

Growth of Agricultural Journalism and Agricultural Research Information Centre at ICAR

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Abstract

Modern agricultural journalism was born in India with the advent of printing when three books on modern methods were got translated by Sir Syed Ahmad Khan. Now, ICAR publishes four journals and two newsletters in English and three in Hindi. Overall, about 250 periodicals in India are devoted to agriculture. The paper also describes the Agricultural Research Information Centre (ARIC) at Indian Council of Agricultural Research Headquarters, India, the databases available, publications brought out and services rendered by the centre. Besides the importance of ARIC in SAARC countries, the proposals for the ninth plan are also discussed.

1. INTRODUCTION

'With the master of the field, our friend, we triumph, may bestow upon us cattle, horse, nourishment, for by such (gifts) he makes us happy.'

'Lord of the field, bestow upon us sweet abundant (water), as the milch cow yields her milk, dropping like honey, bland as butter: may the lord of water make us happy'.

These are some hymns quoted from the most ancient scripture of India called Rigveda (5000 BC). These are examples of earliest writings on agriculture, which was regarded as a holy and dignified occupation. From the various hymns of Rigveda it appears that the ancient Indians have recourse to artificial water supply when necessary and used to employ horses as well as cattle in agricultural operations. By 4 BC

the art and science of agriculture was perfected to its fullest glory. Rules were laid for 'conservation of germplasm'. The *Arthshastra*—oldest treatise on economics in the world specifies duties of a superintendent in the following words: He was to 'collect the seeds of all kind of grains, flowers, fruits, vegetables, tubers, roots, creepers, fibre-producing plants and cotton'. He was to see that the cultivation of the prime land should not suffer and should enforce laws governing the proper cultivation of the soil.

They even made meteorological observations and laid out rules for selecting different kind of soils for different crops and even mentioned the methods of seed treatment. Following excerpts from *Arthshastra* are very educative and informative and are very interesting examples of earliest agricultural journalism:

'Lands that are beaten by foam (which means the lands situated near the banks of rivers) are suitable for growing *valliphal*—the cucurbits (pumpkin, gourd etc.); lands that are

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frequently overflowed by water are suitable for long pepper, grapes and sugarcane. The lands in the vicinity of wells should be used for growing vegetables and tuberous crops, low lands (such as beds of rivers and lakes) for greens and marginal furrows between any two rows of crops are suitable for the plantation of fragrant plants and medicinal herbs. It might be the first example of 'proper land-use planning for agriculture'.

Here is an example of prescribing seed treatment from the same old treatise, the *Arthashastra* : The seeds of grains are to be exposed to mist and heat for seven nights; the seeds of pulses are treated similarly for three nights, the seed material of sugarcane and the like are plastered at the cut end with the mixture of honey, clarified butter, the fat of hogs and cowdung; the seed material of tuberous crops should be treated with honey and clarified butter, cottonseeds with cowdung.'

The Greek ambassador, Megasthenes, at the court of the Great King Chandra Gupta, was a contemporary of the author of *Arthashastra*. In his published memoirs, he has paid an eloquent tribute to the abundance of crops in India, to the fertility of the soil, to the absence of famine and the peculiar respect in which agriculture and agriculturists were held. Even at the time of war the combating armies used to leave the farmers undisturbed as a matter of ethics of war. Megasthenes wrote, 'it is a practice among the nations at war to ravage the soil and thus reduce it to an uncultivable waste. On the contrary the Indians prevent the occurrence of famines (after war), regards farming community as a sacred and inviolable class and leave them undisturbed. These tillers of the soil continue to plough in the field even when a battle is raging in their neighbourhood, without any sense of danger. The combatants on either side while waging the conflict make carnage of each other but allow those engaged in farming to remain quite unmolested. Besides, they neither ravage an enemy's land with fire nor cut down its trees'.

This was the sustainable agriculture at its best which sustained the Indian people for about ten thousand years. Now India has about 143 million hectares of land under plough out of the

total geographical area of 328.73 million hectares. It has been estimated that this area could be stretched to a maximum of 155 million hectares only without adverse effect on the fragile eco-system. Out of the net sown 143 million hectares, 83 million hectares is rainfed which is 69 per cent of the total net sown area. At the time India became independent, it had about 50 million farms. This number had grown to about 90 million farms by the early 1980s. There are now about 100 million farms in India. Today every fourth farmer in the world is Indian and nearly half of the land of the country is being utilized for crop production. Seventy per cent of the country's current population (nearly 960 million) depends upon the primary sector of agriculture for its livelihood. Thirty per cent of the Gross National Product (GNP) comes from agriculture. Still the growth of agricultural journalism is very poor in India.

