# Twenty-first Annual Report

(1982 - 83)



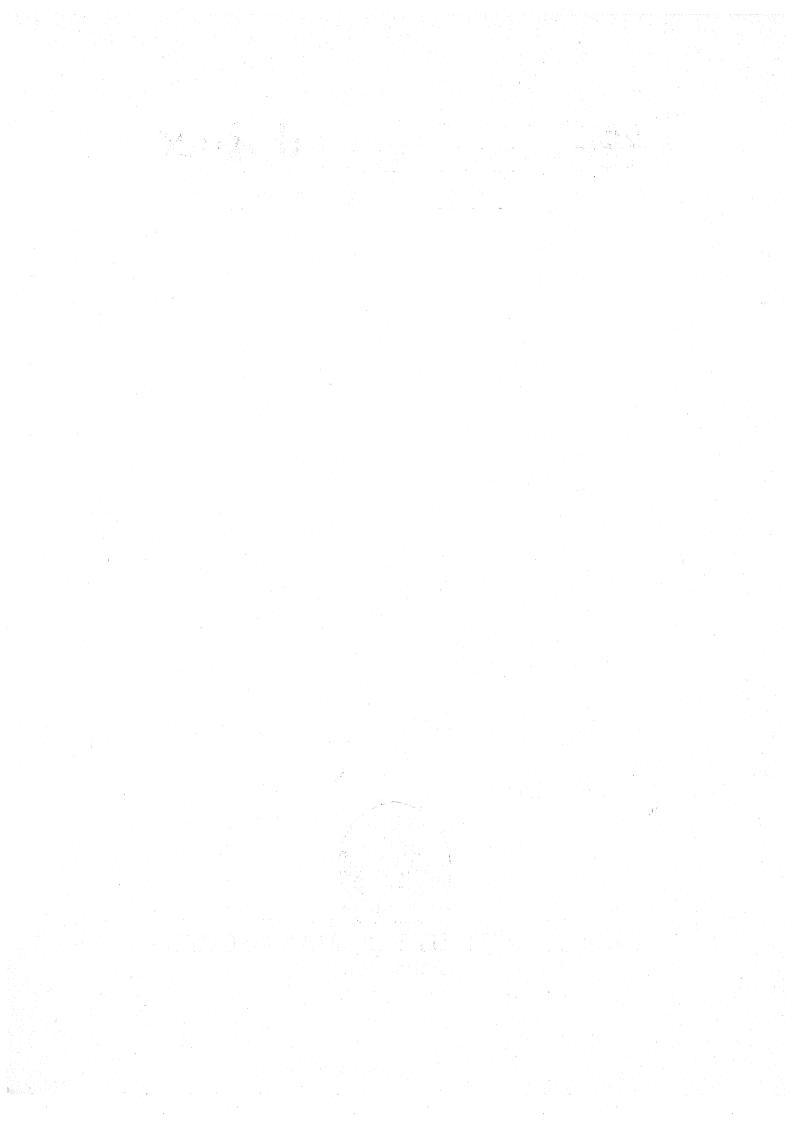
INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD

# Twenty-first Annual Report

April 1, 1982 to March 31, 1983



INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD



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#### I. THE YEAR IN RETROSPECT (1982-83)

The international economic environment in the last few years has underscored the growing interdependence among nations, both developed and developing. Despite its size and diversity, the Indian economy also cannot isolate itself from the opportunities and challenges that arise from the fast-changing international scene. Inflows of technology and other forms of business cooperation are increasing in India and India is emerging as a significant exporter not only of goods, whether traditional or otherwise, but also of a large variety of managerial and other skills. The Institute has attempted to reflect this emerging trend in its strategy by developing new programmes focusing on these issues. Of the eight new programmes that it offered this year five have examined various aspects of this phenomenon.

The International Seminar on Management of Public Sector Manufacturing Enterprises was an attempt to exchange ideas and experiences in the management of public enterprises among the Asian and African developing countries. The Seminar on Internationalisation of Business discussed the issues of international markets, technology acquisition and foreign competition with which the top management of many Indian organizations find themselves increasingly concerned.

International contracting is emerging as a major discipline

in its own right and considerable planning effort is required to manage this important work satisfactorily, in conformity with the overall plans of the company for growth. The Workshop on International Contracting Strategy aimed at providing an opportunity for executives to exchange their experiences. The Appropriate Management Systems for Agricultural Cooperatives was an outcome of the new approach of an integrated cooperative management system which is being developed by FAO in collaboration with national institutes like IIMA. The Workshop on Technology Management discussed inter alia problems in international transfer of technology.

The other three new programmes were on: 1) Project Management, 2) Advertising Strategy and Management, and 3) Corporate Planning.

As in the past, the Post-Graduate Programme attracted a large number of applicants, totalling more than 7,000. Our endeavour to admit more SC/ST candidates continues. As a part of the exchange programme which we had entered into with Ecole Superieure des Science Economiques et Commerciales (ESSEC), five French students spent the second term of PGP II here. On the placement front, the programme is being reoriented somewhat so as to provide greater opportunity

and capability to the students to make choices with clarity about their personal goals and careers.

In the Fellow Programme in Management, a new area of specialization in public systems has been introduced this year. With this, there are now eight areas of specialization available to the students. The Faculty Development Programme, which continued on a modest scale, needs to be expanded and put on a firm financial footing if its full potential is to be realized.

The research activities of the Institute and the activities of the Centre for Management in Agriculture (CMA), Public Systems Group (PSG), and the Information Services and Computer Group (ISCG) would indicate that the Institute continues to make progress towards its avowed objective of strengthening management capability in all areas of our national life, including in particular, the decentralized private sector, agencies providing public goods and governmental enterprises. The Institute's contribution in these areas is, so far, mainly through its research and consultancy work and through specially designed management development programmes. The research activities and management development programmes are outlined at some length in this Report. It is proposed to give a similar analysis of the Institute's consultancy activity in the Report for the next year.

On October 1, 1982 Professor Vyas stepped down from the directorship. He has been awarded the IDRC Senior Research Fellowship for the year 1983 and will be on leave of absence for a year. We all recognize his valuable contribution to the growth of this Institute. If the Institute is now able to encompass a much larger area of management in its research and consultancy work than was the case a few years ago, the credit for it goes largely to the personal impetus and inspiration given by Professor Vyas.

This year has also witnessed the retirement of one of our senior faculty members. Professor H.N. Pathak who had been with the Institute since its inception retired on January 31, 1983. If one were to isolate one element in a long and distinguished record of dedicated service, we would emphasize Professor Pathak's contribution in bringing to life the concept of entrepreneurship to successive batches of our students — a concept which perhaps comes more naturally to an economist than its poor relation, viz., management.

The first lecture in the Institute Lecture Series was delivered by Dr. Ashok Mitra on "Is there an Urban Bias in Indian Economic Development?" and the second one was delivered by Swami Ranganathananda of Ramkrishna Math, Hyderabad, on "Social Responsibilities of Managers".

This year's IIMA Society Conference reflected the increasing trend towards internationalization of Indian business. The theme was "Internationalization of Business and Role of Management Education."

The Convocation this year gained a great deal in its customary solemnity by the very thought-provoking address of the Chief Guest, Mr. N.A. Palkhivala.

Another hallmark of this year was IIMA joining the Society for Promotion of Indian Culture and Music among College Youth (SPIC-MACY). The chapter was inaugurated by a sitar recital by Pandit Ravi Shankar who was accompanied by Shri Zakir Hussain on the tabla. By all account, the recital was one of the best given by Panditji in recent years. The occasion also served to remind us of the valuable contribution made by Professor H.N. Pathak over the years to the cultural scene on the campus.

Another major way the Institute is trying to help its community is by extending housing facilities to more of its staff. Under the phased programme, work on all categories of staff houses, i.e., Type II, IIA, I and S-type, and also transit houses for faculty has been started. A few quarters for the married students have already been completed. Housing facilities for faculty, as well as staff, however, remain inadequate. Facilities for work, recreation and group activities also need to be strengthened; and maintenance requirements of buildings and supporting services require

urgent and greater attention. A new phase of campus development, therefore, is overdue and the Institute will soon have to mount efforts to raise the requisite resources.

A healthy tradition at the Institute is for the faculty to take stock periodically of past achievements and shortcomings and to chart out a course for the next five years or so. A Committee on Future Directions (the third of its kind) has been at work for some time; and its deliberations, though by no means complete, have left the new Director with the distinct impression that he has joined a community which does not believe in resting on its pars.

1st July, 1983

I.G. PATEL DIRECTOR

#### II BOARD, SOCIETY AND PERSONNEL

#### Board

Dr. D.S. Walia, Deputy Educational Adviser (T), Ministry of Education and Culture, New Delhi, was nominated to the Board of Governors to represent the Central Government in place of Mr S. Vedantham.

Mr. P.G. Muralidharan, Financial Adviser to the Ministry of Education and Culture, was appointed to the Board to represent the Central Government from August 1 to November 21, 1982. He was replaced by Mr. Man Mohan Singh from November 22, 1982 onwards.

Dr. Vinay Bharat Ram was nominated to the Board in place of Dr. Ram. S. Tarneja to represent the All India Management Association.

Mr. Harshavadan Mangaldas was co-opted as member of the Board.

Mr. M.N. Buch, Secretary (Education) was appointed as member of the Board to represent Gujarat Government.

The Government of India appointed Mr. V. Krishnamurthy, Chairman and Managing Director, Maruti Udyog Ltd., New Delhi; Dr. C. Rangarajan, Deputy Governor, Reserve Bank of India, Bombay; and reappointed Mr. Nanubhai Amin, Chairman, Jyoti Ltd., and Dr S. Varadarajan, Secretary,

Department of Science and Technology, New Delhi to the Board to represent Industry, Commerce, Trade and other interests for a period of five years.

Professor S. Paul and Professor N.R. Sheth were appointed to the Board for a period of two years as Chairman's nominees.

Dr. I.G. Patel, who has taken over as Director of the Institute, will be the ex-officio member of the Board.

#### IIMA Society Conference

The Annual Society Conference was held on March 11 and 12, 1983 on our campus. The theme of the conference this year.

was "Internationalization of Business and Role of Management Education".

As a result of internationalization of Indian business, large and medium size organizations in our country are becoming increasingly concerned with the trends in world markets, new developments in technology, and increasing competition from abroad. To deal with new challenges effectively the managerial personnel in our country would require new skills and expertise. Management education must gear itself for this crucial task; the educators must assess the changes required in their programmes to meet the new needs of our managers. The conference was directed to this end. It was

attended by 21 senior executives. Guest Faculty from IMEDE Management Development Institute, Switzerland also participated.

#### Personnel

#### New Comers ·

i) Visiting Faculty

V. Raghunathan joined the Finance and Accounting areas on May 3, 1982 as Visiting Faculty. Before joining the Institute he was Management Consultant at the Administrative Staff College of India, Hyderabad.

Suresh Ankolekar joined the Information Systems and Computer Group as Visiting Faculty on June 23, 1982.

Sipra Mukhopadhyay joined the Marketing area on July 7, 1982 as Visiting Faculty. Before joining the Institute she was with IIM, Calcutta.

ii) Regular Faculty

Manu R. Shroff joined the Public Systems Group of the Institute on June 1, 1982 as Professor. Earlier he was Adviser (Plan Coordination) with the rank of Additional Secretary to Planning Commission, Government of India, in charge of Coordination and Monitoring Divisions.

N. Ravichandran, Visiting Faculty in the Production and Quantitative Methods area from June 26, 1980, has been offered the regular position of Assistant Professor from July 1, 1982.

Ashok Subramanian, Visiting Faculty in the Public Systems Group from November 21, 1980, has been offered the regular position of Assistant Professor from January 1, 1983.

