

Twenty - Seventh Annual Report

1988 - 89



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IIM
AHMEDABAD

Indian Institute of Management
Ahmedabad

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1 THE YEAR IN RETROSPECT

During the year under review, the Institute made a steady progress in its spectrum of activities in fulfilment of its basic mission and objectives. In accordance with the decision made during the previous year to make concentrated effort in some crucial areas of socio-economic development, we have constituted three faculty groups to undertake training and research in (i) International management, (ii) studies of specific industries with special emphasis on social policy, and (iii) management of strategic priority sectors with initial focus on sick industries. We hope that during the years to come these working groups will grow into viable academic units and strengthen our capability to contribute to professionalization of management in the core sectors of the Indian economy. A modest beginning has been made in respect of our plans to set up the Centre for Educational Innovation in memory of the late Professor Ravi Matthai. Apart from continuing the work undertaken as a part of the well known Jawaja project initiated by Professor Matthai, a study of leadership and entrepreneurship in development-oriented voluntary organizations is in progress. We have also planned to assist the Ministry of Human Resource Development in the task of reviewing and monitoring the management of various programmes of educational development emanating from the National Education Policy.

Our efforts to improve the quality of our Post-Graduate Programme continued during the year. Apart from the preparatory course specially designed for candidates with marginal deficiency in their knowledge of basic mathematical concepts, faculty and senior students participated in a tutorial programme for students in need of special content. We made a special promotional effort to ensure an adequate intake of high-quality participants for our doctoral-level Fellow Programme in Management. This Programme has supplied faculty resources to a variety of academic institutions in India and some of its graduates occupy prestigious faculty positions in management schools abroad. We hope to strengthen our service in this regard during the coming years. The Faculty Development Programme, which provides continuing education to teachers in management, also went through suitable restructuring in the interest of greater relevance and effectiveness.

Training and development programmes for management practitioners constitute a vital part of the Institute's services. All our programmes received encouraging response from the relevant segments of professional management. I should specifically mention the consistently inspiring response from industry to our 3-Tier Programme for Management Development and the Management Education Programme for young executives. As in the past, the public sector and government organizations were represented in a large measure in all our programmes. We offered programmes to serve the development needs of entrepreneurs in small industry, women managers, and managers and administrators in priority sectors such as agriculture and rural development, transport, and

population and health management. We also continued our close collaboration with agencies such as the Department of Personnel and the Bureau of Public Enterprises of the Government of India to conduct management development programmes for civil servants and public sector chief executives. We have planned to conduct during 1989-90 a development programme for chief executives of public sector undertakings in the developing member countries of the Commonwealth in collaboration with the Commonwealth Secretariat. The Secretariat has also agreed to sponsor a training programme in economic management and planning in developing economies to be conducted jointly by the Institute and the University of Glasgow.

Our research and consultancy programmes covered industry in private and public sectors, agro-based enterprises and rural development, and a variety of service-oriented public organizations in health, transport, energy, education, etc. The Institute's cumulative work in areas such as cooperatives, fisheries, irrigation, social forestry, energy, and management of health and population programmes has been widely recognized for its relevance and value. The product of scholarship of the Institute's faculty and research staff during the year under review includes 15 books and monographs, 63 published papers and articles, and 56 papers prepared for academic conferences, in addition to a large number of cases and conceptual notes.

We were happy to host during the year a special reunion and seminar for the Institute's alumni. Over 150 alumni responded to our invitation. Some of them visited their alma mater with their families. The seminar provided us valuable feedback and suggestions on our academic programmes through an exchange of experience and thoughts between the alumni and the academic community. This reunion also included a celebration of the silver jubilee of our management development programmes by felicitating the participants in the first set of programmes. Our guests for this event included some of the most distinguished professional managers in Indian industry.

I am happy to report that CMC Limited has made a generous endowment to establish a chair-professorship in management. I would like to express our deep appreciation and gratitude to the management of CMC for this gesture. We have also received an offer of an endowment from Hindustan Lever Limited for a distinguished visiting professorship to enable us to invite a scholar or practitioner of international repute to spend a few weeks at the Institute. We are grateful to the management of Hindustan Lever for this offer.

The Institute lost during the year one of its most valuable faculty resources in the untimely death of Professor Labdhi R Bhandari in an air crash. We have launched an endowment in Professor Bhandari's memory to provide for a visiting professorship and awards for scholastic excellence.

Our facilities in respect of the computers for research and educational purposes were enhanced during the year under review. We hope to continue this task of augmentation of computer facilities in view of the crucial importance of application of computers and information systems in professional management. The existing facility for academic programmes and administration in our Management Development Centre has been enlarged. Our plans to build the physical facility relating to the Centre for Educational Innovation are in progress. We have also planned to provide for additional office space to meet the growing need for faculty and staff accommodation and facilities for the computer centre and the publications division.

On behalf of all of us at the Institute, I would like to place on record our gratitude to the various sections of the users of our services for the help and cooperation we have received from them. Our progress and ability to serve the Institute's mission are in no small measure due to the support, encouragement, and help we have continuously received from the Government of India, the Chairman and members of the Board of Governors, and the IIMA Society. We are grateful for their support, guidance, and advice. I would also like to acknowledge with gratitude the invaluable contribution made by the Institute's faculty, staff, and students to the sustenance of its strength, promise, and character by their dedication and diligence.

N R Sheth
Director

2 BOARD, SOCIETY, AND PERSONNEL

Board

Mr. T R Agnani, Secretary, Education Department, has been nominated by the Government of Gujarat as member of the Board and the Society in place of Mr. K D Buddha with effect from November 1, 1988.

Mr. Jaykrishna Harivallabhdas and Mr. A H Tobaccowala have been re-elected as nominees of the IIMA Society on the Board for a period of five years with effect from April 6, 1989.

Mr. Arvind N Lalbhai and Mr. Prafull Anubhai have been elected as nominees of the IIMA Society on the Board for a period of five years with effect from April 6, 1989, in place of Mr. J S Varshneya and Mr. Moosa Raza.

Mr. N Vaghul, Dr. Amrita Patel, and Mr. Rangarajan Kumaramangalam have been nominated by the Government of India to represent Commerce, Labour, Industry, and other interests for a period of five years with effect from December 6, 1988.

Personnel

During the year, the following faculty were appointed:

Professor N Venkiteswaran joined as Associate Professor in the Finance and Accounting area on June 29, 1988.

Dr. S Ramnarayan joined as Professor in the Organization Behaviour area on August 5, 1988.

Mr. Ashok Jambhekar joined as Librarian on August 1, 1988.

Leave of Absence

Professors Suresh Ankolekar, Samir Barua, Deepti Bhatnagar, S C Bhatnagar, J K Satia, and Ramadhar Singh were granted leave of absence during the year.

Resignation

Professor Ashok Subramanian resigned from the Institute during the year.

Retirements etc.

Professor S C Kuchhal, Mr. K V Narayanan, and Mr. Madosingh R Chauhan retired from the services of the Institute during the year.

Professor Labdhi R Bhandari died in an accident on October 19, 1988.

Outside Assignments

Professor Suresh Ankolekar	Netherlands International Institute for Management Sciences January 28, 1989 - January 27, 1990
Professor Samir Barua	San Fransisco State University August 8, 1988 - July 31, 1989
Professor Deepti Bhatnagar	Fairleigh Dickinson University June 30, 1988 - June 29, 1989
Professor S C Bhatnagar	Fairleigh Dickinson University September 5, 1988 - September 4, 1989
Professor J K Satia	World Bank Projects March 28, 1989 - March 27, 1990
Professor Ramadhar Singh	National University of Singapore June 29, 1988 - June 28, 1990

Endowed Chairs

Professors V R Gaikwad and P N Khandwalla respectively continued as State Bank of India Professor of Rural Development and Larsen & Toubro Professor of Organizational Behaviour, and Professor Dwijendra Tripathi held the Kasturbhai Lalbhai Fellowship in Management during the year. The Industrial Finance Corporation of India Chair in Management and the State Trading Corporation Chair in Marketing became vacant during the year due to the retirement of Professor Kuchhal and the death of Professor Labdhi Bhandari respectively. The chairs endowed by the Reserve Bank of India and Bank of Baroda remained vacant. CMC Ltd. has instituted a chair in management at the Institute.

3 POST-GRADUATE PROGRAMME IN MANAGEMENT

The twenty-fifth session of the Post-Graduate Programme in Management started on July 1, 1988, with an enrolment of 213 students, including seven students who were asked to repeat the first year of the Programme. Nine students discontinued their studies during the year for various reasons, of which one student has been permitted on medical grounds to rejoin the first year of the Programme during the academic year 1989-90.

The first year student strength at the end of the year was 204 of which 30 belonged to SC/ST, including 6 repeaters. Twenty-seven students will specialize in Agricultural Management (including 3 repeaters) during the second year of their studies.

The second year of the Programme commenced on June 29, 1988, with an enrolment of 171 students. For the first time, summer placement presentations were organized for two days in which students in groups presented their summer project experience. Those students who were granted conditional promotion to the second year have fulfilled the academic requirements during the academic year 1988-89.

At the end of the second year, 171 students satisfactorily completed the academic requirements for graduation from the Institute, including 16 students belonged to SC/ST and 23 students specializing in Agricultural Management. This includes two students who were granted one year leave of absence and who had rejoined the second year of the Programme during the year. One student was granted a year's leave of absence from the Programme at the end of the first term.

Preparatory Programme

Fifty-one students, who were identified to be deficient in basic mathematics on the basis of their background, performance in the admissions test, and interviews, were called to attend the preparatory programme in mathematics which was held from June 8 to 22, 1988. Forty-two students attended this programme.

Orientation Programme

The highlights of the orientation programme included a session on "Introduction to Management and Managerial Functions" to explain what professional management is all about, what managers do, functions of management, etc.; a panel discussion by faculty representatives from all areas/centres/groups on the compulsory package and introduction to areas; and orientation by senior students to the new entrants.

Tutorials to Assist Weaker Students

Additional efforts were put in by instructors to assist weaker students in specific courses throughout the first year by conducting extra tutorial classes. In addition, senior students were entrusted the responsibility conducting systematic week-end tutorial classes to selected students, particularly those belonging to SC/ST, to help improve their performance. This had considerable impact on the students' academic work in the second and third terms. Several of them reported improved performances.

Curriculum

The PGP Review Committee's recommendations as accepted by the Faculty were implemented during the last two years (1987-89). An evaluation of the revised curriculum was done by obtaining feedback from the first batch of students who studied it. The revised first year package has been well appreciated by a large number of students. The need was felt to develop more cases covering a variety of settings (public sector, private sector, services, government, etc.), bring in more environment related issues, and strengthen integrating mechanisms between the terms and the entire package.

The second year General students were required to credit a minimum of 17 and a maximum of 20 full credit courses inclusive of two compulsory courses (Strategic Formulation and Implementation II and Legal Aspects of Business) according to the PGP Review Committee's recommendations.

During the year, 37 elective courses were offered in addition to two compulsory courses in the General stream. On account of high registrations, 13 elective courses were taught in two sections, whereas the compulsory course (Strategic Formulation and Implementation II) was taught in three sections. Moreover, 61 one-term project courses were offered to 118 students in the area of their interest. Two students pursued a Course of Independent Study which is equivalent to 2 units of courses, in separate areas.

After a review of the curriculum, all the Specialization in Agriculture courses were offered as electives as against the past practice of offering compulsory courses. Nineteen elective and 14 project courses were offered. The students specializing in Agriculture Management were required to study a minimum of 17 and a maximum of 20 full credit courses including two compulsory courses (Strategy Formulation and Implementation II and Legal Aspects of Business). In the SPA stream, 3 students pursued a Course of Independent Study.

Exchange Students

Under the students' exchange programme, 5 students from ESCAP Graduate School of Management and 2 students from ESSEC Graduate School of Management, Paris, took courses in the second year of the Programme. One student took courses in all the three terms, 3 students in two terms, and 3 students in one term. The students were very appreciative of the learning at the Institute. The credits obtained by these students at the Institute were transmitted to their respective Institutions.

Graduation

✓ One hundred and seventy-one students, including 23 students specializing in Agriculture Management, were awarded the Institute's Post-Graduate Diploma in Management at the twenty-fourth Convocation on March 27, 1989. Dr. A Ganguly, Chairman, Hindustan Lever Ltd., delivered the convocation address.

The following students received the "Indian Institute of Management Ahmedabad Medals for Scholastic Performance":

PGP (General)

R Subramanian
K R S Jamwal
Sachit Jain

Kollengode V Srinivas Award for the Best PGP All-Rounder

The Kollengode V Srinivas Award was instituted by the parents of Kollengode V Srinivas to recognize the all-round performance of an outstanding student and perpetuate the memories of Srinivas's association with the Institute.

This year, K R S Jamwal was given the award for the best PGP all-rounder of the 1987-89 batch.

ADMISSION

The Post-Graduate Programme commencing June 1989 attracted 11,630 applications. The comparative figures for this year and the last year are given below:

	<u>1989-91</u>	<u>1988-90</u>
General	10,618	9,171
SC/ST	618	554
SPA	394	364
	<u>11,630</u>	<u>10,089</u>

Details of the number of applications received, candidates called for interview, selected, and recommended for the Preparatory Programme are given below:

	<u>General</u>	<u>SC/ST</u>	<u>SPA</u>	<u>Total</u>
Applications received	10,618	618	394	11,630
Called for interview	505	90	70	665
Selected	117	44	30	191
Waitlisted	72	--	--	72
Recommended for Preparatory Programme	21	21	23	65
Joined the Programme	133	30	24	187

Relaxations were given to SC/ST applicants in all segments of selection. SPA applicants were also given relaxations in some segments.

Scholarships

Industry Scholarships

Twenty-nine industry scholarships (27 merit based and 2 means based) were awarded as follows:

General Industry Scholarships

Thirteen students from the first year (1987-89 batch) were awarded scholarships of Rs.3,000 to Rs.3,500 each for the academic year 1987-1988.

Bank of Maharashtra Scholarships

Two scholarships of Rs.3,500 each for poor SC/ST students were awarded, one each to a first year and a second year student, for the academic year 1988-89.

Faculty Memorial Scholarships

One first year student of the 1987-89 batch was awarded Prof. Warren W Haynes Memorial scholarship of Rs.3,000 and one second year student of the 1987-89 batch was awarded Prof. B K Hegde Memorial scholarship also of Rs.3,000.

PGP Students 1987 Batch Scholarships

The PGP Batch 1987 scholarship was awarded to a first year student (1987-89 batch) and the IIMA Silver Jubilee scholarship to a second year student of the 1987-89 batch. Each of these scholarships is of the value of Rs.3,000.

Government of India Merit-cum-Means Scholarships

Five students from the first year (1987-89 batch) and five students from the second year (1987-89 batch) were awarded the government of India merit-cum-means scholarships of Rs. 2,200 each.

