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FINAL REPORT

Technical Services Subcontract #22264-TSS-018

INVESTMENT APPRAISAL AND RISK ANALYSIS FOR THE POWER SECTOR

Course Presented at

National Institute for Financial Management

Faridabad, India

November 23 to December 13, 1996

by

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11 Frost Street
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INVESTMENT APPRAISAL AND RISK ANALYSIS FOR THE POWER SECTOR

1. Background

The course was conducted by Glenn Jenkins and Associates under subcontract to Bechtel Corporation, and funded by the United States Agency for International Development (USAID) under its Energy Management Consultation and Training (EMCAT) project. The Power Finance Corporation is the Government of India counterpart agency and Bechtel Corporation the project manager for EMCAT, a major program of USAID assistance in India.

The course was held at the National Institute for Financial Management, Faridabad, India from November 23 to December 13, 1996. It was a residential program in which all the students and faculty lived and studied on the campus of the National Institute for Financial Management.

2. Objectives of Course

This intensive three week course was designed to give the participants operational skills in the preparation of feasibility studies in the Power Sector. The course covered the financial, economic, risk and distributive analysis aspects of such feasibility studies. By the end of the program all the participants should be able to do such analysis using the computer-based spreadsheet EXCEL and the software package RISKMASTER. These two software packages are important tools to assist the participants in carrying out an integrated analysis of investments.

In the process of completing the program each participant was expected to complete two cases dealing with the evaluation of a project from alternative points of view and the determination of the appropriate time to begin and end projects. In addition, each participant is expected to complete a comprehensive case that required a financial, economic, risk and distributive analysis that was done in an integrated fashion.

The participants were provided with a complete set of lecture notes covering all aspects of the program as detailed by the syllabus shown in Attachment B. In addition to the lecture notes, a comprehensive set of reading materials were provided covering the relevant literature on these topics. In addition, a total of six case studies were prepared for analysis by the participants and to be used as guides for the major cases to be completed by the participants. A complete set of all of the training materials used in the course has been given to USAID (Delhi, Power Finance Corporation and Bechtel) both in San Francisco and Delhi.

3. Course Outcomes

A total of 42 participants started the course. (See Attachment A for a list of the course participants). Due to an emergency associated with his employment, one participant had to leave the program before it was completed. He was unable to take the examination nor complete the final case. As a consequence, he did not receive a certificate indicating his successful completion of the course.

All of the remaining 41 participants successfully completed the course, and received a certificate indicating their achievement. A list of the final grades of the

participants is included in Attachment A. Each of the participants completed all of the assignments and all aspects of the comprehensive case. Twelve of the participants, working in teams of two, completed six comprehensive cases that are part of the ongoing work of their organizations. These cases were all completed with a high level of professional competence.

Each of the special comprehensive cases were presented twice during the course at various stages of completion. In addition, both of the standard comprehensive cases were presented twice and exhaustively examined and discussed by the participants. At the end of the course a series of presentations of comprehensive cases were made with representatives of the Power Ministry, the Power Finance Corporation, and USAID present, and participating in the discussions.

All topics of the syllabus (See Attachment B) were covered during the three week course. In addition, the participants were able to go further in the economic appraisal of power projects than was initially planned. Supplementary material was prepared so that a more complete economic analysis could be undertaken of the comprehensive cases.

The over all evaluation of the course by the participants was highly favorable (See Attachment C). They felt that the course exceeded their expectations in most of its aspects. They were under great time pressure to learn and master the materials covered. But that is an integral part of the design of this intensive executive program.

4. Suggestions for Future Courses

The suggestions we would like to make are rather minor in nature. If we were to offer this course again, we would include a section on Power Purchase Agreements. Many of the participants are troubled about many aspects of these agreements that they feel they do not understand. They also feel that they are not capable of evaluating the implications on the state electricity boards, or the electricity system of such agreements.

We would also recommend that the microcomputers made available for use by the students be at the level of 486 or pentium processors in speed. The 386 computers made available were adequate, but somewhat slow. This deficiency did not cause any of the participants to not complete their work, but the faster machines would have reduced their stress.

We would also inform the participants earlier, and in more detail, of the nature of the special comprehensive cases they might be able to complete during the program. A number of participants would have like to work on a case from their parent organization, but did not have time to prepare the necessary materials ahead of time.

Many of the participants suggested that a shorter course, that was somewhat less technical, should be given to their superiors to enable them to appreciate the power of professionally completed integrated analysis of investments in the power sector. They were concerned that they would not be allowed to fully use the skills they learned during this program if their managers did not appreciate how they could be used to improve decision making.