I.G. Patel has joined the Institute as Director on October 1, 1982. Dr. Patel, prior to his joining the Institute, was Governor, Reserve Bank of India.

#### Retirement

Prof. H.N. Pathak who was with the Institute from the very inception retired from the services of the Institute on January 31, 1983.

#### Resignations

Professors C. Rangarajan, G. Sreenivasan, K. Balakrishnan, and B.L. Mittal resigned from the Institute during the year.

### Faculty Development Programme

Professor P.S. Sachdeva continued his doctoral studies at the University of Pennsylvania.

On a faculty exchange programme Professor I.M. Pandey was sponsored to take up teaching assignment with the ESSEC, Paris, from March 1982 for three months.

Professor S.G. Joag was granted study leave for a period of three years from January 1, 1983 to do doctoral studies at the Oklahoma State University.

#### Outside Assignments

	Assignment	Period
Professor Mohan Kaul	UNDP assignment, Kuala Lumpur	January 1, 1983
Professor S.C. Mehta	National University of Singapore	June 1, 1982 to May 31, 1984
Professor V.S. Vyas	Asian Development Bank as detailed below:	
	IFAD assignment	October 1, 1982 to January 14, 1983
	IDRC fellowship	January 15, 1983 to December 12, 1983
Professor Udai Pareek	The Health, Research & Training Development Project, Ministry of Health, Government of Indonesia	February 1, 1983 to July 31, 1983
Professor U.K.Srivasta	va Asian Development Bank	October 1, 1982 to December 29, 1982
Professor T.V. Rao	National Entrepreneu- rial Research and Development Association (NERDA), Kuala Lumpur	August 1, 1982 to March 2, 1983

Professor Ramesh Gupta

Visiting Professor Memorial University July 1, 1982 to May 16, 1983

New foundland

Professor G.S. Gupta

Illinois State University January 1, 1983 to May 1, 1983

#### Endowed Chairs

Professors Udai Pareek, S.C. Kuchhal, V.K. Gupta, Ranjit Gupta, G.R. Kulkarni and N.C.B. Nath respectively continued to hold the Larsen and Toubro Chair in Organizational Behaviour, the IFCI Chair of Management, the GSFC Chair of Management in Agriculture, the State Bank of India Chair of Rural Development, the Bank of Baroda Chair of International Banking and Finance, and the STC Chair in International Trade.

## III POST-GRADUATE PROGRAMME IN MANAGEMENT

#### Nineteenth Session

The Nineteenth session of the Post-Graduate Programme in Management began on June 25, 1982 with an enrolment of 187 students in the first year and 169 students in the second year. Nineteen first year students discontinued their studies during the year for various reasons. Out of these 19 students, three had discontinued their studies on medical grounds and they have been allowed to complete their first year this year.

The first year class strength at the end of the year was 168. The 1982-84 batch included 23 students belonging to SC/ST. Out of 168 students in the first year programme 25 will specialize in Agricultural Management during the second year of their studies. A first year student of 81-83 batch who was granted leave on medical grounds at the end of the academic year 1981-82 has been permitted to join the second year programme during the academic year 1983-84.

One second year student of 1980-82 batch who was asked to return to the second year programme during the second term of the academic year 1982-83 joined the second year programme in the second term and thus the total number of students in the second year programme was 170. The second year students included 31 specializing in Agricultural Management and 24 belonging to SC/ST.

#### Curriculum

During the year, the first year students had to study 22 compulsory courses, seven each in the first two terms and eight in the third term.

In the second year programme (General), 37 elective courses were offered in addition to a two-unit compulsory course in Business Policy. Moreover, 59 students had taken one term project courses in the areas of their interest and five students had pursued course of independent study equivalent to two units of courses.

In the second year programme of Specialization in Agricultural Management, eight compulsory courses inclusive of a project course and 12 elective courses were offered.

#### Institute Lecture Series

The first lecture in the Institute Lecture series was delivered by Dr. Ashok Mitra, Professor, Indian Statistical Institute, Calcutta on December 15, 1982. The theme of the lecture was "Is there an Urban Bias in Indian Economic Development?" The second lecture was delivered by Swami Ranganathananda of Ramkrishna Math, Hyderabad. He spoke on the subject "Social Responsibilities of Managers."

#### Students' Exchange Visit

During the last few years, the students of one IIM have been paying goodwill visits to the other two institutes in rotation. During the current academic year, IIM, Calcutta had hosted the visit from October 9 to 12, 1982. The IIMA contingent consisting of nine first year students and 27 second year students had participated in various events and social and cultural activities.

#### Admission of foreign students

Five French students from Ecole Superieure des Science Economiques at Commerciales (ESSEC) were permitted to spend the second term of PGP II and take regular courses with other students. The grades that they obtained would be communicated to their parent institutions which has recognized our courses as equivalent to their own. This visit was part of the exchange programme which we had entered into with ESSEC.

#### Graduation of 1981-83 Batch

One hundred and seventy students of 1981-83 batch, including 31 students with Specialization in Agricultural Management were awarded the Institute's Post-Graduate Diploma in Management at the eighteenth Annual Convocation held on March 25, 1983. Mr. N.A. Palkhivala delivered the Convocation Address. The following four students received the "Indian Institute of Management Ahmedabad Medal for Scholastic Performance".

#### PGP (General)

PGP (SPA)

A. Nanda

S. Madan

S. Ramkumar

P.B. Mirchandani

### Admission to the 1983-85 Batch

For the Post-Graduate Programme commencing July 1983, 7470 applications were received. The comparative figures for this year and the last year are given below:

		The the speciment of th
Total	7,470	8,050
SC/ST	369	484
SPA	430	468
General	6,671	7,098
	1983-85	1982-84

Details of applications received and the number of candidates Called for interview, selected, and recommended for the Preparatory Programme are as follows:

	A CONTRACTOR OF THE CONTRACTOR			NAME OF TAXABLE PARTY OF TAXABLE PARTY.	Married of Transport Company of the
	General	Special zation Progra	mme in	SC/ST	TOTAL
		Agricul	Lture	, . • • • •	
Application received	6671	430	(SAM BANKERSON) WAY THE CONTRACTOR WAS A THREE OF THE CONTRACTOR O	369	7470
Called for interview	526	132		108	767*
Selected	182	34		35	251*
Recommended for Pre- paratory Programme	23	22		15	60

<sup>\*</sup> Includes one foreign applicant.

In addition, 44 candidates (41 in the General and 3 in SPA) were put on the waiting list. The total number registered this year was 197. Relaxation was given to the SC/ST applicants in all segments of the selection procedure.

#### Financial Aid

#### Loans

Loan assistance of Rs. 2,94,500 to 91 students was recommended:

Financial Agency	Number of Students		Amount
State Bank of India	76	Rs	2,51,000
IIMA	15	Rs	43,500
	Amadri (p. n. a (p. n. a)	Rs	2,94,500

#### Scholarships

#### A. Industry Scholarships

Twenty-eight industry scholarships were awarded as follows:

#### 1. General

Thirteen students from the first year (1981-83 batch) and twelve from the second year (1980-82 batch) were awarded scholarships of Rs. 3,000 to Rs. 3,500 each for the academic year 1981-82.

2. Bank of Maharashtra Scholarship for SC/ST Students

Two scholarships of Rs. 3,500 each for needy SC/ST students were awarded to one first year and one second year students for the academic year 1982-83.

- One scholarship of Rs. 3,600 was awarded to a second year student who stood first among the SPA students in 1981-82.
- B. B.K. Hegde and Warren Haynes Memorial Scholarships

  One first year student of 1981-83 batch was awarded B.K. Hegde

  Memorial Scholarship of Rs. 3,000 for 1981-82, and one second

  year student of 1980-82 batch was awarded the Warren Haynes

  Memorial Scholarship of Rs. 3,000 for 1981-82.
- C. Government of India Merit-cum-Means Scholarships

  From the first year 21 students and from the second year five students were awarded this scholarship of Rs. 2,200 each.
- D. IIMA Scheduled Caste/Scheduled Tribe Scholarships

  From the first year 23 students and from the second year 23 students were awarded this scholarship of Rs. 1,500 each.

  A waiver of tuition fee and room rent of a total amount of Rs. 950 per year per student was given to five students in the first year and eight in the second year.

#### Permanent Placement

Both the number of organizations announcing jobs and the number of jobs announced continue to increase every year. On-campus interviews were held during March, 1983. Out of 170 students who graduated in April, 1983, 151 students (and two alumni) sought placement assistance. All of them had finalized their placement before convocation except four students who were attending final stages of interview in many companies. This year 203 organizations came forward with job vacancies and 109 organizations (Three government, 11 Public Sector, two joint sector, 72 Indian private sector, and 21 foreign private sector) conducted interviews on the campus. The average monthly salary offered this year was Rs. 2,000/-.

This year the graduating students have been employed over a larger number of organizations as compared to last year. This is indicative of increasing professionalization in business organizations.

The placement programme at the Institute is being re-organized. This year we have attempted to build some counselling process so that more and more students can make choices with clarity about their personal goals and career. The new placement strategy encourages the students to crystallize their career

objectives and to provide them opportunities and flexibilities in determining their interview priorities. This flexibility has been made available within the framework of ensuring equity and fairness to all involved.

#### Summer Placement

The summer placement programme is also being imparted a proper focus in consonance with the academic requirements of the second year of the PGP at the Institute. Efforts are being made to ensure a healthy balance between the project work during the summer training and exposure to the functioning of the organization.

Summer Placement was provided to 176 first year students (including 11 Fellow Programme students). They were placed in 93 organizations for a period of eight to ten weeks.

#### IV FELLOW PROGRAMME IN MANAGEMENT

The Fellow Programme in Management (FPM) has continued to grow both in terms of number of participants and number of courses offered. This year 15 participants joined compared to 12 last year. A total of about 60 courses were offered this year compared to 50 in the previous year. As of today 52 students have graduated from this programme, Presently 44 students are doing the FPM.

#### Conferment of Title

The following students were awarded the title "Fellow of IIMA" at the eighteenth Convocation on March 25, 1983:

#### Thesis Title

Ashis	Kumar	Chatterj	ee

Water Resources Management for a Multipurpose Project: An Operational Perspective.

H.S. Chhabra

A Consumer Study of Law Induced Behaviour and Attitude Change: The Case of Safety Helmets.

Rajendra Kumar Gupta

Banking on Humanbeings: Action Research in Human Resource Development and Organization Development in a Large Organization.

Ujjwala Pendse

Evolution of Management Systems in Two Indian Business Groups

R. Rajagopalan

The Sugar Economy: A Cobweb of Policies.

Audrey M. Rebello

Relationship Between Corporate Strategy, Structure, and the Personnel Function.

#### Admission

Out of the 22 offers made for the 1982-83 FPM admission, 15 have joined the programme at the end of June 1982 (one joined in December, 1982 as he had already done our PGDBM). This year, with the introduction of Public Systems specialization in the FPM (from 1982-83), now there are totally eight areas of specialization available. Three persons have joined the FPM-PSG specialization,

For 1983-84 admissions, about 370 applications were received. Fifteen candidates were offered admission. About seven teachers from engineering colleges applied under QIP Scheme. Separate tests/interviews were conducted on the campus. One candidate has been recommended for admission 1983-84 under QIP.

#### IFCI Award

Industrial Finance Corporation of India (IFCI) Dissertation Proposal Awards (Rs. 2,000 each) for 1982-83 were won by the following FPM students:

#### Dissertation Proposal

C. Balaii

Human Resource Management and Organiza-

tional Commitment

Devi Singh

Management of Exchange Rate Flexibility:

India's Experience

#### FAIR Research Grant

The Foundation to Aid Industrial Recovery (FAIR) Grant of Rs. 2,000 for 1982-83 was given to the following student:

B. Vijayalakshmi

Dissertation Proposal Choice of Technology for the Sugar Industry

#### Placement

Out of the six Fellows awarded the title in 1983 Convocation, three have joined academic institutions and two industry.

