

94269

IDRC - Lib. 94269

THE COST STRUCTURE OF SELECTED
RESEARCH INSTITUTES IN INDIA:
SOCIAL SCIENCES, HEALTH AND AGRICULTURE

ROHINI NAYYAR



△ Paper Prepared for the IDRC
New Delhi

March 1985

ARCHIV
061.6(S40)
N 3

Introduction

This paper seeks to analyse the cost structure of selected research institutes in the field of social sciences, health and agriculture. As a first step, an attempt was made to collect data from published reports of some of the apex bodies which direct research in these various spheres. In the field of social sciences, we concentrated on those research institutes which come under the purview of the Indian Council of Social Sciences Research (ICSSR), with one exception, namely, the National Council of Applied Economic Research (NCAER), which is an important research organisation in social sciences. The Indian Council of Medical Research (ICMR) finances a number of research centres in the field of medicine and health. We selected a few for our study. After obtaining the basic information from the apex bodies, we visited a few institutes to collect detailed data on the pattern of expenditure incurred by them. The list of the institutes visited by us are set out in Annexure 1. In respect of the agricultural research institutes we obtained data only from the Indian Council of Agricultural Research (ICAR), which is the apex body financing agricultural institutes. Unfortunately, it was not possible to obtain information from the institutions themselves as it was not readily available. We approached the Indian Agricultural Research Institute but it was not possible to obtain data from them directly for want of prior permission, and paucity of time.

A. SOCIAL SCIENCE RESEARCH INSTITUTES

As we stated earlier, most of the research institutes in social sciences are under the aegis of the ICSSR. We shall first discuss these. Thereafter we shall analyse the cost structure of the NCAER. We also visited the Agro-Economic Research Centre at Delhi and the Centre for Management and Development Studies at the Indian Institute of Management, Calcutta. We shall briefly comment on these.

1. The ICSSR Institutes

Before analysing the data for the selected institutes we visited, in detail, let us say something about the ICSSR itself and its financial structure. This will enable us to put the issue in its proper perspective. The ICSSR is an autonomous organisation which promotes research in the fields of social sciences in various ways. These include the actual financing of research projects and research institutes, research fellowships at various levels in the academic hierarchy, study grants, training programmes, seminars and conferences, documentation and publication, and some international collaboration. Table 1 sets out the receipts and expenditure of the ICSSR under various heads for two selected years for which this breakdown is available. A perusal of the table reveals that one-third of the expenditure was diverted to the research institutes as maintenance and development grant; and another 30 per cent was allocated as research grants and research fellowships. The cost of administration was a small percentage of the total expenditure, being around 6 per cent.

The ICSSR was established in 1969; from its inception to 1982-83, 1358 projects were sanctioned, of which 853 had been completed by March, 1983, and 34 stood cancelled. It is not possible to analyse the pattern of expenditure on individual research projects, as this varies from, say Rs.3,000 to over Rs. 2 lakhs. In each case, the anticipated cost of a project has been assessed separately; it would depend on the duration of the project, the number of research assistants required, the amount of travel involved, and the fee of the individual researcher who initiates the project. Hence, one cannot say much about what the cost of a research project should be. In contrast, in the case of fellowships there are four categories: the national fellowships, senior fellowships, general or post-doctoral fellowships and doctoral fellowships; in each category a certain monthly stipend is paid to the fellow and an additional lumpsum grant is made to meet his research expenses. Since its inception,

TABLE 1

**TOTAL INCOME AND DISTRIBUTION OF EXPENDITURE
OF THE INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH
1978-79 AND 1980-81**

	Rs. lakhs			
	1978-79		1980-81	
Income	188.78		199.02	
Expenditure	%		%	
1. Administration	11.94	6.3	13.05	6.5
2. Research Grants	41.08	21.8	33.63	16.9
3. Research Fellowships	16.89	8.9	25.85	13.0
4. Training	3.12	1.6	0.97	0.5
5. Study Grants	1.01	0.5	0.52	0.3
6. Regional Centres	7.27	3.8	14.80	7.4
7. Documentation	8.68	4.6	11.56	5.8
8. Data Archives	1.28	0.7	1.61	0.8
9. Publications	6.72	3.6	9.31	4.7
10. Maintenance and Development Grants to Research Institutes	61.00	32.3	62.81	31.5
11. Other Programmes (including Seminars, Conferences and expenditure against Ford Foundation grants)	17.67	9.4	8.73	4.4
12. Debt, Deposit and Advances	3.15	1.7	0.94	0.5
13. Capital Expenditure	2.86	1.5	1.96	1.0
14. Payment on Behalf of Other Organisations	0.96	0.5	0.83	0.4
15. Balance	5.13	2.7	8.10	4.1
16. International Collaboration	-		1.61	0.8
17. Total	188.78	100.0	199.02	100.0

Source: Annual Reports of the ICSSR.

the ICSSR has awarded 18 national fellowships, 144 senior fellowships, 54 post-doctoral fellowships and 566 doctor fellowships.

In April, 1974, the Government of India transferred the scheme of grants-in-aid given to research institutes in the field of social sciences to the ICSSR. During 1975-76, Rs. 50.58 lakhs were disbursed to 14 research institutes. In the same year, 3 others were brought under its purview. The grants released to these institutes remained around Rs. 60 lakhs per year between 1977-78 and 1980-81. However, the following two years saw an increase in the allocation, which was Rs. 80 lakhs in 1981-82 and over Rs. 100 lakhs in 1982-83. The ICSSR makes these grants-in-aid on the condition that an equivalent amount is raised by the institute either from its own resources or from the state government, or from any other source. Table 2 contains the details of the quantum of grants disbursed by the ICSSR to each of the 17 institutes during the period 1977-78 to 1982-83. In general, no institute received a yearly grant exceeding Rs. 10 lakhs. One exception was the Giri Institute of Development Studies which received a non-recurring grant of Rs. 12.50 lakhs for land and building in 1982-83.

Let us now delve a bit further and analyse the pattern of expenditure of some of the research institutes by broad categories for the year 1982-83. The details are set out in Table 3. A perusal of the table shows that a large proportion of the expenditure is on salaries and allowances. In some cases, for example, the Sardar Patel Institute of Economic and Social Research, Ahmedabad, or the Centre for the Study of Developing Societies, where the expenditure on projects is high, a part of it must constitute expenditure towards salary of the project staff. In the case of most institutes the amount spent on the library is small; the notable exceptions seem to be the MIDS in Madras and the CDS at Trivandrum,

THE QUANTUM OF GRANT RELEASED TO VARIOUS
RESEARCH INSTITUTES BY THE ICSSR 1977-78 TO 1982-83.

