hewvite andual peport

APRIL 1, 1972
to
Margi 31,1973

THDIAI MSTITUME OT Gitagehen, AHEDAEAD


| Part | VI 65 | Placement |
| :---: | :---: | :---: |
| Part | VII 69 | Alunni Activities |
| Part | VIII 73 | Fecilities |
|  | 74 | Library |
|  | 74 | Computer Centre |
|  | 76 | Land and Buildings |
| Appendices | A 79 | Society Members |
|  | B 84 | Donor Members |
|  | C 86 | Board of Governors an its Committees |
|  | D 88 | Faculty and Administrabion |
|  | E 95 | Traculty and Research Staff Appointinents |
|  | F 98 | Faculty and Research Stafe Resignations |
|  | G 101 | Report on Research |
|  | H 118 | Publications of Paculty and Staff |
| Part | EX 132 | Finance and Accounts |

PAFT I

THE IVSTHITTE
PROGUSS
$1902-1973$

Functional Programues

Cho Relations
Relations -
Applications of Operations Research -
Progremine for Developing an
-
Production and Operations FanagementProgranne on larketing Information
and lecision hasigg tion of lianagenent Planning and
Programe for Tracie Union Leaders
of tujarat


## Procrnile hid agtivities <br> 1972-1973

| Post-Graduato | Two-Year Post Graduato Programe in |
| :---: | :---: |
|  | One-Year Programe for onagement in Agriculture |
|  | Follow in Business Administration Programine |
| Executive Devel opment Programes | ifonagement Devalopment Progremne for Senior Officers in Uttar Pradosh Governizent |
|  | 3-Tier Frograme for Hanagement Develo gent Chenging Patterns of Industrial Relations |
|  | Programme on Production and Operations ionage:ment |
|  | Wanketine Information and Decision Waling <br> Applications of Operations Ilesearch |
| : | Worlshop on Design and Tinlementation of iknagoment PIaming end Control Systems |
|  | Agriculturel lanagement Programe |
|  | Programe for Trade Winion Leaders of Gujarat |
|  | Hice vill Inengenent Programe |
| Research | 3 research projects were completed and 21 were in progress |
| Consulting | 7 projects were completed and 24 were in progress |

## SOCIETY AND THOR HITERS

The 16th meetiag of the Indian Institutue of Femagement Ahnedabad Society, held on Apr. 15, 1972, approved the award of certificates to the seventi: batch of 119 atudents and two students of the sixtil batcin of the Postraroduate Programe in Business Administration at the 7th Amat Convocation. The Society empowered the Director to avard the Post-Gracluate Diplona in Business Administration to two of the Post-Graduate Programe stadents of 1970-72 batch when they complete all the required formalities.

The Society, also approved the award of certifieates to the second batch of 33 students of the Programe for Management in Agriculture at the 7th Amual Convocation,

The 17th mecting of the Society, held on July 22,1972 adopted the 10th Anmal Fleport and the accounts for the year ending Marcin 31, 1972.

The membership of the Society at the ond of the year was 87.

## DONATIOMS FROH INDUSTRY

Donations wero recoived from Aryodaya Ginuing ec Vanfacturing Co. Itd. (seconid instalnent for Rs. TE,000) and Apurva Containers Pvit. Lid. (Rs. 10,000). Tlue first company contributed Fs. 25,000 in two instalnents and accordingly has been enrolled as a member of Indian Institute of ifmagement Ahmedabad Society.

## BQARD OF GOVETYOR

The Board held five meetings on Apr. 15, 1972; Nay 5, 1972; July 22, 1972; 0ct. 9, 1972; and Jan. 23, 1973.

Dr. Samul Paul was nominated by the Chairman to the Board on fay 31, 1972 fron the Iastitutota faculty.

Mr. M.D. Rajpal was on the Board during July-Movenoer, 1972, representing the Governient of Gujarat. Fir. I. I. Dalal, Gief Secretary, Govemment of Gujarat, roplaced Ir. Majpal in lovember, 1972.

The Goverment of India nominated to the Board the following persons from Sept. 1, 1972, for five years as ropresentatives of Gomerce, Tniustry, Labour, and otiner interests:

1. If. Kasturbhai Lelbhai
2. M. J.J. Noita
3. in. Naturaral Siah
4. Mr. C.P. Srivasteva

The terms of the following wonbere expirod during the year:

1. IT. V. Isvaxsin
2. Mir. Arvind ifarottam
3. Ir. Eonit C. Fohta
4. Er. J.J. Ehabla
5. Ir. Lanoher Bandiwdear

The following conmittees of the Board functioned duming tine year:

The Budget Conmittee met on Iov. 2, 1972, the Fersomel Committee on Way 10, 1972, 0ct. 9, 1972, 0ct. 17, 1972 and Fer. 23, 1973, and the Building Comitice on Juty 22, 1972, ariả Jan. 23, 1973.
paculif hitl resmaroi starf
At the ond of the year, there were 57 faculty and 77 research stant nembers. Four now faculty and 37 research stafin joined the Institute during the year. Three faculty and 31 research stafe menbers left the Institute.

## Paculty Developmont

The following faculty inembers continued to worls for coctoral degree:

| Natuc | Aree | Univorsity |
| :---: | :---: | :---: |
|  |  |  |
| Fenakshi dalya | Production and quantitative lethods | Harvard |
| V.iv. Vore | Herketing | Harvard |
| I. Balalcrishnan | Finance and Accounting | Hervara |

The foliowing faculty nembers were sponsored for
doctoral progranme:

| Name | Area | University |
| :---: | :---: | :---: |
| f. Belachendra | Production and quantitativo :ethods | Coluribia |
| I,R, Bhandari | larketing | Columita |
| C.IT. PrahaIed | Business Poliovr | Harvard |

Research Staff
The following research staff nembers continued to worlk for doctoral degree:

1tame
X.P. Ancja
A.K. Banerjee
B.I. Desai
J.L. Sana
T. Jailaw:ar

童边
Production and quantitative Vistheds
Production and Guantitative i.èthods

Agricultural Diconomics
Operations Research
Finence and Accounting

Whiversity

Joins Hopkins
Wiscousin
Comell
Casewestorn
Columbia

## PGP Students

The Polloring graduates of the Post-Gracuate Programo continued to work for doctoral degree:


The honorary position of fanlty associates was awarded to the following persons:
K.K. Anand
T.S. Nagarajars Chief Persomel and Sales and tanteting Director Organisation inager Larsen $\theta$ Tr voro Lited.

Frafull Anubhai Managing Director Pustoin Jehangir Vakil Filis Lta,
P.f. Bhalle

Fhnance Director
State Tradine Corporation
Kenta Goudhum
Programe Adviser in Public
Plammeng managenert
Pord Poundation
How Delin

Brooke Bond (India) Itcl.
1.. Marasituran

Secretary
Reserve Dank of India
M. V. Pai

Dircetor (Rinance \& Administration)
Batiliboi © Co. Pvt.Ltd.
V.ii. Patil

Professor
Dajej Tnstitute of Nanagenent Studies

Subir Ghowihury
Mavager
Managenont Services
I. O.I. (Ingia) Lut.
S. Sen Cupte -

Regional Director
Clarion-coam
Advertiging Services itth.
S.Y. Gupte

Assistant Commissioner
Income-trex
Poona
ㄲ..I. Jaiswal
Institute or Defence Studies and Anatyses

Phiroze B. Mechora
Deputy General inangen
I.C.I.O.I.
J. Sudarsame Rao

Manager
Coca-Cola Eport Comporation
P. Sadanandan
llata Institute of Fmannental Research
P.A. Salecin

A17 Inaia Selos hanager
Voitas Ltd.
1.D. Shali
inanager
Arvind MiJls Itd.
G. Sundaran

President
A1. India Petroleum Pederation
Tobert L. Villizus
Frofessor © Ghairman
Industrial A Systems meg. Dept. Olaio University.

## Director's Rosigiation

Prof. Navi J. Hathai who took over as the rirst funttine Diarector of this Institate in 1965 stepred dom from the Directorship of IINA on Sept. 7, 1972. Althougl a firm foundation had been laid down undor the inaginative leadersinip of Dr. Vilenan Sarabhai, the acedemic structure was yet to be built up. The task was by wo theans an easy one because we were stilit erowing for the best way to achieve our objectives, and there wes no precedence which we could depend on. Our road wes rough and our goal was distant, and the challenge of the tesk donanded all tho qualitios of inagnetion, foresteht, tolerance, and perseverance. During seven years of his
brilliant leadership, Prof. letthei provided all. these and mich more. He provided a sense of missionary zeal which unfolded berore ourselves a whole vista of activities and programes in the field of managemint education. The position of eminence which this Institute has achieved is, in every sense of the term, due to his brilliant leadership, Prof. hather pat Anodobed on the oducational map of the world. This aptily sums up Prof, Matheits contribution to the managanent oducation in seneral and to the devaloprent of this Institute in particular.

The Tastitute commity and the puiblic paid rich tributes in a function organiged to honour Prof. Mathai for his valuable services, P.of. Nathati continues to be a menber of the faculty.

Dr. Samul Paul, took over charge on September d, 1976 from Pror. Nathei.

FORD FOUTDATION

In June 1972, the Ford Foundation gavo a grant of fr75,000 Ior Pinencine oxpansion of Institute facilities and activities in research, publications, acquisition of books, and training of fadity abroed.

PART II
POST-GRADTATE PROGRATEG


> ADMSSIOH
> $(1973-75$ Session $)$

The selection procedures for 1973 wero more or less the same as in 1972 with some modifications in the oligibility clause. The minimum recuirement of $50 \%$ marke for seeking aduission stipuzated in 1972 was maintained. However, tho number of examinations for consideration was reduced fros three to two.

5,325 filled in applications were receiveci this yoar as against 4,900 in 1972 (an increase of 9\%).

As in the past all the eligible applicants were called for a written test. On the basis of the application evaluation and scores in the tost, 630 candidetes were called for group discussion and personal interviews. The final selection was mado in April 1973 on the basis of application evalluation und performance in group discussions and interviows.

Saliont foatures of applicants and selected cendicates are given below:

Applicants
1973-75
Number Porcentage
1972-74
Mumber Percentage

Educational Backround

| Arts | 660 | 12.4 | 577 | 11.35 |
| :--- | ---: | ---: | ---: | ---: |
| Comerce | 810 | 15.2 | 644 | 13.14 |
| Engineering | 2029 | 30.1 | 2236 | 45.63 |
| Science | $\underline{1825}$ | $\underline{34.3}$ | $\underline{1463}$ | 29.87 |
|  | $\underline{5324}$ | $\underline{100.0}$ | $\underline{4800}$ | $\underline{100.00}$ |

Work Erperience

| With woni experience | 1343 | 25.2 | 931 | 19.00 |
| :--- | :--- | ---: | ---: | ---: |
| Without work experionco | $\frac{3981}{532}$ | $\overline{74.8}$ | $\frac{3969}{100.0}$ | $\underline{4900}$ |

Acs

| Upto 20 years | 1717 | 32.1 | 1621 | 33.1 |
| :--- | :---: | :---: | :---: | :---: |
| 21 to 25 yeara | 3191 | 60.0 | 290 | 60.7 |
| 26 to 30 years | 326 | 6.1 | 230. | 4.7 |
| 31 to 35 yaars | 46 | 0.9 | 34 | 0.7 |
| 36 years aurd above | $\frac{4 / 4}{5324}$ | $\underline{0.8}$ | $\frac{35}{4900}$ | $\underline{0.0}$ |
|  | $\underline{100.0}$ |  |  |  |

Ss

| Hale | 5135 | 96.4 | 4754 | 97.02 |
| :--- | ---: | ---: | ---: | ---: |
| Female | $\frac{189}{5324}$ | $\frac{3.6}{100.0}$ | $\frac{146}{4900}$ | $\frac{2.90}{100.00}$ |
|  |  |  |  |  |

## Selected Candidates

| 1973-75 | 1972-74 |
| :---: | :---: |
| t 125 年ext 45 | Finst 125 Next |

Educational Eackground

| Arts | 11 | 2 | 17 | 4 |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Commerce | $\cdots$ | 8 | 5 | 10 | 2 |
| ing:ineering |  | 77 | 25 | 76 | 35 |
| Science | $\underline{27}$ | $\underline{10}$ | $\frac{22}{125}$ | $\underline{14}$ |  |
|  |  | $\underline{125}$ | $\underline{55}$ |  |  |

Worls Exporience

| With work expericnce | 48 | 15 | 55 | 14 |
| :---: | :---: | :---: | :---: | :---: |
| Without worl experience | 77 | 30 | 70 | 4.1 |
|  | 125 | 45 | 125 | 55 |

Age

| Average Age | 21.7 | 20.7 | 22.4 | 22.1 |
| :--- | :--- | :--- | :--- | :--- |
| Hodel Age | 21 | 21 | 23 | 22 |

Sex

| Tale | 116 | 45 | 114 | 54 |
| :--- | ---: | ---: | ---: | ---: |
| Female | $\frac{9}{125}$ | $\frac{-}{45}$ | $\frac{11}{125}$ | $-\frac{1}{55}$ |
|  | - | - | - | -1 |

## MITHE SESSTON

(1972-74)

The 9th session of the PGP started on June 30, 1972, with 126 students in the first geer and 110 an the second year. Then there were $f$ dropouts from the first year.

Under an acedemic arrangenent betwen the Institute and the Institute of Wanagenent Developnont, Tenzania, three students were admited to the progranie. Ine $1972-74$ batch ais included tiree scheduled caste/schedule trine students,

At the request of Case Westem Reserve Thiversity, USA, one Indian student who could not complete his IBA course requirements at that university was permitted to study a few courges at the Institute. Gase Westem Resurve Universiby has accepted the acadenic credit eamed by the student at tho Institute and awarded hivi its RA degree.

Curriculue 1972-73

The first your course package renained urchanged except the addition of a fow seations on computer programing for tho students to learn basic computer progranming and to use the Institute's tine shared compter facility in their acadenic work.

In the seond year, 44 olective csurses and 20 project courses were tanght during the three terms in addition to the two-term confulsory courgo in Business Policy. Four guest
faculty members crawn from professional fields were involved in the seond year teaching.

## Students I wonange Visit

During the last fow years, the students of the Indion Institutes of Inagement, Amedabad and Caloutta, have been payng goodwill visitts to each other every aiternate year. A grow of 19 students from this Institute wisited IIf, Calcutita, frow Jen. 9 to 17,1973. The ITHA students perticipated in various cultwal programes and benefitted from the exchenge of views with the TMC students end $f$ aculty.

## Qurriculua Plaming

A Comittee of our faculty members reviemed the first Feas cource package and subritted a report for dosigning an integrated arst year cumiculu.

Another faculty comitiee reviewed the use of computers in the Fost-Graduate Progreme. Subsecuentise a new course on comprters and computer progravaing with 15 alass sessions was added to the firat year course package of $1973-74$ academic year.

The responsibility to daal with the plaming, dosizn, and approval of specinic courses was entrusted to a BCourse Comitteel consisting of area Chaimen and the Ghaimen of the Post-Craduate Prograwe, Fellow in Business Adrinistration

Programe, and Programe for Vanagement in Agriculture.

## 7th? Annual Sonvocation

The 7th Anmal Convocation was held on Apr. 15, 1972. Fin. G. Subramania, itinister of Plaming, Science and Tecmology, delivered the Convocation adress. 121 students of the 1970-72 class were anarded the Post-Graduate Diploma.

The following four students received the Institute ${ }^{\text {t }}$ Gold ledols for outstanding scholastic perfomance.

1. Y. S. Ramakrishan
2. Vr. V.S. Krisman
3. IT. Vijay Sagar
4. Tr. S. Umapathy

FINATCIAI AID

## IIIA Lom Assistance Soherie

Based on meed, 50 stadentes of the first year and 4 tistadents of the second year were avarded total financiul loan assistance of Rs. 1,75,500.

ITC Loan Fund

India Cobacco Corpany itcil donated fis. 50,000 to institute a lon fone callea the :TTC -Loan Fund." Interest on this anount was utilized for awarding loan assistance.

## Lom Fellowsips (Incustry)

The following organizations offered loun feliowships (ns. 2,500 oach per amon):

1. Binyy Itid.
2. Brooke Bond India Itcl.
3. Century Buming is iambacturing Go. Lita.
4. Ghesobroughmond's Inc.
5. Coca-Gola aport Corporation
6. Bsso Standard Eastern Inc.
7. Gotez (India) Itd. (Subsidiarty of issoorts Ltd.)
8. The Horla Trade Corporation
9. Indian Oin Coryoration
10. Industrisil Cablea Publio GiaritabIe Trust
11. International Tractor Company of India Itd.
12. Kirloskar 0in ingines Ltd.
13. L. D. Charitable Irust (2 Fellowshios)
14. Iarsen E Toubro Ltel.
15. Ledras Rubber Factory Itad.
16. Seth Purushottanbinci agablai limorial Trust
17. Stardaben Bangubai Maiatial Public Charitable Trust

1d. Tara Vavi Raw Gopal Mehre Foundation
19. The Boubsy Bumah Trauing Corporation Itd.
20. Whited Comberial Dam
21. Warner Eincurstan Ited.

## State Eanls 0. India Inan Assistence Scheme

The State Bank of India agreed to give Ioan assistance up to Rs. 2 Ialchs every year to our stucherts as por the terms and conditions of tret-: loan schone. Under this schene, finencial assistance of is. $1,34,700$ was given to 39 first year students and 39 second year gtainents.

Scholarships for PIA

The Gujarat State Fertiliger Go. Litd, has ingtituted two scholerships for the Programe for vanagenent in Agriculture students. The value of tive scholarghips is Ris. 3,500 per omourn.