IIMA SC/ST Scholarships

During 1988-89 all the 32 SC/ST students in the first year and 16 SC/ST students in the second year were granted IIMA SC/ST scholarships of Rs.1,500 each. In addition, five students from the first year and one student from the second year were granted waiver of tuition fee and room rent amounting to Rs.1,430.

PLACEMENT

Pre-Placement Talks

The placement season started with the first pre-placement talk by Bank of America on November 8, 1988. Sixty-four organizations (13 public sector, 42 private sector, and 9 multinational) gave pre-placement talks during weekends till February 22, 1989.

Permanent Placement

All the students of the Post-Graduate Programme of the 1987-89 batch were placed before March 20.

The graduating class consisted of 171 students (148 General and 23 SPA). Seven students - six General and one SPA - did not seek placement and ten students - nine General and one SPA - sought deferment by a year. Deferment was granted to those students whose career plans matched with the institutional objectives and who wanted to try out entrepreneurial activities, or work with voluntary organizations, or take the IAS examination. In all, therefore, 154 students (133 General and 21 SPA) sought placement facility this year.

Out of 16 students who sought deferment last year, seven students returned for placement in 1989. All of them were placed before March 20.

In all, 170 organizations announced 918 jobs. On-campus interviews were held from March 1 to 14 and off-campus interviews thereafter for a week.

Eighty-one organizations conducted interviews. Nineteen public sector organizations, 50 private sector organizations, and 12 multinational organizations made 262 job offers.

Summer Assignments

Two hundred and three students of the first year (including two FPMs) were assigned to 70 organizations for summer training.

4 FELLOW PROGRAMME IN MANAGEMENT

So far 94 students have completed the requirements of the Fellow Programme in Management (FPM) and awarded the title of the "Fellow of the Indian Institute of Management Ahmedabad." Another 27 students are currently in various stages of the Programme.

Admission

During the year, 554 candidates applied for admission to the FPM, an increase of 15 per cent over the last year. Ninety-seven candidates were called for interview. Admission was offered to 31 candidates for the Programme commencing in July 1989.

Graduation

The following students were awarded the title of the "Fellow of IIMA" at the convocation on March 27, 1989.

Thesis Title

A G Balasubramanian	Bias in Testing: A Study of Banking Selection Tests
Charu Sheela Naik	Industrial Energy Use and Environment Quality: A Case Study of Ahmedabad
S Phansalkar	Risk in Agriculture and Agricultural Development: The Role of Public Policy
Pranabesh Ray	Unity of Labour in the Context of Political Diversity
Dipti Sethi	Inter-Organizational Coordination in Development Programme: A Case on Integrated Child Development Services
Janat G Shah	Coking Coal Allocation to Steel Plants: Modelling and Policy Analysis
S Subramanian	The Impact of Political and Economic Events on Stock Price Behaviour

Review of the Fellow Programme

The Programme was reviewed comprehensively during the year and the recommendations of the reviewing committee are under implementation. Some of the recommendations are as follows.

Promotion of the Programme

FPM advertisements, bulletins, and posters have been recast in attractive formats to highlight the Programme's distinguished features. Wide publicity was given to the Programme in major universities and management institutions of the third world countries and India.

Revision of Academic Packages

A thorough review of the first and second year courses is being undertaken. The course packages would be strengthened wherever necessary. New courses are being introduced in some areas.

Development of Teaching/Research Skills in FPM Students

Guidelines were framed making it compulsory for every FPM student to design courses, conduct classes, and develop teaching/research strategies during their third/fourth year of the Programme.

Agriculture Management

Agriculture Management will be included as one of the areas of specialization in the Programme.

Placement

Out of seven students who were awarded the title of the "Fellow of IIMA" during the convocation, two have joined academic institutions and five have accepted offers from industry.

5 FACULTY DEVELOPMENT CENTRE

The Faculty Development Centre (FDC) offered the tenth Faculty Development Programme (FDP) in Management from July 11, 1988, to February 28, 1989. Eleven participants from 10 educational and professional institutions in India participated. Fellowships were offered to eight participants; others were supported by their sponsoring institutions.

Case Method and Development Workshop

A ten-day workshop on "Case Method and Case Development" was offered under the aegis of the FDC from April 19 to 28, 1989. The Workshop had 17 teachers from universities/management institutes in India. Prof. S Vathsala coordinated the workshop.

Course Restructuring

The FDP Committee had undertaken a diagnostic study of FDP and visited several institutions to understand their faculty development needs and strengthen inter-institutional linkages. The course package for 1989-90 was reviewed to design a viable and more useful FDP. A restructured FDP will be offered for the academic year 1989-90.

The FDC mailed brochure for the eleventh FDP beginning June 28, 1989, to more than 400 institutions in India and abroad. The response to the mailing was quite good.

6 RESEARCH AND PUBLICATIONS

Research and Seed Money Projects Funded through the Research Committee

At the end of the academic year 1987-88, seven research projects and 21 seed money projects sponsored by the Research Committee were in progress. During the academic year 1988-89, one research project and 11 seed money projects were initiated. Eight seed money projects were completed, and one seed money project was closed during the academic year 1988-89. Thus, eight research projects and 23 seed money projects were in progress.

Research Projects Initiated

- 1 Singh, J P, "Culture and Managerial Effectiveness."

Seed Money Projects Initiated

- 1 Ramachandran, K, "Urban Informal Sector: The Case of Panwallas."
- 2 Gupta, Omprakash K, "Computer Based DSS for Project Management."
- 3 Bhat, Ramesh, "Inter-Regional and Inter-Industry Analysis of Share Price Indices."
- 4 Saha, Jahar, "Improvement of Irrigation Water Supply to Hadgood Village."
- 5 Ramnarayan, S, "The Institutional Environment for Technology Diffusion: Role of Non-Market Institutions."
- 6 Ravichandran, N, "Production Information Systems: A Framework for Refinery Operations."
- 7 Ramnarayan, S, "Leadership for Social Innovation."
- 8 Jain, Rekha; Raghuram, G; and Chhokar, J S, "Safety Management in Transportation."
- 9 Gupta, Anand P, "Managing Public Sector Deficits."
- 10 Pandey, I M, "Lease Accounting Practices in India."
- 11 Raghuram, G, "Impact of Railways on Logistics."

Seed Money Projects Completed

- 1 Chhokar, J S, "Action Tendency Measure of Job Satisfaction."
- 2 Chhokar, J S; and Bhatnagar, Deepti, "Attitudes, Values, and Expectations of Management Graduates."
- 3 Sridharan, R, "A Survey of Models and Solution Procedures for Communication Problems (Telecommunications: A Survey)."
- 4 Pandya, J F; Shah, M C; and Trivedi, G J, "Energy: A Classified Bibliography 1970-1985."
- 5 Pandey, I M; and Bhat, Ramesh, "Corporate Financial Goals and Their Association with Financial Performance: A Cross Valuation Study."
- 6 Saiyadain, Mirza S, "Factors Affecting Family Planning Knowledge and Practice."
- 7 Ravichandran, N, "Analysis of Multi Commodity Inventory Models of (S,s) Type."
- 8 Ramachandran, K, "Urban Informal Sector: The Case of Panwallas."

Seed Money Projects Closed

- 1 Bhandari, Labdhi, "Counter-trade: Indian Experience."

Research Projects Funded through Outside Agencies (excluding those undertaken by CMA, PSG, CRMS, and CISG)

Research Projects in Progress

- 1 Joseph, Jerome, "A Survey of Labour Management Consultation Mechanisms."
Sponsor: Asian Productivity Organization, Tokyo.
- 2 Raghuram, G; Gupta, G S; Bhatt, Anil; Joseph, Jerome; Raghunathan, V; Ramnarayan, S; Dixit, M R; and Sridharan, R, "Development of Training Software for IAS Programmes Project."
Sponsor: Department of Personnel, Government of India.
- 3 Pestonjee, D M, "Third Handbook of Psychological and Social Instruments."

- 4 Parikh, Indira J; and Farrell, Pauline, "Women Managers: Management Training Approaches and Perspectives in Third World Countries."

Research Projects Completed

- 1 Pestonjee, D M, "Motivation and Job Satisfaction."
Sponsor: University Grants Commission.
- 2 Dholakia, Ravindra H, "Inter-regional Variation in the Level and Rate of Economic Development - A Comparative Study of Canada and India."
Sponsor: ICSSR, New Delhi.

Seminars

The following seminars were organized by the Research Committee during the academic year 1988-89.

<u>Topic</u>	<u>Speaker</u>	<u>Date</u>
Social Relevance of MBA Education : A Case Study in India	Dr. Shailendra Vyakaram Lecturer in Marketing and Enterprise Development Silsoe College Bedford	July 14, 1988
Culturally Adapted Market Research in the Development Process	Dr. T Scarlett Epstein Social Assessment Consultant	October 11, 1988
Some Aspects of Adult Education in Norway	Mr. Lars P Brynildsurd Norway	October 28, 1988
Impact of Government Policy Interventions in India and Other Developing Countries	Dr. Maurice R Landes Leader, Commercial Trade Centre United States Department of Agriculture Washington, DC	November 22, 1988
Swedish Management Practices	Dr. Paul Bernstein Rochester Institute of Technology Rochester	January 12, 1989

Trends in Business and Management Education in America	Dr. Walter F McCanna New York	January 13, 1989
Managing Growth in Small Enterprises	Prof. Alan Gibb Director Small Business Centre Durham University England	January 19, 1989
Perspectives on Management Education in Netherlands	Dr. Slawomir J Magala Rotterdam School of Management Erasmus University Netherlands	February 15, 1989
Non-Governmental Organizations, Bottom-up Develop- ment Projects, and Poverty Alleviation: What Have We Learned?	Dr. Bishwapriya Sanyal Massachusetts Institute of Technology Massachusetts	February 27, 1989
Innovations in Banking for Rural Development : Experience of Action Research at Grass- roots	Dr. Dinker Rao National Institute of Bank Management Pune	February 28, 1989

The following internal seminar was organized by the Research Committee during the academic year 1988-89:

Financing Public Enterprise Invest- ments in India : The Case of Central Government Enterprises	Prof. Anand P Gupta	October 13, 1988
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Publications

Vikalpa The Journal for Decision Makers published by the Institute has completed twelfth 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 9 books and 6 monographs and wrote 72 articles or chapters in books. They also presented 56 papers and gave 16 lectures in various seminars and conferences. In addition, 53 working papers were brought out. For details, please see Appendix IX.

7 MANAGEMENT DEVELOPMENT PROGRAMMES

Thirty seven management development programmes/seminars/workshops were offered during the year of which twelve were new. The mix of programmes for general management, sectoral management, and functional management reflected the range and variety of needs in management development.

The number of participants from government, semi-government, and public sector organizations continues to increase. Participants from the government/semi-government and public sector numbered 678 as against 557 from the private sector. In all, 1235 executives attended the Institute's programmes this year.

New Programmes

Five of the thirteen new programmes offered were for IAS officers, sponsored by the Training Division, Department of Personnel, Government of India. Two one-week programmes for IAS officers on Management of Agriculture and Rural Development were offered and 58 IAS Officers attended both programmes. Two one-week programmes on Industrial Policy Planning and Development were offered for IAS Officers which attracted 54 officers. A one-week programme on Project Management for IAS officers was offered which was attended by 32 officers. A one-week programme on Project Identification Formulation, Appraisal, and Implementation was offered for the public systems managers which was sponsored by the Training Division, Department of Personnel, Government of India. Thirty-five participants attended this programme.

A two-day seminar-cum-workshop on Role of Top Managers in Human Resources Development attracted 31 senior and top managers. A three day workshop on Problems of Road Transport Undertakings was offered which had 12 participants, followed by a programme for top level managers of passenger road transport undertakings, which was attended by 17 managers. A three-day workshop for women managers for participants of earlier women manager programmes was organized in which 14 women managers participated. A two-day workshop on Vendor Rating was offered which attracted 29 participants besides participants of the Materials Management Programme. Two one-week programme on Micro Computers in Materials Management (38 participants) and Computer-Aided Financial Decision Making (44 participants) were offered.

General Management Programmes

The 3-Tier Programme for Management Development -- the oldest and largest of the Institute's programmes -- was offered for the twenty-sixth time. In this programme, executives from three different levels -- middle, senior, and top -- participated in exploring and understanding management problems. The top management segment (Tier III) was offered on the theme of "Managing for Results : Choices and Strategies." In all, 218 participants attended the three programmes.

The Institute offered the nineteenth Small and Medium Enterprises Programme which focused on concepts and skills needed for improving productivity and efficiency of small and medium enterprises. Thirty-one executives attended the programme.

The Institute offered the tenth and eleventh Advanced Management Programme for Public Enterprises under the auspices of the Bureau of Public Enterprises. Fifty-eight senior managers from public sector enterprises participated in these two programmes.

Functional Programmes

Programmes on Corporate Strategic Planning, Human Resources Management, Computer Based Information Systems, Computer Based Management Decision Support Systems, Marketing Decisions: Advances in Data Analysis, Project Management, Manufacturing Management and Policy, Materials Management, Strategic Analysis and Financial Management, and Workshop on Top Managers Styles and Organizational Effectiveness (twice) were offered during the year.

Sectoral Programmes

A two-week programme on Management of Agriculture and Rural Development Programmes attracted eighteen participants. A five-week training programme on Co-operative Project Designing and Implementation under the sponsorship of the National Co-operative Development Corporation attracted 31 participants. A refresher course for IAS officers on Management of Agriculture and Rural Development attracted 25 participants.

The Institute offered an exclusive programme for officials from Laos on Design, Appraisal, Monitoring, and Evaluation of IRDP. Ten officials attended this programme.

A regional workshop for South-Asia and East Africa on population programme management attracted thirty-one participants from fourteen countries. The programme was sponsored by the International Committee on the Management of Population Programmes (ICOMP).

A four week programme on Management Concepts and Decision Making Techniques for IAS Officers was offered under the sponsorship of the Training Division, Department of Personnel, Government of India. Thirty-eight IAS officers attended this programme. A one week refresher course for IAS officers on Computer Applications in Government attracted 26 participants.

Long Duration Programmes

The Institute's thirteenth Management Education Programme attracted thirty-three participants. This programme is designed to provide an intensive post-entry exposure in all areas of management to executives with functional experience who are identified as having potential to move to general management positions.

New Programmes

The Institute is planning to offer the following new programmes/seminars/workshops in the next academic year (1989-90).

General Management

Strategies for Competitive Advantages: To expose senior managers to the tools, techniques, and processes in formulating and implementing strategies for deriving competitive advantage.

Functional

Logistics and Physical Distribution Management : To acquaint middle and senior managers with current and emerging concepts and logistics and physical distribution management and impart a working knowledge for better decision making in this area.

Programme on Financial Services: To consolidate the current level of development in financial services and share them with a view to injecting greater professionalism.

Management Control Systems: Meant for senior managers to provide a framework for the structure, design, and implementation of planning, control, and information systems.