2. THE SEEDS OF AGRICULTURAL JOURNALISM

The modern agricultural journalism was started in the mid nineteenth century with the publication of translations of three English books on Weather, European agriculture and Agricultural implements. This effort was the result of a letter written on 30 December 1865 by Sir Syed Ahmad Khan—the famous founder of Aligarh University—to Mr JH Princip—the Collector of Aligarh. A scientific society was established in 1865 and a weekly paper *Aligarh Institute Gazette* was started in 1866. This encouraged people to write on agriculture. Most of the books and periodicals were published in Hindi, Bengali and other Indian languages. In 1929 the Imperial Council of Agricultural Research was established on the recommendation of the Royal Commission on Agriculture. Among its mandate was 'to act as a clearing house of information'. However the modern publications in agriculture were started as early as 1906 from the erstwhile Imperial Agricultural Research Institute, Pusa, Bihar. How this premier institute was started is an interesting story. The credit goes to Lord Curzon and to an American Philanthropist, Henry Phipps. George Nathaniel Curzon became the Viceroy of India

in 1898 at the age of 39. He was dynamic, imaginative and extremely industrious. Curzon had to deal with the famine of 1890-1900, a year after he became Viceroy. All the western part of India was hit by this awful famine. It was the outcome of a drought in 1887 when the Monsoon failed totally.

Mr JE Scott, an American missionary wrote about the Indian famine in these words. *The misery is terrible. But still worse is the fearful emaciation. Living skeletons are on every side. The barren lands of the Deccan, none too rich at best of times, are fast being turned into tracts of dismal, sun cracked, desert charred earth, whose friable edges are caught by the wind and sent flying in clouds of pungent dust. No water in the wells, no water in the rivers. The central horror of this famine lies in the fact that the misery and torment of a water famine have to be endured together with a famine of food for people and fodder for beasts. When the famine was at its worst, in August, nearly two and a half million people were on relief works (about a fourth of the population). All that part of the Central Provinces in the northern part of the Deccan, between the Narbada and Godavari, was dried up.*

The famine convinced Lord Curzon that the Government of India must pay urgent attention to agriculture. Curzon had a background of farming. His father had an estate in Derbyshire. In 1895 he married Mary Victoria Leiter, daughter of Mr Levi Leiter, a Chicago millionaire. This link with America not only provided him with a wife, but also brought him in touch with another American millionaire, Mr Henry Phipps. A generous donation of £20,000 from Mr Phipps made it possible to establish Imperial Agricultural Research Institute (IARI) at Pusa in erstwhile Darbhanga district of Bihar. The main building was named as the Phipps Laboratory. The grateful Indians nicknamed the village PUSA, an acronym drawn from the phrase, 'Phipps of USA'. This Institute is still famous as 'Pusa Institute', as although it was shifted to New Delhi in the present premises after it suffered a disastrous earthquake in 1934.

3. RISE AND FALL OF AGRICULTURAL JOURNALISM

IARI is not only the nursery of the green revolution of India, but it is also the nursery of green journalism in India. In 1906 it started publication of *The Agricultural Journal of India* and *The Memoirs of the Department of Agriculture in India*. The journal dealt with subjects connected with field and garden crops, economic plants and fruits, soils, manures, methods of cultivation, irrigation, climatic conditions, insect pests, fungal diseases, co-operative credit, management of farm stock, cattle breeding, cattle diseases, farm implements and the like. In the memoirs, scientific work connected with agriculture including agricultural chemistry, economic botany, entomology, plant pathology and bacteriology found a place. Separate series were issued for the major divisions of science concerned and each article appeared as a separate memoir under the series into which it fell.

Two new journals, one devoted to research in agriculture and the other to animal husbandry were started by the Publications and Information Division of the ICAR in 1931. These were the *Indian Journal of Agricultural Sciences* and the *Indian Journal of Veterinary Sciences and Animal Husbandry*. The second one was re-named as *The Indian Journal of Animal Sciences*. Both continue to be published.