Lhe Banir of Daroda gave loan assistance of Rs, 68,500 to 25 atudents of the Programe for lanagenent in Agriculture.

The Institute is grateful to the Goverament of India, Commercial organizations, State Bant of India, and Bamik of Baroda fox their ielp and support to the Pinamoial Aic Programe of the Institute.

PHOGRAME FOR FATAGMHE IT ACRICUEMPE

## Admissions

The Admission work for the 1972-73 batch was initiated as early as Hovember 1971. Dbout 400 reguest vere received for applications, sund auout 250 candidates finaty applied for the progranue. A main feature of the admission procedure for this batch was that the admission was restricted only to cadidates having hasters' Degree in Agriculture, Artand Science or allied subjects or B.Sc. Degree in Agricultural. negineering. The appicants were divided into thiree broad categories, Agriculture and Animal Science, Agricultural Pugineerine, anci Funanities and Social Science with specialization in Agricultural Inconomics or Fural Sociology, There was alss an uper age limit of 30 years for edmission.

Based on the composite scores of previous acanamic recond, wort experience, extra curriculer activities, adnission tests, group discussion and intervievs, 35 candidates were selected. Murther details are given below:
$\frac{\text { Gundidstes selecteci }}{\text { No. }}$
Eucational Eactratoud
Agricultural mgineering
14
35.0

Agricultural seiences
25
62.5

Fhumities and Easio Science $\quad 1 \quad 2.5$

|  | Sandidates Selected |  |
| :---: | :---: | :---: |
|  | Fo. | \% |
| Work Experience | 22 | 55.0 |
| Without worlc experience | 18 | 45.0 |
| Age |  |  |
| 20 | 5 | 12.5 |
| 21 | 3 | 7.5 |
| 22 | 5 | 12.5 |
| 23 | 6 | 15.0 |
| 24 | 6 | 15.0 |
| 25 | 5 | 12.5 |
| 26. | 3 | 7.5 |
| 27 | 5 | 12.5 |
| 26 | - | - |
| 29 | 1 | 2.5 |
| 30 | 1 | 2.5 |
| Average age |  |  |

Course contents

Thie courses on Agricultural Technology and Research lethodology orfered in 1971-72 were droped.

The new courses, Farkating Commaication and Warketing Research, were introduced. The participants were also exposed to two other courses, each with 10 sessions, on Computer anc Written Analysis and Commaication. The Computer course was
oifered during the first tern to faniliarise the participants with theuse of the computer facilities. The Written Analysis and Commication course was offered in tha second term to improve the skills of analysis and writien comanication in nonagement sitwation.

The regular courses were over by harch 20, 1973, and the participants worked on research projectes for about a month under the supervision of fasulty nembers.

The 1973-74. betch

Aduission work for 1973-74 batch had begun by Move ber 1972. About 400 mplications were received. The selection oriteria for the 1973-74 batch rematned more or less unchanged, except for slieht variations in the weigitages on different components.

The feculty agreed to offer the same courses as in 1972-73.

## QGP-PMA Herger

The Institate's faculty bad oarlier decided to integrate the present Post-Graduate Programe and the Frocrame for Ianagement in Agriculture. A Comittee of facunty members Las been appointed to work out the details


The year 1972 began with a class of 11 students. Of the four students adnitter in the previous year, one has completed the ralifying examinations and is worling on the dissertation. Three other students have completed their course requireneris.

To fomaliss the various details of the programe, the FBA Comittee popared a comprehensive note for the Cirst year ainiss?on, promotion fron first yeer to second year placement of students at the end of first year, second year courses, quailifying exaninations, and dissertation requirenents. The faculty, in its zeeting of Mov. 27, 1972, agreed in goneral with the recomendations made in the note

The Comittee paid special attention during the year to the development of the advanced courses to be offered during the seacnd year of the programe. Consequentiy, 16 oourses were developed during the year.

On the basis of written tests and application ratings, the comaittee interviewed 55 candidates and finally selected 11 persons for admission to noxt year. Information on the muber of applications reccived, persons called for interviev, and persons fineily selected is given balow:

| Area of specialization | iVo. of apulications received | No. of persons callect for tyterviey | Ho. of persons selected |
| :---: | :---: | :---: | :---: |
| Organizational |  |  |  |
| Behaviour | 76 | 12 | 2 |
| farketing | 87 | g | 1 |
| Economics | 40 | 8 | 1 |
| Production sund Quantitative fethocls | 173 | 19 | 6* |
| Finance and Accounting | 47 | 8 | 1 |
| Agrioulture | 25 | - | - |
| Area not mentioned | 4 | - | - |
| : | 454 | 55 | 11 |

[^0]
## PART III

EYCCUITVE DEVEIOPMENT EROCRAMNES

## EXECUTIVE DEVELOPMENT FROGRAMAES

The Institute conducted ten executi fe development programmes - two in general management, five in functional management, and three in sectoral managemert. To these ten programmes, 331 organizations sent participants. Of these, 207 were from the public sector and 124 from the private sector. The number of participants in these progiames was 499 -- $35 \%$ from the public sector/government and $65 \%$ from the private sector.

The new executive development programes comnittee appointed in October 1972, for a term of two years, consists of the following members:

| Erof. Keshav Prasad | $\cdots$ | Chafrman |
| :---: | :---: | :---: |
| Prof. S.K. Bhattacharyya |  | Member |
| Erof. V.R. Gupta |  | ! |
| Prof. Ravi. J. Matthai |  | " |
| Frof. C.M.S. Nambudiri | $\because$ | ! |
| Mr. S. Sreenivas Rao |  | $\cdots$ |

A four weeks training programe for Trade Union Leaders conducted on the campus with the finaneiel support of Goverment of Gujarat needs special mention. The programme vas designed for active trade union ieaders with a view to help them in the management of trade untors as viable social organizations. The Instituta received exceilent
response from trade unions as well as industrial enterprises from which the leaders particlpated in the programme. It is intended to continue this activity as an integral part of the plan to develop a full scale research and training centre for trade unions at the Institute.

Information on the number of companies, public and private, and the number of participants from these two sectors in the various programmes are given below:


GENERAL Man/GGEMENT

## Manasement Development Frogramme for Senior Officers in <br> Uttar Eradesh Government <br> (April 23 - May 6, 1973)

Objectives: To provide the participants an introduction in basic concepts of management; skills and attitudes for assessing the working of industrial organizations; giving a general direction and bringing about change in these organizations; a degree of famfliarity with modern management techniques used in key functional areas of business o-ganizations.

Content: Operations Management, Marketing Management, Financial Management, Managerial Accounting, Organizational. Behaviour and Management of Change, and Business Follcy.

## 3-Tier Programme for Management Development (Jan. 7-Mar. 3, 1973)

Obiectives; The 3-TF is a programme for management development aimed at improving the analytical abilities and managerial competence of participating executives. The concept of the 3-Tier Erogranme is based on the realization that management development in organizations is more effective and useful when change is initiated simultaneously at different levels in the organizations. The programme objectives and
content are different for each tier. While the emphasis in Tiet I'(MAdde Management Course) is multi-functional and integrative in its approach to managenent tasks; in Tier II (Senion Executives Seminar) the focus is on the problems of operational planning and control in management. In Tier III (Top Nanagement Seminar) the accent is on the appraisal of relevant factors in the enviroment and corporate planning with regard to the formal process of review of strategy and organizational structure.

Content: Tier I: Business Folicy, Finance, Management, Accounting and Control, Marketing, Managerial Economics, Industrial Relations, Organizational Behaviour and Froduction Management.

Tier II: Business Folicy, Finance, Management Accounting and Control, Marketing, Managerial Economics, Industrial Relations, Organzational Eehaviour, and Froduction Management.

Tier IIL: Business Policy, Environmental Scanning for Corporate Planning, Industrial Relations; Organizational Behaviour, Long Range Elanming, Managerial Economics, and Finance.

## FUNCTIONAL MALAGEMENT

## Changing Eattorns ref Industrial Relations (Apr . $27-$ May 6, 1972) <br> Objectye: To help the participants in improving: their effectiveness in dealing with industrial relations problems.

Content: Inter-grcup conflict and its resolutions, Dynamics of Labour-Management Relations, Governent Labour : Pollcy and Industrial Relations; Industidal Policy and Industrial Relations; Industifal Relations and Indian Society, Technology and Industrial Relations, Vage ${ }^{5}$ policy and wage Beternhation, Callectivetsergahnang, Inter:quider motoch at ab Union Rivalty, Discipline and Grievance Handling and workers Participation in Management.

## Programme on Production and Operations Management (Apr. 30 - Way 20, 1972)

Obiectives: To acquaint the participants with a systen approach to complex production problems; inpart skilis in the application of relevant methods of analysis to specific production problems; end familiarize them with tools and techniques for analysis of operational problems.

Content: Operations Efficiency, Costs for Decision Making and Control, Operations Research and knalysis, Operations Flanning and Control, Fuman ancindustriai Relations, Manufacturing Palicy, and Coporate Stratejy.

## Marketing Information and Eedston Making

(June 4.24 , 1972)

Obiectives: To help decision makers in marketing to formulate answers to the following-questions:

1. What information is needed to understand the marketing environment becte-?
2. How couid the marketing opportunities and risks be identified?
3. How to obtain relevant information for the purpose of Emproving the quality of deciston making within the organizat\{on?
4. How to collect, anaiyse, and use information?
5. What cost is worth paying for new or additional information?

The Programme was designed to:

1. Develop an understanding of th-changing marketing environment and the opportunities it offers;
2. Explore new ways of thinking about the inter-related and rompley nature of the problems and decisions in marketing;
3. Sharpen the analyticat skilis of the participants by irtroducing then to new concep $n s$ and techniques as
4. Highilight the role of information in decis ion making including improved ways of using judgement;
5. Expose the participants to issues of marketing planning and control bearing upon short and long-term strategies; and
6. Gain greater insights into narketing problens through their:involvement in the analysis of real-life marketing cases.

Content: The Planning Erocess in Marketing, Marketing opportunity and Environment, The Concept of Segmentation, Behavioural Approaches to Segnentation, Intormation and Research in Marketing; Demand Analysis, Consumer Behaviour, Decision Theory Applications in Marketing, Decfsions and information felating to: Froduct Folicy, Fricing Distribution, Sales Management, Advertising and Promotion, and Fommlating and Implementing the Marketing Elan.

Applications of Opergtions Research
(Sept. 20-0ct. 4, 1972)

Obiectives: To acquaint the participants with the fundamental prinalples:of 0.R.; demonstrate the applicability of these techniques to a variety of real-1ife complex problems; familiarize the participants with the methode of solution by the above techniques with the use of computers; and provide a common form for the exchange of views from the experience of participants and discussion of problems from their organizations.

Content: Linear Programming and Appliçations, Transportation Froblems and Related Topics, Integer and MixedInteger Programming, Network Flow Theory and Application, Quantitative Approaches to Marketing, Decisions under Risk and Hncertainty, applications of hueteing Theory, Production Elaming send Inventory Control, and Dy namic Programming and Applications:

Horkshop on Design and Implementation of Manegement Planning and Control Systems (Dec. 10-16, 1972)

Obivative: : To probe in depth the issues relating to design and implementation of management planning and control systems.

Gontent: Framework on Management Control, Organizational Objectives, Organizational, Structure and the Management Control System; Identification of Responsibility Centres for Effective Management Control, Translating Organizational Objectives into Short-Term Plans and Budgets, and Formulation of Standards.

Programe for Trade Union Leaders of Gujarat (Dec. 10 -Jan. 6, 1973)

Objectives: To help the participants in developing the necessary awareness and skills to edopt a professional approach to their tasks as trade unionists.

Gontents: Verious aspects of trade union organization and administration and the social, economic, and political emfronment of trade unions.


## Rice Mill Management Erogranme

## (Apr. 18 - May 6, 1972)

Obiectives: The objectives of the programite ware:

1. Help participants to acquire decision-making skills in evaluation of proposals for modernising milling, parboiling and storage equipment.
2. Fanlliarise the particípants with probiems of procurement and milling and ways and means of otercoming then.
3. Develop skill in the use of modern management tools and technques.
4. Help understand the technological implications of modernisation in. rice industry.

Gontents:: Production Enhancement and Procurement of Paddy, Processing, Marketing and Technological Aspects.

## INTER-UNIVERSITY RELATIONG

Prof: S.C. Kuchhal was deputed as a member of the task force of the AL1 India Board of Techntcal Studies in Management; Ministry of Education, to evaluate the performance and assess the needs of the university departments of managenent studies under the Eifth Flan. He visiced eight universities for assessing their p-ogramme and requirements to determine their needs under the Fifth Ptan.

Two p:ugrammes for university teachers are befng planned for next year: one is intoperations research and the other in general management

## GENTRE FOR MANAGEME NT IN AGR IGULTURE

The Gentre for Management in Agriculture continued its activities in the areas of research and teaching. During 1972-73, 10 research projects were completed and 13 projects were in progress. The teaching activities included the Programme for Management in Agriculture and two executive development programmes. The Cmit faculty were also involved in a number of assigments with professional and government agencies as members of working groups and participants in research and training programmes.
$\square$

## RESEARCH © MPLETED

## 1. Assessment of Requirements of New Seeds and Developing

 Seed IndustryProfessors V.N. Asopa, D.K. Desai and Mr. B.C. Fatel

Spousor: National Commission on Agriculture.

## Objectives:

1. To assess the requirements of high yielding seeds of major cereal crops in 1985 and the corresponding requirements of foundation and breeder seeds.
2. To enquire into the current status and future projections of these seeds and identify areas that need improvements in respect of production and distribution of breeder, foundation, and certified seeds.
3. To suggest an appropriate organization of the various agencies involved in the production and distribution of seeds.

The rewort was subuitted to the Naticnal Comeission on $A g x i c t l t u r e$ and the Contission has released it fer yider circulation.
2. Cohsumpion Pattern and Freferences for Rice
 Dave

Sponsor: Ninistry of Agriculture, Governaient of Inde

## Obicetives:

1. To stidy the food hatits and the consumpion patearn of rice consumers.
2. To analyse the sources of market information svailabla to rice consuress and to asess their mos redia habite.
3. To study; their attitude towneds the consumytion of dwy paddy and to understand the consumers' porception of verietal characterintics.
4. To analyse the corresponderce between the ongsuner preferences and the use pattern of different varietios of rice.
5. Growth of Fertiliser Use in Districts of Indie: Ferformanc * and Falicy Implications

Frofessor Sunvant M. Desei, and Mr. Gurdev singh.
Sponsor: Nationil Comisoion on Agriculure.
थ: Objectives: Identifying factors Denind rowth in demand for fertinzets in Indifa.

The report was subnitted to the Rational Commission on Agriculeure, and the Conrission has feleased it for wider circulation.

## 4. Financins an Area Development zrograme through Area Appronch

Profescor D. X . Desai and Mr. Hari Fralesin
Sponsor: Ministry of Arriculture; Governent of India
Objectives:

1. To. understand the procoss of planing and inplecenting the financing of an agricultural develophent project through an ar approacti.
2. To identify problems at ench level of decision mating.
3. Dynafo of Grooth in gextiliser Use at the Micro Level

Sponsor: Ministry of Acriculture, Governamt of India.
Objectives: Developines a methodolaey to exarine denend for fertilizex using continucus cross-section date of fertiliser practices of a sanple of cultivators Eron Gutur District; Andme rraduct. ?
4. Snat Fermers : Their Problems and bossibitios of Developnent

2rofessor r.i.s. Chounan, Messrs. S. Mundle, tl. Mohonan, and D. Jadev

Sponsor: Ministry of Agriculture, Governmant of India
Objectives: The problen of makine smoll farmars vieble is at the core of the goneral prothen of rural poverty in India. fiowever, researchers in this field are still trying to arive at sote consensus about the factors wheh conctitute the mor bottlenecks to the viability of amp farmere and how non-viable shall fariters can be made vioble. This was the central concurn of the study.

Specifically the study attempted:

1. To derive a criterion for distinguishing between viable and non-viable small farmers.
2. To identify the basic factors affecting the viability of small farmers.
3. To examine the available possibilities and alternatives for the development of viable and nonviable small farmers.
4. To evolve a policy frame or strategy for the development of non-viable small farmers into viable units.
5. To throw light on the impact of the intensive area development scheme (LiD) operating in the Sangli district of Maharashtra on the viability of small farmers.
6. Management of Technological Change in Dry Earming Areas

Erofessor M.S. Krishnaswamy and Mr. K.V. Patel
Sporsor: - Ministry of Agriculture, Goverment of India

## objectives:

1. To ascertain the nature and components of the recommended dry farming technology in the selected areas.
2. To assess the nature and level of adoption of the recommended technology attained by the farmers.
3. To study the economic viability of the recomended technology as presently adopted by the farmers.

4: To study the institutionel support presently available for the adoption of the recommended technology.

## 8. Organizational Set-up of ICail

Erofessors Kamla Chowdhry, V.R. Gaikwad, and S.K. Bhattacharyya

Sponsor: National Commission on Agriculture.
Objectives: Examining the organizational structure of IGR with different constituting and other institutions associated with agricultural research for helping the Commission in defining ICAR's role in promoting and. facilitating agricultural research and education.

The report was submitted to the National Commission on Agriculture, and the Comission released it for wider carculation.
9. Role of Opinion Leaders in accelerated Change in Agriculture in kaipur District (Ehase I)

Professor, Vex. Gaikwad, Gr. Bid. Tripathi, and Dr. G.S. Bhatnage

Sponsor: Ministry of Agriculture, Gover ment of India
Objectives: The main objective of the study was to develop an understandinc about interpersonal communcation processes involved in adoption and diffusion of certain agricultural technologies in a given social system.