In summary, this was a professionally satisfying and intellectually exciting experience for all of the faculty who were involved in this program. The group of participants, with much in common in terms of their work experience and problems they face, created an atmosphere of enthusiasm about what they were learning that was far beyond what we had anticipated. The participants worked for more than 12 hours a day, six days a week, without serious complaint.

5. Participants' Evaluation of Program

As summarized in Attachment C, the evaluation by the participants of this program was overwhelmingly favorable. We received in total 39 course evaluations. Out of this total, 33 participants indicated that the program met their expectations in full and six indicated the course met their expectations in part. For those who indicated that it did not meet their expectations in full, the reason for their qualification was that the course required them to cover too much material in the given period of time. This, of course, can be expected for any course where there is a fairly wide distribution of backgrounds and learning skills.

In their comments on the duration of the course, 11 of the 39 participants thought the time was adequate, while 24 of the 39 felt the course was too short; most felt that the course should be four or five weeks long.

In the assessment of the five topics which the students found most helpful, the areas of Computer-aided Risk Analysis, Economic Analysis, Financial Analysis, Cash Flow Analysis, Electricity and Economics, and Project Financing

were the areas the students appreciated most. When asked which topics the participants thought were less useful, 37 of the 39 indicated that all of the topics were useful. Only one person felt that environmental impacts was less useful and another one thought economics was not as important. In terms of the missing topics, it was clear that the power purchase agreements dominated the list. Twenty of the 39 participants felt that the course should contain more analysis of the power purchase agreements.

In the participants' evaluation of the effectiveness of the faculty in their assistance in the computer lab and in the completion of cases, 35 of the 39 viewed the assistance of the faculty as either exceeding expectations, fully satisfactory or satisfactory. In terms of the quality of the presentation of lectures, 34 of the 39 felt that they exceeded expectations or were fully satisfactory. The remaining five felt that the lectures were satisfactory. In terms of the usefulness of the Case 1 and Case 2, 10 people indicated that they exceeded their expectations, while 25 said they were fully satisfactory with their learning experience from the cases. A similar evaluation was given for the use of the major cases as a learning tool. In this area 14 of the 39 indicated that it exceeded their expectations as a learning experience, while 16 felt that it was fully satisfactory. Their view of the negotiating case as a learning tool indicated that 29 of the participants considered this experience to be either fully satisfactory or exceeded their expectations. Nine people felt that it was satisfactory.

In evaluating the reading material, 29 felt that it was of excellent quality while 10 felt it was of good quality. In the evaluation of their usefulness, 23 felt

that it was all highly useful, while 10 indicated that the manual was of use to them. In terms of the facilities, the lecture room and the computer rooms were viewed by most as being satisfactory. In terms of their overall rating of the course, 21 of the 39 felt that it was excellent, with 18 of the 39 viewing it as very good. None of the participants ranked it as either average or poor. There were some comments in terms of the improvement that could be made to the facilities at the National Institute for Financial Management to add to the overall comfort level of the participants.

In summary, the participants found the course highly relevant and well-focused on the issues they thought were important. They were able to learn a great deal from this three week course.

ATTACHMENT A

LIST OF PARTICIPANTS AND PERFORMANCE IN COURSE

**Investment Appraisal and Risk Analysis
for the Power Sector**

No.	Participants	GRADE
1	Mukesh T.Rathod	A
2	Tabassum Golandaz	A
3	Ajay Kumar Dubey	A
4	K.S.Popli	A
5	Sandeep Kumar	A
6	Manoj Kumar Singh	A
7	Naveen Kumar	A
8	Sandeep K.Sinha	A
9	Sanjiv Saksena	A
10	M.Shiva.Nathan	A
11	Navin Kumar Kohli	A
12	C.P.Ravindra	A
13	B.Nagaraja	A-
14	G.P.Pradhan	A-
15	P.Nath Chaturvedi	A-
16	Sajal Chakraborty	A-
17	Sanjay Saxena	A-
18	I.P.S.Pahwa	A-
19	R.K.Taneja	A-
20	R.Nagaraja	A-
21	K.Sridhar	A-
22	R.C.Gupta	A-
23	R. Rahman	B+
24	K.Suresh	B+
25	S.K. Anantha	B+
26	P.M. Thanki	B+
27	Mahesh Motani	B+
28	Gulshan Aggarwal	B+
29	Trisul Dhari Misra	B+
30	P.S.Moorthy	B+
31	Chandramani Behara	B+
32	Rajesh Kumar Jaisawal	B+
33	D.R.Nanjibhai	B+
34	V.K.Tandon	B
35	A.R Verma	B
36	Dewdati Mandloi	B
37	K.N.War	B
38	R.Chandrasekaran	B
39	Sanjeev Garg	B
40	B.S.Hanumanthappa	B
41	A.M. Mawlong	B
42	A.K.Rampal	- . -