Public Systems

Computer Aided Management in Road Transport Undertakings: Meant for middle level functional heads and EDP managers of road transport undertakings to develop a framework for computer application in road transport undertakings.

Policy Issues in Passenger Road Transport Undertakings: Meant for top level executives in road transport undertakings to identify problems of passenger road transport undertakings and develop solution strategies through appropriate policy frameworks and to share experiences in problem solving among passenger road transport undertakings.

General Management (Sponsored)

Commonwealth Top Management Programme for Public Enterprises: Organized in collaboration with the Commonwealth Secretariat, London, this programme is meant for top management executives in public enterprises from Commonwealth countries. It will contribute greatly in improving the performance of public enterprises and will offer many advantages such as effective interface mechanisms with governments across the Commonwealth countries.

Training Programme on Economic Management and Planning in Developing Economies (jointly conducted by IIMA and the Centre for Development Studies, University of Glasgow, in collaboration with the Commonwealth Secretariat, London): This training programme is meant for officials of ministries or departments of planning, economics, and food and agriculture at Secretary/Assistant Secretary level to develop professional skills for carrying out economic management and development administration more effectively.

Functional (Sponsored)

Project Management - Level II for IAS Officers (sponsored by the Department of Personnel, Training Division): This programme is meant for IAS officers who are connected with project management.

Management Control Systems for IAS Officers from Central and State Governments: This programme will generate appreciation among participants of the role of management control systems in organizational goals. It will develop capability to critically appraise control systems developed and installed in their organizations.

Sectoral Programmes

Project Designing for Social Forestry Projects: This programme is meant for project officers from Madhya Pradesh, Gujarat and Goa who are involved in social forestry, community forestry and forestry extension activities. The objective is to provide training in project formulation, monitoring, and evaluation.

Workshops and Seminars

The following Workshops/Seminars will be offered during 1989-90: Social Forestry Workshops, Corporate Planning for Road Transport Undertakings, Management of Research for Rainfed Regions, Workshop for Corporate Level Trade Union Leaders, Stress Audit in Organizations, Management of Agro-Processing Enterprises, Agricultural Inputs Marketing, Dynamic Models in Agriculture, Strategic Issues in Rural Banking, Credit-Technology Linkages, Top Management Seminar on Computers for Management Decision Support Systems, Workshop on Expert Systems for Management, Workshop on Effective Turnaround of Sick Units, Research Workshop on Industrial Policy, Training Needs for IAS Officers, and Development, Change and Innovation.

8 CENTRE FOR MANAGEMENT IN AGRICULTURE

The Centre's faculty completed six research projects during the year while 14 research projects were in progress. The details are as follows.

Research Projects Completed

Project	Faculty	Sponsor
Identifying Bottlenecks and Evolving a Strategy for Farm Equipment Industry	Girja Sharan	Ministry of Agriculture and Cooperation
Pesticide Industry in India: Issues and Constraints in its Growth	U K Srivastava	- do -
Study of Floriculture Industry in India	Shashi Kolavalli	- do -
Economic and Policy Issues for Bagassee-Based Paper and Newsprint in India	Tirath Gupta	- do -
Production and Marketing of Plantation Spices in India	V N Asopa	- do -
Seed Industry in India: A Management Perspective	Gurdev Singh V N Asopa	- do -

Research Projects in Progress

Project	Faculty	Sponsor
Agricultural Situation in West European Countries (EEC) and its Implications	V R Gaikwad	Ministry of Agriculture and Cooperation
Working Capital Management in Selected Agro-Processing Enterprises	B M Desai V K Gupta	Ministry of Agriculture and Cooperation
Marketing and Sales Promotion (Agricultural Inputs and Consumer Products): Its Role in the Rural Setting	P M Shingi S P Seetharaman	Ministry of Agriculture and Cooperation

Performance of Institutional Credit for Agriculture in India	B M Desai Ranjit Gupta	Ministry of Agriculture and Cooperation
Designing Accessible and Accountable Administrative System: A Case Study of Grievance Redressal in Drought Prone District	Anil K Gupta	- do -
A System Study of Export Oriented Leather and Leather Manufacturers in India	T K Moulik	- do -
Private Groundwater Development, Emergence of Markets, and their Functions	Shashi Kolavalli	- do -
Fertilizer Distribution System: Study in Industrial Dynamics Framework	Girja Sharan	- do -
Towards Water Resources Utilization and Development Plan for Panchmahals: Study of Tank System	Girja Sharan	Ford Foundation
Castorseed and Castorseed Oil Industries	Devi Tewari	Ministry of Agriculture and Cooperation

Research Projects Approved for 1989-90

Three research proposals have been approved by the CMA faculty while the fourth one is yet to be discussed. Preparatory work for initiating the projects is in progress.

Project	Faculty	Sponsor
An Analysis of the Domestic and Export Sector Demand, and Supply Prospects of Quality Raw Silk	Gopal Naik	Ministry of Agriculture and Cooperation
Indepth Case Study of Selected Processors and Exporters of Agricultural and Processed Food Products	U K Srivastava	- do -

A Study on Agricultural
Marketing Information
System (AMIS)

S L Bapna

Ministry of
Agriculture and
Cooperation

Managing Research Network
for Helping Poor in Risky
Regions: A Study of Inter-
Organizational Linkages

Anil K Gupta

- do -

Core Group for National Social Forestry Project

At the request of the National Wastelands Development Board (NWDB), Ministry of Environment and Forestry, Government of India, the Centre has agreed to extend assistance to NWDB in their programme of promoting upgradation of wastelands and improvement in land productivity by providing professional inputs, consultation, and services.

Post-Graduate Programme

Twenty-three students completed the requirements of the Specialization Package in Agriculture offered during the second year of the Post-Graduate Programme and were awarded diploma during the convocation.

The courses offered in the three terms are: Agricultural Development Policy I, Agricultural Input Marketing, QAAM, Agricultural Finance, Management of Agro-Industrial Projects, Development Strategy for Allied Agricultural Sectors, Systems Analysis in Agriculture, Agricultural Output Marketing, Research Methods in Agricultural Marketing, Rural Consumers, Field Project Course in Rural Marketing Fair, Finance for Agricultural Production and Marketing, Managerial Oral Communication, Inventory Management for Agriculture, Group Dynamics and Entrepreneurship, Seminar on Design and Dynamics of Developmental Organization, Cooperative Management, Rural Advertising, and International Marketing.

Though considerable amount of work has been done in developing the course package, the Centre has proposed to improve the course content by developing new courses and adding more teaching materials. The Centre has set up a review committee to examine the strengths and weaknesses of the course package whose recommendations are awaited.

Fellow Programme in Management (Agriculture)

The Institute's FPM Executive Committee has approved the Centre's proposal for including Agricultural Management as an area of

specialization in the Fellow Programme in Management from 1989-90.

Preparatory work for launching the programme and developing the course package are under way.

WORKSHOPS

Workshop on Inland Fisheries Development and Future Strategies

The National Workshop on Inland Fisheries Development and Future Strategies was held at Hotel Clarks Avadh, Lucknow, from September 22 to 24, 1988. The workshop was organized by the Centre in technical collaboration with the Government of Uttar Pradesh and sponsored by the Ministry of Agriculture, Government of India, and the IDA support.

The objective of the workshop was to evaluate the functioning of the Fish Farmers Development Agencies (FFDAs) over the years and review the programme of brackishwater aquaculture. There were, in all, ten technical sessions dealing with various aspects of inland and brackishwater fish farming in which 30 papers were presented by invited participants. As a part of the workshop, a half-a-day field visit to two major hatcheries in UP was made to gain first hand knowledge.

Eighty participants attended the workshop and took part in the deliberations. They included central and state government officials, chief executive officers of some of FFDAs, scientists, academicians, representatives of banks and other financial institutions, and fisheries cooperatives.

National Workshop on Management of Research for Rainfed Regions

A three day workshop was jointly organized by the Centre, Central Research Institute of Dryland Agriculture (CRIDA), Hyderabad, and National Academy of Agricultural Research Management (NAARM), Hyderabad, on Management of Rainfed Research in India between December 13 and 15, 1988, at Hyderabad.

The key issues discussed in the seminar were: prioritization of research, organizational, management and financial aspects of on-station and on-farm research, linkage between rainfed research and post-graduate education, linkages between basic sciences, coordinated commodity projects, and rainfed research and interdisciplinary research (crop-livestock-tree-tools implement interactions). The issue of research on farmers' innovations was also taken up for detailed discussion.

Symposium on Eco-Sociology of Range Resources: Getting People Involved Organized as part of Third International Rangeland Congress

In the Second International Rangeland Congress (IRC) held at Adelaide in 1984, a decision was taken to organize the Third IRC in India. Professor Anil K Gupta was invited to the Second IRC to bring in insights from social sciences on the subject of technological improvements of rangelands. Accordingly the organizing committee included him so that one of the 11 symposia could be organized on the subject of eco-sociology of range resources.

Several issues were sought to be addressed in the symposium held from November 6 to 11, 1988;

- a) ecological changes and pastoral adaptation
- b) management of rangelands: matching the people's perspective with that of the planners and technologists
- c) local technical knowledge about range resources and their management
- d) international perspectives in rangeland development
- e) getting people involved: the contradiction in range development and search for solutions.

About 45 speakers attended.

Workshop on Prospects of Cooperatives in Food Processing

A one-day workshop on Prospects of Cooperatives in Food Processing was organized by the Centre on December 30, 1988. It was sponsored by the National Cooperative Development Corporation. Forty-two officials from cooperative organizations and government agencies participated in the workshop.

Workshop on Performance of Fish Farmers' Development Agencies in Gujarat

A one-day workshop on Performance of Fish Farmers Development Agencies in Gujarat was conducted by the Centre's faculty on February 25, 1989. Eighty officials from various organizations participated in the workshop.

Advisory Committee

The Advisory Committee of the Centre for Management in Agriculture for research activities undertaken on behalf of the Ministry of Agriculture and Cooperation has been reconstituted for the period 1988-90 (Annexure I).

The first meeting of the Advisory Committee was held in Ahmedabad on October 7, 1988. Dr. Y K Alagh, Mr. K V Harihardas, Dr. M S Bhatia, Dr. Pravin Visaria, Dr. N R Sheth, and Dr. U K Srivastava attended the meeting.

The Committee expressed its appreciation of the work of the Centre and approved the research programme for 1988-89. The members met the CMA faculty and had prolonged discussions with them on each of the research projects undertaken by the faculty. Very useful observations were made by the members of the advisory committee on the proposed research programme. The members suggested that the Centre should undertake more research projects in the area of land use, planning of agro-climatic regions, and agro-processing activities. They also suggested that the Centre should focus its attention on developing its competence in the areas of management of the food processing industry in view of the emphasis being given by the Government.

Annexure 1

CENTRE FOR MANAGEMENT IN AGRICULTURE
INDIAN INSTITUTE OF MANAGEMENT, AHMEDABAD

List of Members of the Advisory Committee (1988-90)

- | | | |
|-----|--|---------------------|
| 1. | Dr NR Sheth
Director, IIMA | Chairman |
| 2. | Dr YK Alagh
Member (Agriculture)
Planning Commission, New Delhi | Member |
| 3. | Dr NS Randhawa
Secretary to Government of India
Department of Agricultural Research
and Education, New Delhi | Member |
| 4. | Mr P Murari
Secretary to Government of India
Ministry of Food Processing Industries
New Delhi | Member |
| 5. | Mr Vinod Pande
Secretary to Government of India
Ministry of Agriculture and Rural
Development, New Delhi | Member |
| 6. | Mr KV Harihardas
Principal Secretary to Government
of Gujarat
Department of Agriculture and
Cooperation, Gandhinagar | Member |
| 7. | Dr KKS Chauhan
Managing Director
Krishak Bharti Cooperative Limited
New Delhi | Member |
| 8. | Dr VN Misra
Economic and Statistical Adviser
Ministry of Agriculture
New Delhi | Member |
| 9. | Dr Pravin Visaria
Director
Gujarat Institute of Area Planning
Ahmedabad | Member |
| 10. | Prof UK Srivastava
Chairman, CMA
IIM, Ahmedabad | Member
Secretary |

9 PUBLIC SYSTEMS GROUP

The Public Systems Group is the focal point of the Institute's activities relating to management of non-enterprise public systems. The group members are doing research, training, and consultancy in various public systems such as:

health and population, education, social welfare, nutrition and community development.

infrastructural services such as energy, transportation and urban systems.

Research Activities

The following research projects have been completed.

Title	Faculty	Sponsor
1 Communications: Experiment with Video Technology	S Sreenivas Rao Mirza S. Saiyadain	Department of Health and Family Welfare, Government of Gujarat
2 Management of RTCs' Case Research Project	G Raghuram	Department of Personnel, Government of India
3 Evaluation of District Rehabilitation Centres	Nirmala Murthy	Central Administra- tive and Co-ordina- tion Unit, Ministry of Welfare, Govern- ment of India
4 Evaluation of Adult Education in Gujarat	Mirza S Saiyadain	Department of Educa- tion, Ministry of Human Resource Development, New Delhi
5 Training Plan for Municipal Personnel in Gujarat	Anil Bhatt Ravindra H Dholakia	Gujarat Municipal Finance Board
6 Health Management Training	G Giridhar	International Council on Management of Population Programmes Kuala Lumpur

The following research projects are in progress:

Title	Faculty	Sponsor
1 Management of Integrated Guineaworm Eradication Project	Anil Bhatt	Government of Rajasthan
2 Profile of Public Management in India	Anil Bhatt	GTZ (West Germany)
3 Alternative Delivery Systems for Poverty Alleviation	Anil Bhatt	Asia Pacific Development Centre (Malaysia)
4 Training Needs for IAS Officers	Jerome Joseph Anil Bhatt	Department of Personnel, Government of India
5 Integrating Epidemiology and Management Concepts for Health Services Improvement	Nirmala Murthy	Ford Foundation
6 'Travel Bus' Project (to obtain a customer's view point)	G Raghuram	Association of State Road Transport undertakings
7 Interface between Railways and Bulk Commodity Distribution Policies	G Raghuram	Seedmoney Project
8 Freight Operating Information System	Rekha Jain G Raghuram	Seedmoney Project
9 Transport Safety	J S Chhokar Rekha Jain G Raghuram	Centre for Education and Research Committee

10 CENTRE FOR REGIONAL MANAGEMENT STUDIES

The Centre for Regional Management Studies (CRMS) conducted the following activities and programmes during the academic year 1988-89.

A grant-in-aid of Rs.3600 was given to Professor R H Dholakia for purchase of 60 copies of his book Planning for Rural Development.

A publication subsidy of Rs.8000 was granted to Professor Anil Bhatt for his book Rehabilitation Approach to Poverty Alleviation.