The study was taken upin two phases. The objectives of Ehase I were:

1. To develop an understanding of the yillage setting and the agricultural setting.
2. The sources of information used by farmers.
3. The leadership structure and its influence on inter-personal commancation.

The major areas of enquiry' for thase $I$ were as follows:

1. Relevant elements of the village social systetr:
2. The agricultural setting; changes:uth reference: to the use of fertilizer and improved variety of seed over a period of time.
3. Sources of information utilized by famers at various stages.
4. Factors influencing interpersonal communication opinion leaders and their characteristics, heterophily and homophily between leaders and followers, nature of dependence of followers on leaders, and the role of opinion leaders in communication of new ideas:
5. Kole of Opinion Leaders in Accelerated Chance in Agriculture in Kalour District (Ehase II).

Professor"V.R. Gaikwad; Mr: B.Le Tripathi, and Dr. S.M.S. Haque
Sponsor: Ministry of agriculture, Goverment of India
Objectives: Thase II of the study was an action programe. The objectives were to understand the role of opinion leaders:

1. In the commancation of information pertaining to an innovation in a village community.
2. In decision making processes associated with the adoption of an innovation.

RESEAKGH IN PKOGEESS

## 1. Farm Mechanization Eroject

Erofessors C. Gopinath and D.K. Desai
Sponsor: International :Bank for Keconstruction and Development

Objectives: This three year research project will study the effects of agricultural mechanization on productivity and employment.

Gollection of dat for 1971 kharif and rabi seasons were completed from the four cropping zones selected for the study

The processing and analysis of data and report preparation: are under way.
2. Systems inalysis of Irrigation agriculture. in the Command Aree of the Mahi-Kadana Dam Eroject

Erofessor V.N. Asopa and Mr. S. Mundle
Sponsor: Ninistry: of Agriculture, Government of India
Obiectives: To study:

1. The optimal timing and amount of water for field crops.
2. The optimal distribution of a given volume of water to be provided, the timing of the availability of water, and the assurance of supply.
3. The effect on output of departing from the optimal policies constructed under 1 and 2 .
4. The optimal cropping patterns that are consistent with the soil, climate, and water avadability in the region.
5. The input requirements for optimal cropping patterns under 4.
6. The adjustment of rural people and their institutions to changes in agriculturat technology.
7. The development of institutions fòr water management and their role in fuller utilization of irrigation potentials.

Smpling design has been finalized.
3. Gultivators' Experience with High Yielding Varieties of Cotton

Professor G.M. Desai, Messrs. Gurdev Singh and s. Bandopadhy ay

Sponsor: Ministry of Agriculture, Government of India Objectives:

1. To examine the yield of local and HYVs of cotton at the farm level.
2. To exanif ne the structure of inputs used on local HYVs of Cotton.
3. To compare the yield of $H Y V$ under experiment station conditions withthat ander farm conditions and identify the major factors behind difference in yields under the two conditions.
4. To determine the precondttions necessary for the successful adoption of HYVs of eotton.
5. To examine the implications of the hiY of cotton for input requirements.

The study is undertaken the Modasa Taluka of Sabarkantha district of Gujarat State and is confined to six, villages selected in this taluka. Seventy hybrid cotton growers and 30 nonmybrid
cotton growers were selected at fandom from these villages. Data is being collected.

## 4. Bice Economy of India

Erofessor P.S. George and Dr. V.V. Choukidar
Sponsor: Ninistry of Agriculture, Government of India
Obiectives: To develop a comodity system for rice at the macro leve1. The system would attempt to synthesize the available information on the inputs going into production, procurement and processing of paddy, and distribution of rice. Attempts will also be made to analyse the role of different agencies involved in the system and the share of consumers' price retained at each level.

Data has been collected.
5. Project on the Management of Technological Change in Dry Farming Areas - Ehase II

Professor.M.S. Krishnaswany, Messrs. K.V. Patel, and D.K. Narayana Reo

Sponsor: Ministry of agriculture, Government of India

This project is undertaken by the Institute in collaboration with the National Institute of Bank Management, Bombay. This is a follow-up of the benchmark study on the Management of Technological Change in Bry Farming areas conducted in 1971.072 in Bellary District of Mysore and Eanchaghals District of Gujarat State.

## nbjectives:

1. To induce selected farmers ia he seleced villages in two Aistricts to adopt a packase-an improve? practices (These practices haye already been evolved for the two districtis in the workshops conducted

- In Bangalore and Ahmedabad in Julv 1971:)

2. To study the nature and relative importance of factors facilitating or inhibining techolosicel chane.
3. To stuty the economics of adoption on the package of fimprove prectices and to evolve du elines for financins he adopion of new techolow by the farmera.

Data bat acion programe own Ey farn reseand.
project fron the paticipating farmers in wo selected viluges an
Bellary distmict have already been collected wor the harif suason. The data collection for the rab' seaso: in Bellary district will be completed by June 1973.

The follow-up of action progrene of tho ary farm research project coutd not be implenented in Parchanals discric: fo $1972-73$ because of sexious drought conditions:
6. Investigation into the Employmet Ponertial for he Utuskillen and Marginally Skilled in the Rural Sector

Professor S. Sambrani and Mr. B.S. Pahatr.
Sponsor: Ministry of Agriculture, Govenaent of India
Cbjectives: A supply and-denand analysis of specitic
Activities for providing employment in para-agriculural and
non-agriculbural sectors in the rural areas, with a, study or
cet. pax. factors affecting such a static analysis. This study will provide guidelines for formulating a dy namic policy.

Based upon the published census data and information collected from various goverment agencies, an index of progress in the various districts in Gujarat State was developed. On the basis of this index Panchmahals district was selected for study. A similar fndex was created for the caluka of Eanchmahals district. A sampling design was then evolved for the study. Data collection and discussions with officials and non-officials have been completed.

## 7. Modernising the Wheat Industry System

Professor K.K.S. Chauhan and Mr. N. Mohanan
Sponsor: Centre for Management in Agriculture, IIMA

## objectives:

1. To study the different types of wheat: flour mills, flour milling firms, and their role in wheat processing.
2. To examine critically the various integrated/integrable marketing functions performed by varlous flour milling firms such as procurement, assembly; transport, storage processing, and distribution.
3. To examine the new technological developments in the wheat flour milling industry affecting marketing functions, scale economies of different sized plants.
4. To examine the possibilities of moder nuation of the existing flour milling industry.
5. To explore the possibilities of diversifying the flour product lines of the milling industry and to produce consumer packaged goods.

A questionnatre for collecting data has been prepared. Data collection wlll start in May, 1073.

## 8. Agricultural Communication Through TV and Factors

 Affecting Loss of InformationFrofessor EM. Shingi and Kiss Bella Mody
Sponsor: Centre for Nanagement in Agriculture, IIMA

## Obiectives:

1. To investigate the nature of degree of information loss that takes place when the fermer views television programming.
2. To identify the factors responsible for this information loss and distortion, if any, viz.,
a) Source characteristics
b) Specific message characteristics of the two selected programmes
c) Channel (T.V.) Characteristics
d) Characteristics of the viewing situation in the village
e) Receiver (individual farmer-viewer) characteristics.
3. To suggest, based on this inquiry, ways and means to optimize agricultural television comiunication effectiveness, given the premifin olaced on conveying accurate timely information to large audiences for planned change efforts.-

Discussions were held with the TARI scientist-writers
of the two selected progranmes, their AR Krishi-Darshan
producer, and 103 famers. The data is being analysed.
9. Elanning and Implementation of Modernization Erograme in

Rice Processing Industry
Professor V.K. Gupta and Dr. E.V. Krishna
Sponsor: Centre for Management in Agriculture, IIMA

Dbjectives:

1. To identify the socio-economic problems in the process of modernization.
2. To assess the economic viacility of different stages of modernization.
3. To assess the economic performance of the modern units.
4. To identify the typical management problems in the selected modernized units.

A list of the modern rice mills in West Bengal and Grissa was collected and 15 aills were selected from them for the study. The field work was completed in February and March 1973.

## 10. Farm Zower: Characterisation of Trends and Prediction of Future Demand

Professor G. Sharan, Mr. D.P. Mathur, and Hss Maya Viswanath

Sponsor: Centre for Management in Agriculture, IIMA
Objectives:

1. To determine the avallable farm (mechanical and blological) nower level of the farms of typical sizes and growing typical combination of crops. The existing pattern of farm power use will be cheracterized by the total power used in a year, contribution of its three comnonents (men, cattle, and machines), and the year round distribution of power need.
2. To determine the factors affecting the substitution of biological by mechanical source of power. Later it will be ascertained if the forces acting as prime mover in the process of substitution are the same for all catetegories (size of holding and combination of crops) of farmers and act with the same intensity. In particular relationship between the level of farm technology and mechanization will be estisblished.
3. To describe the future behaviour of the above. factors and forces. It will be possible to predict the course of mechanization and estimate the rate at which the biological sources. (human and cattle) will be replaced by the machinical one. On the basis the potential fams which are likely to own a tractor or hire a tractor or denend entirely on the biological power will be identified and the denand for tractors (ownership, custom hiring) will be computed.
4. To determine the operationwise requirement of farm power for each crop combination.

Data collection was comoleted in February. 1973. The survey through structured questionnaires included a total of 150 farms drawn from three major crop zones of the State and five different sizes of holdings.

Keport writing and anslysis of the third zone data is underway.
11. Area Planing and Utilization of Ground dater liesources (Phase I)

Prof. C. Gopinath and Mr. P.i. Chary
Sponsor: Centre for Management in Agriculture, iIria

Objectives: 1) making quantitative assessment of the capacity and recharge conditions of acquifers and 2 ) The controi and regulation of numping from them so as to avoid over-exploitation.

The project visualizes undertaking studies in a "ground water watershed areat to:

1. Assess the capacity and recharge conditions of acquifers in the watershed.
2. Examine the present pattern of ground water utilization from the waterstied.
3. Prepare in an integrated manner plans for the optimum development of water resources from the watershed.

This oroject which is expected to illustrate area planning of ground water resources, will help us in arriving at better nanagenent decision with reference to ground water. utilization.
a part of the literature survey was completed.
12. A Study of the Kiver-Bed Yotato Bystem

Professor 2.S. George and mir. S.N. Choksi
Sponsor: Centre for Managenent in Ariculture, ilua

Obiectives: To study the economics of potato cultivation in the Sabarmati river-bed for understanding the total system. In particular, the study aimed at:

1. Understanding the production practices for potatoes in the river-bed.
2. Anelysing the patterns of storage, transportation, and disposal of potatoes.
3. Understanding some of the structurai aspects of the ihmedabad potato market.

The report is underrpreparation.
13. Patterns of Interaction and Communication in a Village Community

Professor V.K. Gaikwad and Mr. B.L. Tripathi
Sponsor: Centre for Management in Agriculture, MIMA
Qbiectives:

1. To get a deeper understanding of the village social system.
2. To understand the pattern of interaction and communication in a given social system.
3. To know the role of factors like caste and class in the patiern of interaction and commanication;

The report is being written.

In addition to these 13 projects initiated during the year, the faculty nembers had also prepared tentative outlines for the follows ng projects to be initiated in 1973-74.

1. Management of Agri-business System (Oil seeds)
2. Management of Agri-business System (ruits and Vegetables)
3. An integrated Area for Development Strategy with particular attention to the Neaker Section of the Society
4. Impact of Institutional. Einance on the Hoeiker Section of the Fural Sector
5. The Economic of Conjunctive Use of Ground and Surface Nater
6. Area Rlanning and Utilization of Ground Water Resources (Phase II)
7. Poverty, Social Change, and Management of Communication
8. Management Problems in Sea Food Processing and Marketing
9. Potential for Custom $\overline{\text { a }}$ iring of agricultural Machinery in Gujarat State
10. Gujarat Govemment Eroject on Agricultural Development Administration.

OTHER ACTIVITIES

## Seminar on Kural Development for Weaker Sections

This seminar was conducted at the Institute from October 1 to 3 , 1972 in collaboration with the Indian Society of Agricultural Economics. This was, attended by 26 eminent economists from different Universities and Administrators from the Governments. Dr. B. Mfnhas, Hember, Planning Comission; inaugurated the seminar and 2rofessor M. L. Dantwala chaired the seminar. Nany of the cha faculty members presented papers at the seminar and also actively participated.

The faculty members had also been making preparation for offering two programes - hice Mill Management riograme (KMR) and hgricultural Erogrammes Hanagenent (APM) - during 1973 summer. The rice Mill Manament trograme is to be offered in colladoration with iice Process Engineering Centre at Indian Institute of Technology, Kharagpur. The Agricultural Trogramme Management is organized in collaboration with the Lal Behadur Sastri Wational Acadeny at iwssorie for IAS probationers.

## PUBLICATIONS

The following publications were brought out by the

## Centre:

1. Production and Marketing Pattern of Paddy (a Study of Local and $i$ i h Yielding Varieties in West Godavari district by Frof. P.S. George and Dr.V.V. Choukidar
2. Consumption Battern and Preferences for ikice by Prof. D.S. George, Dr.V.V. Choukidar, and Mr. M. B. Dave.
3. Abstracts of Research Studies in Management in Agticulture (1966-72)
4. An Organization Study of the TCAK
by Profs. Kamla Chowdhry, V.K. Gaikwad, and S.K. Bhat tacharyya
5. Assessment of the kequirements of figh Yielding Seeds and the Develoment of the Jeed Industry by Profs. V.M. ksopa and D.K. Uesai
6. Opinion Leaders and Communcation in Indian : Villages
by Prof. V.R. Gaikwad, Mr. B. I. Tripathi, and Dr. G.S. Ehatnagar
7. 2lanning and Implementation of Financing Agriculture Through Area approach
by Prof. D. K. Desai and Nr. Hariprakash
8. New Opportunities in Changing Agriculture (Froceedings of the Seventh Alumi Conference, 1972)

## A Hote on kesearch Activity

The kesearch Comittee, after it was reconstituted in kovember 1972, decided to play a more active role in stimulation of the research activity. As a first. step in this airection, the committee identified ten toples for Investigation. These tonfcs were selected on the following considerations;

1. They are of considerable interest to policy makers in government and to managers in the industrial sector; both public and private.
2. Not enough research has been done on these topics.
3. Kesearch on these topics is ilkely to make substantial contribution towards develoment of new concepts, besides providing answers to practical questions.
4. Kesearch on these topics will require skills in many disciplines.

A list of these topics is given below:

1. State intervention in distribution of items for mass consumption
2. Fanagement of research and technology
3. Reporting and information for government agencies
4. Industrial management, employment, and technology
5. Policy and planning in selected govemment agencies
6. Cost competitiveness of India exports
7. Fianagement of planning in India
8. Growth and distribution of income
9. Inventory decisions in the public sector
10. Scheduling problems .

The faculty response far undertaking research on
these topics is satisfactory. Groups have been formed to formulate these problems in precise tems and to chalk out a course of action for resolving these problens.

The conmittee has also introduced a new technical renort series for enabling faculty members to publish their research findings speedily. one report by Prof. A. Ghose and Mr. Anand 3. Dhawle has been brought out under this series.

Two faculty seminars were organized by the committee to discuss the research work currently in progress. The papers presented in these seminars were:

1. Regional Develomment and Multi-level Planning: A Eroposal for Decentralization by Frof. S.K. Mukherjee
2. Organization of Knowledge and Information by Prof. A. Ghose and Mr. Anand S. Dhawle.

## Research Proiects

ds on March 1973, there are 25 ongoing projects
in hand. 0ut of these, 3 are "seed money" projects, 7 are sponsored by outside agencies, and 15 by the Institute. One project is under consideration of the comittee for financial assistance.

The Director and the Cnairman of the kesearch Comit tee have started a drive to obtaing grants from the industry for supporting the research activity at the Institute. The initial results have been encouraging. A grant of Ks. 10,000 from M/s kasiklal Maneklal, Bombay was received. Encouraged by this result, we are planning for an intensive effort during the coming year.

The kesearch Comittee consists of the following members:

| Prof. V.L. Mote | $\ldots$ | Caairman |
| :--- | :---: | :---: |
| Erof. G. Desai | $\ldots$ | Member |
| Prof. M. Kaghavachari | $\ldots$ | $"$ |
| Prof. B.G. Shah | $\ldots$ | $"$ |
| Prof. B.K. Sharma | $\cdots$ | $"$ |
| Prof. C.D. Wadhva | $\ldots$ | $"$ |

GERKINTS

The following reprints have been brought out:

1. Effect of Fittingriess, Type of Goods and Type of Slogan on Brand Awareness by Sasi hisra and Subhash Jain.
2. Concept of Planning: A Case Study by V.L. Niote and B.G. Shah.
3. Mapoing of Second-Generation Problems Related to Food Eroduction: Rice and wheat in India by D. K. Desai.
4. Government Securities Market in a Mized Economy: A Study of India by C. Kangarajan.
5. Union Involvement by E.R. Sharma.
6. Occupational Values and Li iness by B.E. Sharma.
7. Computers as Aids to Hanagement Decisions: Application to Linear Programming.by E:G. Shah and V.L. inote.

## CONS ULTING

The Institute permits limited consultancy to its faculty menbers to keep in touch with the problems of industry. The faculty undertook 31 consulting projects for Government, Public sector undertakings and Private industry during the year under report.

## RLACEMENT

In the graduating class of 1972-73 of the PostGraduate Programe, there were 100 students for placement. All of them have received one or morefitm offers. is in the past, there was a high preference for career opportunities in the Markpting area.

Erom 162 companies and organizations, 275 permanent olacement opportunities were announced. The job announcements in varlous areas were as follows:


## Summer Placement

There were 129 students (118 PGP and 11 FaA to be placed on summer assignments. This was the largest first year
class so far. It was possible to finalize the placement of all the first year PGR and Fba students about one month ahead of the tem-end examinations. Requests from many organizations for the first year students for summer assigninents had to be turned down.