The *Agricultural Journal of India* was renamed as *Agriculture and Livestock in India*. After nine years of its publication as a bi-monthly it was re-christened *Indian Farming* in 1940. It was decided to give information in a non-technical popular style in the journal. Mr FM De Mello, the editor of this journal gave it a popular slant, but ensured quality in articles. However, when Dr MS Randhawa, the then secretary, ICAR requested the then Vice-President of the ICAR Sir Herbert Stewart in 1945 to agree to the change in the cover illustration which showed a miserable dhoti-clad farmer driving a pair of bullock yoked to a plough, he refused.

After Independence, the 'Imperial' gave way to 'Indian' and a need was felt for a journal in

Hindi—the lingua-franca of India, to promote scientific farming. As a result *Kheti* was born in 1948. A new agricultural digest *Krishi Chayanika* was started in 1973 and is now a regular quarterly journal. Later, a horticultural quarterly, *Phal Phool* was added. Both these new Hindi farm periodicals were started on the inspiration from Dr MS Swaminathan, the then Director General of ICAR.

During the period many journals were born and many expired. Among the new births mention may be made of *Indian Horticulture* (born in October 1956), *Indian Journal of Agriculture and Veterinary Education* and *Indian Potato Journal* (born in 1959), *Agricultural Research* (born in 1961, died 1966), *Indian Livestock* (born in 1963, died 1966), *Pashu Palan* (born in 1963, died 1966). Among the deceased was a *Rice News Letter* also. During the financial stringency of 1966 a number of journals issued by the ICAR and commodity committees were thoughtlessly discontinued or merged.

At present, the ICAR is publishing two research journals and two semi-technical journals, two newsletters, *ICAR Reporter* and *ICAR News* in English and three semi-technical journals in Hindi—*Kheti* (monthly); *Phal Phool* (Quarterly) and *Krishi Chayanika* (Quarterly). Besides, it has an ambitious programme of publication of books, bulletins, monographs, handbooks, pocketbooks, etc. and is among the largest agricultural publishers of India with an output of one publication every third day. It has a co-publication programme also in collaboration with the international institutes. The famous *Rice Primer* written by Dr BS Vergara of IRR has been published in Hindi under this programme.

With the establishment of the Directorate of Extension under the control of Ministry of Agriculture popular farm periodical like *Intensive Farming* and *Unnat Krishi, Home Science, Charani* and the *Gosamvardhan* were added in sixties. Out of these the last two were axed in the name of economy.

With the birth of Agricultural Universities in India new farm periodicals were started.

Agricultural Universities at Ludhiana, Hissar, Jabalpur, Patna, Ranchi, Faizabad, Coimbatore, Hyderabad, etc. have started farming periodicals and other publications. Some private publishers, associations of agricultural and animal scientists, rural development and agricultural development organisations, rural banks and non-government organisations have also entered farm journalism. In all there are about 250 farm periodicals all over India. A weekly newspaper in Hindi, named *Krishak Jagat* was started by a farm-graduate in Hindi, *Keral Krishakan* in Malayalam and *Shetkari* in Marathi are some of the most popular journals.

However the farm-reporting in the press is very poor. Except *Hindu*, *Business Line*, *Business Standard* and *Times of India* there is no newspaper worth its name having a regular agricultural correspondent. The total space devoted to agriculture in newspapers is not even one per cent. Only *Hindu* and *Business Line* carries regular columns and pages every week devoted to agriculture and *The Hindu* is also bringing out an *Yearbook on Agriculture*, every year, again inspired by Dr MS Swaminathan to do so. A study has shown that 70 per cent of the agricultural news falls in the category of informative news and opinion and educative agricultural news got less space. The only agricultural news service started by UNI is running sluggishly for want of supporters. Only the Science Popularisation Unit of DIPA of ICAR is running a farm feature service in three languages—Hindi, Kannada and Assamese. Earlier, it was functioning in ten languages. Others were closed down. An attempt is being made to strengthen it in the 9th five year plan.

4. INFORMATION MANAGEMENT

The Estimates Committee of the Parliament and the Indo-US Review Team recommended in the early sixties that research information services should be set up at the Council's Headquarters. With this recommendation in view, ICAR established in 1967 a Research Project Unit at its Headquarters. Subsequently in July 1974, Ministry of Agriculture designated it as the National Input Centre for the

International Information System for Agricultural Science & Technology (AGRIS) of FAO. The Council then decided to rename it as the Agricultural Research Information Centre (ARIC) in 1977. It was later on designated as the Input Centre for the Current Agricultural Research Information System (CARIS) of FAO in 1990 and the focal point for SAARC Agricultural Information Centre (SAIC) in 1989. It has already been working as a contact point of CABI for providing information for their publication on *List of Research Workers in Agricultural in the Commonwealth Countries*.

