

PRESENTATION ON DEVELOPMENT OF

NEW POWER PROJECTS – APPROACH & WAY FORWARD

Presentation By
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PROJECT IS DEVELOPED IN TWO STAGES

- FEASIBILITY REPORT (FR) APPROVAL
- INVESTMENT APPROVAL

FEASIBILITY REPORT

SITE SPECIFIC STUDIES/INVESTIGATIONS

DEVELOPMENT OF PLANT LAYOUT

BOQ & WRITE UP OF PLANT SYSTEM

COST ESTIMATE

FINANCIAL APPRAISAL

APPROVAL BY PROJECT SUB COMMITTEE OF BOARD OF DIRECTORS

CLEARANCES REQUIRED FOR FR

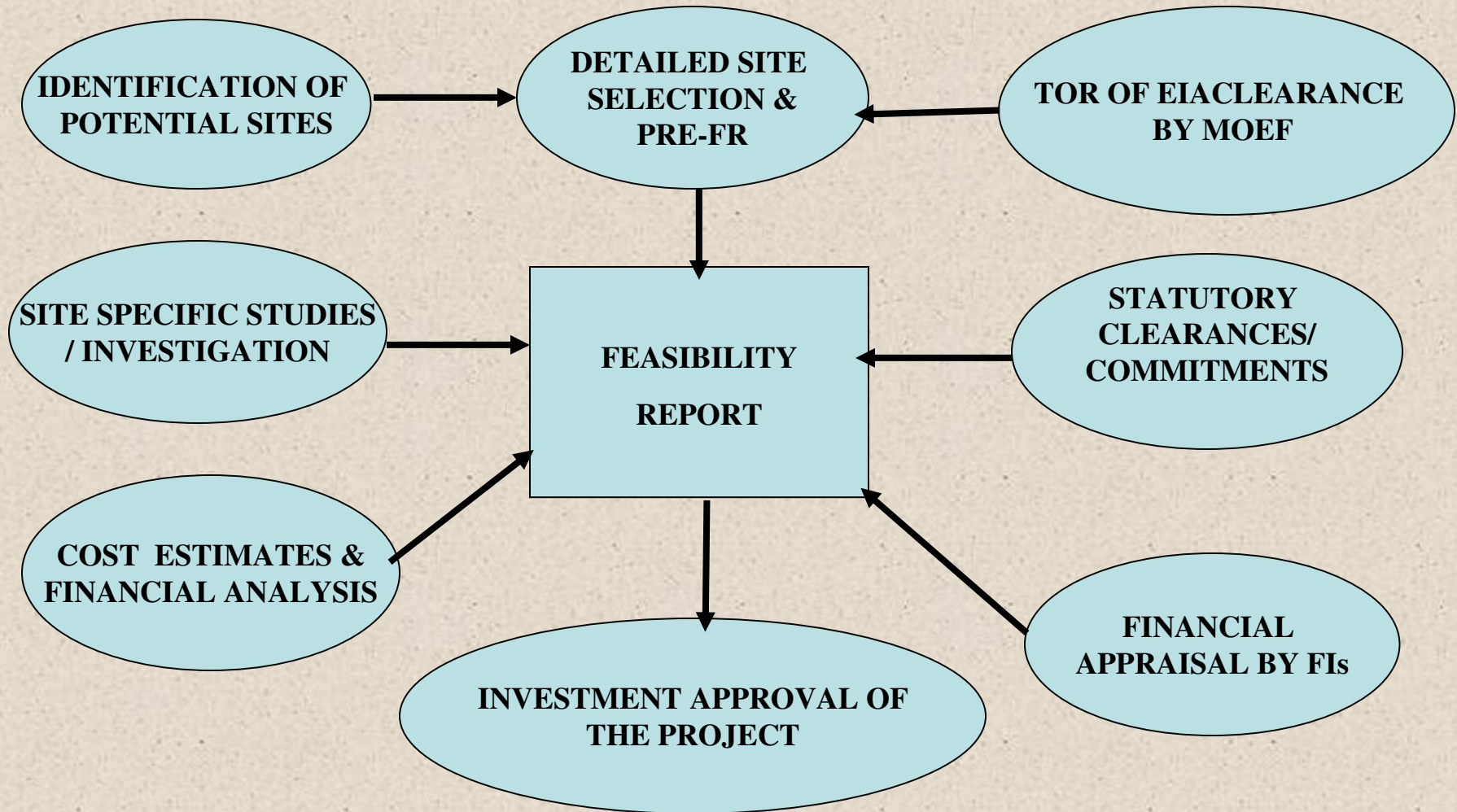
- **LAND COMMITMENT**
- **WATER COMMITMENT**
- **COMFORT LETTERS FROM BENEFICIARY STATES**
- **COAL LINKAGE (COAL MINES/COAL DATA)**