PMA Placement

The response for permanent placement of the PM participants was quite encouraging. Dy the first week of April about half of the participants had received job offers and the rest weie expected to be placed before the Convocation. A summary of the placement activities as of April 1, 1973, is given below:
No. of students for placement ..... 34
No. of employers announcing jobs ..... 28
No, of jobs announced (approximate) ..... 59
No. of organizations which have visited the ofmpus for interviews ..... 12
No. of organizations which have calledthe students for final interviews after the5
campas iutertone tanu
No. of organizations which have called the students for off-campus interviews directly without visiting the campus ..... 4
No. of companies which have offered jobs ..... 7
No. of jobs offered ..... 17
No. of jobs accepted ..... 12
No. of jobs rejected/lost ..... 4
No. of jobs under consideration ..... 1
No. of organizations in which students have accepted jobs ..... 7
No. of organizations whose job offers are now in the pipeline ..... 14
No. of job offers in the pipeline ..... 12-15No. of organizations which are visiting thecampus for placement for the first time andrecruited the students or will be recruitingstudents.15

ALUMAI ACTIVITIES

## ALUMNI ACTIVITIES

The Eighth Annual Conference, was held in Bombay on March 9 and 10, 1973. Management of Industrial kelations was the conference theme. The topics covered in the conference were; 1) The Indian Indugtrial Worker and Industrial Kelations, 2) Economics of Industrial kelations, 3) Politics of Industrial kelations, and 4) Formulation of Industrial kelations Strategy.

The following faculty members from the Institute and guest speakers took part in the conference:

## IIMA Faculty:

Prof. Daldev R. Sharma
Prof. Pramod Verma


## Guest Speakers

Mr. R.K. Talwar, Chaiman, State Eank of India
Mr. Mahesh Desai, General Secretary, Hind Mazdoor, Bombay
Mr. L. C. Joshi, Laboar Adviser, Indian-ierchants Chamber,
Dr. B. K. , Madan, Chairman, Management Development Institute, New Delhi.
Mr. S.k. Mohan Das, Bombay
ifr. D. N. Khurody, Controller - administration, Larsen $\delta$ Taubro Ltd., Bombay
Mr. Vithal Chowdhry, Bombay
Mr. R.if. Krishna Pillai, Trivandrum
Mr. 2.K. Mukherji, Director (Personnel) I.C.I.(I) Put. Ltd., New Delhi

79 participants attended the conference.

## Alumni Activities Committee at the Institute

A new comittee consisting of the following faculty
neabers, was formed:

| 1. Prof. B.K. Hegde | $\cdots$ | Chairman |
| :---: | :---: | :---: |
| 2. MF. R.C. Chib | $\cdots$ | Treasurer |
| 3. Prof, P.S. Gearge | $\cdots$ | Member |
| 4. Trof. Keshay Prasad | . |  |
| 5. Mr. S. Sreenivas Rao |  |  |
| 6. Prof. B.R. Sharma |  |  |

## PGP Alumni keunion

The Second PGS Aluminieunion was held at the Institute on april 13 and 14, 1972. The two-day conference was organized in three sessiors as follows:

Session I: MBA in the Indian Business World - Career Development

Chairman: Dr. Kamia Chowdhry, IIM
Speakers: Dr. Kirit Parikh, Atomic Energy
Dr. A.P. Paul, DCM
Mrs. Dilnawaz Varaiva, Grindwell horton
Frof. B.K. Hegde, TMA
Session II: The IIMA Computer - Its Use in Business
Chairman: Prof. K. Balachandra, IIMA Speakers: Faculty, Conputer Centre, IIMA

Session III: The $A B A$ and the Community
Chairman: Mr. K.K. Coorlawalia, ACC
Speakers: Mr. K.3. Ganapathi, Atomic Energy
Mr. L. K. Bhandari
ifr. Tilak Shanker; A,F. Ferguson \& Co.

Mr. T. Satyanarayanan, L\& T
Fortynine alumi participated in the conference. The conference was followed by the Annual General Body meeting of the Alumni Association.

LIBRARY

This year 3,833 new books (bringing the total collection to 59,079) were added. Subscriptions to 51 new periodicals were entered, raising the total number of periodicals to 677. In addition, 75 periodicals were recelved as complementaries. A large number of backfiles of periodicals were ohtained, and a large number of corporations were contacted for acquifing their annual reports for filling up the gaps in the Instituters collection.

COMEUTER CENTHE

## Teaching

The use of computer was extensively made in various courses. The Production \& Quantitative Methods area offered two new computer-oriented courses; Simulation and Cybernetic Models, in the Rost-Graduate Prozrame. A course on MComputers and Information Systems" was also offered in the Fellow in Jusiness administration Programme. New computer oriented courses are also being developed in the Fellow in Eusiness Administration programme. About 10 sessions on computer programming were taught in the Post-Graduate Programme and Programme for Management in agriculture.

## Software Develomment

Basic Interpreter for TDC-12 8k machine was successfuily tested at Hyderabad in the second week of Febpuary 197. Basic for T T $10-1212 \mathrm{~K}$ and 16 K will be completed by the end of May 1973.

Software activities for improving (a) the facility of manipulating large data in Time Sharing Syster and (b) developing the Dru Operating System facility for large programes and deta banks have been identified.

The following reports were brought out by the Corputer Centre

## faculty:

1. TDG. 12 Simulator on HP-2116B Report I
2. An Aproach Towards Optimal Internal Representation of BASIC Statenents on TDC. 12 computers
N.R. Narayanamurthy Mohan Kauz
Mohan Kaul
IN.R. Narayanamurthy T.P. Rama Rea
D. Ranga Fao (EGIL)
J.G. Krishnayya
3. Sample Problems for Prograrmers

Rislii:Kumar
4. Study Tour Report \& Suggestions for rind Computer Centre

Mohan Kau1
N.f. Narayanamurthy
T.P. Rama Rao
D. Ranga Rao (EOIL)
6. TDC-12 Assembler on HP-2116B (HPEAL)

Mchan Kaul. D. Renga Rao (ECIL)
7. Analysis of Framed Structures
J.G. Krishnayya
P.C. Gupta
B. A User-oriented On-1ine Computer System J.G. Krishnayya to assist decision and analysis in threal developmeint planning.
9. Technological Choices in Developing.. J.G. Krishayya Country The Case of Airlines heservations.
10. Computerised Information ketrievil.
for Indian Airlines Flight Schedule
P.C. Gupta
11. Education for Information Systems
J.G. Krishnayye
J.G. Krishnayya Development

## Computer Usage

The following is the TS And DOS usage for the Computer Centre in various activities;

Time-sharing BASIC


Disc Operating Syster
Software Development $\quad$ \& 701 Hours

## LAND AND BUILDINGS

## Buildings

Work on the completion of the Main Complex continued during the year. It is olanned to complete the construction of the Faculty Block and two class room before the beginning of the next academic session.

Work is also in progress in finalising the requirements and design of a Kitchen-Dining Unit. The possibility of oroviding buildings for organising advance management programmes at Ahmedabad is being explored.

Land

Our request for provision of -additional land to IIMa is under active conṣideration with the Government of Gujarat:

## $A$ GEDDIX A

SOCIETY HEMBERS

Chaiman
Mr. S.L. Kirloskar Chairman Kirloskar Oil Engines Ltd'. Eoona

Members
Mr. J.J. Bhabha The Tata Iron \& Steel Co. Ltd. Bombay

Mr. R.3. Bhandari
Adviser (Finance)
Bureau of Eublic Enterrises
Government of India, Delhi
Dr. L. . . Chandrakant
Joint Educational Adviser
Ministry of Education Goverment of India Delhi

Mr. L.R. Dalal
Chief Secretary
Government of Gujarat
Gandhinagar
Dr. G.R. Dalvi
Executive Director
National Productivity Council Delhi

Mr. SM. Dudani
Secretary Government of India
Education and Labour De-t.
Government of Gujarat Gendhinagar

Mr. N.J. Kamath Joint Secretary Ministry of Industrial Development and Internal Trade
Government of India
Delhi.
Mr. Kasturbhai Lalbhai
Industrialist
Ahnedabad
Mr. Harshvadan Nangaldas
Chairman
Aryodaya Ginalng \& Mfg. Co. Led. Ahmedabad.

Mr. A. it. Mafatlal
MaEatlal Gagalbhai F Co. (F) Ltd: Bombay

Mr. J.J. Mehta
Chairman
Indian Eetro Chemicals Corpn. Ltd. Baroda.

Mr. Rohit C. Mehta Rajesi Textile Mills Ltol. Ahmedabad.

Mr. S.D. Nargolwala
FA (EA \& E) and Additional Secretary Ministry of Finance Delhi

Mr. Arvind Marottarn
Asoka Hills Ltd, Ahmedabad.

Prof. S. Eaul
Director
IIIfA
Mr. V.G. Rajadhyaksha Hindustan Lever Ltd. Bombay

Mr. M.K. Raju
India Pistons Ltd. Madras

Mr. Watwarlal Shah

## Chaiman

Gujerat State Road Trans ort Corpn. Ahmedabad.

Mr. C.E. Srivestava
Managing Director \& Chairman
Shipping Corpn. of India Ltd. Bombay

Dr. M.S. SWaminethan
Director General
Indian Council of Agrl. Research. New Delhi

Ahnedabad Jupitar $3 p g . \mathrm{Gvg}$. \& Mfg. Co. Led., Ahmedabad.

Mr. Mahendralal Kanaiyalal
Ahmedabad Kaiser-I-iind
Mills Co. Ltd.
Ahmedabad.
Mr. Ranesh Chandilal
Mr. Bipin Chandulal
Mr. D.R. Desai
Ahnedabad New Cotton Mills
Co. Ltd.s Ahmedabad.
Mr. Jaykrishna Harivallabhadas
Mr. Balkrishna Harivallabidas Anbica Mills Ltd.
Ahinedabad.

Mr. Chinubhai Manibhai
vir: Shrenik Kasturchai
Anil Starch $E$ roducts Ltd.
Anmedabad.
Mr. Surottan E . Hutheesing
Mr. Deeqak 3 . Futheesing
Aruna Mills Ltd.
Ahnedabad
Mr. Niranjan Narottam Lalbhai
Mr. Sidharth Kasturbhai
Arvind Mills Led.
Ahmedabad.
Mr. Harshvadan Mangaldas
Mr. Madanmohan Mangaldas

- Aryodaya $\mathrm{s} \mathrm{sg} \cdot \mathrm{E} \mathrm{Hvg}$. Co. Led.

Amodabad.
代r:Ajay Chimanbhai
Mr. Arvind Narottam
Asoka Mills Led.
Ahmedabad.
Mr. C.H. Ohoksy
Director
Asian Paints (India) E. Ltd. Bombay.

Mr. K.R. Coorlawala
Associeted Cenent Cos. Ltd.
Bombay.
Dr. N. S. Johary
General Manger.
Atic Industries Ltd.
Atul
Mr. R.E. Shah
Mr. I. .N. Shah
Bakubhai Anbalal Pvt. Ltd. Ahnedabad.

Mr. H.R. Batliwala
Mr. J.M. Guzdar
Bombay Dyeing \& Mig, Co. Ltd.
Bombay .

Mr. P.R. Heelakantan
Dy * Chairman \& Managing Director Brooke Bond India Ltd.
Calcutta
Mr. Suhrid Sarabhai
Mr. S.R. Bastikar
Financial Controller
Calico Mills Led. Ahnedabad.

Mr. M.V. Arunachalam
Carbonandum Universal Led. Medras

Mr. 3. Chandhuri
Comercial Mumger
Cienicals tatiores of India LUd. Bombay

Mr. Harshvadan Mangaldas
Mr. Madanmohan Mangeldas
The Aryodaya Ginning a Mfg. Co.itd. Ahmedabad.

Mr. Manubhai Bhikhabhai
Mr: Jayantilal Bhikhabhai
Conetcial Bhedabad Mills Co.Ltd. Ahmedabed.

Lala Charat Ram
Dr* - J. H . Thadani
Delhi Cloth feneral Mills
Co. Ltd., Delti.
Mr. C.K. Hazari
Vice Eresident
Escorts Letd.
New Delhi
Mr. D.J.R. Farrant
Managing Director Glaso Leqboratories Bombay

Mr. Shantilal K. Somaiya
The Godavari Sugar Milis Led. Borabay.

Mr. V.G. Rajadhyaksha Hindustan Lever Ltd. Bombay

Mr. S. Chaudhuri
Indian Explosives Ltd, Calcetta

Mr. B. Majundar
Indian Tube Co. Ltd.
Bomibay
Mr. 3.R. Bastikar
Kalol Mills Ltd. Ahnedabad

Mr. A.N. MafatlaI
Mr. Y. If Mafatlal
Mr. R.H. Mafatlal
Mr. E.K. Shah
Mafatlal Fine 3pg. \& Mfg. Co. Lto. Bombay

Mr. L.D. Vesa.
Mafatlal Gagalbhai \& Co. Pvt.Ltd. Bombay

Mr. J.3. Karkal
Manindra \& Mahindra Ltd. Bombay.

Mr. Ramanlal C, Farikh Mihir Tertiles Ltd. Ahnedabad.

Nr. Rasikhtal O. Nagri
Mr. Bansidhar $k$. Magri
Nagri Mills Co. Led.
Ahnedabad.
Mr. Raj Kochar
Mational dechinery Mfrs. Ltd.
Baubay.

Mr. M.N. Wadia
Mr. T.P. Parat
Mr. J.N. Guzder
National Peroxide Ltd. Bombay

Mr. R.J. Chinai
Managing Director
Mational Rayon Corpn. Ltd.

## Bombay

Mre V.C. Vaidya
New India Assurance Co. Ltd. Bonbay

Mr. Laxuanpresad D. Vasa
New Shorrock Spg. EWVg. Mfg. Co. Ltd.
ihmedabad
Mr. S.K. Agerwal
New Swadeshi Milis of thuedabad Ltd.
Ahmedabad
Mr. Fratap Bhogilal
Shree Ran Mills Charitable Trust Bombay

Mr. Gautan Shantilal Nanavaty
Mr. Gautambhe 1 J . Manavaty Nutan Mills Ltd. Ahmedabad

Mrs. Lilavati Lalbhai
Mr. Vijaysinh Chimanbhai Be".gur MEg. Co. Led. Amedabad.

Mr. B.V. Bhatt
Rajendra Dyeing \& Pring Mills Ltd. hhmedabad

Mr. Rohit C. Mienta
Mr. S.G. Dakwala
Rajesh Textile Nills Ltd. Ahnedabad.

Mr. Ravindrabhai Chinubhai Mr. Arvindbhai Chinubhai
Robit Mills Ltd.
Ahnedabad.
Mr. Sakarlal Balabhai
Mr. Tandkishore Sakarlal
Mr. Havnitlal Sakarlal
Sakarlal Dalabhai \& Co. Itu. dhmedabad

Mr. B.R. Deolalikar
Sarabhai Managenent Corpn. Ltd. Ahmedabad.

Mr. Navnitlal Shodhan
Mr. Saurabh Mavnitlal
Mr. Fendkishore Sakarlal
Sarangpur Cotton Hfg. Co. Ltd. Ahmedabad.

Mr. Chinubaai Chimanbhai Sheth
Mr. Ashok Chimanbhai
Saraspur ifills Ltd. athmedabad

Mr. Vadilal Lallubhai
Sayaji dills Ltd.
Ahmedabad.
Mr. Ben. Balasaria
Mr. S.K. Mundra
Shree Diguijay Woolen Milis Ltd.
Jamnagar
Mr. Handikhore Sakarlal
Mr Sarabhkumar Navnitlal
Silver Cotton Mills, Co. Ltd. Ahmedabad.

Mr. Suhrid Sarebhai
Buhrid Geigy Lta.
Baroda
Mr. AM. Mafatlal
Mr. Y.H. Mefatlel
M土 . R.B. Mefatial
Mr. Horsted A. Vase
Surat Cotton Sg. E Fg. Mills, Bombay


## APPEIMDIA E

DONOR MIGIBERS


National Rayons Corpn. Letd.
New India Assurance Co. Ltd.
New Shorrock Spg. \& lifg. Co. Ltd.
New Swedeshi Mills of Ahmedabad Ltd.
Nutan Mills Ltde
Raipur Mfg. Co: Ltd.
Rajendra Dyeing \& Erinting. Mills Ltd.

Rajesh Textile Mills Ltd.
Rohit Mills Ltd.
Sakarlal Balabhai \& Co. Ltd.
Sarabhai Management Corpr.
Sarangpur Cotton Mfg. Co. Ltd.
Saraspur Mills Ltd.
Sassoon Spg, \& Wvg. Mills Co. Ltd.
Saurashtra Cement \& Chemical Industries Ltd.

Sayaji Mills Ltd.
Shree Digvijay Foolen Mills Ltd.
Shri Ran Mills Charitable Trust

Silver Cotton Mills Co. Ltd.
Standard Mills Ltd.
Suhrid Geigy Ltd.
Surat Cotton Spg. Wvg. Mills (F) Ltd. Svadeshi Mills Co. Ltḍ.
T.V.S. Charities
T.V. Sundaram Iyengar \& Sons PvtiLtd.

Tata Chenicals Let.
Tata Angineering \& Locanotive Co.Ltd.
Tata Hydro-Electric Power 3upply Co.Ltd.
Tata Iron \& Steel Co. Ltd.
Tata Oil Mills Co. Ltd.

Travencore Rayons Ltcl.
Vikram. Mille Co. Lftd.
Voltas Ltd.
Warner Hindustan Ltd.