CRMS funded a one-week programme on operational research for teachers of colleges and universities in Gujarat. The programme was coordinated by Professor Omprakash K Gupta and was organized by CRMS and the Operations Research Society of India (ORSI). Forty-eight teachers from various universities and colleges participated in the programme.

11 COMPUTER AND INFORMATION SYSTEMS GROUP

UNDP CAM Research Projects

The following research projects were completed during the year:

Interactive scheduling system for an engineering company

Development of a multiuser project management game

DSS for improving railway line capacity

DSS for road maintenance and construction
(for a taluka)

DSS for operational planning of passenger traffic
in Indian Railways

A prolog-based CAI package for teaching concepts of
probability

Animator for sorting algorithms

Animator for branch and bound algorithms

Animator decision tree analysis

The following projects are in progress:

DSS for freight management in Indian Railways

Computerization of land records for a district

DSS for road network construction and maintenance for
state highways and major district roads in Gujarat

A prolog-based tax planning system

DSS for bus scheduling under the minimum needs
programme

A knowledge based system for corporate tax evaluation

Other Research Projects

The following projects are in progress:

An expert system for preformulation of drugs in a large pharmaceutical company

A DSS for materials management in central stores, IIMA

Generalized graphics library for the Ultrix operating system

Generalized digitization software on the VAX/VMS operating system

A rule-based expert system shell for managerial applications.

TEACHING AND TRAINING PROGRAMMES

Management Development Programmes

Computer Based Information Systems 4 weeks

Computer Based Management Decision Support Systems 3 weeks

Computer Applications in Government (For IAS Officers) (sponsored programme) 6 days

Use of micro computer based software systems has become a regular feature in all MDPs which have computer modules. Almost all MDPs have a module on computer and information systems. The projection equipment interfaced with PCs are being used extensively to improve the effectiveness of sessions based on computers and their applications.

Post-Graduate Programme

First year Introduction to Computers
Management Information Systems

Second year Computer Architecture and
Systems Software
Information Systems Design
and Implementation
Decision Support Systems
Systems Analysis & Stimulation

Faculty Development Programme

Introduction to Computers

COMPUTER CENTRE ACTIVITIES

The activities of the Computer Centre have been classified into:

- * Assistance in Software Development
Faculty
Administrative Units
- * Systems Management Support
- * Support to PC User Community
- * Installation of Software on VAX and PCs
- * Assistance to Academic Programmes
- * Computer Usage by the Institute Community

Assistance in Software Development

Development of a package in Fortran 77 for statistical analysis of data using STEPIT algorithm for use in areas of psychology and organizational behaviour.

A decision support system package for development and maintenance of rural road networks for use in Jasdan and Chotilla talukas of Gujarat.

Design and development of a query interface to a database containing graphical and textual data in Devnagari.

Design and implementation of an expert system for formulation of drugs in a pharmaceutical company.

Management information system package for applications in the areas of personnel, project monitoring, operations and maintenance, and financial planning of urban water supply and sanitation projects undertaken by the Madhya Pradesh government.

A DSS for scheduling of buses in Gujarat under the minimum needs programme (minimizing number of buses subject to constraints on time spent and distance travelled by passengers).

A package for planning passenger itinerary on Indian Airlines to generate optimal and next best itinerary based on inputs of source, destination, data, and time of travel.

Development of an econometric model for share price indices (data based on Economic Times and Financial Express.)

A system based on IFPS for solving LP-based regional energy demand models.

A Pascal language based CAI package for teaching transportation problems.

Development of a prolog based expert system for corporate tax evaluation.

Development of a prolog based CAI package for teaching concepts of probability.

Digitization of the railway network of India using generalized digitization software on VAX/VMS.

A Norton-Commander like interface utility for VAX/VMS operating system

A package for scheduling freight trains in Indian Railways (implemented in C language)

Development of a CAI package for teaching decision tree analysis.

DSS for passenger train scheduling in Indian Railways.

DSS for inventory control.

Augmentation of the DLPDSS package for initial creation of village infrastructural database, and their editing II providing online help facility on use of the package.

A presentation software for Indian scripts including generation of fonts, picture making, interface to PC-storeyboard, and story-board font generation.

A system for computerizing land records of a district, which includes features for rector font generation, editing for Devnagari script, data entry in Indian languages, dBASE III+ interface to data entry printer drives for Indian scripts, and routines for printing reports in Indian scripts.

A DSS package for scheduling jobs in a manufacturing organization (engineering company). The package has been implemented on PCs using C and Windows. The package has featured for online help forward and backward scheduling, evaluation of schedules, and generation of several MIS reports.

Development of a project management game.

Development of a prolog based tax planning system.

Development of LP model with dynamic storage allocation in C language.

Simulator for vendor rating using QB and graphics.

In addition to maintaining all existing computer based data processing systems, new software systems were implemented for several administrative units of the Institute.

Accounts Section

PDP-11/70

Historical analysis of professional tax arrears

Dividend computation for the IIMA Staff Cooperative Credit and Supply Society

Incorporation of budget code category in the payroll system

Computation of DA arrears for the faculty

Pay fixation reckoner for the faculty based on the fourth pay commission recommendations

Closing of general ledger with updated trial balance and providing information on surplus and deficit.

VAX-11/750

Pay calculation table for old and revised pay scales

Design and implementation of the payroll system on VAX-11 (using COBOL)

IBM-PC

On line reporting of specified general or subledger account details

New member entry for CPF

Accounting systems for loans and advances of the following categories; Food, Conveyance, Fan, Festival, House Building, Medical, LTC, and Study Loans.

Closing of the general ledger with the investment schedule

Accounting of income tax and generation of related reports.

PGP Office

A package for calculation of fine towards late payment of dues

Grade records maintenance (for PGP-I students)

Grade records maintenance (for PGP-II students)

Alumni Office

Statistical analysis of the 3-Tier Programme alumni data of the period 1969-89

A package to facilitate registration of participants in Alumni Reunion 1989 and generation of profiles of the participants who attended the reunion

MDP Office

A package implemented for data entry and analysis of MDP participants data (programmewise)

Work is in progress to integrate MDP data with alumni system files.

Admissions Office

Design and implementation of CAT 1988 processing on VAX-11/750 (in COBOL)

Validation routines for generating checklist of FPM applicants data

Generation of sample reports for CAT 1988 for three IIMs.

IIM Staff Cooperative and Credit and Supply Society

A system is being implemented on IBM-PC compatible systems using computer aided software engineering tools (Turbo Analyst) for complete accounting of the Society.

Vikram Sarabhai Library

A computerized system in dBASE III+ for maintaining subscriber data base including handling of issues and receipts has been implemented for the Vikram Sarabhai Library in Phase I of the project.

Work is in progress for computerizing periodical acquisition and payment accounting. This is expected to be completed by December 1989.

Central Stores and Purchase Section

In phase I of computerizing the Central Stores and Purchase operations, a software has been implemented for the stock accounting subsystem which provides the following information:

- Cost centre wise issues (with valuation)
- Monthwise itemwise receipts
- Monthwise itemwise issues
- Closing stock value and quantity for each month
- Stock status report and stock ledger
- Report on items reaching reorder level
- Itemwise receipts and issues (monthly/yearly)

In phase II the following modules will be implemented:

- Analysis of purchase orders
- Analysis of bill payments
- Vendor analysis
- Inventory control of selected A,B,C items
- Block schedule for IIMA assets
- Spreadsheet analysis of consumption
(monthwise, areawise, itemwise)

System Management Support

Development of a package using DTR, FDU, and RDU for billing of VAX usage.

A package for billing of media, ribbons, stationery and other miscellaneous items.

A utility for tape conversion from PRIME D/S to VAX/VMS and from UNIX format to VAX/VMS.

Support to PC User Community

The Institute acquired 60 IBM PC/XT computer systems and 66 dot matrix printers during the year. These equipments were installed at faculty offices and various administrative units. The centre provided support for installation of these equipments and software.

Installation of Software

VAX-11/750

Digital Equipment (India) Ltd. offered VAX/VMS V 5.0 for evaluation and trial. The new DS was installed successfully. The Centre also received updated/upgraded versions of all software compatible with VMS 5.0.

IBM-PC Software

The Centre has acquired the following packages:

Ingress/PC relational database management system with 4GL

Turbo C. V 1.5 ("C" language compiler)

Turbo prolog V 2.0 (prolog environment)

dBASE IV database management system

Framework III integrated software package

Novell netware 286 (ELS-II) local area network operating system

Assistance to Academic Programmes

The Computer Centre staff provided support to the faculty in developing computer programmes for academic programmes such as PGP, FPM, FDP, and MDP. The staff provided assistance to all courses offered by the Computer and Information Systems Group. Assistance aggregating nearly 24 manmonths were provided by the Computer Centre staff in computer lab sessions.

Computer Usage by Institute Community

Almost all MDPs used PCs extensively in their programmes. About 950 participants in MDPs used a total block time of 4000 hours on PCs. In addition, MDPs used nearly 850 hours on VAX-11. The PGP and FPM students used nearly 4500 hours on VAX-11 on time sharing basis. PC labs at D-14 were used on an average of 18 hours a day (including Saturdays, Sundays, and holidays) by PGP, FPM, and FDP participants.

About 55 faculty and research staff used nearly 800 hours on VAX-11 and nearly 300 hours on PDP-11/70 on time sharing basis. PCs were used extensively by all faculty and research staff. About 10 faculty used PDP-11/70 for teaching in PGP and FPM. VAX-11/750 was used by about 20 faculty members for teaching work. Total computer time for such activities was nearly 300 hours in PDP-11 and 500 hours on VAX-11 on time sharing basis.

Administrative staff of the Institute used PCs for wordprocessing and other jobs.

12 ALUMNI RELATIONS AND ACTIVITIES

During the year the IIMA alumni population increased by 839 members and the total now stands at 18,521. A large number of them are located in foreign countries.

Updating Alumni Address

About 800 change of address requests were received during the year.

Executive Committee

Two meetings of the Executive Committee of the IIMA Alumni Association were held during the year. A new draft constitution of the Alumni Association was adopted. It was also decided to get the Association registered.

IIMA Alumnus

During the year all the three issues of the Alumnus were brought out on time.

Souvenir Items

Souvenir items such as ties, keychains, ashtrays, and cuff-links were sold to the alumni.

CHAPTER ACTIVITIES

A new chapter of the IIMA Alumni Association at Lagos, Nigeria, was formed. During the year, the Ahmedabad, Bangalore, Baroda, Bombay, Delhi, Hyderabad, Pune, and U.S. chapters were quite active. Currently there are 13 chapters including two in foreign countries.

Ahmedabad

A new Executive Committee was elected during the year with the following office bearers:

B L Yadav	President
N Sivakumar	Vice-President
M K Singhi	Secretary
Ramesh K Shah	Treasurer

The chapter helped in organizing a workshop on "Indian Industry and the Professional Manager - The Expectation Gap" on October 6, 1988. The workshop was organized by the Institute and sponsored by the Federation of Indian Chambers of Commerce and Industry. A large number of chapter members actively participated in the workshop. A report of this workshop was published in the January 1989 issue of Alumnus.

The chapter organized a discussion on "Union Budget;" on March 1, 1989 in the Gujarat Chamber of Commerce and Industry auditorium which was attended by a large number of alumni.

Bangalore

The chapter organized, along with the Indian Society for Training and Development, a get-together and a lecture on "HRD And Line Managers" by Professor Arun Monappa on May 13, 1988, at Hotel Harsha.

The chapter organized a get-together and lecture on "Quality and Life" by Sri A. Sridhara Reddy, Deputy Chief Engineer, Quality Assurance, HMT Ltd., Bangalore, on October 27, 1988.

The annual general body meeting was held on January 25, 1989, at Taj Residency, Bangalore. The meeting was followed by a dinner to which spouses were also invited.

Baroda

The chapter conducted elections to the Executive Committee on April 5, 1988. An eight member Executive Committee took over with following office bearers:

S Srikantiah	President
R C Mathur	Vice-President
A P Khode	Secretary
Rajesh Kikani	Joint Secretary
D G Desai	Treasurer

Bombay

The chapter hosted a special evening coinciding with their annual general body meeting on June 3, 1988, at the Supper Club, Hotel Oberoi Towers.

A dinner was organized on December 21, 1988, with spouses for providing support to the forthcoming Alumni Seminar Reunion at Ahmedabad.

Delhi

An address book of the Delhi-based alumni was published during the year. The chapter organized several get-togethers and film shows on management topics.

A film, Greatest Management Principles, based on the book by Michael Le Boefu, was screened at the American Centre on July 15, 1988.

The film Annual Cleo Awards 87, featuring best International television advertisements, was screened on August 23, 1988.

A Diwali get-together was organized at the Delhi Gymkhana Club on November 6, 1988, which was attended by 120 alumni with their spouses.

Hyderabad

A dinner get-together of the alumni with family was organized on December 10, 1988 at the Jubilee Hills International Centre.

Pune

A seminar, a panel discussion, film shows on management topics, and social get-togethers were some of the chapter activities. The panel discussion was on "How Can Management Education Help Develop the Creative Managers We Need Today." Besides Subhash W Bhawe and Narpati Luthra, the panel members were Dr. P C Shejwalker and Squadron Leader George Judah.

A seminar on "Management and Morality: Dilemmas and Directions" was organized on January 21, 1989, at Hotel Executive Ashok, Pune. A compendium of select readings relevant to the theme was released and distributed among the participants. The compendium was also sent to all leading management institutes in India.

A dinner get-together was organized on September 17, 1988, at Hotel Executive Ashok, Pune. Two very interesting and thought-provoking films, Negotiating Skills and The Manifesto, were screened on the occasion.

United States

The Friends of Indian Institute of Management, Ahmedabad (FIIMA), brought out a directory of 145 of its members (mostly alumni) in the United States and Canada.

FIIMA organized discussions on "Changes in India and Implications for Non-Resident Indians" and "India and China: Different Growth Models." Mr. C R K Rao Sahib, Executive Director for India at the World Bank and former Cabinet Secretary, Government of India, initiated a discussion on the recent developments in India.

Dr. V S Vyas, former Director of IIMA, gave a brief synopsis of the obvious differences in India and China's growth models. The presentation by Dr. Vyas was followed by a lunch to bid farewell to him as he was moving from the World Bank to Jaipur.

ALUMNI SEMINAR REUNION

An alumni seminar reunion was organized from February 10 to 12, 1989, to celebrate the silver jubilee of IIMA's first ever academic programmes: the 3TP for Management Development and the Programme for Young Executives which were offered in 1964. Alumni of these programmes were specially invited and presented mementos on the occasion. A total of over 150 alumni (and spouses) and former faculty of the Institute, besides a large number of faculty and participants (students), took part in the celebrations.