Broad objectives of the ARIC are:

1. A central source of information on the nature, location and status of current research projects; an aid in analysis of ICAR research programmes and assistance in the observation of a uniform project system for describing and reporting research activities and systematic maintenance of records of research projects by way of research project file system.
2. A safeguard against duplication of research efforts and source material for research coordination.
3. Generation, analysis, integration and diffusion of national and international research information.
4. Creation of bibliographical databases and participation in the international information system like AGRIS, CARIS, SAIC, CABI, etc.

5. DATABASES AVAILABLE AT ARIC

5.1 AGRIS Database

This database contains four million bibliographical references (1975 - 1996) in hard copy (Agrindex) as well as in computerised form i.e. on compact disks (CD). The data is received from FAO in return to our being an input centre of AGRIS for India. It is utilized for providing SDI service to about 250 users annually all over the country (10,000 references).

5.2 CABI Database

This database is available on the compact disk for the period 1984-1986 and contains about four lakh bibliographical references. However, this database is currently under trial. Full facility will be procured after obtaining the report of the users about the usefulness of the database.

5.3 Ad hoc Scheme Database

A database on all the ad hoc research schemes, under the Council's A.P. Cess Fund, is available in hard copy for the period 1930 to 1983 and the computerised form from 1984 to date. The computerised part of database contains more than 1300 schemes sanctioned during the last 10 years. The database is a useful tool for avoiding the duplication of efforts, if any, in the research already undertaken.

5.4 Research Project Files (RPF)

This database contains information about 7500 research projects of ICAR institutes/national research centres/project directorates of ICAR and is an information repository for reference at ARIC and for the external visitors/users. These research project files are available in hard copy.

5.5 Annual Reports

Annual reports of most of the ICAR institutes/project directorates/national research centres and state agricultural universities are available in hard copy for reference. The annual report of an organisation contains information about the major research activities, research highlights, staff and budget details, etc. of that particular organisation. This database is used for satisfying the user needs about the particular organisation.

5.6 Directories

Directory of research workers in India (1986) and SAIC Directory of Agricultural Institutions in India are the two directories available in the hard copy. First directory provides detailed information about the research workers engaged in agricultural sciences at various locations in India while the second one contains

information about different institutions of India undertaking agricultural research.

5.7 Database of Agricultural Periodicals Published in India

This database provides information about 400 Indian agricultural periodicals published in India. The database contains title of periodicals, frequency, mailing address, subscription cost, name of editor, etc.

5.8 Database of SDI Service Provided to Agricultural Scientist

This database contains information about 300 agricultural scientists. Database provides the name of users, their address, area of research and number of references supplied to individual user.

5.9 Database of Computer Facilities Available in SAUs and ICAR Institutes

This database contains information about computer hardware facilities and number of users available in different SAUs and ICAR Institutions.

5.10 Database of FAO Statistics

This database is available in CD and data of statistics of FAO upto 1994 are available.

5.11 Database of for Scientists Visiting Abroad

This database on deputation reports of scientists visiting abroad has been created and maintained in the computer system. Copies of reports are available for consultation.

5.12 Database of Conferences, Seminars, Symposia and Workshop in Agriculture

This database contain information about the conferences, seminars, symposia and workshop in Agriculture.

6. ARIC SERVICES

6.1 Indexing & Abstracting

The agricultural information generated at different source is indexed for AGRIS and CARIS databases of FAO. Base material for this service includes articles from about 200 Indian journals, books, monographs, annual reports and annually 2000-3000 articles are indexed and sent to FAO for worldwide distribution of information through AGRIS-CD, Agrindex, Magnetic tapes, etc.

6.2 Document Delivery

Document delivery services are provided free of cost to the researchers, students, scholars etc. all over the country and those from 136 member countries of FAO participating into AGRIS.

6.3 Xeroxing Services

In addition to giving xeroxing services to all the sections/units of Publications & Information Division of the Council, this service is also available to the visitors and requesters to ARIC for satisfying their information needs.

6.4 Reference and Reading Room Facility

The Centre has a well furnished reading room which is open to every visitor for reading and reference collection purpose where all the information sources at ARIC could be referred to by him.

6.5 SDI Service

ARIC provides selection dissemination of information (SDI) services free of cost to all agricultural scientists. These services are given using the international databases (AGRIS & CAB Abstracts) in agricultural and allied sciences. AGRIS database contains more than 3.0 million bibliographical reference (1975 to January 1993) on compact disks (CD) whereas CAB database is available on trial basis for the period 1984-86 and contains about four lakh records.