## Chaiman

```
Mr. S.L. Kirloskar
Chairman
Kirloskar Oil Engines Led,
Poona
```

Menbers
Mr. J.J. Bhabha
The Tata Iron \& Steel Co. Ltd. Bombay

Mr. R.M. Ehandari
Adviser (Finance)
Fureail of Eublic Enterprises Government of India, Delhi

Dr = L.S. Chandrakant Joint Iducational Adviser Ministry of Education Governmant of India! Delhi

Mr: L.R. Dalal
Chief Secretary
Government of Gujarat
Gandhinagar
Dr. Gire Dalvi
Executive Director
Netional Froductivity Council Delhi

Mr. S.M. Dudani
Secretary
Education and Labour Dept. Government of Gujarat
Gandhinagar

Pir. II.J. Mamath
Joint Secretary
Ministry of Industrial Dévelopment and Internal Trade
Government of India, Delhi
Mr. Kasturbhai Lalbhai
Industrialist
Ahmedabad
Mr. Hershvedan Nangaldas
Cheiman
Aryodaya Ginning \& MFg. Co; Ltd.
Amedabad
Mr. A. it Mafatlal
Mafatlal Gagalbhai E Co. (P) Ltd. Bombay

Mr.J.J. Mehta
Chaiman
Indian Petro Cheaicals Corpn. Ltd. Baroda

Mr. Rohit C. Mehta
Rajesh Textile Mills Ltd.
hinmedabad
Mr. S.D. Targolwala
EA (BA \& E) and Additional Secretary ininistry of Finance
Government of India Deihi

Mr. Arvind Narottam
asoka Mills Ltd.
Ahmedabad
Prof. S. Paul
$/$ Director
IIMA
Mr. V.G. Rajadhyaksha.
Hindustan Lever Ltd.
Bombay
Mr. M. K. Raju
India Pistons Ltd.
Medras
Mr. Matwerlel Shah
/ Chaiman...
Gujarat 5 tate Roed Transport Corpn. dhmedabad

Mr. C.P. Srivastava
$/$ Managing Director $\&$ Chaiman Shipping Corporation of India Ltd. Bonbay

Dr. M.S. Swaminethan Director General Indian Council of dagrl. Res. New Delhi.

Secretary
Mr. R.C. Chib
Administrative officer HMK

## Building Connittee

Mr. Kasturbhai Lalbhai *(Chaimen)
Mr. SM. Dudani
Erof. S. Paul
Mr. RsG. Chib (Secretary)

## Budget Committee

Mir. S.L. Kirloskar (Chaiman)
Dr. L.S. Chandrakant
Mri Kasturbhai Lalbhei
Prof. 3. Paul
Mr. S.D. Nargolwala
Mr: R.C. Chib (Secretary)

## Personnel Comittee

Mr. S.L. Kirloskar (Cheiman)
Mr. Kasturbhai Lalbhai
Erof. S. Paul
MI. V.G. Rajadhyaksha

Mr. R.C. Chib (Secretary)

## AFPENDIX D

FACUTTY AMD ADMINISRATION
(As on March 31, 1973)



```
IIR, Sheth
Ph.D. (Baroda)
F.M. Shingi
Fh.D. (I1 linois)
```

S. Sikdar
-تch. Zh.E. (I,I.T., Kaharagpur)
Kanti Swarup
Dh.D. (Deihi)

Dwijendra Tripathi
Ph.D. (Wisconsin)
R.L. Varshneya
H.E.A. (Delli)

Cert. I. G.A.K.E.
(stanford)

Framod Verma
Dh. ${ }^{\text {D. (ranches ter) }}$
M. ${ }^{\text {M. Vora }}$
M.B.A. (Pemsylvania)
(At Harvard D.B.A. Piograme)
C.D. Nadtiva

Ph.L. ( +ale)

## RESEARCH STAFT

```
Anila Govindan
V.今.T.V. Anjwneyulu
M.3c, (andhra
Anju Jerome
li.Sc (Gujarat)
Anurag
M. Stat. (I.S.I. Calcuttà)
S.C. mandyopadyay
N.N. Econ. (Jadavpur)
A.i. Sanerjee
i. Stat. SपQC (Dip)
(On Leave)
BiK. Barthakur
M.A.
3.R. Tasu
M.Sc. Agri. (B,T.U.)
Bella Mody
M.A. Communication (Pennsylvania)
P. Chakraborthy
M. Scat. (I.S.I., Culcutte)
P.1. Chary
S.Sc., B.Ed. (Osmania)
B.S. Chauljaig
N.Son (Agre)
i.A. (Jala\pur)
3.f. Cholshi
S.Sc. (Gujarat)
```

| P.V. Krishna <br> Fh. D(Andhra) | D. . . Marayana Rao H.A. (Andhea) |
| :---: | :---: |
| P.K. Kikani | V.K. Narayanan |
| E.Sc. Agri. (Saurashtra) | Dip. Dus, Adme(I, I.I.A.) |
| Madan Mohan | Meelima Rami |
| M.Sc. (I.A.R.I) | E.A. (Eombay) |
| D.F. Vathur | E.S. Pathek |
| M.A. (Rajasthan) | M.sce. Hori. (Mabarasitra Mrishi Vidyapeeth |
| Mayaviswanath |  |
| N.Stat. (I.E.I., Calcutta) | SM. Patel <br> B.Sc. Agri. (Anand) |
| Feenakshi Suncaram |  |
| E.Sc. (Madurai) | E.V. Patel $M, \operatorname{sn},(\text { Cujarat })$ |
| A.C. Mehta |  |
| E.Sc. (Youngstown State University) |  |
| 1i.\#.A. (Biyant College) | M.Sc. Agri. Gaurashtra) |
| T. D. Nehta | E.V. Patel |
| M-S. (I.T.T., Chicago) | M.A. Econ. (Baroda) |
| Mi.b.A. (Loyola, Chicago) |  |
|  | I.T. Patel |
| T. Mohanan | HiSc. (eujarat) |
| S. Cop. (M.C.R.E.E., Ee 1Bi) |  |
|  | JM. Patel (South Gujarat uni.) |
| 3. Mookerjee <br> M.A. (Calcutta) | K.Sc. Agri. (South Gujarat uni.) |
|  | J.J. Patel |
| s, Kundle | M.A. (3aroda) |
| M.A. (Delhi) |  |
|  | K.V. 2atel |
| T1. Naganna | M.A. (Earoda) |
| M-A. (Andhra) |  |
| M.A. (Delhi) | M.3. Patel |
| V. Hanboothiri |  |
| B.Sc. (Kerala) | H.T. Patel |
|  | M.EC. (Earoda) |
| A.V.S. Narayanan |  |
| M.sc, Agri. (Eanaras) | K.R. Pichholiya |
| (On Leave) | W.A. Econ. (S.F.T.) |


| Piyali Manale | E.C. Shukla |
| :---: | :---: |
| M.A. (Deihi) | N.3.W. (3arode) |
| K.s. Raman | Gurudev Singt |
| M. Com (Gujarat) | N.SC. Agri. (B.h.U) |
| H.R. Rane | Suri s.c. |
| M.A. (kernatak) | N.A. (Punjab) |
|  | Cert. Quan. Econ. (T.S.I. Dallii) |
| T.P. Rana Rao |  |
| M. Tech (I.i. ${ }^{\text {I }}$., Kanpur) | T. Suryanarayana |
|  | M.3c, Stat. (enchra) |
| H.R. Ravalji |  |
| B. Sc. Stat. (S.R. University) | Phillip S. Thomas <br> Dip. Bus. Adm. (I.I.M.A) |
| A.K. Saha |  |
| M. Stat. (Calcutta) | B.L. Tripathi ... |
| Dip. Comp. Sc. (i.S.I., Calcuttia) | M.A. Econ. (Rajasthan) <br> B. Ed. (Rajasthan) |
| J.L. Saha |  |
| M. Stat (I.E.I) | 3. Vastala |
| (On Leave) | N.A. ( $\mathrm{E}_{\text {H.U. }}$ ) |
| Seethelalshmi Venkataraman | Vabiz Dhanjibhoy |
| Mi, A. (Delhi) | Ni.A. (FCRDEAD) |
| Shanti Seth | S.F. Valvade |
| Zh. ${ }^{\text {c, (Lucknow) }}$ | 2h.D. (Gokhale Inst.) |
| Cert. Demography (Princeton) | Vijay Ehandari |
| R.r. Shain |  |
| M.sc. (Barods) |  |
| A.R. Shukla | S.K. Warrier |
| MoSc . | M.A. (Gujarat) |

## ADMINISTRATIVE STAPE

| R.C. Chib | C. Randoss |
| :---: | :---: |
| M.Sc. (Tech.) Penjab | B.Sc. Hons. (Bombay) |
| Administrative Officer | S.A.S. |
| and Secretary to the raculty | Accounts officer |
| S. Sreenivas Rao | S.V. Ramamurthy |
| M,A, (Osmania) | 3.Sc. (Madras) |
| N.A. (Syracuse) | L.L. ${ }^{\text {a }}$ ( (Delhi) |
| Manager (Publications') and | 'Admissions Officer |
| Member of the Faculty |  |
|  | S.K. Maraynan |
| P.K. Varkey | M.A. (Punjab) |
| Asst. Administrative Officer | Asst. Warden |

LIERARY STAFF

Anand S. Dhawle M.L.S. (Pittsburgh) Li brarian and Member of the Faculty

Jayendra F. Fandya
B.A. (Gujarat)

Lip. Lib.Sc. (Bombay)
Reference Librarian
R.M. Mehta
B.A.S Tiv: B. (Berodis)

Dip. LiD.sc. (Earoda)
Head, Catalogue Dept.

- APPERIX E

TACUTTY AN RESEARGI STAFF APPOTMMENLS

| Naize | Designation | Area/Project | Date of joining |
| :---: | :---: | :---: | :---: |
| Faculty |  |  |  |
| Dr. Dalip S. Swany | Professor | Economics | 16-6-1972 |
| Dr. Mirza Saiyadain | Asst. Professor | Organizational Behaviour Area | 10-10-1972 |
| Nis. Arun Maheswari | Asst. Professor | Maxiceting Area | 1-1-1973 |
| 险, Rakesh Khurana | Fracuity Research Associats | Marketing Area | 13-3-1973 |
| Research Staff |  |  |  |
| Mr. T.P. Rama Rao | Syatens <br> Progranmer: | ECIL Project | 14-4-1972 |
| 10. S.O. Bhatragar | Research Associate | Production \& Quantitative Methods | 1-5-1972 |
| Dr. Dinalar Rao | Reseerch Associate | Banking Studies Project | 12-6-1972 |
| Mr. B.T. Bhuva | Research Investigator | Farm Mech. <br> Project | 19-6-1972 |
| Mr. A. Parasuraman | Research Associate | Marketing | 26-6-1972 |
| Mr. A.K. Sharma | Research Associate | Organiarational Behaviour | 26-6-1972. |
| Mr. F.H. Parasara | Research Trvestigator | Farm Mech. | 28-6-1972 |
| Miss Kirtida Fandya | Research Assistant | Economios Area | 1-7-1972 |


| Mr. P.V. Desai | Research Assistant | Finance \& 4ccounting | 3-7-1972 |
| :---: | :---: | :---: | :---: |
| Mr. B.S. Chauhan | Research Assistant | Econories <br> Area | 5-7-1972 |
| Miss Maya Viswanathan | Research Assistant | CMA | 10-7-1972 |
| Mr. H.R. Ravalji | Research Investigator | Farin. Mech. | 17-7-1972 |
| Mr. S. Meenakshi Sundaram | Research. Investigator | Farm Mech. <br> Project | 19-7-1972 |
| Mr. J.C. Fatel | Research Investigator | Pural Elec. Project | 20-7-1972 |
| Mr. K.R. Baldania | Research Investigator | Farim. Mech. Project | 21-7-1972 |
| Mr. D. M. Patel | Research Assistant | Banking Studies <br> Project | 2/4-7-1972 |
| Miss Bella Modi | Research Associate | CMA | 1-8-1972 |
| Miss S. Vathsala | WAC Reader | Business Prolicy | 1-8-1972 |
| Mr. V.D. Desai | Research Investigator | REC Project | 3-8-1972 |
| Mr. Narayana Rao | Research Investigator | CMA | $4-8-1972$ |
| Mr. S. Mundle | Research Associate | CME | 5-8-1972 |
| Mr. E.aR, Pichholiya | Research Investigator | REC Project | 12-6゙-1972 |
| Mr. Srikrishna Srivastava | Research Assistant | Frod, and Quantitative Area | 12-6-1972 |
| Miss Vabiz Dhanjibhoy | Research Assistant | CMA | 16-3-1972 |


| Mr. Vishnu Nanbudiri | Research Investigator | Farm Mech. Proj. | 19-8-1972 |
| :---: | :---: | :---: | :---: |
| Mir. S. Girichar | Research. Associate | Marketing Area | 25-8-1972 |
| Miss Amurag | Research Assistant | Economics | 15-9-1972 |
| Mr. A.K. Mehta | Research Associate | Urban Water <br> Supply Systems Project | $28-11-1972$ |
| Mr. T. Suryanarayana | Research Assistant | CMA | '7-12-1972 |
| Mr. Vi.jay Bhandari | Fesearch Associate | Warketing | 13-12-1972 |
| Me. A. K. Saha | Computer <br> Progtamner | Economics | 18-12-1972 |
| Mr. P.K. Barthalaur | Research Assistant | Organizational Behavicur | 21-12-1972 |
| Dr. P.V. Kriahna | Researcla Associate | CMA | 28-12-1972 |
| Sir. V.G. Rao | Research Associate | Economics | 22-1-1973 |
| Miss Neelima Rami | Research Investigator | REC Project Cils | 12-2-1973 |
| Miss Anita Govindan | Research Assistant | Computer Gentre | 15-2-1973 |
| Mr. H.V. Patel | Research Assiatant | Managerial/ <br> Entrepreneur <br> Problem to Suall <br> Units Project | 1-3-1973 |

# APPENDX F <br> EACUIEY AND PESEARCH STAFE FESIGNATONS 

| Name | Designation | Area/Project | Date of leavjing |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Faculy |  |  |  |
| Dr. Kamala Chowthary | Senior | Organizational | 30-9-1972 |
|  | Professor | Behaviour Area |  |
| Ishwar Dayal | Sentior | Organizational | 16-1-1973 |
|  | Proifessor | Belaviour Area |  |
| Dr. G.R. Kulkarni | Senior | Eusiness Policy | 7-1-1973 |
|  | Professor | Area |  |
| Research Staff |  |  |  |
| Mr. J.B. Mathew | Research | CMA | 12-4-1972 |
|  | Assistant |  |  |
| Mr. Y.s. Shrimali | Research | Farm Mech. | 13-4-1972 |
|  | Investigator | Froject |  |
| Mr. F.M. Patel | Research | Socio-Economic | 14-4-1972 |
|  | Assistant | Survey Project |  |
| Miss Aruna Pradhen | Research | CMA | 15-4-1972 |
|  | Assistant |  |  |
| Mr. K.P. Ravi | Research | Marketing | $22-4-1972$ |
|  | Associate |  |  |
| Mr. Ambarish Kimar | Research | Marleting | - 20-5-1972 |
|  | Associate |  |  |
| Mr. S.C. Sharma | Systerns Analyst | Computer Centre | 31-5-1972 |
| Mr. M.S. Patel | Research | Perm Mech. | 15-6-1972 |
|  | Investigator | Project |  |
| Mrs. Banemi Hoy | Research | ESGR Praject | 30-6-1972 |
|  | Assistant |  |  |


| Mr. S:C. Ehatnagar | Research Associate | Production $\&$ Quilentititative Kethods | $s^{30-6-1972}$ |
| :---: | :---: | :---: | :---: |
| Miss Minal Rindani | Research Assistant | Socio-Economic Survey | 11-7-1972 |
| Mr. B.T. Bhuva | Fesearch Inves tigator | FtP | 14-7-1972 |
| Mr. B.S. Chauhan | Research Assistant | Tconomics | 17-7-1972 |
| Mr. R.S. Paul | Research Associate | CMA | 29-7-1972 |
| Mr. B.R. Bhatt | Research Associate | STP Project | 31-7-1972 |
| Mr. A. Fexasuraman | Research Associate | Marketing | 7-8-1972 |
| Mr. D.P. Srivastava | Research Investigator | CMA | 11-8-1972 |
| Mr. J.K. Hakim | Systems ; <br> Programer | Computer | 22-8-1972 |
| Mr. Parasara | Research Investigator | CMA | 29-5-1972 |
| Mr. R. K. Anend | Research Associate | Marketing | 31-8-1972 |
| Mr. G.J. Singh | Research Associate | Computer | 14-10-1972 |
| Mr. Srilecishna Srivastava | Research Assistant | Froduction \& Quantitative | 4-71-1972 |
| Mr. K.R. Baldania | Research Investigator | CMA | 2-12-1972 |
| Mr. M.B. Dave | Research Assistant | 6 Ma | $4-12-1972$ |


| Mr. S. Giridhar | Research Associate | Marketing | 15-12-1972 |
| :---: | :---: | :---: | :---: |
| Mr. VSTV Anjaneyulu | Research | Gris | 5-2-1973 |
|  | Assistent |  |  |
| Miss T.R. Sukumari | Research | CME | 1-2-1973 |
|  | Investigator |  |  |
| Mr. B.M. Fatel | Researich | CMA | 6-3-1973 |
|  | Irvestigator |  |  |
| Mr. V.D. Desai | Research | CMS | 21-3-1973 |
|  | Investigator |  |  |
| Mr. B.C. Patei | Research | CMA | 22-3-1973 |
|  | Associate |  |  |
| Miss Minal J. | Research | CMA | 1-2-1973. |
| Rindhani | Investigasor |  | . |

## APYEMDIX

## RESEARCH

One of the primary objectives of the Tudian Inatioune of Managenent, Ahmedabal, is research an contribution to kloniedge, in the fiel of mangenent. Members of the Institute ${ }^{1}$ g faculty are encouraged to un ertake research in areas of interest to then, the results of which are likely to coniribute to an improvenent in the concepts, tools, and practices of manaement. Furthex, the Institute undertakes research projects sponsored by outside agencies which are in line with whe research interests of the faculty.