INVESTMENT APPROVAL

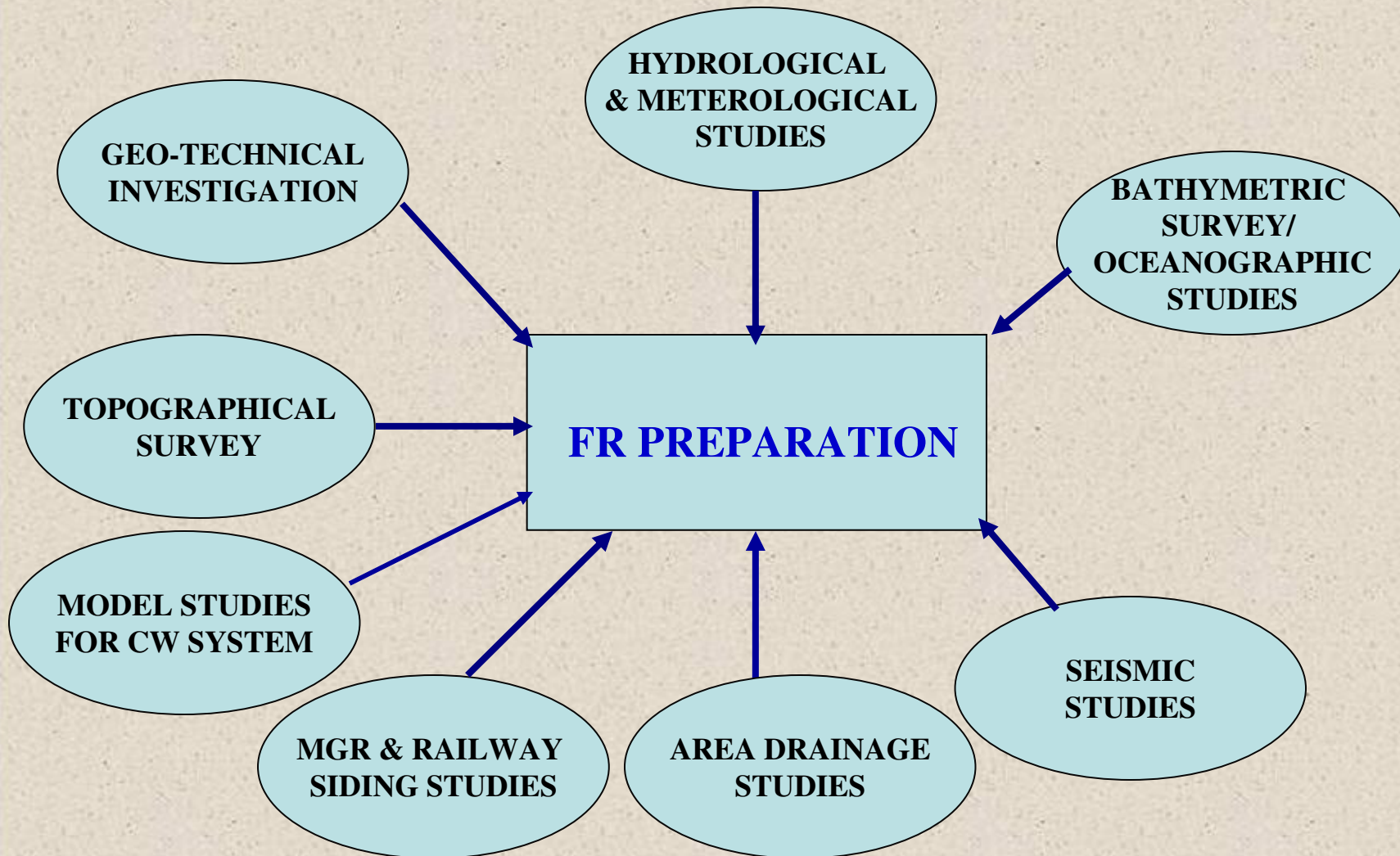
- **APPROVAL OBTAINED AFTER AVAILABILITY OF FOLLOWING**
- **MOEF CLEARANCE**
- **AAI CLEARANCE**
- **DEFENCE CLEARANCE**
- **PPA WITH BENEFICIARY STATES**
- **FUEL SUPPLY AGREEMENTS**
- **BIDS FOR MAIN PLANT**
- **FINANCIAL APPRAISAL**