6.6 Referral Services

Some of the requests reaching ARIC require expert guidance on a particular problem in practical aspects of agriculture and allied fields. Such requests are referred to the specialists in agriculture spread over ICAR system and state agricultural universities. This helps in satisfying the need of special guidance to the needy persons to solve their problems.

7. ARIC PUBLICATIONS

7.1 Directory of Research Worker in India

This Directory contains the name, designation, qualifications and specialization of scientist working in the ICAR research institutes/laboratories/bureau/national research centers/project directorates/various other research projects of the Council, state agricultural universities and updated from time to time, 1993-94 edition being in progress at present.

7.2 Directory of Conferences, Seminars, Symposia, Workshops in Agriculture

The Directory was first published in 1988 and since then it is continuously being brought out on half-yearly basis. It provides advance information to the scientific community/organisations about the forthcoming conferences, seminars, symposia, workshops, meetings, melas, exhibitions, etc. in agricultural and allied sciences so as to enable the scientists/researchers/students to participate in these activities.

7.3 Indian National Agricultural Bibliography

The bibliography has four volumes (I to IV) covering the period 1975-1984. It contains about 40,000 bibliographical references covered in AGRIS of FAO.

7.4 ICAR Research, Education and Extension Institutions and Projects in India

This publication contains a state-wise list of location of ICAR Institute, projects and centres concerned with the research, education and extension in agricultural and allied subjects all over the country. It was published in 1985 and then revised in 1987.

7.5 Lists of Research Project of ICAR

ARIC is maintaining the lists of various kinds of research projects which are conducted under the financial support from the council. These lists include ad hoc research schemes, All India Coordinated Research Projects, Foreign Aided Schemes, etc. in agricultural and allied sciences which gave information about title, location, name of the principal investigator, date of start, date of termination, amount sanctioned, etc., of all the project.

8. ARIC AS NATIONAL INPUT CENTRE FOR AGRIS/CARIS

International Information System for Agricultural Sciences & Technology (AGRIS) and the Current Agricultural Research Information System (CARIS) are the two bibliographical databases of FAO, Rome. AGRIS comprises of the research articles published in the core agricultural research journals of its 156 member countries. Ministry of Agriculture, Govt of India designated ARIC as the National Input Centre for AGRIS in July 1974. Since then, ARIC is scanning and indexing Indian journals in agriculture and providing input to AGRIS and in return getting *Agrindex*, AGRIS-CD as information supply products. Similarly CARIS contains the records of on-going research projects in agricultural and allied science. In 1990, ARIC was designated as the National Input Centre of India for CARIS too.

9. ARIC AS FOCAL POINT FOR SAIC

SAARC Agricultural Information Centre (SAIC) is working as the source of agricultural

information about the seven member countries of South Asian Association for Regional Cooperation (SAARC). ARIC has been identified as focal point for India by the Governing Body of SAIC in its meeting held at Dhaka from 4-5 December 1988. ARIC is responsible for collecting, compiling, processing and updating the Indian information at national level. Similarly information from remaining six member countries also reaches to SAIC headquarters at Dhaka.

ARIC has collected the Indian information and supplied the same to Dhaka for following projects of SAIC:

- ⊕ Directory of Agricultural Institutions in SAARC Region
- ⊕ Directory of on-going Research Projects in SAARC Region
- ⊕ Directory of Agricultural Scientists & Technologist in SAARC Region
- ⊕ Directory of Agricultural Periodicals published in SAARC countries
- ⊕ Directory of Improved Farm Implements currently used in SAARC countries.

10. ARIC MODERNISATION IN THE 8TH PLAN

The Publications & Information Division during the 8th Plan was reorganised to reflect the challenges of the 21st century. Although the Publication and Information Division has been largest publisher of Agricultural information in the country, the information revolution had by-passed it. A large number of changes have taken place in the scenario with the growth of 30 agricultural universities, and other traditional universities taking on problems relating to environment and bio-technology and integrated eco system problems. There has been an information explosion. The division unfortunately had not kept pace with the progress made in this field. It has essentially remained sub serviant to print media. During the 8th Plan, it was realised that division be upgraded to the Directorate which should take up the work connected with documentation and selective dissemination with the ICAR-SAU