	Rs. lakhs					
	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83
1. A.N. Sinha Institute, Patna	3.00	3.00	4.85	3.50	4.80	7.40
2. Centre for Development Studies, Trivandrum	6.00	6.00	6.25	6.25	8.50	10.50
3. Centre for Policy Research, Delhi	1.83	3.25	2.43	2.39	2.50	3.08
4. Centre for Social Studies, Surat	2.43	2.50	1.85	2.42	3.00	3.62
5. Centre for Studies in Social Sciences, Calcutta	5.32	5.00	5.23	6.58	6.90	7.20
6. Centre for Developing Societies, Delhi	8.50	6.43	6.66	5.00	5.60	7.21
7. Council for Social Development, Hyderabad	-	1.82	1.48	1.70	1.90	2.00
8. Institute of Gandhian Studies, Varanasi	6.61	3.50	4.10	3.00	5.23	5.49
9. Giri Institute of Development Studies, Lucknow	2.60	1.00	1.80	2.50	4.00	16.00
10. G.B. Pant Institute, Allahabad.	2.00	0.98	-	2.90	3.50	3.15
11. Indian Institute of Education, Pune	1.95	4.60	6.23	3.25	3.25	3.42
12. Institute of Development Studies, Jaipur	-	-	-	0.50	1.25	1.75
13. Institute of Economic Growth, Delhi	5.72	7.23	6.00	6.50	7.95	8.30
14. Institute of Public Enterprises, Hyderabad	0.75	1.00	1.50	1.50	2.25	2.50
15. Institute for Social and Economic Change, Bangalore	7.50	7.50	5.63	6.69	8.83	8.31
16. Madras Institute of Development Studies, Madras	1.72	3.46	3.34	4.22	4.24	4.10
17. Sardar Patel Institute of Economic and Social Research, Ahmedabad	4.07	3.73	2.65	3.90	6.32	5.60
18. Total	60.00	61.00	60.00	62.80	80.00	101.63

Source: ICSSR Annual Reports, Various Issues.

TABLE 3

DISTRIBUTION OF EXPENDITURE OF SELECTED
RESEARCH INSTITUTES BY BROAD CATEGORIES : 1982-83

Item of Expenditure	Rs.lakhs									
	A.N. Sinha Institute of Social Studies, Patna.	Sardar Patel Institute, Ahmedabad.	Centre for Studies in Social Sciences Calcutta	Madras Institute of Development Studies Madras	Institute of Public Enterprise, Hyderabad	Centre for Studies in Developing Societies, Delhi	Gandhian Institute of Studies, Varanasi	Centre for Policy Research, Delhi	Centre for Development Studies, Trivandrum	Institute of Development Studies, Jaipur
1. Salaries	13.07	12.87	12.45	4.64	7.39	7.35	9.62	6.00	11.81	1.81
2. Library	1.00	1.09	0.65	1.81	0.56	-	0.25	0.25	7.74	0.55
3. Projects, Fellowships, Seminars	0.69	12.70	1.19	0.50	3.51	9.84	1.77	7.63	3.09	0.50
4. Building Maintenance Furniture & Equipment	2.14	0.76	1.46	0.51	0.41	1.53	2.02	6.99	11.02	0.73
5. Others*	0.25	2.65	0.35	0.71	4.72	0.39	2.31	1.28	1.02	0.28
6. Balance from Previous Year	0.20	0.04					0.60	0.29	1.73	0.48
7. Total	17.35	30.91	16.10	8.18	16.59	19.11	16.55	21.94	37.71	4.35

*Includes publication, printing and stationery, postage, telephones, electricity and other miscellaneous items.

where the library accounts for 20 per cent of the total financial outlay. Conversation with some of the people in the Delhi-based institutes reveals that they rely greatly on other libraries which are well-stocked, while in the case of some other institutes there is unhappiness about the lack of resources for books and research expenditure. Where the cost of building and establishment is on the high side, some construction is likely to have taken place, e.g., the Centre for Development Studies in Trivandrum. Normally, this constitutes the bulk of maintenance costs.

The above analysis is based on published data obtained from the annual reports of the ICSSR. Let us now take up a few institutes for a complete breakdown of their pattern of income and expenditure.

a. Institute of Economic Growth, Delhi (IEG)

The IEG received only a part of its total income from the ICSSR, while the remaining came from different sources for specific areas of research. The details of receipts, for the year 1982-83, are given below. Here, it will be seen that on the expenditure side no details are given, except in broad terms indicating the area financed by specific 'fund-givers'.

<u>Receipts</u>		<u>Expenditure</u>		
(Rs. lakhs)		(Rs. lakhs)		
1.	ICSSR	8.95	Maintenance and Development	8.95
2.	Ministry of Health and Family Welfare	6.47	Population Research Centre	6.47
3.	Planning Commission	6.07	Investment Planning and Project Evaluation	6.07
4.	Ministry of Home Affairs	5.36	Indian Economic Service Training	5.36
5.	Planning Commission	2.12	Planning and Development	2.12
6.	Ministry of Agriculture	2.10	Agricultural Economics Research Section	2.10
7.	Reserve Bank of India	0.87	RBI Chair in Economics	0.87
8.	Rent from Staff Quarters	1.44	IEG Main Account	1.44
9.	Rent from Hostel	0.77	Hostel Expenses	0.85
10.	Ad hoc Projects	1.12	Ad hoc Projects	1.12
	Total:	<u>35.27</u>	Total:	<u>35.35</u>

For details of the pattern of income and expenditure, we obtained a complete breakdown for the year 1980-81. This is set out in Annexure 2. The expenditure financed by specific government departments, was largely on salaries of faculty and staff, and this varied from 70 per cent to 95 per cent of total expenditure. These sources supported 13 professors, 8 readers, 7 lecturers and 21 research assistants, plus a large number of administrative and supportive staff. The grant from the ICSSR and the revenue raised from the staff quarters and hostel financed the bulk of the cost of electricity, water, telephone, postage, library, computer services, maintenance and repair of buildings and garden, and it provided for the salary of the director, 5 professors, one reader and the core of the administration and finance establishment right down to the sweepers and chowkidars. All the sources considered together, 73 per cent of the total income of the Institute was by way of salaries. The point to note here is that government departments and/or Ministries finance specific areas of research, and that those funds cannot be diverted to other accounts.