ATTACHMENT B

INVESTMENT APPRAISAL AND RISK ANALYSIS FOR THE POWER SECTOR
COURSE SYLLABUS

PROJECT APPRAISAL AND RISK ANALYSIS FOR POWER SECTOR
Power Finance Corporation of India, Delhi , India
November 24 - December 13, 1996

Time	Venue	Programme	Content
<u>SATURDAY, Nov. 23</u>			
9:00-18:00	Lab	Lessons in MS-WORD and MS-EXCEL	
<u>SUNDAY, Nov. 24</u>			
9:00-17:00	Lab	Lessons in MS-WORD and MS-EXCEL continued	
18:30-21:30		Course Opening	Dr. Uddesh Kohli Status of the power industry in India
<u>MONDAY, Nov. 25</u>			
09:00-10:30	Class	Introductory Session	
10:30-11:00		Coffee Break	
11:00-12:30	Class	Components of Project Evaluation	Project modules
12:30-13:45		Lunch	
13:45-15:00	Class	The Components of Cash Flow Analysis	Financial profiles, cash flow statement of an electric utility Depreciation, interest during construction, Valuation of existing facilities.
15:00-15:30		Coffee Break	
15:30-17:00	Class	Analysis of Cash Flows 1	Working capital components, Incremental analysis.
17:00-22:00	Lab	Distribution & Analysis of Case 1 (Due Thursday, Nov. 28, 09:00 in Class)	Case 1: Alternative Points of View

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Time	Venue	Programme	Content
<u>Tuesday, Nov. 26</u>			
09:00-10:30	Class	Analysis of Cash Flows 2	Treatment of land and final year values.
10:30-11:00		Coffee Break	
11:00-12:30	Class	Analysis of Cash Flows 3	Alternative points of view: Utilities look at system as a whole, BOTs look at a project by itself.
12:30-13:45		Lunch	
13:45-15:00	Class	Analysis of Cash Flows 4	Alternative points of view, private versus public enterprise finance, economy's versus utility's perspective.
15:00-15:30		Coffee Break	
15:30-17:00	Class	Review of Case 1	
17:00-22:00	Lab	Analysis of Case 1 continued	

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Time	Venue	Programme	Content
<u>Wednesday, Nov. 27</u>			
09:00-10:30	Class	Discounting & Other Investment Criteria 1	Choice of discount rates for evaluation of power investments. Emphasis on proper use of discount rate when interest rates rise and fall. Electric utilities traditional approach: finance department looks at profit and loss; engineering department looks at least cost system expansion options.
10:30-11:00		Coffee Break	
11:00-12:30	Class	Discounting & Other Investment Criteria 2	Alternative investment criteria, BOTs mostly look at IRR of project.
12:30-13:45		Lunch	
13:45-22:00	Lab	Analysis of Case 1 Completed	

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Time	Venue	Programme	Content
<u>THURSDAY, Nov. 28</u>			
09:00-10:30	Class	Discounting & Other Investment Criteria 3	Determination of discount rates, financial versus economic perspective, economic discount rate and choice of technology.
10:30-11:00		Coffee Break	
11:00-12:30	Class	Optimal Scale 1	Selection of optimal scale and technology.
12:30-13:45		Lunch	
13:45-15:00	Class	Optimal Scale 2	Optimal stacking, incremental NPV, marginal IRR.
15:00-15:30		Coffee Break	
15:30-17:00	Lab	Presentation of Case 1, Distribution of Case 2 (Due Monday, Dec. 2, 09:00 in Class)	Case 2: Scale & Timing
17:00-18:00		Review of Case 2	
18:00-22:00		Analysis of Case 2	

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Time	Venue	Programme	Content
<u>FRIDAY, Nov. 29</u>			
09:00-10:30	Class	Timing of Investments	Regular analysis of costs and benefits postponement, evaluation of special benefits from appropriate timing of power investments.
10:30-11:00		Coffee Break	
11:00-12:30	Class	Integrated Financial Analysis of Investment 1	Inflation, real, nominal and constant prices, real and nominal exchange rates.
12:30-13:45		Lunch	
13:45-15:00	Class	Integrated Financial Analysis of Investment 2	Impact of Inflation on project's outcome
15:00-15:30		Coffee Break	
15:30-22:00	Lab	Analysis of Case 2 continued	
<u>Saturday, Nov. 30</u>			
09:00-10:30	Class	Fundamentals of Economic Analysis	Introduction to economic analysis, three postulates of welfare economics.
10:30-11:00		Coffee Break	
11:00-12:30	Class	Integrated Financial Analysis of Investment 3	Computer demonstration: Setting up the financial analysis of a major case (Mindanao)
12:30-13:45		Lunch	
13:45-20:00	Lab	Analysis of case 2 continued	