system. This called for quick upgradation and integration of services. This has been achieved during the 8th Plan. A Directorate of Information and Publications on Agriculture (DIPA) has been established at the ICAR Headquarters at a cost of Rs.359 lakhs with the revised scientific manpower and a mandate. It has its own facilities for collection, processing, storage, retrieval and dissemination of information on agriculture and allied sciences. A revolving fund scheme for converting this Directorate into a profit centre is also under consideration of the Council. In the nutshell the 8th plan has completely revolutionalised the publication and information system of the ICAR. A project is being discussed with CABI, UK for publication both in print as well electronically of their abstracting journals, bibliography and several text books. These are likely to be initiated in the 9th Plan. A total of 770 publications in English, 60 in Hindi were broughtout during the 8th Plan. In addition to the printed material broughtout during the VIII plan facilities were created to develop and produce modern information product for electronic media such as electronic software, cassettes, films, compact discs and multimedia products.

A new unit of electronic media was added to shoulder the responsibility of the electronic products. Another unit on training and research in agricultural communication was also added. A revolving fund scheme was initiated for increasing the sales and using the income to further the business. During the 8th Plan period a revenue of about Rs 100 lakhs (Rupee one crore) was generated through sale of ICAR publications and through selling the space in ICAR periodicals. Two new periodicals namely *ICAR News* and *ICAR Reporter* were also added to the already existing 7 periodicals during the 8th Plan.

11. ARIC—PROPOSALS IN 9TH PLAN

As most of the facilities were created towards the fag end of the 8th plan, more fruitful results are expected during the Ninth Plan period when the DIPA will be in full swing

and start feeding the rural and agricultural channel of GRAMSAT/Educational Satellite.

In the next five years, 30 undergraduate and 40 post graduate text books are planned. This however will be on purely commercial basis and will be self sustaining.

A new research and training wing will be added to the Directorate so that training is given to the agricultural scientists in agricultural journalism, book publishing, information services and updating their knowledge in latest agricultural communication technology. This will be an inhouse training and research aimed at production of video cassettes and multimedia methodology to be used for agricultural and allied sciences technology.

A new scheme on production of pocket books on successful technologies is also being introduced in English and Hindi.

Publication of a monthly wall news paper on agricultural research for distribution in Panchayats in five languages has also been proposed. The positives will be supplied to the willing newspapers also.

An encyclopaedia of Agriculture will be published during the 9th plan in English and Hindi. Besides about 150 video films will be produced on proven technologies. Most of the journals of ICAR will be made available on CD-ROM including some selected bodies. The electronic publishing unit and the electronic media unit are being supported by the National Agricultural Technology Project (NATP) of the World Bank which is going to be a very important initiative of refinement, evaluation and transfer of agricultural technologies from laboratory to land.

There are no training facilities in farm journalism except ill-planned, understaffed graduate and post-graduate courses at a few agricultural universities. Out of the 129 editors of farm-journals surveyed only 13 had training in journalism. Sixty-two per cent of the editors in government owned farm periodicals had no rural background. It is only the Directorate of Information and Publications of the Indian Council of Agricultural Research which was highly qualified scientific staff in its English and

Hindi editorial units. However, they are not given pay and perks equal to the scientists and new generation is reluctant to making farm-journalism as a career. Unless efforts are made to raise the status of the agricultural journalists in India following the example of the Council of Scientific and Industrial Research of India (CSIR), ICMR, DRDO and other scientific organisations, at par with scientists, the future of Agricultural Journalism in India is doomed.

To raise the quality of agricultural journalism in India, it has been proposed in the ninth five year plan to further strengthen the Directorate of Information and Publications of Agriculture (DIPA) of ICAR and to elevate it to the status of a 'National Institute for Communication of Agricultural Sciences (NICAS)'. The CSIR has already done it in the 8th Plan by raising the status of the PID into that of NISCOM—National Institute of Science Communication. A good amount of agricultural research funds should be earmarked to run the agricultural communication activities. It is required even at the International level. An 'International Institute for Agricultural Communication' should be promoted to provide leadership in communication of agricultural sciences globally. The agricultural journalists of the developing countries require training in latest technologies of communication. They must be exposed to the new revolution in electronic media. Almost 80 per cent agricultural technologies are still awaiting to be transferred to the land from laboratories. Who will do it? Who will help the farmers by providing latest information to fight the droughts and famines. The poor and hungry world of today and tomorrow will not be able to sustain without the worldwide green armies of agricultural journalists. Let us resolve to build, promote and support them everywhere.

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