Seminar

The theme of the alumni seminar, held on February 10, 1989, was "Manager and the Emerging Environmental Challenges." The keynote address was delivered by Mr. N M Desai, Chairman and President, Larsen and Toubro Ltd., Bombay. Professor G R Kulkarni spoke on "Managerial Conduct and Response to the Challenges." These two sessions were followed by a panel discussion on "Emerging Challenges and Managerial Response in Key Functions" chaired by Mr. Prafull Arubhai, Chairman and Managing Director, Rustom Mills and Industries Limited, Ahmedabad. The functional areas taken up for discussion were Finance, Human Resource Development, Manufacturing, and Marketing.

Alumni Reunion

An alumni reunion was held on February 11 and 12, 1989. The formal and academic events were discussions on:

Key issues facing IIMA

Key issues facing management development programmes and the Post-Graduate Programme

Alumni issues

Course packages offered by areas/group/centre

These provided the alumni an insight into the various activities and courses at the Institute.

The informal events included fun and games and music and a tremendous opportunity to the alumni and the current participants and faculty to interact and exchange views about academic and non-academic matters.

The National Executive Committee and the Executive Committees of each of the chapters helped in planning and promoting the event. The faculty, staff, and participants at IIMA provided unstinted support to make the event a success. Proceedings of the seminar reunion will be reported in the May issue of Alumnus.

13 WELFARE COMMITTEE

During the academic year 1988-89, 450 children availed themselves of the Welfare Committee's free distribution of educational aids (slates, note books, and text books).

On December 11, 1988, the Institute Day was celebrated. The programmes included tree plantation, blood donation, and variety entertainment. A large number of IIMA employees and students participated in these programmes. In the variety entertainment programme, all sections of the IIMA community participated. Mementos for IIMA employees who have completed 20 years of service were given during the Institute Day celebrations.

During the year, 15 children were given the Welfare Committee's merit awards in SSC, H.Sc., and graduation examinations.

The IIMA Children's Club organized a Craft Camp. Many children took interest in the camp.

14 FACILITIES

Vikram Sarabhai Library

During the year, 2832 books were added to the Library bringing the total number of books to 1,17,530. The library subscribes to 560 periodicals. It has an extensive collection of annual reports of a large number of Indian and foreign companies.

The Library provides reference indexing, and bibliographic services on management literature. A photocopying machine provides copying facilities to users of the Library.

The Library has started three new indexing services with the aim of providing current awareness to its members:

Index of articles from periodicals

Current contents of periodicals

Management News Index Services (MNIS) (monthly subject index to the Economic Times and the Financial Express).

In addition, it publishes a monthly listing of new books on management and related disciplines added to the library's collection.

Campus Development

Extensions to KLMDC consisting of one theatre type classroom, syndicate rooms, seminar hall, one big multipurpose hall, and administrative office are nearing completion.

The third phase of 23 faculty and staff houses was completed during the year. This completes the faculty and staff housing programme on the campus.

Work on providing compound wall to the 65 acre campus was completed during the year.

APPENDIX I

MANPOWER GROWTH

Year	Faculty	Research Staff	Staff	Visiting Faculty	Total
1981-82	85	51	489	8	633
1982-83	89	49	553	8	699
1983-84	86	51	572	5	714
1984-85	81	52	566	12	711
1985-86	83	45	576	4	708
1986-87	86	64	579	4	733
1987-88	84	65	561	6	716
1988-89	82	78	542	4	706

APPENDIX II

POST-GRADUATE PROGRAMMES

Year	Two-year Post-Graduate Programme in Management	Fellow Programme in Management	Total
1981-82	337	38	375
1982-83	358	43	401
1983-84	347	55	402
1984-85	336	48	384
1985-86	337	41	378
1986-87	368	44	412
1987-88	370	34	404
1988-89	375	27	402

APPENDIX III

MDPs HELD DURING JUNE 1988 TO MAY 1989

- | | | |
|----|---|---------------------------|
| 1 | Small & Medium Enterprises Programme | June 27 to July 9 |
| 2 | Middle Management Centre 3TP | July 10 to August 6 |
| 3 | Programme on Computer Based Information Systems | August 7 to September 3 |
| 4 | Xth Advanced Management Programme for Public Enterprises | August 7 to September 21 |
| 5 | Senior Executives Course 3TP | September 4 to 21 |
| 6 | Programme on Human Resources Management | September 22 to October 5 |
| 7 | XIth Advanced Management Programme for Public Enterprises | September 22 to October 5 |
| 8 | Programme on Project Management | October 6 to 12 |
| 9 | Regional Workshop on Population Programme Management | October 17 to 28 |
| 10 | Seminar-cum-Workshop on the Role of Top Managers in HRD | October 24 to 25 |
| 11 | Workshop on Problems of Road Transport Undertakings | October 27 to 29 |
| 12 | Programme on Micro Computers in Materials Management | October 31 to November 5 |
| 13 | Programme on Project Identification, Formulation, Appraisal, and Implementation | November 14 to 19 |

- | | | |
|----|---|----------------------------|
| 14 | Management of Agricultural & Rural Development | November 14 to 26 |
| 15 | Computer Based Management Decision Support Systems | November 14 to December 3 |
| 16 | Refresher Course for IAS Officers on Management of Agriculture and Rural Development | November 21 to 26 |
| 17 | 13th Management Education Programme | November 27 to April 8 |
| 18 | Training Programme in Co-op. Project Design and Implementation | November 28 to December 31 |
| 19 | Manufacturing Management and Policy | December 5 to 10 |
| 20 | Programme on Corporate Strategic Planning | December 12 to 17 |
| 21 | Programme on Industrial Policy Planning and Development for IAS Officers - I | December 19 to 24 |
| 22 | Training Programme in Design, Appraisal, Monitoring, and Evaluation of Integrated Rural Agriculture Development Project | December 26 to January 20 |
| 23 | Programme on Project Management for IAS Officers | December 26 to 31 |
| 24 | Training Programme on Management Concepts and Decision Making Techniques for IAS Officers | January 9 to February 4 |
| 25 | Top Management Programme of 3TP - Managing for Results: Choices and Strategies | January 23 to 23 |

26	Refresher Course for IAS Officers in Management of Agriculture and Rural Development	January 30 to February 4
27	Workshop for Women Managers	February 6 to 8
28	Programme on Industrial Policy Planning and Development for IAS Officers	February 6 to 11
29	Strategic Analysis and Financial Management	February 13 to 18
30	Programme for Top Level Managers of Passenger Road Transport Undertakings	February 15 to 25
31	Marketing Decisions: Advances in Data Analysis	February 20 to 25
32	Programme on Materials Management	February 27 to March 5
33	Workshop on Vendor Rating	March 4 to 5
34	Programme on Computer Aided Financial Decision Making	March 9 to 14
35	Workshop on Top Manager Styles and Organizational Effectiveness	March 16 to 19
36	One week Refresher Course for IAS Officers on Computer Applications in Govt.	March 20 to 25
37	Workshop on Top Manager Styles and Organizational Effectiveness	April 6 to 9

APPENDIX IV

CASES, RESEARCH, AND CONSULTING

Year	Cases Completed (Cumulative)	Research Projects Completed (Cumulative)	Consulting Projects Completed (Cumulative)
1981-82	1969	265	245
1982-83	2041	290	261
1983-84	2191	294	289
1984-85	2232	335	317
1985-86	2295	352	342
1986-87	2320	368	364
1987-88	2358	380	429
1988-89	2410	390	481

APPENDIX V

BOARD OF GOVERNORS

Chairman

V Krishnamurthy
Steel Authority of India Ltd.
New Delhi

Members

Ashoka Chandra
/ Educational Adviser (T)
Ministry of Human
Resource Development
New Delhi

L S Narayanan
Financial Adviser (Education)
Ministry of Human
Resource Development
New Delhi

Suresh Kumar
Additional Secretary
Department of Public
Enterprises
Ministry of Industry
New Delhi

A K Dhan
Bishop's Lodge
Ranchi

H R Patankar
Chief Secretary
Government of Gujarat
Gandhinagar

T R Agnani
/ Additional Chief Secretary
Education Department
Government of Gujarat
Gandhinagar

M S Srinivasan
Chairman
BMS College of Engineering
Bangalore

Arvind N Lalbhai
/ Chairman & Managing Director
Shri Arvind Mills Limited
Ahmedabad

Jaykrishna Harivallabhdas
Chairman
Shri Ambica Mills Limited
Ahmedabad

Prafull Anubhai
/ Chairman & Managing Director
Rustom Mills & Industries Ltd.
Ahmedabad

A H Tobaccowala
Chairman
Voltas Limited
Bombay

P P Trivedi (Ms.)
Secretary
Ministry of Personnel
Pension & Public Grievances
New Delhi

N Vaghul
/ Chairman
Industrial Credit & Investment
Corporation of India
Bombay

Amrita Patel
/ Managing Director
National Dairy
Development Board
Anand

Rangarajan Kumaramangalam
Member of Parliament
New Delhi

P V R N Iyer
Executive Director
Rohit Group of Enterprises
Ahmedabad

G K Suri
Director General
National Productivity Council
New Delhi

V K Gupta
Indian Institute of Management
Ahmedabad

D Tripathi
Indian Institute of Management
Ahmedabad

N M Desai
Chairman & President
Larsen & Toubro Limited
Bombay

Harshavadan Mangaldas
Mangalbagh
Ahmedabad

Shrenik Kasturbhai
Managing Director
Anil Starch Products Limited
Ahmedabad

P P Rathod
Vice-Chairman &
Managing Director
Gujarat Industrial
Development Corporation
Ahmedabad

N R Sheth
Director
Indian Institute of Management
Ahmedabad

Secretary

Group Captain R N Bali (Retd.)
Administrative Officer
Indian Institute of Management
Ahmedabad

APPENDIX VI

SOCIETY

Secretary
Ahmedabad Cotton Manufacturing
Company Limited
Gomtipur
Ahmedabad

V B L Mathur
Ahmedabad Jupiter Spinning,
Weaving & Mfg. Mills Ltd.
Ahmedabad

Bipin Chandulal
Sandip Bipin
Minal A Sen
Pratiksha N Shah
Ahmedabad New Cotton Mills
Company Limited
Ahmedabad

C R Amin
Director
Alembic Chemical Works Co. Ltd.
Baroda

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

Deepak S. Hutheesing
Umang Deepak Hutheesing
Uravi Deepak Hutheesing
Aruna Mills Ltd.
Ahmedabad

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

Biharilal Kanaiyalal
Lavkumar Kantilal
Rajivkumar Kantilal
Ahmedabad Kaiser-I-Hind
Mills Limited
Ahmedabad

P T Munshaw
Nandiniben P Munshaw
Dineshchandra L Patel
Ahmedabad Shri Ramakrishna
Mills Company Limited
Ahmedabad

Jayakrishna Harivallabhdas
Rajesh Jayakrishna
Shri Ambica Mills
Ahmedabad

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

Arvind N Lalbhai
Samveg A Lalbhai
Sanjay S Lalbhai
Arvind Mills Ltd.
Ahmedabad

R P Gupta
Managing Director
Aryodaya Spinning &
Weaving Company Limited
Ahmedabad

Arvind N Lalbhai
Ajay Chimanbhai
Anang A Lalbhai
Ashoka Mills Ltd.
Ahmedabad

N S Johary
Director
ATIC Industries Ltd.
Atul

U V Rao
B G N Patel
AUDCO India Ltd.
C/o. Larsen & Toubro Ltd.
Bombay

<p>A N Lalbhai Ashoka Mills Ltd. Ahmedabad</p>	<p>C L Agarwal Suresh Kumar M P Venkatram Ahmedabad Manufacturing & Calico Ptg. Co. Ltd. Ahmedabad</p>
<p>Chairman & Managing Director Bank of Baroda Bombay</p>	<p>Janmejy Bhagubhai Managing Director Cellulose Products of India Limited Dist. Ahmedabad</p>
<p>C H Choksey A S Dani Asian Paints India Ltd. Bombay</p>	<p>C T Parekh Chandrakant Parekh Pvt. Ltd. Bombay</p>
<p>S Ganguly Executive Vice-Chairman & Managing Director The Associated Cement Co. Ltd. Bombay</p>	<p>Siddharth Kasturbhai A R Naik Cibatul Ltd. Atul</p>
<p>Siddarth K Lalbhai I C Nayak Manan Niranjana Narottam ATUL Products Ltd. Atul</p>	<p>Subodh Chaturbhujdas Bharat Suryodaya Mills Co. Ltd Ahmedabad</p>
<p>Rahul Bajaj Chairman & Managing Director Bajaj Auto Ltd. Pune</p>	<p>Chairman & Managing Director Bharat Heavy Electricals Ltd. New Delhi</p>
<p>R P Shah P N Shah Bakubhai Ambalal Pvt. Ltd. Ahmedabad</p>	<p>C S Samuel Chairman & Managing Director Brooke Bond India Ltd. Calcutta</p>
<p>K M Patel Zonal Manager Bank of India Ahmedabad</p>	<p>M V Arunachalam Managing Director Carborundum Universal Ltd. Madras</p>
<p>Chairman & Managing Director Bharat Earth Movers Ltd. Bangalore</p>	<p>D K Contractor General Manager (Operations) Central Bank of India Bombay</p>
<p>Manager Bharat Vijay Mills Ltd. Kalol (N.G.)</p>	<p>S Chaudhuri Commercial Manager Chemicals & Fibres of India Limited Bombay</p>
<p>J N Guzder The Bombay Dyeing & Manufacturing Co. Ltd. Bombay</p>	<p>T P Desai Managing Director Cibatul Ltd. Atul</p>

Mohanlal Piramal
M A Shah
Commercial Ahmedabad Mills
Company Limited
Ahmedabad

Kewal K Agarwal
Managing Director
Devidayal Rolling & Refineries
Private Limited
Bombay

Upendrakumar M Patel
Chairman & Managing Director
Shri Dinesh Mills Ltd.
Vadodara

S V Mony
General Manager
General Insurance Corporation
Of India
Bombay

Chairman & Managing Director
Engineers India Ltd.
New Delhi

Chairman & Managing Director
Export Credit & Guarantee
Corporation of India Ltd.
Bombay

Bansi Dhar
Chairman and
Senior Managing Director
DCM Ltd.
New Delhi

C L Goswami
President
Shree Digvijay Woolen
Mills Limited
Jamnagar

U V Rao
B G N Patel
Engineering Const. Corp. Ltd.
Bombay

S C Kumar
Assistant General Manager
Industrial Financial
Corporation of India Ltd.
Ahmedabad

C K Hazari
Joint Managing Director
Escorts Ltd.
New Delhi

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

N M Shetty
Chairman & Chief Executive
Hindustan Vegetable Oil
Corporation Limited
New Delhi