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Time	Venue	Programme	Content
<u>Sunday, Dec. 1</u>			
10:00-17:00	Lab	Completion of Case 2 Analysis (Optional)	
SECOND WEEK			
<u>Monday, Dec. 2</u>			
09:00-10:30	Class	Project Financing 1	Types of Project Financing and financing sources.
10:30-11:00		Coffee Break	
11:00-12:30	Class	Project Financing 2	Management and alleviation of Risk
12:30-13:45		Lunch	
13:45-15:00	Class	Presentation of Case 2	
15:00-15:30		Coffee Break	
15:30-17:00	Class	BOT Case Negotiations	Negotiating a deal by the various interest groups in a power project.
17:00-18:30	Class	Development of Negotiating Positions by the groups.	
20:00-22:00	Class	Negotiation Exercise	

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Time	Venue	Programme	Content
<u>TUESDAY, Dec. 3</u>			
09:00-10:30	Class	Presentation of the negotiation exercise.	
10:30-11:00		Coffee Break	
11:00-12:30	Class	Integrated Financial and Economic Analysis 1	Measurement of economic benefits and costs, estimating economic prices and conversion factors.
12:30-13:45		Lunch	
13:45-15:00	Class	Integrated Financial and Economic Analysis 2	Economic prices of traded inputs and outputs
15:00-15:30		Coffee Break	
15:30 - 22:00	Lab	Distribution and Analysis of Comprehensive Cases. (Due Friday, Dec. 6, 20:00 in Lab)	
<u>WEDNESDAY, Dec. 4</u>			
09:00-10:30	Class	Integrated Financial and Economic Analysis 3	Economic prices of non-traded inputs and outputs
10:30-11:00		Coffee Break	
11:00-12:30	Class	Fundamentals of Electricity Economics 1	Economic valuation of electricity consumption
12:30-13:45		Lunch	
13:45-15:00	Lab	Analysis of Comprehensive Cases continued	
15:00-15:30		Coffee Break	
15:30 - 22:00	Lab	Analysis of Comprehensive Cases continued	



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Time	Venue	Programme	Content
<u>THURSDAY, Dec. 5</u>			
09:00-10:30	Class	Fundamentals of Electricity Economics 2	Economic valuation of generation and rate making
10:30-11:00		Coffee Break	
11:00-12:30	Lab	Analysis of Comprehensive Cases continued	
12:30-13:45		Lunch	
13:45-15:00	Lab	Analysis of Comprehensive Cases continued	
15:00-15:30		Coffee Break	
15:30 - 22:00	Lab	Analysis of Comprehensive Cases continued	
<u>FRIDAY, Dec. 6</u>			
09:00-10:30	Class	Integrated Financial and Economic Analysis 4	Distributional impact
10:30-11:00		Coffee Break	
11:00-12:30	Lab	Analysis of Comprehensive Cases continued	
12:30-13:45		Lunch	
13:45-15:00	Lab	Analysis of Comprehensive Cases continued	
15:00-15:30		Coffee Break	
15:30 - 22:00	Lab	Analysis of Comprehensive Cases completed	

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Time	Venue	Programme	Content
<u>SATURDAY, Dec. 7</u>			
09:00-10:30	Class	Statistical Foundations of Risk Analysis	
10:30-11:00		Coffee Break	
11:00-12:30	Class	Review for Quiz	
12:30-13:45		Lunch	
13:45-16:30	Class	Presentation of Comprehensive Cases	
16:30-17:00		Coffee Break	
17:00-20:00	Class	Presentation of Comprehensive Cases	
<u>Sunday, Dec. 8</u>			
10:00-17:00	Class	Preparation for QUIZ (Optional)	

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Time	Venue	Programme	Content
THIRD WEEK			
<u>MONDAY, Dec. 9</u>			
09:00-10:30	Class	Quiz	
10:30-11:00		Coffee Break	
11:00-12:30	Class	Risk and Project analysis 1	Identification of Risk Variables, Price Modelling
12:30-13:45		Lunch	
13:45-15:00	Class	Risk and Project analysis 2	Monte Carlo Risk Analysis
15:00-15:30		Coffee Break	
15:30-17:00	Lab	Introduction to "Risk Master"	Risk Master Tutorial
17:00 - 22:00	Lab	Risk Analysis of Comprehensive Cases	
<u>TUESDAY, Dec. 10</u>			
09:00-10:30	Class	Principles of Contracting, Risk Sharing and Risk Reduction 1	Elements of Contracting, Risk Reallocation through contracts.
10:30-11:00		Coffee Break	
11:00-12:30	Class	Principles of Contracting, Risk Sharing and Risk Reduction 2	Contract alternatives and Managerial incentives
12:30-13:45		Lunch	
13:45-15:00	Lab	Risk Analysis of Comprehensive Cases	
15:00-15:30		Coffee Break	
15:30 - 22:00	Lab	Risk Analysis of Comprehensive Cases contd.	