b. The Institute of Social and Economic Change, Bangalore (ISEC)

This institute receives the bulk of its funds from the ICSSR and the Government of Karnataka. Out of this, it finances its own expenditure. However, it also has certain specific centres for which it receives grants separately. For instance, it has the Agricultural Development and Rural Transformation Unit (ADRT) and the Population Research Centre (PRC), for which the Government of India makes a financial allocation; the scheme on Social Services Management (SSM) is financed by the Reserve Bank of India, and the Command Area Study Unit (CASU) is funded by the State Government. In addition, it receives other miscellaneous grants,

which include a book grant from the Ford Foundation, resources for the Tumkur project also from the Ford Foundation, World Bank financed projects on fertility decline and sericulture in Karnataka, funds from the UNICEF and Planning Commission for two separate projects on education, and some others. The details of income and expenditure are set out in Annexure 3. In the recurring account, for 1983-84, 66 per cent of the expenditure was on salaries and allowances, 10 per cent on library, 14 per cent on maintenance of buildings and vehicles, and the remaining 10 per cent on all other items. However, if we take all the projects together, over 70 per cent of the income is spent as salary to faculty and staff. There seems to be some increase in the allocation of funds between 1982-83 and 1983-84, but this would be more apparent than real, given the rate of inflation. However, between these two years, the percentage allocation for books doubled, the percentage distribution between other heads remained unchanged.

c. The Centre for Studies in Social Sciences, Calcutta (CSSS)

This institute is financed only by the ICSSR and the Government of West Bengal. It does not receive grants from other agencies and international organisations. The details of income and expenditure for 1983-84 are contained in Annexure 4. Once again, 80 per cent of the total expenditure was on salaries and allowances including provident fund, leave encashment, medical and travel expenses. However, for this institute, we were able to get a breakdown of the salary expenditure by various categories, which is set out below.

	<u>Rs.lakhs</u>	<u>Percentage</u>
(i) Academic Staff	6.08	52.0
(ii) Administrative Staff	3.00	26.0
(iii) Library Staff	0.67	6.0
(iv) Supporting Staff	1.46	12.0
(v) Project Staff	0.48	4.0
Total:	<u>11.69</u>	<u>100.0</u>

While faculty accounted for over 50 per cent of the total salary, administrative staff accounted for over 25 per cent. It is noteworthy that faculty accounted for half the expenditure on salary and the administrative and supportive staff for the other half. This implies that the number of people employed in the second category exceeds the number of academic members. Expenses on all other items was clearly small, books and periodicals were the second after salaries with an expenditure of about 5 per cent.

d. Madras Institute of Development Studies, Madras (MIDS)

Like CSSS, MIDS received all its funds from the ICSSR and the Government of Tamil Nadu. The budget for the year 1983-84 was over Rs. 14 lakhs. Of this, only 40 per cent was on salaries and 12 per cent on the library. With respect to salaries, 60 per cent was on faculty and 40 per cent on administrative and library staff. In the case of MIDS, we have data for three financial years, which is set out in Annexure 5. In 1981-82, the total income was Rs. 13 lakhs, which declined to Rs. 12 lakhs in 1982-83 rising again to over Rs. 14 lakhs in the following year. Here, it should be noted that in each year, there appears to be a deficit due to an excess of expenditure over income, which is met out of the endowment account. This is then repaid from the following year's financial outlay, and goes on to the expenditure side. Once again, the difference between income and expenditure is adjusted by drawing on the endowment account. Let us clarify with a concrete example. From a perusal of Annexure 5, one can see that in 1982-83, Rs. 4.74 lakhs was the extent of deficit met out of the endowment account. This showed up on the payments side in 1983-84. But again, the payments were in excess of receipts in 1983-84, and this deficit was bridged by drawing Rs. 3.55 lakhs from the endowment account. These book transactions tended to inflate the actual financial outlay and expenditure in each year. Also, as a result,

repayments form a high proportion of the total expenditure, and salaries a somewhat smaller proportion as compared to other institutes.

e. Institute of Public Enterprise, Hyderabad (IPE)

This institute concentrates on research and training programmes in the field of public enterprises. It is financed largely by grants from the ICSSR, the Government of Andhra Pradesh and the Bureau of Public Enterprises. In addition, it receives income from membership fees, from collaborations with national and international organisations and from its training programmes for management personnel at various levels. The details of income and expenditure for 1983-84 are presented in Annexures 6A and 6B. A perusal of Annexure 6A reveals that of a total expenditure of Rs. 16.6 lakhs, about 45 per cent was on staff salaries and allowances, and 34 per cent on projects. The breakdown of project income and expenditure by the source of finance is detailed in Annexure 6B. There seem to be five major projects which were financed through various channels, while the remaining seven were perhaps on-going in earlier years and the small expenditure shown against them was just the cost of completion. It should be noted that there is no corresponding income against these seven heads suggesting that they were completed or near completion.

2. NCAER

The National Council of Applied Economic Research is a no-profit-no-loss body with the primary objective of carrying out sponsored research. This implies that particular departments and Ministries of the Government, and other agencies and institutions can approach the NCAER with specific proposals for research and an undertaking to finance them. However, in the mid-seventies, the NCAER felt that some independent research would be desirable, in certain areas where sponsoring was not forthcoming. In

1977, the Ford Foundation offered Rs. 23 lakhs in the first phase to support a programme of independent research. This included the purchase of library books, and equipment, and development of certain facilities for the staff. Still it has problems in meeting capital expenses. In addition to research on various economic issues, the NCAER also provides assistance to public sector corporations to build an information system, e.g., it is working on an information system for the Delhi Transport Corporation and the Steel Authority of India Limited. In this sphere, the IDRC made the NCAER a licensee of MINISIS free of cost; MINISIS is a software package for information storage and retrieval.