#### Contingency Grant

This year, the Government of India approved the enhancement of the ceiling on the contingency grant payable to the FPM students from Rs. 1000 to Rs. 3000 per annum per student. This will help the students to meet the increased cost of various expenses involved in completing a dissertation and add to the quality of the research work.

#### Married Students' Accommodation

In addition to the present married students' dorm, five houses will be allotted to the married students from June, 1983. This will provide good accommodation facilities on campus to FPM students with families.

#### V FACULTY DEVELOPMENT CENTRE

The Faculty Development Centre (FDC) launched its Fourth Faculty Development Programme in Management on June 25, 1982. There were nine participants from various educational and professional institutes from India, and two participants from Tribhuvan University, Nepal.

Under the collaboration programme, a) two teachers from Tribhuvan University were admitted to the FD. 32-83, and b) a programme for teachers of Tribhuvan University and a parellel programme for executives of public and private sectors in Nepal were offered in Nepal during May-June, 1982. Six IIM faculty members were involved in conducting it.

## VI RESEARCH PUBLICATIONS AND SEMINARS

At the end of the academic year 1981-82, 14 research projects and 17 seed money projects sponsored by the Research and Publications Committee and some outside agencies were in progress. During the academic year 1982-83, four seed money projects were initiated. Two research projects and four seed money projects were completed; and three research projects and four seed money projects were dropped. The remaining nine research projects and 13 seed money projects were in progress. The details are given below:

## New Seed Money Projects (Sponsor: IIMA)

Dholakia, Bakul H., "Sources of Economic Growth in India."

Gupta, Omprakash K., "Computer Interactive Learning for Linear Programming."

Pandey, I.M., "Information Content of Dividends: An Exploratory Study Using Indian Costs."

Raghunath, V; and Barua, S.K., "A Study of the Behaviour of Commodity Prices."

## Research Projects Completed

Dholakia, Bakul H., "Behaviour of Capital Output Ratios in Indian Economy." (Sponsor: Planning Commission).

Pestonjee, D.M., "The EDP Managers: An Organizational Behaviour Study." (Sponsor: IIMA).

#### Seed Money Projects Completed (Sponsor: IIMA)

Barua, S.K., "An Algorithm for Solving Multi-Constraint Linear Programs with Zero-one Variables."

Dixit, M.R., "Environmental Scanning, Analysis, and Reporting for Strategy Formulation and Implementation."

Saiyadain, M.S., "Personal Characteristics and Job Satisfaction among Nigerian and Indian Employees."

Shyam Sunder, "Information in Laboratory Asset Markets."

#### Research Projects Closed

Isaac, A.M., "Study of Educated Youth Seeking Employment through Participation in Industrial Cooperatives: A Limited Microlevel Study."

Kaul, Mohan., and Kalro, A.H., "Scheduling Algorithms for T.S. System.

Mampilly, Paul: Papola, T.S; Gupta, G.S.; and Moulik, T.K. "Industrial Development of Backward Areas."

#### Seed Money Projects Closed

Agrawal, S.P.; Bhattacharyya, S.K.; Chattopadhyay, S.; and Sen Gupta, S.; "A Study of Management Consulting in India: Its Present Status and Future Directions."

Bhattacharya, C.D., "Risk and the Capital Structure."

Misra, P.N., "Petrochemical Industry in India."

Mohan, M. "Preliminary Investigations for PIMS (Profit of Marketing Strategy) Analysis in India."

#### Seminars

The following seminars were conducted during 1982-83:

#### Topic

## Speaker

#### <u>Date</u>

Finite Capacity Non-Preemptive Priority Queues with Health Application

Professor Asha S. Kapadia Associate Professor Biometry and Health July 28, 1982 Administration University of Texes School of Public Health Houston.

A Comparative Study of Dairy Development Strategies

Dr. Martin Doornbos
Dr. P. Terhal
Dr. F. Van Dorsten
Institute of Social December 3,
Studies 1982
The Hague
Netherlands

International Business and Negotiations

Mr. U. Srinivasa Rangan
International Management
Development Institute January
Lausanne (IMEDE) 19, 1983
Switzerland

Rural Poverty and Agricultural Performance in India Dr. Montek Singh
Ahluwalia
Economic Adviser March 15,
Ministry of Finance 1983
Department of Economic
Affairs
New Delhi

#### IFCI Lecture

Professor S.C. Kuchhal delivered the IFCI lecture "Success and Sickness of New Projects" on March 23, 1983. Mr. B.B. Singh Chairman, Industrial Finance Corporation of India, presided.

Professor Kuchhal's study analysed the major factors responsible for the success or sickness of new projects. He focused on assessing the role of promoters and financial institutions as well as on the impact of government policies and other environmental factors on the promotion of new projects.

He emphasized the need for strengthening the equity base of new projects.

#### Publications

Vikalpa: a quarterly journal published by the Institute has completed the sixth year of publication. The journal includes original and stimulating articles based on managerial and organizational research, and consulting experience.

In addition, the faculty and staff published 16 books and 16 monographs and wrote 78 articles or chapters in books in India and abroad. They also presented 41 papers and gave 20 lectures in various seminars and conferences. In addition, 33 working papers were brought out.

#### Consulting

A total of 59 consulting assignments were taken up during the year. Forty-seven projects were completed. The clientele included several international agencies, central and state governments, public and private sector organizations, cooperatives, banking institutions, voluntary agencies, and sponsors f small scale industry.

#### Working Papers

Thirty-three working papers were written during the academic year 1982-83.

#### W.P. No.

428 Gupta, A.K., Seasonality, Stratification and Staying on Process in Semi-Arid Regions (June 1982).

- 429 Barua, S.K.; and Raghunathan, V., Inflation Hedge in India Stocks or Bullion (July 1982).
- 430 Vyas, V.S., South Asian Experience in Agricultural Mechanization (July 1982).
- 431 Singh, G., and Guleria, A., Processing of Sugarbeet in India (August 1982).
- 432 Seetharaman, S.P. and Jayaraman, T.K., urface Irrigation Cooperative: A Case Study (August 1982)
- 433 Misra, P.N., Quantification of Distributional Impact of Government Expenditure on Selected Social Services (August 1982).
- 434 Maru, R., Murthy, N., and Satia, J.K., Management Interventions in Established Bureaucracies: IIMA's Experiences in Population Programme Management (September 1982).
- 435 Subramanian, A., Managing Grass Roots Organisations: A Study of Voluntary Agencies in Development Programmes (September 1982).
- 436 Khandwalla, P.N., Performance Determinants of Public Enterprises (September, 1982).
- 437 Satia, J.K., and Maru, R.M., Management Contribution to Pupulation Programs An Overview (September, 1982).
- 438 Paul, S., and Subramanian, A., Development Programmes for the Poor: Do Strategies make a Difference? (September 1982).
- 439 Subramanian, A., The Small Step and the Great Leap: Issues in Managing Replication in Development Programmes (October 1982).
- 440 Mathur, K., and Gupta, A.K., Action Research for Micro Level Planning: A Self Appraisal (October 1982).
- 441 Sharan, G., Agricultural Mechanization, Related Industry and Education and Research Institutions in China (October 1982).
- 442 Desai, B.M., Research on Rural Savings in India (November, 1982).
- 443 Moulik, T.K. and Purshotham. P., Transfer of Technology in Informal Sector: A Case of Power Ghanis in a Tamil Nadu Village (November 1982).

- Gupta, A.K., Designing Developmental Organisation: Search for an Indian Theory (November 1982).
- Desai, D.K., Bio-Gas Plants -- A Challenge to Rural Entrepreneurs (November 1982).
- Gupta, A.P., Management of Tax Expenditure: A Study of the Indian Case (December, 1982).
- Ravichandran N., Analysis of Two-Unit Parallel Redundant System A Review (January 1983).
- Ravichandran N., and Subramanian R., Correlation Functions in Reliability Theory (January 1983).
- Gupta, O.K., and Ravindran, A., An Upper Bounding Heuristic for Nonlinear Integer Programs (January 1983).
- 450 Ganapathy, R.S., Spatial Underdevelopment, Small Towns and Public Policy: The Indian Experience (January 1983).
- Wadhva, C.D., Indian-Asean Economic Relations (February 1983).
- Subramanian, A., From Campus to Community Building: Changing Perspectives and Programmes of Development Agencies (February 1983).
- Wadhva, C.D., and Pradhan, R.S., Nepal-Asean Economic Relations (March 1983).
- Dixit M.R., Integrating Environmental Scanning into Corporate Planning -- Need for a Total View (March 1983).
- 455 Saiyadain, M.S., Personal Characteristics and Job Satisfaction -- India-Nigeria Comparison (April 1983).
- 456 Chaudhuri, S., International Transfer of Technology to India: The Case of the Tractor Industry (May 1983)
- 457 Singh, G., Developing Linear Programming Models for Farm Planning (May 1983).
- Ganesh, S.R., and Joshi P., Lighting Candles: Impact of Leadership Actions on Institution Building (May 1983).
- 459 Khandwalla, P.N., The PI Style of Management (June 1983).
- Raghavachari, M., Some Properties of Optimal Schedule of Jobs with a Common Due Date (June 1983).

### VII MANAGEMENT DEVELOPMENT PROGRAMMES

Eight of the 29 management development programmes offered during this year were new. These programmes continued to focus attention on the problems, areas, and sectors of management development. The mix of programmes for general management, sectoral management, and functional management, as usual reflected the range and variety of needs in management development.

Participation from government, semi-government and public sector organizations continued to increase. The number of participants from the public and Government sector was 588 as against 415 from the private sector. In all, 675 organizations sponsored 1003 executives to the Institute's programme during this year.

### New Programmes

The Institute conducted an International Seminar on Management of Public Sector Manufacturing Enterprises, at the request of Industrial Development Bank of India and the Economic Development Institute of World Bank. Seventeen participants and eight observers from nine countries attended the Seminar.

Over the last three decades public enterprises have grown rapidly in most developing countries, India has a wide range of public sector manufacturing enterprises, and they have contributed significantly to the Country's efforts towards self-reliance, technology acquisition, and development.

A substantial amount of research has also been done in India on public enterprises. India's experiences in the management of public enterprises would be useful to many developing countries. It was felt that an exchange of ideas and experiences in the management of public enterprises among the Asian and African developing countries would be useful and in this context, the International Seminar was offered, as a first step.

Another international training course offered by the Institute was Appropriate Management Systems for Agricultural Cooperatives (AMSAC) in collaboration with Food and Agriculture Organization (FAO) and German Foundation for International Development (DSE). This programme had been initiated by the FAO for the development of production oriented, integrated cooperative systems. The new approach of an integrated cooperative management system is being developed by FAO in collaboration with national institutes like IIMA and the University Merburg, West Germany. It is believed that success in the development of cooperatives will depend on the establishment of appropriate management systems capable of responding to the needs of an organization growing in size and complexity. Twenty-three participants from eight countries attended this programme.

The Institute offered for the first time a programme on Project Management to acquaint the participants with various network techniques used in Project Management, effective

management of resources and cost in projects, behavioural aspects of project management, and insight into network based project monitoring system. The programme is being effered again.

A programme on Advertising Strategy and Management was offered for the first time at the Institute to provide an analytical approach to understanding advertising communication and to develop a meaningful conceptual framework in which an assessment of the contribution of advertising and sales promotion inputs among other elements of marketing mix could be made.