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Time	Venue	Programme	Content
<u>WEDNESDAY, Dec. 11</u>			
09:00-10:30	Class	Fundamentals of Electricity Economics 3	Economic valuation of transmission and distribution
10:30-11:00		Coffee Break	
11:00-12:30	Lab	Risk Analysis of Comprehensive Cases	
12:30-13:45		Lunch	
13:45-15:00	Lab	Risk Analysis of Comprehensive Cases	
15:00-15:30		Coffee Break	
15:30 - 22:00	Lab	Risk Analysis of Comprehensive Cases contd.	
<u>THURSDAY, Dec. 12</u>			
09:00-10:30	Class	Environmental Issues	An Analytical Framework
10:30-11:00		Coffee Break	
11:00-12:30	Class	Risk Analysis of Comprehensive Cases Completed	
12:30-13:45		Lunch	
13:45-16:30	Class	Presentation of Risk Analysis of Comprehensive Cases	
16:30-17:00		Coffee Break	
17:00-20:00	Class	Presentation of Risk Analysis of Comprehensive Cases	

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Time	Venue	Programme	Content
<u>FRIDAY, Dec. 13</u>			
09:00-10:30	Class	Presentation of Risk Analysis of Comprehensive Cases	
10:30-11:00		Coffee	
11:00-12:30	Class	Presentation of Risk Analysis of Comprehensive Cases	
12:30-13:45		Lunch	
13:45-15:00	Class	Presentation of Risk Analysis of Comprehensive Cases	
16:00-17:30	Class	Valedictory Function	
17:30 onwards		Departures	

END OF PROGRAMME

ATTACHMENT C

SUMMARY COURSE EVALUATION BY PARTICIPANTS

POWER FINANCE CORPORATION, NEW DELHI, INDIA

**USAID Assisted Program on "Investment Appraisal & Risk Analysis" for the Power Sector
at the National Institute of Financial Management, Sector-48, Pali Road, Faridabad**

23rd November to 13th December, 1996.

1. Did the programme meet with your expectations?

- [a] Yes, in full (2) (3) (4) (5) (6) (7) (9) (10) (11) (12) (13) (14) (15)
(16) (17) (18) (19) (20) (21) (22) (23) (24) (26) (27)
(30) (31) (32) (33) (34) (35) (36) (38) (39) = 33 of
39
- [b] Yes, in part (1) (8) (25) (28) (29) (37) = 6 of 39
- [c] No

If you have selected (b) or (c), please indicate briefly the expectancy gaps.

- The pace of lectures was too fast paced to comprehend and assimilate. (1)
- (1) More about calculation of consumer surplus (2) more about long run
marginal cost (3) more power purchase agreement & risk management (8)
- It gave me the benefit of learning certain skills & gain some additional
knowledge. However due to lack of some time (tight schedule) &
sometimes due to lack of hardware support, we could not master the application. (25)
- We have been taught too much to digest/understand in too little time. (28)
- During this short period, only 50% can be fulfilled. (29)
- Due time should have been given to understand the economic aspects of the analysis (37)

2. The duration of the programme was:

- [a] Adequate (5) (10) (14) (21) (24 But it is very tight) (26) (29)
(30 but not properly distributed) (37) (38) (39) Must
have been 4 weeks so that more effort can be put up
= 11 of 39
- [b] Too short (1, six) (2, five) (4, four) (6, six) (7, five) (9, five)
(12, four) (13, five) (15, nine) (16, six) (17, five) (18,
five) (19, five) (20, five) (22, four) (23, four) (25,
one) (27, six) (28, five) (31, five) (32, four) (33,
four) (34, five/six) (36, five) = 24 of 39
- [c] Too long (3 Two) (8 Two) = 2 of 39

3. *Please refer to the actual course schedule and list the five topics found to be most useful:*