The scope of research at the Institute is 0 or mean Inimited to the industry sector in the trantional sease, but encompasses all areas where managenent is relevant.

The Iollowing narrative briefly outlines the range of research profects which have been conpleted and are under way at the Institute during the year 1972-73.

REPORT ON RESGARCH
JULY 1972 - JU淢 1973

## I. RESEARGH COMPLETED

1. Acricultural T. V. Communication and Fgctors Af ecting-ioss of
Information
Prof. P. A. Shingi and Miss. B. Modi
Sponsor: $\begin{gathered}\text { Gentre for Management in Arriculture, } \\ \text { IIMA }\end{gathered}$
bbiectives:1) To investigate the nature and degree of information loss that takes place when the farmer views agricultural T.V.; 2) to identify the factors responsible for this information loss and distortion, if any, e.g. characteristics of the (a) source, (b) inessage, (c) channel - T.V., and (d) viewing situation; and 3)to suggest ways and means to optimize agricultural T. T. communication effectiveness.
2. As eessment of the Requirement of High

Yielining Seede and he Developinent
of Seed Industry
Profs. V. M. Asopa and D.K. Desai, Mr.D.P.Mathur, P.B.C. Patel and Miss. Aruna Pradhan Gronsor: National Commission on Agriculture
Objectived: The main purpose of the project was to assess the requirements of seed of HYy and hybrids of major cereal crops at a future point of time - 1985and then to indicate strategies for the development of the seed industry so that it can efficiently meet the estimated denand. The study was limited to five major cereal crops - wheat, pady, majze, bajra and jowar.

## 103

## 3. Consumption Pattern and Preferences for Rice

Prof, P.S. George, Mr. V.V.Ghoukidar, and Mry M. B. Dave

Sponsor: Ministry of Food and Agriculture
Objectives: 1) To study the food habits and consumption pattern of rice consumers; 2) to analyse the sources of market information available to rice consumers and to assess their mass media habits; 3) to study their attitude towards the consumption of $\mathrm{m} Y \mathrm{~V}$ paddy and to understand the consumers' perception of varietel characteristics; and 4) to analyse the correspondence between the consumer preferences and the use pattern of different varieties of rice.

## 4. Durable Gooda: An Fxploratory Study of Consumex Bohaviour

Prof. Subhash C. Mehta

## Sponsor: IIMA

Obiectives: 1) Studying the ownership pattern of consumer durables in different economic and social segments of the population; 2) identifying consumer priorities in the purchase of household durables and examining their immediate intentions for the acquisitions of other durables; 3) delineating the market segments which offer ready potential for different types of consumer dur ables; 4) studying the replacement pattern of conaumer durables as to product life expected and attitude towards obsolescence; 5) examining the brand awitching behaviour of the consumer in regard to replacement demand; 6) investigating the product lines where consumers are upgrading their purchases and going in for higher priced models; and 7) studying the consumer attitudes towards hire-purchase and other credit schemes.
5. Dynamics of Growth in Fertilizer Use at Micro Level

Prof. Gunvant M. Desai, Mr. S.C.Bandyopadhyay and Mr. P.N. Chary

Sponsor: Ministry of Food and Agriculture

Objectives: To gain as complete an understanding of the forces behind growth in fertilizer use as possible by analysing fertilizer practice of a sample of cultil vators for three continuous years.

## 6. Growth of Fertilizer Use in Districts

findia: Performance and Policy
Implications
Prof. Gunvant M. Desai and Ar. Gurdev Singh
Sponsor: National Commission on Ariculture
Obiectives: 1) To analyse available districtwise fertilizer use data, and bring out the main features of growth of fertilizer use in various districts from 1960-61 to $1963-69$; 2) To examine the past growth patterns of fertilizer use by grouping districts according to major agro-climatic characteristicts; and 3) To seek for possible explanation behind slowing dow of growth of fertilizer use during 1969-70 and 1970-71 by identifying the districts which were responsible for this phenomeron.
7. Joint Sector: Policy Guidelines

Profs. S.K. Bhatiacharyya, S.C. Kuchhal, and Samuel Paul.

Sponsor: IIMA
Qbiectives: To examine the policy issues arising out of the need for the Government and private business with divergent interests to work together in managing an enterprise which will have important organizational, financial, and socio-political implications.
8. Opinion Leaders and Commuication

## in Indian Villages

Prof. V.R. Gaikwad, Mr. B.I. Tripathi and Mr. G.S. Bhatnagar

Sponsor: Ministry of Food and Arriculture
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$\therefore 105$

Qbjectives: The study was conducted in Raipur District (M) during Warch 1970 - June 1970. The objectives of the study were: (1) to understand the viliage setting and agricultural setting, (2) to identify the sources of information used by farmers with respect to agricultural innovations, (3) to understand the ieadership structure and its influence on inter-personal communication. The ctudv yas conducted in two phases.
9. Pattern of Social Interaction and

Communication in an indian
Villiage
Prof. V.R. Gaikwad, Mr. B.I. Tripathi
and S.M.S. Haque

## Soonsor: Centre for Management in in Agriculture, ITMA

Qbjectives: The study was conducted in Raipur District (MP) during October to December 1971. The objectives of the study were 1) to understand the leadership structure in the village community, 2) to get a deeper understanding of the pattern of social interaction and commuication among farming families.
10. Planning and Tmplementation of

Financing Agriculture through
an Area Approach
(A Case Study in Bihar State)
Prof. D.K. Desai, Mr.D. A. Patel and Mr. Hari Prakash

Sponsor: Ministry of Food and Ariculture
Obiectives: 1) To understand the process of planning and implementing the financing of on agricultural development project through an area approach, and 2) to identify problems at each level of decision-making.

## 11. Rice Economy of India

Frof. P.S. George, Mr. V.V.Ghoukidar, and Mr. M. B. Dave

Sponsor: Ministry of Food and Agriculture
Obiectives: To analyse the dynamic factors influencing the paddy-rice system for understanding the current position of the industry and analysing the factors responsible for the present sitatus.

The specific objectives are az follows:

1. To analyse the changes in area, production, and productivity of padiy in different states and to identify the role of various inputs, price policies of peddyls and the high yielding varieties progremme.
2. To analyse the contribution of changes
in area and productivity in increasing the total production of paddy.
3. To review the current state of post-harvest technology for identifying possible areas that might contribute towards higher rice output through increased efさiciency at each 2evel.
4. To analyse the market transactions, especially procurement of paddy, distribution of rice, and interstate movenents.

## 12. Pural Social Structure and Comanication in an Indian Village

Prof. V.R. Gaikwad, Mr. B.L. Tripathi and Mr. S.M.S. Haqúe

Sponsor: Ministry of Food and Arriculturo

Objectives:1) To understand tho role of opinion leaders, 2) in the communication of information pertaining to an innovation in an Indian village communty, and 3) in decision making process associated with the adoption of an innovation.
13. Sabarmati River-Bed Potato System

Proi. P.S. George and vir. S. N. Chokshi
Sponsor: Ministry of Food and Agriculture
Obiectives: 1) To underetand the production practices of potatoes in the river-bed; 2) to analyse the patterns of storage, transportation, and disposal of potatoes; and 3) to understand some of the structural aspects of the Ahmedabad potato market.
14. Effectiveness of Fost-Graduate Frogramme

Prots, B.K. Hegde, Baldev R Sharma, and
C.N.S. Nambudiri

Sponsor: ITMA
Dbjectives: To find out (a) how well have our graduates been able to do in their first fev years or monthe, both as viewed by themselves and their employers? (b) what are the main problems our graduates face in typical work sitations? (c) what is the experience of the companies which have employed our students? and (d) what improvements can be made in terms of the programase content and/or the methods?
15. National Loan Scholarship Schome
with special reference to
Gujarat State
P.of. S.G. Kuchhal and Dr. S. P. Valavade

Sponson: Indian Gouncil of Social Science Research

Objectives: Preparation of a synopsis of major research findings anc the methodology used in alministration of the National Loan Scholarship Scheme in
Gujarat state.

## II. RESEARCH IN PROGRESS

## 1. Apienation and satisfaction on the Job

Profs. Sasi Misra and Ishwar Dayal

## Sponsor: IIMA

Objectiyes: This study attempts to make a conceptual distinction between job satisfaction-dissatisfaction and job involvement-alienation by drawing upon two influential theories (Maslow Vs Herzberg et.al.) of human motivation 1) work. The following hypotheses are being tested: the ratio of job-invower to higher organisational levels, tend to incresse. 2) For the job-alienated employees will every level, the importance job-involved employees at (nature of work, recognince of job content factore greater than the jobognition, achievenent) wili be company policy, etc.) content factors (working conditions, the job alien ted employees reverso will be true for
the higher order needs (ego and self actualization) will be felt more strongly then the lower order (basic and security) desds: The reverse will be true for the job alienated employee. 4) For the job involved employee, the degree of eatisfaction (or dissatiafaction) experienced on the job will be greater when the job fulfills (or frustrates) their higher order neede (ego and self actualizatfon) than when it fulfills (or frustrates) the lower order (basic and sacurity) needs. The reverse will be true for the job alienated employees.

## 2. Bus Seheduling ProbIem

Prof. V.I. Moto and Mr. J.L. Saha

## Spongor: TIMA

Objectives: To devise an algorithm for optimum scheduling of buses. The problem has been formulated as a problam of obtaining minimal decomposition of an acyclic set.

Two papers based on the work have been completed.
3. Gitrus Fruits:

A Micro Study on Agribusinese Structure
Prof. P.S. George, Mr. V.V.Choukidar, and
Mr. P. Chakrabor ty
Sponsor: Ministry of Food and Ariculture
Obiectives: 1) To study production aspects like input use and adoption of the package of practices in the cultivation of the three citrus fruit crope, i.e., sweet orange, mandarin or ange, and limes; 2) to identify the reasons for growing specific varieties of each of these fruit crops in the selected regions; 3) to study the factors responsible for the changes in the area under different varieties of citrus fruits in the selected regions; 4) to understand the marketing aspects of citrus fruits in the major outlets and to examine the price spreads at different levels; 5) to analyse the processing facilities available for utilizing these varieties for understanding the cost structure, efficiencies, and utization of capacities; and 6) to understand the rural and urban consumer's reaction towarda fresh and processed citrus fruits.

Tabulation and processing of data is in progress.

## 11

## 4. Gultivatoret Experience with FYVs of Cotton

Prof. Gunvant i. Desai, hr. Gurdev Singh, and Mr. S.C. Bandyopadhyay

Sppnsor: Ministry of Food and Acriculture
Objectives: To analyse cultivatorts experience of growing Hybrid-4 variety of cotton in Sabarkanta district of Gujarat.

Data is being processed.
5. Development of Committed Vork=
force in Tndie
Prof: Baidev R, Sharma
Sponsor: Indian Council of Social
Sotence Reasarch
Objectivest The scope of the project is to study, among other things, the iapact of work techoology upon commitment of industrial workforce. The sample of firms included eight factories -- four in the Western region and four in the inth.

The first draft of the report is ready.
6. Economics of the Indian Cement

Industry
Prof. G.S. Gupta

## Sponsor: ITMA

Objectives: The study encompasses the following aspects of the cement industry: 1) Causes of regional imbalances in demand and supply, including the impact of controls on location; 2) production function, return to scale, elasticity of factor substitution, and factor productivities; 3) cost function, production comomios of scale, optimum plant (firm) size and concentration ratio, size-cost relationship, and cost-price relationship;
4) demand function and demand forecasting; and
5) efficiency in Indian coment industry versus efficiency in some foroign (Pakistan, if permitted by data availability) cement industry. (The overall efficiency of the Indian cement industry and of the factors governing it in the light of the problens facing this industry will be sturled.

Data has been collected. An article on ${ }^{n}$ Production Function and Factor Productivity in the Indian Cement Industry" was published in the Indian Journal of Induatrial Relations, VIII, 3, January 1973, anc a preliminary report on the demand for cement in India is ready.
7. Entrepreneurial/Managerial Problems of Small Units

Prof. F. N. Pathak, Miss. Vabiz Nanjibhoy, Mr. H. V.Patel, and Mr. H. T. Patel

## Spongor: Industrial Development Bank of India

Objectivies: Small scale units enrolled with the Director of Tndustries during 1967-71 are to be studied in terms of 1) inception atage and 2) aperational stage. The problen they face offer an insight into three major areas of industrial development, viz., l) growth of entreprenurship, 2) management of emall enterprises, and 3) policies relating to industrial development. The problems are being studied on the basis of a $10 \%$ sample in selected districts of Gujarat.
8. Impact of Mechanization on the

Productivity and Employment
in_Guiarat-State
Prof. D.K. Desai, Prof. C. Gopinath, Mr.S.K.Basu, Mr. R.S. Chauhan and others

Sponsor: World Bank
Doiectives: 1) To investigate into the profitability of tractor farming in relation to the investment on tractors, 2) to find out the impact of tractor utilization on employment of hirea labour on firms, and 3) to find out the impact of tractoritation on agricultural labour employment in the village or the area of operetion of the tractors.

Final report will be ready by 1974.

## 9 Industrial Relations inc Metal

Based Industries
Prof. Pramod Verma

## Sponsor: IIMA

Objectives: Conderstand the behaviour of workers and management in the context of industrial relations. Five medium sized engineering firms in Ahmedabad and Baroda were chosen for the study. A sample of 80 managers end 280 morkers was covered by this study.

The report is being written.
10. Location of Industrial Estateg

In and Around Ahmedabad
Profs. D.S. Swamy, G.S. Gupta and P. M. Misma
Spgnsor: Gujarat Industrial Development Corporation

Obiectiveg: To work out the size of industrial estate and the pricing policy so that the sheds can be sold to private industriaiists at minimum cost in time and otherwise to GInC. This will involve studying the industrial potential of Ahmedabad forecasting the number of units, the type of units, and their sizes. It will alco involve ettimating the. required infra-structure facilities for the proposed industrial estares.
11. Managenent of Industrial Conficict

Prof. N.R. Sheth and Mr.Padmanabh K. Toshi

## Sponsor: IIMA

obiectives: To understend the nature of conflict in an organization, the point of departure being a major strike. The intention is to examine the various factors contributing the labourmanagement tensions over a period, culminating in the break-down of $\ddagger$ ndustrial relations. An attempt will be made to relate the conflict to the various forces operating inside as well as outside the organization.

The report is being written.

## 12. Network Computer Model ror <br> Urban Water Supply <br> System

Frof. S.K. Milcherjee and Mr. Ashok Mehta

## Sponsor: IIMA

Qbifctives: 1) To develop a computerized network model for urban water suply system; 2) develop a methodolagy based on network flow theory to optimize the design of such a system on a least annual cost analysis; and 3) illustrato the mathodology on a particular city (Ahmedabad).

## 13. Occupational Vnues and Professions

Proí. Baldev. $\mathrm{A} . \mathrm{Sharma}$ and Mr. S.K. Warrier
Sponsor: Indian Council of Social Science Research

Objectives: To examine the socio-economic background of studente undergoing training in difforent professions in India and the process of entry into. different professions. The major focus will be on invectigating the ocoupational values of students entering different professions. The findings of this study are expected to provide insights which should help better menagerent of professional education in the country.

Library research and data collection is in progress.

## 14. P\& MIS Project

Profe. S.K. Bhattacheryya, and J.C. Gamillus, and in. P.S. Thomas, with M. N.K. Sinha of P

Sponeor: Posts $\hat{Q}$ Telegraph Dopartment
ybjectives: Management development through introduction or a planning and control system in Telecommication Sranch.

The firet phase report has been submitted.

## 15. People End_Productivity

Prof. Baldev R. Sharma

## Sponsor: IMA

gbjectives: To analyse data alreary collected from a large public sector corporation regarding ths failure of its incentive bonus scheme.

Library research and analysis of data is in progress.

## 16. Scheduling Algorithms and Rate Structures for Time Sharing <br> Systems

Profs. Mohan Kaul and Emar Kalro
Sponsor: IIMA
Qbjectives: To study through simulation the optimum allocation of the processor resources to the list of jobs demanding processing and to determine the effecte of introducing 1) priority levels of jobs, 2; size (long and short) of the jobs, 3) variable quantum lengths of services to jobs, 4) study and formulate a rate structure for the various jobs in viev of 1), 2) and 3).

The design of the simulation model and programing of 1), 2), and 3) has been completed. Approximately 30 simulation runs have already been completed and the data is being analysed.
17. Trade Union System of Organization

Prof's. Ishwar Dayal and Baldev F. Sharma
Spongor: Intian Council of Social Science © Research

Objectives: To gain deeper insighta int the functioning of trade unions as social syatems. The study was conducted through interviews of trade union leaders and of rank-end-file members in and around Bombay. The unions covered were FMs and INTUC.

The report is being written.
18. Optimal Size and Use of Factors in

Seleoted Indian Industries
Prof. P. N. Misra
Sponsor: IIMA
Objectives: The project aitus at analysing eqpirically the structure of firmb/industries under the most general. situation when imperfections preveil simultaneously in product and $f$ actor maritets. The measured structure will then be used to work out optimuer size of profit marimising firms. Optimur levels of labour, capital, and product price will be obtained at the same time.

