Analysis of Publications of the Central Plantation Crops Research Institute

by

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ABSTRACT. Analysis of publications of the Central Plantation Crops Research Institute, India by Y. Joshi. Quarterly Bulletin of IAALD XXIX, 1, 1984: 5-10. The publications of the Central Plantation Crops Research Institute at Kasaragod in India were analysed to give an indication of the performance and function of the Institute. Publication lists from the annual reports of the Institute from 1969-79 were analysed to determine those journals in which these contributions were published. The contents of the publications were divided according to crops and subject disciplines. Results showed that contributions have appeared mostly in 'crop journals' rather than 'subject journals'. Most articles and papers have been published on coconut and arecanut amongst the crops, and crop protection amongst the subjects. Eight Indian Journals account for 52.04% of the publications.

RESUME. L'analyse des ouvrages publiés par le Central Plantation Crops Research Institute, Indes par Y. Joshi. Quarterly Bulletin of IAALD XXIX, 1, 1984: 5-10. L'argument de cette communication porte sur la notion que l'analyse des ouvrages publiés par une organisation vouée à la recherche peut offrir des aperçus objectifs sur la performance et le fonctionnement de l'organisation. Le Central Plantation Crops Research Institute, Indes fait l'objet d'une étude individuelle. Des listes d'ouvrages publiés se trouvent dans le rapport annuel des activités de l'Institut; celles des années 1969-79 ont été analysées dans le but de déterminer dans quelles revues les ouvrages ont paru et de quel champ d'activité elles s'occupent. Les contributions ont paru pour la plupart dans des revues consacrées aux cultures plutôt qu'aux disciplines. Parmi les cultures, le cocotier et l'aréquier ont figuré le plus souvent dans les communications publiées et parmi les disciplines la protection des cultures est la plus fréquente. Huit revues indiennes ont publié 52.04% des ouvrages de l'Institut.

RESUMEN. Análisis de la publicaciones del Central Plantation Crops Research Institute, India por Y. Joshi. Quarterly Bulletin of IAALD XXIX, 1, 1984: 5-10. En este material se discute la idea de que el análisis de la publicaciones de una organización investigativa pueda brindar una visión objetiva sobre su funcionamiento y rendimiento, utilizando como objeto de estudio el Central Plantation Crops Research Institute, India. Se analizaron listas de publicaciones de los informes anuales del Instituto desde 1969-70 hasta 1979 a fin de determinar las revistas en que estas contribuciones fueron publicadas, y el grado de abarque acordado a diferentes cultivos y diciplinas pertinentes. Las contribuciones han aparecido básicamente en revistas sobre cultivos más que en revistas de materias. Entre los cultivos: el coco y la areca; y entre las materias: la protección de cultivos, es sobre lo que se ha escrito y publicado mayor cantidad de articulos. Ocho revistas de India son responsables del 52.04% de las publicaciones.

INTRODUCTION

The publication of experimental results is the culmination of a piece of research. As such, the number of research papers published by a researcher is often taken to be a measure of his competence, and publishing in quality journals, of his standing. Subjective judgements about the quality of a journal are now being increasingly supported by quantitative measures such as the 'impact factor' etc. It was thought that this idea could be taken a step further by studying the publications, in terms of subject and crop coverage, journals etc., of a research institute to obtain data about its functioning and performance.

The Central Plantation Crops Research Institute (CPCRI) is one of 35 central institutes which come under the control of the Indian Council of Agricultural Research. The Institute carries out research on the following crops: arecanut or betelnut (Areca catechu L.); cocoa (Theobroma cacao L.); cardamom (Elettaria cardamomum L. Maton.); cashew (Anacardium occidentale L.); cinnamon (Cinnamomum verum Presl.); clove (Syzigium aromaticum (L.) Merr. & Perry); coconut (Cocos nucifera L.); ginger (Zingiber officinale Rosc.); nutmeg (Myristica fragrans Houtt.); oil palm (Elaeis guineensis Jacq.); black pepper (Piper nigrum L.); turmeric (Curcuma domestica Val.). At present there are 141 scientists on its staff, belonging to 21 different disciplines. Table 1 shows the general organization of the Institute.

ANALYSIS OF PUBLICATION RECORD

The Institute publishes an annual report which includes a list of papers published by its staff during the year under report. For this study, only those contributions which were published in English language periodicals were included. Although not a periodical in the strict sense, the Proceedings of Placrosym series was also covered. Placrosym (Symposium on Plantation Crops) is an annual event, each subject being covered in turn (e.g. Placrosym I was on agronomy, soils, physiology and economics, and Placrosym II was on crop protection,

TABLE 1. Total expenditure and numbers of staff and contributions published by the CPCRI from 1969-79

Year	Total expenditure (in million rupees)	Number of staff	Number of publications
1969-70	4.53	75	25
71	4.17	79	14
72	5.40	85	30
73	5.58	85	17
74	5.86	104	31
75	8.99	115	29
76	11.57	144	63
77	12.19	159	40
78	14.38	157	58
79	16.17	171	60
			Total 367

and so on). The proceedings of these symposia are brought out regularly.

An analysis of the contents of these contributions is shown in Table 2. If a paper covered more than one subject or crop all were included in the Table. A column and a row each were provided, marked 'general', for articles dealing with plantation crops in general or for those which covered several aspects of a particular crop. As some contributions covered more than one crop or subject, the total number of publications as shown in Table 2 exceeds that which is shown in Table 1. Similarly, each paper was listed against the journal in which it was published.

RESULTS

Where do they Publish?