Computer Aided Risk Analysis	(1) (4) (6) (7) (8) (9) (10) (11) (12) (13) (14) (16) (17) (18) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (35) (36) (37) (38) (39) = 31 of 39
Economic Analysis	(2) (4) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (17) (18) (19) (20) (22) (24) (28) (30) (31) (32) (36) (37) (38) = 25 of 39
Financial Analysis	(2) (4) (6) (7) (9) (10) (12) (13) (14) (15) (17) (18) (20) (22) (27) (28) (30) (31) (36) = 19 of 39
Cash Flows	(2) (5) (10) (11) (12) (13) (14) (17) (20) (23) (24) (28) (29) (35) (37) (38) (39) = 17 of 39
Electricity Economics	(1) (3) (5) (7) (8) (9) (10) (16) (23) (27) (38) = 11 of 39
Project Financing	(2) (7) (9) (14) (18) (25) (26) (27) (32) (33) (37) = 11 of 39
Sensitivity Analysis	(6) (9) (11) (13) (14) (18) (27) (28) = 8 of 39
Optimal Scale	(2) (8) (14) (20) (35) (38) (39) = 7 of 39
Investment Criteria for projects	(1) (19) (26) (31) (32) (33) = 6 of 39
Evaluation of power projects	(2) (5) (14) (17) (36) = 5 of 39
Discounting	(2) (5) (10) (20) (39) = 5 of 39
Environmental Impact	(16) (25) (26) (30) (31) = 5 of 39
Impact of Inflation	(19) (32) (33) (35) (39) = 5 of 39
All	(15) (21) (34) = 3 of 39

4. *List the topics which you think were less useful (if any):*

Nil	(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (18) (19) (20) (21) (23) (24) (25) (36) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) = 37 of 39
Environmental impacts	(17) = 1 of 39
Economics	(22) = 1 of 39

5. *Indicate the (missing) topics which you think should have been included in the programme:*

PPA	(1) (2) (4) (6) (7) (10) (11) (12) (13) (17) (18) (19) (21) (23) (24) (26) (28) (31) (36) (37) = 20 of 39
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reference base) (35) (38) (39) This case helped us to
 (31) (34) Very useful which will serve as a future
 orientation to start the course) (27) (28) (29) (30)
 (21) (23) (24) (25) It gave the right kind of
 (1) (2) (4) (5) (6) (10) (13) (14) (15) (17) (18) (20)
 Fully satisfactory

(3) (7) (9) (11) (16) (19) (22) (26) (36) The cases we
 dealt are big size cases. They have enlightened us
 on the many problems we daily face (37). = 10 of 39

8. Please rate the usefulness of Case I and II

Exceeded expectations

Satisfactory

Barely adequate

Not helpful

(1) (2) (4) (12) (23) = 5 of 39

Fully Satisfactory

(5) (6) (8) (13) (15) (16) (17) (18) (19) (20) (21) (22)
 (24) (25) Presence of Dr. G P Shukla in faculty
 members was beneficial because he knows the grass
 root realities of India) (27) (29) (30) (31) (32) (33)
 (34) Lecture presentation was very good) (35) (37)
 (38) (39) Concise and upto the mark = 25 of 39

7. Please rate the quality of presentation of the lectures:

Exceeded expectations

Fully Satisfactory

Barely adequate

Not helpful

(6) = 1 of 39

(21) (25) Hardware was not sufficient to carryout
 sensitivity/risk analysis. It was tiresome job. It
 could have been more efficient) = 2 of 39

(1) (4) (12) (22) (23) (28) (29) (34) In operating the
 computer more individual attention should be given
 to enable us to continue doing such useful
 programmes on our own when we return to our
 respective SIB's. To put them into use is what
 matters most, rather than to just learn here and
 forget all about them) = 8 of 39

Exceeded expectations

Fully Satisfactory

Barely adequate

Not helpful

(7) (9) (14) (16) (26) = 5 of 39

6. Please rate the effectiveness of the Faculty assistance in Computer lab & Completion of cases

complete the major case in time and came to know about the excel command to do the sensitivity analysis). = 25 of 39

Satisfactory (8) (12) (32) (33) = 4 of 39
Barely adequate
Not helpful

9. *How did you find the completion of the major case as a learning tool:*

Exceeded expectations (7) (9) (14) (16) (19) (22) (27) (28) (30) (33) (35) In the process we learned many new concepts, which we never applied before. This can be very useful for our coming new projects. (36 The cases we dealt could be used while dealing with IPPs) (37) (38) = 14 of 39

Fully Satisfactory (3) Better if some more time was given to understand & complete, (5), (8), (10) Useful for future power project, (11) Interpretation of results after the case is also required to be taught under different probable conditions. (13) (15) (17) (18) (20) (21) (23) (24) (26) (29) (39) It has covered the complete course and provided me the confidence to do financial economic and distribution analysis and of course the risk master) = 16 of 39

Satisfactory (1) (2) (4) (6) (12) (25) It has to be seen further, from various perspectives) (31) (32) (34, A very good learning tool for future reference) = 9 of 39