The report will be ready by September 1973.
10. Study of Framework Structure and

Funding of Technical Education
System in India
Profe. Mohan Kaul, S.C. Kuchhal, and Kamla Chowdhry
Spongor: Planning Gommission (Education Ii ision)

Objectives: The project would involve the atudy of the institutional fremowork of tachnical education and the linkages of planaing technical education at the National, State and Institutional levels; the relationship between technical institations and the Government agencies both at State and Central; the relative probleas of funding of technical education and its allocation at Centre, State and Institutional levels; and the inter-faces between the different agencies concerned.

The report will be ready by July 1974.
20. Stratesy for Fany panning in the Moustrial Sector in Iadia
Profs. S. Paul, G.N.S.Nambudiri, and Baldev R. Sharma

Sponsor: Fanily Planning Foundation
Objectives: The main purpose of the study is to formulate a strategy which will enable the Indian Indastrial sector to play more effective role in promoting family plaming among incuatrial workers. The research 㘹thodology includes (1) review of published literature on the subject, (2) interviows of key informents, ( $\%$ ) conduct of case g tudies of . selcted industrial units, and (4) study of selected organizations, active or potentially capable of being active in the family planning programe. Data thus $g$ gthered will provine the basis for formulating a national strategy for the family planaing programe in the industrial sector.

Library research is in progress.
21. Rural Unemploygent

Prof. Shreekant Sambrani, Mr. B.S. Pathak, Mr. M.K. Shah, and Mr. Pichnoliya

Sponsor: Ministry of Food and Ayriculture

Objectives: $\quad$ ny programe for the elimination of poverty must concentrate on tackling the rural mployment situatiiion on an urgent basis. The proposed study can be seen as a aupply and demand analysis of specific activities for provid ng employment in para-agricultural and nonegricultural sectors in the rural areas, with a study of cet par factors affecting such a static analysis. It is proposed at present to look at three general areas of works, where employment does not require a high degree of skills. These are: a) housing construction - both for private needs and for infrastructure, such as school houses, b) soil conservation, and c) sirking wells, both surisace anci tube. The finct part of deta collection will be demand for amployinent. The second partwill be espentially a costbenefit atudy of the three types of works mentionerl above. Simultaneously, it can be determined if there will be any a;gravation of existing bottlenecks, both anong the matefials and the skills required for such programes. It will also be possible to forecast new botthenecks that may arise due to the exectution of the programmes and ways could be devised in advanco to avoid them. lhe last part of the data collection will be about gauging the demand for such activities and means to etimulate this demand.

The report will be ready by Jetober 1973.

## III. SEED MONEY PROJECTS COMPIETED

1. Compaterised Survey of Literature for Regearch
(Prof. A. Ghose and K. A.S. Dhawle)
2. Drug Price Control : An Analyoia
(Profs. V.L. Mote and H.N. Pathak)
3. Personnel Practices in Industrial Organizations (Prof. Arun Monappa)
IV. STED MONEY FROJEGTS IN PROGRESS
4. Blow of Funde (Prof. D.S.Swany)
5. RAgional Development and Miti-Level Plenning: A Proposal for Decentralization (Prof.s. A. Makherjee)
6. Role of Comporate Boards in Indi三 (Profg.C.N.S. Nambudiri, and C.K. Prahlad, Mr.K.S.Raman, and Mr. V.K. Narayanan)
7. A Study of Negotietion Behoviour (Prors. Sosi Misre. and Amar Knlro)

## 118

## PUBLICATIONS TE THE ITMA FACULTY AND STAPF <br> July 1972 to June 1973 <br> BOJKS AND MOROGRAPHS

Asopa, V.N.; and Desai, D.K. Assessment of the Requirement of High Yielding Beeds and the Development of Seed Industry. Amedabac: Centre for Management in Ariculture, Indian Institute of Manafement, 1973.

Desai, D.K.; and Frckesh, Fari. Flaning and Implementation of Financing Agriculture Through an A A Appoach: AGase Study in Bihar State. Ibid., 1973.

George, P.S.: Choukidar, V.V.; and Dave, M.B. Consumption Patterin and Preferencefor $\mathcal{H}$ ice. Ibid., 1972.
 Eystem. Ibid., 1sph.

Kuchhal, S.C. Fingncial Management: An Analyticgl and Conceptual Approach, znd edn, illahabad: Chaitanya Publishing House, 1973.

Wadhua Gharan D. Some Froblems of Ingia's Economic Policy. Bombay: Tata McGraw-Hill, 1973.

Choukidar, V.V.; and George, P.S. Modernization of PadayRice Syster and the Challanges Aheat," Indian (Aprisil of Aricultural Economics, XXVIT, 1972 ), $14-34$. Farmers," Ingian Journal of IXtension Education, VIII, 3 an 4 ; ( $\mathrm{Geptemben}-\mathrm{Decenber} 1972$ ), $40-53$. - "The Farmer and the figh Yieldine Vrieties Programe: An Assessment of Knomled;e, Attitude, and Adoption Behaviour," Sgriculture and AgroIndustries Tournal, $V, 11$, (Novenber 1972), $3-8$.
Desai, B.M.; and Desai, D.K. "Parm Production Oredit in Changing Agriculture, " AgricuItural Devejopment Gountries Congarative Experience, ed. M. Dantwala. Bombay: Indian Society of Agricultural Economics, 1972. pp. 196-204.

Desai, D.K.; anci Prakash, Hari. "Indicators of Change in Agriculture 1961-71," New Opportunities in Changing Aericultuce. Ahmedabad: Contre for Management in A ricuiture, Indian Institute of
Managoment, 1973 .

Desai, D. K. "Intensive Amriculture District Programme Analysis of Resulta, ${ }^{\prime}$ Readinge in Indian Agriculture Develoment, ed. Pramit Ghouchuri. London: George Allen $\&$ Unwin/EIackei (India), 1972, pp. 14 : -154 .



Desei, G.M. "Ertending Markets for Arricultural Inputs," New Deportunities in Changing Agriculture, Ahmedabad: Contre for Management in Arriculture, Indian Institute of Management, 1973.

George,p.S. MDevelopmeat of Rurbl Markets in India," Indiar Jurnal of Marketine, II, 5 (Tanuary 1972), 9-11. - "Approaches to Denanc Projection for Food Series Io.XI. Borbay: Indian Society of A ricultural Econonics, 1972.
 Marketing by Dent and Ancerson," Indian Journal of Agricultur al Economice, MXVII, 3 (July-September 1972), 87-89.
$\qquad$ . "Role of Prices Spreads in Deternining Ari-

- Cultural Price Polioy, Agricultural Situa
. "Consumerig Response to High Hielding V rieties of Rice," Comunity Development, and Panchayat pai Digest, IV, 3 (January 1973), 127-138.
- "Opportunities in Food Processing," New Oportunitios in Changing Arriculture, Ahmedabad: Contre for Managenent in friculture, Indian Institute of Managenent, 1973.
. and Choukidar, V. $\bar{V}$. "Modernization of Paddy-
Rice System and the Ghallengee hhead, " (For details, see under Choukidar.).

Gupta, G.s. "A Protottype Model of Bank Creatt," The Indian Economic Jurnel, XIX, 4-5, (hpril-June 1972 ), 515-527.

- Money Supply Determinants and Thoir Relative Contribution to Honetary Growth in India," The Indian Eoonomic E-view, VII, 1. (1972), 33-52. . "Production Punction and Factor Productivity in the Indian Cenent Industry," Indian Inurnal of Industrial Melations, VIIT, 3, (January 1973) 359-385.
$\qquad$ . Ond Rangarajan, C. "The Denane for Financial Assets - A Etudy in Relation to Bank Deposits," Prajnan, National Institute of Bank Management Publication, II, 1 (January-March 1973).

Isac, A. M., et.al. HAnalysis and Development of Curricula in Tnormation Science: A Comparison of Curricula in Information Science and Those Prescribed by the Delphi Method, "Mangagent Informatice, II, 1 (1973), 1-6
Kalro, Anarlal. MConoents on Economic Ordering Frequency for Two Items Jointly feplentshed by Frank T. Shu," Managenemt Ecience, XVIII, 12 (August 1972) B732-8733

- and Misra, Sasi. "Simulated Orgenizational Choice: A Study of Post-Decision Dissonance and Self Perception," Journal of ipplied Psychology, 56, 6 (December 1972), 461-466.
. "Salience of Job Instrumentality Factors in -.................e-and Post-Decision Organizational Choice," Indian Journel of Inductrial Relations, VIII, 3 (January 1073), 407-413.
Mehta, S.G."Bank Marketing: Text enc Cases," Prainen, I, 3 (July-septamber 1972), 287-290.
 September 17, 1972. . "Brand Name Influence on Furchase Prefaronce, i The Economic Times, August $14,1972,5$ and 7 ."Some Consideraticns in Selecting Brand Names," The Einancial Express, August 29, 1972. Garalane Buying Behaviour of Car Iwners," PLanned Solling, VIIT, 4 (April 1973), 23-25 and 32.
. "Gonsumer Durables: Poor Penetration in Villages-- -1 Survey of Rural Tenil Madu," The Economic Times. TII, 117 (July 1, 1973), 4 and 6 .

Misra, Sasi; and Kalro, Amarlal. MSimulated Organizaitional Choice: Post Decision Dissonsnce raction and Self Parception," (Tor details, see under Kalro.)
. "Salience of Job Instrumentality Factors in
$\qquad$ Pre-and Fost-Decision Organizational Choice, ${ }^{\text {a }}$ - (For details, see under Kalro.)

Mohanan, N. "Rural Employment I \& II, " The Financial Express, XII, 136 and 137 (July 24 and 25,1972 ): 3.


. "The Small Frmer and Gubsistence Eonomy," The Times of India, thmorabud edn. The Annual Supplenent, (February 6, 1973), 32.

Pathak, $\mathrm{H} . \mathrm{N}$. "Where $^{\text {are }}$ ar Entepreneurs? " Yoiana, XVI, 21 (November 1972), 873-74.
."The Entrepreneur, Technician, and Manager in Smali Scale Unite," Economic and Political Weekly, VII, 48, (November 25, 1972).
. "Entrepreneurial Training: Certain Basic Issues, Young mliance, (Journal of National alliance of Yome Entrepreneurs), V, 1 (January 1973), 14-15 and 1s:

Paul, Samuel. "Housing Policy: $A$ Cese of Subsidising the Rich? Economic and Political Weckly, VII, 39 (Soptember 23, 1972) 1985-1990.
......... "Joint Sector: Guidelines for Policy," Ibid., VII, 50 (Decetber 9, 1972), 2:15-2129.
-and Wadhva; C.D. "The Doller Devaluation and Incie's Balance of Payments," Ibio., VII, 10, (March 10, 1973), 517-522.

Raghavachari, M. "i Noto on the Pareto Distribution," Metrika, XIX, 1972 Fasc. 1 (1972), 76.
… ............... "Limiting Distributions of KolmogorovSmirnov Type Statistics Tnier the internative, " The frnals of Statistice: $I, 1$ (1973), 67-73.

Sanearajan, C. and Gupte, G.S. "The Demenc or Finencial Assetr: $A$ Stuoy in Fielation to Benk Deposits," (For details, see under Gupta, G.S.)

Sharma, Baldev $A$. "Community Involvement, $n$ Indian Journal of Induetriel Eelstions, VIII, 1 (July 1972), 83-95. - and Deyal, Ishwar. "Beliefs of the Supervisory Staf'f in the Banking Induetry," Preinan, I, 3 (July-September 1972), 229-238.
_ "Political Attituses of Industrial Workers,"
The Ecphonic Tings, XII, 193 (Soptenber 13, 1972), 5.
. "Industrial Relations in the Public Sector -
F Critique of the National Seminars," Economic and Politicai feekiy, VIII, 22 (June 2, 1973), 975-977.
*The Indian Industrial Worker: His Jrigin,
Bxperience and Destiny, Economio and Politicel Weekly, VII, 23 (June 9, 1973), M38-M43.

Shetin, iv. R. "Management of Inganizational Status: A Case
งtudy of the Supervisor in a icxtile Mill,"
Indian Jurnal of ndustrial Relgtiong. VIIT, 1 (July 1972), 98-119.
. MDigensions of Organiastionat Rols: A Gase Study of the Supervisor in a Textile Mill," ILid., VIII, 4 (April 1973). - Hazards of Incuetrial Denooraoy, it Eonomie and Political Weckly, VII, 35, (August 1973), M19-M122.

Shingi, P. M. ; and Van Es. HResponse Consistency of Fueband Wife for Selected Attitudinal Items, " Journal of Marriage nad the ramily, 34, (November 1972), 741-749.
, and Mody, Eella, "Consumer Int lligence for
Zural Marketing Commancation," Executive, VI, 2 (April 1973).

## 124

Singh, Gurdev. "Farm Credit Requirements Under the Chenging T chnology, "The Banker, XLI, 12 (Eebruary 1973) 55-59
_ _ _ _-..... "Agriculture in Tribal Ares of Guma Elock (Orissa): A Case Study," Arriculture and heroInduetries Journal, $V, 8$ (ugust 1972)
$\qquad$ . "Singh, Karam; and Singh, Gurtej Mann. "hn Ertimation of Boduction Potentialitias of an Ariculturally Homogenous tma - Aggregation of $\mathbb{E}: r \mathrm{~m}$ -
 (Part II), 209 (Jctober 1972), 177-189.

Swany, Difip S. PEconomies of Geaie in Banking: A Critique, ${ }^{\prime}$ Economic and Folitical Welty, VIII, 8 (Fbruary 24, 1973) , 1-13-16.
$\qquad$ - and W..dhva Charan D. WMill the Union Budret Achieve Growth an Social Justice? Economic 'rimes, March 22 and 23, 1973.

Thomas, Philip. "External Conditions in Corporate Planirg,"
 198-M105.

Tripathi, B. I. "Rural Unemplogment: R trospecte and Prospects," Khadi Gramodyog, XIX, 4 (January 1973), 219-228.

Verma, Pramod. "Mergers in British Induetry, 1949-1966," Journal of Businese Policy, II, 4 (Sumer 1972) 31-39.

-     - ............. - "Industrial I latione in the British Chenicea Induatry: A Gace Study," Indian Journal of Industrial Rolations, VIII, 1 (July 1972), 67-31.
- "The Levels of Living in South-East Asia," The Ecanonic Times, October 10 , 1972,5 and 7.
$\qquad$ . "Toward Measuring Managerial Effectiveness," Froductivty (National Procuctivity Council), XIII, 3 (Jctober-Decenber 1972), 371-376.
$\qquad$ . "Collective Bargaining in the British Chemical
Induatry: A Case Study," Indian Journal of Industrial Relations, VIII, 4 (April 1973), 513-526.
. "Employment Efrocts of Trobmological Change,"
Manpower Journal (Institute of hoplied Manager Research), VIIT. 4 (Jenuary-March 1973), 9-17.
. "Labsur Laws in India," IIMA Alumus, (February 1973), 19-22.
$\qquad$ . "The Structure of Trade Inion Movement in USA," The Indian Worker, XXI, 30-31, INTUC Anniversary Number (April 30, 1973), 23 and 45 .

Wadhya Char an D. "Substitution of Octroi," Nagarlok (New Delhi), IV, 3 (July-September 1972). . "Dollar Devaluation and Management of Indian Exports," Executive, (Aoril 1973).
. and Paul, Samuel. "The Dollar Devaluation and
India's Balance of Payments, " (For details, see under Paul.)
 - and Swany, Drilip S. "Will the Union Budget Achiove Grouth and Social Justice? (For details, see under Swary.)

Papers fresentey at profer tomal coneere moes

Desai, D. K. "Measuring Effectiveness of Vorious Fertilizer Promotional Media," Advertiging and Sale Fromotion in Fertiliner Marketing, Fertilizer Ascocistion of India, Borbay, June 25-29, 1973.
…..................... Monappa, Arun. "An Integrated Manpowor Development Programe for Deiry Induetry, 1 DSA, Marras, March 11, 1973.

- "Need for Integrated Mimpower Development Frogranaes in Diry Induetry," hil India Dairy Science Aasociation, Madras, March 11, 1973.
 ment for Weaker Sections, " Seminar on Rural Development for Weaker Sections organised by Indian Society of inricultural Fcononica and Centre . or Managament in Agriculture, Indian Institute of Management, Ahmedabat, at Ahmedabad, Detober $1-3$,

1972. 

Desai, G.M.; and Michael, G.G. Schluter. "G.nerating Employment in Rural Areas," Seminar on Rural Development for Weaker Sections organized by the Inrian Society of fricultural Econonics, Bombay and Contro for Management in Arriculture, Indian Institute of Managonent, Ahmerabad, at Ahmedabad, Ootober 1-3,
1972.

Gaikwad, V.R."Social Sciences and National Development Possibilities and Limitatione," Seminar on Soaial Sciences ant Social Toalities: Role of the Social Sciences in Contemporary Intia, Incian Institute of Acdvanced Stuly, Simla, October 7-i3, 1972.
. "Developnent of Weaker gections: State Policy and the Need for Now Siructures and Strategies," Seminar on Rural Doveloment for Weaker Gections, Indian Inatitute of Managenent, Ahodabad, at A nedibad, October 1-3, 1972.

## 127

George, P.S. "Some Applications of pperations Research in Plantation Industry," Fominar on Management Development in Plantation organized by the United Plantations association of South India at Glenview, Coonoor, September 5, 1972.

Gupta, G.s. "Production Function and Fretor Productivity in the Indian Ceqent Induotry," The Indian Econometric Conference, Kanpur, December 16-18, 1972.

Kaul, Mohan, et.al. iim Interactive systen for Software Development," 8th Annual Convention of the Computer Society of Incia, New Delhi, February 26 to March 1, 1973.

- "Traplemsatation of BASIC on TDC-12," Jth Anmual Convention of the Computer Society of India, New Delhi, Fobruary 26 to Parcin 1, 1973.