A programme on Corporate Planning was offered for the first time to provide a forum for the exchange of ideas and experiences in corporate planning for achieving better corporate performance. The objectives of the programme were understanding of recent advances in techniques for formulating short and long term corporate plans, implementing them effectively in designing formal planning systems, managing the behavioural and allied implications, using planning models in formulating corporate plans, and monitoring company's performance against this. The programme is being offered again.

The Institute offered a three-day Seminar on Internationalization of Business: The General Manager's Perspective jointly with IMEDE Management Development Institute, Switzerland.

The Indian economic environment, in the last couple of years, has become increasingly international in its implications.

Inflows of technology and other forms of business cooperation are increasing in India. Top management of many Indian organizations find themselves more concerned with international markets, technology acquisition, and foreign competition.

The discussion of these concerns was the main objective of the seminar.

A three-day Workshop on Technology  $^{
m Management}$  with strategic implications of recent changes in industrial policy was offered for the first time. During the past year or so, far-reaching changes have been announced in the government's industrial policy to encourage industry to take a fresh look at technology in use, sale of operation, and plans for further growth. Indian industry is likely to face stiff competition both in the national and international markets in the next few years. The characteristics of the market forces will be substantially different from what the industry has been accustomed to during the last three decades. Technology management has been suddenly catapulated into the most significant of strategic issues. The workshop provided an opportunity for managers to seek possible lines of approach to manage technology The workshop is being in the emerging business environment. offered again.

A three-day Workshop on International Contracting Strategy with special reference to projects and equipment was offered

by the Institute during the year. International contracting is emerging as a major discipline in its own way and considerable planning effort is required to manage this important work satisfactorily, in conformity with the overall plans of the company for growth. The workshop aimed at providing an opportunity for executives to sharpen their knowledge and skills in this area through exchange of experiences and interaction among faculty and fellow participants.

This workshop is being offered again.

### General Management Programmes

The 3-Tier Programme for Management Development, the oldest and the largest of the Institute's programmes, was offered for the twentieth time. In this programme, managers from three different levels (middle, senior, and top) participated in exploring and understanding management problems. The top management (Tier II of the programme was offered as a seminar on the theme "Strategies for Growth" for the second time. Chief executives from public sector undertakings and private organizations were invited to share their experiences with the seminar participants.

Besides the 3-Tier Programme, the Institute offered the 13th Management Development Programme for Medium and Small Enterprises, which focussed on concepts and skills needed for improving the productivity and efficiency of medium and small organizations.

### Functional Programmes

Programme on Data Base Management Systems: Concepts and Applications, Product Policy and New Product Management, Advanced Programme in Personnel Management and Industrial Relations, Women Managers: Issues of Role and Authority, and Human Resources and Organizational Development were offered during the year.

### Sectoral Programmes

A programme on Management of Trade Unions was organized during the year in collaboration with Mahatma Gandhi Institute of Labour Studies, Government of Gujarat.

A four-week programme on Management of Rural Development was offered.

A Management Development Programme for top executives of Handloom Corporations and Cooperatives was organized under the sponsorship of the Development Commissioner Handlooms, Government of India.

A 3-Tier Programme for Management of Health and Family Welfare Services (at PHC and district levels) was offered.

A Three-week Management Development Programme for Public Systems Managers was organised under the sponsorship of Training Division, Department of Personnel and Administrative Reforms, Government of India, during the year.

### Long Duration Programmes

The Institute offered for the sixth time a Three-Month Advanced Programme on Computer Based Information Systems Analysis and Design. This programme was aimed at developing computer professionals for designing computer-based information systems in government, public, and private organizations. Participants from Sri Lanka and Tanzania also attended the programme. This programme is being offered again.

A ten-week course on Designing Projects for Agricultural Development (sponsored by the Training Division, Department of Personnel and Administrative Reforms, Government of India) was offered for the fourth time. This programme is being offered again.

A one-month Foundation Course in Personnel Management and Industrial Relations was offered and is being offered again.

A one-month Programme on Management of Agricultural Enterprises was offered for the second time and is being repeated again.

The Seventh Management Education Programme (four and a half months) was conducted during the year. Thirty participants attended this programme. This programme was designed to provide an intensive post-entry exposure in all areas of management for executives with functional experience, who were identified to have the potential to move to the general management positions.

### Perspectives of Management Development Programmes

The MDPs at the Institute have broadened their scope from enterprise management to the management of non-profit service organizations, public systems, and trade unions. The plan for the future is to strengthen such activities through research on problems of current relevance and national importance.

### <u>Programmes Envisaged</u>

New Programmes on management of productivity, decision support systems, marketing decisions through data analysis, management of innovations in public systems are planned for the next academic year.

### VIII CENTRE FOR MANAGEMENT IN AGRICULTURE

The need to apply management science to agriculture was long realized at IIMA. Soon after the establishment of the Institute, a small group was set up in 1963 to work on the problems of the agricultural sector and the cooperatives. The group was then called the Agco group. It consisted of only four faculty members supported by nine research staff. Since then it has grown in size and diversity of its activities. It has now 20 primary and four secondary faculty members and 19 research staff representing various disciplines. Among the members of the Centre are agricultural economists, sociologists, agricultural engineers, specialists in rural communication and management, and economists. Research takes up a large part of CMA's time. The Centre has on-going commitments to the Ministry of Agriculture for research studies. In addition, it accepts studies sponsored by other organizations. The new feature of significance in the recent past has been the growing demand on the Centre for assisting in institution building and in development of faculty and agricultural management studies. Within the constraints, the Centre has been making efforts to address to these demands.

### Research Studies Completed

During the year under review the Centre completed seven research projects. This year 15 new proposals have been developed. While evolving new proposals, effort is made to relate them to national priorities and concerns, as also to important methodological and substantive issues in developmental research. Details of completed projects are given hereunder:

### Faculty

### Sponsor

Preharvest Market Behaviour and Price and Supply Outlook S.L. Bapna

Ministry of Agriculture & Cooperation

Economic and Management Aspect of Sugar Production from Cane Gurdev Singh and Beet in India Tirath Gupta

Ministry of Agriculture & Cooperation

Crop Yield Information System through Remote Sensing Techniques

T. Madhavan

Ministry of Agriculture & Cooperation

Organizational Study of National Agricultural Cooperative Marketing Federation in India

S.P. Seetharaman Ministry of Agriculture & Cooperation

Management Information System for Renewable Source of Energy - A Case of Cotton Stalk

C.G. Ranade

Ministry of Agriculture

& Cooperation

Management of Transfer of Technology for Rural Development: An Exploratory Study of Science and Technology and Strategies of Action Programme

T.K. Moulik

Ministry of Agriculture

& Cooperation

Preparation of Training Material (Cases) on Management of Small Farmers Rice Cooperatives

V.R. Gaikwad

Food and Agriculture Organization, Rome

### Research Projects in Progress

Thirteen research projects are in progress:

The Economics of Conjunctive Use of Ground and Surface Water

Impact of Water Scheduling Policies on Irrigated Agriculture (Phase I)

Impact of Land and Infrastructure Development and Water Scheduling Policies on Irrigated Agriculture (Phase II)

Systems Analysis of Technology in Agriculture

A Study for Agricultural Research Management-Agricultural Research Policy Formulation (Case Studies of Operational Research Projects)

### Command Area Development

Small Farmers' Household Economy in Semi-Arid Regions - An Enquiry from Ecological Perspective into the Household Resource Management vis-a-vis Different Risk Environment in a Drought District: Haryana

Performance of Integrated Cooperative Structure

Promotion and Management of Social Forestry

Impact of Mechanization on Small Fishermen

Experiments in Educational Innovation - Experiment - II: The District Administration and the Creation of Demand Systems

A Critical Study of Drought Declaration Procedure and Scarcity Preparedness

Rural Roads Project.

### Research Proposals Developed

Problems of Rural Credit Institutions in Selected Backward Areas

Fertilizer Distribution System in Gujarat

Agricultural Situation in West European Countries (EEC): Its Implications for India

Towards Water Resources Utilization and Development Plan for Panchmahals - Study of Tank System

Performance Criteria and Management Information System for Large Scale Irrigation Projects

Economic and Management Aspects of Resin Harvesting and Processing

Stratification in Semi Arid Regions: Is Land Market Frozen?

Frontiers of Land Economics and Management with Reference to Forestry in  ${\bf I}$ ndia

A System Study of Selected Export Oriented Medicinal Herbs in India

Interfirm Comparison for Dairy Industry

Management of Sheep and Wool Development Programme in India: A Strategy for Generating Alternative Additional off-farm Source of Income for Rural Population

Case Book on Agricultural Administration

Wind Energy for Irrigation

Production and Marketing of Cocoa in India

A Study of Production, Marketing, and Processing of Soyabean-A Systems Approach

### Post-Graduate Programme (SPA)

The Centre is involved in offering a Specialization Package in Agriculture (SPA) during the second year of the Post-Graduate Programme of the Institute. Eight compulsory and 14 elective courses were offered in the SPA. In addition, each student was asked to conduct a research project with the guidance of the faculty. Thirty-one students successfully completed their requirements and were awarded Post-Graduate Diploma at the convocation held in March, 1983. These students were placed in relevant agro-based and related organizations.

### Management Development Programmes

The Centre organised the following Management Development Programmes:

Management of Agricultural Enterprises

September 1-30, 1982

Training Course on Appropriate October 3-24, 1982
Management Systems for
Agricultural Cooperatives (AMSAC)

Management of Rural Development Programme

December 15, 1982 - January 9, 1983

Designing Projects for Agricultural Development

December 19, 1982 - February 26, 1983

Management Development Programme for Marketing Executives of Handloom Corporation and Cooperatives February 21-28, 1983

### Seminar/Workshop

1) A National Seminar on Fisheries Development in India was organized during April 9-11, 1982 by the Centre in collaboration with the Indian Society of Agricultural Economics, Bombay. The seminar was inaugurated by the Governor of Gujarat, Mrs. Sharda Mukherjee. Professor Ravi J. Matthai delivered the keynote address. Seventy-two participants included senior administrators and policy makers from the Governments of India and stage governments, senior researchers from fishery research institutes, IIT Delhi, IIT Kharagpur and other universities, senior representatives from fishery industry epex bankers (ARDC and AFC) and the World Bank. The seminar was also attended by agencies related to fisheries such as Coast Guards, Mazagon Dock, Exploratory Fisheries, and Pre-investment Survey of Fishing Harbours.

2) The Centre in collaboration with the National Bank for Agriculture and Rural Development (NABARD), Bombay organized a workshop on "Appraisal, Implementation, Monitoring and Evaluation of Agricultural Project" from December 5 to 12, 1982 at Goa. Twenty-five senior level personnel of NABARD attended the workshop.