Barely adequate
Not helpful

10. *How did you find the negotiation case as a learning tool:*

Exceeded expectations (5) (7) (9) (14) (16) (21) (27) (28) (31) (35) It was really an exciting experience. However, some more time could have been given for preparation of case. (36 Almost every aspect has been dealt with. There should have been a few classes on making PPAs). = 11 of 39

Fully Satisfactory (1) (6) (10) (11) In fact a model perfect negotiations case should have been prescribed after presentation by participants. (13) (15) (17) (20) (22) (23) (24) This type of negotiation cases should be given to the participants and arrive at a decision which is beneficial/useful to develop analytical thinking) (25 Nice experience) (26) (29) Division of groups and ideas of different groups are really unique and helps to think from different angles) (30) (34, This is

another useful tool from the point of view of making negotiations with the other parties) (37) (39) = 18 of 39

Satisfactory (3) (4) (8) (12) (18) (19) (32) (33) (38) = 9 of 39
Barely adequate (2) = 1 of 39
Not helpful

11. *The reading material was:*

[a] of excellent quality (1) (5) (6) (7) (8) (9) (10) (11) (13) (14) (15) (16) (17) (18) (19) (20) (22) (23) (26) (27) (29) (30) (31) (32) (34) (36) (37) (38) (39). = 29 of 39

[b] of good quality (2) (3) (4) (12) (21) (24) (25) (28) (33) (35 Frankly speaking not used much - 10 of 39

[c] of average quality

12. *Which of the written materials did you find:*

[a] the most useful ?

All (1) (2) (7) (9) (10) (11) (12) (14) (15) (17) (18) (19) (20) (22) (27) (28) (29) (30) (31) (33) (34) (36) (39) = 23 of 39

Manual (3) (4) (5) (8) (21) (23) (25) (26) (32) (37) = 10 of 39

Economics (6) (13) (16) = 3 of 39

Financial vs Social Benefits (24) = 1 of 39

Solved Cases (35) = 1 of 39

Project Financing Reading (38) = 1 of 39

[b] less useful (if any) ?

13. *Your comments/suggestions about the following facilities:*

[a] Lecture Room

Very Good (1) (2) (3) (4) (11) (14) (15) (16) (23) (24) (28) (30) (34) (37) (39) - 15 of 39

Satisfactory (5) (6) (7) (8) (9) (10) (12) (13) (17) (19) (20) (21) (22) (25) (26) (27) (29) (31) (32) (33) (35) (36) (38) = 23 of 39

Heating could have been provided (18) = 1 of 39

[h] Computer room

- Very Good** (11) (14) (15) (30) = 4 of 39
- Satisfactory** (4) (5) (9) (10) (12) (13) (16) (17) (18) (19) (23) (24) (26) (27) (28) (29) (32) (33) (36) (37) = 20 of 39
- Barely Adequate** (20) (21) = 2 of 39
- Not Satisfactory** (22) (38) = 2 of 39
- Improve the hardware** (1) (2) (3) (6) (7) (8) (25) (31) (34) (35) (39) = 11/39
(Faster computers, more printers)

[c] Library

- Good** (3) (5) (10) (22) (23)(24) (25) (26) = 8 of 39
- Satisfactory** (25) (30) (31) (32) = 4 of 39
- Not Aware** (1) (27) (36) = 3 of 39
- No facilities provided** (2) = 1 of 39
- No Time available** (4) (9) (11) (12) 13) (14).(15) (16) (17) (18) (19) (20) (21) (29) (33) (34) (37) (38) (39) = 19 of 39
- Not used** (6) (8) (28) (35) = 4 of 39

14. **[a] Did you like the food served in the mess?**

- | Yes | No |
|---------------------------------|--------------------|
| (1) (2) (3) (4) (5) (6) (7) (9) | (8) (20) (21) (22) |
| (10) (11) (12) (13) (14) (15) | = 4 of 39 |
| (16) (17) (18) (19) (23) (24) | |
| (25) (26) (27) (28) (29) (30) | |
| (31) (32) (33) (34) (35) (36) | |
| (37) (38) (39) = 35 of 39 | |

[b] Comments/suggestions if any:

- (6) Sometime the menu selection is not proper particularly during breakfast time.
- (11) Service is required to be improved.
- (18) Bathrooms are not properly maintained, towels should be given atleast two times in a week.
- (19) Breakfast could be improved; can try for some south Indian dishes
- (20) Food should be made available to all trainees atleast within specified time.
- (21) Improvement should be made for making proper arrangements alongwith supervision from sponsors.
- (22) Sometimes not upto standard
- (24) Curd can also be provided for 'Lunch' & 'Dinner'.