Shantilal K Somaiya
Chairman
Godavari Sugar Mills Ltd.
Bombay

K N Shenoy
Managing Director
Hindustan Brown Broveri Ltd.
Baroda

A C Wadhawan
Chairman & Managing Director
Hindustan Zinc Ltd.
Udaipur

Chief Executive (Personnel)
Indian Oxygen Ltd.
Calcutta

B Majumdar
Regional Manager
Indian Tube Company Ltd.
Bombay

J S Khambata
Glindia Ltd.
Bombay

Managing Director
Gujarat State Fertilizer
Company Limited
Baroda

Rajesh Bahadur
Personnel Director
Hindustan Lever Ltd.
Bombay

S Chaudhuri Via Bahadrabad (Dist) Hardwar	N M Desai Chairman and President Larsen & Toubro Ltd. Bombay
H S Shah Executive Director (Personnel & Marketing) Indian Petrochemicals Corporation Limited Baroda	Hrishikesh A Mafatlal The Mafatlal Fine Spinning & Manufacturing Company Ltd. Bombay
Chairman Industrial Credit & Investment Corp. of India Bombay	R K Pitamber Executive Vice-President (Finance) Mahindra & Mahindra Ltd. Bombay
D N Davar Chairman Industrial Finance Corporation of India New Delhi	P C Laha Chairman & Managing Director Metalurgicalal & Engineering Consultants of India Ltd. Ranchi
Rahul N Amin Executive Director Jyoti Ltd. Baroda	Y N Mafatlal Ajay B Shah A Y Mafatlal Mihir Textiles Ltd. Ahmedabad
Mahendra Khandelwal Khandelwal Brothers Ltd. Bombay	Viren J Shah Chairman & Managing Director Mukund Iron and Steel Works Limited Bombay
Chairman Life Insurance Corporaton of India Limited Bombay	N K Parikh Chief Executive Mafatlal Engineering Inustries Ltd. Bombay
P D Chavda Senior Vice-President (Tex.) Mafatlal Industries Ltd. Ahmedabad	Harish Bijawat Director National Peroxide Ltd. Bombay
Executive Director (Personnel) Metal Box Company of (India) Limited Calcutta	A C Mukherjee Chairman & Managing Director New India Assurance Company Limited Bombay
O P Mehra Managing Director International Data Management Private Limited Bombay	Gautam Shantilal Nanavaty Nautambhai J Nanavaty Nutan Mills Ltd. Ahmedabad
Indian Petrochemicals Corporation Limited Baroda	

Chairman & Managing Director
Minerals & Metals Trading
Corporation of India Ltd.
New Delhi

Rasikalal C Nagri
Bansidhar R Nagri
Bansidhar Mills Co. Ltd.
Ahmedabad

P O Desai
P R Desai
Gujarat Tea Processors &
Packers Private Limited
Ahmedabad

Managing Director
National Rayon Corp. Ltd.
Bombay

President
New Swadeshi Mills
of Ahmedabad
Ahmedabad

M M Dalal
P L Dalal
Pankaj Mahipal & Company
Ahmedabad

Jyotindra N Mehta
Piyushkumar Natvarlal & Co.
Ahmedabad

Rajiv C Lalbhai
Lilavati Lalbhai
Vijaysinh Chimambhai
Chirag A Lalbhai
Raipur Mfg. Company Ltd.
Ahmedabad

Rohit C Mehta
Rajesh Textile Mills Ltd.
Ahmedabad

Navnitlal Sakarlal
Nandakishore Sakarlal
Saurabh Navnitlal
Sakarlal Balabhai & Co. Ltd.
Ahmedabad

Chinubhai Chimambhai
Ashoke Chimambhai
Saraspur Mills Ltd.
Ahmedabad

J S Varshneya
Chairman & Managing Director
Punjab National Bank
New Delhi

C K Parikh
Rajendra Dyeing &
Ptg. Mills Limited
Ahmedabad

R Panchu
Managing Director
Ralli Wolfe Ltd.
Bombay

Prafull L Anubhai
Chairman & Managing Director
Rustom Mills and
Industries Limited
Ahmedabad

Mrugesh Jaykrishna
Rajan R Harvallabhdas
Chinubhai R Shah
Sarangpur Cotton Mfg. Ltd.
Ahmedabad

Arvind Hiralal
Saurabh Corporation
Ahmedabad

Vadilal Lallubhai
Sayaji Mills Ltd.
Ahmedabad

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

Chairman
State Bank of India
Bombay

Chairman & Managing Director
State Trading Corporation
of India Limited
New Delhi

Ashok Muthana
Managing Director
Swastik Rubber Products
Pune

P V S Manyam C A Joshi Tata Chemicals Ltd. Mithapur	J P Patel Senior Manager (Admn.) Gujarat State Financial Corp. Ahmedabad
A S Kasliwal Shriram Mills Charitable Trust Bombay	Lalchand Hirachand Chairman Walchandnagar Industries Ltd. Bombay
Ajitkumar C Patel Director Soft Beverages Pvt. Ltd. Madras	A R Banerjee General Manager Metallurgical & Engineering Consultants (India) Ltd. Ranchi
Managing Director State Industrial & Investment Corp. of Maharashtra Bombay	J J Ehabha The Tata Iron & Steel Co. Ltd. Bombay
Suhrid Sarabhai Suhrid Geigy Ltd. Ahmedabad	U V Rao B G N Patel Tractor Engineers Ltd. C/o. Larsen & Toubro Ltd. Bombay
R N Mafatlal Y N Mafatlal U C Kapasi H H Vasa Surat Cotton Spinning & Weaving Mills Pvt. Ltd. Bombay	T V S Charities Madurai
A N Maira R D Kulkarni Tata Engineering & Locomotive Company Limited Pune	I C Shah Chief Executive Shri Arbuda Mills Ltd. Ahmedabad
Secretary Tata Hydro-Electric Power Supply Company Limited Bombay	A H Tobaccowala Chairman Voltas Ltd. Bombay
N S Sunder Rajan President Tata Oil Mills Co. Ltd. Bombay	Surinder Singh Vice-President (Personnel) Warner Hindustan Ltd. Bombay
M CT Pethachi Managing Director Travancore Rayons Ltd. Madras	Swadeshi Mills Co. Ltd. Bombay
Maitreya B Harivallabhdas Shri Amruta Mills Ltd. Ahmedabad	R N Mafatlal Surat Cotton Spinning & Weaving Mills Pvt. Ltd. Bombay
	H H Vasa Surat Cotton Spinning & Weaving Mills (P) Ltd., Bombay

APPENDIX VII

FACULTY AND ADMINISTRATION

Director

N R Sheth
Ph.D. (MSU)

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

V N Asopa
Ph.D. (Illinois)

K Balakrishnan
M.B.A. (Harvard)
AICWA
Cert. ITP (Harvard)

S L Bapna
Ph.D. (SPU)

S K Barua
Fellow (IIMA)

Ramesh Bhat
Ph.D. (Delhi School
of Economics)

Deepti Bhatnagar
Fellow (IIMA)

S C Bhatnagar
Fellow (IIMA)

Anil Bhatt
Ph.D. (Chicago)

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

J S Chhokar
Ph.D. (Louisiana State
University)

B M Desai
Ph.D. (Cornell)

A S Dhawle
M.L.S. (Pittsburgh)

Bakul Dholakia
Ph.D. (MSU)

Ravindra Dholakia
Ph.D. (MSU)

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

V R Gaikwad
Ph.D. (Saugar)
SBI Professor of Rural
Development

R S Ganapathy
Dip. Busi. Admn. (IIMA)
Ph.D. (Michigan)

G Giridhar
D.Sc. (Harvard)

C Gopinath
Ph.D. (IIT, Kharagpur)

Anand P Gupta
Ph.D. (Florida)

Anil K Gupta
Ph.D. (Kurukshetra)

G S Gupta
Ph.D. (Johns Hopkins)

Omprakash Gupta Ph.D. (Purdue)	Arun Monappa M.A. (Madras) M.Sc. (London School of Economics)
Ramesh Gupta Ph.D. (Berkeley)	V L Mote Ph.D. (North Carolina)
Ranjit Gupta M.A. (Lucknow)	T K Moulik Ph.D. (IARI, Delhi)
Tirath R Gupta Ph.D. (Massachusetts)	Sipra Mukhopadhyay Ph.D. (Jadavpur)
V K Gupta M.Com. (Lucknow) M.S.S. (The Hague)	Nirmala Murthy D.Sc. (Harvard)
V Jaikumar AICWA Ph.D. (Columbia)	K R S Murthy D.B.A. (Harvard)
A K Jain Fellow (IIMA)	Gopal Naik Ph.D. (Illinois)
Rekha Jain Ph.D. (IIT, Delhi)	I M Pandey Ph.D. (Delhi)
B H Jajoo Ph.D. (IIT, Kanpur)	Indira J Parikh M.Ed. (Rochester) Ph.D. (Gujarat)
Jerome Joseph Ph.D. (Madras)	Nitin R Patel Ph.D. (MIT)
A H Kalro Ph.D. (Minnesota)	D M Pestonjee Ph.D. (AMU)
Pradip N Khandwalla Ph.D. (Carnegie-Mellon) L&T Professor of Organizational Behaviour	V Raghunathan Fellow (IIMC)
Sashi Kolavalli Ph.D. (Illinois)	G Raghuram Ph.D. (North Western)
M G Korgaonker Ph.D. (IIT, Bombay)	K Ramachandran Ph.D. (Cranfield School of Management)
Somdeb Lahiri Ph.D. (Minnesota)	K V Ramani Ph.D. (Cornell)
T Madhavan Fellow (IIMA)	T P Rama Rao M.Tech. (IIT, Kanpur)
Sasi B Misra Ph.D. (California)	S Ramnarayan Ph.D. (Case Western Reserve)

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

T V Rao
Ph.D. (SPU).

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

N Ravichandran
Ph.D. (IIT, Madras)

J L 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)

P M Shingi
Ph.D. (Illinois)

P R Shukla
Ph.D. (Stanford)

Gurdev Singh
Ph.D. (Illinois)

Research Staff

Vinod Kumar Ahuja
M.Sc. (Pantnagar)

N Anuradha
M.C.A (Bharathiar)

S R Asokan
M.A. (Madras)

L K Athieeq
M.Sc. (Bangalore)

J P Singh
Ph.D. (Akron)

Ramadhar Singh
Ph.D. (Purdue)

R Sridharan
Ph.D. (Carnegie-Mellon)

U K Srivastava
Ph.D. (Lucknow)

Devi D Tewari
Ph.D. (Saskatchewan)

D Tripathi
Ph.D. (Wisconsin)
Kasturbhai Lalbhai Fellowship
in Management

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

Jayanth Rama Varma
Fellow (IIMA)

S Vathsala
Fellow (IIMA)

N Venkiteswaran
Chartered Accountant

Pramod Verma
Ph.D. (Manchester)

M N Vora
D.B.A. (Harvard)

Sunil Kumar Garg
M.Sc. (Udaipur)

Benoy George
B.Sc. (Calicut)
Cert. Computer Programming
Dip. CSA (Gujarat)

Nihar Ranjan Ghosh
M.A. (Indore)

Chetan Bhatt
M.Sc. (Gujarat)

Gita Bhatt
M.A. (Bombay)

Jayant Bhatt
M.Sc. (Gujarat)
Dip. Computer Sc. (SPU)

Ketan Bhatt
M.Sc. (Bombay)

V Bhavani
M.A. (Bharathidasan)
Certi. Computer Programming

B Brahmaiah
M.Com. (Nagpur)
M.B.A. (Kolhapur)

Vijayalaxmi Chandramouli
M.Sc. (Gujarat)

N Chandrasekaran
M.A. (Madras)
M.Phil. (Bharathidasan)

S N Chokshi
B.Sc. (Gujarat)

K K Das
M.Tech. (Calcutta)

Shruti Dave
M.Com. (Bombay)

Y P Gajjar
B.E. (Gujarat)

Rakesh Kumar
M.S.W. (MSU)

Sonal Kureshi
M.B.A. (Gujarat)

J G Makwana
M.Sc. (Gujarat),
I.C.W.A. (Inter)

Bidyut Kumar Mandal
M.Tech. (Calcutta)

Lata Gopalan
M.Sc. (Gujarat)

Indu Gopalakrishnan
M.A. (Andhra)

Minal Gupte
M.Sc. (Gujarat)

Dipti Hegde
M.B.A. (Gujarat)

Manoj Joshi
B.E. (Gujarat)

Vasant V Joshi
B.Tech. (Mahatma Phule
Agricultural University)

Vidya Karant
M.A. (Bombay)
P.G. Dip. IR&PM (Bhavan)

Sandeep Kayastha
M.Tech. (IIT, Kharagpur)

Nirmala Khadpekar
B.A. (Poona)
P.G. Dip. Journalism (Bhavan)

Devendra Kodwani
M.B.A. (Gujarat)

P V M Krishna
M.B.A. (Karnataka)

K Kumar
M.A. (Madras)
M.Phil. (JNU)

M S Patel
M.A. (Indore)

N T Patel
Ph.D. (Gujarat)

S T Patil
M.Sc. (Bangalore)

K R Pichholiya
Ph.D. (Gujarat)

C S Prasad
M.Sc. (Andhra)

D P Mathur M.A. (Rajasthan)	Yasmin Purohit M.A. (Poona) Dip. Computer Programming
Neelam Mehta M.Sc. (Gujarat)	S Raghunath M.Com. (Bangalore)
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APPENDIX IX

PUBLICATIONS

BOOKS

- 1 Desai, D K and Gandhi, Madalasa, Rice Production, Productivity and Research Management, New Delhi: Oxford & IBH, 1988.
- 2 Gupta, G S, Managerial Economics, New Delhi: Tata McGraw-Hill, 1988.
- 3 Gupta, Tirath, Forest Based Cellulosic Materials for Paper Industry in India: Demand Supply Management and Pricing Policy, New Delhi: Oxford and IBH, 1988.
- 4 Khandwalla, Pradip N (Ed.), Social Development: A New Role for Organizational Sciences. New Delhi: Sage Publications, 1988.
- 5 Khandwalla, Pradip N, Fourth Eye: Excellence Through Creativity, 2nd Edition. Allahabad: A.H. Wheeler, 1988.
- 6 Moulik, T K, Food Energy Nexus and Ecosystem, New Delhi: Oxford & IBH, 1988.
- 7 Pandey, I M, Financial Management. New Delhi: Vikas Publishing House Pvt. Ltd., 1989.
- 8 Parikh, Indira J and Garg, Pulin K, Indian Women: An Inner Dialogue. New Delhi: Sage Publications, 1989.
- 9 Ranade, C G; Mathur, D P; Rangarajan, B; and Gupta, V K; Performance of Integrated Milk Cooperatives: A Study of Selected Cooperative Societies in Gujarat and Maharashtra, New Delhi: Oxford & IBH.
- 10 Saiyadain, Mirza S Human Resources Management, New Delhi: Tata McGraw - Hill, 1988.
- 11 Saiyadain, Mirza S; Rao, S Sreenivas; Salas, E B; Bhatia, B; and Mathur, K B; Population Communication Management: A Manual. Kuala Lumpur; Asia Pacific Institute of Broadcasting Development in Collaboration with UNESCO, 1988.
- 12 Singh, Gurdev and Asokan, S R, Institutional Finance in Rural India: Efficiency and Efficacy, New Delhi: Oxford & IBH, 1988.