Misra, P.N.; and Swany, Difp, "Trade-offs Betwoen Import
 Conference, Kanpur, December 18-20, 1972.

Monappa, Arun; and Desai, D.K. "An Integraes? Menponer Development Programe for Tiry Industry, " (\#or details, see under Desai,D.K.)

Mukherjee, S.K. "A Network Progremming Aproach to Investment Planning for Electrio Powar Systen, " International Meeting of the Institute of Manageaent Sciences, Tel Aviv (Ispael), June E4-29, 1973.

Fathak, H.N. MRural Indurtrialization: Eonomice and Extra Eonomics of It," Sesinar on Rural Development for Weaker Sectione organized by the Indian Society of Agricultural Bconomics, Bombay, and Centre for Vanagonent in Agrieulture, Indian Institute of Management, ihmerabad, at Ahmedebad, October 1-3, 1972.
. Developing Entroprencurship in Backward Fogions," All India geminar on the Development of Backward Rogitas with Special Feforence to Gajarat, Vallably Vidyanagar, October 13-14, 1972.
$\qquad$ - Mentreprenurial Fosearch and Fntrepreneurial Development - Prospect and Retrospect," Seminar on Tintrepreneurial Research in Intia: Probioms and Prospocts, sponsored by the Indian Council. of Social Fesearch and Indian Institu of Management, Ahnedabad, at innedab-a, March 15-17, 1973.

Paul, Samuel. Management of Technology Trangfer," Gontrai Leather Research Institute, Madras, February 1 , 1973.
-- "Panaing for Gromth," Indian Drugs tanufacturer's iesociation, Bonbay, May 3, 1973.

Rafharachari, M. "A iote on Foculty Resoarch, ${ }^{\text {F }}$ Meeting of the Asian Business Schools, Manila, December 13-15, 1972.

Sharma, Baldev $\mathbb{F}$. "The Indian Indur trial Woricer: fis Jrigin, Experience, anc Dectiny," 8th hlumi Conference of IIMA, Bombay, March 9-10, 1973.

Shingi, F.M.; and Modi, Bella. MHow to Jatamize Madia Effectiveness, seminar on the Comparative Effectiveness or Different Promotion Media, Fertilizer Ascociation of India's, Barode, January 1973.

Shinghi, P.M. HFlow of Iaformation to Purmers and Ite Management: Soze Iesues," National Agricultural Inforation Seminar, linistry of Ariculture, Delhi, Recember 1972.

Singh, Gurdev; and Prakash, Hari. "Changing Production Patiem in Gujaret," 32nd Annual Conference of the Indian Society of Agricultural Eenomics, Kanpux, December 23-25, 1972.

Sway, DIip; and Misri, P. N. "Trade-offs Between Inport Substitution, and Mox Retes, (for details, see under misra.)

Verma, Pramod. "Tochnological Change and Industrial Relations," Indian Society of Lebour Economics, Meerut, December, 1972.

## 129

- -....................
"Incomes Policy: Some Lessone from ibroad," Seminar on Tncomes Policy and Industrial Palations, Shri Ram Contro for Industrial Rolations, Delhi, ApriI 33-24, 1973.

Wadiva Charan D. U-nvirommental Scanming for Corporate Planning in India, 1 20th International Meeting of the Institute of Management Sciences (TIMS), Tel dviv (Isranl), June 1973.

| $\begin{aligned} & \text { V. N. } \frac{\text { Lsopa }}{\text { Ph. D. (III inois) }} \end{aligned}$ | Assistant Professor |
| :---: | :---: |
| $\begin{aligned} & \text { V.V. Choukidar } \\ & \text { Fh.D. (I.A.R.I.) } \end{aligned}$ | Research Associate |
| B. M. Desai <br> M. A. (S.P. University) | Research hssociate* |
| $\begin{aligned} & \text { D. K. Desai } \\ & \text { Ph.D. (IILinois) } \end{aligned}$ | ```Gujarat State Fertilizer Compeny Professor of Management in Agriculture``` |
| G.M. Desai <br> Ph.D. (Corneli) | Professor |
| V.R. G ilmad Ph. D. (Gaugar) | Professor |
| $\begin{aligned} & \text { P. B. George } \\ & \text { Ph.D. (Colifornia) } \end{aligned}$ | Professor |
| G.S. Gupta <br> PR.D. (John Hopkins) | Assistant Professor |
| A.M. Isamc <br> Ph.D. (Lehigh) | Professor |
| $\begin{aligned} & \text { Nohan Kaul } \\ & \text { Ph.D. (Paris) } \end{aligned}$ | Mseistant Profescor |
| S.C. Kuchhal <br> M.Com. (Allahabad) | Proressor |
| ```Subhash C. Mohta M. 4. (Panjab) M.D.P.A.(I.I.P,A.) Cert. I.C.A.M.E.(Stanford)``` | Professor |
| $\begin{aligned} & \text { P. N. Misra } \\ & \text { Ph. D. (Delhi) } \end{aligned}$ | Professor |
| $\begin{aligned} & \text { Sasi Misra } \\ & \text { Ph. D. (U.G.I.A.) } \end{aligned}$ | Pronessor |


| N. Mohenan M.Cop. (N.C.R.H.E., Delhi) | Fescarch Ascociate |
| :---: | :---: |
| Arun Monsppa <br> M. A. (Madras) <br> M.Sc.(London) | Assistant Protessor |
| S.K. Mukher jee <br> Ph.D. (Eerkeley) | Professor |
| H. N. Patnak <br> M. So. (London) | Professor |
| $\begin{aligned} & \text { Samuel Paul } \\ & \text { Ph. I. (Syracuse) } \end{aligned}$ | Director |
| M. Reghavachari Ph. D. (Berkeley) | Professor |
| C. Rangarajan Ph.D. (Pennsylvania) | Frofessor |
| Baldev f. Sharma <br> Ph. D. (Michigan state) | Propessor |
| $\begin{aligned} & \text { N. R. She th } \\ & \text { Ph.D. (Baroda) } \end{aligned}$ | Professor |
| $\begin{aligned} & \text { P. Fi. Shingi } \\ & \text { Ph.D. (IIlinois) } \end{aligned}$ | issistant Professor |
| $\begin{aligned} & \text { Gurudev Singh } \\ & \text { M. Sc. (P.A. }) \end{aligned}$ | Research Associate |
| $\begin{aligned} & \text { D. lip B. Suany } \\ & \text { Ph.D. (Pennsylvania) } \end{aligned}$ | Professor |
| $\begin{aligned} & \text { Philip Thomas } \\ & \text { Dip. Bus. Adra. (IMA) } \end{aligned}$ | Rosearch aspociate |
| $\begin{aligned} & \text { B. L. Tripathi } \\ & \text { M. En. Ena (Rajasthen) } \\ & \text { B.Ed. (Rajasthan) } \end{aligned}$ | Research issociate |
| Pramod Verma <br> Ph.D. (Manchester) | Professor |
| Oharen D. Wadhea Ph. D. (Yale) | Professor |

SORAB S. ENGINEER \& CO. CHARTERED ACCCUNTENTS

133 Ismail Euilding $\begin{gathered}381, \text { N. Naoroji Foad } \\ \text { Fort, Bombay-1. }\end{gathered}$

AUDITORS' REEORT TO THE DEFUTY C- RITY COMMIESIONBR, ARMEDRED REGARDING AUDIT OF GCCOUNT: OF T: INOLAN INETITLTE OF MANAGEMGT FOR THE YEAR EISEA 315T MARCH 1973

Registered No.F/I74 Ahedrbad
(a) The accounts are maintained regularly and in accordance with the provision of the Act and rules.
(b) Receipts and disbursements are properly and correctly shom in the accounts.
(c) The cash balance and vouchers in the custody of the Accountant on the date of the audit were in agreement with the accounts.
(d) All books, Deeds, Accounts, Voucherc, or other documents nr records required by us were produced before us.
(e) Inventories certified by the thinistr-tive Gfficer of the movables (except Library books) of the Fublic Trust and Certificate of librarian in respect of books чrere produced before us.
(f) The Accountant appeared before $u s$ and furnished the necessary information recujred by us.
(g) No property or funds of the ?rust mere applied for any object or purpose other than the object or furpose of the Trust.
(h) An amount of Rs.27,757.28 is outstanding from students etc. for a period of more than one year. Rs. $11,902.97$ towarcs loss on sale of vehicles and $\mathrm{n}=.928 .96$ dues from $\mathrm{F} . \mathrm{S}_{\mathrm{I}}^{\mathrm{I}}$. Studerts are oritten off during the year.
(i) The net corital expemfture of $2 \mathrm{n} .1,45,97,916.76$ on building on 31-3-1973 represents (a) advances to contronors asonst their running iilis and (b) Miscellaneous expenses on building.
(3) No money of the public trust has been invested contrary to the mrovisions of 5 ection 35.
(k) No allenations of the immovable froperty contrary to the provisions of 5 ection 36 have come to our notice.
(1) We think necersary to brine to the notice of the Defuty harity Commissioner the folloring spected matters:-
(i) The Indian Institute of Hanezement has been receiving erants from the Ford Foundation. A part of the gront recpived in India (Including books and equipmente) has trean broupht in the books of account of the Institute. The ofher part of the grent recaived direct by Institute of Internstional Education, Few York, would not be recorded in the books of focount of the Institute in Tndia.
(fi) Erovision in respect of depreciation on assets for the period Ist Janury 1962 to $31 s t$ :arch 1973 has not bean made in the books of account.
(iii) llet capital expenditure on tuilding under const fluctinn amounting to ps. $1,45,57,916.76$ is arrived as under:
(a) Expenses
(b) Amount advanced asainet ruming bilis

subject to adjustment of finel bills $\quad$| R. $76,45,463.53$ |
| :--- |

(iv) On 28-3-1966 additional computer equipment was received by Ehysical Research Lator tory fron the Fund from Ford Eoundation Grant belonging to Indian Institate of Management. The value of computer amounting to $\mathrm{Es}-1,19,8 \mathrm{Ca} .0 \mathrm{C}$ wh treater és Loan free of interest given by the Indian Institute of "anagement to hysicsi Researeb Laboratory, which is shown ureer the head in Selance sh-et on Asset side; 'Loan to Ehysic-1 ? esernch Laboratory, athedabad for IIM Computert. The seme is reduced to $5.30,482.60$ on 3 ist March 1973 (by the vilue of computia time used for Indian Institute of Mrnegement upto 31-3-1973).



[^1]SCHEDULES FCRAING FART OE INCOME AND EXEENDITUEE AGCOUNT ENDING 31-3-1973
SCHRDULE 3


[^2]name of the fuaic trist: indian institite of manigement, amidatad
balance sheet as at 31st march 1973



|  | Pelance as on Ist. Apriti 1972 | Amount credited during the yeer | Amount debited during the year | Closing balares as m 31 st Mmrch 1573 |
| :---: | :---: | :---: | :---: | :---: |
| grant feim mouj fundition | Eir Pb | Ri. Ps | $\cdots=\mathrm{Es}$ | ve. Ts |
| For Fuilding Expenditurco air conditioninie equifments | 14,44,291.cn | 21,45,056.01 |  |  |
| $V \mathrm{Vlue}$ of borlis received (ss per ennera) | 12,44;917:02 | 85,315.65 | 75,591.34 ${ }^{\text {(a) }}$ | 35,09,387.01 |
| Valuo of Equifment reecived ( $n$ a per contra) | 36;220.65 |  |  | 12,54,641.33 |
| Value of Equipment [urchased froul erint (as per contra) | 37,567.70 |  |  | 36,220.65 |
| Value of Equfpoent purchased froa grant - OMA (as per contra) | 5,469.71 |  |  | 37,567.70 |
| c+ant for Rupee Budget expenses | 34,e4s:22 |  |  | 5,469.71 |
| Grent fot Rupee Expenees on Computer | $\begin{array}{r} 14,645: 22 \\ 1,04,329: 68 \end{array}$ | 1,50,313.00? | 1,42,971.51 | 50,186.71 |
| Yalle of ecmputer recrived (with IRL) | 1,01,32, |  | - (c) | 1,04,329.68 |
| Valte $\mathrm{r}^{\circ} \mathrm{computer}$ (installed in IIM) (Asper contra) | 11, $2,000,35$ | - | 2,117.75 | 30,482,60 |
| Yrith off account for the bowks recelvel from the Grant | 11, ${ }_{1}$ | - | - | 11,C4;187.50 |
|  | 1,260, 64 | - | - | 1,260.c4 |
| Total Sctodule B | 40,45,696.87 | 23, $00,724.66$ | 2,20,680,60 | 62,13,742.93 |
| Schimut : ${ }^{\text {d }}$ |  |  |  |  |
| makviele hiberrties | Balance as on Ist April 1972 | Amount debited durinf, the your | Abcunt credited durine the yoar | Clostag batance as on 31sc Merch 1973 |
|  | 25,43,919.76 | - |  |  |
| Land at cest (purchased) | 4,60,679:67 |  |  | 25,$43 ; 919.76$ $4,60,679,67$ |
| Srpital Expenditure on Euilding and Advances to Contractors for work under ennetruction | 1,18,24,435.00 | 27,73,481,76 | - | $\begin{array}{r} 4,60,679,67 \\ 1,45,97,916.76 \end{array}$ |
|  | - : |  |  |  |
|  | 1,48,29, 334.43 | 27,73,481,76 | - | 1,76,02,516.19 |
|  | (e) Transferred <br> (b) Thansferted <br> (c) Computer Tim | Fy Fund (Sale pre ard Expenditure or the yoar | some of books) <br> for meeting expen | Tesearch projects |
|  |  |  |  |  |
|  | Ch1b TIVR OFFICER | C. Remdoe ACCOUNTS | Sorab $S$ CHARTE | eer $\& \mathrm{Co}$. CUNTANTS |

SGIEOULE

|  | Batance as on Tht April 1572 | Debit duting the year | Credit during the year | Balance as on <br> 315 E March 1972 |
| :---: | :---: | :---: | :---: | :---: |
| Mowhiter Mracertiis (at Cost) | Rsis I's |  | E. Fs | B. Fs |
| $\therefore$ ssots furchabed out of Grants-irmaid from the Government of Ingla and Government of Gujarat (as per eontra) | : |  |  |  |
| Offico equifment (inclusing Typowiters and Staff kocreation Clut Equipment and Library Equipment) | 3,85,994.15 | 94,543.68 | $\sim$ | 4,86,542.83 |
| Ofiice Furniture (1ncluding ifbrary Furniture) | 2,55,8i3. 26 | 17,501.26 | - | 2,73,724.52 |
| Statif vehicles | 73,058.22 | 23,939.m | 29,925.97 ${ }^{\text {(a) }}$ | 67,071.25 |
| 3 roks furchased froil Grant | 3,69, res.71 | 50,0no.ex | - | 4,19,090,71 |
| Finsel Equipment (including students recreation slub) | 1, 32,340, 31 | 1.7,784.54 | - | 1,50,133.35 |
| Hostel Furnfture | '1,90,100:72 | 1,6691.58 | - | 1,91,792.30 |
| Slass room Equipront ( including production equipment) | - 8,124.95 | - | - | 3,124.95 |
| Glass rocm Furniture | 25,212:96 | 1,351.36 | - | 27, 064.34 |
| Customs cuty on imported Equipment | 22, 336.6 E | 1,459.45 | - | 24,295.13 |
|  | 14,62,659,48 | 2,00,175.07 | 29,925.97 | 16,41,909.33 |
| Looks receivod from Ford Foundation (as per cemtra) | 12,44,017:62 | 85,315.6.5 | 75,591.34 ${ }^{\text {(b) }}$ | 12,54,6412.33 |
| Bentipment received fran Ford Foundation (as fer contra) | 36,220.65 | - | - | 36, 22 C .65 |
| Corputer recelved froumerd Foundetion (as por contra) | 12, $4.4,1.3 .50$ | - | - | 11, (4, 187.50 |
|  | 13,12...6 | - | - | 13,118.10 |
| Fruifment purchased, from Forch Fonalaticm grant (as per contra) | 37,567:70 | - | - | 37,567.70 |
| Equipment purchased fucm Forcl Founclation prant for (and (as per contra) | 5,469.71 | - | - | 5,469.71 |
| Equiprent purchased For cumputer in Im | 1,10,097.78 | - | $\cdots$ | 1,10,0.57.73 |
|  | 4, 200.99 | 3,337.15 | - | 47,539.14 |
| Equipment purchabai from Oht Fund (as fer ountril) | 3,332:96 | - | - | 3,332.95 |
| Equipment etc. purchased for thit met from LStij) grant (as per contra) | 1,24,826.29, | 35,485,60 | - | 1,60,311.09 |
|  | 15,595.90 | - | - | 15,590.90 |
| Equifuent purchesed from other sourcets | 64,627.09 | 7,360,40 | * | 71,90¢. 39. |
| Ecaks purchnsed out of Eibrary Fund | 2,32,946.10 | 7,117.79 | - | 2,40,063.97 |
| $\because \quad$ Total seherule 'D' | 44,00,771.25 | 3,47,792.46 | 1,05,517,31 | 47,42,045.40 |

[^3]
SCJEDULE ${ }^{1}{ }^{\prime \prime}$



[^4]
[^0]:    "including two candidates placed on the waiting list.

[^1]:    Interest on invertrents of donations of Rs, $2,59,335.35$ has been credited te
    'DONATICN FROM INDUSTRIES' in the Balance Sheet (Frevious year far, $53,5 \times 5.2 \mathrm{C}$ )

[^2]:    Dated; 9thJuly 1973

[^3]:    (a) Cost of vehicles sold
    (b) Transferted to Library Fund

[^4]:    aned and found enrrect as per backs of sccounts, vouchers etc. produced before us and as por intorantion and explanations given to us.
    Bated: ©th July, 1973

    ## 7nusten