The scientists of CPCRI publish mainly 'at home', i.e., only 22 of the 367 contributions (6%) have been published in overseas journals (Table 3). India itself is the leading country in which research on these crops is being carried out and several journals on these crops are published from India, e.g. Indian Coconut Journal, Indian Cashew Journal etc. So, given the scientists preference for publishing in 'crop journals', it is thus natural that most of the contributions have appeared in Indian journals.

The journals that published 15 or more articles during the period are given in Table 4. These account for 52.04% of the total publications. The first two, which account for 30.79% contributions, can be considered as 'house journals' in the sense that the Institute is very closely involved in their publication. The Journal of Plantation Crops is published by the Indian Society for Plantation Crops (ISPC) and the Institute staff accounts for more than half of its membership strength and its editors have always been senior scientists of the Institute. Similarly, the ISPC is one of the co-sponsors of the Placrosym Symposia Series. The next periodical in order, Indian Farming, is a semi-popular farming magazine, presenting the findings of current research in simple, non-technical language for the progressive farmer. It is interesting to note that out of the 37 contributions, as many as 11 are accounted for by the two special numbers this magazine brought out to mark the Diamond Jubilee of Coconut Research and the First International Cashew Symposium.

The next two, i.e. Indian Journal of Agricultural Sciences and Current Science, are typical research journals of long standing and it is mainly in these that contributions to plantation crop research made by the Institute are found. The last three journals can again be considered as semi-popular in that both original research papers and general articles are published in them.

Subject and Crop Coverage

As can be seen from Table 2, more articles, i.e., 49 out of 388 (12.6%), have been published on coconut entomology than any other crop-subject combination. Nearly 25% of the papers deal with plant pathology which taken together with entomology and nematology comes to nearly a half (48.06%) of the total output, and clearly points to crop protection as the major concern of the Institute. In fact, coconut root (wilt) disease and yellow leaf disease of arecanut are the two most pressing problems (an entire regional station having been established exclusively for coconut (root) wilt) and remain, as yet, diseases of uncertain aetiology.

Agronomy, plant physiology, soil science and genetics and plant breeding are all well represented but very few publications have appeared in the remainder of the subject areas. This could be a reflection of the relative manpower as the number of scientists representing these disciplines has been very small indeed, e.g., in 1979, there were only two scientists in agricultural economics, four in technology, three in horticulture and four in statistics as against 27 in plant

TABLE 2. Crop and subject coverage of the contributions of CPCRI staff from 1969 - 79

Subject	Arecanut	Cocoa	Cardamom	Cashew	Cinnamon	Clove	Coconut	General	Ginger	Micellaneous*	Nutmeg	Oil palm	Black pepper	Spices (general)	Turmeric	Total
Agronomy	9	2	1	1	0	0	36	2	0	0	0	0	0	0	0	51
Economics	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Entomology	11	9	1	8	1	1	49	0	1	0	0	0	2	0	1	84
General	0	0	1	5	1	1	6	3	0	2	1	0	0	2	0	22
Genetics and plant breeding	8	2	1	4	0	0	12	0	1	1	0	0	0	0	1	30
Horticulture	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Microbiology	3	0	0	0	0	0	4	1	0	0	0	0	0	0	0	8
Nematology	3	1	1	0	0	0	6	1	0	0	0	0	2	2	1	17
Plant pathology	18	5	6	5	0	1	42	0	3	1	0	0	3	0	2	86
Plant physiology and biochemistry	8	2	1	3	0	0	25	2	1	1	0	0	1	0	0	44
Soil science	9	0	0	1	0	0	15	5	0	0	0	0	0	0	0	30
Statistics	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Tecnology	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Total	69	21	12	33	2	3	205	14	6	5	1	0	8	4	5	388

* Occasional papers on crops such as vanilla and bitter gourd, and on such subjects as poultry science and fisheries, have been included in this column.

TABLE 3. Overseas journals in which CPCRI staff published their contributions during 1969 - 79

Journals	Number of contributions
Acaralogia	1
Agricultural Meteorology	1
Cytologia	1
Euphytica	1
Gartenwissenchaft	1
Nematologia Mediterranea	2
Oleagineux	2
Philippines Journal of Coconut Studies	3
Plant Disease Reporter	7
Plant and Soil	1
Qualitas Plantarum	1
World Crops	1
Total	22

TABLE 4. Indian journals which published more than 15 contributions from CPCRI staff during 1969 - 79

Journals	Number of contributions
1. Journal of Plantation Crops	64
2. Proceedings of the Placrosym	49
3. Indian Farming	37
4. Indian Journal of Agricultural Sciences	25
5. Current Science	25
6. Coconut Bulletin	22
7. Arecanut and Spices Bulletin	18
8. Indian Coconut Journal	15
Total	191

pathology and 20 in entomology.

The coverage of crops in the publications reflects the fact that CPCRI was formed by the merger of the Central and Regional Coconut and Arecanut Stations while research on spices was started only later. The increasing importance now being given to cashew, cocoa and spices (particularly black pepper and cardamom) is also evident from the number of contributions published on these crops. Little has been published on oil palm, nutmeg and clover by the Institute.

CONCLUSIONS

An analysis of the publications of the CPCRI during 1969 - 79 showed that 94% of the publications appeared in Indian journals. Staff publish mostly in 'crop journals' devoted to particular crops rather than in 'subject journals'. These 'crop journals' are mainly 'house journals,' i.e. journals in which the Institute is closely involved. Coconut and arecanut are the main crops, and crop protection (plant pathology, entomology and nematology) the main subject area in which the Institute is involved as was demonstrated by the number of publications on these aspects. Special occasions such as jubilees, e.g., Diamond Jubilee of Coconut Research in 1976, and symposia, e.g., the International Cashew Symposium in 1979, encourage the staff into publishing a large number of popular articles.