of education, Belize has an advantage. What is needed parallel to this development is more research with local material under local conditions, so the kind of scientific material disseminated will be relevant.