The details of receipts and expenditure of the NCAER are presented in Annexure 7. Once again, most of the expenditure is on salaries and allowances. However, if we look at the distribution of salary cost by different category of personnel, it is encouraging to note that the expenditure on the salaries of faculty has gone up vis-a-vis the administration over the years. The details are as follows:

	P e r c e n t a g e		
	1975	1981-82	1982-83
Faculty	22	39	44
Administration	50	44	42
Computer	6	7	7
Field Staff	22	10	7

Given that the Council has to finance itself primarily out of project funds, it is not surprising that in any given year the expenditure exceeds the income. From Annexure 7, it can be seen that the deficit increased substantially between 1981-82 and 1982-83, and was as much as Rs. 11.83 lakhs in 1982-83. The extent of Ford Foundation grant had declined

considerably over the two years. Perhaps, there is need for the NCAER to again raise a core of funds to meet some of its needs.

3. Others

Before concluding this section, we would like to point out that we visited two other research centres which were somewhat different from those discussed above. Hence, we shall say a few words about them. The Agro-Economic Research Centre located at Delhi University receives a grant from the Ministry of Agriculture which funds the core staff and establishment of the Research Centre. For the current functional year, this grant is about Rs. 8 lakhs. In addition, they undertake projects in collaboration with other agencies or institutions. Their research is limited to the North Indian States and districts. There are several similar agro-economic research centres which are located in different regions of India and each of them deals with problems of that particular area, at the village and district level. In fact, these centres have produced some very good village surveys, which are important as a basis for macro decisions and policies.

It is difficult to get details of research costs and programmes from Universities and teaching institutions, where research funds constitute a small proportion of the total financial outlay. In these institutions, the research funds meet the costs of travel, research assistance, typing and duplicating, of members of faculty who are doing research, but not the salary of the researcher nor any establishment cost. We talked to the Director of the CMDS at the Indian Institute of Management, Calcutta. They had an outlay of Rs. 3 lakhs which was used to finance individual projects. I was told that the project costs varied between Rs. 8,000 and Rs. 60,000. However, individuals and departments can undertake research either in collaboration with other national or international organisations, or on contract from them. To cite an example, the Department of Sociology

is doing a large research project in collaboration with the IDRC, so that there are individuals from both institutions in the research team. Again, the Ministry of Commerce has asked the Indian Institute of Management, Calcutta, to do a large study on Prospects of Tea Marketing. In these cases the individual researchers are paid an honorarium and all their research costs are met by the contracting party.

B. MEDICAL RESEARCH INSTITUTES

The ICMR is the apex body for promoting and coordinating bio-medical and health research in India. It implements its research programmes mainly through its permanent research institutes and centres, which are eighteen in number. It also directs research through a number of coordinated projects, mainly formulated by the Task Force, a large number of ad hoc projects and several fellowships at various institutes, universities and medical colleges; in fact, during 1983-84, the number of projects in each of these three categories were 368, 421 and 678 respectively. The major priority areas of research include control of communicable diseases, study of maternal and child health problems, nutrition, fertility control, operationalisation of primary health care and a study of diseases like cancer, cardiovascular disorders, blindness and mental ailments. In other words, the ICMR aims at the actual formulation and implementation of various programmes in the area of medicine and health and then designs methods for the monitoring and evaluation of the progress made in the different fields. Given that there exists an imbalance in the regional distribution of research centres, the ICMR has been attempting to rectify the imbalance by setting up Regional Medical Research Centres in selected areas. So far, six have been established at Port Blair (Andaman), Dibrugarh (Assam), Jabalpur (Madhya Pradesh), Bhubaneswar (Orissa), Jodhpur (Rajasthan),

and Belgaum(Karnataka). Each of these will concentrate on the health problems unique to the area. Let us now look at the cost structure of some of the Research Institutes which come under the purview of the ICMR.

a. National Institute of Nutrition (NIN), Hyderabad

Major studies in nutrition are being carried out at the National Institute of Nutrition. This is one of the largest research institutes with a wealth of primary data and an even greater potential. In 1983-84, its budget outlay was Rupees 1 crore 60 lakhs, far exceeding any research institute reviewed by us. Presently, the main thrust is on different aspects of the delivery of nutrition services. Of course, other studies to assess the changes in the nutritional status of people are on-going. In addition, scientific investigations on the nutritive value of different food items and the effect malnutrition on physical and mental development continue to receive attention. The income and expenditure statement of the NIN for 1983-84 is set out in Annexure 8. Pay and allowances constitute the highest proportion of expenditure which is about 43 per cent of total expenditure. Given that the NIN carries out scientific experiments, there is substantial amount spent on laboratory and other equipment; in value terms this accounts for an expenditure of Rs. 18 lakhs which is 11 per cent of total expenditure. The important point to note here is that while Rs. 36 lakhs constitute a recovery of advances on the receipt side, about Rs.22 lakhs is repayment of advances on the expenditure side. Also, about Rs.9-10 lakhs is the balance on either side of the account. In other words, Rs.30-35 lakhs worth of expenditure is not a real expenditure but constitutes a book transfer. This fact should be borne in mind.

b. Food and Drug Toxicology Research Centre (FDTRC), Hyderabad

At this Centre, studies on health impact of a variety of food toxins, outbreaks of human diseases due to aflatoxin and food adulterants, and the distribution of heavy metals such as lead, cadmium and mercury in different types of food are being carried out. The financial outlay of this institute is small compared to the NIN, but at par with social science research institutes. From Annexure 9, it can be seen that a little less than 50 per cent of the expenditure is on salaries and allowances; over 10 per cent are remittances while another 10 per cent remains unspent. Here also laboratory equipment constitutes a little less than 10 per cent of the total expenditure.

c. Laboratory Animal Information Service Centre (LAISC), Hyderabad

The activities of the LAISC cover four areas: (i) service relating to breeding and supply of a variety of animals and monitoring of their health, (ii) reproduction and feed utilisation of rats, (iii) training of technicians and supervisors of animal facilities, and (iv) dissemination of information on laboratory animals. This institute had a total outlay of Rs. 14 lakhs of which per cent was on salaries. The details are contained in Annexure 10.