### Publications

CMA brings out a monograph series to report on its research. The series has 105 titles by now. During the year the Centre has published the following books/monographs:

- Desai, B.M., Group Landing Innovation for Rural Areas:

  A Pilot Study (Monograph No. 89)
- Desai, D.K., Management in Rural Development (Monograph No. 101)
- Gaikwad, V.R.; and Parmar, D.S., Serving Small Farmers: A Case Study of Farmers Service Cooperative Society (Monograph 94)
- George, P.S., Government Interventions in Foodgrains Marketing (Monograph No. 100)
- Gupta, Tirath; and Deepinder Mohan, Economics of Trees versus Annual Crops on Marginal Agricultural Lands (Monograph No. 81)
- ----; and Guleria Amar, Non-wood Forest Products in India; Economic Potentials (Monograph No. 87)
- Gupta, V.K.; and Mathur, Management in Cooperative Rice Mills (Monograph No. 94)

- Moulik T.K.; Gupta, Ranjit., Vyas, V.S., Desai, B.M., and Tripathi, B.L.; Rural Development for Rural Poor: Deogarh's Profiles (Monograph No. 93)
- Patel, G.A.; Pichholiya, K.R., and Gopinath, C.; Use and Marketing of Plant Protection Appliances (Monograph No. 86)
- Ranade, C.G., Singh, R.B., and Rao, K.M., Marketing Channels and Price Spread in Cotton (Monograph No. 83)
- Private Trade Channels in Groundnut Marketing (Monograph No. 92)
- Sambrani, Shreekant, and Pichholiya, K.R., Area Planning:
  Precepts and Practices
  (Monograph No. 90)
- Shingi, P.M., Managing Agricultural Extension: A Case Study of Training and Visit System in Rajasthan (Monograph No. 96)
- Shyam, Manjula, Metal from seabed: Prospects for Mining Polymettalic Modules by India (Monograph No. 103)
- Singh, Gurdev; and Krishna Kumar, Management of Capital Flows on Farms (Monograph No. 104)
- Aspects of Sugarbeet Cultivation and Processing in India (Monograph No. 105)
- Srivastava, U.K.; Reddy, Dharma M.; and Gupta V.K.; Management of Marine Fishing Industry: An Analysis of Problems in Harvesting and Processing (Monograph No. 80)

### IX PUBLIC SYSTEMS GROUP

Professor Rushikesh M. Maru took over the Chairmanship of Public Systems Group (PSG) from Professor Anil Bhatt on March 28, 1983. PSG undertook new activities to understand and strengthen management of public systems and continued with the on-going activities.

### FPM Specialization in Public Systems

From July 1982, Public Systems Group has launched a major doctoral programme for preparing teachers, researchers, and trainers to fulfil governmental and other public institutions' training needs.

The following two FPM Courses will be offered during the third term in the year:

Social Science and Public Policy Public Management

The course outlines for these have been developed and submitted to the course committee.

### Research Projects completed

Job Satisfaction as a Function of Role Stress: Locus of Control Participation and Organizational Climate in an Electric Supply Company

National Adult Education Programme (Third Appraisal):

Adult Education in Rajasthan (Jaipur District)

Adult Education in Rajasthan (Jhunjhunu District)

Alternative Development Strategies

Coping Strategies in Crisis Management: The Draught

Experience

District Development Plan for Infrastructure : A

Computer Model

Exploration of Relationships between Leadership Behaviour, Institution Building Processes, and Institutional Performance

### Research Projects in Progress

Assessment of the Monitoring Systems of Integrated Child Development Scheme in Bihar

Analysis of Requirement and Supply of Drugs at the Primary Health Centre

Identification of Management Training needs for Strengthening Primary Health  $C_{\text{are}}$ 

### Research Project Initiated

Voluntary Organizations in Health (Ford Foundation funded project)

Decentralization : Practice and Policy (PSG Seedmoney project)

Case Studies of Birth and Development of  $T_{WO}$  Institutions founded by  $\text{Dr.}\xspace$  Vikram Sarabhai Covering the following periods:

- a) ATIRA : 1947 to 1956
- b) PRL: 1947 to 1971 (PSG seedmoney project)

Management of Primary Education programmes (PSG seedmoney project)

### On-going Research Projects

These refer to large number of ongoing projects where the group is working with client organization for research, training, and consultancy. These are long term projects of three to five years duration and have varied activities completed in phases.

### <u>India Population Project - II</u>

The major task under this project is 3-Tier Management Development Training Programmes. This includes, state, district and primary health centre level training programmes. The 3-Tier Primary Health Centre Level Training programme is scheduled to start from August 19, 1983. The state and district level training programmes are also scheduled to be held during the current year.

Besides carrying out the management training of health officials, the group has undertaken the following research studies during the period 1982-83.

Interpretation of base-line data for Programme  $^{\mathrm{M}}$ anagement in IPP Districts

A Micro-OB Study of Primary Health Centre
Drug requirement and supply

Urban Community Development: Ahmedabad Municipal Corporation Experiments in Educational Innovations (A joint CMA and PSG Project) National Adult Education Programme; Fourth Appraisal Strategy Formulation in Public Systems Management.

### Training Programme

Two-day Primary Health Centres Medical Officers' Refresher Training Course

: June 21-23, 1982

Management Development Programme for Medical Officers In-charge of : Primary Health Centres (Tier-I)

August 16-September 3, 1982

Management Development Programmes . for District Level Medical Officers (Tier-II)

October 29-November 11,

Two-day Primary Health Centres Medical Officers' Refresher Training Course

: January 20-21, 1983

Management Development Programme : January 24-February for Medical Officers In-charge of Primary Health Centres (Tier-I)

11, 1983

Management Development Programme for Public Systems Managers

: February 1-21, 1983

One-day Workshop for Municipal Corporators and Officers on Urban Decentralization

: August 8, 1982

One-day Workshop for Municipal Corporators, Officers, and Community Organizers on Urban Community Development

: September 12, 1982

### Monograph

- Children's Judgement of Personnel: Prof. Ramadhar Singh 41 Happiness
- 42 Some Aspects of Urban Growth and : Prof. G. Giridhar Development
- Location of Schools: Analysis of : Prof. Inderjit Khanna 43 and Prof. TP Rama Rao a Computer Model

- External Aid and Development Strategy: Prof. Inderjit Khanna in Rajasthan
- 45 Adult Education in Rajasthan Third : R. Harihar & Appraisal (Jaipur District) T.V. Rao
- Adult Education in Rajasthan Third : R. Harihar & Appraisal (Junjhunu District) T.V. Rao
- Job Satisfaction as a function of
  Role Stress, Locus of Control : Prof. D.M. Pestonjee
  Participation and Organizational & Udai Bhan Singh
  Climate in an Electric Supply
  Company
- The Undergraduate Influence
  Environment: Some Insights for Action

  Prof. S.R. Ganesh & Sushanta Banerjee

### Other Publications

- The Diagnostic Study for the UNFPA-Rajasthan Project on the first phase submitted to Health Department, Government of Rajasthan by the Project Team, IIMA, PSG, April, 1982
- Ganapathy, R.S.; Ganesh S.R.; et al "Proceedings of the workshop on Public Policy and Policy Analysis" held at IIMA, April, 1982.
- Satis, J.K.; and Maru, R.M., "Management Contribution to
  Population Programmes" presented at the 7th Annual
  Conference of the International Committee on
  Management of Population Programmes
  July 29 August 1, 1982.
- Bhatt, Anil; Ganapathy, R.S.; et al "Zonal Systems of Ahmedabad Municipal Corporation" Report of Workshop held at IIMA on 8 August, 1982.
- Khanna, Inderjit; and Ashok Subramanian, "Case of District in Rajasthan," The Economic Times, (Vol. XXII, September, 1982)
- Bhatt, Anil; Maru R.M., "Socio-Economic Profile and Performance of CHVs in Gujarat: Implications for Selection and Support" Health and Population Perspectives and Issues 4(3): 181-198, 1981.

### X CENTRE FOR REGIONAL MANAGEMENT STUDIES

### Research

A research proposal was received by the Committee A) to survey the available management related literature of Gujarat Region and compile it on a thematic basis, b) to identify such of the materials from the literature which could be developed for publication, and c) to suggest amongst 'b' such materials as could be translated into Gujarati with a view to eventual publication. The committee decided that before such a project proposal was approved it was necessary to prepare a bibliography of the available materials. Professors S. Vathsala and D.K. Desai have brought out an annotated bibliography pertaining to 314 research papers, cases, and other materials.

The CRMS proposed to initiate research work on management of edible oil industries in Gujarat. A prize competition for writing a research paper on "Proposects and Performance of Edible Oil Industries in Gujarat" was initiated by the CRMS. This was advertised in the newspapers. Letters were written to about 215 colleges, research institutions and management associations to motivate research institutions and management associations to motivate research workers to participate in the competition. Three prizes were offered: First prize: Rs. 5,000; second prize: Rs. 3,000; and third prize: Rs. 1,500.

The CRMS has also approved a proposal for sponsoring a study on Disaster Management in Gujarat State.

A grant of Rs. 5,000 was given to Prof. H.N. Pathak to assist in preparing his Presidential Address for the conference of Gujarat Economic Associations on the subject. of Entrepreneur and Entrepreneurship in the Small-Scale Sector in Gujarat.

### Training Programmes

Two training programmes for small-scale industries were organised under the auspices of the CRMS: One, in collaboration with Ahmedabad Management Association at the Vatva Industrial Estate in Ahmedabad and second, in collaboration with Kutch Saurashtra Productivity Council.

### Assistance to Teachers in Management

One fellowship of Rs. 6,000 was offered to a participant of the Faculty Development Centre for the year 1982-83. It was also decided that the CRMS would sponsor two participants selected from the management institutions and commerce colleges of Gujarat. In order to do this, the CRMS would select two institutions and give a fellowship to a faculty member of each for participating in the FDC programme. This arrangement would continue at least for three years for the selected institutions. As it was not possible to follow this procedure for the year 1983-84, two fellowships were granted to the participants selected by the FDC Chairman.

### XI INFORMATION SYSTEMS AND COMPUTER GROUP

The year 1983 was marked by two events of particular significance to the Information Systems and Computer Group (ISCG). Firstly, the computer was chosen "Man of the Year" by Time magazine - symbolizing public recognition of its impact on society. Secondly, the Institute co-hosted CSI-83 the Eighteenth Annual Convention which was held from January 19 to 22. The following technical papers were presented at the Convention:

Ankolekar S., "Computer-aided Operational Planning in State Road Transport Corporations"

Rajagopalan R., "The Sugar Industry: Productivity,
Policy and Politics".

Sen, A.K.; Pan, A.K.; Senchoudhuri, P.; and Rama Rao, T.P., " A System for Implementation of D-ti Base Scheme".

Senchoudhuri, P.;.....; and.....; and.....,
"Towards Improving Disk Storage in
Multi-User DBMS Environment"

Subramanian, S., "Graphics through Non-graphic Terminals: An Attempt on Digital VT 52"

### Research and Software Development

<u>District Level Planning</u>: A data base and interactive computer software involving query processing and optimization has been developed for Udaipur District of Rajasthan to demonstrate the use of computers in district level infrastructure planning.

A three-day workshop to illustrate the use of computer-based information systems and optimization models in district planning was held from June 10-12, 1983 in which senior officers involved with district level and state level planning participated.

Planning of Educational Facilities: A study on the planning of educational facilities was conducted jointly with PSG. For this study, a data base for primary, upper primary, and secondary schools of villages of Udaipur District was created. Using mathematical models, optimal locations for opening new schools and upgrading the existing schools were obtained. These were compared with the decisions taken by the Education Department in the past four years 1978-79, 1979-80, 1980-81, and 1981-82. A monograph entitled "Location of Schools: Analysis of Computer Model" based on this study was published by Professors Inderjit Khanna and T.P. Rama Rao.

District Level Data Base for Kheda District: On the receipt of a grant from Electronics Commission for the development of district level data base for development planning the Institute's computer resources were augmented with two 67 MB disc drives and 512 KB of main memory. A software system was developed to support integrated query processing against a data base for Kheda district.

Rural Roads in Kheda District: Statistical Analysis, network optimization algorithms and inter-active graphics is being used to develop approaches for planning and evaluation of village roads in Kheda District.

A Computer Model for Vehicle Scheduling: Vehicle schedules for the Bhuj Division of the Gujarat State Road Transport Corporation (GSRTC) was developed on the computer. This was based on a doctoral research work done at the Institute. The computerized vehicle schedules have been successfully implemented by the Bhuj division. The GSRTC has shown a keen interest in extending the work to other divisions.