APPROVAL BY BOARD OF DIRECTORS

PROJECT DEVELOPMENT AT NTPC



TYPICAL STUDIES AND INVESTIGATIONS



- **INPRINCIPLE LAND AVAILABILITY CONFIRMATION FROM STATE REVENUE DEPARTMENT**
- **ACQUISITION OF LAND**
- **APPLICATION FOR ACQUISITION OF LAND UNDER L (A) ACT AFTER FREEZING THE LAND BOUNDARIES ON COMPLETION OF TOPOGRAPHICAL SURVEY & GEOTECHNICAL INVESTIGATION**
- **SECTION-4 (1) - INTENT FOR ACQUISITION (CLEARING OBJECTIONS WITHIN 30 DAYS)**
- **SECTION-6 DECLARATION OF INTENDED ACQUISITION**
- **SECTION-7/17 ORDERS FOR ACQUISITION & COMPENSATION AMOUNT DISBURSEMENT**
- **SECTION-9 AWARD OF LAND**

ISSUES

- SETTLEMENT OF COMPENSATION AMOUNT
- CONVERSION OF BANDOBASTI / GMK LAND INTO PRIVATE LAND
- THE ACQUISITION PROCESS IS VERY LENGTHY AND TAKES CONSIDERABLE TIME (6 MONTHS – 2 YEARS)

SUGGESTION

- STATE GOVT. TO CREATE A DEDICATED GROUP FOR LAND ACQUISITION FOR LARGE CAPACITY TPPS HEADED BY CIRCLE OFFICER UNDER THE DISTRICT COLLECTOR

- WATER COMMITMENT FROM STATE GOVT. OUT OF ITS QUOTA IN INTER STATE RIVERS IDENTIFIED FOR INDUSTRIAL USE
- WATER AVAILABILITY CONCURRENCE FROM CENTRAL WATER COMMISSION / MINISTRY OF WATER RESOURCES

ISSUES

- IN SEVERAL INSTANCES, STATE GOVT. HAS WITHDRAWN WATER COMMITMENT EITHER DURING PROJECT DEVELOPMENT STAGE OR EVEN DURING IMPLEMENTATION STAGE
- STATE GOVT. DELAY IN FURNISHING CLARIFICATIONS TO CWC QUERIES THEREBY DELAY IN CWC CONCURRENCE.

- WATER COMMITMENT FROM STATE GOVT. OUT OF ITS QUOTA IN INTER STATE RIVERS IDENTIFIED FOR INDUSTRIAL USE (TIME TAKEN IS 2 MONTHS – 1 YEAR)
- WATER AVAILABILITY CONCURRENCE FROM CENTRAL WATER COMMISSION / MINISTRY OF WATER RESOURCES (TIME TAKEN IS 4 MONTHS – MORE THAN ONE YEAR)

ISSUES

- IN SEVERAL INSTANCES, STATE GOVT. HAS WITHDRAWN WATER COMMITMENT EITHER DURING PROJECT DEVELOPMENT STAGE OR EVEN DURING IMPLEMENTATION STAGE
- STATE GOVT. DELAY IN FURNISHING CLARIFICATIONS TO CWC QUERIES THEREBY DELAY IN CWC CONCURRENCE.