d. National Institute of Cholera and Enteric Diseases (NICED), Calcutta

Research on cholera and enteric diseases is carried out at this institute. Surveys on the use of home-made fluids for the management of diarrhoea in children in rural areas revealed that their use could reduce the requirement for Oral Rehydration Systems (ORS) by half. In addition, the NICED is conducting a number of investigations on the link between diarrhoea and the incidence of toxigenic strains in the new born. It has been found during studies that the use of soap and water for washing hands, chlorine tablets and narrow-mouthed containers for storage of water, would

reduce the rates of dysentric attacks. During the Seventh Five Year Plan, it is expected that Rs. 20 crores will be allocated for a countrywide project on the control of half million deaths in infants due to diarrhoea. Both the UNICEF and WHO are collaborating in an attempt to combat the spread of cholera by financing education and training programmes. The NICEF has been entrusted to train health personnel at the State level, who in turn will train PHC doctors and paramedical staff. Annexure 11 contains the income, expenditure account for 1983-84 by broad categories. Salaries of staff and faculty was 40 per cent of total expenditure, equipment and furniture was another 36 per cent, while building and vehicle accounted for 13 per cent of total expenses.

e. Institute for Research in Medical Statistics (IRMS)

There are two Institutes for Research in Medical Statistics, one in Madras and the other in Delhi. The Delhi chapter is primarily concerned with the application of modern statistical methods to various health problems such as feasibility of fitting appropriate regression models with various objectives and parameters. It provides consultancy services to other institutes and researchers on problems related to biostatistical analysis. It also conducts courses for statisticians and medical research workers. It is a very small centre which does not keep separate accounts; it is an integral part of the ICMR and is located within the ICMR campus. While it is largely financed by the ICMR, it received a grant of Rs. 8 lakhs from the Ford Foundation to build a data bank in the field of medicine and health.

The IRMS in Madras also offers consultancy services on the kinds of statistical exercises suitable for a particular biomedical issue, and on the interpretation of results. However, due to the absence of an in-house computer its activities are limited. This is also a small institute which

had a total budget of Rs. 10.95 lakhs in 1983-84. The distribution of this expenditure was as follows:

	Rs. lakhs	Percentage
Salaries	5.93	54.0
Equipment	2.12	20.0
Library Books	0.14	neg
Establishment	2.03	20.0
Travel	0.73	6.0
	<u>10.95</u>	<u>100.0</u>

Once again, over 50 per cent of the income was on salaries, another 20 per cent on equipment and a further 20 per cent on all establishment costs. This institute actively participated in applied research particularly in the areas of tuberculosis and leprosy. It is conducting pilot studies on the utilisation of health services; beginning with the city of Madras, these have now been extended to rural areas. Then, it has gone into clinical trials on the impact of traditional medicine on certain diseases. The IRMS at Madras does not have regular training programmes, as this is done by the Delhi counterpart. However, it does offer training on a particular subject to individuals or small groups.

f. Malaria Research Centre (MRC)

The Malaria Research Centre has an outlay of Rs. 43.87 lakhs. We visited the Centre but were not able to get much data on the breakup of expenditure by items. Once again about 50 per cent was spent on salaries and allowances. With a resurgence of malaria in recent years, there is a lot of emphasis on programmes and research to combat this growing trend. Together with the MRC, the Vector Control Research Centre at Pondicherry

and the National Malaria Eradication Programme are tackling this problem. Studies on malaria vector control, the extent of resistance to DDT, development of alternative insecticides, the extent of chloroquine resistant parasites etc. are being continued by the Malaria Research Centre along with the Vector Control Research Centre.

C. AGRICULTURAL RESEARCH INSTITUTES

The Indian Council of Agricultural Research (ICAR) is a national agency for the promotion of research in all areas of agriculture including animal husbandry and fisheries. It also has the responsibility of directing education. In 1965, the Government of India entrusted to the ICAR the management of research institutes, which are 31 in number, and the development of agricultural universities on a regional basis. In addition, it has several research projects integrating different disciplines and different institutions; these are called the All-India Coordinated Research Projects. It also has collaborations with other organisations both at the national and international levels. Its main source of finance is the annual grant-in-aid received from the Government of India for financing schemes included in the national plans and also for meeting the expenditure of its research institutes. It also raises fund from the cess levied on agriculture produce. In addition, it receives grants from autonomous bodies and other sources like the PL 480 and the substitute fund kept with the Department of Science and Technology and from the Government for providing assistance to agricultural universities and colleges for specific projects. During the Fifth Plan, the plan and non-plan expenditure of the ICAR was Rs. 240 crores. Let us now look at the pattern of expenditure of some selected institutes. The details are set out in Annexure 12, which gives a breakdown of plan and non-plan expenditure for 5 institutes, by broad categories; these are the Indian Agricultural Research Institute (IARI), Delhi,

the Central Institute of Agricultural Engineering (CIAE), Bhopal, the ICAR Research Complex (Res.Comp), Shillong, the Indian Veterinary Research Institute (IVRI), Izatnagar, and the Central Marine Fisheries Research Institute (CMFRI), Cochin.

a. IARI This is among the earliest research institutes in India which was set up as a centre of research and training in the field of agriculture. While its main office is in Delhi, it has four regional centres and fourteen sub-stations in order to facilitate the study of problems specific to a geographical area. It is a mammoth organisation which has had an annual outlay of around Rs. 10 crores in the last two financial years. However, the bulk of its expenditure was non-plan. While 53 per cent of the expenditure was on establishment and travel in 1982-83, it increased to 63 per cent in 1983-84.

b. IVRI. The IVRI predates the IARI. It was set up in the foothills of the Himalayas at Mukteswar in 1893. The Izatnagar branch was established in 1913 for large-scale manufacture of sera and vaccines and for investigations into animal diseases. In 1969, a Nuclear Research Laboratory was added to the IVRI with UNDP assistance. A centre was established at Bangalore in 1972 with the Danish collaboration for the production of foot and mouth disease vaccine. This had a budget of Rs. 545 lakhs in 1982-83, which went upto Rs. 741 lakhs in the following years. The expenditure on income was 53 per cent of the total in 1982-83, but this declined to 45 per cent in 1983-84. In 1983-84, equipment accounted for 14 per cent of total expenditure

c. Research Complex. This is a fairly recent centre which was set up by the ICAR at Shillong in Assam in 1975, to serve the needs of the North-

Eastern States, the Andamans, Goa and Lakshadweep. This was set up in this area because it provides a wide diversity of climate and topography, and hence, different types of crops and animals can be raised. This had a budget of Rs. 222 lakhs in 1982-83, which increased by 60 per cent in the following year and stood at Rs. 356 lakhs in 1983-84. The expenditure on income was only around 20 per cent both in 1982-83 and 1983-84, while that on equipment was 18 per cent in 1982-83 and 10 per cent in 1983-84.

d. CMFRI. This was established by the Ministry of Food and Agriculture in 1957 at Cochin, and was transferred to the ICAR in 1967. This institute has six substations at different places. It carries out research on various aspects of fishing and fish processing methodology and equipment. The financial outlay of this institute was similar to that of the Research Complex; it was about Rs. 250 lakhs in 1982-83, and this went up to Rs. 332 lakhs in 1983-84. Establishment and travel accounted for 48 per cent of total expenditure in 1982-83, which declined to 44 per cent in 1983-84.

e. CIAE. This institute was also set up in 1975 by the Government of India for purposes of research in the field of agro-engineering, particularly farm implements and machinery. This institute had the smallest financial outlay, but even this exceeded Rs. 100 lakhs. Establishment and travel expenses accounted for only 25-30 per cent of total expenditure, which is small compared to most other institutes.