# Computer Aided Planning of Distribution System Layouts for Narmada Project:

Software is being developed to design and evaluate the distribution canal layouts for blocks within Narmada Project. Interactive computer graphics is being used as decision support aid in optimizing the canal system costs. A Hewlett Packard 1000 colour graphic system will be used to provide more effective man-machine interaction for this class of problems.

A Simulation Model for Reservoir Operations at the Sardar Sarovar dam of the Narmada Project is being developed. The model will be used for assessing the impact of main canal size, ground water availability, en route storages and power generation.

<u>Cashflow - A Decision Support System for Evaluation of Investment Proposal</u> was developed.

A paper entitled "ffective Use of Computers on Indian Railways" was presented by Professor K.V. Ramani at the 23rd International Railway Congress held at Spain from September 27-October 2, 1982. This paper is scheduled for publication in the International Railway Journal.

### Computer Centre

During the year Computer Centre staff undertook the following projects, involving design, development, and implementation of software packages.

DBMS-11 Schema Writer: An interactive package to aid DBMS users in faster development of their schemes, for network data bases.

Accounting of Resource Usage and Billing Package: This package is used for accounting usage of resources by users. The package generates several reports on resource usage. Bills for users are also generated by the package.

Index File Editor: An editor program to edit indexed sequential files. It has facilities for creation of indexed files, conversion of sequential files to indexed files, and making modification to indexed files.

General Purpose System Simulation Package (GPSS): The GPSS software is developed in FORTRAN to assist modelling and simulation of systems.

PASCAL Program Indentor: A package for indenting PASCAL programs. The package also provides cross-reference listing of PASCAL program.

Financial Accounting System: Design, development and implementation of a computer based financial accounting system to meet the Institute's financial accounting requirements. The package is under implementation.

Admissions System: A new package was developed to process common Admission Test data for preparation of merit list and various other reports.

O.R. and Statistical Packages: Ten packages have been completed in the areas of O.R. statistics and management applications.

RISS: Conversion of the existing RISS package (a relational data base management package) from Basic to Pascal is in

IFAS: An interactive package to assist in teaching the major concepts of Financial Accounting System.

progress.

A one-week intensive program on Network Data Base Management was offered by Messrs Ravee Chowdhary, A.K. Sen, and Ch. Shyam Prasad of the Computer Centre to the executives of the P&T Department, Government of India, (Ministry of Posts and Telecommunications) at the ALT Centre, New Delhi.

A two-week intensive program on Pascal and Structured Programming for computer centre staff was conducted by Professor B.H. Jajoo.

### Computer Centre Services

User Level Orientation Program: A four week orientation program on how to use the PDP-11/70 computing system, use of various statistical and management science application packages and programming in FORTRAN-IV was organized for about 50 faculty and research staff of the Institute, Users were given hands-on experience in the system so as to enable them to interact effectively with the system.

Computer Usage in Teaching, Research and Consultancy Activities:
The Institute's computing resources were extensively used by
various segments of the Institute user community. About 35
faculty members used the computer for developing course
material for PGP, FPM, and MDP programmes. The computing
facilities were also utilised by about 50 faculty members for
processing data related to their research and consultancy
projects.

Management Development Programme: The participants of various management development programme such as the 3-month Advanced CBIS, Data Base Management System, Project Management, 3-Tier Programme for State Level Health Executives, Programme for Executives of Handloom Corporations and Cooperatives, Management of Agricultural Enterprises, Designing Projects for Agricultural Development, used the computer extensively for their course and project work.

External Users: Several R&D organizations, educational and commercial organizations numbering more than 45 used the computer facilities on a limited basis.

Usage of Administrative Units of the Institute: The Institute's administrative units such as PGP office, MDP office, Accounts Department, Alumni Office, Admissions Office used the computing system for processing data related to their activities. Common Admissions Test data was processed at the Computer Centre. The Financial Accounting System of the Institute's Accounts Department has been computerized. Computerization of Institute's alumni data has been completed. In addition, the PGP and FPM academic records has also been computerized fully.

Procurement of an Advanced Computer System for Graphics

Orders have been placed for importing a HP-1000 based advanced colour graphic system. The system will be installed shortly.

# XII Alumni Relations and Activities Annual Report 1982-83

### IIMA Alumni Bopulation

During the year the IIMA alumni population has grown by nearly 900. It now stands at about 13,000. A large number of our alumni are located in foreign countries.

### Chapter Activities

The Alumni Association has eleven chapters located at Ahmedabad, Bangalore, Baroda, Bombay, Calcutta, Chandigarh, Delhi, Hyderabad, Madras, Pune and New York. Efforts were made to reactivate the chapters.

The Ahmedabad Chapter has done some good work. It plans to bring out a directory of its members. Material for inclusion in the directory has already been collected. The Chapter organised a get-together on November 4, 1982 and a talk on "Supply Side Economics" on January 15, 1983.

The Bombay Chapter has also done some good work. It has launched a programme under which meetings are organised for interaction between Bombay-based IIMA alumni and PGP Is in Bombay summer training.

### Alumni Directory

The Alumni Office initiated preliminary work for bringing out a directory of the IIMA alumni. The directory will include

information such as name, designation, office address, residential address, IIMA programme attended and telephone numbers of the alumni.

### IIMA Alumnus

During the year two issues of the IIMA Alumnus were brought out.

### Executive Committee

An effort was made to enlarge the Executive Committee through co-option. Four persons have agreed to serve as co-opted members of the Committee. The next meeting of the Committee will be held on July 8, 1983.

### XIII FACILITIES

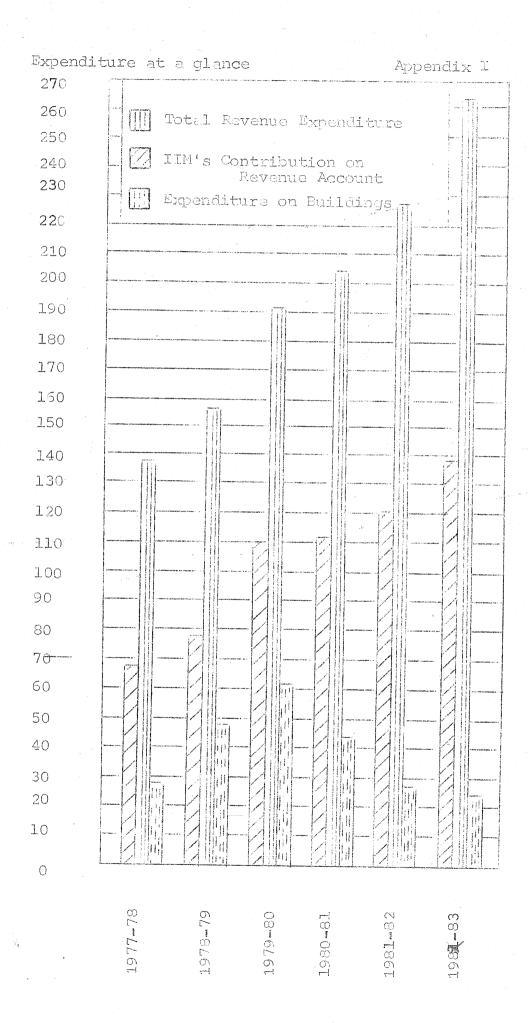
### Library

During the year new books were added to the Library, bringing the total number of books of 99,580. The Library has been subscribing to 525 periodicals. Annual reports of leading Indian and foreign companies were acquired during the year. The library provides circulation services, bibliographic and documentation work, indexing of articles from Indian journals, compilation of recent addition and subject index of articles, and reference and bibliographic services to the readers.

### Campus Development

Out of the proposed 16 married students quarters in the master plan, eight have been completed.

Under this phased programmes, work on all categories of staff houses i.e., type II, IIA, I and S-type and also transit houses for faculty in the Phase I have been started.



### Appendix II

## MANPOWER GROWTH

Year	Faculty	Research Staff	Staff	Visiting Faculty	Total
1977 45 78	78	49		entral de la companya	n video video de la compansión de la compa
1978 <b>–</b> 79	78	51	411 427	11	549
1979-80	84	53	447	8	564 592
1980-81	87	52	509	4	652
1981-82	85	51	489	8 ;	633
_98283	89	49	553	8	699

### Appendix III

Year	Two-year Post-Graduate Programme in Management	Fellow Programme in Manage- ment	Total
197778	3 1 2	A O	352
1978-79	305	37	339
1979-80	327	27	354
1980-81	341	31	372
1981-82	337	38	 3.75

MDPs held during July 1982-June 1983

		No. of Organizati			ons No. of parti-		
Museelegeles		Public/ Govt.	Pvt.	Total		Pvt	. To.
1.	3-Month Advanced Programme on Computer Based Infor- mation Systems: Analysis an Design - June 27 - Septembe 25, 1982	26 d r	02	28	40 *	02	42
2.	Fourth Foundation Course in Personnel Management and Industrial Relations July 5 - August 4, 1982	16	12	28	16	12	28
3.	International Seminar on Management of Public Sector Manufacturing Enterprises July 12-28, 1982	09 Countries	00	09	25	, 00 , 00 , 00	25
4 0	Tier-I of 3TP Programme for Management of Health and Family Welfare August 16-September 3, 1982 (for Primary Health Centre)	01 Government	00	Ol	38 	00	38
5.	3-Tier Programme for Management Development Middle Management Course August 22-September 18,1982	14.	33	47	19	81 1	.00
6.	Senior Executives Course September 19-October 6, 1982	22	36	58	25	62	87
7,	Top Management Seminar on Strategies for Growth September 13-20, 1982	10	14	24	11	15	26
8,	Programme on Management of Agricultural Enterprises September 1-30, 1982	11	Ol	12	24	01	25

# Appendix IV (contd.)

	The state of the s	Z.P.	endix I	<u>V</u> (co	ntd.)			
	No.	No, of Organizations No. of partici						
	Publ Govt	ic/ Pvt.	Total	Pub- lic/ Govt		Total		
9. Training Course on Appro- priate Management Systems for Agricultural Co-opera- tives - October 3-24,1982	08 Count	00 ries	08	Zaduru 1963. p., ur godinu ir ad bansailus	00	23		
10, Management Development Programme for Medium and Small Enterprises - October 11-26, 1982	11	. 16	27	12	16	28		
ll. Tier-II of 3-Tier Progra- mme for Management of Health and Family Welfare Services (Dist., Level) October 29 - November 11	01	01	1	18	00	18		
12. Programme on Project Management - Nov. 1-6, 1982	17	16	33	26	19	45		
13. Programme on Data Base Management Systems Concepts and Applications December 1-10, 1982	14	10	24	18	15	33		
14. Programme on Advertising Strategy and Management November 22-27, 1982	06	18	24 (	06	18	24 194		
15. Seventh Management Education Programme Nov. 22, 1982 - April, 1983.	03	21.70	<b>24</b> C	7.	23	30		
16. Programme on Product Policy and New Product Management - Nov. 29-December 4, 1982	02	26	28 . 0	2	35	37		
17. Advance Programme in Personnel Management and Industrial Relations December 11, 1982	22	04	26 24	1.	05	29		
•								

		No.	of Orga	nization.		of par	tici-
		Publ Govt	ic/ Pvt	. Total	Pub- lic/ Govt		Tota
18,	Programme on Management of Rural Development December 15, 1982 - Jan.1983	10	00	10	13	00-	13
19.	Fourth Course on Designing Projects for Agricultural Development - December 19,19 February 26, 1983	82 <sup>12</sup>	00	12	17	00	17
20.	Programme on Corporate Planning Jan. 24-29,1983	13	19	32	15	1.9	34
21.	Prog. on Management of Trade Unions - Jan.27-Feb.4, 1983	27 Trac		27	34	00	34
22.	Tier-I (PHC) of 3-TP for Health and Family Welfare Services - Jan. 24-February 11, 1983	01	00	01	28	00	28
23,	Management Development Programme of PSG Managers February 1-21, 1983	17	00	17	33	00	33
24。	Programme for Women Managers: Issues of Role and Authority February 13-19, 1983	18	10	28	21	11	3.2
•	Management Development Programme for Top Executives of Handloom Corporations & Cooperatives - Feb. 21-28,83	18	00	18	19		19
26,	Programme on Human Resources and Organizational Develop- ment March 21-26, 1983	14	<b>11</b> ***	25	17	13	30
.7.	Seminar on Internationalisa- tion of Business: General Managers Perspective, March 7-9, 1983	20	42	62	24	45	69