SUGGESTIONS

- STATE GOVT. TO EXPEDITE RESPONSE TO CWC CLARIFICATIONS
- STATE GOVT. TO ENSURE WATER COMMITMENT TO BE VALID FOR LIFE OF THE PLANT

NOC FROM AAI

- **APPLICATION IS SUBMITTED TO NEAREST AIRPORT WITH COPY TO REGIONAL AAI**
- **AAI EXAMINE THE PROPOSAL W.R.T. DISTANCE FROM NEAREST AIRPORT / AIR STRIP AS PER THEIR RECORD**
- **THE COMMITTEE WITHIN AAI RECOMMEND THE HEIGHT OF TALLEST STRUCTURE, TO BE CLEARED IN THE NOC (TIME TAKEN – 3 - 8 MONTHS)**

NOC FROM MINISTRY OF DEFENCE

- **APPLICATION IS SUBMITTED TO MINISTRY OF DEFENCE (MOD)**
- **MOD FORWARD TO AIR HQ, NAVAL HQ AND ARMY HQ.**
- **AFTER RECEIPT OF COMMENTS / CLEARANCES MOD ISSUE THE
NOC. TIME TAKEN (6 MONTHS – 1 YEAR)**

Forest Clearance

- **Applicable only if Forest Land is involved.**
- **Routing of proposal**
 - Submission by the User Agency to DFO.
 - Scrutiny & Forwarding by DFO to Nodal Officer, Forest Deptt.
 - Forwarding by Nodal Officer to Secretary (Forest), State Govt.
 - Forwarding of the proposal by State Govt. to MOEF.
- The proposal is considered by Forest Advisory Committee (FAC) of MOEF.
- Accord of In-principle Forest Clearance by MOEF.
- Submission of Compliance Report to MOEF for certain conditions stipulated in In-principle Clearance.
- Accord of Final Forest Clearance by MOEF

- **Approval of Draft Terms of Reference for EIA**
 - Submission of Proposal to MOEF
 - Expert Appraisal Committee Meeting
 - Approval of Draft TOR
- **Award and Preparation of EIA Report**
- **Application to SPCB for Public Consultation.**
 - Scrutiny
 - Publication of Notice for Public Hearing
 - Public Hearing
 - Issue of Minutes of Meeting of Public Hearing by SPCB
- **Application to MOEF for Appraisal**
 - Expert Appraisal Committee Meeting
 - Scrutiny/ Clarifications etc.
- **Accord of Env. Clearance By MOEF**

- MOEF may prescribe a model TOR for EIA Studies
- All queries may be raised during one meeting of the Expert Committee
- Forest Clearance for the Project may not be linked with the Forest Clearance of linked coal mine/ water resource project
- Forest Department may develop Land Bank for Afforestation purpose

ENVIRONMENTAL ISSUES:

Thermal Power Plants

- **Land Acquisition:**
 - **Loss of Forests & Agricultural Land**
 - **Loss of Livelihood & Homes**
- **Fuel Transport, Storage, Handling & Combustion:**
 - **Air/ Water/ Noise Pollution**
 - **Global Warming**
- **Water Use (Cooling & Others):**
 - **Hot Water Discharge**
 - **Release of Industrial/ Domestic Effluents**
 - **Water Pollution**
- **Generation of Combustion Residue (Ash)**
 - **Pollution of Surface/ Ground Water**
 - **Conversion of Bio-productive Land into Waste Land**
 - **Air/ Water/ Noise Pollution**

ENVIRONMENTAL ISSUES:

Hydro Power Plants

- **Land Acquisition:**
 - **Construction of Project Facilities & Submergence Area**
 - **Loss of Forests & Agricultural Land**
 - **Loss of Livelihood & Homes**
- **Impounding of Water**
 - **Conversion of River to Reservoir**
 - **Barrier to Free Flow of Water & Free Movement of Aquatic Species**
 - **Global Warming (Methane)**
- **Large Scale Construction Activities**
 - **Requirement of Construction Materials**
 - **Air/ Water/ Noise Pollution**
 - **Generation of Construction Debris/ Excavated Surplus Materials**
 - **Heavy Traffic**
 - **Deployment of Huge Labour Force**

SCHEDULE FOR PROJECT FORMULATION ACTIONS – Thermal

Zero Date - Project Initiation and Identification of Potential Sites

Main Plant Award related activities (Month from zero date)	Green Field	Expn. Project
Specs. Preparation	10	7
FSC for Main Plant	13	10
NIT	14	11
OBD	17	14
Main Plant Package Award	20	17

Investment Approval activities (Month from zero date)	Green Field	Expn. Project
Site Selection/Pre FR	3	0
Studies/Investigations and Statutory Clearances	10	7
FR Preparation	12	9
Financial Appraisal	12	9
FR Finalisation	13	10
Public Hearing (SPCB)	15	12
Environmental Clearance	19	16
Financial Appraisal	18	15
Investment Approval	19	16





Thank You