Conclusions

This paper has sought to examine the cost structure of three categories of research institutes: those that address themselves to issues in the realm of social sciences, those which are concerned with medicine and health problems and those which are in the field of agricultural research including animal husbandry and fishery. Certain broad conclusions emerge from the study which need to be reiterated. First, there exists

a great degree of variation in the budgetary outlay of the different types of institutes. For most of the social science research institutes, the annual outlay is in the region of Rs. 20 lakhs or less. There are the exceptions like the Institute of Social and Economic Change, Bangalore, and the National Council of Applied Economic Research where it was Rs. 40 lakhs and Rs. 70 lakhs respectively in 1983-84. In contrast, all the agricultural institutes had an annual expenditure exceeding Rs. 1 crore, with the Indian Agricultural Research Institute spending over Rs. 10 crores both in 1982-83 and 1983-84. The medical research institutes were more variable in size. While the National Institute of Nutrition had a financial outlay of Rs. 1.5 crores in 1983-84, the National Institute of Cholera and Enteric Diseases' expenditure was half of that incurred by the National Institute of Nutrition and that of the Food and Drug Toxicology Research Centre only about Rs. 14 lakhs, more on the scale of a typical social science research institute.

Second, for almost all the institutes in each of the three spheres, salaries and allowances of faculty and staff formed the single most important item of expenditure. However, while for social science research institutes this exceeded 70 per cent, for medical and agricultural research institutes it was in the region of 50 per cent. This is due to the fact that both in medical and agricultural centres there is considerable expenditure on equipment.

Third, it is worth noting that there are various ways in which any autonomous organisation can provide financial support to these research institutes. The normal practice is, and has been, to provide grants for individual research projects based at a particular institute. However, here there is need to assess the priority areas where more research is required and to concentrate on a few for in-depth study. Clearly, it is possible to provide non-recurring grants for libraries, laboratory equipment and/or land and buildings, which may be required either at the inception of an institute or even at a later stage. In addition, recurring grants for specific projects based at a particular institute can be made.

ANNEXURE 1

A List of the Research Institutes Visited

1. Centre for Study in Social Sciences, Calcutta.
2. Institute of Public Enterprise, Hyderabad.
3. Institute for Social and Economic Change, Bangalore.
4. Madras Institute of Development Studies, Madras.
5. Centre for Policy Research, New Delhi.
6. Institute of Economic Growth, Delhi.
7. National Council of Applied Economic Research, New Delhi.
8. Agro-Economic Research Centre, Delhi University, Delhi.
9. Indian Institute of Management, Calcutta.
10. National Institute of Nutrition, Hyderabad.
11. Laboratory Animal Information Service, Hyderabad.
12. Food and Drug Toxicology Research Institute, Hyderabad.
13. National Institute of Cholera and Enteric Diseases, Calcutta.
14. Malaria Research Centre, Delhi.
15. Institute for Research in Medical Statistics, Madras.
16. Institute for Research in Medical Statistics, New Delhi.

Annexure 2

INSTITUTE OF ECONOMIC GROWTH

Income and Expenditure Account 1980-81

Rs. lakhs

	IEG A/C	Population Research Centre	Maintenance and Develop- ment	Planning and Development	Agricul- tural Economics	Indian Economic Service Training	Investment	Econometrics Chair
INCOME : SOURCE	Various*	Ministry of Health	ICSSR	Planning Commission	Ministry of Agriculture	Home Ministry	Planning Commission	Reserve Bank of India
Amount Rs. lakhs	4.96	5.13	6.50	1.78	1.46	3.33	4.44	0.59
EXPENDITURE								
1. Salaries and Allowances	1.55	4.64	5.12	1.61	1.11	2.90	3.16	0.52
2. Transport and Travel	0.05	0.10	0.05	0.01	0.02	0.01	0.05	
3. Water and Electricity	0.46							
4. Postage and Telephones	0.33							
5. Printing and Stationery	neg	0.10	0.10	0.02	0.02	0.05	0.10	
6. Books and Periodicals	-	0.05	0.24	0.08	0.02	0.10	0.25	
7. Bulletin, Publications	0.29							
8. Seminars and Fellowships	-							
9. Maintenance	0.83					0.04	0.05	
10. Building	0.92							
11. Others**	0.53	0.24	0.99	0.02	0.02	0.06	0.09	0.07
12. Deficit				-	0.12	0.07	0.28	
13. Overheads				0.04	0.15	0.10	0.46	
14. Total	4.96	5.13	6.50	1.78	1.46	3.33	4.44	0.59

*This consists of income from the hostel account, the publication account, the rent from staff quarters and other miscellaneous receipts.