# Appendix IV (contd)

	No. of Organ	No, of partici-			
	Public/ Pvt Govt.		Pub- lic/ Govt,	Pvt.	Total
28. Workshop on Technology Management - April 11-13, 1983	11 11	22	11	13	24
29. Workshop on International Contracting Strategy April 18-20, 1983	10	19	22 	10	32
en e	neeringen on the state of the s	NAMES OF THE PROPERTY OF THE P		General Agents and the physical Payment St.	ultsævis-ulksivermon makenemet
Total	364 311	675	588	415	1003

Appendix V

CASES, RESEARCH AND CONSULTING

		* · · · · · · · · · · · · · · · · · · ·			
Year Cases Completed (Cumulative)		Research Projects Completed (Cumulative)	Consulting Projects Completed (Cumulative)		
1977-78	1612	196	166		
1978-79	1750	221	197		
1979-80	1886	241	213		
1980-81	1969	265	245		
1981-82	2041	290	261		

## BOARD OF GOVERNORS:

CHAIRMAN Keshub Mahindra Chairman, Mahindra and Mahindra Ltd Bombay

Nanubhai Amin Chairman Jyoti Ltd. Baroda

Prafull Anubhai Chairman and Managing Director Rustom Mills and Industries Ltd. Ranchi University Ahmedabad

Rahul Bajaj Chairman and Managing Director Bajaj Auto Ltd. Poona

P.K. Basu Director-General Bureau of Public Enterprises Ministry of Finance New Delhi

Vinay Bharat Ram Dy. Managing Director Delhi Cloth and General Mills Co. Ltd. New Delhi

H.K.L. Capoor Chief Secretary Government of Gujarat Gandhinagar

M.N. Buch Secretary (Education) Government of Gujarat Gandhinagar

N.M. Desai Chairman and President Larsen and Toubro Ltd. Bombay

A.K. Dhan Vice-Chancellor Ranchi

Shrenik Kasturbhai Managing Director Anil Starch Products Ltd. Ahmedabad

V. Krishnamurthy Chairman and Managing Director Maruti Udyog Ltd. New Delhi

Harshavadan Mangaldas Chairman Aryodaya Spg. and Wvg. Co. Ltd. Ahmedabad

I.G. Patel Director Indian Institute of Management Ahmedabad N.R. Sheth Professor Indian Institute of Management Ahmedabad

<sup>\*</sup>As on March 31, 1983

Samuel Paul Professor Indian Institute of Management Ahmedabad

C. Rangarajan Duputy Governor Reserve Bank of India Bombay

P. Sabanayagam Chief Executive South India Viscose Ltd. Coimbatore

A.N. Saxena Director-General National Productivity Council New Delhi

R.C. Shah Chairman and Managing Director Export-Import Bank of India Bombay M.L. Shahare Chairman Union Public Service Commission New Delhi

Man Mohan Singh Financial Adviser to Ministry of Education and Culture New Delhi

A.H. Tobaccowela Chairman Voltas Ltd. Bombay

S. Varadarajan Secretary Department of Science and Technology New Delhi

D.S. Walia
Deputy Educational Adviser (T)
Ministry of Education and
Culture
New Delhi

#### Secretary

R.C. Chib Administrative Officer Indian Institute of Management Ahmedabad

## SUB-COMMITTEES OF THE BOARD

#### Personnel Committee

## Finance Committee

Keshub Mahindra

R.C. Shah I.G. Patel

R.C. Chib

(Chairman)

(Secretary)

Keshub Mahindra (Chairman) Shrenik Kasturbhai

Harshavadan Mangaldas

Man Mohan Singh

I.G. Patel
D.S. Walia
R.C. Chib

(Secretary)

#### Building Committee

Nanubhai Amin

Shrenik Kasturbhai

I.G. Patel M.D. Patel R.C. Chib

(Chairman)

(Vice-Chairman)

(Secretary)

#### Appendix VII

#### SOCIETY\*

The Secretary
Ahmedabad Cotton Mfg.Co. Ltd.,
Gomtipur
Ahmedabad

S.J. Coelho Chief Executive Ahmedabad Electricity Co. Ltd., Ahmedabad

V.B.L. Mathur Ahmedabad Jupiter Spg. Wvg. & Mfg. Mills Ltd., Ahmedabad

Mahendra Kanaiyalal Almedabad Kaiser-T-Hind Mills Co. Irtd., Ahmedabad

K.J. Divetia/
B.V. Balsari
The Ahmedabad Mfg. Calico
Ptg. Co. Ltd.,
Ahmedabad

Ramesh Chandulal/
Bipin Chandulal/
D.R. Desai
The Ahmedabad New Cotton Mills
Co. Ltd.,
Ahmedabad

P.T. Munshaw
Nandiniben P. Munshaw/
Dineshchandra D. Patel
Ahmedabad Shri Ramakrishna
Mills Co. Ltd.,
Ahmedabad

C.R. Amin Director Alembic Chemical Works Co. Ltd., Baroda Jaykrishna Harivallabhdas/ Rajesh Jaykrishna Shri Ambica Mills Ltd., Ahmedabad

Maitreya R. Harivallabhdas Shri Amruta Mills Ltd., Ahmedabad

Shripal Chinubhai Sheth/ Shrenik Kasturbhai Lalbhai Anil Starch Products Ltd., Ahmedabad

Nitin J. Nanavaty Managing Director Apurva Containers Pvt. Ltd., Ahmedabad

I.C. Shah Chief Executive Shri Arbuda Mills Ltd., Ahmedabad

Gunottam P. Hutheesingh/ Deepak S. Hutheesing Aruna Mills Ltd., Ahmedabad

Arvind Narottam Lalbhai/ Samveg A. Lalbhai/ Sanjay S. Lalbhai Arvind Mills Ltd., Ahmedabad

Chandubhai M. Thakkar/ Nitinbhai C. Thakkar Aryodaya Spg. and Wvg. Co. Ltd., Ahmedabad

C.H. Choksey/A.S. Dani Asian Paints India Pvt. Ltd., Bombay

<sup>\*</sup> as on March 1, 1983

A.N. Lalbhai Asoka Mills Ltd., Ahmedabad

Ajay Chimanbhai Asoka Mills Ltd., Ahmedabad

M.A. Wedud Khan
Vice-Chairman and Managing
Director
The Associated Cement Cos. Ltd.,
Bombay

N.S. Johary Director Atic Industries Ltd., Bulsar

Siddarth K. Lalbhai Chairman Atul Products Ltd., Bulsar

U.V. Rao/B.G.N. Patel Audco India Ltd., C/o Larsen and Toubro Ltd., Bombay 400038

Rahul Bajaj Chairman and Managing Director Bajaj Auto Ltd., Pune

R.P. Shah/P.N. Shah M/s Bakubhai Ambalal Pvt. Ltd., Calico Mills Premises Ahmedabad

Y. Sivaramakrishnayya Chairman and Managing Director Bank of Baroda 3. Walchand Hirachand Marg Bombay M.K. Shroff Zonal Manager Bank of India Ahmedabad

Chairman and Managing Director Bharat Earth Movers Ltd., Bangalore

K.R. Parameswar Executive Director Bharat Heavy Electricals Ltd., (ISG) Bangalore

K.L. Puri Chairman and Managing Director Bharat Heavy Electricals Ltd., New Delhi

Subodh Chaturbhujdas/ V.M. Shah Bharat Suryodaya Mills Co. Ltd., Ahmedabad

The Manager Bharat Vijay Mills Ltd., Kalol

J.N. Guzder
The Bombay Dyeing and Mfg. Co. Ltd.,
Bombay

C.S. Samuel Chairman and Managing Director Brooke Bond India Ltd., Calcutta

M.V. Arunachalam Managing Director Carborandum Universal Ltd., Madras

Janmejay Bhagubhai Fignaging Director Cellulose Products of India Ltd., Ahmedabad D.K. Contractor General Manager (Operations) Central Bank of India Bombay

C.T. Parekh Chandrakant Parekh Pvt. Ltd., Bombay

S. Chaudhuri Commercial Manager Chemicals and Fibres of India Ltd.,

Bombay

Siddharth Kasturbhai/ A.R. Naik Cibatul Ltd., Bulsar

N.G. Pamnani Chief Executive Officer Citibank N.A. Bombay

Manubhai Bhikhabhai/ Jagdishbhai Manubhai Commercial Ahmedabad Mills Ltd., Ahmedabad

Lala Charat Ram
Delhi Cloth and General Mills
Co. Ltd.,
Delhi

Kewal K. Aggarwal Managing Director Devidayal Rolling and Refineries Pvt. Ltd., Bombay

B.N. Balsaria/S.K. Mundra Shree Digvijay Woolen Mills Ltd., Jamnagar Upendrakumar M. Patel Chairman and Managing Director Shri Dinesh Mills Ltd., Baroda

U.V. Rao/B.G. N. Patel Engineering Construction Corpn. Ltd..

Bombay

Chairman and Managing Director Engineers India Ltd., New Delhi

C.K. Hazari Joint Managing Director Escorts Ltd., New Delhi

C.D. Sathe Chairman and Managing Director Export Credit and Guarantee Corpn. Ltd., Bombay

N.M. Shetty Chairman and Chief Executive Ganesh Flour Mills Co. Ltd., Delhi

J.S. Khambata Glaxo Laboratories (India) Ltd., Bombay

Shantilal K. Somaiya Chairman The Godavari Sugar Mills Ltd., Bombay

Moosa Raza
Managing Director
Gujarat State Fertilizers
Co. Ltd.,
Baroda

K.N. Shenoy Managing Director Hindustan Brown Boveri Ltd., Baroda

J.R. Patel Senior Manager (Adm.) Gujarat State Financial Corpn. Ahmedabad

Rajesh Bahadur Personnel Director Hindustan Lever Ltd., Bombay

Ramakrishna Bajaj Hindustan Sugar Mills Ltd., Bombay

R.P. Kapur Chairman and Managing Director Hindustan Zinc Ltd., Udaipur

S. Chaudhuri Indian Explosives Ltd., New Delhi 110 001

Chief Executive - Personnel Indian Oxygen Ltd., Calcutta

Chairman and Managing Director Indian Petrochemicals Corpn.Ltd., Baroda

H.S. Shah

Executive Director - Personnel
& Marketing
Indian Petrochemicals Corpn. Ltd.,
Baroda

B. Majumdar Regional Manager Indian Tube Company Ltd., Bombay

S.S. Mohta
Chairman
Industrial Credit and Investment
Corpn. of India
Bombay

B.B. Singh Chairman Industrial Finance Corporation of India New Delhi

O.P. Mehra
Managing Director
International Data Management
Pvt. Ltd.,

Bombay

Rahul N. Amin General Manager (Corporate Group) Jyoti Ltd., Baroda

Premnath R. Khandelwal/ Mahendra Khandelwal Khandelwal Bros. Ltd., Bombay

N.M. Desai Chairman and President Larsen and Toubro Ltd., Bombay

Chairman Life Insurance Corporation of India Bombay

N.K. Parikh Chief Executive Mafatlal Engineering Industries Ltd Bombay Y.N. Mafatlal/R.N. Mafatlal/P.A. Mafatlal/L.D. Vasa Mafatlal Fine Spg. and Mfg.Co. Bombay