- 13 Srivastava, U K; and Vathsala, S, Agro-Processing: Strategy for Acceleration and Exports. New Delhi: Oxford & IBH, 1989.

MONOGRAPHS

- 1 Bhatt, Anil, Rehabilitation Approach to Poverty Alleviation: A Study of BAIF's Tribal Development Project in Vansda, Ahmedabad: Indian Institute of Management, 1988.
- 2 Bhatt, Anil and Dholakia, Ravindra H, Training Plan for Municipal Personnel in Gujarat, Ahmedabad: Indian Institute of Management, 1988.
- 3 Dholakia, Ravindra H, Inter-regional Variations in the Level and Rates of Economic Development : A Comparative Study of Canada and India. Ahmedabad: Indian Institute of Management, 1989.
- 4 Gupta, G S, Evaluation of District Industries Centre Programme : Rajasthan and Madhya Pradesh. Ahmedabad: Indian Institute of Management, 1988.
- 5 Rao, V Venkata; Rao, T P Rama; Shah, Nitin; and Dalal, Neerav, Multi User Project Management Game, UNDP CAM Project Report. Ahmedabad: Indian Institute of Management, 1989.
- 6 Sridharan, R.; Telecommunications : A Survey. Ahmedabad: Indian Institute of Management, 1988.
- 7 Srivastava, U K; Dholakia, Bakul H; Vathsala, S; and Chidambaram, K., India Fishery Sector Study. Ahmedabad: Centre for Management in Agriculture, Indian Institute of Management, 1989.

ARTICLES IN JOURNALS/BOOK CHAPTERS

- 1 Ankolekar, S; and Patel, N R, "Optimal Trip Assignment to Depots in a Large Inter-City Bus System," INFOR, March 1989, 113-120.
- 2 Brahmaiah, B, "Legal Aspects of Lease Business in India," Indian Journal of Commerce, March 1989, 47-68.
- 3 Dholakia, Bakul H, "Socio-Economic Objectives of Public Distribution System in India," Nirnay, December 1988, 91-96.
- 4 Dholakia, Bakul H, "Industrial Sickness in India : Need for Comprehensive Identification Criteria," Vikalpa, April-June 1989, 19-24.

- 5 Dholakia, Bakul H, and Dholakia, Ravindra H, "Inter Industry Tables for Gujarat : Methodology and Estimates," Quarterly Bulletin of Economics and Statistics, 28(4), 1988, 1-16.
- 6 Dholakia, Ravindra H, "Provincial Income Disparity in Canada: 1951-1981," in John Hill and U B Bhoite (Eds.) The Tropical Maple Leaf: Indian Perspectives in Canadian Studies. New Delhi: Manohar Book Service, 1989.
- 7 Dholakia, Ravindra H, "Economic Evaluation of Investment Projects in Development Plans - The Case of Seventh Five Year Plan in India," Economic Quarterly (Berlin), 23(2), 1988, 3-11.
- 8 Dholakia, Ravindra H, "Challenges of Planning in India," Vyapar (in Gujarati), Annual Number 1988, 94-96.
- 9 Dholakia, Ravindra H, and Iyengar, Sudarshan, "Some Issues in Micro-Level Planning Based on Experience of Action Research in India," Man and Development, 10(2), 1988, 94-104.
- 10 Garg, Pulin K and Parikh, Indira J "Values, Design, and Development of Strategic Organizations" in Pradip N Khandwalla (Ed.), Social Development: A New Role for Organizational Sciences. New Delhi: Sage Publications, 1988.
- 11 Gupta, Anand P, "Financing Public Enterprise Investments in India," Economic and Political Weekly, December 1988, 2697-2702.
- 12 Gupta, Anil K, "Scientists' Views of Farmer Practices in India : Barriers to Effective Interaction," Farmers First (London), 1989.
- 13 Gupta, Anil K, "Why Poor People Don't Cooperate: Learning from Traditional Systems" in G Clare Wenger (Ed), The Research Relationships: Practice and Politics in Social Policy Research. London: Allen and Unwin, 1987, 111-128.
- 14 Gupta, Anil K, "The Design of Resource Delivery System: A Socio-Ecological Perspective," International Studies of Management and Organization, 38(4), 1989, 64-82.
- 15 Gupta, Anil K, "The Concept of Knowledge: A Conundrum of Criticism, Commitment, and Control in Peasant Science," Information Centre for Low External Input and Sustainable Agriculture (ILEIA). Leusden; Netherland, 1988, 48.
- 16 Gupta, Anil K, "Finding Things to Try: Methods of Making Inventory of Existing Technology and Indigenous Knowledge," Information Centre for Low External Input and Sustainable Agriculture (ILEIA). Leusden, Netherland, 1988, 21-22.

- 17 Gupta, Anil K, "Development of Dry Areas: An Impressionistic Account of the Strengths and Weaknesses Together with Alternative for Action," Karnataka Perspective Plan 2081. Bangalore: Government of Karnataka, October 1988, 179-188.
- 18 Gupta, Anil K, "Rural Credit: How Do the Poor See it?" Vikalpa, October-December 1987.
- 19 Gupta, Anil K, "Banking in Backward Regions: Banks - NGO - Poor Interface Alternatives for Action, May 1987," Indian Journal of Public Administration, July-September 1987, 662-679.
- 20 Gupta, Anil K et.al., "Maps Drawn by Farmers and Extensionists," Farmers First, 1989.
- 21 Gupta, G S, "Growth Variations Across Developing Countries: How Much and Why," Indian Economic Journal, January-March 1989.
- 22 Gupta, Ramesh, "Mutual Funds," Management Accountant, May 1989, 320-322.
- 23 Gupta, Tirath, "Choice of Tree and Grass Species for Social Forestry Plantations in Madhya Pradesh and Uttar Pradesh: Some Issues for Wasteland Management," Parts I and II, 14, 1 and 2, (January 1989 and April 1989), 10-32 and 77-06.
- 24 Gupta, Tirath, "Protection of Social Forestry Plantations in Madhya Pradesh and Uttar Pradesh," Journal of Tropical Forestry, July-September 1988, 206-222.
- 25 Hirji, K F; Mehta, C R; and Patel, N R, "Exact Inference for Matched Case Control Studies," Biometrics, September 1988, 803-814.
- 26 Joseph, Jerome, "Challenges and Opportunities," Democratization of Industrial Relations, January-March 1989, 3-11.
- 27 Kanungo, R N; and Misra, S, "The Bases of Involvement in Work and Family Contexts," International Journal of Psychology, 23(3), 267-282.
- 28 Khandwalla, Pradip N, "Organizational Effectiveness" in Janak Pandey (Ed.), Psychology in India: The State of the Art, Vol.3; Organizational Behaviour and Mental Health. New Delhi: Sage Publications, 1988, 97-205.
- 29 Khandwalla, Pradip N, "Talent and the Pioneering-Innovating Motive" in M K Raina and Sushma Gulati (Eds.), Identification and Development of Talent. New Delhi: NCERT, 1988, 77-94.

- 30 Khandwalla, Pradip N, "Dynamics of Corporate Regeneration," in Towards Organizational Effectiveness Through HRD, Jamshedpur: National HRD Network, 1989, 408-445.
- 31 Khandwalla, Pradip N, "OB for Social Development: A Position Paper," International Studies of Management and Organization, Winter 1988-89, 6-44.
- 32 Khandwalla, Pradip N, "Ten Elements in Turnaround," Business World, June 7-20, 1989, 18-19.
- 33 Kolavalli, S and Chicoine, D, "Groundwater Markets in Gujarat, India," International Journal of Water Resources Development, March 1989, 38-44.
- 34 Koshy, Abraham, "Managing Public Sector Undertakings: A Case Study of Government Trading Corporation in Kerala" in Abdul Aziz (Ed.), Management Problems of State Public Undertakings, Vol.IV. Jaipur: Printwell Publishers, 1989, 196-208.
- 35 Manglik, P C and Tripathy, A, "Uncertainty of a Research and Development Project," Project Management Journal, November 1988, 9-12.
- 36 Mehta, C R; Patel, N R; and Senchaudhuri, P, "Importance Sampling for Estimating Exact Probabilities in Permutational Inference," Journal of the American Statistical Association, December 1988, 999-1005.
- 37 Naik, G and Lenthold, R M, "An Empirical Analysis of Cattle and Hog Basis Relationships," Western Journal of Agricultural Economics, December 1988.
- 38 Naik, G and Gleason, J E, "Alleviation of Protein Malnutrition in India Through Improved Soy Processing Technique," UN Food and Nutrition Bulletin, 1989.
- 39 Pandey, I M, "Financial Policy and Strategic Management," Indian Management, May 1989.
- 40 Pandey, I M and Bhat, Ramesh, "Fulfilling Financial Goals," Business World, March-April 1989.
- 41 Pandey, I M, "Capital Budgeting Practices of Indian Companies," MDI Management Journal, January 1989.
- 42 Pandey, I^o M and Bhat, Ramesh, "Efficient Market Hypothesis: Understanding and Acceptance in India" in O.P. Gupta (Ed), Stock Market Efficiency and Price Behaviour: The Indian Experience. New Delhi: Anmol Publications, 1989.

- 43 Pandey, I M und Bhat, Ramesh, "An Examination of Efficient Capital Market Hypothesis in the Context of Indian Economy: Survey Findings," Journal of Financial Management and Analysis: International Review of Finance, January-June 1989.
- 44 Patel, N R and Luck, M, "O.R. for Developing Countries, Teacher's Network" in G.K. Rand (Ed), Operational Research 1987. Amsterdam: North Holland, 1988, 959-964.
- 45 Patel, N R; Mehta, C R; and Senchaudhuri, P, "Exact Non-Parametric Significance Tests," COMPSTAT 1988: Proceedings in Computational Statistics. Heidelberg: Physica-Verlag, 1988, 227-232.
- 46 Patel, N R; Smith R L; and Zabinsky L B, "Pure Adaptive Search in Monte Carlo Optimization," Mathematical Programming, March 1989, 317-328.
- 47 Pestonjee, D M and Pagdiwalla, K D, "Anxiety in the Socially Disadvantaged," Journal of Personality and Clinical Psychology, September 1988, 169-173.
- 48 Pestonjee, D M and Singh, Mira, "JI, Sense of Participation, and JS: A Study in Banking Industry," International Journal of Interpersonal Relations.
- 49 Ramachandran, K and Vijayakumar, K C, "A Note on Management Education for Small Business" in Narendra Bisht (Ed), Enterpreneurship: Reflections and Investigations. Allahabad: Chug Publications, 1989, 180-184.
- 50 Ramnarayan, S, "Training Workshops as Instruments for Organizational Diagnosis" in Conrad N Jackson and Michael R Henring (Eds), Organization Development Annual. Alexandria, Virginia: American Society for Training and Development, 1989.
- 51 Ramnarayan, S and Nilakant, V, "Diagnostic: Hindustan Chemicals Limited," Vikalpa, April-June 1989.
- 52 Ramnarayan, S and Reddy, N Mohan, "Institutional Learning: The Essence of Strategic Management," Vikalpa, January-March 1989.
- 53 Saiyadain, Mirza S, "Union Organization and Union-Management Conflict in India," MDI Management Journal, January 1989, 1-6.
- 54 Saiyadain, Mirza S, "Employer-Employee Relations and Ethics," Industrial Relations, January-March 1989, 1-6.
- 55 Singh, Gurdev and Asokan, S, R, "Commercial Banks Finance for Rural Deveropment," Banking Finance, July 1988, 3-6 and 9.

- 56 Singh, Gurdev and Asokan, S R, "BTR Ltd., Rampur, U.P." (Diagnostic Case), Vikalpa, July-September 1988, 61-63.
- 57 Srivastava, U K, "Inland Fish Marketing in India," Fishing Chimes, March 1989, 13-17.
- 58 Srivastava, U K and Patel, N T, "An Overview of the Pesticides Industry in India," Pesticide Information, January-March 1988, 19-28.
- 59 Tewari, Devi D etal., "Energy Use and Cropping Patterns in Saskatchewan Agriculture Under Rising Energy Price Regime," Journal of Soil and Water Conservation, October-November 1988, 499-501.
- 60 Tewari, Devi D etal., "Impacts of Rising Energy Prices on Saskatchewan Agriculture," Canadian Journal of Agricultural Economics, July 1988, 237-260.
- 61 Thomas, P S, "JIT: A Way to Get Strategic Results from the Shop Floor," Vikalpa, October-December 1988, 3-8.
- 62 Tripathy, A, "Excellence in Resource Management," National Management Convention (December 3-4, 1988), Special Issue, Baroda Management Association, 24.
- 63 Tripathy, A, "Management of Projects : Some Observations on Practices in a Fertilizer Project," Proceedings of Internet '88, 1129-1135.

ARTICLES IN FINANCIAL DAILIES AND NEWSPAPERS

- 1 Dholakia, Ravindra H, "Lessons from Decentralized Planning", Indian Express, Special Supplement on Gujarat, February 28, 1989.
- 2 Gupta, Anand P, "RCFL's Performance," Economic Times, March 14-15, 1989.
- 3 Gupta, Anil K and Kumar, Ajay, "Drought in Gujarat: Is it Too Late to Act?" Economic Times, February 23, 1988.
- 4 Gupta, Tirath and Ahuja, Vinod, "Coal for Sugar Production: Economic and Policy Issues," Economic Times, May 18, 1989.
- 5 Khandwalla, Pradip N, "Corporation Regeneration Requires the Turnaround Manager?" Economic Times, December 29, 1988.
- 6 Khandwalla, Pradip N, "How to Tackle Growing Sickness in Indian Industry," Indian Post, October 21, 1988.
- 7 Raghunathan, V, "Housing Finance: Recent Developments." Economic Times, June 13, 1989.

- 8 Raghunathan, V, "Housing Finance: Bridging the Gap," Economic Times, June 14, 1989.
- 9 Srivastava, U K, "Fisheries Development Key Policy Issues," Economic Times, July 5, 1988.