**All others where further break-up is not available.

- 25 -
ANNEXURE 3

INSTITUTE FOR SOCIAL AND ECONOMIC CHANGE

Income and Expenditure Account : 1982-83 and 1983-84

Rs. lakhs

COME : SOURCE	IESC Account		ADRT		PRC		SSM		CASU		Total**	
	1982-83 Various*	1983-84	1982-83 Govt. of India	1983-84	1982-83 Govt. of India	1983-84	1982-83 Reserve Bank of India	1983-84	1982-83 Govt. of Karnataka	1983-94	1982-83	1983-84
AMOUNT Rs. LAKHS	24.90	27.38	3.73	4.28	3.28	4.05	0.93	1.15	1.69	2.20	34.53	39.06
EXPENDITURE												
Salaries and Allowances	17.91	17.92	2.80	3.36	2.94	3.64	0.80	0.99	1.46	1.84	25.91(75.04)	27.75(71.04)
Transport and Travel	0.27	0.37	0.07	0.06	0.06	0.11			0.12	0.27	0.52(1.50)	0.81(2.07)
Water and Electricity	0.90	0.98									0.90(2.61)	0.98(2.51)
Postage and Telephones	0.36	0.40	0.03	0.04	0.01	0.02			0.01		0.42(1.22)	0.49(1.25)
Printing and Stationery	0.72	0.69	0.03	0.04	0.05	0.06		0.02	0.03	0.06	0.83(2.40)	0.87(2.23)
Books and Periodicals	1.18	2.70	0.05	0.14	0.04	0.07					1.27(3.68)	2.91(7.45)
Bulletin, Publications	0.02	0.07		0.04							0.02(0.10)	0.11(0.30)
Seminar and Fellowships	0.63	0.59					0.06	0.10			0.69(2.00)	0.75(1.12)
Maintenance	1.85	2.77				0.06					1.85(5.36)	2.83(7.24)
Buildings	-											
Others	1.06	0.80	0.05	0.08	0.18	0.10	0.06	0.01	0.02	0.03	1.37(3.97)	1.02(2.61)
Deficitor (Balance)		0.07	0.70	0.52					0.05		0.75(2.17)	0.59(1.51)
Total	24.90	27.38	3.73	4.28	3.28	4.05	0.93	1.15	1.69	2.20	34.53	39.06

*The break-up is as follows:	1982-83	1983-84
ICSSR	8.31	9.77
Govt. of Karnataka	12.00	20.43
Miscellaneous	2.47	2.89
Balance	2.12	- 5.71
Total	24.90	27.38

**This excludes other miscellaneous grants received from various sources for specific projects, e.g., the Tumkur project financed by Ford Foundation, the World Bank projects on fertility decline and sericulture in Karnataka, two projects on education funded by UNICEF and Planning Commission respectively, and another by the Population Council.

ANNEXURE 4

CENTRE FOR STUDIES IN SOCIAL SCIENCES

Receipts and Payments for 1983-84

INCOME	Rs. lakhs	Percentage of Total
1. ICSSR Grant	8.20	
2. Government of West Bengal	8.20	
3. Miscellaneous	1.20	
4. Deficit	0.13	
5. Total	17.73	

EXPENDITURE		
1. Salaries and Allowances	14.15	79.81
2. Transport and Travel	0.22	1.24
3. Water and Electricity	0.06	0.03
4. Postage and Telephones	0.19	1.07
5. Printing and Stationery	0.22	1.24
6. Books and Periodicals	0.86	4.85
7. Bulletin, Publication	0.26	1.47
8. Seminars and Fellowships	0.11	0.06
9. Maintenance	0.19	1.07
10. Projects	0.26	1.47
11. Building	-	-
12. Others	0.39	2.20
13. Deficit	0.79	4.45
14. Total	17.73	100.00

ANNEXURE 5

MADRAS INSTITUTE OF DEVELOPMENT STUDIES

Income and Expenditure Account 1981-82 to 1983-84

	1981-82		1982-83		1983-84	
	Rs.lakhs	%	Rs.lakhs	%	Rs.lakhs	%
INCOME						
1. ICSSR Grant	4.20		4.34		4.65	
2. Government of Tamil Nadu	4.20		2.81		6.00	
3. ICSSR Building Grant	0.75		-			
4. Others	0.89		0.19		0.13	
5. Deficit met out of Endowment A/c	3.10		4.74		3.55	
6. Total Income	13.14		12.08		14.33	
EXPENDITURE						
1. Salaries and Allowances	3.82	29.07	4.53	37.50	5.72	39.92
2. Transport and Travel	0.07	0.53	0.06	0.50	0.06	0.42
3. Water and Electricity	0.08	0.61	0.05	0.40	0.06	0.42
4. Postage and Telephones	0.22	1.67	0.17	1.41	0.33	2.30
5. Printing and Stationery	0.24	1.83	0.15	1.24	0.47	3.28
6. Books and Periodicals	1.74	13.24	1.72	14.24	1.69	11.79
7. Bulletin	0.17	1.29	0.22	1.82	0.24	1.67
8. Seminars and Fellowships	0.29	2.21	0.26	2.15	0.08	0.56
9. Maintenance	0.20	1.52	0.24	1.99	0.28	1.95
10. Projects	-	-	-	-	-	-
11. Building	3.51	26.71	0.40	3.31	-	-
12. Others	0.25	1.90	0.92	7.62	0.65	4.54
13. Opening Balance	2.55	19.41	3.36	27.81	4.74	33.08
14. Total	13.14	100.00	12.08	100.00	14.33	100.00

ANNEXURE 6A

INSTITUTE OF PUBLIC ENTERPRISE, HYDERABAD

Income and Expenditure in 1983-84

	Rs. Lakhs	Percentage of Total
<u>INCOME</u>		
1. ICSSR Grant	2.80	
2. Government of Andhra Pradesh	5.25	
3. Annual Subscription	0.54	
4. Receipts from Programmes	4.93	
5. Interest on Deposits	neg	
6. Deficit Income	3.08	
7. Total Income	16.60	
<u>EXPENDITURE</u>		
1. Staff Salaries and Allowances	7.43	44.7
2. Transport and Travel	0.31	1.9
3. Water and Electricity	0.30	1.8
4. Postage and Telephones	0.53	3.2
5. Printing and Stationery	0.32	1.9
6. Books and Periodicals	0.50	3.0
7. IPE Journal	0.32	1.9
8. Research Fellowships	0.07	0.4
9. Maintenance and Depreciation	0.098	5.9
10. Projects*	5.66	34.1
11. Others	0.19	1.1
12. Total	16.60	100.0

*Details of Project Expenditure in Annexure 6B.