L.D. Vasa Mafatlal Gagalbhai and Co. P. Ltd., Bombay

L.D. Vasa Mafatlal Industries Ltd., Ahmedabad

J.S. Karkal Mahindra and Mahindra Ltd., Bombay

C.D. Menon Executive Director - Personnel Metal Box Company of India Ltd., Calcutta

P.C. Laha/A.R. Banerjee Chairman and Managing Director Metallurgical and Engineering Consultants of India Ltd., Ranchi

Y.N. Mafatlal/ R.N. Mafatlal/B.K. Patel/ L.D. Vasa Mihir Textiles Ltd., Ahmedabad

Chairman and Managing Director Minerals and Metals Trading
Corporation
New Delhi

Viren J. Shah Chairman and Managing Director Mukund Iron and Steel Works Ltd., Bombay

Rasiklal C. Nagri/ Bansidhar R. Nagri Nagri Mills Company Ltd., Ahmedabad Harish Bijawat Director National Peroxide Ltd., Bombay

D.M. Trivedi Chief Executive National Rayon Corpn. Ltd., Bombay

A.C. Mukherji Chairman and Managing Director New India Assurance Company

Bombay,

Ashok Daga President New Swadeshi Mills of Ahmedabad Naroda Road Ahmedabad

Gautam S. Nanavaty/ Nautambhai J. Nanavaty. Nutan Mills Ltd., Ahmedabad

M.M. Dalal/P.L. Dalal Pankaj Mahipal and Company Ahmedabad

Jyotindra N. Mehta Piyushakumar Natvarlal and Co. Ahmedabad

S.L. Baluja Chairman and Managing Director Punjab National Bank New Delhi

Lilavati Lalbhai/ Vijaysinh Chimanbhai/ Chirag A. Lalbhai The Raipur Mfg. Company Ltd., Ahmedabad

B.U. Balsari
Rajendra Dyeing and Ptg.
Mills Ltd.,
Ahmedabad

Rohit C. Mehta Rajesh Textile Mills Ltd., Ahmedabad

R. Panchu Managing Director Raliwolf Ltd., Bombay

Rohit C. Mehta/ Rajesh R. Mehta Rohit Mills Ltd., Ahmedabad

Prafull Anubhai Chairman and Managing Director Rustom Mills and Industries Ltd., Ahmedabad

Navnitlal Sakarlal/ Nandakishore Sakarlal/ Saurabh Navnitlal Sakarlal Balabhai and Co. Ltd., Ahmedabad

Mrugesh Jaykrishna/ Rajan R. Harivallabhdas/ Chinubhai R. Shah Sarangpur Cotton Mfg. Ltd., Ahmedabad

Chinubhai Chimanbhai/ Ashoke Chimanbhai Saraspur Mills Ltd., Ahmedabad 380 002

Arvind Hiralal Saurabh Corporation Ahmedabad Vadilal Lallubhai Sayaji Mills Ltd., Ahmedabad

Pratap Bhogilal Shriram Mills Charitable Trust Bombay

R.R. Agarwal/J.R. Agarwal/ O.R. Agarwal Silver Cotton Mills Co. Ltd., Ahmedabad

Ajitkumar C. Patel Director Soft Beverages Pvt. Ltd., Madras

R.P. Goyal Chairman State Bank of India Central Office Bombay

Managing Director
State Industrial and Investment
Corpn. of Maharashtra Ltd.,
Bombay

Chairman and Managing Director State Trading Corporation of India Ltd.,

New Delhi

Suhrid Sarabhai Suhrid Geigy Ltd., Ahmedabad

R.N. Mafatlal/Y.N. Mafatlal/ U.C. Kapasi/H.H. Vasa Surat Cotton Spg. & Wvg. Mills Bombay Pvt. Ltd., Swadeshi Mills Co. Ltd., Bombay House Bruce Street Fort, Bombay

R. Ratnam
T.V. Sundaram Iyengar and Sons
Pvt. Ltd.,
Madras

T.V.S. Charities Mađurai

P.V.S. Manyam/C.A. Joshi Tata Chemicals Ltd., Mithapur Okhamandal Taluka

A.N. Maira/R.D. Kulkarni Tata Engg. and Locomotive Co. Ltd.,

Poona

The Secretary
Tata Hydro-Electric Power Supply
Co. Ltd.,
Andhra Valley Power Supply Co.
Ltd.,
Tata Power Company Ltd.,
Bombay

L.S. Kanvinde Company Secretary Tata Oil Mills Co. Ltd., Bombay

U.V. Rao/B.G.N. Patel Tractor Engineers Ltd., C/o Larsen and Toubro Ltd., Bombay

M.Ct. Pethachi Managing Director Travancore Rayons Ltd., Madras

A.H. Tobaccowala Chairman Voltas Ltd., Bombay

Lalchand Hirachand Chairman Walchandnagar Industries Bombay

Surinder Singh Vice-President (Personnel) Warner Hindustan Ltd., Bombay

#### Appendix VIII

## FACULTY AND ADMINISTRATION

Director
I.G. Patel
Ph.D. (Cantab)

Ifzal Ali Ph.D. (Johns Hopkins)

Suresh Ankolekar B.E. (Bombay) Fellow (IIMA)

V.N. Asopa Ph.D. (Illinois)

S.L. Bapna Ph.D. (SPU)

S.K. Barua Fellow (IIMA)

L.R. Bhandari Ph.D. (Columbia)

S.C. Bhatnagar Fellow (IIMA)

Anil Bhatt Ph.D. (Chicago)

Shekhar Chaudhuri B.Tech. (Hons.) (IIT, Kharagpur) Fellow (IIMA)

B.M. Desai Ph.D. (Cornell)

D.K. Desai Ph.D. (Illinois)

G.M. Desai Ph.D. (Cornell) Bakul Dholakia Ph.D. (MSU)

M.R. Dixit Ph.D. (IIT, Kanpur)

V.R. Gaikwad Ph.D (Saugar)

R.S. Ganapathy Dip. Bus. Adm. (IIMA) Ph.D. (Michigan)

S.R. Ganesh Ph.D. (London School of Business)

Pulin K. Garg Ph.D. (Berkeley)

G. Giridhar D.Sc. (Harvard)

Anand P. Gupta Ph.D. (Florida)

Anil K. Gupta M.Sc. (HAU)

G.S. Gupta Ph.D. (Johns Hopkins)

Omprekash K. Gupta Ph.D. (Purdue)

Ramesh Gupta Ph.D. (Berkeley)

Ranjit Gupta M.A. (Lucknow) (SBI Professor of Rural Development)

Tirath R. Gupta Ph.D. (Massachusetts) V.K. Gupta M.Com. (Lucknow) M.S.S. (Tha Hague)

V. Jaikumar M.Sc. (Delhi) A.I.C.W.A. Ph.D. (Columbia)

C. Gopinath
Ph.D. (IIT, Kharagpur)

Abhinandan K. Jain Fellow (IIMA)

B.H. Jajoo Ph.D. (111, Kanpur)

S.G. Joag\*
Dip. Bus. Adm. (IIMA)

Amarlal H. Kalro Ph.D. (Minnesota)

Mohan Kaul\* Ph.D. (Paris)

Pradip N. Khandwalla Ph.D. (Carnegie-Mellon)

Inderjit Khanna
(I.A.S.)

Rakesh Khurana\* M.S.(Northwestern) Ph.D. (Gujarat)

M.G. Korgaonkar Ph.D. (IIT, Bombay)

S.C. Kuchhal M.Com. (Allahabad) (IFCI Professor of Management) G.R. Kulkarni M.Com., LL.B. (Bombay) (Bank of Baroda Professor of International Banking and Finance)

T. Madhavan Fellow (IIMA)

Rushikesh M. Maru Ph.D. (Michigan)

Ravi J. Matthai B.A. (Hons.) (Oxon)

Subhash C. Mehta\* Ph.D. (Missouri-Columbia)

P.N. Misra Ph.D. (Delhi School of Economics)

Sasi B. Misra Ph.D. (California)

M. Mohan Ph.D. (Manchester)

Arun Monappa M.A. (Madras) M.Sc. (London School of Economics)

V.L. Mote. Ph.D. (N. Carolina)

T.K. Moulik Ph.D. (IARI, New Delhi)

Sipra Mukhopadhyay Ph.D. (Jadavpur)

Nirmala Murthy P.Sc. (Harvard)

K.R. Srinivasa Murthy D.B.A. (Harvard)

I.M. Pandey Ph.D. (Delhi)

Udai Pareek Ph.D. (Delhi) (L&T Professor of Organizational Behaviour)

Indira J. Parikh M.Ed. (Rochester) Ph.D. (Gujarat)

Nitin R. Patel Ph.D. (MIT)

Samuel Paul Ph.D. (Syracuse)

D.M. Pestonjee Ph.D. (Aligarh)

M. Raghavachari Ph.D. (Berkeley)

V. Raghunathan Fellow (IIMC)

K.V. Ramani Ph.D. (Cornell)

C.G. Ranade Ph.D. (Cornell)

T.P. Rama Rao M.Tech

S. Sreenivas Rao M.A. (Osmania) M.A. (Syracuse)

V. Venkata Rao Ph.D. (Georgia Institute of Technology)

T. Venkateswara Rao Ph.D. (SPU)

N. Ravichandran Ph.D. (IIT, Madras) Jahar Saha Ph.D. (Case Western Reserve)

Mirza S. Saiyadain Ph.D. (Kansas)

J.K. Satia Ph.D. (Stanford)

S.P. Seetharaman Ph.D. (SPU)

Girja Sharan Ph.D. (Cornell)

N.R. Sheth Ph.D. (MSU)

P.M. Shingi Ph.D. (Illinois)

Manu Shroff
B.A. (Hons.) (Bombay)
B.Sc. (Econ.) (London)
Bar-at-Law

P.R. Shukla Ph.D. (Stan.ord)

Gurdev Singh Ph.D. (Illinois)

Ramadhar Singh Ph.D. (Purdue)

U.K. Srivastava Ph.D. (Lucknow)

Ashok Subramanian Dip. Bus. Adm. (IIMA)

Dwijendra Tripathi Ph.D. (Wisconsin)

A. Tripathy Ph.D. (London School of Economics)

P.S. Sachdeva\*
Dip. Bus. Adm, (IIMA)
(At Wharton School,
Ph.D. Programme)

<sup>\*</sup> on leave

S. Vathsala Fellow (IIMA)

Pramod Verma Ph.D. (Manchester)

M.N. Vora D.B.A. (Harvard) V.S. Vyas\* Ph.D. (Bombay)

Charan Wadhwa Ph.D. (Yale)

<sup>\*</sup> on leave

## Visiting Faculty

S.P. Agarwal ICWA (Bombay)

S.V. Haribhakti (Bombay)

N.C.B. Nath
Ph.D. (Madras)
(STC Visiting Professor of
Marketing)

H.N. Pathak M.Sc. (London School of Economics)

N.U. Raval Ahmedabad

C.R. Shah
M.A., LL.M., A.M.B.I.M. (London)
Executive Director
Shri Ambica Mills Ltd.,
Ahmedabad

M.D. Shah Consumer Education & Research Centre Ahmedabad

S.P. Singh
Professor
National Institute of Bank
Management
Bombay

#### Research Staff

V.S. Acharya M.C.J. (Osmania)

Ravindra Bharati Dip. in Planning (School of Planning Ahmedabad)

S.N. Chokshi B.Sc. (Gujarat)

R.N. Chaudhury M.Tech. (IIT, Kanpur)

M.S. Deepak M.A. (BITS)

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