AGRICULTURAL INFORMATION SYSTEMS

P. C. Bose
Indian Council of Agricultural Research,
New Delhi-1

0 Introduction

Advancement of Science and Technology has given rise to a proliferation of scientific literature and information and the same hold good for Agricultural Sciences & Technology. The sophisticated communication system and electronic data processing equipment have opened up new vistas in the field of information handling. As a result, several global information systems like INIS, AGRIS, CARIS and DEVSIS have emerged in recent years.

In the field of Agricultural Sciences, the FAO of United Nations came up with two global information systems and requested the member countries to cooperate in their venture. The Government of India took a decision in July 1974 to participate in the International Information System for Agricultural Sciences and Technology (AGRIS) at a national level through a National Input Centre under Indian Council of Agricultural Research. At the request of FAO the Government of India also decided to participate in the Current Agricultural Information System (CARIS) in September, 1975. The Indian Council of Agricultural Research strongly feels that in any National Information System, Agricultural Sciences and Technology should play a major role because it is so vital to the basic needs of the millions of people i.e., food and nutrition. Secondly, it has the largest infrastructure in Research and Development in the country with number of Research Institutes, Laboratories, Projects, Programmes, Agricultural Universities and Scientists. Thus the explosion of scientific literature and information in agriculture has outnumbered in any other field of Science in India.

1 AGRIS - International Information System for Agricultural Sciences and Technology

The AGRIS was conceived when a number of organisations providing or planning to provide information services in the field of food and agriculture approached the Director General of FAO in 1969 and requested him to sponsor a meeting of Experts to investigate what might be the possibilities and advantages of cooperation. The Expert body recommended that FAO should sponsor the development of an International Information System for Agricultural Sciences and organised at two levels.

AGRIS Level One is a cooperative, comprehensive and rapid current awareness service covering all the subject field of FAO's interest, with FAO acting as Coordinating agency.
Level Two is a network of services - grouped by subject field or mission including specialised information services, data banks and data handling services which would provide specific information through abstract services, intensive index and other forms of specific and direct services to users.

The AGRIS 'Level One' is to provide all countries the comprehensive current awareness service in all fields of interest of FAO, consisting of a current bibliography in printed form and also on magnetic tape. The 'Level One' became operational in January, 1975 with the publication of monthly AGRINDEX. The AGRINDEX has broadly 150 subject headings and sub-headings. Each item has a unique reference number. The author's names are given first. The affiliation of first author is also cited thus enabling the user to identify the work and communicate directly with the author. The title is followed by the conventional information required to identify and describe the document: its language, a journal title, a report number, the place and date of publication and publishers, volume and issue number, number of pages, availability of original document in case of non-conventional literature. On the magnetic tape, all elements of description are 'tagged', making it possible to select, by computer, items by other facets than those displayed in the printed index.

The AGRIS System in more compatible to the International Nuclear Information System (INIS) of IAEA and the maintenance of AGRIS programme is being done at INIS Data base at Vienna. It is expected that the annual input of AGRIS will be 2, 50, 000 items per annum against 1, 00, 000 inputs of INIS.

The ICAR has started sending Indian inputs from May, 1975 for the AGRIS Data base at Vienna for publication in the AGRINDEX. At present about 150 items per month are being sent and it is expected that about 200 items will be sent from January next. The first Indian input appeared in the August, 1975 issue of AGRINDEX, Vol. 1(8) and India is one of the 15 Input Centres in the world which is submitting inputs to AGRIS Data Base. About 200 Indian Serials - cover to cover and core journals - have been selected for inclusion in the System besides non-conventional ones.

2 CARIS - Current Agricultural Research Information System

The CARIS project aims at establishing an international information system which would collect, organise and dissemrnate basic data on current research in the field of agriculture, animal production, forestry, inland fisheries and food and mainly on research institutions, research workers, programmes and activities carried out in or on behalf of the developing countries in order:

a) to improve communications between institutions and between scientists,

b) to assist in the evaluation of the adequacy of existing research effort, and the identification of major gaps and weaknesses, as an aid to decision making at both the national and international level.

It is not an abstracting service providing summaries of past results (this aspect will be covered by AGRIS) but a System aimed at providing and maintaining current awareness of what is going on in agricultural research, where and what resources, aimed primarily at assisting the developing countries, but also generally serving world agricultural development.
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The global project is expected to collect information from some 1600 research institutions involving 7000 research workers, 8000 research lines and some 30,000 research projects.

In the initial stages, the project will be limited to the information concerning 1) research institutions, 2) research workers, and 3) main lines of research (or programmes).

The local CARIS Centre would be in charge of data collecting, indexing and processing and of disseminating of information, through services to users in their respective areas. CARIS Coordinating Centre would ensure the exchange of information on a world wide scale by merging information from local CARIS Centre.

The information system envisaged by CARIS project of FAO is already being carried out by the Research Project Unit of I.C.A.R. since 1967, which was established on the model of Current Research Information System (CRIS) of USDA. The Unit is responsible for collection, collation, indexing, documentation and dissemination of all ongoing agricultural research projects in India. Both the FAO Projects - AGRIS and CARIS are being handled at a national level by the Research Project Unit of the Council till a full-fledged computerised Agricultural Research Information and Documentation Centre is established under I.C.A.R.