ANNEXURE 6B

INSTITUTE OF PUBLIC ENTERPRISE, HYDERABAD

Breakdown of Project Income and Expenditure

	1983-84	Rs.lakhs
Research Projects	Receipts	Expenditure
Special Employment Scheme	1.00	0.71
Bibliography		0.02
World Bank	1.35	1.46
Pricing Policies	0.48	0.56
Bureau of Industrial Costs and Prices	1.00	1.26
Development of Public Enterprises Government of Andhra Pradesh	1.00	1.33
Andhra Pradesh Industrial Development Corporation		0.06
Corporate Management		0.02
Markfed		0.09
Manpower Survey		0.11
Gramodaya Schemes		0.05
Capacity Utilisation		0.01
Return on Investments		
Deficit	0.73	
Total	<u>5.66</u>	<u>5.66</u>

ANNEXURE 7

NATIONAL COUNCIL OF APPLIED ECONOMIC RESEARCH, DELHI

Income and Expenditure Account 1981-82 and 1982-83

	1981-82		1982-83	
	Rs.lakh	Per cent	Rs.lakhs	Per cent
INCOME				
1. Projects	43.23		60.44	
2. Membership	4.35		4.85	
3. Grant-in-aid, Govt. of India	2.00		2.00	
4. Grant-in-aid, Ford Foundation	6.74		2.60	
5. Sale of Publication	1.15		0.36	
6. Others	1.28		0.93	
7. Total	58.75		71.19	
EXPENDITURE				
1. Salaries and Allowances	42.53	72.44	58.08	81.63
2. Transport and Travel	2.89	4.92	8.28	11.64
3. Water and Electricity	n. a.		n. a.	
4. Postage and Telephones	1.20	2.04	1.26	1.77
5. Printing and Stationery	1.38	2.35	3.26	4.58
6. Books and Periodicals	0.76	1.29	0.77	1.08
7. Bulletin, Journal Publication	0.77	1.31	0.58	0.81
8. Fellowships*	0.44	0.75	0.24	0.34
9. Maintenance	1.22	2.08	1.34	1.88
10. Others	8.79	14.97	9.17	12.89
11. Deficit	- 1.27	- 2.16	- 11.83	- 16.63
12. Total	58.71	100.00	71.15	100.00

*Payments to Consultants

n. a. = not available separately.

ANNEXURE 8

NATIONAL INSTITUTE OF NUTRITION, HYDERABAD

Receipts and Payments Statement for 1983-84

	Rs. lakhs	Percentage
INCOME		
1. Opening Balance	8.96	
2. Grant from ICMR	90.42	
3. Advances	3.13	
4. Recovery of Advances	36.38	
5. Undisbursed Salaries	1.34	
6. Procurement of Equipments	16.46	
7. Miscellaneous Receipts	3.19	
8. Total	159.88	
EXPENDITURE		
1. Pay and Allowances	68.28	42.72
2. Laboratory and other Equipment	17.95	11.23
3. Books and Journals	3.45	2.16
4. Travel and Conveyance	1.65	1.03
5. Furniture	0.60	0.38
6. Remittances to the ICMR	4.49	2.81
7. Projects and Schemes	2.11	1.32
8. Repayment of Advances	17.88	11.19
9. Balance	9.79	6.12
10. Others*	33.41	21.05
11. Total	159.84	100.00

*Others accounts for a large percentage of consumable and non-consumable stores.

ANNEXURE 9

FOOD AND DRUG TOXICOLOGY RESEARCH CENTRE, HYDERABAD

Receipts and Payment Account for 1983-84

	Rs. lakhs	Percentage
INCOME		
1. Opening Balance	1.66	
2. Grant from ICMR	10.87	
3. Recovery of Advances	1.42	
4. Miscellaneous Receipts	0.60	
5. Total	14.55	
EXPENDITURE		
1. Pay and Allowances	7.10	48.80
2. Travel	0.25	1.72
3. Laboratory and Other Equipment	1.23	8.45
4. Library	0.61	4.19
5. Remittances to ICMR	1.36	9.35
6. Other Remittances	0.28	1.92
7. Closing Balance	1.58	10.86
8. Miscellaneous*	2.14	14.71
9. Total	14.55	100.00

*This category accounts for about 85-90 per cent of consumable and non-consumable stores.

ANNEXURE 10

LABORATORY ANIMAL INFORMATION SERVICE CENTRE, HYDERABAD

Receipts and Payments Statement for 1983-84

	Rs. lakhs	Percentage
INCOME		
1. Opening Balance	2.73	
2. Grant from ICMR	8.57	
3. Recovery of Advances	1.14	
4. Miscellaneous Receipts	1.70	
5. Total	14.14	
EXPENDITURE		
1. Pay and Allowances	4.78	33.78
2. Travel	0.10	0.71
3. Laboratory and Other Equipment	2.01	14.20
4. Library	0.36	2.54
5. Remittances to ICMR	1.21	8.55
6. Repayment of Advances	1.08	7.63
7. Other remittances	0.26	1.84
8. Miscellaneous	2.93	20.71
9. Closing Balance	1.42	10.04
10. Total	14.15	100.00

ANNEXURE 11

NATIONAL INSTITUTE OF CHOLERA AND ENTERIC DISEASES, CALCUTTA

Income and Expenditure Account for 1983-84

	Rs. lakhs	Percentage
INCOME		
1. Opening Balance	25.22	
2. Grant from ICMR	59.96	
3. Excess of income over expenditure	- 11.48	
4. Total	73.70	
EXPENDITURE		
1. Pay and Allowances	29.32	39.78
2. Equipment and Furniture	26.50	35.96
3. Library	1.42	1.93
4. Building and Vehicle	9.33	12.66
5. Miscellaneous	7.13	9.67
Total	73.70	100.00

ANNEXURE 12

Selected Agricultural Research Institutes

Expenditure by Broad Categories

1982-83 and 1983-84

	Rs.lakhs									
	Indian Agricultural Research Institute		Central Institute of Agricultural Engineering		ICAR Research Complex		Indian Veterinary Research Institute		Central Marine Fisheries Research Institute	
	1982-83	1983-84	1982-83	1983-84	1982-83	1983-84	1982-83	1983-84	1982-83	1983-84
1. Establishment and Travel	555.66	645.75	28.06	34.34	48.02	69.37	288.37	333.32	121.24	146.10
2. Equipment	72.46	35.09	20.30	13.79	40.65	34.95	45.72	101.32	7.27	4.76
3. Building	-	-	11.09	-	-	-	29.25	23.32	-	-
4. Works	89.20	121.20	30.25	39.93	34.82	145.88	43.49	69.79	55.51	73.55
5. Contingencies	328.33	394.49	16.65	27.81	90.26	98.66	137.54	192.83	53.94	98.87
6. Others	0.25	-	-	-	10.66	6.79	1.16	28.37	11.49	9.12
7. Total	1045.83	1015.54	105.35	115.87	222.38	335.67	545.53	741.04	249.44	332.20