- (25) Reduce the chilli contents
- (28) Veg. and Non-Veg. should be on separate counter, if possible.
- (29) Some Bangali dishes may please be added.
- (30) Support services specially computers & printers were very slow which consumed a lot of one time
- (34) The food was superb. Though we are not used to having such highly rich food.
- (36) Although the bath rooms are well equipped, they are not well disposed for use. Better the management personnel stay at the hostel for a few days and experience for themselves.

15. [a] *Was your stay in NIFM campus hostel comfortable*

Yes	No
(1) (2) (3) (4) (5) (6) (7) (9)	(8) = 1 of 39
(10) (11) (12) (13) (15) (16)	
(17) (18) (19) (20) (21) (22)	
(23) (24) (25) (26) (27) (28)	
(29) (30) (31) (32) (33) (34)	
(36) (37 not very much) (38 OK) (39) = 38 of 39	

[b] *Were recreational facilities Satisfactory?*

Yes	No
(3)(4) (5) (7) (9) (10) (11) (12)	(8)(18)
(13) (14) (15) (16) (17) (18)	(20) (27)
(19) (21) (22) (23) (24) (26)	= 4 of 39
(28) (29) (30) (31) (32) (33)	
(34) (35) (36) (37) (38) (39)	
= 35 of 39	

Comments (1) Not used (2) No time made available for recreation (6) Could not use

16. *Rate the course as a whole using a tick mark against the selected option:*

Excellent	(5) (7) (9) (10) (11) (13) (14) (16) (19) (20) (22) (26) (27) (28) (30) (31) (34) (35) (36) The course is excellent, beyond imagination and the best I ever underwent) (38) (39) = 21 of 39
Very Good	(1) (2) (3) (4) (6) (8) (12) (15) (17) (18) (21) (23) (24) (25) (29) (32) (33) (37) = 18 of 39
Average	
Poor	

17. *Any other Comments/Suggestions ?*

Nil (1) (2) (4) (5) (7) (9) (12) (15) (21) (23) (26) (28) (30) (34) (35) (37) = 16 of 39

- The course was running with a high pace. (3)
- NIFM contribution to training was minimal (6)
- Course may be conducted in some other campus than NIFM (8)
- Solar power to be used in campus, to save electricity. (10)
- The training programme has very tight schedule and this results in less time to concentrate on each topic. Hence the timings need to be revised. (11)
- STD facilities should have been provided in the Hostel on payment basis not depositing Rs. 400/-. (13)
- Schedule of programme should have been made, so that participants should get time for reading the material prior to lecture and review the lectures of the day. (14)
- It is better, if the course duration is about six weeks. (16)
- Course to be restructured with point of view of giving at least more time for participants to revise/go through the variety of topics covered. (17)
- Reading material should have been given well in advance. Since material was given at the start of the course, and we were busy attending lectures and doing assignments in the lab, we hardly found time to read. Reading in fact took a back seat. A session could have been kept at the end of the course for question/doubts out of the learnings from the course. This I feel is very important. Answers to some of the questions were postponed since I felt that lecturers were in a hurry to complete their lectures. (18)
- Daily cleaning/Maintenance of hostel rooms must be improved. (19)
- Hostel services must be improved. (20)
- Faculty from Harvard was very good. (22)
- The training programme is very tight (i.e. from 9.00 a.m. to 9.30 a.m.). There was not sufficient time to go through the material given and to recapitulate what is taught in the classes. Had the classes been only for five days in each week, there would have been sufficient time to go through the material given & recapitulate the lecture heard in the class room. (24)
- Fine experience considering bottlenecks; I appreciate the temperament of Harvard Guys - excellent. (25)
- To improve hospitality as people come from far flung areas and need all the local support & assistance. (27)

To conduct course of short duration on specific subjects. (29)

The concepts of investment appraisal need prior understanding of economics and finance. Hence more time may be spent on these topics before one can digest and understand the terms clearly. The pace of learning is too fast and may be slowed down a bit if duration is longer. Overall, the course is very much appreciated and has helped a lot in understanding the complicity and magnitude of project appraisal. The experience gained is tremendous and will help in future planning with consideration from others point of view. (31)

Suitable time for reading of the materials to understanding before lecture may please given. (32)

Time for revision should be available. (33)

Any training should not be looked like this. This is very rigorous - should not have been like this. However, this is tolerable. (36)

Ensure that infrastructure facilities are excellent at the institute before commencing (38)

The course was excellent as the lecture was followed by practical which provide us a greater confidence to do the work. I feel like on job training. Regarding the faculty, they have always provided us their in-depth knowledge. (39)