CONFERENCE PROCEEDINGS AND PRESENTATIONS

- 1 Arun, M R and Kalro, A H, "Stocking Policies for Blood Components: A Single Period Model," 21st Annual Convention of the Operational Research Society of India, Trivandrum, December 1988.
- 2 Brahmaiah, B, "Legal Aspects of Lease Business in India," 42nd All India Commerce Conference, Ranchi, December 29-31, 1988.
- 3 Dholakia, Ravindra H, "Issues in Decentralized Planning," Workshop on Decentralized Planning for Government Officials, Ahmedabad, August 12, 1988.
- 4 Gupta, Anil K, "Role of Women in Risk Adjustment in Drought Prone Areas," International Conference on Dryland Agriculture, University of Texas, August 15-19, 1988.
- 5 Gupta, Anil K, "Organizing and Managing the Poor Client Oriented Research System: Can Tail Wag the Dog," International Meeting of a Research Programme of ISNAR on ON-Farm Client Oriented Research, The Hague, Netherlands, September 1-5, 1987.
- 6 Gupta, Anil K, "Reorienting Dryland Research at Bari (Bangladesh 1985-86), Lessons Discovered Learned and Not Learned," International Meeting of a Research Programme of ISNAR, The Hague, Netherlands, September 1-5, 1987.
- 7 Gupta, Anil K, Maurya, D M; Singh, R K; and John, K C; "Strengthening On-Farm Rice Research in High Risk Environment of Eastern India: An Institution Building Perspective," Farming System Research/Extension Symposium, of Arkansas, October 9-12, 1988.
- 8 Gupta, Anil K, "Ecology Market Forces and Design of Resource Delivery Organizations," International Conference on Organizational and Behavioural Perspective for Social Development, December 1986-January 2, 1987.
- 9 Gupta, Anil K, "Survival Under Stress: Socio-Ecological Perspective on Farmers' Innovation and Risk Adjustments," International Congress on Plant Physiology, New Delhi: February 1988.

- 10 Gupta, Anil K, "Indigenous/Local Knowledge System: Complexity Simultaneity Universality and Common Property," International Conference on Farmer Participatory Research, Sussex, July 26-31, 1987.
- 11 Gupta, Anil K, "Science, Diffusion of Technical Knowledge and Systems of Local Knowledge," International Rural Sociology Congress, Bologna, Italy, June 26-July 2, 1988.
- 12 Gupta, Anil K, "Building Bridges Between Local/Indigenous and Global Knowledge, Taxonomy of Innovations for Survival vis-a-vis Accumulation," International Rural Sociology Congress, Bologna, Italy, June 26-July 2, 1988.
- 13 Gupta, Anil K, "Risk Management Strategies in Arid and Humid Risky Regions," International Rural Sociology Congress, Bologna, Italy, June 26-July 2, 1988.
- 14 Gupta, Anil K, "Women and Risk Adjustment in Drought Prone Regions," International Rural Sociology Congress, Bologna, Italy, June 26-July 2, 1988.
- 15 Gupta, Anil K, "Stratification in Dry Villages vis-a-vis Migration and State Response," International Rural Sociology Congress, Bologna, Italy, June 26-July 2, 1988.
- 16 Gupta, Anil K, "Scientist Perception of Farmers Innovation in Dry Regions: Barriers to the Scientific Curiosity," International Rural Sociology Congress, Bologna, Italy, June 26-July 2, 1988.
- 17 Gupta, Anil K, "Household Survival Strategies in Risky Ecological Context: Matching Individual, Institutional, and State Response," International Rural Sociology Congress, Bologna, Italy, June 26-July 2, 1988.
- 18 Gupta, Anil K, "Role of Credit in Diffusion of Dry Land Technology," National Seminar on Poverty Control through Self-Help, NABARD, Pune, 1989.
- 19 Gupta, Anil K, Parasher; and Sanwal, Mukul, "Inter-Organizational Coordination for Developmental Banking in Backward Regions," Caselet Based on the Analysis of the Minutes of DCC and DLRC Meetings in a Hill District, presented at the National Seminar on Poverty Control through Self-Help, NABARD, Pune, 1989.
- 20 Gupta, Anil K; Sanghi, N K; Singh, R P; and Nadarajan, V C, "Mobilizing Credit for Demonstration and Diffusion of Dryland Technology" A Case Study of CRIDA's efforts in linking Credit with Technology in an Integrated Watershed Development Project in collaboration with IFFCO, SBI and State Government in Ranga Reddy and Medak District, Andhra Pradesh. Presented at the National Seminar on Poverty Control through Self-Help NABARD, Pune, 1989.

- 21 Gupta, Anil K; Verma, R K; Chaudhury, Ashok; Bharati, Ram Kumar; and Garg, Sanjay, "Organizing and Mobilizing Rope Producers for Self Reliant Development," a case study of a movement aimed at restoration of traditional forest rights of cutting grass and organization of ban (rope) producers through mobilization of credit. Presented at the National Seminar on Poverty Control through Self-Help, NABARD, Pune, 1989.
- 22 Gupta, Anil K, "Management of Research for Rainfed Regions," Workshop held at CRIDA, Hyderabad, December, 1988.
- 23 Gupta, G S, "Advances in Monetary Theory: A Survey," Workshop on Monetary Systems in India, National Institute of Bank Management, Pune, June 14-17, 1989.
- 24 Gupta, G S, "Monetary Policy and Eighth Plan," National Seminar on Eighth Five Year Plan Perspectives and Issues, Department of Business Economics, M.S. University, Baroda, March 11-12, 1989.
- 25 Gupta, O K; Shukla, P R; and Tripathy, A, "Multistage Distribution Problem - A Case Study," 21st ORSI Convention, Trivandrum, December 12-14, 1988.
- 26 Gupta, O K; Shukla, P R; and Tripathy, A, "A Computer Based Decision Support System for Large Scale Fertilizer Distribution," APORS 1988, Seoul, August 24-26, 1988.
- 27 Hague, F; Gupta, Anil K; and Abedin, Z, "Farmers' Logic of Intercropping in Bangladesh," Proceedings of Food Legume Improvement Conference, ACIAR, Australia, 1987.
- 28 John, K C; Maurya, D M; Gupta, Anil K; Singh, R A; and Tiwary, K R, "An Impact Assessment of On-Farm Research Discerning Farmers: Evaluation Criteria Through Horizontal Diffusion," Farming Systems Research/Extension Symposium, University of Arkansas, October 9-12, 1988.
- 29 Kolavalli, S and Shah, Nitin, "Management of Public Tubewells in Uttar Pradesh," Colloquium on How to Reach the Poor Through Groundwater Irrigation, Washington, D.C., April 12-14, 1989.
- 30 Maurya, D M; John, K C; Gupta, Anil K; Singh, R A and Tiwary, K R, "Sustainable and Self-Revolving Programme of On-Farm Research," Farming Systems Research/Extension Symposium, University of Arkansas, October 9-12, 1988.
- 31 Moulik, T K; Dholakia, B H; Dholakia, R H; Ramani, K V; and Shukla, P R, "Energy Planning in India: Relevance of Regional Planning for National Policy," Workshop on Modelling and Analysis of Large Systems, Ahmedabad, August 19-21, 1988.

- 32 Naik, Gopal, "Impact of Sales Tax Differences on Agricultural Commodity Markets," 20th International Conference of Agricultural Economists, Buenos Aires, August 24-31, 1988.
- 33 Naik, Gopal and Leuthold, R M, "An Empirical Analysis of Cattle and Hog Basis Relationships," American Agricultural Economics Association Annual Meeting, July 27-29, 1988.
- 34 Naik, Gopal and Leuthold, R M, "Theory of Intraseasonal Spot and Future Price Relationships for Storable Commodities," Fourth Conference on Economic Theory and Related Mathematical Methods, Indian Statistical Institute, New Delhi, January 9-12, 1989.
- 35 Parikh, Indira J, "Problems and Challenges in Transferring and Adapting Knowhow Management to India," Workshop on Transfer of Western Management Expertise to Developing Nations, McGill Centre for Developing Area Studies, Montreal, November 24-26, 1988.
- 36 Pestonjee, D M, "A Study of ORS in Top and Middle Management," Symposium on Stress and Burnout, International Congress of Psychology, Sydney, Australia, August 28-September 2, 1989.
- 37 Pestonjee, D M, "Role Stress in Government Administration: Suggested HRD Interventions," Second National Conference of HRD Network, New Delhi, February 9-11, 1989.
- 38 Pestonjee, D M, "Top Management Stress: Suggested HRD Interventions," Academic Conference on Application of Behavioural Sciences Research in Organization, FORE, New Delhi, April 7-8, 1989.
- 39 Ramachandran, K, "Dynamics of Location Incentives in Backward Areas," International Conference on Rural Entrepreneurship, Silsoe College, U.K., September 7-9, 1988.
- 40 Rao, V Venkata, "Computers in Management Education," Invited Paper, Western Regional Conference of Computer Society of India, Vallabh Vidyanagar, January 20, 1989.
- 41 Seetharaman, S P; Gupta, Anil K and Nadarajan, V C, "Banking for Bee Keeping in a Backward Hilly Region." A Case Study of Financing for Bee Keeping by Indian Bank Branch and KVIB in Janamarathur Hill Region, Tamil Nadu. Presented at National Seminar on Poverty Control Through Self-Help, NABARD, Pune, 1989.
- 42 Seshadri, D V R; Shukla, P R; and Tripathy, A, "Centralized Planning Model for Indian Sponge Iron Industry: A Case in Large Scale Modelling and Analysis," Workshop on Modelling and Analysis of Large Systems, Indian Institute of Management, Ahmedabad, August 19-21, 1988.

- 43 Shah, J; and Tripathy, A, "Large Scale Mathematical Programming," Workshop on Modelling and Analysis of Large Systems, Indian Institute of Management, Ahmedabad, August 19-21, 1988.
- 44 Shah, J and Tripathy, A, "Lagrangian Relaxation Method for Solving Integer Programming Problem," Workshop on Modelling and Analysis of Large Systems, Indian Institute of Management, Ahmedabad, August 19-21, 1988.
- 45 Sharma, R R K; Shukla, P R; and Tripathy, A, "Multistage Bulk Commodity Distribution: Development of Decomposition - Lagrangian Relaxation Based Algorithm," Invited Paper, 13th International Symposium on Mathematical Programming, Tokyo, August 29-September 2, 1988.
- 46 Sharma, R R K; Shukla, P R; and Tripathy, A, "Optimal Warehousing Policy for Fertilizer Distribution," APORS '88, Seoul, August 24-26, 1988.
- 47 Shingi, P M and Asopa, V N, "Institutional Context of Irrigation Management in India," paper presented at FAO Workshop, Turkey, November 1988.
- 48 Singh, R K; Gupta, Anil K; John, K C; Maurya, D M; Pandey, R V; Yadava, D S; Singh, R G; Dixit, R S; Singh, B N; Chauhand, Y S; and Singh, O P, "Institutionalizing Lateral Learning in On-Farm Research and Extension Programmes in Eastern India: An Exploration in Organizational Learning," Farming System Research/Extension Symposium, University of Arkansas, October 9-12, 1988.
- 49 Srinivasan, S, "An Econometric Study of Foreign Exchange Holdings of South Asian Countries (with special reference to India)," 26th Indian Econometric Conference, Bombay, January 2-4, 1989.
- 50 Srivastava, U K, "Aquaculture: Marketing and Economics in India," International Symposium on Aquaculture Research Needs for the Year 2000, New Delhi, November 15-18, 1988.
- 51 Srivastava, U K, "Agro Processing: Emerging Trends, Strategies for Development and Issues in Relation to Decentralized Sector: Rural Industrialization and Agro Based Activities - Approach, Policy and Strategy," NABARD, Hyderabad, February 1-3, 1989.
- 52 Srivastava, U K, "Marketing Strategy for Agricultural Inputs: Marketing in Rural Areas," Confederation of Engineering Industry, Madras, October 15, 1988.
- 53 Srivastava, U K, "Marketing and Economics of Aquaculture in India," Symposium on Aquaculture Productivity with an Emphasis on Industrialization of Aquaculture, New Delhi, December 16-17, 1988.

- 54 Tewari, Devi D etal., "Incorporating Environmental Impacts of Afforestation in Project Appraisal: A Case Study of Western Himalayas, India," paper presented at the International Conference on Environmental Impact Analysis, New Delhi, November 28-December 2, 1988.
- 55 Tewari, Devi D and Gupta, A K, "Some Causes of Success and Failure of Community Afforestation Projects in Ramganga Catchment," paper presented at the International Rangeland Congress, New Delhi, November 7-11, 1988.
- 56 Tripathy, A, "Mathematical Programming Application in Integrated Steel Plants," 13th International Symposium on Mathematical Programming, Tokyo, August 29-September 2, 1988.

SEMINARS/COLLOQUIA

- 1 Dholakia, Bakul H, "The Union Budget 1989-90," Ahmedabad Management Association, Ahmedabad, March 4, 1989.
- 2 Dholakia, Bakul H, "Nehru and Industrialization Under Democratic Socialism," Industrial Finance Corporation of India, Ahmedabad, April 13, 1989.
- 3 Gupta, Anil K, "Keynote Presentation on the Concept of Knowledge and Farmers Participatory Research," ILIEA, Leusden, Netherland, 1988.
- 4 Gupta, G S, "Lending Policy, Programmes and Impact on Financial Institutions," National Workshop on Evaluation Studies on the Impact of Institutional Credit: A Critical Review of Methodologies, Department of Banking and Finance, M S University, Baroda, March 2, 1989.
- 5 Gupta, G S, "Recent Advances in Monetary Theory," Bankers Training College, Reserve Bank of India, Bombay, March 9, 1989.
- 6 Gupta, G S, "Indian Monetary Policy with a Particular Reference to the Chakravorty Committee," Gokhale Institute of Politics and Economics, Pune, April 27-28, 1989.
- 7 Gupta, G S, "Marketing of Financial Instruments," Institute of Insurance and Financial Sciences Education, Research and Training, Pune, April 28, 1989.
- 8 Misra, Sasi, "The Bases of Involvement in Different Life Contexts," Advanced Centre for Psychology, University of Allahabad, May 17, 1989.
- 9 Naik, Gopal, "Using Forecast Evaluation Techniques," University of Georgia, Griffin, September 2, 1988.

10. Naik, Gopal, "Theory of Cash and Future Price Relationships," Norwegian School of Economics and Business Administration, Bergen (Norway), September 16, 1988.
11. Parikh, Indira J, "Organization Structures, Managerial Roles and Processes in India," Erasmus University, Rotterdam, October 18, 1988.
12. Parikh, Indira J, "Indian Organizations and Management Role Taking Processes," Oregon State University, Oregon, April 14, 1989.
13. Rao, V Venkata, "Interactive Gantt Charting," Invited paper delivered at the Seminar on Decision Support Systems Organized Jointly by the Computer Society of India and Operations Research Society of India, Ahmedabad, January 28, 1989.
14. Tripathy, A, "Large Scale Mathematical Programming Models," Mathematics and Statistics Section of Gujarat Science Congress, Department of Statistics, Gujarat University, Ahmedabad, November 6, 1988.
15. Tripathy, A, "Key-Note Address," 21st Annual Convention, ORSI 1988, Trivandrum, December 12-14, 1988.
16. Tripathy, A, "Operational Research for Effective Decision Making," Panel Discussion, ORSI - Jamshedpur Branch, January 13, 1989.

WORKING PAPERS

1. Gupta, Nirmal K, "An Exploratory Study of Viewers' Perceptions of Television Advertising," W.P. No.755, July 1988.
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